REFORMULATING THE THIRD MISSION OF UNIVERSITIES: SOCIAL INNOVATION IN THE TURKISH HIGHER EDUCATION ECOLOGY

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ABSTRACT

REFORMULATING THE THIRD MISSION OF UNIVERSITIES: SOCIAL INNOVATION IN THE TURKISH HIGHER EDUCATION ECOLOGY

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Debates to resolve social problems are high at national/international level, driving institutions to search for solutions to tackle societal problems in a sustainable, effective and inclusive manner. Higher Education Institutions (HEIs) and their actors are important change agents to support social innovation (SI) practices. SI requires action oriented, systematic and multi-level discourse and thus there is a need for a clearer and multifaceted understanding of SI practices within the higher education ecology. The study investigates the necessary process dynamics to support SI practices within the Turkish Higher Education ecosystem. SI is currently hindered in Türkiye due to a lack of understanding, systematic and organized demand for SI practices. There is a great potential of SI practices to support collaboration among quadruple helix actors, enrich service proliferation and to improve the reputation of universities. The study has used a generic qualitative research design to evaluate 42 respondents to understand the dynamics of SI in the HEI context. The research has resulted in a working definition of SI within the HEI context, has developed a systematic conceptual model for implementors, has differentiated the HEI ecosystem dynamics and change potential in

the sampled cities of Ankara, Istanbul, Izmir and Konya and has defined roles for HEI implementors and managers to support and extend SI practices. Social innovation practices will help enrich the HEI's third mission role, will support the inclusion of social science and humanities as a conduit for research and development (R&D) and also support impactful research practices.

Keywords: Social Innovation, Higher Education Ecosystem, Universities, Socio-Technical Systems, Social Systems

ÖZ

ÜNİVERSİTELERİN ÜÇÜNCÜ MİSYONUNUN YENİDEN DEĞERLENDİRİLMESİ: TÜRKİYE YÜKSEKÖĞRETİM EKOLOJİSİNDE SOSYAL İNOVASYON

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Ulusal/uluslararası düzeyde toplumsal sorunların çözümüne yönelik tartışmaların yüksek olması, kurumları toplumsal sorunları sürdürülebilir, etkili ve kapsayıcı bir şekilde ele almak için çözüm arayışlarına yöneltmektedir. Yükseköğretim Kurumları ve aktörleri, sosyal inovasyon (Sİ) faaliyetlerini desteklemek için önemli değişim ajanlarıdır. Sİ eylem odaklı, sistematik ve çok düzeyli uygulamaları içermektedir. Yükseköğretim ekolojisinde bu Sİ bileşenlerinin daha net ve çok yönlü anlaşılmasına ihtiyaç duyulmaktadır. Bu çalışma, Türk Yükseköğretim ekosistemi içinde Sİ uygulamalarını desteklemek için gerekli süreç dinamiklerini araştırmaktadır. Sİ uygulamalarına yönelik bilinç eksikliği, sistematik çalışmaların azlığı ve bu alandaki talep eksikliği nedeniyle henüz Türkiye'de Sİ gerçek potansiyeline ulaşamamıştır. Yükseköğretim kurumlarının dörtlü sarmal aktörleri arasındaki iş birliğini desteklemek, bilimsel hizmet çeşitliliğini zenginleştirmek ve yükseköğretim kurumlarının ve aktörlerinin itibarını iyileştirmek için sosyal inovasyonu değerlendirme konusunda büyük bir potansiyel vardır. Çalışma, yükseköğretim

bağlamında Sİ dinamiklerini anlamak için genel bir nitel araştırma tasarımı kullanarak 42 katılımcıyı değerlendirmiştir. Araştırma, yükseköğretim kurumu bağlamında sosyal inovasyon çalışma tanımı oluşturmuş, uygulayıcılar için sistematik bir kavramsal model geliştirmiş, Ankara, İstanbul, İzmir ve Konya gibi örneklenen şehirlerdeki yükseköğretim ekosistem dinamiklerini ve değişim potansiyelini ortaya koymuş ve yükseköğretim uygulayıcıları ve yöneticilerinin Sİ uygulamalarını destekleme ve genişletmedeki rollerini tanımlamıştır. Sosyal inovasyon uygulamaları, yükseköğretim kurumunun üçüncü misyon rolünü zenginleştirmeye yardımcı olacak, sosyal ve beşeri bilimlerin araştırma ve geliştirme(AR-GE) faaliyetlerine dahil edilmesini destekleyecek ve ayrıca etki odaklı araştırma uygulamalarını geliştirecektir.

Anahtar Kelimeler: Sosyal İnovasyon, Yükseköğretim ekosistemi, Üniversiteler, Sosyo-Teknik Sistemler, Sosyal Sistemler

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"...Just remember in the winter,
Far beneath the bitter snows,
Lie the seed, that with the sun's love
In the spring, becomes the rose..."

-Amanda McBroom

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TABLE OF CONTENTS

PLAGIARISM iii

ABSTRACT iv

ÖZ vi

DEDICATION viii

ACKNOWLEDGMENTS ix

TABLE OF CONTENTS xi

LIST OF TABLES xvi

LIST OF FIGURES xvii

LIST OF ABBREVIATIONS xviii

1. INTRODUCTION 1

1.1. Background of the Study 1

1.2. Importance of the Study 8

1.3. Purpose of Study 13

1.4. Definition of Terms and Contextual Use 19

2. CONCEPTUAL BACKGROUND 21

2.1. Importance of systems thinking and sociotechnical systems in the design of social innovation practices 21

2.2. Innovation Types and Distinction/Importance of Social Innovation 25

2.3. Social Innovation Potential in HEIs 29

2.4. Main Theories in Socio-Technical Systems 30

2.5. Importance of Knowledge and Knowledge Production 32

2.6. Universities as Change Agents 33

2.7. Resource Management- Dynamic Capabilities for HEIs 34

2.8 Overview of Turkish HEIs and potentialities for social innovation.....38
3 METHODOLOGY.....43
3.1. Context of the Study.....43
3.2. Research Design.....45
3.3. Participant Details and Data Collection Approach.....47
3.4. Sampling Approach and Data Collection Instruments.....53
3.4.1. Primary Data.....63
3.4.2. Secondary Data.....64
3.5. Data Analysis.....65
3.6. Trustworthiness.....66
3.6.1. Credibility.....66
3.6.2. Transferability.....68
3.6.3. Dependability.....69
3.6.4. Confirmability.....70
3.7. Limitations of the Study.....71
4 RESULTS.....74
4.1 Defining Social Innovation within the Higher Education Context.....74
4.2 What are the enabling factors of social innovation within the HEI context?...96
4.2.1 Conceptual Model to understand the enabling factors of Social Innovation in Higher Education.....102
4.2.1.1 Idea Initiation.....105
4.2.1.1.1 Observation -Idea Generation.....105
4.2.1.1.2 Opportunity Seeking-Openness -Experience Management 107
4.2.1.1.3 Obstacle Assessment- Delimiting Conditions.....109
4.2.1.1.4 Value Frontier.....110
4.2.1.2 Governance Practices of SI within HEIs.....112
4.2.1.2.1 Mind-set- Sharing a Common Mission-Vision.....112

4.2.1.2.2 Team Building (Interdisciplinary-Transdisciplinary) 115
4.2.1.2.3 Purpose Driven Planning/Methodology..... 117
4.2.1.2.4 Support of New Roles and Their Leadership..... 119
4.2.1.2.5 Autonomous Areas for Ecosystem Stakeholder Management..... 122
4.2.1.2.6 Change Agents to support resolution, to resolve resistance and increase resilience 125
4.2.1.2.7 Transparency-Feedback Loops to refine process methodology as necessary 128
4.2.1.2.8 Action Orientation: Aligned, Adaptable, Agile..... 129
4.2.1.2.9 Knowledge Buildup-Increasing Absorptive Capacity-Learning Curve 134
4.2.1.2.10 Institutional-Network Memory..... 135
4.2.1.2.11 Enhancing SI Culture..... 135
4.2.1.3 Resource Management..... 137
4.2.1.3.1 Resource Efficiency-Exploitative Capacity..... 138
4.2.1.3.2 Dynamic Capability-Explorative Capacity..... 140
4.2.1.3.3 Change Management Integration..... 143
4.2.1.4 Social Cohesion..... 146
4.2.1.4.1 Context Evaluation 146
4.2.1.4.2 Commonalities..... 158
4.2.1.4.3 Contingency Conditions 159
4.2.1.4.4 Networking Depth/Breadth..... 160
4.2.1.4.5 Collaboration-Cooperation Potential..... 162
4.2.1.4.6 Co-Creation Capacity 163
4.2.1.4.7 Transformational- Future Driven Capacity..... 165
4.2.1.5 Multiplicity..... 166

4.2.1.5.1 Common Elements-Purpose Scope 167
4.2.1.5.2 Outreach Strategy and Tools 168
4.2.1.5.3 Mirroring Activities 170
4.2.1.5.4 Repeated Practical Examples 171
4.2.1.5.5 Knowledge Spill Over 173
4.2.1.5.6 Diversification Practices through Quadruple Helix Density 174
4.2.1.5.7 Learning Regions- Thriving Ecosystem 176
4.2.1.6 Sustainability 178
4.2.1.6.1 Data Driven Process Management 178
4.2.1.6.2 Understanding and Constructing Systematic-Developing Metrics 179
4.2.1.6.3 Push-Pull Boundary-Direct/Indirect Idea Initiation 181
4.2.1.6.4 Impact Assessment 183
4.3 Change Potential for HEIs 185
4.3.1 Data Driven Social Policies 186
4.3.2 Instigating Values and Roles 187
4.3.3 Legal Framework for Social Enterprises and Alignment to EU Regulatory Framework 192
4.3.4 Democratization of SI 194
4.3.5 Supporting New Collective Practices : Social Economy-Solidarity Economy 195
4.3.6 Developing Technological and Process Enablers 196
4.3.7 Value Add to Science Perception 197
4.3.8 University-Industry -Societal Alignment 200
4.3.9 Empowerment of Academic Actors 203
5 DISCUSSION ON POLICY IMPLICATIONS 205

5.1 Improving HEI's social (innovation) value : 2 Macro, 3 Meso and 2 Micro Policy Recommendations 208

5.2 Increasing the HR capital for social innovation: 3 Macro, 3 Meso and 3 Micro policy Recommendations 213

5.3 Improving ecosystem dynamics for social innovation : 2 Macro, 2 Meso and 1 Micro Policy Recommendations 219

6 FUTURE IMPLICATIONS AND CONCLUSIONS 223

REFERENCES 242

APPENDICES 258

APPENDIX 1- ETHICS COMMITTEE FORM 258

APPENDIX 2- SEMI-STRUCTURED INTERVIEW FOR IMPLEMENTORS 259

APPENDIX 3- SEMI-STRUCTURED INTERVIEW FOR UPPER MANAGEMENT 262

APPENDIX 4- SEMI-STRUCTURED INTERVIEW FOR NGOs 265

APPENDIX 5- PARTICIPANT CONSENT FORM 267

APPENDIX 6- SUMMARY OF SI PRACTICES WITH FULL IDEA INITIATION-PROCESS-OUTCOME AND SUSTAINABILITY PRACTICES 269

APPENDIX 7- CURRICULUM VITAE 278

APPENDIX 8- TURKISH SUMMARY / TÜRKÇE ÖZET 280

APPENDIX 9- TEZ İZİN FORMU / THESIS PERMISSION FORM 297

LIST OF TABLES

Table 1 Main themes and definitions listed in literature and relevant missing elements and headings addressed in the semi-structured interview for different HEI actors 50
Table 2 Respondent details of study 57
Table 3 Respondents First Encounter of the Term Social Innovation 75
Table 4 Main Value Adds perceived outside the context of definition 76
Table 5 Detailing of Derivation of Definition for Social Innovation at Universities 78
Table 6 Definition Code Matching with Respondents 89
Table 7 Direct Project -SI Activity Aims listed by the respondents 98
Table 8 Indirect Project -SI Activity Aims listed by the respondents 99
Table 9 Leadership Roles in SI 101
Table 10 Sustainability Experience for SI 103
Table 11 Positive Project Team Traits in SI 112
Table 12 SI Project Priorities and Difficulties reflected by respondents 118
Table 13 Comparative Features of SI Ecosystem Implementation 149
Table 14 Roles for implementors and managers in the SI Ecosystem 188
Table 15 Policy Problem I : Improving university's social (innovation) value 211
Table 16 Policy Problem 2: Increasing the HR capacity for Social Innovation 216
Table 17 Policy Problem 3: Improving ecosystem dynamics for social innovation 220

LIST OF FIGURES

Figure 1 Emphasis of Innovation Models. Summary of Carayannis et al., (2022).... 23
Figure 2 Socio-Ecological Model of the HEI system.
Adapted from Lee et. al, 2017:299)……..24
Figure 3 Education As an Open System. Source: Cheng et al., 2002: 20. 24
Figure 4 HEI Social Innovation Ecosystem potential reference to study 45
Figure 5 Summary of the research design steps 56
Figure 6 Timeline of Research Elements 70
Figure 7 The six main steps for social innovation implementation at HEIs and
institutions working with HEIs results)……..104

LIST OF ABBREVIATIONS

CO-OP	Cooperative Education Program
ESR	European Sustainability Report
HE	Higher Education
HEI	Higher Education Institution
HR	Human Resources
MÜDEK	Mühendislik Eğitim Programları Değerlendirme ve Akreditasyon Derneği (Association for Evaluation and Accreditation of Engineering Programs)
NGO	Non-government organization
QA	Quality Assurance
QMS	Quality Management System
RRI	Responsible Research and Innovation
SROI	Social Return on Investment
SSH	Social Science and Humanities
SME	Small and Medium Size Enterprise
SI	Social Innovation
SROI	Social Return on Investment
TTO	Technology Transfer Office
YÖK	Yükseköğretim Kurulu (Turkish Council of Higher Education)
YÖKAK	Yükseköğretim Kalite Kurulu (Turkish Higher Education Quality Council)

CHAPTER 1

INTRODUCTION

This chapter introduces the rationale of the study, outlining the main discussions of social innovation within the context of Higher Education Institutions (HEIs). The author details the research gaps to emphasize the unique contributions of the study.

1.1. Background of the Study

Higher Education Institutions (HEIs) are important pillars of teaching, research, scientific discourse and community engagement. In Türkiye, these institutions are governed by the Turkish Higher Education Law No:2547, which by distinction of status and finance include foundation and public universities.

HEIs are becoming more important in enriching the education ecosystem due to their different infrastructural capacities, innovation potential, and qualified manpower. This identification can be supported by the plethora of activities HEIs are part of in the ecosystem including teaching, research and development, university-industry collaboration, providing graduates to drive economic growth and also extending collaboration within various communities. The impact of HEIs can be extended only when they are best aligned with their core roles and resources (Mazzucato, 2018), can readily adapt to changes in the environment, and can take action to create new idea/work models. This is also emphasized in the work of Ahmed et al., (2017) with an operational activity's framework for social and economic impact. The authors emphasize the importance of structuring resources to include these two dimensions.

However, different institutionalization practices, posits an important question on how best universities can utilize their resources to create higher impact within their ecosystem. HEIs need to seek opportunities within their context to develop new ideas and projects for securing resources and for accomplishing transformative action (Avelino et al., 2017). These new models to structure are critical in enhancing

competitiveness and resilience to evolving pressures of its external ecosystem and the uncertainties of the competitive world. HEIs are required to take on new roles to tackle complex and pressing problems within and outside their ecology.

Accordingly, higher education institutions require innovative approaches to their traditional roles of teaching, research and societal services. Moreover, the different types of input and the processing of these resources are critical in how policy initiatives are structured to benefit individuals, institutions, and the local community within the ecosystem. How much the decisions encapsulate all contributing system constiuents determines the continuity and sustainability of the practices.

Türkiye is among 25 countries, listed in the European Cooperation in Science and Technology (COST) research networks as an Inclusiveness Target country which implies that the country lacks the abilities to exploit its innovation capabilities. Moreover, with more pressing societal/social problems that are multi-faceted, complex and multi-dimensional it is critical for HEI's to support the needs of the environment to pressing issues that require a vast knowledgeability across disciplines and environments (Paunescu et al. (2022) and which also requires its onus to be redefined by recognizing its multiple and prospective facets (McDonnell-Naughton and Păunescu, 2022).

It is important to understand problems and their environments and to also promote innovative and creative ways of resolving them in a more socially responsible manner. HEIs have critical ecosystem constituents that need to shape their priorities with respect to societal concerns. Social innovation is among the current realizations to address social needs in an inclusive and responsible manner (Belcher et al., 2022). Systematic practices of social innovation have helped institutions transfer knowledge to heighten their productivity and overall effectiveness in activities (Wu, 2023). The major undertaking is to ensure that best practices are sustainable and structured so that HEIs know how to receive, process and transfer their learned knowledge base (Rodgers and Soderbom, 2013). HEIs are critical in developing capacity and enacting their capabilities to catalyze sectors for creating societal impact and also changing the mindsets to embrace social innovation (Paunescu et al., 2022, Svennevik and Saidi,

2022). The change in mindsets is also an important contribution for the innovation ecosystem and also understanding regulatory frameworks and supportive mechanisms for this important undertaking (Mazzucato, 2018).

Higher education institutions have three important objectives in promoting social innovation in society 1) Helping to identify social needs 2) Causing interest in societal challenges and 3) Motivating to improve the overall quality of life in the country thus strengthening global competitiveness (Zalite and Mazure, 2017). Accordingly, it is important for HEIs to discover their potential to catalyze systematic change for widespread social empowerment (Scholl, 2013). Hubert (2012) describes empowerment to include individuals attaining education and knowledge, as well as changing their attitudes and preferences through different governance structures unique to the institution.

Higher education institutes have been criticized for not being able to capitalize on their knowledge resources and assets (Svennevik and Saidi, 2022). In this regard Whittle and Rampton (2020) have emphasized the dynamic involvement of HEIs by cooperating with their surrounding ecosystems, empowering academicians and students as social innovation agents, furthering competencies in digital technologies and entrepreneurial skills and also contributing to the innovation agenda through increased multidisciplinary work.

Although innovation in HEIs have been evaluated in various research areas such as curriculum development, pedagogy and institutional governance schemes, the innovation approach is criticized to lack the following dimensions: societal impact and usage of HEI resources (Kolleck et al., 2017; Schröder and Krüger, 2019).These are also considered critical change potential areas by the authors.

Elliot (2013) emphasizes the importance of HEIs actively taking on transformative roles by creating new ways to utilize resources, extend networking and also instigating institutional change. Saner (2019) also reiterates the need of HEIs to ‘adapt’ to the developments in innovation methodologies for proper policy sociotechnical discourse. HEIs can challenge, alter and replace prevalent practices by utilizing a transformative social innovation approach within its social context (Avelino et al., 2017). As HEIs

understand their activity context, they can utilize social innovation to better govern their activities to the needs of society through collective empowerment (Hubert, 2012) of the ecosystem actors.

Although the prominent wording of 'social innovation' was conceptualized into the literature in the 21st century, innumerable practices in support of social innovation was especially seen with the advent of the industrial revolution, due to the need of structured social reforms and social practices (Mulgan et al., 2007). In the 19th and 20th century, the formation of guilds associations, new models of childcare for working families, new housing projects and social care practices were among the early structured examples of social innovation (Mulgan et al., 2007). After the restructuring of countries due to World War II, the structuring of welfare states changed schooling systems, as well as brought different associations such as co-ops to support agriculture and financial operations. Environmentalism has also birthed social innovations such as urban recycling practices and community engaged renewable energy practices. The inclusion of disability rights and also feminism practices have supported mass social innovation initiatives (Mulgan et al., 2007). The showcase example for social innovation practices is foundation of micro-credit practice by Muhammed Yunus, who has allowed underprivileged women to start-up their own businesses with credit amounts much smaller than the regular basic credit loans given by banks.

Developmental capacities of universities are also attributed to support social movements and also the attitude towards advanced knowledge (Brundenius et al., 2017). The Open University (1969) initiative (Mulgan et al., 2007), has been an important early example for social innovation, to demonstrate wider education access and career empowerment, changing the 'brick-and-mortar' resource structuring to a 'one-click' away distance education initiative which upholds to a boundaryless ethos. In Türkiye the open university initiatives where inaugurated with the change in legislation on November 1981 which granted Anadolu University the right to maintain continuous and open education. The initiative was launched in the 1982-1983 academic year with 29,500 students enrolled to economics and business administration in the first year (Açık Öğretim Anadolu University, 2023). The most prominent mass education social innovation example is the BilgeİŞ (https://bilgeis.net/) initiative

which has allowed mass education with over 100 online courses, training from experts to support competencies and has supported the alignment of industry and individual needs.

The initiative is unique in that it has integrated different entities (such as universities, training centers, organized industrial zones) and has been implemented in different pilot regions. The structuring is also important to understand sustainability practices which include protocols, feedback mechanisms and financial support through donations to enrich and renew content. Another good example in Türkiye is the METU OCW (OpenCourseWare (https://ocw.metu.edu.tr/) open to academic staff, students and self-learners with 192 open educational resources available as of 2024.

Türkiye is a country where social policies are revered and with historic practices rooted to support social innovation practices. These include 'Ahilik' and 'İmece' culture (Ateş, 2020) which has integrated inclusive and sustainable practices for the community and also the 'Vakıf' foundation culture which is in support of sustainable development with its different association missions to support human welfare and also economic, technical and environmental welfare. Prominent social innovation examples outside the higher education context through social entrepreneurship initiatives from Türkiye include Adım Adım and Açık Açık for crowdfunding social innovation initiatives and Good4Trust to support prosumer initiatives. Mikado Consulting is an important social enterprise trying to develop models for Sustainable Development Goals and for Social entrepreneurs. Public supported initiatives which have been completed include 'Toplum Kalkınmasında Gönül Elçileri - Volunteer Ambassadors in Community Development' led by Ministry of Family and Social Policies to support disadvantaged groups by empowering women, improving welfare of elderly and integrating disadvantaged communities. The Squirrel Children Theatre (Sincap Çocuk Tiyatrosu) organized by the General Directory of Forestry, educates children in a unique way about forest fires and the responsibilities to be taken in on in such dangers (Ateş, 2020). Municipality examples prominent in Ankara and Istanbul include Askıda Ekmek, Askıda Fatura, Askıda Bilet, which helps volunteers fund different necessity items (bills, food) or items to increase social engagement. These activities portray the needs of the societal actors within the community, encouraging

creative ways to formulate solutions with the ecosystem actors in the periphery of the HEIs. These initiatives are important input for further research in HEIs to remedy socio-economic divides, understand purchasing power dynamics and to prioritize research topics to address the true needs of society. Social innovation practices where HEIs are leading and contributing to social innovation research is limited. These practices are also not as visible due to lack of leading involvement of universities in such practices and also of poor mediums to communicate the ongoing and/or completed activities.

There is a prominent need for social innovation activities in the national context as can be best seen in the 12th Development Plan which reflects responsibilities for all Quadruple Helix actors including research, public, industry and societal actors. However, social innovation is not explicitly mentioned as a tool to alleviate the problems under the 3.3 heading Qualified People, Strong Family and Healthy Society. As an official document, there is again no mention of social innovation in the Science, Technology and Innovation heading and the activities to be completed are structured under only basic science. Technology focus also does not include social science or humanities aspects and the responsible actors are not assigned in the plan (12th Development Plan, 2023), which lacks commitment and enaction responsibilities for HEI actors.

Another hindrance to social innovation activities development in Türkiye is the status of social enterprises, which are currently run under commercial enterprise entities and which causes problems in legislative responsibility and audits to cooperate with HEIs in its dynamic ecosystem. Moreover, all ecosystem actors are facing difficulties to sustain their social innovation activities. Outcome based support by government for social innovation activities was recently released through a social impact funding bond issued by Istanbul Development Agency launched in August 2023. The social impact bond aims to finance initiatives to battle young unemployment and helps to ensure better employment opportunities in support of projects that ensure committed outcomes. Türkiye is still lacking necessary legislative reforms to promote social innovation activities. HEIs are not taking active roles in leading social innovation initiatives and there is a need to structure in a collaborative effort within the ecology.

To give an important contextual background to social innovation activities in Europe and their correspondence with HEI actors, the European Innovation Council-EIC (2021) has released a report on the state of social innovation activities in France, Latvia, Norway, Romania, Spain and Sweden and highlights the important features of social innovation activities within these countries.

In France, enabling features of the ecosystem for social innovation practices include structured networking for collaboration opportunities and access to finance to scale-up or start-up initiatives. HEIs which are also considered as social enterprises are governed by the law enacted in 2014 as part of the social and solidarity-based economy (économie sociale et solidaire). Diversified networking structures includes associations, cooperatives and foundations working with HEIs. Various support initiatives are present and universities offer courses in solidarity and solidarity-based economy. Latvia is among the five countries in its infancy stage for entrepreneurial and social innovation activities and visibility, yet its legislation has enacted the Social Enterprise Law in 2018. HEIs mainly support the ecosystem through promotion and dissemination of research for social entrepreneurship. Norway is a strong innovator and there is high consensus to the merits of social innovation in its current welfare system. Incubators and accelerators are in support within the ecosystem and through its HEIs the ecosystem emphasizes skill building and soft skills attainment. However, legal framework is still lacking and investors are encouraged to support initiatives registered under limited companies. The fourth ecosystem Romania has a high demand for social innovation but lacks infrastructural capabilities and thus HEIs have an important role in structuring these initiatives. Also funding for social innovation activities are highly dependent on external funding.

Lastly, Spain is rooted in social innovation through social organizations and its Ministry of Labor and Social Economy. It has among the most unique examples for public-private partnerships including Public Service Cooperatives to support social innovation practices. To give examples from universities, Danish universities include social innovation as part of their teaching mandate (Gregersen, 2017). Legal legislation for social enterprise status in European countries is still lacking. Italy is an early adopter as of 2020. For public needs, Germany relies on welfare institutions and

uniquely Netherlands and Portuguese legislation posits that companies have social responsibility and thus social enterprise status is not in question (EU, 2020). Also, there are examples of universities that are actively pursuing societal research, like Lund University, where its 2017-2026 strategic plan, includes obligation to address societal challenges through active collaboration.

Another critical need within the HEI context is social innovation governance and institutionalization among the ecosystem's multiple constituents and the need for embeddedness of this structuring in all of the HEI's levels (Schröder and Krüger, 2019;McDonnell-Naughton and Carmen Păunescu, 2022). Social habits within an ecology or ecosystem structure the embeddness of the practices. However, the current embeddedness of social habits within HEI institutions has raised the question of how practices can be enforced to steer towards socially desirable outcomes (Savaget, 2019). It is important to bridge and connect actors and enhance their responsibilities as innovation agents to support social innovation activities which requires resources such as time, staff and money. However, it is not always the lack of resources as an impediment for community engagement but the scarcity of knowledge about how to structure the resources as mentioned by Machimana et al., (2020).

HEIs can use different mechanisms to exploit their knowledge base. The innovation capacity in regard to teaching and learning within HEI's have been reflected in the development of talents and skills, absorptive capacity of workforce within the local ecosystem, higher education mobility and also national/international university rankings (Păunescu & McDonnell-Naughton, 2020). However, these do not fully encapsulate the essence of ecosystem/community engagement and also the need of proper mechanisms for civic engagement and active societal involvement.

1.2. Importance of the Study

HEIs have a pivotal role in new idea creation and knowledge dissemination (Bayuo et al., 2020). Stephens et al., (2008) have also mentioned HEIs as important agents to support sustainability transitions with their role in producing, perpetuating and

disseminating knowledge in society. However, HEIs have the risk of path dependency in their approach to overcoming 'wicked problems' (Jahn et, al, 2012), 'grand challenges' (Swennevik and Saidi, 2022), 'quasi problems'(Moulaert and MacCallum, 2019; Belcher et al., 2022) and 'sustainability' problems and therefore social innovation is an important means to change mindsets and learn new skills to address the multitude of actors in the layering of the difficult problems. While enacting their primary roles, HEIs also need to act as an intermediary in addressing the needs of public, private and civil society sectors so that societal problems are addressed holistically and systematically.

According to Elliot (2013) social innovation initiatives among higher education institutions must foremost satisfy the following 1) The initiative should be strategically driven 2) Leadership roles and ethical responsibilities should be clear 3)System involvement should integrate multiple entities (not constrained by single entities i.e individual, single department, chair, one discipline) and 4) Clustering of partnerships should encourage social innovation impetus. HEIs are key actors to help integrate and enact these approaches to better facilitate networking and collaboration among its ecosystem actors.

As mentioned above, collective efforts and a shared vision stimulate the correct mechanisms and incentives for societal betterment and ecosystem dynamism. Jasanoff (2004) emphasizes that societies shape their realities through epistemic (knowledge related) and normative (value related) experiences. In her book, Jasanoff (2004) 'States of Knowledge', scientific knowledge attainment is attributed to be embedded within the social identities of individuals and institutions and their discourse. The co-production term detailed by the author, emphasizes the complex interplay between the inputs (information and knowledge exchange among many actors) and outputs (scientific ideas and technological artifacts) of the system. HEIs need ways to align their activities to support the means to create societal value within the complex interplacy of its activities and responsibilities.

In this regard, universities are important knowledge-driven institutions with access to different disciplines to create impacts to the challenges of society. However the

differences in values among disciplines and scientific rigor also creates more extreme divides which gets in the way of creating value add in an interdisciplinary and transdisciplinary manner . Co-creation efforts through social innovation practices help the research scope extend beyond a disciplinary field to replace silo solutions with more encapsulating solutions (Beckman et al., 2023). The excellence of universities to perform tasks at different dimensions are also linked in university rankings. UK's Research Excellence Framework (REF) (https://www.ref.ac.uk/) initiated in 2014, revised its guideline in 2021 to include an interdisciplinary research protocol and also integrated societal impact in its assessment to ensure fair and equitable representation for global social, economic and political challenges.

The Times Higher Education ranking also recently integrated societal impact in 2021 (https://www.timeshighereducation.com/). The rankings are still lacking proper societal representation and do not fully integrate the multi-modal roles of universities. YÖKAK's -Turkish Higher Education Quality Council assessment only has 3 criteria to assess the societal contribution among universities where other dimensions include up to 32 criteria to assess the overall contribution. In 2024, the University of Zurich withdrew from The Times Higher Education in criticism of the ranking number not associating the publication quality but rather than focusing on quantitative output. Dedicated engagement with HEI actors through social innovation practices will also support how best the multi-faceted roles of HEIs and its actors can best describe and reflect quality and consistency of output.

Also in the forefront, the United Nations Sustainable Development Goals, Industry 5.0- Smart Society initiatives and also University 5.0 and Education 5.0 initiatives have brought societal problems to the core emphasis of HEIs. There is a need to stimulate and understand the social dimension of HEIs in accordance with the quintuple innovation model dynamics which entails collaboration among academia, industry, government, societal actors and the environment and encapsulating the socio-ecological interactions for sustainable development. There is currently a great mismatch of working styles of university and industry which also reduces the chances of future collaborative efforts. This is emphasized in the work of Arora et al., (2019) where universities are attributed to take a more 'discipline' oriented approach, whereas

industry is more open to cross-team collaboration and are more ‘problem’ oriented. Academician roles need to be redefined to better understand and match the needs of collaborative partners.

Moreover, academia and external quadruple helix actors seemingly live-in different paradigms. Social innovation is an important medium to allow HEIs to step into the capacity to build trust, encourage teamwork, prove understanding of the system (context) and continuously engage and iterate (Lakiza and Deschamps, 2019) with the HEI ecosystem actors for dedicated societal outcomes. The representation of societal actors by intermediary bodies (Georghiou, 2018) is also an important gap for HEIs to fulfill as there is a need for a clear introspection to the actual needs of these entities. This is also an important collaborative liaison opportunity for HEIs to collaborate with internal and external ecosystem actors. It is important for HEIs to align their core priorities to match with its needs and to learn new ways to restructure its resources to the benefit of its mission and activities (Mazzucato, 2018). The ways to mobilize knowledge resources for the betterment of society has also been an open debate within societies (Svennevik, 2022). The critical dimension mentioned by Mulgan et al., (2007) is the approaches necessary to improve the capacities of societies to solve their existing dilemmas. The authors mention that there is an apparent discrepancy between the scale of the problems and the scale of solutions offered. HEIs hold an important role in taking the lead to solve these discrepancies and empowering its actors to engage in creative approaches through social innovation.

In their detailed literature review, Bayou et al. (2020) suggest ways that HEIs can inculcate social innovation in their practices through teaching, change of foci in research mission and enforcing organizational changes to support non-commercial activities which benefit communities better. An important catalyst of this process is the internal demand of university actors to respond to pressing needs through social innovation initiatives. The multifaceted nature of social innovation makes its implementation, assessment and sustainability a difficult task which emphasizes the role of HEIs to organize, lead and structure the initiatives and also create a demand for social innovation. Demand for social innovation will also valorize the academic and project work conducted which would also instigate change in academic programs,

interest in research, tenures and restructuring of industry relationships and lead to better policy recommendations to ensure sustainable practices. Currently, social innovation activities are linked to volunteer work in the Turkish ecosystem which also effects the number of resources dedicated to this practice.

Lastly, Garcia and Weiss (2020) argue the need of restructuring education systems to support education equitability and to support reduction in education inequalities. Inclusive and democratic practices include engaging communities as knowledge agents and structuring relations on collective actions rather than competition and to prioritize to meet the social needs (Purna and Puoli, 2023) in a collective rather than individual manner.

HEIs hold an important role to turn self-interests of individuals to mutual interests of the collective and to ensure the process entails all actors in an equal, egalitarian and inclusive manner.

Beckman et al., (2023) draw attention to problems in social innovation research. The authors mention three problems due to silo disciplinary research which are termed 'social innovation traps' which are not completing the narrative to understand how SI's emerge, occur and flourish . Firstly, the fragmentation of practices has obscured advantages of social innovation practices, secondly management dominance has avoided context and time dependencies and thirdly funded/supported practices are favoring markets rather than truly disadvantaged groups in a more inclusive and democratic manner. Our study has been structured to avoid these traps with a dedicated context of HEIs and its relevant ecosystem actors. Secondly, the process steps have been researched through implementors, recapping a flow from idea initiation to implementation. Lastly, inclusivity is ensured with inclusion of social innovators from different disciplines within the HEIs, as well as actors outside of the HEI to mirror the needs from an external angle. For example, the inclusion of management professionals working with HEI actors helps reflect the effectiveness of the contextual and institutional structures of the HEI ecology. This study is important in understanding the SI dynamics within the Turkish HE ecology and also portraying the needs of the actors to sustain the relevant SI activities in a systematic manner.

1.3. Purpose of Study

This study aims to introduce the HEI landscape for social innovation in Turkish HEIs and introduces a novel structuring approach to the HEIs practices to support social invention/innovation practices. The study in particular aims to address the needs of implementors within the HEIs context to ensure that social innovation practices are sustainable and preferred in HEIs. In the COST framework for Inclusiveness Target Countries, it is mentioned that HEIs lack the ability to effectively exploit their innovation capabilities to benefit their communities and ecosystems which they are embedded in. The essence is to allow structures and collaborations so that social innovation practices can permeate into HEIs and become an acceptable norm of practice. In this regard, this study aims to address the following gaps within literature in regard to social innovation and universities.

Multiplicity in SI definitions which defragments research and risks overseeing potential: The term 'social' reflects new collaborative and collective approaches, roles at different stages within social sector and the (positive) societal impacts of these social innovations (Ayob et al., 2016, Prodan, 2023). There is a proliferation of definitions from different sectors for social innovation which diverts the main focus areas for the context of operation. A proper definition is needed to ensure a common ground to compare and evaluate good practices and to build on already occurring practices. An encapsulating definition for the HEI ecosystem context has not been seen within the current literature by the researcher. The grounding definition will be important to instigate a proper SI culture within HEI systems to define roles, needs and priorities among the interacting actors. This is also important in ensuring traditionally 'non-social' disciplines understand the core of social innovation and view the practices as an indispensable part of their discipline. This is also supported by the misconception in the separation of technological/commercial innovation practices from social innovation especially in industry and also in technology transfer offices which are part of the HEI ecosystem. The study aims to give a singular definition of social innovation within the Turkish higher education ecology encapsulating a needs-oriented process

approach. The definition derived aims to provide a reference to how activities need to be structured so that SI activities can be systematized, synthesized and sustained in the best way to suite the problem needs. This is also an important means to understand the critical roles required to take action for SI within the HEI context. A grounding definition allows future SI activities to be framed in reference to better contextual understanding which allows practices to be compared and scaled -up (similar problems can have similar solution approaches) or scaled-out (solutions to a specific problem can be extended to different problem areas) which can enhance the SI process steps and also allow for proper enactment of SI within the HEI ecosystem actors.

Single view of SI practices dominated by certain disciplines: As referenced by Bayuo et. al (2020), social innovation literature is driven more by external agents and external funding within the HEI ecosystem, which implies that knowledge might be structured through the power relations within the process of value creation. This is also a gap addressed in our study to democratize the knowledge that is generated to ensure narratives pertinent to the HEI ecosystem are not excluded. Moreover, practices such as corporate social responsibility, where social innovation is initiated by companies, reflect more the values of the company and might not reflect the true societal need seemingly addressed by the party initiating social innovation practices. HEIs can act as transparent agents to address and structure contextual knowledge and ensure equal representation for public and private entities. The study aims to reflect the HEI needs within the Turkish HE context and aims to extend the understanding of social innovation practices in respect to this specific context. Among some of the factors discussed include an understanding of intrinsic/extrinsic conditions that support SI work, the role of the implementor, team and managers for SI practice, negative/positive externalities to address for sustainable practices, elements of effective SI project work, good SI team qualities, the differentiating role of having SI missioned universities, attitude of academicians towards SI practices, problems faced in implementation, resources required and the difficulties to overcome to sustain such practices. Building on this singular definition helps ensure that the practices include critical elements of SI process. Moreover, the singular definition also provides a reference point to compare good practices and to increase the effectiviness of action.

HEIs are an inseparable part of Triple Helix- Quadruple Helix -Quintuple Helix Innovation Models but are fragmented from the structure: HEIs are termed ivory towers because of their perceived closed community attitude. Although they are part in building the knowledge economy, knowledge society and social ecology they are usually seen as closed entities and thus require intermediary bodies like TTO (Technology Transfer Offices) to mediate potential research and funding inside and outside of their ecosystem. The Quadruple and Quintuple Helix entails the societal element and HEIs and their core actors need to learn to work with society through science or use the societal actors to better frame their scientific discourse. The study has included Quadruple Helix actors working with HEIs to better understand their assessment of the role of universities. Understanding roles will help shape the HEI actor relations within the socio-technical systems.

HEIs are unwilling to commit due to lack of prioritization and awareness of SI potential : The process steps and organization of social innovation activities within HEIs are unclear due to limited implementation and visibility. This is attributed to the attitude of university authorities who are unwilling to invest or change practices for social innovation due to the lack of financial or personal rewards/returns they see for the process (Bayuo et. al , 2020). Moreover, external funding usually through project work has a limited time frame and without internal process insight, this is also a risk in the sustainability of activities and a hamper to the implementation of new follow-up activities. The study aims to understand the reasons behind the value attributed to social innovation practices as well as hindrances that have not made it a priority within the HEI context.

Need to redefine the effective roles for Third Mission Impact and 4th Generation University: HEIs have an important potential to structure tacit knowledge attainment in their role(s) within their sphere of influence. This is also an important implication of how they structure their extension or 3rd mission activities**.** As defined by Gaisch et al., (2019) a third mission target implies " a societal contribution, either with regard to teaching, learning, applied or fundamental research activities or social responsibility". As much as knowledge generation is important for universities, the study by Belcher et al., (2022) has found that process contributions (e.g. capacity building activities,

empowerment efforts, relationship-networking) were found to be as or more important than knowledge generation within the HEI ecosystem setting. Another implementation gap within universities is the interpretation of the 3rd mission of the university. The focus is more on using research and education capacities to commercialize technical innovations rather than supporting more intangible services and multifaceted social innovation activities (Brundenius et al., 2017). The study aims to understand the unique potential of social innovation activities through an understanding of direct and in-direct aims, as well as future potential reflected by the respondents. Integration of a top-down and bottom-up approach will also be critical in assessing needs to structure future initiatives. HEIs and its actors can act as change agents (Peterson et al., 2021) to improve the conditions of SI practices and how it can use SI implementations to support new practices addressed in primary (i.e. interviews) and secondary data (i.e. policy documents, university strategic plans and websites) will also support proper policy implications to ensure SI practices are prevalent.

Lack of systems view and systematic methodology in the HEI context: HEI research on SI is mostly focused on a single unit (student, academician, course, university) analysis which limits the interaction effects among ecosystem actors. Castro-Arce & Vanclay (2020) also mention that social innovation initiatives must be scaled up at multiple levels (i.e actor, internal/external institution(s), ecosystem) to ensure the sustainability of the practices are ensured. The single study units have limited the research to describe the pieces rather than constructing better realities as a system. Georghiou (2018) also mentions the needs of institutions with resources and capabilities to sustain SI initiatives. The systematic view allows the actors and resources to be seen and relocated to the need(s) of the SI process. Among the barriers that hinder understanding of social innovation in this systems view is the lack of a systematic process to explain the ongoing dynamics within a wider and inclusive perspective. In regard to the support of actors, the support for social innovation in NGO's exhibit more of open innovation, whereas companies promoting social innovation are in propensity to support through corporate social responsibility and philanthropic initiatives (Georghiou, 2018). The study aims to contribute to literature with a systematic design of a social innovation conceptual model structured within the

HEI context. The systematic will help understand the process needs for social implementation within HEIs. Moreover, accreditation practices and university rankings are important means to reflect the credibility and excellence of universities. However, the assessment methods for such purposes do not encapsulate the SI needs to be monitored which requires a systematic methodology. It is important to understand the process dynamics of SI to encapsulate the multi-faceted potential of the HEI resources to ensure quality practices within the HEI framework.

Extended role of HEIs needed for Participatory and Responsible Research: Research approaches to engage ecosystem constituents for problem driven and solution-oriented engagement have been detailed through different names including post-normal science, scholar practitioner model, Mode 2 research, problem-driven iterative adaptation, transdisciplinary research and sustainability science(Belcher et al., 2022). These approaches aim for collaboration among system actors and aim to co-produce knowledge as an output. Another university strategy that is promoted to support social innovation is Responsible Research and Innovation (RRI) (Berg and Leicht-Scholten, 2021). This was among the European Commission (2014) initiatives to support Horizon 2020 activities which includes a framework with six dimensions: 'choose together', unlock the full potential', creative learning fresh ideas', 'do the right "think" and do it right', 'share results to advance' and 'design science with and for society'. The study aims to understand the unique roles and competencies required by HEI actors to fulfill social innovation needs, communicate with different actors and to effectively communicate the results. Input from the study aims to unravel the openness of the Turkish HEI actors to adapt to change in teaching methods, collaboration styles and also different roles.

Need for Customized and Creative Solutions for Traditional HEI Activities: Traditional mass educational services need to be customized to the plethora of actors and their needs in changing societal, public, national and international conjectures. Earthquakes and pandemics have also shown that traditional practices maybe altered in times of crisis. It is important that HEIs and their actors are prepared to take on the new roles and responsibilities to align with the needs of the context. Moreover, societal actor inclusion requires more participatory research, which requires new skill sets for

practicum , leadership roles to initiate and delegate responsibilities. HEIs need to align with external factors to provide solutions that fit ecosystem roles and also bring out the potential of the potential change agents. Students and academicians are critical change agents. Their traditional roles need to entail SI competencies so that inside and outside ecosystem activities can be carried out and a proper mindset and understanding for SI is enacted. The study aims to bring out the unique roles of HEI actors to support SI practices and to value creative solutions.

Lack of knowledge on social value creation or public value creation within the HEI context: Traditionally, social and public value is associated with public authorities like ministries and municipalities. HEIs need to understand how their internal ecosystem actors (i.e. students, faculty, administrative staff) can create social value. Moreover, this value add needs to be maintained through proper recruitment, training and support mechanisms to ensure quality research and output is sustained (Belcher et. al, 2022). The study aims to understand how social innovation can create value to the HEI actors and to the HEI ecology as a whole.

Lack of Understanding of the needs of social entrepreneurs within the HEI context: The social context inclusive of interdependent community actors fosters entrepreneurial activities, however decentralization of public policies allows new areas to be handled by change agents different then the usual public authorities (Figueiró et. al, 2023) . Commercial entrepreneurial skillsets are different than social entrepreneurial skillsets. The EU's Entrepreneurship Competence Framework lists entrepreneurship among the eight competencies to build a knowledge-based society.

For example, social subjects maybe more abstract than traditional commercial activities which can be traced to more quantifiable measures. Moreover, there is a need of social entrepreneurial activity within different levels of the HEI ecosystem; internally within HEIs (i.e among departments and institutes), among HEI institutions (i.e collaborating with different universities) and also outside HEI institutions (i.e collaborating with quadruple helix actors). It is also important to address the needs of the academicians who are social entrepreneurs and to also instigate management awareness to collaborate to the needs of the ecosystem partners. The study has

interviewed social innovation project implementors within the HEI context and has also tried to derive good examples for implementation, team work and collaboration.

This study tries to integrate the dynamics of the aforementioned gaps and tries to assess and understand social innovation practices within the Turkish HEI ecology through the following main research questions:

1) How do different constituencies of the HEI ecosystem define/understand social innovation?
2) What are the enabling factors for social innovation in HEIs?
3) How does social innovation function as a force of change for HEIs?

1.4. Definition of Terms and Contextual Use

Innovation management literature often entails terminology which is often used interchangeably and which furthers the confusion in innovation studies. This section will try to distinguish the different type of key words used within the context of social innovation to better address the reader's understanding of social innovation and the disparities among the terminology.

The definitions have been structured according to the author's understanding and relevance to the study. It aims to set a common understanding to the usage of this terminology within the text.

Knowledge: Value attained from the experiences and insights of activities and its implementation. The contextual setting can also shape the knowledge creation process. Davenport and Prusak (1998) also include expert insight in evaluation of new information and experiences.

Innovation: "Innovation is not a single action, but a total process of interrelated subprocesses….The process is all these things acting in an integrated fashion" (Myers and Marquin, 1969). There are different innovation types to suppor the process of value creation. As a process, innovation involves "the organizational and social process that produce innovation, such as individual creativity, organizational structure,

environmental context, social and economic factors'' (Kanter, 1983; Rodgers et al., 2013).

Social Innovation: "Innovations that are social in both their ends and their means. They are innovations that are not only good for society but also enhance individuals' capacity to act" (European Commission, 2013) ; "A novel process or product that intends to generate more effective and just solutions to address complex social problems, for collective gain (Beckman et al., 2023) . The plethora of definitions range on different aspects including process, outcome and potential for change.

System: A set of interacting and interrelated elements working for a common purpose.

Open System: Systems that interact with their environment and have feedback loops.

Closed System: Systems that are unaffected by their external environment and are more inward.

Social System: A system which include individuals, groups and institutions within their interaction.

Social Subsystem: The relationships, values, work culture and associations of individuals that are part of the social system.

Technical Subsystem: The physical resources, tools, techniques and skills necessary to complete tasks within a social system.

Environmental Subsystem: Internal and external environment of a social system which includes context, operating conditions and surroundings.

Social Enterprises: Businesses whose primary goal is not to generate money but to generate positive social impact.

Higher Education Institution (HEI): Institutions governed by the Higher Education Law No:2547, which by distinction of status and finance include foundation and public universities. Higher Education Institutions make-up the Higher Education system which includes all constiuents of tertiary education.

CHAPTER 2

CONCEPTUAL BACKGROUND

This chapter covers the relevant literature in regard to the systematic understanding of social innovation at HEIs. It structures the content in a hierarchical manner, herein to reflect social system dynamics starting from individual self-interest to systematic transformative change. Important resources to critically advocate social innovation practices include the entities that create and sustain knowledge and also transform with a resource-based view, to expand underlying competencies and also dynamic capabilities within the HEI ecosystem structure. Importance of social innovation practices within the HEI ecosystem and the university are mentioned and also the work of previous scholars is credited to understand their relevant scope of work, limitations and potential gaps that have addressed and which lays ground to our study.

2.1. Importance of systems thinking and sociotechnical systems in the design of social innovation practices

Systems thinking and design is important in understanding how parts function together in a system with unpredictable elements. The study of innovation systems and socio-technical systems have both helped structure how the knowledge actors, institutions, networks and supporting technologies integrate together within even bigger systems. The design and analysis of socio-technical systems entail both ontological and normative views (Smith et al., 2010). Ontological aspects include questions about the system and also the changes that (how, what) are attainable. The normative view includes the future orientation of idealization to what things should be within a given socio-technical system (Savaget, 2019). System change requires an understanding of the reasoning, directionality and purpose of the system to be restructured. Laszlo et al., (2017) emphasize new approaches in understanding synergetic relationships between human beings, technology, society and the environment for the understanding and implementation of sociotechnical systems.

This is also attributed to a paradigm shift in innovation systems, transitioning from industrial to knowledge and service-based societies. Inherently, this approach brings a need for rudimentary change in creating value, from ways of thinking to institutional structures. Moreover, emphasis on scientific and technical progress may also not inherently improve conditions for people or systems nor answer questions in regard to the dynamics of interaction, emphasizing the significant role of social innovation in comparison to technical systems (Howaldt and Kopp, 2012). Foremost, basic science and technology may not always answer why we do things, thus the social context where human beings realize their full potential is important. These potentials could be attributed to intrinsic, extrinsic or environmental factors respectively (Fontrodona, 2013). Technology pushed rather than learning pulled demands in the HEI ecosystem, moves societies in mechanistic, rigid directions rather than in a holistic and systematic manner which emphasizes the role of universities in adaptation of technology and innovation (Cody, 2014; Laszlo et al., 2017). Understanding the functioning of socio-technical systems help in designing the system-sub system elements for SI practices.

The guide to Social Innovation (2013) published by the European Union and also the social innovation lifecycle model developed by Murray et al., (2010) are the dominant systematic methodologies referenced within the SI literature. The first model includes 4 steps entailing a)identification of social needs b) development of new solutions c) Evaluation of effectiveness and d) Scaling up of Social Innovation practices. Murray et al.'s, model entails six steps which are a) Prompts b) Proposals c)Prototypes d) Sustaining e)Scaling f) Systematic Change. The authors emphasize that the SI cycle is not sequential. The authors emphasize that processes are locally embedded and thus need to be developed within a specific context and environment. Penkala (2023) emphasizing the work of Podlasiak (2009), has reiterated that SI practices in public domains should include the following three functions: allocation, redistribution and stabilization. Schachter and Wallace (2017) have tried to conceptualize the SI innovation process in three steps to draw a complete picture of the process starting with a) an understanding of practices, perceptions, purpose and values b) institutionalization of social practices and the competencies enacted by the actors to work with/change rules and disrupt practices for exploitative and explorative renewal

and lastly c) societal practices span time and the origination effects impacts and also diffusion potential.

This is in fact an integral part of the new knowledge economy where the innovation helix models posit that for knowledge production and innovation development different entities need to be integrated into the contextualization of the ecosystem (Carayannis et. al, 2022). As seen in **Figure 1**, the Quintuple Helix Innovation Model emphasizes the social ecology perspective to encapsulate the value-add of a social ecosystem. Social ecology-socioecological approach posits that social and physical environments shape mind-sets, habits and behaviors and are embedded in different macro structures including education systems, political systems, societal and organizational systems (Oishi and Graham, 2010). The higher education system with respect to the social ecology perspective is described in **Figure 2**. As seen the individual actors in the higher education ecosystem is affected at different levels and are subject to different influences within their context.

As also can be seen in **Figure 3**, the Higher education system in itself is not a closed innovation system relying on a single HEI's internal structure, but is an open-system that relies on collaboration between external ecosystem actors. It is important to understand the system input and output within the HEI boundaries, to clearly define the needs to support the actions of interest.

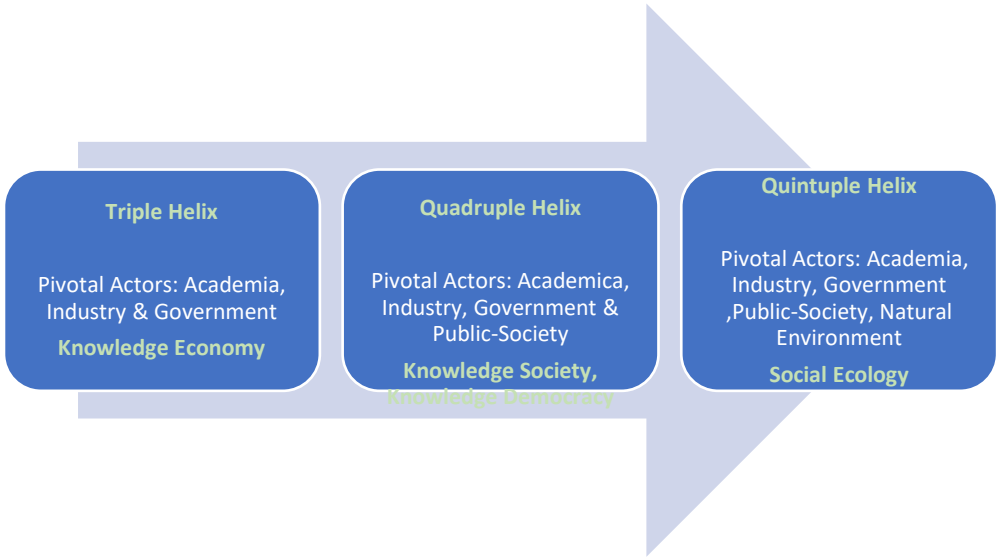

Figure 1 Emphasis of Innovation Models. Summary of Carayannis et al., (2022)

Figure 2 Socio-Ecological Model of the HEI system. Adapted from Lee et. al, 2017:299)

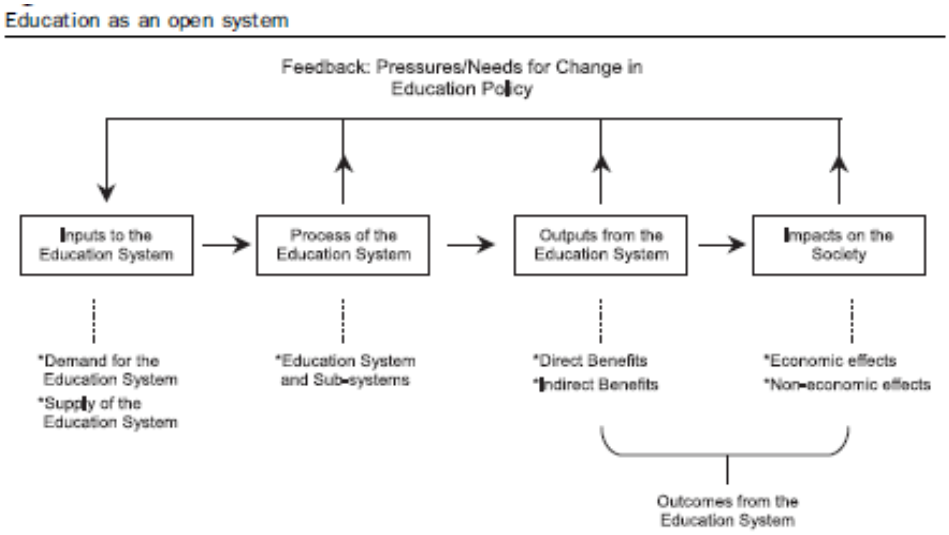

Figure 3 Education As an Open System. Source: Cheng et al., 2002: 20.

2.2. Innovation Types and Distinction/Importance of Social Innovation

Innovation activities support economic development but there is still debate to understand appropriate incentives and mechanisms to be endorsed to remove obstacles for better implementation. Innovation creates value to the institutions that adopt them and can take on various forms including type of innovation (Product, Process, Market), dimensions (objective and subjective), scope of change (radical, incremental, reapplied), or how it was created (closed or open Innovation) (Osburg, 2013; Schumpter 1982).

Cannaerts et al. (2016) has distinguished innovation types as follows a) Product innovation; which is described to be a new or improved product or service b) Process innovation: innovations that aid in the process of a product or a service c) Organizational innovations: innovations that improve management structures for better governance d) Marketing innovations: Innovations that improve the dissemination and marketing of content e) Functional innovation: An innovation that has a new effect with its application or 'add-on' to the good or service f) Cultural innovation: A new approach to change the organization culture of activities g) Perception Innovation: A novel approach that has changed the perception of users or audience with which the technology is used. Outcome-based and process definitions of innovation are common.

Social innovation is even more difficult since outcomes might not be tangible as expected from technological innovation. Moreover, social systems are complex and intricate which bring even more fluidity to understanding the discerning attributes to sustain activities and gain competitiveness with these approaches. The social innovation research stream emphasizes two main approaches in understanding the dynamics of social innovation where researchers usually either focus on either aspect or try to entail both approaches. These approaches include understanding the outcomes (end results) or understanding the process dynamics of social innovation (Chiapero-Martinetti et. al., 2017). These contesting streams are detailed in the work of Ayob et

al., (2016), where outcomes are attributed to the social value add achieved from the implementation and processes describe the changes in relations and systematic to overcome disparity for social innovation problems.

Purna and Puoli (2023) summarize three views of social innovation definition present in literature. The first group does not separate innovation from social innovation and in practicality relies on the assumption that innovation practices entail a social mindset. The second group agrees that there is overlap in especially innovation activities and its change potential. The group converges on that the change component is social rather than economical. The third group evaluates SI in a separate sphere emplacing initial conditions and outcomes. Another common ground is that technical innovations may bear social innovations and vice versa.

Social innovation has been described to be an important flagship initiative in the EU, to support innovative solutions to welfare problems and also the efficient use of financial resources at a national, European and international stance (Zalite and Mazure, 2017). Social innovations are defined as "new solutions (products, services, models, markets, processes etc.) that simultaneously meet social needs (more effectively than existing solutions) and lead to new or improved capabilities and relationships and better use of assets and resources" (Pisano et al., 2015). Social innovation actors are encouraged to engage with a social problem in a way that is "more effective, efficient, sustainable, or just than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals" (Phills et al., 2008; Pisano et al., 2015). Social innovation has a vast number of definitions, due to the difficulty in describing social systems and their quasi structure which is inclusive of different actors and relationship structures. Nicholls and Zeigler (2015) define social innovation as "the development and delivery of new ideas and solutions (products, services, models, modes of provision, processes) at different socio-structural levels that intentionally seek to change power relations and improve human capabilities, as well as the processes via which these solutions are carried out". The change of these power relations are important in shaping the social boundaries of the SI action.

Santana (2014) has emphasized “social innovation taking form when a new idea establishes a different way of thinking and acting that changes existing paradigms”. Examples of new social practices detailed by the author include asset building and changes in behavior, attitude and perception.

Caulier-Grice et al. (2012) identified eight common features of social innovation that can help describe it better and more comprehensively:

1**) Cross-sectoral**: Social innovations extend throughout all sectors, with inter/intra relationships and also with a potential to act as interfaces across the various sectors,
2) **Open and collaborative**: Social innovations are inclusive and engagement filled for a wide variety of actors,
3) **Grassroots and bottom-up:** Social innovations hierarchical management is often bottom-up, grassroots, distributed and local,
4) **Pro-sumption and co-production:** In social innovations, actors are thought of as enacters and enablers, not just passive recipients of service, with less boundaries among different actors (i.e producers/consumers),
5) **Mutualism:** Mutual dependance demarcates dichotomy of individual vs. collective well-being,
6) **Creates new roles and relationships:** Social innovations can create new roles, relationships for all involved users and beneficiaries,
7) **Better use of assets and resources:** Social innovation values the potential of resources. It helps to recognize, exploit and coordinate assets and resources to avoid waste, under usage or idleness. Resources can be : latent (i.e. the skills that communities have at their disposal), intangible (i.e. finance) and/or physical (i.e. buildings and physical spaces);
8) **Develops assets and capabilities:** Social innovation helps build capabilities of beneficiaries through agency, participation and long-term future orientation.

The European Commission (2011) and Bonifacio (2014) define three key approaches to social innovation that reflect the scope of action orientation :

1) **Social Demand Approach ('Ghetto' view**): This approach is demand driven from vulnerable groups (i.e youth, elderly, disadvantaged, migrant) in society and which is not addressed by the current market or active public/private institutions,
2) **Societal Challenge Approach ('Reformist' view)**: This approach takes on a societal inclusive approach by integrating societal, economic and environmental factors and which addresses not only vulnerable groups but society as a whole,
3) **Systematic Change Approach ('Empowering' view):** This approach includes the Ghetto and Reformist view, also addressing the relations between ecosystem actors and also addressing the processes to enact organizational development by emphasizing learning and empowerment. The changes addressed by such an approach are summarized by Hubert (2012) as follows: individual and institutional changes in attitudes and values, changes in long-term value and policies, uniqueness in service-oriented structures for better processes.

Research in this field is bringing out the 'Empowering View' to understand better the outcome and process streams of social innovation (Chiappero-Martinetti et al., 2017; Zalite-Mazure , 2017) as mentioned in the work of Ayob et al., (2016). McKelvey and Zaring (2018) state that social innovations have three characteristics a)Social innovations are not profit oriented and the main motivation is social change b) Application results in a betterment of life style and social relations (i.e improved welfare, better quality of life) c) Implementation helps to change systems by supporting the change of attitudes, perceptions and structures.

Ziegler (2017) emphasizes the 'transformative' role of social innovation and the author draws attention to three uses of social innovation: transformative, taxonomic and transitional-skeptical. The transformative role is driven by social discourse and emphasizes mutual collaboration and structural change to break the rigidity of previous innovations and the contribution of social innovation to 'humanize the economy'. The taxonomic view emphasizes new frontiers of innovation research, drawing attention

to the role of social innovation in resolving new or neglected subdomains within innovation research discussion. The last domain approaches social innovation as a discourse hype.

2.3. Social Innovation Potential in HEIs

The primary roles taken on by universities are summarized by Salter and Martin (2001) to be educating qualified graduates, contributing and leading knowledge attainment and development, engaging and setting a vision for scientific discourse, enhancing societal interaction through networking and communication, capacity building (Brundenius et al., 2017) for scientific know-how and the support of the creation of entities within the ecosystem (i.e startups, spinoffs, firms). Further roles of HEIs summarized in Bayuo et al., (2020)'s work, reference to co-production and co-design of research projects (Schneidewind et al., 2016), creating resources, engaging with communities through advisory work and providing and matching resource access to vulnerable groups (Humphrey and Benneworth, 2010) and also continuing academic engagement with ecosystem stakeholders (Hart et al., 2015) in a sustained and dedicated fashion. Arora et al., (2019), emphasizes the flexibility of approaches in higher education institutions, to incorporate 'heteregeonous' approaches to identify new and strategic areas for research activities. These hybrid approaches are also seen as an important way to balance economic and social returns of innovation activities.

Zalite and Mazure (2017) describe three main objectives of higher education institutions : 1) Aiding in identifying social needs 2) Raising awareness to societal problems/challenges and priorities 3) Improving the well-being and quality of daily life so that efforts can be allocated to increase global competitiveness. Social issues and societal relevance in research is an important opportunity for research excellence at universities. Bayuo et al., (2020) mention the importance of bringing social innovation to the core activities of the university. The authors emphasize that social innovation at universities is a significant future-oriented initiative which will help universities understand their core competences to better manage their resources,

infrastructure and strategic activities. Higher educational system activities are in the dilemma between emphasizing their contribution to economic development vs. taking on the responsibilities of serving their community's societal actors (Thomas and Irvin, 2017). Bayuo et. al (2020) has summarized the role of social innovation in supporting teaching practices.

The first approach summarized intends to extend multi-disciplinary and inter-disciplinary approaches by revising curricula and course content (Jongbloed et al., 2008) to engage the actors and also increase their access to resources through the new approaches. The second potential arises to the learning diverted from theory to practical problem solving that would allow community collaboration and solution building at source. Thirdly, a pedogeological approach that allows students to choose problems they would like to engage in and work with (Gregersen, 2017). When the university understands its core mission, social innovation holds a transformative potential for 'social and community presence' as described by Elliot (2013) and is also attributed to support the buildup of social capital, extend networks, build communities, increase inclusiveness and also develop unique skill sets to solve problems through the university's core mission. Accordingly, universities discovering their potential is a key social empowerment to catalyze systematic change (Scholl, 2013).

2.4. Main Theories in Socio-Technical Systems

As mentioned in the work of Thornton and Ocasio (1999) individuals and organizations are embedded in multi-institutional dynamics, which influence their decision making, sense making and social networks. Accordingly, stakeholders can best contribute to articulating needs, generating ideas and selecting causes of greatest relevance and understanding their key roles acting on ideas and implementing innovation. Thus **the stakeholder centric approach** in social innovation, tries to unravel the dynamics behind a) articulating unmet social needs b) generating ideas to address these needs c) distilling ideas and d) selecting ideas to pursue (Bhattacharya et al., 2013). This is consistent with Mulgan et al., (2007) identifying idea generation, prototype, production assessment and scale-up as the basic stages of social innovation.

Institutional theory , accordingly helps to explain the dynamics between individuals or organizations and institutions (government, market, culture, religion) (Agrawal and Hockerts, 2013). An important concern is that stakeholders are seen **as enactors and not just enablers** of these initiatives (Bhattacharya et al., 2013). Westley et al., (2016) have also drawn upon **complexity theory, resilience theory and structuration theory**, to also explain the interdisciplinary perspectives within social innovation. **Complexity theory** is most favored by leading implementors in social innovation. It can combine the subjective and objective requirements and also can assess the problem context in multiple levels**. Complexity theory** tends to force attention to the connection between things, to feedback and feed forward processes, to path dependence and to the many ways in which initial conditions can radically change outcomes.

However, it is also questioned on the lack of reflexivity entailed in its assessment, where people's awareness within the systems are not questioned (Mulgan, 2012). **Resilience theory** on the other hand focuses on matching adverse and vulnerable conditions, by mediating institutional processes for better-than-expected outcomes by trying to balance agency vs. structural issues (Van Breda, 2018). Innovation entails dichotomies to understand the struggle between individual action oriented vs. context-oriented structures for causation. Structuration theory tries to understand different dichotomies as follows: agency/structure, relativity/objectivity, micro/macro. The theory posits that agency-structure dualities can best be observed through understanding contexts as well as understanding the patterns of interactions within institutions (Pozzebon, 2007). Swilling (2016) also draws attention to transdisciplinary research in social innovation research, emphasizing generating knowledge through research and community for useful action. Transformation knowledge is necessary to translate problems to collective solutions through local approaches that stimulate systemwide change and at different scales. The transformation within the social context is attributed to challenge, alter and replace prevalent practices (Avelino et al., 2017).

Kim and Ha (2010) draw attention to **Resource-based theories** to understand the usage of resources and competencies to gain competitive advantage within an

institution's environment or ecosystem for SME's. The authors emphasize that innovation capability is accumulative, path dependent and also dependent on how people learn within their context. Among factors that hinder effective resource usage include top management attitude and leadership, organizational structure , culture and social capital management respectively.

For innovation activities, Landry et al., (2002) emphasize the use and combination of intangible resources, like human/social capital and also the importance of social interactions when developing technology driven solutions. Habisch and Adaui (2013) look at social innovation through a **social capital theory** perspective and emphasize the 3 level social capital perspectives and their change agent potential at three levels: micro, meso and macro. At the micro level individuals are responsible for social innovation through their social innovator role. On the meso level, organizations are responsible in carrying out the functions of a social organization to support social innovation practices. Lastly, at the macro level, institutional drivers for ecosystem restructuring are mentioned. Social capital is considered to be a binding and empowering element to cooperate in networks. Social capital management creates trust, shared vision and increases the likelihood of extended cooperation and collaboration within the community (Cohen and Prusak, 2001; Bhattacharya, 2013).

2.5. Importance of Knowledge and Knowledge Production

Juhl and Buch (2019) describe the academic system, as 'ecologies of practice'. Their article is important in drawing attention to the two main constructs in university involvement outlined by Nowotny, Scott and Gibbons (2001). Scientific conduct in Mode 1 emphasizes knowledge production in solely universities, whereas Mode 2 entails universities creating context specific solutions, with emphasis to non-academic engagement and application-oriented domains. In reference to these two approaches, Juhl and Buch (2019) summarize important characteristics of the change of knowledge production from scientific discourse as follows: a) Contexts drive knowledge production, implying that all science is to an extent 'applied' science, b) Science is prevalently becoming trans-disciplinary, there is a need of integration of practical and

theoretical elements from different disciplines, c) The scope of areas where knowledge is created has extended beyond university and industry, to include different constituents of the ecosystems including research centers, think tanks and other forms of collaborative bodies, In reference to Jasanoff (2011), science practices have become more reflexive where more conscious actions are deliberated, implications of science and technology are detailed to include the values and interests of society.

2.6. Universities as Change Agents

Social innovation can take place in different institutional structures (government, NGO, private, social enterprise), however research is still lacking on how higher education institutions can act as social innovation and change agents (Osburg, 2013). Social innovation practices require unique approaches to secure long-term impacts and also to sustain activities. These required approaches that transcend different ecosystem actors and levels of analysis to discover core strategies and approaches for change (Rodgers and Soderbom, 2013) . Petersen and Kruss (2011) draw attention to the issues to be addressed for universities to be 'change agents' in the system. The authors also mention that foremost, universities need to extend their collaboration efforts beyond their institutional borders and to also consider non-traditional ways of engagement within the actors of the ecosystem. They describe social innovation initiatives as transformative for social change and emphasize agency initiatives at individual and collective level. This need stems from the informal and collective actions of businesses and the need for universities to overcome their own path dependencies. This is also consistent with the process -based definition of social innovation which includes: a) discovering what is not being met b) reflecting on a potential idea and putting it into practice c) extending these collaborations through outside support to scale-up activities and d) To continually learn and adapt to changes in the environment (Sharra and Nyssens, 2010). How early institutions adapt to change and their acceptance style is also an important consideration in assessment of change potential. Rogers (1971, p.247) distinguishes the adoption rates of innovation according to five categories including " innovators, early adaptors, early majority, late majority and laggards". In

this work the five categories are described as follows: "Innovators are the flagships/ of social change and adoption of new ideas, early adaptors are potential adaptors who pave way for the next innovations, early majority follow potential adaptors and will encourage late adaptors in their quest for innovation. Lastly, laggards fall behind in adopting to new ideas and feel comfortable in continuing traditional views". To align the resources of the system, it is suggested to adapt systematic innovation to ensure the increase of opportunities for education development and also innovating social and technological change (Webley , 2013; Laszlo et al., 2017).

Westley et al. (2016) have also defined three different areas where social innovation forces change, these include 1)unique ideas/opportunities that catalyze social innovation 2) external forces that disrupt the continuity of on-going social innovation activities and 3) internal opportunities that result in new and novel combinations and recombination (Avelino et al., 2017).

2.7. Resource Management- Dynamic Capabilities for HEIs

Horn and Zimmerman (2010), emphasize a paradigm shift to the resource-based approach from the market-based approach of innovation, drawing attention to the need to understand the resources to leverage competitive advantage (Dosi et al., 2002). Resource-based theory of innovation tries to explain an institution's capacity and competence for innovation through their available organizational resources and capabilities (Horn and Zimmerman, 2010). Teece et al., (1997), define capability, "as the ability to perform a particular task or activity". Capabilities are more action oriented and are not the same as resources. Capabilities allow the resources to be put into the correct use and allows better allocation of resources (Li and Liu, 2014). Fahy (1997) distinguishes capability into personal capability and organizational capability. Personal capabilities refer to the employee's experience and knowledge accumulation to do a task, whereas organizational capabilities refer to the multiple integration of resources within the system to perform a task.

Popadiuk (2012) approaches capability as a skill to organize resources to accomplish a purpose or goal. The author distinguishes two types of capabilities: Ordinary (operational) and dynamic capabilities. Ordinary capabilities are associated with carrying out present administrative and governance activities, whereas dynamic capabilities are more future oriented and integrate change management within their practices (Helfat et al., 2007). Teece (2014) mentions that ordinary capabilities are embedded within institutions in their 1) talented employees 2) infrastructure and equipment 3) processes and routines and 4) the coordination of efforts to complete an assigned work. Moreover, a strong ordinary capability is described by the author to be the case when institution's have internally and externally integrated good practices and are aligned with the market/ecosystem needs with their ordinary capabilities.

On the other hand, dynamic capabilities are described to be the " the firm's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments'' (Teece et al. , 1997). This approach entails identifying an opportunity, working on it and acting on it (Helfat et al., 2007) which is the first approach in dynamic capability literature which is described in three stages: searching (variation), selection (evaluation) and routinization (retention/enactment).
The second stream focuses on enacting in new ways with internal and external resources through reconfiguration, integration and reorganization practices . This emphasis by Teece et al. (1997 is also summarized by Madsen (2010) and which also lists aspects which are relevant to social innovation practices: 1) Importance of coordinating internal and external activities 2) Inclusion of individual and collective learning practices with efficient functions to allow repetition and experimentation 3) Transforming resources through new setups and structuring aligned with market needs and technological developments.

The emergence of dynamic capabilities is also studied and discussed within literature. Some scholars argue that there can be a generic set of dynamic capabilities for each institution (Eisenhardt and Martin (2000) ; Teece (2014)) , however the boundary conditions should be described for its implementation. Zollo and Winter (2002) emphasize that dynamic capabilities are best reflected in systematic actions and

routines within the institution, Eisenhardt and Martin (2000) emphasize its manifestation in processes and Teece (1997, 2014) mention 'signature' practices that distinguish the implementation of dynamic capabilities. With dynamic capabilities, a 'higher order capability' is described where exploitative and explorative adaptation to address opportunities and changes are valued (Birkenshaw et al., 2016; Breznik and Lahovnik, 2016). The 3 main roles to support dynamic capability functions are as follows (Teece, 2014): 1) Sensing Activities which include opportunities to identify, develop and co-create to internal/external ecosystem constituent needs. 2) Seizing: Matching resources to the needs and mobilizing them to extend value-add 3) Transforming: Renewing internal/external talents and resources.

Maintaining and advancing capabilities is a complex task. Capabilities are a bridge between initiating intention and instigating outcome. These are rooted in skills of individuals and the routines of organizations. The effectiveness of organizational routines are reflected in the collectivity of actions for a common goal (Dosi, Nelson, Winter, 2002). Kogut and Zander (1992) also emphasize 'combinative capabilities', which emphasize how well institutions combine their capabilities and knowledge and also how they integrate it to their knowledge base with the many different social relations apparent in their system. How the institution configures and modifies its practices to create competitive advantage congruently with its internal and external environment is an important detriment of the effectiveness and visibility of the dynamic capabilities inherited in the system (Teece (1997) and Dosi et al., (2002) (Helfat, 2007 ; McCarthy and Gordon, 2010).

Popadiuk (2012) summarizes resources of an organization as ''all its tangible and intangible resources (or knowledge), falling under its control which allow its activities to be performed in the quest for survival, comparative parity or superior performance in an industry or economic sector''. Accordingly, Hodgknison and Healy (2011) draw attention to the tangible and intangible resources of dynamic capabilities and they emphasize the efforts of individuals and groups and their behavioral necessitates to create strategic capital. Huang et al. (2012) mention the conditions to bring out dynamic capabilities, with reference to the work of Teece (1997).The authors detail

three determinants of dynamic capability which are path, process and position. Teece (1997) defines process as the "capabilities of coordination and integration, learning and reconfiguration and transformation". Whereas position is defined as "build up a firm's asset base and this can stem from a variety of technological, complementary, financial, reputation, structural, institutional and market structure sources".

Antonacoopoulou Antonacopoulou (2006) focus on the dynamics of a learning organization, where similarity to dynamic capabilities can be seen through context, culture and social conditions, formal and informal procedures, actors and time scales for process development. Ketkar and Sett (2010) emphasize the dynamism needed to sustain competitive advantage through dynamic capabilities. They draw attention to the need of resources to adapt synchronously to environmental changes where they describe resources should always be 'renewed, reallocated, rejuvenated and redefined'. Also, a systems perspective is emphasized with mention of orchestration and also understanding complementarities and co-specialization opportunities within systems. This approach supports March's (1991) social context of learning, where mutual learning is stored in individual and organizational mutual learning which is embedded in social context. The author also points out the dilemma of primacy, where institutions are reluctant to contribute to knowledge when in competition, thus exploitative and explorative strategies change. Idiosyncratic resources and a good vision is necessary to enhance dynamic capabilities in institutions. Moreover, organizations, their constituents and their environments have interdependent influences and are shaped through socio-political, technological and environmental changes (Luo and Rui, 2009).

Ibrahim (2017) draws attention to 3C: a) Conscientization b) Conciliation c) Collaboration. Conscientization, emphasizes the acts to nurture realities that increase the capacity to aspire for better living at an individual level. Conciliation draws attention to a common vision for betterment through individual and collective interest. Collaboration emphasizes changing power relations for effective work habits among different constituents of the system. The paper concludes with three S's: success, sustainability and scalability, to enhance behavioral change, collective agency and

institutional reform. To ensure that best practices are sustainable, it is important for institutions to understand how and where they exchange/receive knowledge, how they use it and how they transfer it . The major undertaking is to ensure that best practices are sustainable and also understanding the accessibility of the scope of work by understanding where organizations receive knowledge, how they act on it and how they transfer it accordingly (Rodgers et.al, 2013). A unique terminology also developed for universities by Hart et al., (2005) is 'native capability'. Native capability takes into account local cultural contexts and diversities to develop contextualized solutions to problems. Lastly, Laszlo et al., (2017) emphasize collective wisdom and thrivability. It emphasizes finding balance between dichotomous decisions for individuals and the collective to achieve resilience within the community and or the system at different systematic dimensions. HEIs are being criticized for not being active stakeholders and using resources inefficiently to govern practices for social innovation (Gustaffson, 2023). The capabilities view helps to open up the explorative and exploitative capacity of universities to discover which resources can be re-used, re-created or re-structured to better suit the HEI ecosystem needs.

2.8 Overview of Turkish HEIs and potentialities for social innovation

The HEI landscape in Türkiye and the ecosystem needs are illustrated in several prominent publications and project reports. Among the important restructuring developments have been the establishment of the Council of Higher Education (YÖK) in 1981 which has centralized coordination and reorganization of the HE system and also the inception of a government expansion policy after 2005 to include a public university in every province of Türkiye (Özoğlu et al., 2016). However, these universities have been criticized as 'signboard' universities lacking infrastructural investment and also risking quality academic hire, financial sustainability and also administrative governance problems (Arap, 2010). Moreover, Doğan (2013) has also mentioned in a survey the lack of infrastructure, low quality hire and institutionalization problems in such newly established universities in the provinces.

Another important distinction within the HEI ecology is that as part of the 2547 Turkish Higher Education Law, public and foundation universities also have different governance priorities (Özoğlu et al., 2016). Foremost, foundation universities are run by their board of trustees and rely highly on tuition revenue since they do not receive direct funding like public universities. The distinctions have also put into question debates in regard to demand in enrollment vs. staff to accompany the needs, HE access to equity and a discrepancy between the demands of the labor market and the supply of the HEIs (Özoğlu et al., 2016). Pursiainen (2012) has raised the implication of this demand/supply skillset divide with the heightened unemployment rates among university graduates.

Among the mentioned needs and difficulties within the HEI context mentioned by Özoğlu et al. (2016) include reliance of central government budget for public universities and tuition revenue for foundation universities. Social challenges listed by the authors included lack of community-university partnership (currently emphasizing economic returns) and the approaches to public service attainment. Lack of external sourcing and first mover advantage in securing resources is mentioned to be prevalent by the authors. This emphasizes the importance of first contact and repeat operational processes among known entities and reflects the closed structure of ecosystem collaboration within HEIs.

In reference to the "Carneige Classification" of context driven special focus universities (Kocatürk and Karadağ, 2021), as of 2022, the Council of Higher Education (YÖK) also initiated the ARDEP (Araştırma Üniversiteleri Destek Programı)- Research Universities support program which as of 2024, includes 23 research universities. The program aims to support the high value-add initiatives in the Development Plan, aims to improve the rankings of universities and also aims to increase the brand value of universities. The program aims to fund research activities within these universities by allocating resources conditioned on university rankings (www.yok.gov.tr). Moreover, universities in Türkiye with regional development focus was also initiated in 2016, with a focus of smart specialization to ensure regional innovation models are developed and are supporting the third mission of universities

(YÖK, 2020). Currently, there are 22 universities as of 2023 inaugurated in four phases of (2016, 2018, 2020 and 2021) with mission distinction and specialization areas ranging from sports and health, tea cultivation, energy and natural heritage. The aim in this distinction is to increase the entrepreneurial competencies of these universities, allow openness to new work models and collaboration potentials (Yücel and Çalık, 2023).

Understanding of institutional governance is also important in understanding the process hinders within the HEIs. Kocatürk and Karadağ (2021) have mentioned the lack of rigor in analyzing HEI in different and multidimensional dimensions. The study has provided several main insights in regard to Turkish HE ecology. These include the following: lack of autonomy and limited infrastructure being detrimental to the research universities fulfilling their mission. The authors suggest that the university strategies must be aligned with the institution's infrastructure and human resources. Secondly, Turkish HEIs exhibit semi-open system characteristics with external collaboration responsibility given to the individual academician.

Thirdly, expectations from universities are high and academics need to constantly develop themselves. Fourth, Turkish universities are criticized for not having clear decision-making mechanisms. Lastly, collaboration among internal and external actors within the ecosystem is lacking and also follow-up mechanisms are not operated effectively.

The needs of academicians and the HEI actors is also a critical concern in the structuring of activities within the relevant ecology. In a study by Uslu (2022), the work load of academicians reflected via the students per staff ratio for Türkiye was alarmingly high in comparison to Germany and South Korea. Türkiye, ranked the highest with 47.82 students per academician, with South Korea following by 37.84 and Germany averaging 7.4 students per academician. The study has also emphasized that Turkish academicians spend more time in teaching rather than research, yet the tenure rules imply a research and publication-oriented track. Inclusion of a public university in each province, has also raised the need for resources to raise/hire faculty

members and there is a need for increased R&D budget to support research initiatives (Uslu et al., 2021). The work by Guzman et al. (2022) gives a comparison of the Turkish and Chilean HEIs. In the study Türkiye has been emphasized to mainly find R&D funding from the private sector, whereas Chile is subsidized by the government. With regard to social activity involvement, Türkiye has been found to lack societal engagement by twofold to Chile. An important implication of this finding is the propensity of societal oriented activities to be supported at individual, institutional and professional levels in Chile, whereas Turkish academicians gain recognition and tenure mainly through publications and thus the lack of interest in engagement.

The detailed APIKS-The Academic Profession in the Knowledge-Based (2021) report has also detailed interesting features of Turkish academicians. These include limited outside university experience, prevalent risks of academic inbreeding and also teaching roles being more prevalent than research or societal engagement. The quality of research output conducted with international colleagues are found to be top notch, however there is criticism that publications are done for tenure and not analyzed and evaluated for impact. Limited industrial interaction, less time dedication for competency building and also lack of influence in institutional policies is also important gaps that need attention.

The social innovation landscape for Türkiye was reported by the Six WayFinder Initiative in 2018. There have not been any updates to the report. The report emphasizes the need for new business models to support public, private and civil society initiatives and requires a cultural shift in mindset. The report also emphasizes the multipurposed nature of social innovation ecosystems and points out that regional requirements and discrepancies should drive social innovation initiatives instead of specialization in a certain topic which could lose the SI potential of the area .The social enterprise status was deemed to be vague, social enterprises and their ecosystems in Europe report (Uygur and Franchini, 2019) also reiterate there is no exclusive legislation for social enterprises in Türkiye. Any social entrepreneur with social innovation practice in intent can only have legal entity as a foundation, cooperative, association or conventional enterprise. Only social cooperative was included in 2021, within the cooperatives law no. 1163, Law No. 1581 on Agricultural Credit

Cooperatives and Unions and the Law No. 4572 on Agricultural Sales Cooperatives for agricultural practices. Initiatives by UNDP to support social purchasing practices and dissemination of social innovation practices with local support from Ashoka and ImpactHub partners which are external partners supporting social innovation initiatives.

Social innovation research in HEIs in Türkiye focus more on single actors as unit of analysis and entails their perceptions as detailed below. This is also consistent with the literature by Wu et al. (2023) where most of the quantitative surveys (6 out of 9) on SI practices are implemented on students. The most prominent research methodology is qualitative which helps entail multi-stakeholder impact as summarized with the literature review results by Wu et al., (2023). For example, the study by (Halaç et al., 2014) includes 101 students from the faculty of medicine and engineering and their perception on social innovation. Research and innovation inputs do not reflect or distinguish social innovation dimensions thus it is very hard to work with ready data sets for social innovation.

The most distinctive database for social innovation practices was created by the European Union funded TEPSIE project. Even the project with its distinctive dimensions had difficulty sourcing data for follow-up. Studies by Özmete and Gök (2015) and Muradiye Ateş (2018) focus on public innovation and public value initiatives within the ministries. The work is predated on the assumption that public institutions create social goods and thus their practices are considered social innovation. Sustainability and quality practices have been assessed by Özşen et al. (2023), where integration of key concepts in strategy documents, participation of key stakeholders and leaders supporting strategic priorities have been found to be critical in developing institutional policies and systematizing activities. The author has not found any evidence to support a systematic assessment of HEIs in Türkiye.

CHAPTER 3

METHODOLOGY

This chapter aims to describe the problem framework and selected methodology to the reader. It entails details regarding the context and inputs to the qualitative methodology to enrich the value-add of the study.

3.1. Context of the Study

The study is intended to understand social innovation practices within the Turkish Higher Education ecosystem with particularity to the cities of Ankara, Istanbul, Izmir and Konya. Among the 204 universities and 4 vocational schools in total in Türkiye, Ankara hosts 22 universities (8 Public, 14 Foundation), Istanbul hosts 57 universities (13 Public, 44 Foundation) and 3 Foundation Vocational Schools, İzmir hosts 9 universities (6 Public, 3 Foundation) and Konya hosts 6 universities (3 Public, 3 Foundation). However, as much as HEI constituents (i.e academics, student, administrative staff) maybe the initiator of such practices, there are also many collaborative efforts with universities by external parties such as NGOs, private industry and public institutions. Thus the study includes all the internal and external actors working with HEIs within the aforementioned cities.

Brundenius et al. (2017) list four important pre-conditions to ensure inclusive innovation practices within HEIs. These include a) the university growth capacities b) engaged and active community and actors c) resources for community and external partners that are competitive and 4) openness to non-standard implementations and an absorptive capacity. Pastor and Serrano (2016) mention the various missions of universities which include teaching practices, research practices and knowledge-technological transfer. Also, the authors emphasize the multiple outputs including graduates and various research related outputs such as publications and patents. However, these outputs do not entail intangible service outputs, which question: Does

research benefit society? How do universities address/meet societal needs? It is important for the university to consider restructuring its processes to ensure that the output includes different societal dimensions and encapsulates this knowledgeability.

Another apparent concern is that different university ranking initiatives do not fully integrate societal impact measures. This is also an important disparity in what is valued as a 'quality' output and also an important driver for the activities that are being supported. The TIMES Higher Education (www.timeshighereducation.com), RUR-Round University Ranking (https://roundranking.com) and URAP Rankings(https://urapcenter.org) do not have societal elements within their ranking dimensions. The Turkish Entrepreneurial and Innovative University Ranking (https://www.tubitak.gov.tr/tr/kurumsal/politikalar/icerik-gosterge-seti-ve-agirliklandirma) only lists the 4.7 category (Number of 4004-4005 Projects) with only 2% importance rate. Lastly YÖKAK -Turkish Higher Education Quality Council lists the societal dimension with 3 parameters (5.1 Number of Service to Society Projects Carried out by the institution ; 5.2 Lifelong learning annual hours of education ; 5.3 Number of persons receiving training through Lifelong Learning Centers) where other dimensions under evaluation are evaluated up to 32 categories.

Interest to societal problems have been heightened with the 17 UN Sustainable Development Goals (https://sdgs.un.org/goals). Moreover, 4th generation type universities aim to empower universities as actors to support sustainable development within and outside of institutional boundaries. Thus, there is a need to understand how universities interact with their environment and uniquely add value to the structures that support them. Within the Turkish HEIs there are public and foundation universities that have different priorities in sustaining their core activities. The four chosen cities entail examples of foundation and public universities, as well as universities and institutions that have put SI practices into their core focus. The study encapsulates the views of these universities to understand the effect of organized efforts for SI practice vs. individual efforts that have produced sustainable SI practices. Within the context of SI, actors outside of the HEI ecosystem with HEI partnership are also considered to understand the primary role of HEIs in growing SI practices.

The study aims to understand the multi-level interaction as depicted in **Figure 4.** The research entails the SI process boundary (input, process, output-impacts and sustainability), considers the SI demand boundary (push vs pull of social innovation practices) and also integrates the role of social actors (in reference to the distinction made by Tracey and Trott (2017) for social inter-preneur, extra-preneur and entre-preneur. The figure encapsulates the important elements of the study in a systematic manner and describes the potential at all levels. It is unique because it has integrated 3 boundary conditions (time and contribution, actors and the system SI dimensions) in one case.

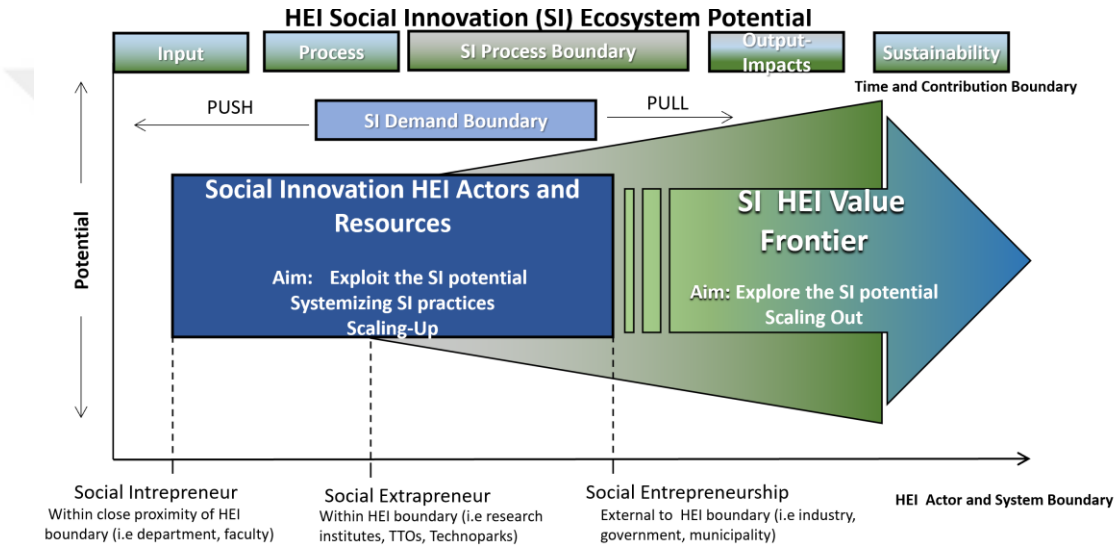

Figure 4 HEI Social Innovation Ecosystem potential reference to study

3.2. Research Design

As mentioned by Jackson et. al (2007), science functions to solve problems and answer questions via observation. In this regard social science helps to understand social realities and critical dimensions of social systems. Thus, the scientist needs a research design to answer how the research question(s) will be answered. It will underline the data collection method as well as the data analysis method to be enacted. This study uses **a generic qualitative research design**. For research questions that require flexibility in design of study, the generic qualitative approach/inquiry is favored among social scientists (Ellis and Hart, 2023). The approach allows a higher level of

inquiry and flexibility to develop questions and ideas that need to be differentiated (Prosek and Gibson, 2020; Elis and Hart, 2023) and avoids restrictions of traditionalist research designs when investigating narratives (Kahlke, 2014 ; Êlis and Hart, 2023).

Kahlke (2014) suggests generic qualitative approach when there are limitations in obtaining data and also when exploratory questions are used. As mentioned by the author, when participant's subjective beliefs and opinions about their contextual and external experiences are required, generic qualitative inquiry is distinctive from other methods. It helps in detailing meanings and themes for the researcher to draw conclusions from the relevant research.

Varying terms in literature are used to define qualitative research that is noncategorical and not fitting within an established qualitative approach (Caelli et. al, 2003). These include 'interpretive description' (Thorne et al., 1997), 'basic or fundamental qualitative description (Sandelowski, 2000) and basic or generic qualitative research (Merriam, 1998). As Stilgoe et al. (2013) indicate, responsible innovation includes four dimensions: anticipation, reflexivity, inclusion and responsiveness. In this regard a generic qualitative research methodology supports anticipation and reflexivity issues by considering contingency situations and supporting in the discovery of what is known, likely, plausible and possible. Another reason for the choice of a generic qualitative research is that it may combine methodologies or approaches or claim no particular methodological viewpoint. Similar to case studies with a collection of multiple data artifacts (i.e interviews, external data) generalizations can be made to detail a concept, model or theory (Yin, 2009).

The generic qualitative research design approach uses SI implementation cases and through inductive reasoning helps to unravel the chosen research questions. Although case studies have also been used for analytic generation, this is not a case study design due to the high number of respondent values (42). For case study research, Eisenhardt (1989) recommends the number of cases to be between 4-10. It is also not a Phenomenology study, because phenomenology values the participant's internal and cognitive impressions of the researched activity, whereas the generic qualitative approach also tries to detail the content of conscious experience and draws attention to what the experiences are about (Aguas, 2021). The criticality in the selection of

generic qualitative research is to reflect an informed choice and select a methodology congruent with the research interest to enhance knowledge development (Caelli et al., 2003).

Accordingly, the research methodology of this study can be summarized to be a **generic *qualitative*** study, which entails an ***explorative*** and ***interpretive description*** to bring out the value-add of societal activities, social innovation and societal practices within HEIs.

3.3. Participant Details and Data Collection Approach

A method describes the means to generate data within the research design (Kaplan, 1964; Jackson et. al, 2007). Interviews are important instruments in qualitative research to generate data. Four different interview types include: structured interview, semi-structured interview, unstructured interview and focus groups (Yıldırım and Şimşek, 2016). For this research design semi-structured interviews have been used. Semi-structured interviews provide flexibility within data collection to allow for richer discussion with interviewee/respondent to develop more robust knowledge about the research topic. The unit of analysis is also an important critical factor to define the breadth of the study, through actors involved in the HEI system. It is important to bear in mind that HEI structures entail embeddedness at all levels of activity conducted within the ecosystem.

This study includes a unique approach to understand the executive and operational level decision making processes for activities regarding social innovation which are conducted within the Higher Education Ecosystem through both a top-down, bottom-up approach (for HEI actors) and a horizontal approach (for external HEI actors). With semi-structured interviews the study sheds light on the processes and culture that foster social innovation, the difficulties encountered and understanding of the change potential brought by this assessment. All the actors are ensured to have involvemenet within the HE ecology. Accordingly, the study units (interview candidates) of the study are described in detail as follows:

- Top Management at Universities (Rectors, Vice-Rectors, Head of Faculty, Department Heads) to reflect the higher administrative role of social innovation practices. Especially, the study first tried to create a dyad pair with implementor and upper management to better understand the relation dynamics within the university,
- Academics who have/are implementing social innovation projects and/or actively researching social innovation,
- Social Innovation Implementors other than academicians from the Quadruple Helix (Industry, Societal Actor: NGO: Non-Government Organization, Public Authority) who are working with universities.

For these study units, three different semi-structured questionnaires have been detailed and approved by the METU ethics commission where the permission document can be seen in ODTÜ-İAEK Protocol No: 205ODTU2020 in **Appendix 1**. The ethics permission was received by filling out a form provided by the institute.

The interview protocol was structured to reflect the research questions divided into three categories (A-B-C) and detailed in **Appendix 2a-c**. under the following categories:

- A. Social Innovation Definition and Awareness
    - A.1. Understanding perception towards social innovation and understanding its definition
    - A.2. Value add of social innovation and reasons/ potentials for value creation
- B. Principles of Social Innovation Application
    - B.1 Value creation process and dynamics of social innovation
    - B.2 Success of social innovation practices and impact assessment approaches
- C. Change potential of social innovation practices
    - C.1 Future potential/insight for social innovation
    - C.2 Sustainability Principles for Social Innovation Practices
    - C.3 Structuring Polices for Inclusive and Holistic Implementation

Table 1 shows the match of main questions structured especially with sample definitions given in literature to show the preparation for the interview questions. Sample main themes from literature have been referenced with a common definition in relevance to the education and higher education context.

Initial assessment for list of potential interview candidates were shortlisted by engaging in the following activities:

- Researching public/private universities with a social innovation focus or social innovation unit. Universities either have a dedicated mission or have divisions to support this activity structure,
- Scanning of academicians with core focus on social innovation through YÖK Akademik, AVESİS platforms and research databases for social innovation publication,
- List of potential NGO's with social innovation focus,
- Scanning of private and public institutions for social innovation practices,
- Suggestions from social innovation implementors for possible new interview candidates

The follow-up questions were used to structure the question categories and also enhance preparedness' within the interviewer and the interviewee. The questions were run through the thesis advisor as an external expert as validation to support the matching of main question categories and sub questions prepared. Two pilot implementations (female and male) were conducted with academicians. The questions were addressed to different genders to ensure gender neutrality and also ensure the questions were understood the same by both respondents. The sessions were spent in iteration to clarify any questions which would be misleading to the potential respondents. The questions were finalized after the pilot run and an approximate time for completion was estimated to also include in the consent form presented in **Appendix 3**. One of the pilot academicians was a social innovation expert and also his input to the question qualities were assessed and evaluated to support validation.

Table 1 Main themes and definitions listed in literature and relevant missing elements and headings addressed in the semi-structured interview for different HEI actors

Main themes within definitions	Selected definitions based on education relevance	Follow-up Questions to support a systems approach in HEI social innovation design	Main heading in semi-structured questions addressing needs
Better Practices	*''Innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organizations whose primary purposes are social.''* (Mulgan (2007, 2012)	What type of practices are needed to support SI in HEIs? How (often) should the practices be renewed? What are the underlying structurers to promote better and/or efficient practices? How are 'good' or 'effective' practices integrated into the HEI ecosystem?	B. Principles of Social Innovation Application
Newness	*''Social innovators identify a problem, which can be a social demand or an unmet social need, and, by using creative tools and novel approaches, create a novel way (solution) to filling the gaps in service design and provision''* (Chowa et al., 2019 in McDonnell-Naughton and Carmen Păunescu, 2022).	How are new ideas generated and incorporated into the decision-making process? What type of service proliferation can be allowed? What should be the facilitating tools? Does social innovation promote the novel solution? Does the technical solution lead to social innovation?	A.2. Value adds of social innovation and reasons/ potentials for value creation
Constraints	*"Identifying and solving the deficits and limitations of the education system"* (Schröder et al., (2018)	What constraints / limitations are internal / external to the HEI ecosystem? What dynamics are needed to hinder the underlying constraint? Are all constraints resource dependent? What managerial approaches are needed to overcome the constraints?	B. Principles of Social Innovation Application

Table 1 Main themes and definitions listed in literature and relevant missing elements and headings addressed in the semi-structured interview for different HEI actors (cont'd)

Main themes within definitions	Selected definitions based on education relevance	Follow-up Questions to support a systems approach in HEI social innovation design	Main heading in semi-structured questions addressing needs
Effective Solution **Standalone vs. Systematic Solution**	*"Process of developing and deploying effective solutions to challenging and often systemic social and environmental issues in support of social progress. Social innovation is not the prerogative or privilege of any organizational form or legal structure. Solutions often require the active collaboration of constituents across government, business, and the nonprofit world."* Stanford Graduate School of Business Center for Social Innovation Definition	How do you sustain effective solutions? What actors need to be involved for a 'cohesive' solution? What is 'novel' to the system? How is the value add-benefit incurred and traced? What is the role of systematic actors to ensure avoid 'silo' research/solution(s)? What competencies are required for ecosystem actors for 'inclusive' assessment and evaluation? What dynamics are needed to 'voice' the needs and avoid path dependence? What contexts support transformation? What factors are resistant to this nature?	C.2 Sustainability Principles for Social Innovation Practices C.3 Structuring Polices for Inclusive and Holistic Implementation
Facilitation Tool	*"Facilitation of educational change through institutionalization of social needs, co-development and systematic change"* Loogma et al. (2013)	What are the process steps to the task/activity within education? What is an 'effective' solution approach for the learning/teaching outcome? What infrastructure is needed to incorporate the 'facilitating tool'?	B.1 Value creation process and dynamics of social innovation

Table 1 Main themes and definitions listed in literature and relevant missing elements and headings addressed in the semi-structured interview for different HEI actors (cont'd)

Main themes within definitions	Selected definitions based on education relevance	Follow-up Questions to support a systems approach in HEI social innovation design	Main heading in semi-structured questions addressing needs
New products, processes, models	*''The development and implementation of new ideas—products, services, and models—to meet social needs and create new social relationships or collaborations. It represents new responses to pressing social demands, which affect the process of social interactions.''* p.7 (European Commission, 2013)	What are the ways to induce SI practices in HEIs? What do HEI ecosystem constituents provide best? What is the 'common practice'? What practices are emerging or will be in request to enhance SI activity? How do we measure impact? How do we describe 'successful' projects?	B.1 Value creation process and dynamics of social innovation B.2 Success of social innovation practices and impact assessment approaches
Roles	*"Wider scope to create influence for ensuring innovative learning environment, organizing and managing schools, discovering new ways of teaching, learning and collaborating with local communities"* p.5 Ahmed et al. (2017)	What roles are required for SI implementors in the HEI setting? What flexibility is given to SI implementors within the HEI system? How do different SI roles support activities within the HEI ecosystem? What pre-dominant roles are needed in certain education contexts? What 'traditional' roles need to change within the HEI context? What is the willingness of HEI ecosystem actors to take on new roles?	A.1. Understanding perception towards social innovation and understanding its definition A.2. Value add of social innovation and reasons/ potentials for value creation

Table 1 Main themes and definitions listed in literature and relevant missing elements and headings addressed in the semi-structured interview for different HEI actors (cont'd)

Main themes within definitions	Selected definitions based on education relevance	Follow-up Questions to support a systems approach in HEI social innovation design	Main heading in semi-structured questions addressing needs
Multi-dimensional	*"Given the complexity of social problems, fully engaging in social innovation requires a multidimensional approach to developing solutions."* Chowa et al. (2019)	What type of 'layering' is sufficient to describe the problem at a whole? What scaling is needed to enhance the inclusivity of actors and parameters? What 'narrative(s)' best describe the solution approach? What methodology encapsulates the totality of the problem? What is the social impact of the learning environment? What is a 'successful' SI project within the HEI setting? How does the SI culture change in HEI institutions? What change agents are required to enhance and sustain practices? How does the city dynamics effect SI output within the HEI ecosystem?	C.1 Future potential/insight for social innovation C.2 Sustainability Principles for Social Innovation Practices C.3 Structuring Polices for Inclusive and Holistic Implementation

3.4. Sampling Approach and Data Collection Instruments

Accordingly, as stated by the above conditions, a **purposeful sampling** method was used to select the potential interviewers for the study. In purposeful sampling key informants are required to access rich information about a researched phenomenon

(Suri, 2011). Patton (2002, p. 230) also suggests purposeful sampling to gain in-depth insight into information-rich cases. In order to enhance the research discourse a **maximum variation (heterogeneity) sampling** has been utilized under purposeful sampling. The selected attendees were not only selected for a single type of social innovation dimension (i.e environment improvement or employability) the attendees had diversified academic backgrounds (i.e economics, medicine, sociology, engineering, education sciences) and the attendees were not all academicians to better evaluate how universities were perceived within the ecosystem. Two key dimensions for the benefits of the constructs of Maximum Variation Sampling is suggested by Patton (2022). Patton (2002, p. 235) lists the following advantages for this sampling as follows: a) High quality and detailed description for documenting uniqueness b) Identifying shared patterns across cases to derive significant features out of their heterogeneity. Suri (2011) also emphasizes that through maximum variation sampling essential features of different stakeholders in varying contexts can be used to illuminate features for more informed global research outcomes. In some cases, the snowballing technique was used, where respondents could also suggest potential participants that would be supportive of the study.

Accordingly, 42 respondents from Ankara (25) , İstanbul (10), İzmir (5) and Konya (2) were interviewed. The selection of cities was made according to the visible main SI examples seen in these regions. Moreover, it was also important to have representation from SI units prevalent in Türkiye, thus Konya was included. Samsun was also going to be included but was left out due to the new structuring of the SI unit at the time of the study. Moreover, the biggest cities of Türkiye were prioritized to portray their ecosystem richness and better understand more structured examples in the context of HEIs. Future implications for SI research in the Turkish HE ecology can include an assessment of regional differences within the seven regions of Türkiye.

The gender distribution of the respondents can be summarized as 22 Males and 20 Females respectively. The respondents have been distinguished and detailed according to their institution affiliation, as well as their SI research role and contribution. Several

respondents have also had dual affiliations (academician-private company; academician- NGO) and have reflected their experiences in both areas to provide rich insights to the contact point of universities to their ecosystem. Some academicians also have dual roles, contributing both as implementors and management authorities.

The project implementors are important in relaying information on the processes of social innovation practices which include how the project was initiated, how it may continue, their motivations for SI practices and their most encounted difficulties. The current process activities can also give important insights into the future organization of such activities. Furthermore, upper management representation is also critical as they are more closer to the university operating core. They participate more directly to day-to-day implementation of university strategies and thus are more knowledgeable about when and how to exploit them. They are usually closer to the ecosystem constituents as well, and therefore, are positioned to be more aware of changing trends in the Higher Education ecosystem. Awareness in changing trends and requirements is an important opportunity to exploit university strategies and also to explore new opportunities.

The study includes several data collection instruments to validate the research findings. Triangulation is an important means to validate data, increase the credibility of research and also aid in confirming research findings through the use of different sources of data (Bans-Akutey, 2021). Different methods to collect data fall into 2 categories: Primary and Secondary Data (Douglas, 2015). The main primary data has been the semi-structured interviews of the respondents. The secondary data relied on were reports of SI practices described by the respondents, the university documents such as strategic plans, published papers and EU project documentation with SI practice emphasis.

The main distinctions between primary and secondary data is summarized by Ajayi (2023) as follows:

- Primary data is data generated by the researcher, whereas secondary data includes existing data previously collected by different agencies and sources.

- Primary data is generated in real time, whereas secondary data relies on past data
- Primary data is in crude form and needs to be refined by the researcher through a detailed content analysis
- Primary data collection requires prior work before data collection and is timewise longer than secondary data collection.

Figure 5 illustrates a summary of the research design steps which were described above, in regard to especially the use of secondary data to set study boundaries and the primary data generated through the semi-structured interviews. The study also draws attention to the data analysis steps and the evaluation of trustworthiness of data which will be detailed in sections 3.5 and 3.6 respectively.

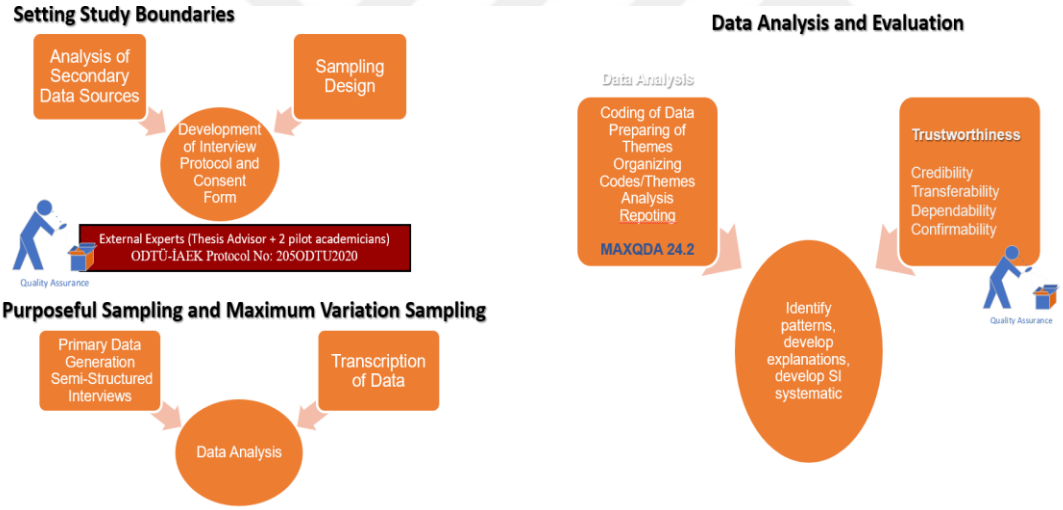

Figure 5 Summary of the research design steps

Table 2 includes a detailed description of the respondents of the study. The table summarizes the main roles and SI interests withn their institution. The seniority of the academic personnel (i.e Prof., Assoc. Prof., Asst. Prof.) have also been detailed to reflect the time of involvement within the HEI ecosystem. The interview durations have also been detailed to guide future practioners in their planning of their research.

Table 2 Respondent details of study

#	Gender	City	Institution Type	Main Institution Role	Education Background	Education Level	Main SI interest	SI Role	Interview Duration
1	Female	Ankara	Foundatio University	Academician	Engineering/ Management	Assoc. Prof. Dr.	Women empowerment	Implementor	1 hour 2 minutes
2	Female	Ankara	Public Institution	Manager	Management	Dr.	Employment Practices Competence Diversification	Implementor	59 minutes
3	Male	Ankara	Public University	Rector	Engineering	Prof. Dr.	Science Education	Management	1 hour 36 minutes
4	Male	Ankara	Public University	SI Unit Head	Philosophy/Science and Technology	Prof. Dr.	Capacity Building	Management Implementor	1 hour 25 minutes
5	Male	Ankara	Public University	Academician	Technical Education	Assoc. Prof. Dr.	Vocational Training	Implementor	1 hour 9 minutes
6	Female	Ankara	NGO	President	City and Regional Planning	Dr.	Environmental Sustainability	Management Implementor	1 hour 52 minutes
7	Male	Ankara	Public University	Rector	Medicine	Prof. Dr.	University Management Practices	Management	1 hour 30 minutes
8	Male	Istanbul	Foundatio University	Rector	Engineering	Prof. Dr.	University Management Practices	Management	1 hour 19 minutes
9	Female	Ankara	Foundatio University	Instructor	Engineering	MSc.	Women empowerment in Informatics	Implementor	2 hours 50 minutes

Table 2 Respondent details of study (cont'd)

#	Gender	City	Institution Type	Main Institution Role	Education Background	Education Level	Main SI interest	SI Role	Interview Duration
10	Female	Ankara	Foundatio University	Dean	Statistics/ Engineering	Prof. Dr.	University Management Practices	Management	1 hours 30 minutes
11	Female	Ankara	Foundatio University	Instructor	Engineering	MSc.	Practicum for competence building	Implementor	1 hour 45 minutes
12	Male	Ankara	Foundatio University	Department Head	Engineering/Informatics	Assoc. Prof. Dr.	Practicum for competence building Network Building	Management Implementor	2 hours 45 minutes
13	Male	Ankara	Foundatio University	Academician	Instructional Technology	Asst. Prof.Dr	Digital Tools	Implementor	1 hour 55 minutes
14	Male	Istanbul	NGO	Project Director	Media Communication/ International Relations	M.A.	Immigrants	Management Implementor	1 hour 11 minutes
15	Female	Ankara	Foundatio University	Dean	Sociology	Prof. Dr.	Entrepreneurial Ecosystem	Management Implementor	1 hour 3 minutes
16	Male	Konya	Public University Private Company	Academician Entrepreneur	Engineering	Asst. Prof.Dr	Open Innovation	Implementor	1 hour 4 minutes

Table 2 Respondent details of study (cont'd)

#	Gender	City	Institution Type	Main Institution Role	Education Background	Education Level	Main SI interest	SI Role	Interview Duration
17	Female	Ankara	Foundatio University	SI Unit Head	Engineering/ Management	Asst. Prof.Dr	Ecosystem Enhancement and SI Data Policies	Management Implementor	49 minutes
18	Female	Ankara	Foundation University	Dean	Engineering / Finance	Prof. Dr.	Finance Instruments	Management Implementor	1 hour 9 minutes
19	Male	Ankara	Foundatio University	Department Head	City and Regional Planning/Socia l Sciences	Asst. Prof.Dr	Visual Tools and Culture	Management Implementor	2 hours 19 minutes
20	Female	İzmir	Public Institution NGO	Department Head Member	Engineering/E conomics	M.A.	Disabled, Substance Addicts, Young Employment	Implementor	2 hours 22 minutes
21	Male	Istanbul	Private Company NGO	Manager Project Director	Engineering/M anagement	M.B.A	Creative Industries	Implementor	1 hour 34 minutes
22	Female	Istanbul	NGO	Director	International Relations	PhD.	Cultural Biases	Implementor	1 hour 9 minutes
23	Female	İzmir	NGO	Director	Foreign Trade	Undergraduate	Sustainable Fashion, Clean Food Ecosystems, Creative Industries	Management Implementor	1 hour 18 minutes

Table 2 Respondent details of study (cont'd)

#	Gender	City	Institution Type	Main Institution Role	Education Background	Education Level	Main SI interest	SI Role	Interview Duration
24	Male	Ankara	Public University	Academician	Political Science and Public Administration	Prof. Dr.	City Council , Citizenship	Implementor	2 hours 6 minutes
25	Male	Ankara	NGO	Director	Management	Undergraduate	Co-space, Crowdfunding	Implementor	1 hour 17 minutes
26	Male	Ankara	NGO	Division Head	Science and Technology	PhD.	Youth Empowerment , Ecosystem Building	Implementor	1 hour 18 minutes
27	Female	İzmir	Foundatio University	Academician	Musician	PhD.	Music Entrepreneurs hip	Implementor	44 minutes
28	Female	Istanbul	Public University	Academician	Pedagogy-Early Education/Adu lt Education	Prof. Dr.	Education Practices , Community Empowerment	Implementor	1 hour 39 minutes
29	Female	İzmir	Foundatio University	Vice Rector	Management	Prof. Dr.	Agricultural Entrepreneurs hip, Women Inmates	Management Implementor	1 hour 15 minutes
30	Male	Ankara	Public University	Academician	Economics/Inf ormation Sciences	Asst. Prof.Dr	Design Factory	Implementor	1 hour 20 minutes

Table 2 Respondent details of study (cont'd)

#	Gender	City	Institution Type	Main Institution Role	Education Background	Education Level	Main SI interest	SI Role	Interview Duration
31	Male	Istanbul	Private University	Department Head	Sociology/ Anthropology	Prof. Dr.	Media Communication	Management Implementor	59 minutes
32	Female	Ankara	Public University	Academician	Economics	Assoc. Prof. Dr.	Innovation Research, Disabled/Disadvantaged Groups	Implementor	1 hour 2 minutes
33	Female	Ankara	Public University	SI Unit Head	Economics	Prof. Dr.	Policy Making	Implementor	1 hour 18 minutes
34	Female	Ankara	Public University NGO	Academician Director	Sociology	Assoc. Prof. Dr.	Social work, Gender Equality	Implementor	1 hour 32 minutes
35	Male	İzmir	Public Institution	Director	Engineering	MSc.	Technology Development, University-Industry Collaboration	Implementor	1 hour 31 minutes
36	Male	Konya	Public Institution	SI Unit Head	Science Education /Public Administration	M.A.	Public and Social Innovation	Management Implementor	2 hours 25 minutes
37	Female	Istanbul	Foundation University NGO	Academician Director	Philosophy	Prof. Dr.	Sports Sociology, Donation Building	Implementor	1 hour 5 minutes

Table 2 Respondent details of study (cont'd)

#	Gender	City	Institution Type	Main Institution Role	Education Background	Education Level	Main SI interest	SI Role	Interview Duration
38	Male	Ankara	Public University	Academician	Economics	Prof. Dr.	Economic Development	Researcher	2 hours 28 minutes
39	Male	Istanbul	Foundatio University	Academician	Public Administration	Asst. Prof.Dr	Green Policy, Student Clubs, Student Engagement	Implementor	1 hour 1 minute
40	Female	Istanbul	Public University NGO	Academician Director	Sociology	Assoc. Prof. Dr.	Immigration, Immigration Policies	Management Implementor	1 hour 3 minutes
41	Male	Izmir	Public University	Rector	Agriculture	Prof. Dr.	University Management Practices	Management	Via e-mail
42	Male	Ankara	Public University	Academician	Engineering	Prof. Dr.	Secondary Education	Implementor	Via e-mail

3.4.1. Primary Data

The primary data in the study are semi-structured interviews. These have also been distinctively separated for the type of respondents in the study, where there are 3 different question sets for a) Upper Management at Universities b) Implementors and c) For NGO-Public Organization- Private Organization Implementors, which was detailed in Section 3.4. The interview question sets have between 16-18 questions and also includes an open-ended question referred to the respondents to capture additional insight outside of the fixed questions asked. Semi-structured interviews also allow the interviewer to ask new questions within the framework of the interview to understand concepts explained by the respondents.

Before the main interviews were initiated the questions were run through by 2 different academics. The academics were asked of their perception of the question and if the questions required clarity of understanding. Several questions were rephrased to better reflect to derive the content for research. The interview time was also assessed to allow future participants to plan their contribution time.

The primary data has been gathered with the consent of the participant. A voluntary participation form , seen in **Appendix 3,** has been referred to the participants. Among 42 participants, 2 persons have preferred to answer the questions via e-mail, whereas the remaining 40 participants have been interviewed via the zoom platform. The participants were also given the option of meeting in-person but due to geographical distances and time constraints by respondents, all respondents preferred online interviewing. The zoom meetings have all been recorded with permission and are archived for transcription.

The interview times detailed in **Table 2** is also an important indicator for the amount of time for transcription for future researchrs. Verbatim transcription has been enforced. The transcription times varied according to the detail of the interview times

which included : how fast/slow the respondent spoke, if the respondent answered several questions at the same time or detailed different experiences to enrich the question addressed to them. The transcriptions were tedious and time-consuming requiring at least 4*interview time for full transcription and review. The transcription process of the researcher also included additional note taking of main points of respondents and also viewing of the video for body language and emphasis in certain phrases by the respondents.

3.4.2. Secondary Data

The secondary data used in the study was included to build a comprehensive understanding of working principles of universities, to understand legislation rules for implementation, to read narratives of SI examples and also to understand project outcomes and delimiting conditions that might remedy the difficulties of the respondents.

The researcher also tried to construct a quantitative multi-levelling explanation through the respondent results, however was not able to formalize a quantitative method due to a) limitation in data size (<40) b) dependency of data which restricted explanation of the causality of the data. The data was nevertheless useful in understanding the number of SI projects and publication performance of the researchers and also understanding the lack of SI emphasis in tenure results, university strategy and also activities to support societal engagement.

The types of secondary data utilized within the research approach were:

a) Published reports of project work and suggested resources from the respondents,
b) Web sites of universities to gather strategic planning reports, quality management documentation and also insights into management activities,
c) YÖK and TUBITAK reports, programs and statistics,
d) Research databases for articles, reports, e-books on social innovation practices and implementation examples,

e) Websites for different sources (University ranking, international implementation,
f) Turkish Law and Legislation to understand implementation rules for NGO's, Public-Private Institutions,
g) Printed Material: Books, Activity Reports and Institutional Reports
h) Videos of social innovation practices around the world.

3.5. Data Analysis

Data analysis aims to bring out meaning and order to the collected primary data. The data analysis methodology of Yıldırım and Şimşek (2016) have been incorporated in the study. This methodology includes 5 steps which include coding of data, preparing themes, organizing codes and themes, analyzing the results and reporting the results.
To increase familiarity of the data, the researcher has first preferred to do manual coding with the transcribed data. This has created familiarity with the qualitative research techniques of inductive coding and open coding, where analytic tasks include conceptualization, defining categories and classifying according to different dimension as described by Straus and Corbin (1998). The main themes have been the research questions and for each interview different codes have been created. Through comparative analysis, ideas and processes evoking similarly common characteristics have been placed under the same code as described by Straus and Corbin (1998). An initial code list was created via in-vivo (verbatim) coding using respondents own words and also descriptive coding summarizing text into a description (Warren and Karner, 2010). As a second run with the data, the coding was reiterated through MAXQDA 24.2 and the relevant codes were created and matched through the qualitative data analysis software. This has ensured that the data analyzer does not miss any pertinent ideas in conceptualization of the data. Memo creation was also easier with the use of MAXQDA 24.2 which ensured that the researcher is meticulous in comparing codes and categories that emerge.

The initial code list was finalized with the expert opinion of the thesis advisor. The content analysis for similar themes were carried out according to the main research

questions. Analytical abduction was instigated where theoretical knowledge attained from literature review and the primary-secondary data sources were used to create a conceptual framework based on knowledge and the data analysis. Abduction is described to be an iterative process between theory and data respectively (Kauppila, 2010). The details of the content analysis and the results will be detailed in Chapter 4 to the reader. The secondary data used included numeric data, textual and audiovisual data also manually evaluated through content analysis.

3.6. Trustworthiness

The validity and trustworthiness of data sources is an important concern in qualitative analysis. The trustworthiness of the study has been employed according to Guba's (1981) four main criteria which include: credibility, transferability, dependability and confirmability. These four dimensions have been detailed as part of the methodology. The researcher will mention the provisions undertaken in the research in respect to the suggestions made by Guba (1981), Lincoln and Guba (1985) and Shenton (2004).

3.6.1. Credibility

Credibility ensures that measurements and observations are as intended and is an important trustworthiness parameter for internal validity (Shenton, 2004). The following provision suggestions and approaches have been listed:

- Use of appropriate and recognized research methods: General Qualitative design, Semi-Structured Interviews
- Early familiarity with investigation units and their culture: Preliminary research backgrounds of participants, institution and social innovation areas. Analysis and reflection on supplementary secondary documents provided within or after interview.
- Triangulation: Respondents from different disciplinary background, different social innovation aims, 4 different cities and also different institutions from the Quadruple Helix was enforced to identify patterns and differences in implementation. The scope of SI practice were also different. Respondents had different SI projects which ranged from climate concern to education.

- Ensuring honesty of informants: The respondents were given a voluntary participation form **(Appendix 3)** describing the context of the study and were also given the opportunity to ask additional details of the study before participating in the study. Not all short-listed potential individuals responded to the invitation request via e-mail and some also declined the interview. The response rate was around 72 %, with 11 people not responding to e-mails and 6 individuals declining interview among 59 people reached out. The interview was also organized according to the preference of the respondents to use time effectively and also ensure ease for the respondent.
- Iterative questioning in data collection: The semi-structured interview also included an open-ended question to encapsulate the knowledge span of the respondent. The researcher was also flexible in asking additional questions to the participants as per the interview content and for refinement of the topics mentioned.
- Maximum Variation Sampling: Upper management who were not involved in a SI project, reflected their ambiguity and discovery of the topic, which also acted as a by-product of the research as a communication activity for SI research.
- Debriefing session with researcher and superiors: The interview questions were revised and improved with the help of the thesis advisor. Additionally, before the formal start of the interviewers, 2 academician opinions were taken in-person to ensure ease of understanding and also to refine research rigor.
- Background qualifications of the investigator: The researcher is from a quantitative background, however a supplementary qualitative analysis course from the Education department was taken as a not- included graduate course and also qualitative research resources were studied by Yıldırım and Şimşek (2016) , Caelli et al., (2003), Thorne et al., (1997), Sandelowski, (2000), Merriam (1998), Brown (2019), (Kahlke (2014 , Êlis and Hart (2023), Agus, (2021).
- Examination of Previous Research: The researcher conducted a literature review and also utilized secondary data to enhance a proper understanding of the subject. Previous EU project work output reports were also utilized.

For generic qualitative research Caelli et al., (2003) also suggests the following steps for credibility:

- Theoretical positioning of the researcher: The researcher is coming from an Industrial Engineering background with system design knowledge and practicality. The multi-level analysis encapsulates the socio-ecological and systems design perspective.
- The congruence between methodology and methods: Semi-structured interviews were conducted for the generic qualitative research
- The strategies to establish rigor: Secondary data for confirmation of project details and stakeholders were used. If published documents were present of as part of the DEC activities, the process details and input were also elaborated.
- The analytic lens through which the data are examined: The data was analyzed in a systems design perspective and was focused on deriving patterns that would help understand the interrelated interactions of the respondent to other actors internal and external to the institution. The management interviews also helped evaluate internal structural limitations.

3.6.2. Transferability

Transferability is a measure of external validity to ensure that the study can be replicated with different respondents and applied to different populations that fulfill the research unit and sampling rules. It is important to understand that the contextual situations of the respondents might not be the same in different times. For example, certain times for interviews might not be suitable for respondents for time constraints. This is why the researcher did not impose any time restrictions to ensure the respondents had the correct resources to complete the interview in a meaningful manner. The pilot study by the 2 academicians have ensured that the questions asked were also understood the same to ensure coherence in data gathering. Moreover, all of the respondents were informed of the context and purpose of the study. Other transferability provisions applicable are satisfied with the following criteria:

- Details of the respondents including where they are based, length of interviews, number of participants: The details have been provided in **Table 2** for the contributing 42 respondents.
- Data collection methods: Sections 3.1-3.5 detail the analysis approach in detail.
- Time period over which the data was collected: July 2020- July 2022 with the approval of the ethics commission. Transcription of the primary data extended to October 2022.

3.6.3. Dependability

Dependability helps to ensure that similar results can be expected if the research setting and methodology are repeated under similar contexts and with the same participants (Shenton, 2004). The dependability provisions suggested and incorporated are as follows:

- Description of research design: The steps undertaken have been detailed within sections 3.1-3.5 respectively.
- Operational detail of data gathering, what was derived: In addition to the description of the methodology, **Appendix 6** demonstrates the different types of SI projects and their process details with reference to summary of main outcomes of implementation.

  This table is important in showcasing SI examples form idea initiation, process development and relevant sustainability measures to support the practices.
- Evaluation of the effectiveness of inquiry process: Due to post COVID circumstances, it was easier to conduct the interviews online with the Zoom platform. In fact, the ease of zoom access, also allowed us to extend the study outside of Ankara, which was an important value-add for cross comparison among different cities and contexts.

Figure 6 also reflects the approximate times for the steps of the research design. It portrays the systematic to be adapted to plan future studies respectively. The steps begin with the preliminary work through literature review and external secondary data analysis. The content is structured to support the primary data collection through the

semi-structured interviews. The main portion of time is devoted to data collection and transcription. The primary data is then analyzed by the researcher through both manual coding and qualitative software. The grouping of data is then systematized in themes.

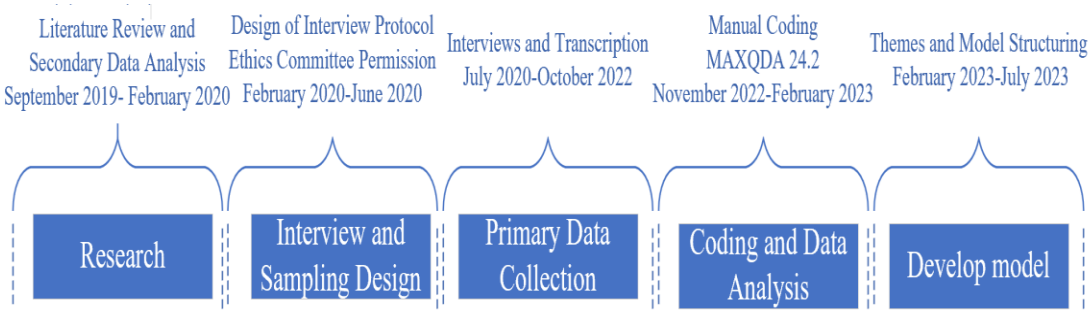

Figure 6 Timeline of Research Elements

3.6.4. Confirmability

Confirmability ensures that the researcher is objective in qualitative data analysis and also ensures the findings reflect the input of the informants (Shenton, 2004). The following provisions are suggested and incorporated:

- Triangulation of Data: Primary data was generated through different cases demonstrating various applications of SI practices approach which ensures variety. The secondary data sources were also helpful in matching the research outputs with previous research applications. The secondary data resources helped in enrich the main themes and methodology previously incorporated,
- Researcher's beliefs and responsibilities: The researcher has abided to ethical work conduct and also has supported the categories derived with direct quotations from interviews as evidence to support the development of research construct,
- Recognition of shortcomings of study: This is detailed in Section 3.7 to ensure future researchers take into consideration the limitations within the scope of the study. Listing limitations are important in understanding how new research designs can be effectively structured to include new approaches with the advent of new data sources, new respondents and new institutions to enrich the study.

3.7. Limitations of the Study

Among the limitations of using generic qualitative research., is that large sample sizes may provide breadth, however may lack depth in knowledgeability of the research topic (Brown, 2019). The generic qualitative research does not encompass a single universal approach and the researcher is responsible in laying out the merits of the study (Caelli et. al, 2003). Data analysis using generic qualitative research relies on concepts from the qualitative theoretical framework to identify recurring patterns, categories or factors to structure the data (Caelli et al., 2003).

The researcher has tried to overcome these potential biases by using a high number of interviews to uncover similarities and disparities. The frequency of coding is also helpful in unravelling priority themes, which would indicate that it is not dependent on a single respondent entity but can be generalizable within the context of social innovation practices. The number of respondents (42) and the extended time frame of data collection is also useful to understand the change of attitudes or the recurrence of similar themes that are frequently occurring within different contexts. Inductive research approach has also allowed the respondent to see the 'saturation level' of the research, where new codes were not added but similar codes were reflected in the research.

Other limitations of the study which can also be extended in future work include the choice of respondents and regional comparison. The respondents have been either the implementors or the managers that have been part of the social innovation process. Inclusion of group members such as students and administrative staff would also extend the understanding of the process of value creation. Students and graduates are also important 'change agents' and their effects outside the ecosystem, through internships or in active work life are also an important implication for carrying out the social innovation culture. Unstructured interviews have been an important flexibility to delve into the details of the social innovation process, however respondents may answer several questions in a single question or may deviate with personal details. The researcher is responsible in communicating the research question needs and also structuring the interview to reduce any deviations from the primary questions. The

researcher is encouraged to have a pilot-run with other interviewers to assess the ease and comfort of the attendee to answer the questions. The sub questions which have been detailed as suggested by Yıldırım and Şimşek (2016) have been pivotal in guiding the respondents within the interview. As qualitative research is an iterative process, new sub themes and how the question is perceived is well 'read' by the researcher, which requires practice to increase efficiency and effectiveness. Due to post COVID health precautions, the respondents have preferred to conduct the interview online. This has been an important advantage for the researcher, where when transcribing, the body language, the word emphasis and their attitude towards a subject were better reflected through the archived records. If the interviews were conducted in-person, it would be suggested to have a video recording to encapsulate the interview experience better.

The conceptual model includes the steps and possible action items yet the ways the model is implemented may change from one HEI to another. It is important that the main steps are followed and made easy to implement. The model can be developed in comparison to other specific contexts to improve the steps or to illustrate good examples and tools for implementation.

The study was conducted in the largest 4 cities in Türkiye with the highest examples for SI projects. There is even more potential in underdeveloped regions which may lack infrastructure and network but is in need of SI practices to alleviate their problems. It would be meaningful to observe such implementations from idea initiation and follow the steps, rather than depend on the narratives and the second data of the respondents. An interesting comparison would be to model the differences of implementation for a similar topic of interest, i.e unemployment in Ankara vs. Gümüşhane.

There were different instances where data for HEIs intuitions were officially requested but could not be retained from the relevant institution. Open -access data for SI usage would be helpful to understand certain dynamics. Similarly, to build on our current model, a multi level analysis was tried yet the limited number of examples risked validation and the data could not pass the relevant validity tests. In the literature the common assessment method for SI practices is case study. For quantitative studies,

questionnaires have been the main tool of data collection and the main actors were students. The SI literature for HEIs have lacked inclusivity of other actors in engagement of HEIs and the unit of study was restrictive in evaluation. The study has given focus to the actors that have either implemented an SI project or have supported the SI process through their management role. Actors that have been affected through the SI implementation were not included as most of the projects have been completed. Direct contact with the effected groups would have also enriched to role of the SI practices and how it has acted as a driver of change within the contexts implemented.

Institutional theory is in support of HEI practices due to the values, norms, beliefs, interests shaped within a broader institutional context (Çınar and Benneworth, 2021). Yet, there is no formal methodology that has been developed for SI to reflect all its constituents. The study has incorporated generic qualitative research which has flexibility but is also in some sources questioned due to the flexibility given in comparison to other formalized research methodologies.

CHAPTER 4

RESULTS

This chapter reports and reflects the results of the three main research questions of the study. Section 4.1 includes a definition of social innovation in respect to the higher education context, with respect to the recurring theme and codes listed by the respondents. Section 4.2 introduces a conceptual stepwise methodology of the elements that need to be integrated in social innovation processes within the HEI ecosystem to better reap the value benefits emphasized by the implementors and also integrating the embeddedness of the socio-ecological innovation model to understand (what) to exploit and explore within the resources of the university. Section 4.3 also emphasizes the main change potentials of social innovations within HEIs and will also be an important input to the policy recommendations detailed in Chapter 5.

4.1 Defining Social Innovation within the Higher Education Context

This section aims to answer the 1st research question: How do different constituencies of the HEI ecosystem define/understand social innovation? The embedded structures within HEIs require a systematic understanding of SI concepts. How actors are first introduced to SI and when they are introduced to the concept reflects a culture of understanding pertinent to the institution. The muddled understanding of social innovation risks recognition of certain successful SI applications and also leads to misconceptions in practices that may seemingly look like SI practices but in fact may not be social innovation due to principles that are against social innovation. These include factors like self-interest vs. mutual interest, outcomes affecting singular entities vs. multiple entities and the sustainability model to continue the social innovation. Also, some practices such as frugal innovation (use of limited resources to sustain activities) and inclusive innovation (inclusion of excluded groups in value creation) do have the essence of SI practices, yet every frugal innovation does not

imply a social output. The different terminology is also often used interchangeably and often causes more confusion.

The 42 respondents were required to detail their view on social innovation and also asked to elaborate on similar terminology they have come across within their implementation, research or how they came in contact with the terminology. In addition to this specific question, how they explained the concept within their experience and what they prioritized were also integrated into the assessment.

As seen in **Table 3,** where and when the respondents first encountered social innovation was important in understanding how prevalent social innovation activities were within their disciplinary work. The predominant first encounter was through external funding and EU funded project work which would suggest main themes of research were directed by external entities outside the HEI ecosystem. However, the type of activity structured (relevant to discipline) as well as the call funding category was an important distinction to how the respondents came across these concepts.

Table 3 Respondents First Encounter of the Term Social Innovation

SI First Introduction	Frequency of Coding Occurrences
Project- EU Work	6
Community	4
SI -Social Entrepreneurship Institutions	4
Early Education	3
Public Institutions	3
University Activities	3
Workshops-Summer schools	3
Ministry Activities	2
Social Responsibility Activities	2
Companies	1
Social Responsibility Project Work	1
Development Agency	1
Symposiums	1
Case Study Activities	1
Advisory Companies	1

As mentioned below several funding programs are utilized to support SI activities among the respondents:

> Ankara Kalkınma Ajansı'nın yayınlamış olduğu hibe programları ile ilk defa tanıştım. 2011 yılında Ankara Kalkınma Ajansı sosyal alanlarda hibeler vermeye başladığında, biz etrafımızda var olan, zaman zaman şikayet ettiğimiz konulara hibeleri kullanarak nasıl çözüm üretebiliriz, o şekilde Ankara Kalkınma Ajansının yayınlamış olduğu hibeler ile ilk defa bu konuyla tanıştım.
> Daha sonra Avrupa Birliği projelerinde, muhakkak bir yerde soruyor, sosyal yenilikçilik adına bu projede nasıl katkı sağlıyor proje şeklinde. Devamında da Avrupa Birliği projeleriyle bu konu ile ilgilenmeye başladım-INT 15
> I was introduced to (social innovation) with the grant programs published by Ankara Development Agency for the first time. In 2011, when Ankara Development Agency started to give grants in social areas, I was curious to how we can use these grants to solve the problems that exist around us and the ones we complain about from time to time. Then, in European Union projects, the question is also asked about, how the project contributes to social innovation. Later, I became interested in this issue through European Union projects. -INT 15

As the respondent has emphasized, it is important that attention is drawn to SI with inclusion in listing of project aims, assessment requirements or with a correspondence to social innovation. Several respondents have mentioned that they were enticed to research social innovation because it was iterated in several critical documents of interest. To fully describe social innovation, the main value adds they perceived for social innovation (SI) was asked to the respondents outside the context of the definition they gave to the researcher. This critical input has also helped in structuring the definition. The summary of the results are listed in **Table 4** as follows:

Table 4 Main Value Adds perceived outside the context of definition

Value adds listed for SI	**Frequency Counts**
Efficient Resource Usage	10
Inclusion of disadvantaged groups to society	6
Empowerment of individual-institution-society	5
Self-actualization- Bringing out potential of individuals	4
Spread of good practices	4
Distinguishing value add for institutions	3
Developing prosperity for society	3
Freedom to individuals, communities	2
Freedom to individuals, communities	2
Enriching practicality	2
Utilization of Inert Resources	2
Supporting New Economic Activity	2

Interestingly, social innovation is also perceived as an important means to aid in resource utilization. The respondents mentioned both efficient resource usage and also usage of inert resources. This is an important potential area as HEIs are pressured to work under limited funding and when subvention is limited the use of creative SI practices may create extra capacities to work on activities. In regard to the definition of social innovation the coding is listed in **Table 5** and is matched with respondent answers in **Table 6** respectively. The coding has resulted in 5 main themes including betterment for/to society, inclusivity, transformation, impact assessment-action orientation and the potentiality elements.

Betterment for/to society theme is frequently explained with the following codes having the highest three counts for this category: Fulfilling Societal Needs/Gaps (29) Contribution to Society- Social Value (24), and Applicability and Rooting (19).

As seen the codes emphasize need driven initiatives, as well as contributions of SI initiatives for positive contributions to society. This is important as how the actors sense the potential for SI practices is important. The applicability and rooting emphasis is also critical to ensure that the SI process is understood and is replicable. This is also consistent with Georgihio (2018) which mentions that the main deficit within SI practices is the lack of demand for social innovation and the difficulty of scalability.

Inclusivity theme is explained with inclusivity of actors (36), volunteerism (23) and initiation purpose (19).

The respondents are aware that SI practices require a multi-actor conceptualization, yet mention the difficulties of collaborating between actors within and outside the HEI. The main difficulties mentioned include having contacts through a single entity (which risks application continuity when the person leaves the institution or loses contact), high project turn over with partners (when institutions do not assign the roles and it is done on a volunteer basis) which risks the project outcome immensely. Also, forced group structuring creates tension which is not favored in such project grouping. An important outcome for inclusivity is volunteerism.

Table 5 Detailing of Derivation of Definition for Social Innovation at Universities

Themes	Codes (Frequency)	Properties to Describe Codes	Sample Quotations
Betterment for/to Society	**Impact to Society (14)**	Impact and effects to society of SI	*Sosyal etki odaklı yenilik ve yenilkçi projeler-INT 23* ***Innovation and innovative projects focused on social impact- INT 23***
	Applicability and Rooting (19)	Applicability and Grounding of SI practices	*Fakat, gerçekten burada amacımız toplumda sosyal inovasyon algısını geliştirmek ise,ben bu topluma nasıl ulaştırırım , uygularım ve onlarda farkındalık yaratırım.- INT 25* ***However, if our real goal here is to improve the perception of social innovation in society, how can I reach this society , apply and raise awareness in them? - INT 25***
	Wrong Good Distinction (9)	Wrong Good Distinction (1)	*Hangi alan olursa olsun, birşeyi doğrusunu yanlışını ortaya koymaktır.-INT 7* ***Regardless of the field, it means revealing what is right and what is wrong.-INT7***
	Emphasis of non-profit priority (3)	Core principle of SI is not to gain money	*Bunu yaparken de tabii, temel prensip, genellikle bunun 'non-profit' bir olay olması, bunun kar amaçlı olmamasına da özen gösteriyorsunuz.- INT 03* ***While doing this, of course, the basic principle is that this is usually a 'non-profit' event, and you make sure that it is not for profit. -INT 03***

Table 5 Detailing of Derivation of Definition for Social Innovation at Universities (cont'd)

Themes	Codes (Frequency)	Properties to Describe Codes	Sample Quotations
Betterment for/to Society	**Intangible value -add (12)**	Intangible value adds of SI practices	*Somuttan soyutta doğru bir geçiş var, bu ne demek, artık business modellerde de böyle. Artık araba sahibi olmuyorsunuzda, araba sahibi (filosu) olan şirketlere üye oluyorsunuz, istediğiniz arabayı istediğiniz park yerinden alıp, kullanıp sonra bir park yerine bırakıyorsunuz.- INT 21* ***There is a transition from concrete to abstract, what does this mean? It is now the same in business models. You no longer own a car, you become a member of companies that own a car (fleet), you pick up the car you want from the parking lot you want, use it and then leave it in a parking lot.-INT 21***
	Positive Outcomes (12)	Aspects to improve SI practice	*İşin gerçekten toplumsal değişim ve dönüşüm ile ilgili, olumlu bir şekilde olacak -INT 04* ***Your work will be truly about social change and transformation, in a positive way-INT04***
	Betterment through technology (4)	Use of technology as an enabler of SI	*Özellikle de bireyin günlük yaşantısını doğrudan etkileyen, teknolojik çözümleri ben sosyal inovasyon olarak tanımlıyorum-INT04* ***I define technological solutions, especially those that directly affect the daily life of the individual, as social innovation.-INT 04***
	Fulfilling societal expectations (7)	SI as a mean to fulfill societal expectations	*Toplumsal beklentileri ne kadar karşılıyor-INT04* ***How well does it meet social expectations?-INT04***

Table 5 Detailing of Derivation of Definition for Social Innovation at Universities (cont'd)

Themes	Codes (Frequency)	Properties to Describe Codes	Sample Quotations
Betterment for/to Society	**Fulfilling societal needs/gaps (29)**	Needs and gaps fulfilled by SI practices	*Bir gereksineme yanıt verdiği için, kabul gören yenileşme-INT08* ***Innovation that is accepted because it responds to a need-INT 08***
	Developed society (8)	To fulfill the role of developing society through SI	*Daha gelişmiş bir toplum haline gelmesi için dönüştürmeye çalışmak.-INT04* ***Trying to transform it into a more developed society- INT 04***
	Betterment of life (15)	Betterment of daily life through SI practices	*Bireylerin ve toplumların yaşamlarında iyileştirmeler- INT 10* ***Improvements in the lives of individuals and societies-INT10***
	Contribution to Society- Social Value (24)	Contribution of SI to Society and its contribution to Social Value	*Topluma fayda dokunma kadınlarda üst düzeyde. Maalesef, bir çok alanda erkek egemen yürüyor işler ve araştırmalar.-INT 09* ***Contributing to society is at a high level among women. Unfortunately, many areas of work and research are male-dominated.-INT 09***
Inclusivity	**Initiation Purpose (19)**	Main aim of SI activity (not by-product)	*Çıkış noktasında, sosyal ve ekolojik fayda olmalı INT 37* ***Starting point should social and ecologoical -INT 37***
	Inclusive Terminology (8)	Inclusive Terminology	*Bizimde burada daha içerici, insan için yapabilirlik ile... daha fazla kavramlar üretebiliriz.-INT 15* ***We can produce more concepts that are more inclusive and capable for humans. INT 15***

Table 5 Detailing of Derivation of Definition for Social Innovation at Universities (cont'd)

Themes	Codes (Frequency)	Properties to Describe Codes	Sample Quotations
Inclusivity	**Inclusivity of Actors (36)**	Inclusivity of Actors	*Senin ömrün ile sınırlı değil burası, burası olmuş, olacak ve devam edecek. Bunun sürekliliğini sağlayabilmek için bu konulara, bu çeşitliliği , nasıl deyim kapsayıcılığı her anlamda sağlamak gerekiyor.-INT 26* ***This place is not limited to your life, it has been, will be and will continue. In order to ensure the continuity of this, it is necessary to ensure diversity, inclusivity, in every sense of the word.-INT 26***
	Volunteerism (23)	Voluntary activities to support societal concerns	*Hepimizin ortak değerleri olan gönüllülük ilkelerine uyan kişilere kapımız her zaman açıktır.-INT42* ***Our door is always open to people who comply with the principles of volunteering, which are common values for all of us.-INT 42***
Transformation	**Alternative to Status Quo (13)**	Alternative claim for SI	*Sosyal inovasyonun kendisi aslında bir alternatif olma iddiasında-INT 15* ***Social innovation itself is actually a claim of alternative-INT 15***
	Change of Systematic (16)	Inclusive of different dimensions and structures	*Her ne kadar sosyal bir konu olsada çoklu uzmanlığımız olmadığı için sistematik hale getirebilirsek. -INT 30* ***Even though it is a social issue, we can systematize it since we do not have multiple expertise.-INT 30***

Table 5 Detailing of Derivation of Definition for Social Innovation at Universities (cont'd)

Themes	Codes (Frequency)	Properties to Describe Codes	Sample Quotations
Transformation	**New model (17)**	New ways of of creating and structuring output	*Yenilik icat, yeni model, yen iş yapış şekli olabilir, ya da en basittinden kanalizasyonun bile yeniden tasarımı olabilir.-INT 21* ***Innovation can be an invention, a new model, a new way of doing business, or even the simplest redesign of the sewer system. -INT 21***
	Different mind-set (23)	New ways of thinking mentality for SI	*Onların organize olma şekillerini görünce, dedim ki, bu başka bir mindset -INT 13* ***When I saw the way they were organized, I said, this is a different mindset -INT 13***
	Mediator for Change (13)	Change potential of SI	*Toplumun değişmesi sürecinde ihtiyaçları, zaten hızlı değişiyor, oradaki ihtiyaçlara yönelik çözüm arayışı (sosyal inovasyon).-INT 13* ***The needs of changing society are changing apidly, and (solution innovation) is the search for solutions to the needs there- INT 13***
	Convincing Newness to society (14)	Introduction of newness to society	*Yenilikleri insanlara kabul ettirmek gibi olabilir, yeni düşünceleri, yeni atılımları. Bunların illaki teknik boyutta olmaları, o tür bilimsel konularda olması da gerekmez-INT 07* ***It can be like making people accept innovations, new thoughts, new breakthroughs. These do not necessarily have to be technical or scientific issues- INT07***

Table 5 Detailing of Derivation of Definition for Social Innovation at Universities (cont'd)

Themes	Codes (Frequency)	Properties to Describe Codes	Sample Quotations
Transformation	**Transforming Society (13)**	Transforming Society through SI	*Sonuçta bir değişimi oluşturmak, bir sistem tasarlamak gerekiyordu, bunun içinde sosyal inovasyon çok elzemdi.-INT 36* ***Ultimately, it was necessary to create a change and design a system, and social innovation was essential for this.-INT 36***
	Redesigning in social perspective (13)	Redesigning through a social perspective for SI	*Bu işleri toplumsal bakış açısıyla yeniden tasarlamak.-INT 02* ***To redesign this work through a social perspective -INT02***
	Change in attitude (22)	Changing habits of people to support SI	*Bu iş (sosyal inovasyon), insanları umursar kılmanın bilimi olabilir-INT 36* ***This(social innovation) could be the science of making people care-INT 36***
	Rethinking in social perspective (14)		*Daha doğrusu var olan işleri topluma dokunuş açısıyla düşünerek bir yenilik getirebilmek-INT02 More precisely, to be able to bring innovation by thinking about existing businesses from the perspective of touching society.-INT02*
Impact Assessment-Action Orientation	**International/National Dimension (13)**	Impact at national and international level	*Ulusal topluluklara, küresel topluluklara bir katksının olması, bir katma değerinin olması-INT 39* ***Having contribution to national communities and global communities-INT 39***
	Different value add (7)	Different value add to SI practices	*Değişik bir değer üreten uygulanabilir çözümler -INT 17* ***Different value add, productive implementable solutions -INT 17***

Table 5 Detailing of Derivation of Definition for Social Innovation at Universities (cont'd)

Themes	Codes (Frequency)	Properties to Describe Codes	Sample Quotations
Impact Assessment-Action Orientation	**Not always large scale (20)**	Scalability dimension of SI impact	*Ben çok basit tek kişilik şeylerden bahsediyorum. İlla bu kadar çok büyük olması gerekmediği, para olması gerekmediğini anlatmak için anlatıyorum. -INT 28* ***I'm talking about very simple single-person things. I'm telling you this to explain that it doesn't have to be that big, it doesn't have to include money.-INT 28***
	Direct/Indirect Impacts (26)	Diirect/ Indirect Impacts of SI	*Doğrudan topluma faydası görünmese bile, toplumun, daha fazla kitlelerin sürece dahil olması ile beraber, dolaylı olarak onlara faydalı birşey olabilir-INT 13* ***Even if it does not appear to be directly beneficial to society, it may be indirectly beneficial to society and the masses as they become more involved in the process.-INT 13***
	Action-Driven (24)	Emphasis for need for action to initiate SI activities	*Toplumun harekete geçmesini sağlayabilecek çözümler üretebilirmiyiz diye düşünmeye başladığımızda burada bilinçli bir şekilde sosyal inovasyon oluşturma gayretleri ortaya çıkıyor. -INT 24 -* ***When we start thinking about whether we can produce solutions that will enable society to take action, conscious efforts to create social innovation emerge. -INT 24***

Table 5 Detailing of Derivation of Definition for Social Innovation at Universities (cont'd)

Themes	Codes (Frequency)	Properties to Describe Codes	Sample Quotations
Potential Dimensions	**Levels of implementation (18)**	Level of unit of implementation of SI	*Bireysel, kurumlar ve şirketler tarafından geliştirilen yaklaşım, ürün ve hizmetler- INT 41* ***Products and services developed by individuals, institutions and companies to deliver applications. -INT 41***
	Dimensions (Cultural, Environmental, Societal) (26)	Different dimensions considered to describe SI	*O açıdan bakıldığında, herhangi bi sosyal akılı üretmek için insan odaklı bir toplumsal faydaya yürümem yeterli değil.İlla hayvan koruma manasından bahsetmiyorum, kainatta tüm hareket edenler canlılardan bahsediyorum -INT 06* ***From that point of view, it is not enough for me to walk towards a human-oriented social benefit in order to produce any social intelligence.I am not necessarily talking about animal protection, I am talking about all moving living things in the universe.-INT 06***
	Untried (11)	Never used method, activity or approach to SI	*Yapılmamışı, denenmemişi denemek diye düşünüyourm- INT 35* ***I think it means trying something that hasn't been done or tried before- INT 35***
	Different forms and products (8)	Different Outputs of SI	*Yeni bir ürün, yeni bir hizmet, yeni bir iş yapış şekli olarak tanımlanabilir -INT 18* ***It can be defined as new product, new service or new way of conducting business- INT 18***
	Creativity (25)	Unique creativity for SI practices	*Yaratıcı fikirlerden farklı olarak uygulanan bir çözüm -INT 17* ***An approach implemented differently then creative ideas- INT 17***

Table 5 Detailing of Derivation of Definition for Social Innovation at Universities (cont'd)

Themes	Codes (Frequency)	Properties to Describe Codes	Sample Quotations
Potential Dimensions	**Public Innovation Emphasis (6)**	Universities are also public entities thus SI in universities is also public innovation	*Sosyal inovasyonun, temel alt açılımı, kamuda sosyal inovasyondur. Sosyal inovasyonun somut olarak temsil edildiği alan kamuda sosyal inovasyondur. Nasıl biz teknik inovasyonu, ürün ve süreç inovasyonu olarak ayırt ediyoruzda, hakim olan ürün inovasyonudur somut olarak hissedilen pazarda. Sosyal inovasyonda aslında temel sınıflandırmasını yaptığımızda , temel sınıf kamuda inovasyondur.- INT 04* ***The basic sub-expansion of social innovation is social innovation in the public sector. The area where social innovation is concretely represented is social innovation in the public sector. Just as we distinguish technical innovation as product and process innovation, it is product innovation that prevails in the market that is tangibly felt. When we make the basic classification in social innovation, the basic class is innovation in the public sector.- INT 04***
	Long-term commitment- timeline (11)	Extended time span of SI activities	*Bu uzun vadede iyi irdelenmesi gereken birşey gibi düşünüyorum.- INT 13* ***I think this is something that needs to be examined well in the long term.-INT 13***
	Outside profession activities (6)	Activities outside of profession	*Sosyal yenilik deyince ben meslek dışındaki yenilikleri anlıyorum açıkçası, çünkü diğeri daha profesyonel boyutlara dokunuyor diye düşünüyorum. -INT 10* ***When mentioning social innovation, I understand innovations outside the profession, because I think the other one touches more professional dimensions.- INT 10***

Respondents within the HEI context associate SI with volunteerism. This is an important improvement area. Apart from universities with a core SI mission, SI is not on the research agenda and the efforts to associate with quadruple helix actors is left to the academician. The academicians do not emphasize the research potential and needs to use his/her own resources to continue activities (i.e for site visits, project meetings, site research).

The transformation theme was recurrently explained most with the codes systematic of Different Mind-Set (23), Change in Attitude (22) and New model (17)

As can be seen by INT 23 the correct models have an inclination of work culture to promote coherent SI practices. The respondent has also emphasized a lack of understanding for the social entrepreneur due to the different types of people and cultures worked with.

> Sosyal girişimcilik tartışılır ama bizim iş modelimizde çok fazla insan var, insan ve kültür üzerine çalışıyoruz, ortak üretme ve işbirliği üzerine çalışıyoruz, ve bunların hepsi önce tabii önce küçük topluluğumuzda ve önce şehirde, öncellikle kültür odaklı değişime ve sonrasında da ekonomik kalkınma anlamında da yeni modeller oluşturmaya doğru gidiyor -INT 23

> Social entrepreneurship is debatable, but there are a lot of people in our business model, we work on people and culture, we work on co-production and cooperation, and all of this goes towards creating change first in our small community and first in the city, first with a focus on culture, and then with the creation of new models in terms of economic development- INT 23

Impact Assessment- Action Orientation was explained most frequently through direct-indirect impacts (26), Action -Driven (24), and Not always large scale (20).

It is evident that the more SI practices will be seen, the better the direct-indirect impacts will be observed. Successful SI implementors have emphasized SI being action -driven due to the interrelatedness of the actors and also the need to act quickly to changing needs and requirements. Moreover, since ‘innovation’ is intrinsically assumed that it is difficult and cumbersome, the implementors have mentioned that

there can be many good practices that are easily implementable but with a big impact. This removes the barriers to initiate SI practices and also removes biases for disciplines that usually associate innovation with technical-engineering fields. As INT 25, has emphasized the importance of recognizing the indirect impacts of SI practices to continue the efforts for SI:

> Belki bu noktada çok büyük bir katkı sağlayacaksınız, insanlar diyecek ben birşey yapmışım ve yaptığım şey işe yaramış. Belki gururlanacak, motive olacak ve daha fazlasını yapmak isteyecek. Ama öbür türlü şu an, belki yaptığı şey değersiz onun gözünde, ama etkilerini görse, etkilerini görmek için bakmayı bilse, belki bundan daha fazlasını yapmak için uğraşıyor olacak. -INT 25

> Maybe you will make a great contribution at this point and people will say that they did something and it worked. Maybe s/he'll be proud, motivated, and will want to do more. But otherwise, right now, maybe what s/he's doing is worthless in his(her) eyes, but if s/he saw the effects, if s/he knew how to look to see the effects, maybe s/he would be trying to do more than that-INT 25

The main three potentiality themes are inclusive of Dimensions (26), Creativity (25) and Different Levels of Implementation (18).

The respondents have emphasized the multi-faceted nature of SI with its potentiality. INT 39 finely describes the different dimensions of SI implementation:

> Problemin farklı boyutlarını görebilmek. Çünkü artık herşey o kadar kompleks hale geldi ki, tek bir disiplin, tek bir bakış açısı, tek bir bilim dalı yetmiyor. Çok farklı kültürler var. Hem kültürü anlamak, hem teknolojiyi anlamak gerekiyor. Hem ekonomiyi de anlamakta, inovasyonun böyle multidisipliner yanı da var gibi geliyor bana.-INT 39

> To be able to see the different dimensions of the problem. Because everything has become so complex that a single discipline, a single point of view, a single branch of science is not enough. There are very different cultures. We need to understand both culture and understand technology. We need to understand economics. It seems to me that there is such a multidisciplinary aspect to innovation. -INT 39

Creativity is also seen as an important and critical requirement of SI activities yet is hindered in the HEI context as mentioned by INT 21:

> Yaratıcılığa hayal gücüne açık şeylere çok fırsat vermiyoruz-INT 21

> We don't give much opportunity to creativity, to things that are open to imagination-INT21

Table 6 Definition Code Matching with Respondents

| | Interviewees | | |

As an abstraction of social innovation and social entrepreneurs, Mulgan (2019) refers to social entrepreneurs as bees with creativity and energy and the institutions as trees, providing resources. It is thus important for HEI institutions to foster creativity and not be encapsulated in the norms of the institution. It is important that unique ideas are not turned down and power relations do not hamper contributions of non-academic staff, students or external ecosystem partners. It is important to match the resources available with the need and creativity to open new ways to structure the resources, give authority for action to the potential implementors and sustain these activities. These become important and strong dynamic capabilities of the institution to restructure and evaluate their resources to their needs.

In regard to the definition, sample quotes from the respondents will be shared to emphasize the important themes derived.

INT 04 had mentioned that social innovation is 'every civilized person's responsibility' emphasizing that responsibility starts at an individual level. INT -36 reflected an important distinction between education and social innovation to emphasize the mutual concern of social innovation as follows:

> Bir eğitim süreci, bireyde davranış değişikliği oluşturmak ister, sosyal inovasyon ise toplumsal davranış değişikliğni organize etmektir- INT 36
>
> An educational process seeks to create behavioral change at an individual, while social innovation is to organize mass social behavioral change- INT 36

In support of INT 36, INT 03 has summarized the transformational role of SI and the responsibility of individuals to transform society. The respondent emphasizes consistency in work and also the time frame for impact as follows:

> Üniversitenin temel üç görevi var eğitim, araştırma ve topluma hizmet. Dolayısıyla sosyal inovasyon en önemli parçalarından biri…. Tabii sosyal yenilik standart tanımın dışında da baksak yine parallelik sağlıyor, toplumu dönüştürmek istiyorsunuz. Dönüştürmek isteyince de tabii kötü anlamda değil, toplumun daha iyi bir yaşama kavuşubilmesi ve mutlu olabilmesi için, ve daha gelişmiş bir toplum haline gelmesi için dönüştürmeye çalışmak. Bunu yaparken de tabii, temel prensip, genellikle bunun 'non-profit' bir olay olması, bunun kar amaçlı olmamasına da özen gösteriyorsunuz. Gönüllüler ile yapılması, bu aslında tabii çok eskiden beri yapılmış işler vardır ama önemli olan bunu formal bir hale gelip, organize bir şekilde yapılmaya başlanması,

> 80’lerden beri konuşuluyor olsada, geçtiğimiz 10-20 senede, pek çok toplumda, özellikle gelişmemiş toplumlarda önem verildi. O açıdan bence toplumu dönüştürmeye çalışmak her medeni insanın görevi aslında. -INT 03
>
> The university has three main missions: education, research and community service. Therefore, social innovation is one of the most important parts.... Of course, even if we look at social innovation outside the standard definition, it still provides parallelism, you want to transform society. When we want to transform, of course, not in a bad way, but in order for the society to have a better life and be happy, and to try to transform it so that it can become a more developed society. While doing this, of course, the basic principle is that this is usually a 'non-profit' event, and you make sure that it is not for profit. Doing it with volunteers, of course, there are things that have been done for a long time, but the important thing is to make it formal and start to do it in an organized way, although it has been talked about since the 80s, in the last 10-20 years, it has been given importance in many societies, especially in undeveloped societies. From that point of view, I think trying to transform society is the way every civilized person should see it.-INT 03

As also mentioned, volunteers are an important means to coordinate the efforts of social innovation. Within the themes, volunteerism was among the highest listed items. Yet, one restriction here is that because social innovation practices are not predominantly prevalent (and thus the reason for this research) it has become an inherent characteristic through good Samaritan activities. Volunteerism is helpful and 4 other respondents have also mentioned that it has added to the quality of the SI output, also supported by INT 13 with the following quote:

> Gönüllülük esasıyla çalışıyoruz, o önemli şeylerden birisi idi, ellimizden geldiğince yapıyoruz. Ama ne yaparsak gönüllü yapıyoruz. Bu işi çok şeyi değiştiriyor. Laf olsun veya iş yapılsın diye yapmak zorunda değiliz hiçbirşeyi, o kaliteyi artırıyor -INT 13
>
> We work on a voluntary basis, that was one of the important things, we do it as much as we can. But whatever we do, we do it voluntarily. This approach changes a lot of things. We don't have to do anything for the sake of words or work, it increases the quality- INT 13

Another respondent INT 04 distinctively emphasizes the roles that SI takes on different from technological innovation. The definition also entails society’s expectations, focuses technology as a facilitator, defers the roles and brings out the change potential within the individual. The respondent makes an important contribution in regard to the changing roles within the social innovation process. This emphasis also reiterates that successful social innovation is possible with the coordination of different actors, taking on different responsibilities.

> Sosyal Sorunların çözümü, sosyal beklentilerin, toplumsal beklentilerin karşılanması ve özellikle de bireyin günlük yaşantısını doğrudan etkileyen, teknolojik çözümleri ben sosyal inovasyon olarak tanımlıyorum. Orada standart sektörlerden temel farklılığı, o inovasyonun gerçekleştirilmesinde, asıl diğer sektörlerde açık inovasyon bağlamaında iş birliği modeli çerçevesinde veriyorlar ama burada açıkçası sorunu tespit eden, o sorunun giderilmesinde sorumlu olan, ama teknolojiyi geliştiren aktörler farklı aktörler. -INT 04

> I define social innovation as the solution of social problems, meeting social expectations, and especially technological solutions that directly affect the daily life of the individual. There, they give the main difference from the standard sectors within the framework of the cooperation model in the realization of that innovation, in the context of open innovation in other sectors, but here, frankly, the actors who identify the problem, who are responsible for solving that problem, but who develop the technology are different actors. -INT 04

One of the distinctive features of the respondents in the study was that they saw an important change potential on an individual basis and with small actions.

13 respondents among 42 have also emphasized the individual potentiality as also illustrated by INT 09 and INT 10:

> Topluma katkı hakikaten, sosyal küçücük bir dokunuşta bulunmak bile çok önemli ve değerli. -INT 09
> Contribution to society is really important, even a small touch to a social level is very important and valuable. - INT 09

> Ama eğer zaten, toplumsal değişimler olursa, daha temel anlamdaki şeylerde değişimler olur ise, o beraberinde mikro boyutunda inovasyonlarıda getirecektir. Siz, yeni bir hedef saptarsanız, o hedefe uygun, yolları ve yöntemleri falanda düşünüp ortaya koymak durumundasınız. -INT 10
> But if there are social changes and if there are changes in more fundamental things, it will bring innovations on a micro scale. If you set a new goal, you have to think about ways and methods suitable for that goal- INT 10

Within the definition INT 15 emphasizes changing the systematic of thinking, doing and implementing in a methodological and structured way. She also emphasizes that it does not have to be completely new as long as it involves the social element and also maintains a part of the sub-system of operation.

> Sosyal yenilikçilik bence, düşünme sisteminde, yapma sisteminde, üretme sisteminde mevcut olandan yeni birşey getirebilmek. Bir yenilik, illa birşeyin tamamen yeni olması gerekmiyor, hizmet sektöründe, düşünce alanında, ve elbette tabii ki üretim alanında yapılmakta olan şeyi başka türlü yapabilmek, ama ne için bir sosyal için, başka türlü yapabilmek ve sosyal için etkinliğini, etkililiğini artırabilmek demekDiğer yanıyla da kavram dahilinde hem girişim olacak, hem iş modeli olacak, ne diyelim

> sistemin üretim modelleri arasında kalacak. Biraz sosyal olacak. Bu enteresan gibi aslında kendi içinde düşünce sistematiğimizi değiştirmeyi talep eden bir kavramlaştırma -INT 15
>
> Social innovation, in my opinion, is to be able to bring something new from what is already in the system of thinking, in the system of doing, in the system of production. An innovation does not necessarily have to be completely new, to be able to do differently what is being done in the service sector, in the field of thought, and of course in the field of production, but to be able to do it differently for society and to increase its efficiency and effectiveness for society. On the other hand, within the concept, there will be both an entrepreneurial activity and a business model, and let's say it will be among the production models of the system. It's also going to be a bit social. It's interesting, it's actually a conceptualization that demands to change to our system of thought-INT 15

INT 17 emphasizes the just, effective and sustainable elements and also the creativity to bring out the potential of social innovation.

> Stanford Social Innovation Review'un 2008'de yaptığı tanımı hala geçerli görüyorum açıkçası. Bir sosyal probleme yönelik, toplumun geneline faydalı olacak şekilde, var olandan daha iyi , daha etkin daha adil, daha sürdürülebilir ya da tamamen bundan farklı değişik bir değer üreten uygulanabilir çözümler olarak tanımlıyorum. Burada tabii vurgulanacak nokta sosyal problemlere yönelik olması, daha iyi yada tamamen yeni bir çözüm olması, toplumsal bir değer olması, ve inovasyonun yaratıcı fikirlerden farklı olarak uygulanan bir çözüm olması tanımlıyor genel anlamda. -INT 17
>
> Frankly, I still see the definition made by the Stanford Social Innovation Review in 2008 as valid. I define them as feasible solutions to a social problem that produce a better, more effective, fairer, more sustainable or completely different value than the existing one, in a way that will benefit the society in general. Of course, the point to be emphasized here is that it is aimed at social problems, that it is a better or completely new solution, that it is a social value, and that innovation is a solution that is applied differently from creative ideas. INT 17

INT 38 draws attention to the distinction of novelty, invention and innovation and the apparent need to include the social dimensions of these outputs. An important distinction is that the transformative elements of social innovation may not be as apparent as expected in tangible outputs of technological innovation.

> Sadece hissettiğim şu, buluş ile, fiziki buluş ile, bizim bildiğimiz icatla, icadın toplumsal değişiklikleri açıklamada yetersiz kaldığı anlaşılmış. Ve dolayısıyla toplumsal dönüşüm, toplumsal değişim, toplumsal yarar, bunları kavramadığı bunu kavrayan daha bütüncül bir kavrama, olguya ihtiyaç duyulmuş ve oradan sosyal buluşa doğru bir kayış gözlemlenmiş. -INT 38
>
> I just feel that with the invention, with the physical invention, with the novelty as we know it, it has been understood that the invention alone is insufficient to explain social changes. And therefore, for social transformation, social change, social benefit, there

> was a need for a more holistic concept, a phenomenon that comprehended them, and from there a shift towards social innovation was observed- INT 38

INT 18's definition entails the impact and measurement requirement for higher potential value. How this impact is used? How it is re-used? How it impacts the environment it is used are important implications of the respondent.

> Sosyal inovasyon bence etkisi olan, toplumsal bir etkisi olan hizmet, ürün, yeni bir ürün, yeni bir hizmet, yeni bir iş yapış şekli olarak tanımlanabilir. Tabii en önemli kısmı, bu etkisi etkisi nereye oluyor. Bu etkiyi nasıl ölçebiliyoruz, işte çevreye yönelik mi etkisi var, insanların sosyal olarak iş yaşamına ortamlarına veya çalışabilirliklerine yönelik bir etkisi mi var, ya da tamamen gerçekte olmayan değer. -INT 18

> In my opinion, social innovation can be defined as a service, a product, a new product, a new service, a new way of doing business that has an impact and has a social impact. Of course, the most important part is where this effect is happening. How can we measure this impact? Is it an impact on the environment at work, is it an impact on people's social life at work, on their environment or on their ability to work, or is it completely non-existent value? - INT 18

Lastly, INT 36 summarizes social innovation as the 'science of making people care', which encapsulates the higher dimensions in a single sentence.

In this regard, the social innovation definition for HEIs have been constructed as follows:

Social innovation at HEIs entails transformative practices to change mindsets, procedures and habits by envisioning collective actions within its ecosystem for the betterment of society in a multi-faceted, multi-layered, action oriented and timely manner. Change potential needs to be integrated in its knowledge-base and evaluated at a systematic level. HEI actors need to be aware of different roles and competencies required at different times to initiate, continue, support and sustain SI practices.

The definition provided through the study is an important contribution to SI research as it entails the following elements different from existing literature and inclusive of the results attained from the respondents:

1) Time dependent Action Oriented Approach: The true social impact of SI initiatives is hard to understand due to the action-consequence-contextuality dimensions within the literature. It is also very difficult to assess the impacts

without defining the inputs, process, outcomes and the sustainability dimension which is embedded within the alignment of resources and activities to provide the best SI impact

2) The definition draws attention to the timing of involvement to SI Practices: HEIs are not seen as leading SI initiatives. The timing of inclusion also affects the distinctive roles required by an HEI actor. With its knowledge and education base, due to lack of initiatives initiated by the internal HEI actors it is very difficult to understand and compare the process needs.
3) Resource potential and dynamic capabilities: The definition draws attention to resources within HEIs being multifaceted, requiring creativity to bring out the potential through change in habits, procedures and which results in change with different arrangements.
4) Newness and change impact potential: The transformative nature of SI requires a constant search of newness and adaptation to change. This is critical to ensure that the tangible and intangible resources can easily be adaptable to the changes happening within the periphery of its contextual activities. This also implies
5) the empowerment of the change agents to initiate and sustain the change to better reap the benefits of the SI activity.
6) The tiering of interaction: The definition draws attention to the HEI system as a socio-technical system in the level of embeddedness of its activities. The action culture at an individual level has the potential to impact the circumference of the socio-ecological dynamics mentioned in Section 3.1
7) Resilience to ensure sustainability: The respondents experiences have also reflected instances where the activities were not possible due to restricting conditions. These included pressures to publish vs. perish, the pressures to find sourcing to sustain activities, bureaucracy and lack of institutional culture to seed SI activities. The definition emphasizes the difficulty of the process, yet it also draws to the criticality of overcoming the barriers to continue good examples to scale-up and be used in different regions.
8) Changing and dynamic societal concerns: The main societal concerns listed by the respondents for Türkiye included disadvantaged groups, employment, migration, refugees and the readiness to natural disasters. What is prioritized in a funding call or research theme at higher levels may not reflect the true need

within the context of the actors of the HEI system. This also emphasizes the role of the academic to read the severity of the SI need and the potential to improve independent of common themes that may draw attention to least priority areas for the region. The definition is thus empowering the academic to drive and fill the potential of the SI research.

9) Change in work habits: SI implementations require rich social interactions to be embedded in the HEI ecosystem. This also seeks to defy habits that have previously hindered an approach to conduct interdisciplinary and transdisciplinary research. The definition implies the essence of culture to be embedded to ensure that the activities can be used in an exploitative and explorative manner.

4.2 What are the enabling factors of social innovation within the HEI context?

The study has been designed to understand the important enablers and also the problematics within social innovation practices.

Attendees were asked about their project and/or implementations and experiences and were required to respond with request to their approach to social innovation. The study is unique in the sense that it entails people from different disciplines and tries to encapsulate their views by trying to decipher common and conflicting problems through assessment of project process, team and management structure and the successful practices that have been emphasized by the respondents. The section also tries to encapsulate the experiences of the respondents through a model emphasizing the steps required for social innovation practices in a HEI context. It draws upon the unique views of the implementor and will contribute to other practitioners who plan to integrate social innovation practices within HEIs. The suggested methodology is an agglomeration of the paths taken by the implementors and their suggested needs. The difficulties that the respondents have also faced are also reflected in the systematic to ensure a formulation of better practices to overcome the difficulties mentioned for each SI practice. The methodology also ensures that the integrative steps listed and derived

in **Appendix 6** are reflect a derived systematic to ensure that a SI practice is effectively initiated and also maintained to the benefit of its community and the HEI ecosystem.

Interest in SI practices was found to be more intrinsic, fourfold than extrinsic factors. However, there were also respondents that valued both factors in the implementation process. Intrinsic factors entail personal traits of the respondent to favour being good and supporting good practices to help people and their communities. Extrinsic factors may include factors specific to the institution that would support SI practices. Regardless of extrinsic resource provision and ease, the core responsibility of the implementors to be beneficial to their surrounding was an important motivator regardless of the inadequacy of the HEI resources. The academicians emphasized being useful and dedicated to the need that has occurred or observed and the motivation to be part of the solution-making process. Publication through SI practices, inclusion of more inter-disciplinary teams in research, funding to support practices, structures dedicated to SI research were least detrimental to the current application but were emphasized for continuity.

INT 37 reflects upon her approach with children for SI and emphasizes that internal and external factors shape SI practices:

> Yani bence hepsi [hem iç, hemde dış faktörler] Ben çocuklar ile çalışırken, onların anlayabileceği örnekleri anlatıyorum. Mesela Hero Rats, mayın koklayan fareler, mesela çok sevdiğim bir iş. Yani mayın gibi bir sorunumuz var, kara mayınını temizlemek için, ucuz bir çözüm olsun, ekolojik bir çözüm olsun, hiçbir canlı, zarar görmesin. Fare bile şöyle bir koku alabilir. Şimdi siz o örnekleri anlattıkça, o örnekle bakıyor. Bir sorun var ve ben bunu nasıl çözerim? O bakış açısı ile yetişen insanlarda ve sosyal inovasyonda örneklerin görünür olması içten gelen bir merak, bende çözümün parçası olabilirim, yapabilirim gibi bir motivasyon. Dışsal olanda, bunun yeni 'cool' olması. Yani o da kimi zaman iyi, yeni cool buysa, insanlar sosyal ekolojik çözümler için inovatif şeyler yapmaya başlıyorsun. -INT 37
>
> So, I think it's all of them [both intrinsic and extrinsic]. When I work with children, I explain examples that they can understand. For example, Hero Rats, mine-sniffing rats, is a work that I love very much. In other words, we have a problem like a landmine, we want a cheap solution to clear a landmine, it should be an ecological solution, so that no living thing is harmed. Even a mouse can smell something like this. Now, as they become familiar with the examples, s/he looks at that example. There is a problem and how do I solve it? The fact that these examples are visible in

> people who grow up with that perspective in social innovation creates a sincere curiosity, to be a part of the solution, and a I can do it motivation. Externally, it's the new 'cool'. So sometimes it's good, if that's the new cool, people start doing innovative things for social ecological solutions- INT 37

More than 30 different institutions were listed as actors in collaboration within the ecosystem with TUBITAK (11), Development Agencies (9) and Ministries (9), Chamber of Industry and Commerce (5) and Municipalities (5) with the higher contact potential. Also factors to explain direct vs. indirect SI impacts within HEI based SI examples were required from the respondents. The dominant direct project aims from the respondents as seen in **Table 7** were improving the conditions of the disadvantaged groups and also removing biases towards social innovation -societal practices. The list has been summarized to give the most recurring counts. The indirect impact of social innovation practices among the implementors are also summarized in **Table 8** with inclusion of other stakeholders in a similar scope for follow-up activities being listed as the most predominant indirect impact. The respondents prefer to work with stakeholders which they are familiar with their working principles.

Table 7 Direct Project -SI Activity Aims listed by the respondents

Direct Project- SI Activity Aims	**Frequency (Counts)**
Improving conditions of disadvantaged groups	9
Removing biases	8
Creating New Work Models-Structures	7
Tackling Unemployment	5
Lifelong Learning	4
Sector- university-industry collaboration development	3
Solving societal problems	3
Supporting Regional Development	3
Social Inclusiveness	3
Increasing Education Level	3
Cooperative Building	3
Enhancing Entrepreneurial Skills	3
Empowerment	3
Increasing learning capacity	2
Increasing Institutional Capacity	2
Economic Independence	2

Table 8 Indirect Project -SI Activity Aims listed by the respondents

Indirect Project SI Activity Aims	Frequency (Counts)
Inclusion of other stakeholders in same scope	4
Finding Identity	3
Continuation of Scientific Work	2
Change in Socialization-Social Structures	2
Building Trust	1
Income for stakeholders	1
Supporting Public Innovation	1
Gender Equality Training	1

Both **Table 7** and **Table 8** also emphasize examples of intrinsic and extrinsic factors that are effective in SI implementation. Among the unique intrinsic factors include removing biases, finding identity, being beneficial (to disadvantaged groups, less empowered groups), life-long learning, increasing learning capacity, increasing entrepreneurial skills and social inclusiveness in practices. Extrinsic factors in support of sustainable SI implementation include collaboration potential among quadruple helix actors, institutional learning capacity, change in social structures and inclusion of quadruple helix actors in data-generation processes.

The actions of the implementors were greatly affected by the attitudes of upper management. In fact, upper management roles were crucial in the continuation and sustainability of some practices.

INT 23 described the facilitation role of the leader through the following sentence:

> Buna (sosyal inovasyona) şemsiye oluşturmak, buna kolaylaştırıcı ortam sağlamak-INT 23
> To create an umbrella for this (social innovation) , to provide a facilitating environment for this-INT 23

The commitment and mirroring effects of the leader are nicely reflected by INT 12:

> Onun kendi etrafına yaydığı farkındalık ve bakış açısı, üniversiteye yayılıyor. Ben bunu çok net görüyorum-INT 12

> The awareness and perspective that he radiates around himself spreads throughout the university. I see this very clearly-INT 12

As a former rector, INT 03 described the activities they carried out in respect to their leadership role. An important implication of leaders is to keep up the relations within the ecosystem. They are also first-contact points in higher levels of ecosystem representation which requires tedious efforts to continue and collaborate. One of the respondents also drew attention to the need of an 'entity' of contact with such activities.

This is an important implication as leader and implementor roles may change, however the knowledge and know-how should be embedded in the system.

> Hocalar, mezunlar, mezunlar dernekleri ile senede en az iki toplantı yapardık. En az iki kere ziyarete giderdik, aynı zamanda tüm dernek başkanları ile iki kere toplantı yapardık, Türkiyenin her yerinden. Onlardan da parlak fikirler gelirdi, parlak fikirler. Ama hiçbiri için bir ofis kursak mı diye düşünmedik açıkçası o da bizim eksiğimiz. -INT 03
> We used to hold at least two meetings a year with professors, alumni and alumni associations. We used to visit at least twice, and at the same time we would have meetings with all the presidents of the associations, from all over Türkiye. Brilliant ideas would come from them, brilliant ideas. But we didn't think about setting an up an office for any of them, frankly, that's what we're missing. -INT 03

Another descriptor for upper management leaders is control points. As mentioned in an instance where INT 13 had helped ease operations and resulted in project acceptance, he was describing the role he took on after project acceptance. He was also emphasizing the commitment of the project coordinator to continue the activities. Upper management needs to be committed in support to initiate as well as follow-up SI project activities.

> Projeyi ondan sonra eğer kabul ettirebildiyseniz, bırakmalısınız. Yürüyüşünü takip etmelisiniz, zaman zaman. Yani, siz proje yürütücüsü değil, artık bir kontrol noktasında olmalısınız-INT 07
> If you were able to get the project accepted, you should leave it. You have to follow its walk, from time to time. In other words, you should be at a checkpoint, not act like the project manager-INT 07

Table 9 lists the primary roles expected from the leading roles in the process of social innovation practices. As summarized in **Table 9**, leaders (rectors, vice rectors, faculty

heads, department heads, project leads) play an important role in supporting the SI action potential. An important contribution of the study is not just to reflect the perspective of the implementor but also the expectations of how leadership roles should be defined in SI implementation.

Table 9 Leadership roles in SI

Leadership roles expected by Upper Management	Count (Frequencies)
Opening Way-Easing Processes	9
Networking within ecosystem	8
Regular meetings with stakeholders	7
Dedication -Follow up	5
Dedication	4
Open to Different Views-Criticism	4
Vision for Bringing Out Values	4
Interest to SI by Upper Management	4
Initiating good practices	3
Open door Policy	3
Creating point of contact	3
Host Leadership	2
Bringing Experience	2
Applaud efforts of teams departments	2
Responding to Needs	2
Being a good example-Show Case of Actions	2
Dealing and opening opportunity for non-routine	1
Up to date with agenda	1
Bargaining	1
Responsible in Strategy-Strategic Vision	1
Good relation -communication with departments	1
Creating a culture for SI	1

Foremost, the SI leader should ensure communication among departments. Without top-down support of collaboration, this is an important hindrance to the activates conducted within the SI context. This is also an important contribution to overcoming the bureaucratic hindrances to initiate or continue activities, thus easing processes being emphasized as the most important trait for SI leaders. The leaders should also be open to reflecting the interest of SI practices, in their willingness to show-case good

examples and also adhere to a vision which supports SI practices. The power relations and the accessibility of the leader is reflected in support of an open-door policy, which allows problems to be handled in a timely fashion. Implementors have also mentioned that they value their efforts to be seen and applauded by their superiors. This is also in support of a host leadership style which sees positive aspects of the contributors and is also willing to work on barriers together to improve the knowledgeability of the process. The leaders are also encouraged to put their prior experience with different HEI constituents and their soft skills such as bargaining and good relations to the advantage of the SI process.

The creation of a culture for SI and its sustenance is greatly dependent on the attitudes of the leaders within the HEI context. This is reflected in SI support through examples such as departmental outputs targeting SI focus, inclusive mission statements oriented to reflect the core needs of the community and the engagement of the academician to such practices through the networking activities conducted and the flexibility of principle action orientation for non-routine problem solution.

4.2.1 Conceptual Model to understand the enabling factors of Social Innovation in Higher Education

The second research question, 'What are the enabling factors for social innovation in HEIs? is addressed through a conceptual model demonstrating the systematic steps required for SI implementation.

The model has been derived from the respondent answers and is unique in demonstrating the requirements of the systematic for SI as illustrated by the narratives of the project implementors within the HEI context. The steps guide potential SI implementors to consider the needs and the structuring of SI practices to ensure that practices are well-framed and consider both current needs and potential implications within the HEI context. Insights from the respondents have been referenced to match the ideas generated in the research process. The contribution is unique to the HEI context and also develops the two pre-dominantly life-cycle models referenced in SI literature (Social Innovation EU, 2013; Murray et al., (2010). The model systematizes

implementation in a conceptual model in the context of HEI ecosystem actors. The model describes six main steps for implementation according to the insights derived from the interviews. Their approach and multi-perspective view have been reflected for rich discussion and discourse. For future implementors it can act as a guide for implementation drawing attention to the different needs and requirements by the implementors and the process steps required in each main theme. In this regard **Table 10**, is an insightful table reflecting the top good and poor examples of sustainability which has also structured the conceptualization of the suggested SI model for HEIs.

Table 10 Sustainability Experience for SI

Top 15 Reasons for Positive Sustainable Practices	**Frequencies**	**Top 15 Reasons for Negative Sustainable Practices**	**Frequencies**
Individual before scale up	13	Previous Bad Experience	6
Planning	13	No follow-up Design	5
Defined SI or Strategic Plan	10	Need more /variety of examples	4
Continuous Training Activities	7	Gap between university and industry	3
Corporate Memory	7	Timing Issues	3
Output supporting -feeding SI practices	6	Acting on only Theoretical Know-How	3
Accessible Sources-Resources	6	Consequences not thought out	2
Holistic Approach	5	No root cause assessment	2
Learning Experience - Good/Bad	4	Lack of Engagement Opportunities-Areas	2
Stakeholder Management	4	Not all members-inclusive included	1
Ecosystem members in solution process	4	Quantity oriented goal vs. impact oriented	1
Having an SI culture	4	Falling out of scope	1
Site visit	3	Regulation changes	1
Fast response-agility to problems	3	Lack of readiness	1
Need Driven	3	Data-reports not consolidated	1

As seen in **Table 10**, the respondents have been critical in a lack of readiness for SI practices, also exemplifying through no-follow up design and previous bad experiences that have made it impossible to both engage actors and also create an SI culture. There is a need for a systematic structure to explain SI sustainability elements, this has been modelled in **Figure 7** and will be detailed in sections 4.2.1 and and 4.2.6.

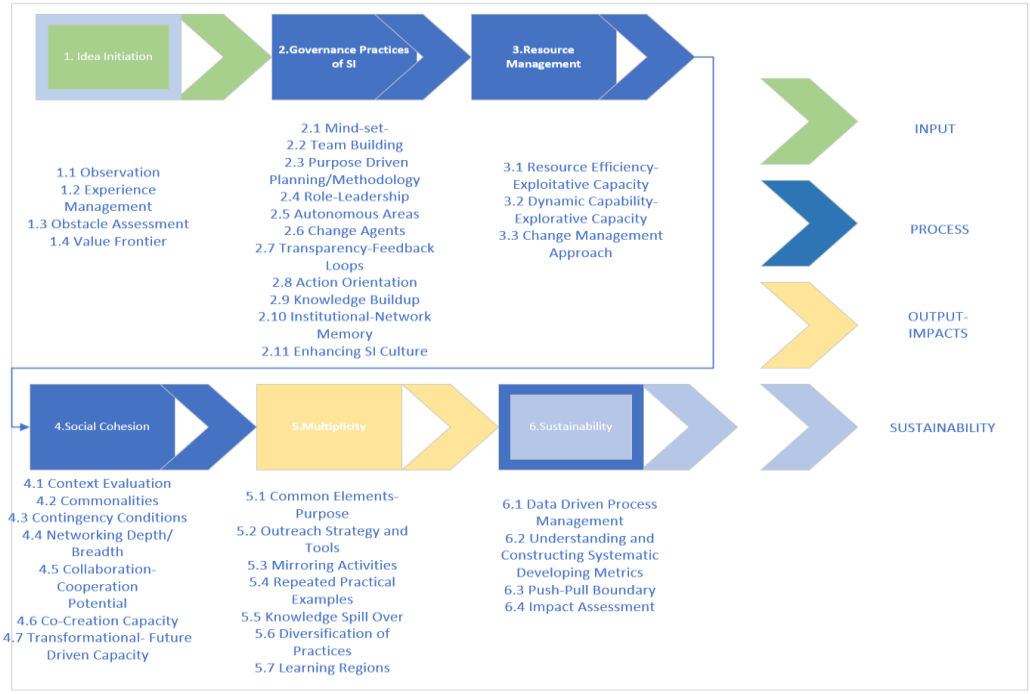

Figure 7 The six main steps for social innovation implementation at HEIs and institutions working with HEIs (derived by author as per research results).

As can be seen the model includes a stepwise structuring of the actions needed to be incorporated to expand SI in HEIs in its full potential. The systematic also is structured within a systems perspective to incorporate the inputs, structure the process, enhance the outputs/impacts and also sustain the activities of the system.

The following headings will explain the conceptual model steps in detail with quotations from respondents to emphasize the content and structuring reasons for the model. It is important for implementors to easily understand and follow the steps to ensure implementation. It is also critical to note that the steps may not be linear depending on when the HEI actor was involved in the process. HEIs are lacking implementations where they are leading SI initiatives rather than being supporting partners. The conceptual model will be helpful for implementors who would like to implement the SI project/idea in full potential. The steps are inclusive of the predecessors and enablers mentioned. The leveling will help build upon the characteristics of the main heading in an incremental fashion.

4.2.1.1 Idea Initiation

As was depicted in **Table 3**, there are different ways of first encounter to social innovation. For potential social innovation practices the first step emphasizes the likelihood of idea generation and also the approach taken to accept and work on generating social innovation ideas. As social innovation is multifaceted the richness of approaches and the encounters will determine the quality output and the inclusiveness of the problem structure formulated. It is important for ideas to be evaluated for their potential. In this stage, experience from previous projects and actors which have mixed discipline experience or has worked outside of HEI contexts are more likely to see the potential of problems to be formulated within a multi-actor perspective.

4.2.1.1.1 Observation -Idea Generation

Initiation of SI practices are dependent on the richness of idea generation for either a specific problem of interest or for a creative solution to enhance a current reality. The idea generation step is the first step to start the planning of activities thus requires more thoughtful rigor in implementation.

INT 14 describes the different ways to be generating ideas in social innovation practices. An important implication is the emphasis of 'looking beyond' a problem and trying to develop it in a unique and fresh mindset. Prior hindrances in such practices have discouraged implementors to go beyond their previous path dependance.

> Biz her ay, kendi yönetim kurulu toplantımızlarımızda şu anda Türkiyede ne olup bitiyor, Dünyada ne olup bitiyor, hangi konular ön plana çıkmış ve hangi konuyua hiç değinilmemiş bu konuda ne yapabiliriz, ve onu nasıl geliştirebilirizin durmadan istişaresini yapan bir vakıfız. Yapılmış bir şeyi, hadi biraz daha ileriye taşıyıalım değil, hiç konuşulmamış konuyu gündeme getirelim diyoruz…. Biz onun içinde hem proaktif (proactive) hemde etkisi yüksek (impactful) projeler yapabiliyoruz diye düşünüyorum. - INT 14

> We are a foundation, in our own board meetings every month we constantly discuss what is happening in Türkiye, what is happening in the world, what issues have come to the forefront and which issues have never been touched upon, and how we can improve it. We don' take something that has been done and take it a little further, but we bring up issues that have never been discussed.... I think this is why we can be both proactive and highlty impactful in our projects- INT 14

Respondents have often mentioned the terminology ‘innovation’ being frightening and implying big changes and improvement. However, a stand-alone idea is valuable as long as it is sustainable and easily applicable to the audience it is intended for. The respondents have given great importance to building on a simple idea and working on it. The essence here is that since social innovation is a complex idea in itself, the ease and simplicity of application would help to reach more masses and also to sustain practices of use. INT 09 has been working on empowering women in the IT sector and has reflected a simple but important contribution to enhance participatory efforts.

> Derslerin adını değiştirerek, programlama kadınların derslerine katılımını %50lere çıkardılar. Programming with Java yerine, the creative way of problem solving, gibi isimler koydular. Yaratıcılık var içinde, ya da topluma katkı var. Sosyal yenilik budur işte. Bir tanecik, küçücük minicik-INT 09
>
> By changing the name of the courses, they increased the participation of women in programming classes up to 50%. Instead of programming with Java, they called it the creative way of problem solving. There is creativity in it, and there is contribution to society. That's what social innovation is. One small, tiny steps-INT 09

Idea generation can also be engrossed in the networks of the community actor. INT 27 has mentioned the different ways that ideas can be generated and supported. The essence here is to ensure that the need is easily addressed and a responsible initiate the requests of SI action. This respondent was among the richest to demonstrate the channels for idea generation. The essence here is to ensure that there are clear grounds for observation and a main contact is present to mediate and develop ideas for the problem. The respondent has also emphasized the needs of all 35 sectors being different thus emphasizing the breadth of knowledge SI practices need to encapsulate. This is also an important implication to the entrepreneurial activities too, which requires an influx of ideas to structure the needs to encapsulate an inclusive view and which has also been listed as a good SI sustainability practice.

> Aslında burada sanayinin ihtiyacından yola çıktı. Yani üyelerimizde talep edebiliyor. Mesela Hacettepe Meslek Yüksek Okulundan, geldi mesela, bağlantıda bulunduğumuz okullardan gelebiliyor veya odamız proje çağrılarımızı inceleyip, bizim meslek komitelerimiz var, her ay toplanırlar, bahsettiğim 35 tane sektör, ve kendi sorunları ile ilgili çalışmalar yapılması için bunlar bize gelir. -INT 27

> In fact, here it started from the need of the industry. In other words, our members can request it. For example, they came from Hacettepe Vocational School, they can come from the schools we are in contact with, or our chamber examines our project calls, we have professional committees, they meet every month, the 35 sectors I mentioned, and they come to us to work on their own problems. -INT 27

An important implication for idea generation for SI practices in HEIs is the involvement stage for idea generation. HEI actors are lacking leading roles which also disrupts the efficiency of operation and lacks the rigor to continue a systematic which has not been formulated. Accordingly, when HEIs become involved in the decision-making processes at an early stage, they can better integrate the practices to follow-up projects. If an HEI is left out of the idea initiation process, this also risks the integration of resources which could be integrated or mediated to the system.

The idea generation stage allows us to question several enablers to allow for HEI involvement. Foremost, there are different context settings that can be arranged to reap the benefit of creativity. These include classrooms, online platforms, mobility initiatives, quadruple helix contact, common spaces (i.e cafeteria, study rooms and accessibility to common work areas). The range of actors in contact i.e (students, academic, administrative staff, societal, governmental and industry -external networks (i.e interdepartmental, faculty, other HEIs and point of contact)) is also critical means to enable idea generation for SI activities which are social in nature.

4.2.1.1.2 Opportunity Seeking-Openness -Experience Management

The experience of the process is well revered by the implementors. This was also summarized in **Table 10**, where learning from experiences- good or bad was valued by the social innovation implementors. Especially for people with leading roles inviting the experience and newness is a whole new experience in itself. As mentioned by INT 10, a biased free approach is suggested.

> Inovasyon ile geleneksel yaklaşım ve yöntemleri, bence önyargısız, kararlı ve doğru bir biçimde harmanlayıp kullanmak önemli diye düşünüyorum-INT 10

> I think it is important to blend and use innovation and traditional approaches and methods in an unbiased, decisive and correct way-INT 10

Moreover, INT 08 mentions habits as an important hindrance to the experience of the process. Similarly, as pointed out by INT 22, it is important to note that this experience includes elements of serendipity to allow the ideas to be used and facilitated.

> Alışkanlıklar, zaten inovasyonların en büyük frenleyicileri alışkanlıklar. Kolay kolay kabul görmiyor. Bazı konularda adım adım gitmek gerekiyor-INT 08

> Habits are already the biggest stoppers of innovation. It does not allow (newness) to be easily accepted. On some issues, it is necessary to go in step by step (incremental) fashion. -INT 08

> Bu biraz hissederek, yaşayarak, içinden gelerek, birazcık böyle tesadüflerle oluşan birşey diyebilirim. Ve buna ilgim şöyle başladı, hep kendimi bildim bileli, bu konulara çok ilgili birisiyim ben. - INT 22

> I can say that this is something that is formed by feeling, living, internally driven, a little bit of coincidences. And my interest in this started as follows, I have always been a person who is very interested in these issues for as long as I can remember. INT 22

As mentioned by INT 04, involving all people in the system increases the experience and adoption of practices. As the respondent emphasizes, if commitment at all levels is not reflected, there is doubt for practices to show lasting effects.

> Topluma biz inovasyon yapacağız derken, sosyal inovasyon, kendi kurumunuzu unutmayacaksınız…. İnsanlar işin parçası olduğu sürece katkı yaparlar… Onu hissetireceksiniz, ben bunun parçasıyım. Fikrini alsanız bile yetiyor, bana bunu sordu, dediğim gibi yaptı, demek bile yetiyor, parçası oluyor. Parçası olduğunuz zaman kolay kolay bırakmıyorsunuz çünkü sahipleniyorsunuz. Bunu içeriye benimseteceksiniz, odacısından, dekanlara, bölüm başkanlarına, rektör yardımcılarına. O zaman kalıcılık daha kolay olur. -INT 04

> When you say to the society that we will innovate, implement social innovation, you should not forget your own institution.... As long as people are part of the work, they contribute.... They need to feel it and say I'm part of it. Even if you get their opinion, it's enough, they can say s/he asked me about it, s/he did it as I said, it's enough to become involved. When you're a part of it, you don't let go easily because you own it. You will make sure this is adopted internally, from the chamberlain, to the deans, to the department heads, to the vice-rectors. Then if becomes easier to last. -INT 04

The intangible element of social innovation also requires thinking in abstract form. INT 21 has mentioned the changing habits and we need to be able to be aligning our focus with such activity scope.

> Somuttan soyutta doğru bir geçiş var, bu ne demek, artık business modellerde de böyle. Artık araba sahibi olmuyorsunuzda, araba sahibi (filosu) olan şirketlere üye oluyorsunuz, istediğiniz arabayı istediğiniz park yerinden alıp, kullanıp sonra bir park yerine bırakıyorsunuz -INT 21

> There is a transition from the concrete to the abstract, what does this mean, it is now the same in business models. You no longer own a car, you become a member of companies that own a car (fleet), you pick up the car you want from the parking lot you want, use it and then drop it off in a parking lot-INT 21

Integration of systematic and critical thinking methodology in course work, administrative work and project work would enhance the openness to new SI ideas. In this regard, leaders have been assigned an important role to uphold to an open communication culture to build on the openness required to generate new ideas and models for SI.

4.2.1.1.3 Obstacle Assessment- Delimiting Conditions

As INT 10 points out change is hard, grounding to the reference of where you are is important. In this regard, transparent operations and giving time for evaluation maybe critical. This thoughtful process is also detrimental to how the idea is structured too, thus the opportunity window should be maintained at a pace suitable for the institutional structure.

> …inovasyon güzel, yani her türlü ortamı, toplumu, bireyi ileriye götürecek potansiyele sahip, ama tedirginlik verecek bir değişimde tercih edilecek birşey de değildir. Biraz bazende yerinde durup, onu sindirip, yerine temelleri, köklerini hissetme duygusu da bence önemli- INT 10

> …İnnovation is good it has the potential to take all kinds of environments, societies and individuals forward, but it is not something to be preferred in way that will cause unease. I think it's also important to have a sense of stillness, allowing time to digest and feeling the foundations, the roots, of the cause-INT 10

In some instances, some higher societal problems like earthquakes, floods and the pandemic have been mentioned as important facilitators to improve restricting conditions. For the pandemic, technology tools have been merited, with stories reflecting hybrid implementation practices that ease resource usage and also help facilitate the process. INT 10 has mentioned this potential very well, with her words:

> Toplumlarda bu toplumsal anlaşmaları ve sözleşmeleri, değer yargılarını yeniden yeniden düşünecekler bence. Bu pandemi, bazı şeylerde ciddi farklılıklar yarattı. Ve o yaratılmış olan farklılıklar, belki daha kapsamlı düşünülerek, daha kalıcı, değişikliklere de yol açacak. -INT 10

> I think societies will rethink these social conventions and conventions and value judgments. This pandemic has made a drastic difference in some things. And the differences that have been created, perhaps more comprehensively, will lead to more permanent changes- INT 10

A former dean INT 08 has mentioned that the hardships that have been endured are intertwined and thus to overcome the delimiting conditions it is important to act on the know-how we have.

> Hayat bir optimizasyon meselesi bir anlamda. İyi olmak için, insanlar bir sürü çırpıntı içindeler. Mesela evreni daha iyi anlayalım derken, Galileo, Kopernik'in zavallı sıkıntılarına rağmen Galileo daha meşhur oldu, çünkü o yaygınlaştırdı…Şimdi bu süreçler salınımlı olarak gidiyor ama muhakkak birbirleriyle etkileşiyorlar. -INT 08

> In a sense, life is a matter of optimization. To be good, people are in a lot of efforts. For example, when we want to understand the universe better, Galileo became more famous because he popularized it, despite the pitiful troubles of Copernicus…. Now, these processes are oscillating, but they are definitely interacting with each other. -INT 08

Development of induction and deduction skills in enhancing systems thinking methodology to understand the whole vs. part can enhance the value add in overcoming the delimiting condition of value creation for SI.

4.2.1.1.4 Value Frontier

The value frontier posits the potential of activities within the HEI ecosystem as was depicted in **Table 3**. It is also a reference to the guidelines that need to be considered in order to satisfy a social innovation problem with its potential. This value frontier is important because an approach that was deemed to be 'best practice' for an institution or a context, may not be the best practice a second time. Since the actors are constantly changing it is critical to structure the operations and steps to entail the best solution in regard to use of resources, which mainly include time and the resources to fulfill it. In this sense, the problem at stake may need to be handled case by case for a specific problem, or it might be enlarged to include the critical elements required.

HEIs need to understand how their internal ecosystem actors (i.e students, faculty, administrative staff) can create social value. Moreover, this value add needs to be maintained through proper recruitment, training and support mechanisms to ensure quality research is sustained (Belcher et. al, 2022).

INT 19 summarizes the approach to value creation at a micro-scale. The respondent has justifiable reasons for his approach to increase the impact at its environment and with the people that are involved.

> Türkan Saylan, cüzzamı da yok etmiştir, onun bulduğu yöntemnde muazzamdır, yenilikçiliği oradadır. Cüzzam sayısı bilinen ve kayıt altında olan kişiler olduğu için, her bir cüzzam hastasına dosya açmış, her birinin özgün çözümünü bulmuştur. Yani her hastaya ona ait bir çözüm bulmuştur. Ben bu yöntemin çalıştığını düşünüyorum, o yüzden ben mikro ölçekli çalışan birisiyim. Ve buna gücüm yetiyor, bireysel davranıyorum, ama bireyci değilim, birilerini bu işin içine muhakkak katıyorum, ilkeleri baştan koyuyorum. INT -19
>
> Türkan Saylan also eradicated leprosy, she is extraordinary in the method she found, Her innovation is there. Since the number of leprosy was known and recorded, she opened a file for each leprosy patient and found a unique solution for each of them. In other words, she has found a solution for each patient. I think this method works (for social innovation), so I'm a micro-scale worker. And I can afford it, I act individually, but I'm not an individualist, I definitely involve others in the principle from the beginning -INT 19

> Ben hiçbir zaman ölçeği büyütmedim. Bu scale-up fikrine çok gıcığım, çünkü ölçeklendirildiğinde bazı projeler, tüm ruhlarını kaybediyor. Bu şeye benziyor, iyi bir aşçının, lokantısının bayiilik vermesine benziyor yani. Onu çoğaltırız, aşçıyı çoğaltamıyorsunuz ki-INT 19
>
> I've never scaled up. I'm very far with the idea of this scale-up, because some projects, when scaled up, lose all their soul. It's like there is this a good cook, a good restaurant, and it is given a franchise. We multiply (branch) it, but you can't multiply the cook-INT 19

Seeing the value potential of the problem helps in creating a strategy to develop the SI's first hand. The first step of the conceptual model emphasizes the commitment to develop an idea and to avoid disregarding ideas in its early stage without giving it time for fruition. Similarly, early involvement of HEI actors creates an opportunity to use its inherent pool of resources to the advantage of the HEI. The value frontier also encapsulates the potential to restructure resources to create dynamic capabilities.

4.2.1.2 Governance Practices of SI within HEIs

Governance practices dictate the way the activity or process is managed within its binding environment. The eleven steps listed in this section will help ensure that the social innovation practitioner is aware of the decisions to be made for impactful action. Starting from an aligned mindset to creating a culture, the aim is to ensure that the social innovation process is well maintained and proper actions can be taken at the right time. Governance ensures the activities are aligned with the institution's main mission and the responsibilities of the relevant actors. It is important to share a common vision to initiate and sustain the related SI activity scope.

4.2.1.2.1 Mind-set- Sharing a Common Mission-Vision

The respondents have mentioned in **Table 11** that like mindedness and similar motivation are important drivers to govern SI practices. The respondents have mentioned many difficulties with people that do not understand and encapsulate the SI mission. Otherwise, it is likely that the project team dissolves and discontinues the SI practice.

Table 11 Positive Project Team Traits in SI

Positive Project Team Traits in SI	Frequency (Counts)
Like Minded -Similarly Motivated People	9
Previously Known and Worked Colleagues	7
People taking responsibility	6
Acts on Value Add	4
Inclusive	3

The respondents in the semi-structured interviews have mentioned intrinsic properties as the dominant feature to take action on a subject which motivates people to take action. This emphasis is also mentioned by INT 15:

> Yerleştiği ekosistemde, kendisini sorumlu hissetmesi, oradaki sosyal boyutları görmeye çalışması ve buradaki sorumluluğu üstlenmesi. – INT 15

> Feeling responsible in the ecosystem in which it is settled, trying to see the social dimensions there and taking responsibility here- INT 15

Moreover, it is as important to perceive a/the problem but also feel responsible to take action for the problem itself as mentioned by INT 06. One of the direct outcomes of social innovation is the drive potential to change attitudes which is also emphasized by INT 17 respectively:

> Kim çözecek dendiği soruna, dünya çözecek kutuplardaki sorun diyen genç, iki sene sonra ben çözeceğim demeye başladığı ise eğer burada bir farkındalık oluşmuş.-INT 06
> If the young person who was once asked who will solve the problem at the arctic poles says the world and two years later starts to say that I will solve it , then awareness is formed.-INT 06

> Bu sadece sizin yaptığınız, bir etkinlik ve faaliyet ama bunun etkisi ne oldu, biz o eğitimi verdik diye, insanlar sosyal inovasyonu anlayıp o alanda çalışmaya karar verdiler mi? -INT 17

> It's just an event and an activity that you do, but what was the impact of it, did people understand social innovation and decide to work in that field just because we provided that training?- INT 17

We need to change the perception of action and also imitate the change potential for Sl as mentioned by INT 15:

> Temel olarak inovasyon dediğimizde, yüksek kalite iş gücünün yapabileceği, ve çok teknolojikmiş gibi hatta belki matematiksel, birşeymiş gibi algılanıyor. Buradaki içteki dönüşümü ve devrimciliği, iyi anlatmak gerekiyor, böyle düşünüyorum. – INT 15

> Basically, when we talk about innovation, it's perceived as something that high-quality workforce can do, and it's very technological, maybe even mathematical. I think it is necessary to explain the inner transformation and revolutionism here.-INT 15

The primary focus of the HEI will determine the orientation of action. Respondents from SI focused universities have mentioned that SI missions are attenuated to departments and departments have yearly goals of output based on SI. Each university does not distinctively have to have the same roles or contribution scale for social innovation. In this sense, understanding their primary roles and values becomes an important instigator to what type of action universities would want to follow. INT 18 has mentioned that HEIs need to integrate social innovation within their practices,

regardless of the categorization by YÖK or any other official distinction made by their upper management.

> Her üniversitenin aynı misyon ve vizyonu aynı şekilde kurulmuyor ve kurulmamalıda, Mesela ODTÜ, Bilkent çok iyi araştırma üniversiteleri, onlar stratejik olarak ona odaklanıyorlar. Ama stratejik odağı bu yönde olan üniversitelerin yapmasında çok büyük fayda görüyorum, yine uygulama tarafında önemli gelişmeleri destekliyorlar. -INT 18

> Not every university has the same mission and vision, and it should not be established in the same way, each of them has different things. For example, METU, Bilkent are very good research universities, they focus on it strategically. However, I see great benefit for universities with strategic focus in this direction (for social innovation). They also support important developments on the implementation side-INT 18

INT 10 draws attention to the lack of commitment to the university missions:

> Türkiyede bazı tartışmalar çok gerekli olmakla birlikte, tabii üniversitelerin misyonları içerisinde bunların olması gerekli. Canı gönülden inanmakla birlikte, maalesef fiiliyatıda eksik görüyorum, bunun dinamik gücü ise, her toplumda olduğu gibi yöneticilerin desteği ve onayı olması lazım. Yöneticiler, o doğrultuda toplumsal sözleşmeleri, ortaya koyupta, buna da uygun davranmazlarsa heryerde bir kaos hüküm sürüyor maalesef. -INT 10

> Although some discussions are very necessary in Türkiye, of course, within these discussions (social innovation) should be included in the missions of universities. Although I wholeheartedly believe in it, unfortunately I see it lacking in practice, and the dynamic power of this is that it must be supported and approved by the administrators, as in every society. Unfortunately, if upper management do not put forward social contracts in this direction and act in accordance with them, chaos reigns everywhere. -INT 10

Respondent INT-03 reflecting the upper management role emphasizes adopting different strategies to integrate social innovation in HEIs. He draws attention to the power relations and emphasizes the use of power roles to change the horizontal and vertical channels of communication. This is also a critical relevance to individuals in the system being change agents to change and challenge the current systematics.

> Türkiyede, üniversitler tepeden aşağıya mı yönetilsin, aşağıdan yukarıya mı yönetilsin gibilerden, iki taraftanda çalışmak lazım aslında, gerekirse tepeden, kurumlarda da sırf üniversiteyi kast etmiyorum, olabildiğince zaten bu gönüllülük işi olduğu için. Yukarıya gücü yeten yukarıya, aşağıya gücü yeten aşağıya, topluma bir şekilde bunu benimsetmek, hazmettirmek gerekiyor. Öbür türlü başarısız olursunuz. -INT03

> In Türkiye, the dilemma of university's being managed top-down or bottom-up should be studied from both perspectives. This is not pertinent to only universities either. If people have more power to change the dynamics from above, then top-down

> approach, if people in the bottom have more power to change society than bottom-up. This is how we will make society adopt and digest this newness. Otherwise, we are bound to fail. -INT03

INT-12 mentions the enforcement power of YÖK in organizing activities. Higher level priorities also shape the institutional activities in the Turkish HEI system. There is potential for YÖK to be working on integrating social innovation practices in both the public/foundation university network.

> YÖK isterse zınk (hemen) yapılıyor. Bu herhalde, her üniversitede böyle, ama hiç uzamıyor. Hemen o gün geliyor, ertesi gün bölümlere gidiyor, üçüncü gün bitiyor bu iş. O yüzden 'top-down' klasik hiyerarşi, her zaman heryerde çalışıyor. -INT 12

> If the Council of Higher Education (YÖK) wants something it is done immediately. It is probably the same case in every university, and the request never prolongs. The instruction (from YÖK) comes that day, goes to the departments the next day and on the 3rd day it is completed. That's why the 'top-down' classic hierarchy works everywhere all the time-INT12

Commitment and common ground help to understand the requirements to complete the actions. After a common understanding of the vision it is easier to support the planning of the processes. The SI actors have emphasized that after agreement on the idea and its impacts (which entails future outlook described in the mission and vision), it is important to construct the teams to plan the process. The respondents have recommended that the teams are formed early on to evaluate the competencies and design and act accordingly.

4.2.1.2.2 Team Building (Interdisciplinary-Transdisciplinary)

Matschoss (2020) reinforce the idea that SI differs from other types of innovation precisely because of its forms of collaboration. Trans disciplinarity ensures that societal problems are approached through interdisciplinary collaboration between researchers and external actors, who may or may not be scientific in nature (Scharra, 2010). Integrating learning processes between science actors and societal actors is a critical input to the research process (Jahn et, al, 2012) and which also enriches social innovation practices. The teams to be constructed for SI activity should make sure this inclusivity is ensured. However, as mentioned by the respondent this is not an easy process. Inclusivity ensures proliferation of actors and also insures representation.

INT 13 mentions the dimensions of the different disciplines and the reluctance in taking the first step to work together to add value.

> …bunun topluma ulaşması, bence o değişim ve dönüşümü sağlaması en zor yanı. Şimdi o zorluğu teknik birşeyi geliştirir gibi ele almamam lazım zaten. O noktada, mutlaka, farklı birimler ile sosyolog, pskiloglar, politika, kültür yanı, plansal yanı, çok boyutlu birşey. Dolayısıyla, çok boyutuyla işbirliği içinde çalışabilecek bir kültür lazım….O değişim çok ilginç. Yani, bunun bulundukları yerden , bir adım öteye geçmek gerekiyor. Sadece bir adım, o bir adım ile ilgili sorunumuz var. O bir adımı anlatabilmek için ,kasların geliştirilmesi lazım. Onun için , disiplinlerarası bir ortam oluşturmak lazım.- INT 13

> ... The most difficult part of this is to reach the society and to provide that change and transformation. Now, I shouldn't treat that challenge as if I were developing something technical. At that point, it is definitely a multidimensional thing with different units, sociologists, psychologists, politics, culture, planning and more. Therefore, we need a culture that can work collaboratively in many dimensions That change is very interesting. So, from where they are, it is necessary to go one step further. It's just one step, we have a problem with that one step. In order to explain that one step, the muscles need to be developed. We need to create an interdisciplinary environment for that -INT 13

Yet in entirety, INT 10.draws attention to the lack of interdisciplinary working culture among disciplines which hinders interdisciplinary and transdisciplinary teams.

> Çok üst düzeyde bir multidisipliner çalışma yapılıyor mu derseniz, o kadar fazla çalışma yok, ama belli alanlarda var. Mesela bir dönem, mühendislikler ve fen bilimlerindeki arkadaşlar, oradakiler doğal olarak birbiri ile çalışabiliyorlar. Ya da, iktisadi idari bilimler ile işletme fakültesi ile zaman zaman ortak seminerlere gidiliyor geliniyor. Ama joint work anlamında tamamen kişilere kalmış- INT 10

> If you ask me if there are multidisciplinary studies at a very high level, there are not that many studies, but there are in certain areas. For example, for a while, collegues in engineering and science can naturally work with each other. Or, from time to time, joint seminars are held with the faculty of economics and administrative sciences and business administration. But in terms of joint work, it's entirely up to the individuals - INT 10

INT 28 emphasizes the permeability of the sciences and the value of utilizing these in different settings to create value. Working with different disciplines may also induce future interdisciplinary and transdisciplinary work.

> Mühendislik, şirketlerde buluş yapıyor. Bunun tersi de oluyor, sosyal bilimleri bu açıdan çok küçümsememek lazım. Örneğin yetişkin eğitiminde,

> study circle diye kullanılan bir kavram, çalışma çemberleri olarak, ve sıklıla İskandinavya'da yetişkin eğitiminde çok sıklıkla kullanılmış bir çalışmadır. Zaman içerisinde, örneğin bir Japonyada, fabrikalarda çok iyi uygulamaları var, kalite çemberleri haline dönüşüyor. Birimlerin bu geçişli olması, işte daha iyi, daha yararlı, daha ucuza, daha çabuk, sürdürülebilir fikrini ortak olduğu görüşünü veriyor. Benim inovasyondan anladığım şey budur ve bir sosyal bilimlerde bunu bireye, aileye, topluma fayda diye bakarız, biz çalışmalarımızı bu şekilde sürdürürüz-INT 28

> Engineering makes inventions in companies. The opposite is also happening and social sciences should not be underestimated in this respect. For example, in adult education, a concept called study circles, is a study that has been used very often in adult education in Scandinavia. Over time, for example, in Japan, they have very good applications in factories, they turn this into quality circles. This transitivity of the sciences gives the view that they share common ideas that it are better, more useful, cheaper, faster, sustainable at work. This is what I understand by innovation, and in social science, we look at it as a benefit to the individual, to the family, to the society, and this is how we continue our work. -INT 28

An important enabler of SI culture is the willingness and the readiness of disciplines working with each other. In social settings it is very difficult to exclude one discipline over the other. The systematic outlook can only be reached with teams that include different disciplines to add value and to be able to utilize core disciplinary approaches to different settings and context.

4.2.1.2.3 Purpose Driven Planning/Methodology

The association of social innovation with public sector, public innovation, public goods and public services is not a coincidence. Some of the attendees in the research have mentioned public innovation practices as an important sustainability factor for social innovation (INT 4, INT 16, INT 20, INT 24, INT 28 and INT 37). The unique distinction is critical to understand how public value should be structured.

However, Rana et al. (2014) and Schachter and Wallace (2017) draw attention to the lack of systematic methodology within these contributions which have resulted in selection and/or inclusion bias. HEIs in themselves are considered public bodies, which thus require a systematic approach for practices. It is critical that SI practices are enforced with the research and knowledge embodiment of universities, which could also support inclusive and quality output for other public service facilities (ministries, municipalities etc.).

As seen in **Table 12**, the necessity for a project driven methodology (19) was emphasized by the respondents to ensure SI project success. This is also followed by the need of a detailed needs analysis (17) to structure the methodology. The methodology can also be greatly developed by mirroring projects similar in nature.

Table 12 SI Project Priorities and Difficulties reflected by respondents

Top 20 Positivity in SI Project Process	Frequency	Top 20 Negativity in SI Project Process	Frequency
Methodology and Systematic	19	Bureaucracy	17
Mirroring Externalities	18	Solely individual efforts	8
Detailed Needs Analysis	17	Long Term Effect	6
Impact Evaluation of Resources/Partners	15	Forced implementation-legislation	6
Interdisciplinary-Transdisciplinary Approach	14	Lack of Working Culture	6
Visibility of Implementation	14	Paperwork	6
DEC Strategy for ownership	13	Raising awareness	5
Follow-up On Activities	13	Kind of Attitude	5
Transformation of Good Examples	13	Few project team members	4
Defining Goals-Expectations Clearly	13	Inconsistency in Contribution	4
Autonomous Areas	12	Convincing Partners	3
Follow-Up Project Potential	11	Lack of Infrastructure	3
Change in Attitudes	10	Disparate Efforts not joint	2
Transparency	10	Wrong matching of partners	2
Inclusiveness and Variety of Partners	10	Learning Project Application	2
Networking Depth and Range	10	Lack of multi-perspective integration	2
Self-Organizing Teams	9	Not prioritizing service to community	2
Realistic Practical Implementations	9	Few project example implementations	2
Inspiration Fields Creativity	8	Lack of collaboration	2
Clear Roles for Stakeholders	8	Inconsistency in Motivation	2

An important suggestion by INT-02 is to coordinate project activities within the ecosystem through a centralized needs analysis that pin points core needs and also better aligns the resources through detailed planning.

> Örneğin, projeler bazında ihtiyaç analizi yapılarak bir proje yapılması öngörülüyor fakat, eğer ki devlet eliyle, ya da araştırma kuruluşlarının görevlendirilmesi ile ihtiyaç analizlerinin yapılıp, nerede boşluklar olduğu ortaya çıksa ve bunlara yönelik nokta atışı proje çağırıları çıksa, çok daha efektif çalışmalar yapılabilir kanaatindeyim. - INT 02

> For example, it is envisaged to carry out a project by making a needs analysis on the basis of projects, but if needs analysis is carried out by the state or with the assignment of research institutions, the gaps can be pinpointed and specific project calls can be issued for them. I believe in such a case much more effective studies can be carried out-INT 02

The top listed need for a successful SI project is a methodology and systematic to support the activities to be implemented. This is followed by good examples to mirror and to learn the needs and process of the implementation. Uniquely, this is also emphasized with a detailed needs analysis to encapsulate the core needs of the problem. This is accordingly also supported by first forming an interdisciplinary team to detail the methodology as mentioned in the previous step.

The aim is to insure there is a proliferation of partners to avoid risks of mismatch. A sound methodology also avoids disparate efforts and the need to re-learn applied and implemented examples. The role assignments within the process also supports the risks of inconsistent motivation and disparate efforts by matching the need with the relevant partner or task to complete it.

4.2.1.2.4 Support of New Roles and Their Leadership

One of the difficulties in social innovation is the distinction of roles for value enhancement. There are different roles enacted within the system constituents, however the process steps may have different individuals rendering to the solution of the problem. Since, innovation does not have clear demarcation to activity scope it is apparent that the different roles need to be coordinated in a streamlined fashion. Possible distinctive responsibilities within the process are summarized by INT-04:

> Açıkçası sorunu tespit eden, o sorunun giderilmesinde sorumlu olan, ve teknolojiyi geliştiren aktörler farklı aktörler. - INT04
>
> Obviously, the actors who identify the problem, who are responsible for fixing that problem, and the actors who develop the technology are different actors. -INT 04

Another criticality is assigning roles and responsibilities within the ecosystem actors, one of the deficiencies in especially policy documents and 12th Development Plan is that there is a lack of answering the 'how' and ''whom' questions, which creates oblivion in taking responsibility and furthering the activities, this concern is mentioned by INT-01 and also INT-05:

> Herşeyi de devlete yıkmak doğru değil ama, hani yaygınlaştırılması açsından da bir sahibinin olması gerekiyor. Kim sahibi? Aile ve sosyal hizmetler bakanlığı mı? Yani anlatabiliyormuyum? Gerçekten bunun görünürlüğünü artıracak ve birşeyler yapacak. -INT 01
>
> It is not right to expect everything from the state, but it (social innovation) must have an owner in order to disseminate it. Who owns it? Is it the ministry of family and social servies? I mean, do I make myself clear? To increase the visibility and to do something-INT 01

INT-05 also mentions that there are also no assignment and follow-up of roles, no aligned systematic to continue , follow and sustain the efforts initiated previously.

> 11. Kalkınma planını belki 3-4 defa okudum baştan sona, problem teşhis edilmiş, ama çözüm noktasında bu işi çözecek işin sahibi kim, işin sahibi yok. Üniversitelerde de bu şekilde işin sahibi yok. Ankara Valililiğine sorarsanız, aile ve sosyal politikalar bakanlığının il müdürlüğü var diyecek, onlar bu konuyu takip ediyor diyecekler. Dolayısıyla bu işin bir sahibinin, takip eden bir biriminin olması gerekiyor- INT 05
>
> I have read the11th Development plan maybe 3-4 times from beginning to end, the problem has been diagnosed, but at the point of solution, there is no owner of the job, who owns the job to solve this problem is unclear. Universities don't have a point-of contact either. If you ask the Ankara Governor's Office, they will say that there is a provincial directorate of the Ministry of Family and Social Policies, and they will say that they are following this issue. Therefore, there must be an owner of this business, a follow-up unit. -INT 05

In respect to the HEI ecosystem, there are a lot of conflicting roles hindering social innovation practices. The main roles of teaching and publication is revered but service to society is in practicality impossible if it is not integrated into the expected practices of the academician as mentioned by INT 24.

> Türk akademisinde, bir akademisyenin meşguliyetini sağlayan iki temel mesele var. Birisi kendi verdiği ders, başkasının verdiği ders değil. İkincisi de, yayın ve yayın, makalesi şusuydu busuydu. Eee, şimdi benim yaptığım iş, ikisine de girmiyor. Ama bir üniversitenin sosyal inovasyon ve topluma hizmet etmek diye tanımlanmış bir görevi de var. Ve bu görev, ancak ve ancak, ders ve yayın dışındaki meselelerden çıkabilir. Yani ben yayın için araştırma yapıyorum, buradan da toplum için sosyal inovasyon olsun çok zor. - INT 24

> In Turkish academia, there are two main issues that keep an academician busy. One is teaching their own lesson, not someone else's. Secondly, publication and publication article requirements. Well, what I'm doing now doesn't fit into either. But a university also has a defined mission as social innovation and serving society. However, this task can only arise from matters outside the classroom and publication. Researching for publication, and also promoting social innovation for the community is quite difficult- INT 24

Another concern raised is that universities are not fast enough to take on leading roles for social innovation practices due to their poor internal governance and also their speed of response. This concern is mentioned by INT 19 as follows:

> Bir affiliation olmalı üniversitede, ama üniversitenin yönetici olduğu değil, paydaş olduğu, hatta lead edildiği önder olanında dışarıdan bir yapı olduğu durumda geçerli. Üniversite çünkü yönetemiyor, çünkü üniversite kendini yönetemiyor. (Sosyal inovasyon) Çok dinamik bir yapı, hızlı karar vermek durumunda, hemen yapmak gerekiyor. -INT 19

> The university should be affiliated, but not in a leading-managing role, as a stakeholder and in one that is lead as an external partner. The university is bad at governance, it can't govern itself. (Social innovation) is a very dynamic structure, in case of making a quick decision, it is necessary to do it immediately-INT 19

Innovation in its nature includes unpredictably. Mulgan et al., (2007) suggests the importance of leaders to navigate the difficulties, find new financial models to support innovation, create explicit methodologies, extend new types of partnerships and design new acts of empowerment.

Upper management plays an important role in enforcing actions oriented towards the mission-vision of the universities, this is emphasized by INT 12 through his following words:

> Buna bir formül vermedi rektör yardımcıları ama, mentaliteyi, amacı ve misyonu anlatıp, bölüm başkanlarına bıraktı -INT 12

> The vice-rectors did not give a formula for (management), but they explained the mentality, purpose and mission and left it to the heads of departments, -INT 12

The roles taken on by the practitioner or the actors within the HEI ecosystem are subject to change due to the process requirements and the SI need as the solution to the problem is being tested. This is an important gap to be addressed in regard to academicians expected to take on different roles to support their primary work of teaching and research and the new skills they need to encapsulate to provide effective SI applications. All actors within the HEI system should be considered potential change agents which also entrusts them with the role of a potential social entrepreneur. The respondents have mentioned several cases where the output and feedback were adapted to the first construction of the process need. It is evident that, especially for academicians, it is important to be able to assign new roles to the contributing partners and to also entrust the requirements of these roles to the relevant contributing parties. INT 36 had mentioned the difficulty in role assignment in SI projects because of the need of change in roles throughout the process.

4.2.1.2.5 Autonomous Areas for Ecosystem Stakeholder Management

A unique outcome of the study was the emphasis of autonomous areas by different respondents. The essence of these areas is the freedom to create and also have a space where ecosystem actors can effectively interact with each other. The governing principles is also a criticality in university administration as structures that are within university campuses face governing rules that limit their operation and activity scope. These co-space areas have been described to be important catalyst areas for unique value add to the social innovation initiatives. Also, to bear in mind, as social innovation requires creativity, these areas need to be able to give a 'voice' to everyone in an inclusive manner. INT-08 also gave a quote that he enjoyed that also summarizes the role of such areas: "Before you raise funds, you must raise friends".

INT 17 mention the need of areas for joint collaboration:

> Bizim kendi üniversitemizde tek kişinin yapacağı birşey değil, hepimizin desteği ile yapabilceğimiz ve tasarlayabileceğimiz bir alan olması gerekiyor- INT 17
>
> It is not something that can be done by one person in our own university, it should be a field that we can act and design with the support of all (the actors) -INT 17

INT 20 describes an important characteristic of these areas as impartiality:

> …özellikle tarafsız bölge olarak kullanılabilecek, kendi içinde ekosistemi besleyebilecek paydaşlar, sürdürülebilir oldukça inanılmaz ışık saçabiliyorlar her yere. -INT 20

> …in particular, areas that can be used as neutral zones, stakeholders that nurture the ecosystem in themselves can shed incredible light everywhere as long as they are sustainable. -INT 20

These areas should also spark interest from other faculties and departments as mentioned by INT 17:

> Üniversitelerde de böyle tarafsız yerler olacak, bölümün fakültenin güdümünde olmayan, tarafsız bölgeler olacak, ve orada öne iyi birşeyler üretilecek ki, gerçekten bu anlamda birşey yapmak isteyen insanların ilgisini çekmiş olup, ona eklenmek isteyebilsin. Bence en önemlsi o, öbür türlü işte görevlendirmeler, bir proje var sende bakarmısın vs., yani sonuçta birşeyler çıkıyor ama bu kadar anlamlı şeyler çıkmıyor o durmda-INT 17

> There is a need of neutral places in the universities, neutral zones that are not under any faculty or any department. There will be so good things that will be produced that it will be of interest to people who really want to do something in this regard and want to be added to it. I think that's the most important thing, otherwise work or project assignments at work, , can you look at it, etc., something comes out as a result, but such meaningful things do not come out as in the (neutral place) state.-INT 17

Proximity to stakeholders of such areas also supplements the effectiveness of the activities as mentioned by INT 11:

> Üniversitelerde interdisipliner çalışmalar yürütülüyor fakat bizim bölümümüz buna çok fazla dahil olamıyor. Bir kez dahil olmaya çalıştı, bizim bölüm olarak Doğu kampüsündeyiz ve merkez kampüsteki öğrenciler ile bizim öğrencilerimiz arasındaki koordinasyon çok kolay olmuyor, sıkıntı buydu- INT 11

> Interdisciplinary studies are carried out in universities, but our department cannot be involved in this so much. Once we tried to get involved, we are in the East campus as a department and the coordination between the students on the main campus and our students was not very easy and that was the problem-INT 11

Another potential of these areas is the engagement of graduates and also making the campus more accessible for different needs and requests. This is also an important enabler to ‘break the walls’ of the university to support the value enhancements of its previous and current members as mentioned by INT 11:

> (Üniversiteler) insanın hayatı boyunca gidip geleceği bağlarını hiç koparmıyacağı, yeni olan teknolojilerin araştırmaların vs. lerin, ben gelip şunu öğrenmek istiyorum dediğinde, kapısını açıp, girebileceği bir mekan olmalı. Önümde öyle açık kapı olaydı, ben bu sene şunu öğrenmek istiyorum der giderdim. Bu ille benim kendi alanımla

ilgili olması da gerekmiyor. Ben giderdim psikolojiden de alırdım, felsefedende alırdım... Bence yenilik budur, topluma her an, her isteğe kapısını açabilen, ve her istediği alanda onun eğtim almasına olanak sağlayan bir yapıya kavuşturulmalı. Benim hayallim olan, insanlığı komple değiştirecek bir sistemden bahsediyorum. - INT 11

(Universities) should be a place where people will come and go throughout their lives, never breaking their ties, with an open-door policy. If I want to understand new researched technologies., I should be able to come and say I want to learn this. If there was such an open door in front of me, I would say I want to learn this this year and it doesn't necessarily have to be related to my field. I would go and take it from psychology, I would take it from philosophy… I think this is innovation, it should be brought to a structure that (universities) can open its door to the society at any time, at any request, and that it allows people to receive education in any field it wants. I am talking about a system that is my dream, that will completely change humanity- INT 11

These areas are critical to change the diversification of ideas as mentioned by INT 18:

Çünkü bizim düşünmediğimiz çok güzel işler çıkıyor, gerçekten bu alana özgürlük sağlamak lazım. Ve ne oluyor, nasıl birbirleri ile çalışıyorlar, ve bizim bunları yakalayıp nasıl kolaylaştırabiliriz. Bunu görmemiz lazım, yoksa belli bir kalıp içerisinde, büyümüsini yönlendirmek bence doğru değil. Çünkü daha nasıl bir yapı oluşacağı ve bu insanların nasıl çalışmakta hoşlanacağı. Evet sosyal girişimciler, birlikte çalışmaktan hoşlanıyorlar, pek çok şeyi birlikte yapıyorlar ama sonuç olarak bazılarının çok spesifik stratejik öncellikleri var. Yani kimisi bazen çevreye odaklı iken, kimisi tamamen iş etiğine, ya da eğitime odaklı. O yüzden birleşecekleri yerlerde oluyor ama tamamen kendi başlarına devam etmek istedikleri yerlerde oluyor. Tamamen onlara özgürlük sağlayacak ve destekleyeceği bir ortam ve politka izlemek lazım diye düşünüyorum. Şu anda ben teşviğe çok karşıyım şu aşamada- INT 18

Because there are very good things that we do not think of, it is really necessary to provide freedom to this area. And what's going on, how do they work with each other, and how can we catch up with them and make them easier? We need to see this, otherwise I don't think it's right to direct your growth in a certain pattern. Because what kind of structure will be formed and how these people will like to work is unclear. Yes, social entrepreneurs, they like to work together, they do a lot of things together, but in the end, some of them have very specific strategic priorities. In other words, some are sometimes focused on the environment, while others are completely focused on business ethics or education. So it happens in places where they will unite, but it happens in places where they want to continue on their own. I think it is necessary to follow an environment and policy that will provide them with freedom and support. At the moment, I am very much against the incentive at this stage- INT 18

INT 23 also mentions the use of several areas for such a purpose as follows:

Biz bir fiziksel mekan açtık, bu mekanı yaşayan bir yer kıldık, ama o mekanı belirlemedik, şehrin bütün mekanlarını sahiplendik ve birlikte neler üretilebilir

> noktasına odaklandık. O noktada, test ettiğimiz problemler bireysel olmaktan çıktı , çünkü bizim işimizin sürekli olması için, işimizin sürdürülebilir olması için o topluluğun sağlıklı şekilde sürdürülebilir olması lazım-INT 23
>
> We opened a physical space, made this space a living place, but we did not determine a single space, we embraced all the spaces of the city and focused on what could be produced together. At that point, the problems that we tested were no longer individual, because in order for our work to be sustainable, for our work to be sustainable, that community had to be sustainable in a healthy way-INT 23

Autonomous areas are important areas that seed creativity and allow the change actors to act in a free manner. Academicians value this free space where bureaucratic hindrances are overcome through creative ideas. These areas also allow for inclusion of external actors and do not limit the collaboration potential limited to a single division or single discipline.

4.2.1.2.6 Change Agents to support resolution, to resolve resistance and increase resilience

Change agents in universities are actors that have the potential to restructure and also instill new ideas to help in resolution of conflicts, improving the barriers to resistance and also allowing for more knowledgeable actors to feed the system to increase resilience to problems and also internal/external conflict. Change agents also act to reevaluate perceptions for better vision for the social innovation process. This could also rely on preconceptions for certain stakeholder's role that they know the issue well. It is important to encapsulate different views and to include the changing dynamics to question the beliefs and in fact make the value proposition for SI stronger. INT 21 mentions this bias for instructors in the following comment. The respondent emphasizes that in order to be a change agent, the actor needs to reflect a universal value-add potential for all of the activities that are conducted. This also implies that HEI actors should not have a limited view on how they see potential in certain settings and should be willing to change the status quo with unique competencies to encapsulate holistic solutions. Student-end users are coming more to the fore with their unique age difference, set of values and their willingness to try new things:

> Öğretmenin, öğretim görevlisinin verdiği şey (görüş). Tamam samimi de, ne kadar biliyor?. Dünya görüşü nedir, onları da sorgulamak lazım. O yüzden ben diyorum, çıkın, müşterinizle, kullanıcınızla kim bu hizmeti kullanacak ise…,-INT 21

> The teacher, lecturer gives an opinion. Okay, you feel they are sincere, but how much does s/he know. What is their worldview? we need to question this as well. That's why I say, get out to the field to your customer or user, who will use this service…INT 21

In order to refine views and roles, change agents act as important agents to question biases as well as mentioned by INT 22:

> Önyargılar ile ilgili, doğru kabul ediyorlar bazı şeyleri ama aslında değil. Kime göre ?, nasıl oluşuyor o düşünceler, bu bir bence şeydi, kırılma noktasıydı.-INT 22

> It's about prejudices, they accept some things as true, but they're not. According to whom? how those thoughts are formed, this was a thing, a breaking point-INT 22

From the interviews, change agents have been pivotal in resolving certain congestions in implementation and also in conflict management within the stakeholders, thus it is important that these agents are accepted to the system to refine and restructure beliefs for the betterment of the social innovation practice as mentioned by INT 31:

> Şimdi tıkanıklık başladığı zaman, her tarafı rahatsız eden birşey ama nasılsa gidiyor diye, fazla bir müdahaele etmek istemiyor taraflar. Arada böyle taktik müdahaleler gerekiyor, o bakımından her alanda, yönetişim, yönetim tarafında da olabilir, daha alt taraflarda da üretim aşamalarında da olabilir, heryere lazım olan birşey bu.-INT 31

> Now, when congestion starts, it is something that disturbs all sides, but the parties do not want to intervene too much because it is underway. Such tactical interventions are required from time to time, so in every field, it can be on the governance and management side, it can be on the lower sides or in the production stages, this is something that is needed everywhere-INT 31

Empowering the correct change agents is also an important effective approach as different universities may have different constituents that have more potential to change the dynamics of the system.

> Bilmiyorum duymuşmuydun, Hacettepeyi idari personel yönetiyor, Bilkenti öğrenciler yönetir gibi, esprili birşey vardı. Hacettepe'de idari personel, (birşeyi değiştirmek için) birçok kişiden etkili olabilir mesela. Şimdi oraya getireceğiniz yenilikte onu göz ardı edemezsiniz. ODTÜ'deki akademisyenlerin konumu duruşu, o dokuya zarar verdiğiniz zaman, ODTÜ'ye zarar verirsiniz. Şimdi bu yüzden, sürdürlebilirlik, yaptıkları her iş ile beraber, o doku ile beraber, olması gerekiyor. -INT 13

> I don't know if you've heard, there was something humorous about Hacettepe being managed by administrative staff, Bilkent being managed by students. For example, the administrative staff in Hacettepe can be more influential than many people (to change something). Now you can't ignore it in the novelty that you're going to bring there. The position and stance of academics at METU is what you don't want to give harm to. Now,

> that's why sustainability has to be initiated with that texture of the institution with what you do.

The instigation of change agents also allows the following activities to be carried out to help resolve problems within the social innovation problem structure as mentioned by INT 23. The role of change agents emphasized here is to 'think outside of the box' to value the potential.

> …problem dediğimiz ya da acı çekilen konu dediğimiz şeyler üzerine odaklanıp, biz burada nasıl model kurgulayabiliriz hangi paydaşları işin içine dahil edebiliriz?, dahil ettiğimiz paydaşlarla nasıl şeyler yapabiliriz?. İşte sürecin ne boyutunda olmalıyız, ne noktasından sonra bir yere teslim etmeliyiz, -INT 23

> …by focusing on what we call problems or suffering, how can we build a model here, which stakeholders can we include, how can we do things with the stakeholders we include. At what dimension of the process should we be?, what point should we deliver somewhere?-INT 23

Change agents can act as important role models to change perception and resistance within the ecosystem. This is illustrated by the concern raised by the artist/academician INT 27:

> …buradaki en büyük handikap, biz sanatçıların ve müzisyenlerin, hala bu girişimcilik ve inovasyon kelimelerine, ve girişimcilik ve sosyal girişimcilik, sosyal inovasyon konseptine hala sıcak bakmamak. Bakamamak, kabul etmemek, öğrenmek istememek, bu konuda bir çaba istememek. Şimdi böyle olunca, direnci kıramıyorsun, dolayısıyla sen ne kadar, para verip yurtdışından istediğin en iyi hocayı, en iyi workshopu düzenle, karşında bunu yapmak istemeyen ve buna inanmayan bir gurup insan var ise, akıntıya kürek çekiyorsun-ınt 27

> The biggest handicap here is that we, artists and musicians, still don't take kindly to these words of entrepreneurship and innovation, and the concept of entrepreneurship and social entrepreneurship, social innovation. Not being able to look, not accepting, not wanting to learn, not wanting to make an effort in this regard. Now, when this happens, you can't break the resistance, so no matter how much money you pay and organize the best teacher and the best workshop you want from abroad, if there is a group of people in front of you who do not want to do this and do not believe in it, you are rowing against the current. -INT 27

The normative approach of social innovation supporting change of social structures to avoid unfair outcomes, may not be received well with disciplines that are not aware of social implications in their research and knowledge creation activities (Çınar and Benneworth, 2021). However, transforming research governance is a complex process. Institutional change emerges in a dialectic process of path dependence and adjustments to changing conditions and power constellations are needed (Martin,

2023). All actors internal and external to the HEI system are potential change agents to allow processes to be questioned and restructured. This however is ensured with the freedom universities have to speak up about their needs and the structures that do not fit their operational context. There is a great amount of path dependance in activities which makes it difficult for departments and divisions to change their working style to adapt to the need of the problem. For example, if an academician needs to go to a site, the paperwork to initiate the process is more cumbersome and is also a missed opportunity due to loss of time. Social structures are dynamic structures and there is an apparent loss of input when the academician responds late to a problem. Although empowered by managerial and implementation role, INT 37 has mentioned that sometimes it is easier to conduct SI practices via NGO's or industry partners as there is less bureaucracy and the external actors are more ready to act on the need in a fast manner. Academicians should not be reprimanded and should be given the freedom to act on the needs-based requirement of the SI activity.

4.2.1.2.7 Transparency-Feedback Loops to refine process methodology as necessary

Transparency has been listed in **Table 12** to be among the top successful practices within SI practices to rebirth new solutions and sustain the practices effectively. Ecosystem constiuents value open communication and need to feel safe to contribute in an inclusive manner. As mentioned by INT-20 when there is reluctance of stakeholders to collaborate this is an important hindrance.

> Yönetimsel yapılar, bu dernek içinde kamu veya birey, herhangi bir görüş ile alakalı endişe duyuyorsa ve bunu siyasettende çıkartalım, ya da herhangi bir şekilde önyargısal endişleri var ise, bununla alakalı endişelendirenden ötürü uzak durabiliyorlar. İşbirliği yapacak birşeyden uzak durabiliyor. Bu da, çalışmanın sürdürüelebilirliğinde sıkıntılar çıkartabiliyor. Daha iyi olabilecek iken, daha küçük bir gruba ulaşmasına sebep olabiliyor-INT 20

> If the administrative structures, the public or the individual within this association, are concerned about any opinion, and let's take it out of politics, or if they have any kind of prejudiced concerns, they can stay away from it because of the concern about it. They stay away from anything to cooperate with. This can cause problems in the sustainability of the study. While it could have better (impacts), it can cause it to reach a smaller group-INT 20

An academician and entrepreneur, INT 16 also has mentioned the problems of coordination within the universities. This example illustrates transparent roles taken on by the academician as well as the roles of university management to understand the skill set and interest in their ecosystem to produce value add activities.

> Üniversitede ciddi bir koordinasyonsuzluk var…Belki her akademisyen bir nevi kendi patronu olduğu için, dediğim gibi dersi ver veya ofis saati bittikten sonra, öğrencilerin ile ilgilenebilirsin esnekliği olduğu içinde belkide sistem böyle. Ama üniversite tarafında ciddi sıkıntılar var yinede. Özgürlükler esneklikler var ama. Sonuçta benim üniversitem ve benim fakültemde, ne yapıyorum, neler üretiyorum, şimdiye kadar neler yaptığım konusunda bilgi sahibi değil. Burada benimde hatam olabilir, üniversiteninde hatası olabilir. Öyle olunca, üniversite ekosisteminde inovasyonların çıkması da daha zor oluyor-INT 16

> There is a serious lack of coordination at the university... Maybe because every academic is in fact like their own boss in a way, as I said, you can give the lecture or after the office hours are over, you can communicate with students, maybe the system is like this. But there are still serious problems on the university side. There are freedoms, there are flexibilities, though. After all, my university and my faculty do not know what I am doing, what I am producing, what I have done so far. It may be my fault here, too, but because of this it is difficult to have innovations in the university ecosystem. -INT 16

HEIs are in need of freedom to select the work that interests the academic, yet also lacking the transparency and feedback to ensure that activities are conducted in the intended manner. The participants have complained of the difficulties of not integrating proper feedback mechanisms and the risks it has borne on the SI process. Some respondents had commemorated the EU based projects with clear guidelines to follow and also the data type to be generated and the frequency of data generation. However, for national funding, the unstructured freedom has created problems for SI implementors as the data needed has not been properly integrated in the value creation process.

4.2.1.2.8 Action Orientation: Aligned, Adaptable, Agile

Hau Lee (2004) has mentioned three important approaches to overcome the balance in operations within the supply chain of companies: alignment, adaptability and agility. Alignment ensures that the aims and the resources of an entity match, adaptability allows actors to perceive changes in their internal and external environment and adjust accordingly and agility is the fast-paced, action-oriented approach to answer needs

perceived in a timely manner. This section mentions the various alignment, adaptation and agility concerns raised within the context of our work. Cheng et. al (2002) also mention similar concerns through effective, flexible and adaptable needs of education systems to produce direct and indirect economic effects. Societal factors are considered as 'social-economic behaviors' and are part of the indirect effects.

INT 19 successfully summarizes alignment within the university context as follows to be driven towards a societal goal to better society:

> O yüzden de bu dünya bir yere gidicek ise, ve iyi bir hal alma ihtimali var ise, bunun her tüm eylemlilik hali içinde. Buna herşey dahil gerçekten, bir türlü toplumsal fayda gözetmesi gerekir diye bir yerden hareket ediyorum. Toplumsal fayda gözetmeyen birşey bizi ileriye taşıyamaz, bireyci ve benci olan herşey bizi alır götürür. Sonunda o kişi kazanıyor oluyordur ama birileri muhakkak kaybediyordur. -INT 19

> So if this world is going to go somewhere, and if there's a chance it's going to get better, it's going to be through every state of action. It should from a place where it is really all-inclusive, it should result in some kind of social benefit. Anything that does not take into account the social benefit cannot move us forward, everything that is individualistic and selfish will take us away. In the end, one person is winning, but someone is definitely losing- INT 19

However, INT 19 also emphasizes that universities have fallen-out of the alignment to serve the community. This reflection emphasizes the mind-set and the vision to be decided on to continue their activities:

> Hegel'den beri biliyoruz, üniversite dediğin yer var olan düzenin yeniden üretildiğ kurumlardan biridir. Bu anlamda bakınca, üniversiteye biçilen bu fonksiyonun, bir toplumsal kanaat olarak kaldığını unutmamak lazım. Bugün üniversiteler toplumsal fayda yaratmak adına yenilikçiliği yerine piyasanın beklediği meslek insanı üretmek gibi garip bir yere kaymış durumdalar. -INT 19

> We have known since Hegel that the university is one of the institutions where the existing order is reproduced. In this sense, it should not be forgotten that this function assigned to the university remains a social opinion. Today, universities have shifted to the strange place of producing professionals expected by the market instead of innovation in order to create social benefit- INT 19

Alignment precautions to avoid subjectivity as mentioned by INT 20 as experience is also very valuable in social innovation practices. Since a co-creation culture is emphasized, the disparities need to be considered to align the interests and motivation of the stakeholders. The emphasis is to have a maximum value to SI aim.

> O da, maksimum iyi olması değil, maksimum fayda olması önemli. …Zorluklardan biri bu öğrenme sürecinin sancılı olması bana kalırsa. Herşey çok farklı yaşıyor bu süreci, bu sebepten ötürü, süreçlerin çok subjektif kalması. Benim edinimimle, bir başkasının edinimi aynı olmadığı için, aslında algıda problem olabiliyor, bazılarında daha farklı olabiliyor, bazılarına bu kolay gelebiliyor. -INT 20
>
> It is not important to attain maximum good, but maximum benefit. ..I think one of the difficulties is that this learning process is painful. Everyone goes through this process very differently, so the processes remain very subjective. Since my acquisition is not the same as someone else's acquisition, there may actually be a problem in perception, it may be different in some, and it may be easy for some.-INT 20

INT 14 summarizes an important concern within ecosystem actors. There are different institutions disparately working to solve certain problems, yet there is no pool to allow the utilization of know-how or experience among these groups. This can also be an important problem in partner matching too, where there are many actors but only few are visible which prevents other acts growing in the ecosystem.

> Türkiye'nin toplumsal problemlerine odaklanacak STK'ların projelendirilmesi anlamında o sepetten yararlanılmasını sağlamak. Bu da mesela sosyal inovatif bir fikir olabilir bence. Öyle birşey yok çünkü ortada. Bundan dolayı da, aynı işi yapan onlarca STK var ve birbirinden beslenemiyorlar-INT 14
>
> To ensure that there is a basket used in terms of designing NGOs that will focus on Türkiye's social problems. I think this could be a social innovative idea, for example. There is obviously no such thing at the moment. For this reason, there are dozens of NGOs doing the same work and they cannot feed each other-INT 14

Foundation and public university capacities are also an important distinction to action orientation and social innovation focus this is mentioned by INT 30.

> Üniversiteler toplumu kucaklamadığı müddetçe, sosyal inovasyon yapmaları da çok kolay değil. TED bunu yapabiliyor, özel üniversite olarak niche markete girme stratejisi var. Küçük üniversiteler daha çevik olduğu için, tık tık bu alanlara girebiliyorlar.- INT 30
>
> As long as universities do not embrace society, it is not easy for them to innovate socially. TED can do this, it has a strategy to enter the niche market as a private university. Because smaller universities are more agile, they can enter these areas with a click.-INT 30

As was mentioned by the industry partner INT 02, there is a need for our ecosystem activities to be aligned with higher national objectives. Institutional strategies amd

motives may not be aligned with national objectives which requires adaptation to higher objectives.

> Bence kurumların kendi stratejisini oluşturulmalarından ziyade, bir kamusal alanda çerçeve bir strateji oluşturup, ona göre işletmelerin ve diğer kurum/kuruluşların uyarlanmasının daha doğru olacağı kanaatindeyim, çünkü zaten genel uygulama da bu yönde. Bir kalkınma planımız var, onun altında sanayii stratejimiz var, biz sanayiye hizmet ediyorsak, bizimde stratejimizde, hem sanayii stratejisi ile uyumlu olmalı hemde o da kalkınma planı, bunun gerçekleştirilmesine hizmet etmeli -INT 02
>
> In my opinion, rather than each institution creating its own strategy, I believe that it would be more appropriate to create a framework strategy in a public sphere and adapt businesses and other institutions/organizations accordingly, because this is the general practice. We have a development plan, we have an industrial strategy under it, if we serve the industry, our strategy should be compatible with the industrial strategy and also the development plan. INT-02

It is important to assess the potentialities of the university through a detailed strategic plan addressing and monitoring the sector effectiveness within its activities. It is important to define the dimensions of value-add which also outlines and prioritizes the activity scope for the university. This approach is exemplified by one of the sector partners INT02 and their target scope in the area as follows:

> Stratejik planımız 3 boyuta oturuyor , bir tanesi üyelere verdiğimiz hizmetlerle ilgili, birisi kurumsal kapasitemiz ile ilgili, birisi de bölgesel kalkınmada etkin bir rol üstlenilmesi. Bölgesel kalkınmada etkin rol üstlenilmesi, tamamen bizim vizyonumuz, başkenti sanayi ve teknolojide lider yapmak-INT 02
>
> Our strategic plan is based on 3 dimensions, one is about the services we provide to our members, one is about our institutional capacity, and the other is about taking an active role in regional development. Taking an active role in regional development, is our vision to make the capital a leader in industry and technology-INT 02

Another need for adaptation is the need to offer new ways of value production to academicians as emphasized by INT 23.

> Üniversite yayın yapılmasını istiyor, oradan yine örnek vereyim, yayın yapılmasını istiyoruz , tamam, ama bu yıl farklı birşeyler yapmak, şöyle bir toplum projesi yapmak istiyorsunuz veya şöyle faydalı olacak birşey yapmak istiyorsunuz. Çok güzel, yap ama , onun faydalı ve işe yaradığını , yayın yapmadığın için (çünkü yayın yapmamamk önemli benim için üniversite olarak), ben sana buna izin vereyim ama sende bunu iyi yap. Onu iyi yaptığını bana göster. Esneklik olması lazım, bir fikir geldiğinde ya da gönüllülükte, onu sunabilmek onun ile ilgili hareket edebilecek bir motivasyonu olması lazım. Çünkü, öbür türlü, ben şöyle birşey yapacağım ama ona izin vermezler, şu olur vs. vs.'ler ile insanlar yılıyor ve vazgeçiyor. INT -13

> The university wants publications, let me give an example from there, we want to publish, okay, but this year if you want to do something different, you want to do community projects like this, or you want to do something that will be useful. It's very good, do it, but because you don't publish (because it's important for the university not to publish), (The university says) I'll let you do it, but you do it well. Show me that you do it well. There needs to be flexibility, when an idea comes along or volunteering, it needs to be able to present it, it has to have a motivation to act on it. Otherwise, if I do something like this, but they won't let me, what happens is people get frustrated and give up.-INT 13

Lastly, the agility requirement of the HEI actors is emphasized through INT 23. As can be seen the more time is taken to align and adapt to the need, the HEI actors risk the loss of role in such activities.

> Çok kesin ve katı kurallar olduğu zaman, yani yapısal olarak esneklikler olmadığı sürece, (karar vermek için) zamanlar uzadıkça, dışarıda uyuşturmaya çalıştırdığımız 3 ayda size proje üreten , üretime geçen bir dengeden bahsediyoruz Ve dakikalar onun içiln önemli, ben üniversite bacağına döndüğümde, dur bakalım onun öncelliği, onun kararı , onun kadrosu falan derken bu işbirliği birbiri ile konuşamaz noktaya gidiyor. Yani biraz işin işleyişi ve anlayış değişiklikler ile ilgili değişikliklere ihtiyacımız var. -INT 23

> When there are very definite and strict rules, that is, as long as there are no structural flexibilities, as the times (for decision making) get longer, we are talking about an external balance that produces projects for you in 3 months that we try to numb (to be inclusive of HEI actors), where the minutes are critical to them, When I return to the university leg, wait, I have to wait for (the academicians) priority, decision, the staff,it wants to incorporate etc., this stretch in cooperation goes to the point where entities cannot talk to each other.
> So we need some changes related to the way the work is conducted (among internal and external actors) and changes in understanding-INT 23

The action orientation of HEIs is questioned in regard to their quickness, complementarity and their adaptation rate to the SI problem. Often respondents have mentioned the difficulties of working with universities, in regard to their slow pace to enact solutions. The industry has been termed to be more ‘problem oriented’, where criticism of HEIs have been their lack of stamina to work and engage in actors that support the solution making process. Moreover, academicians that do not have dual affiliations (prior industry, NGO, public authority affiliation) face difficulty in trying to integrate solutions encapsulating the quadruple helix actors. This in fact draws attention to the need to diversify the skill-set of the

academician to better handle the necessities of the problem context too. Upper management has also been seen critical to ease and open new doors for implementation , which was listed as the number one need for upper management. It is clear that the flexibility to ensure an action-oriented approach is through the acceptance of the SI practices of upper management and the vision to allow unorthodox means to support the action initiative.

4.2.1.2.9 Knowledge Buildup-Increasing Absorptive Capacity-Learning Curve

Documentation is an important tool for corporate memory and also increasing the absorptive capacity within universities. One of the risks within any institution is the loss of corporate memory (INT 20) with the people leaving the system.

> Kamu hafızasını çalışanları ile beraber kaybediyor süreçleri içerisinde. Kurumsal hafıza aslında çalışanlar ile beraber güçlü- INT 20
>
> The public loses its memory with its employees in the process. Corporate memory is actually strong with employees-INT 20

With the changing dynamics of Türkiye as mentioned by INT 07, it is important to encapsulate the knowledge base created within the education system for value creation.

> Türkiye'de eğitim yap-baz tahtası haline geldi. Türkiyede hiçbir çocuk, 15 yıldan beri başladığı bir eğitim modeliyle mezun olamadı. Değil mi, özellikle liseler. 4 yıla çıkardılar, 3 yıla indirdiler, bilmem ne sınavı dediler,- INT 07
>
> Education in Türkiye has become a dash board. No child in Türkiye has been able to graduate with the same education model that has been started within 15 years,especially high schools they raised it to 4 years, they reduced it to 3 years, they said I don't know what exam, they called on new exams.-INT 07

The individual fragmented efforts of SI practices and the involvement of HEI actors at a later stage of SI construction has prevented a knowledge build-up for SI activity. This is also reflected in the supporting departments too (project support offices, managerial divisions), which often rely on a single actor to complete work items to be done. Documented project steps are not shared , lessons learned are inherent to the project lead and is utilized if another project is applied. The problem-solving

approaches for SI implementations are not also evident which hinders understanding of process requirements. If the process requirements are not laid out clearly, the outcomes are also impacted and this also is a risk to the sustainability of the activity as well. It is imperative that recurring SI practices are ensured to create an absorptive capacity to ensure knowledge buildup for SI specific project work.

4.2.1.2.10 Institutional-Network Memory

INT-23 has mentioned a critical employee charter, where people in critical positions are required to document their work and activities to protect the work practices within the institution. Institutional memory and network memory needs to be revised according to the priorities of the institution. INT 39 illustrates how the learned practices can be ensured in institutional memory.

> Biz proje dersinde kayıt altına tutmaya çalışıyoruz ama ben video çektiriyorum ki, başkalarına ilham olsun, sınıfta izlensin, oradan örnekler gelsin.Böyle bir sosyal sorumluluk arşivimiz yok. Tutma geleneğimiz yok, burada kütüphanemizin, bilgi merkezlerimizin, bunları da kataloglaması lazım kitap ve tez gibi. -INT 39

> We try to record it in the project lessons, but I create a video so that it can inspire others, be watched in class, and other examples can be generated from this .We do not have such a social responsibility archive. We don't have a tradition of archiving them, our library, our information centers need to catalog them, I don't know what books and theses are.-INT 39

HEIs hold an important role potential in creating network memory with its structured infrastructures. The institutional memory is easy to work on with a more rigid structuring and strict rules to open new departments and divisions. Accordingly, the practices can be put into effect to ensure critical personnel is assigned for continuation of activities, the personnel is required to update of the new approaches necessary pertinent to the problems and these activities are supported with new personnel who are part of the SI process to ensure the practicality of implementation is entailed.

4.2.1.2.11 Enhancing SI Culture

Lack of work culture, social innovation culture and innovation culture are among the lacking elements within the HEI ecosystem. This problematic is not unique to solely

universities, people from the private industry and NGO's have reiterated this concern several times.

Here are some of the problems described within the system:

INT 13 mentions the rigid habits that prevent the creation of culture:

> (Ortak) çalışmak ile ilgili bir kültür yok, çünkü herkes belli bir bölümde bellirli kalıplara konumlanmak ile ilgili.-INT 13
>
> There's no culture of working (collaboratively) because everyone is interested in being in certain patterns in a certain department-INT 13

INT 30 emphasizes context as a culture to hinder or develop practices:

> Context çok önemli , ama kültürde bir context. Yerel yönetiminn olmaması, sivil toplumun zayıf olması, yerel yönetim mantığının demokratik Batı ülkelerindeki kültürden uzak olması, olumsuz bağlam örnekleri. Biz hiyerarşik , top-down denilen bir yapıyız, ama bunlar tam tersine bottom-up formasyonlar, grass roots movements, aslında daha uygun, daha iyi yeşeriyor o topratka. Bu tür yaklaşımlar, bu olumsuz, ama beri tarafta, yine Macchivelli'nin söylediği gibi 'Hiyerarşik, bir toplum olduğu için, doğru emir komuta zinciri, liyakat sahibi, konuyu bilen uzmanları bir araya getirebilen yerlerde de aslında bir potansiyel var.-INT 30
>
> Context is very important, but culture is also a context. The lack of local government, the weakness of civil society, the fact that the logic of local government is far from the democratic culture in Western countries are examples of negative contexts. We are (universities) a hierarchical, top-down structure, but these (social innovations) are on the contrary are bottom-up formations, grass roots movements, which are actually more appropriate, for the (social innovation) to give better fruition. These are bad examples on one hand but, as Machiavelli says, 'It's hierarchical, "Because it's a hierarchical society, there's actually potential in places where you have the right chain of command, where you can bring together experts who have merit, and who know the subject. -INT 30

INT 21 summarizes the culture at different dimensions that hinder our creativity:

> Değişim kültür ile ilgili. Başarı kültür ile ilgili. Ama yaratıcılık kültürü ve risk alma kültürü yok. Risk alamıyoruz, tabii risk alabilmek için kapitalde lazım, hep iç içe giriyor böyle şeyler.-INT 21
>
> Change is about culture. Success is about culture. But there is no culture of creativity and no culture of taking risks. We can't take risks, of course, we need capital to take risks, such things are always intertwined.-INT 21

Without first ensuring an institutional culture, it is very difficult to develop an ecosystem culture to support SI work. The institution and its actors must be willing to

support the initiatives bottom-up and top-down. The actors should be aligned to support the work, rather than see the difficulties that hinder the process.

4.2.1.3 Resource Management

Managing ecosystem resources is an important completive advantage for both the source institution and the institution(s), people and groups that benefit from these resources. INT 18 emphasizes that resource management practices should be institutionalized:

> Yani stratejik alan olarak belirlenmesi ve alanı destekleyici yönde, hem işe alım stratejilerinin, hem kaynak ayrımlarının, hem bütçelemelerinin. Herhangi bir konuda siz nasıl stratejik bir alan berlediğinizde , aynı şekilde desteklenmesi gerekiyor, o mekanizmaların oluşturulması gerekiyor. -INT 18

> Both recruitment strategies, resource allocations and budgeting should be determined as a strategic area and in a way that supports the (social innovation) area,. Just as you find a strategic area on any issue, it needs to be supported in the same way, those mechanisms need to be created.- INT 18

An important value-add listed for social innovation has been resource use. This is mentioned by the burden of INT 05

> …kaynaklar gereksiz yere harcanmış oluyor ve o zaman değer üretmiyor…-INT 05
>
> …resources that are wasted unnecessarily, do not produce value…-INT 05

Another distinction to this is also mentioned by INT 26 by a former academician with also both sector and NGO experience. He mentions the need to structure this need as soon as possible as there are problems like global warming that needs quick attention:

> …önümüzde çözmemiz gereken çok ciddi problemler var. Bu problemlerin çoğunu çözmek için, kaynağın problem olduğu denklem artık çalışmıyor. Kaynak problem değil, kaynak var. Ama onu nasıl çözeceğiz mesela. 2050'ye kadar 1.5 derece düşüş istiyoruz iklim anlamında,. Bunu yapabilmek için hem bireysel, hem toplumsal, hem de küresel olarak , bir sürü , bir sürü, bir sürü proje yapmamız gerekiyor…sosyal inovasyon projelerine yönelmek durumunda kaldık Az para ile, çok fazla etkiyi nasıl yaratabiliriz diye düşündük,- INT 26
> …we have very serious problems in front of us that we need to solve. To solve most of these problems, the equation where the resource is the problem no longer works. The resource is not the problem, the resources exists. But how do we solve it? By 2050, we want a 1.5 degree drop in climate. In order to do this, we need to do a lot, a lot of projects, both individually, socially and globally... We had to turn to social

> innovation projects. We had to think about how we can create a lot of impact with little money-INT 26

4.2.1.3.1 Resource Efficiency-Exploitative Capacity

There are several potential areas of resource efficiency and creation of exploitative capacity as seen through the interviews. Exploitative capacity is an immediate reflection of the need for SI to use resources efficiently.SI practices can create new models that reduce resource consumption which would give an extra potential for the HEIs. Examples of exploitative opportunities are listed by the respondents as follows:

Effective use of technologies has been listed by INT 12 as a potential means to increase efficiency within universities.

> Yani kurumun 'operational-operasyonel' şeyi ne ise, buradan iki şey söyleyim oradan, teaching ve research. Bu iki operasyonumuzu, yani daily transaction'larımızı, nasıl daha etkili yaparız bu kurallar çerçevesinde hep bilgi teknolojileri üzerine ve bu araçları , kurumsal yapıda ne yapabiliriz-INT 12

> In other words, whatever the 'operational' thing of the institution is, let me say two things from there, teaching and research. How can we make these two operations, that is, our daily transactions, more effective within the framework of these rules, what can we do in the corporate structure to use these tools and information technologies (for efficiency) -INT 12

However, problems in coordination and acting like a closed system is an important hindrance to effective use of resources as mentioned by INT 16:

> Maalesef kamu kurumlarının en büyük sıkıntıılarından bir tanesi paydaş işbirlikleri çok dar. Genellikle, yapıılan işi biz kendi kaynaklaırmızla yapalım, biz yapalım, işte kapalı inovasyon bilinci kamu kurumlarda daha fazla hakim açık inovasyon bilinci çok fazla yok-INT 16

> Unfortunately, one of the biggest problems of public institutions is that stakeholder collaborations are very narrow. Generally, they do the work with our own resources, there is not much open innovation awareness that prevails much in public institutions-INT 16

> Bizdeki, iletişim,işbirliği , koordinasyon sıkıntısı bizde çok fazla, ciddi bir manada verimsizliğe yol açıyor. Kamu tarafından baktığımızda bir kurumda yapılan sosyal sorumluluk projesinin aynısını veya çok benzerini farklı kurumlar yapabiliyor. Bu kurumların bazen birbirinden haberleri bile olmaya biliyor çoğu zaman.-INT 16

> The lack of communication, cooperation and coordination in our country causes us to be very inefficient in a serious sense. When we look at it from the public side, different

> institutions can carry out the same or very similar social responsibility projects within an institution. Most of the time, these institutions are sometimes even unaware of each other-INT 16

Partnerships also help avoid the use of redundant resources which is an important potential for social innovation practices:

> Partnerlik, hem onların kendi alanlarında çalıştıklarında tekrarlı aynı şey yapmalarını engelliyor-INT 20
> Partnership prevents them from doing the same thing over and over again in their field-INT 20

However, just distribution of time and resources is also a criticality as discussed by INT 18:

> Benim genel olarak söyleyebileceğim para kısmı değil ama, iş yapmaya geldiğinde ve zaman koymaya geldiğinde, oradaki adil paylaşımı ortaya koymak zor oluyor. -INT 18

> What I can say in general is not the money part, but when it comes to doing work and putting in the time, it's hard to distribute a fair share -INT 18

SI and/or Entrepreneurial Units are important resources of universities. However, there are conflicting views to the benefits of these units. Foremost, without autonomy of organization of activities it is very difficult to render these units effective and sustainable. Opposite views and rationality have been detailed and summarized as follows:

INT-01 summarizes the know-how attained and the potential attraction of new projects through structured centers :

> Tecrübelerime dayanarak, merkez olunca, zaten o merkezin temel faaliyetleri bu olunca, bu projeler arka arkaya geliyor ve bu konuda bir birikim oluşuyor.- INT 01

> Based on my experience, when there is a center, when this is the main activities of that center, these projects come one after the other and there is an accumulation of knowledge in this regard. -INT 01

However, using resources to build these units for project activities which were not the core cause of interest is a serious concern as mentioned by INT 20. There has been great concern among the respondents to misuse funding to not solve ‘true’ problems.

> Ama Türkiye'de şöyle bir algı var, eğer bir yerde bir hibe verilyorsa, insanlar o hibede neye çözüm üretecekleri değilde, hibe yayınlandığı zaman, anlık olarak problem cümlesi kurmaya çalışıyorlar, sanal bir problem üretiyorlar. Sanal olarak üretmiş oldukları probleme, sanal çözüm üretmeye çalışıyolar. Dolayısıyla, bazen bu projelerde başarılı da oluyor bu insanlar, alıyorlar hibeyi ama amacına da ulaşmıyor ve topluma da değer katmıyor. Bu şekilde Türkiye Cumhuriyetinin parası ve Avrupa Birliğinden gelen kaynaklar, anlamsız bir şekilde harcanabiliyor. -INT 20

> But there is a perception in Türkiye, when a grant is given somewhere, people are not trying to find an actual solution to the grant, but when the grant is published, they instantly try to establish a problem statement, they produce a virtual problem. They are trying to produce a solution to a problem they have produced virtually. Therefore, sometimes these people are successful in these projects, they receive the grant, but they do not reach their purpose and do not add value to the society. In this way, the money of the Republic of Türkiye and the European Union is also not properly utilized-INT 20

Debates into if social innovation research supported by universities should be housed on campus or outside are also critical in the assessment of managing ecosystem resources. Göransson (2017) and Yarime et al. (2012) favour activities on campus, whereas Benneworth & Cunha (2015) emphasize that if the university's strategic interests are not aligned with external social innovation actors , it would be better to coordinate activities in an external and independent setting. Using SI to creatively support better resource usage is also seen as a direct implication.

Resource usage initiatives held within the HEI context holds valuable opportunities for HEIs. The respondents are aware that SI implementors need to secure resources to sustain practices. The set-up for resource usage alternatives are also a clear distinction to how these capabilities can be structured among the ecosystem actors. For example, accessibility to a resource can be made possible with the networking relationships developed. Moreover, SI practices within education would also help to induce a culture of creative work. It is evident that how the actors need to be working with each other is also lacking in implementation which would suggest that SI practices has not reached its effective potential.

4.2.1.3.2 Dynamic Capability-Explorative Capacity

The explorative capacity of institutions is in part dependent on mediation between university and their ecosystem partners. This is also an important example of aligning

the efforts of the institutions for effective resource usage and also utilization of previously obtained know-how within a specific topic of interest as mentioned by INT-02.

> Bence yönlendirecek kesinlikle bir arayüze ihtiyaçları var…yaptıkları çalışmaları da analiz edip, aslında onlardaki de cevheri ortaya çıkarbilecek çeşitli yapılar olsa, belki daha çok canlı çalışmalar duyabiliriz. Çünkü çok duyuyoruz, mesela bir işletmemiz var, öyle bir şey yapıyormuş, belki tüm işletmelere örnek olabilecekler, ama bunu kendisi komite toplantılarında sohbetlerde anlatılıyor, orada dinleniyor ve sadece orada kalıyor. falan. Bu minvalde ilerleyebiliyor. -INT02

> I think they definitely need an interface to steer activities…if there were various structures that could analyze their work and actually reveal the essence in them, maybe we could hear more live work. Because we hear a lot, for example, we have a business, it is doing something like that, maybe they can set an example for all businesses, but it is explained in conversations at committee meetings, it is listened to there and it just stays there..-INT02

INT 05 has very well described the importance of going beyond the available resources within the ecosystem. Some respondents within the study have raised concerns in regard to the changing expectations of university management for the academician. Academicians are expected to bring extra funding to the system, which requires networking and project writing activities. Yet, as mentioned below, some academicians feel inclined to be more action oriented and taking precaution to remedy their research and/or societal concern:

> Üniversiteden kaynak bekliyerek, var olan bir proleme çözüm üretmeyi çözüm olarak görmüyorum. Çünkü herkesin o kaynaktan beklentisi var, üniversitede bir sürü birim var ve her birim kendince bazı problemer yaşıyor ve var olan bir kaynağı kullanmak için, herkes oradan talepte bulunduğu zaman, sizin yaşadığınız problemlere gerçek anlamda çözüm üretemiyorsunuz-INT 05

> I do not see potential in waiting for resources from the university to solve problems. Because everyone has expectations from that resource, there are many units in the university and each unit has some problems in its own way, and when everyone demands to use these existing resources, you cannot really produce solutions to the problems you are experiencing- INT 05

A management professional INT-10 has drawn attention to this position and the resources provided as follows. INT -10 emphasizes that successful academicians are successful at various dimensions, including finding resources to support projects.

> …aslında üniversitelerin biraz mantığı şu, siz zaten yeterince iyi bir araştırmacı iseniz ve yaptığınız araştırmalar gerçekten kabul gören, saygı değer araştırmalar ise, zaten bunlar için finansal destekleri bulabilmelisiniz. Ama dediğim gibi üniversitede, küçük veri toplama, anket toplama, kaynak toplama , sonuçları paylaşma, ziyaretiçi bilim insanları davet etme, onlarla bir arada oratak çalışma ortamlarını sağlama, yani dediğim bu tür destekleri var aslında- INT 10

> …in fact, a little bit of the logic of universities is that if you are a good enough researcher, and if your research is really accepted and respected, you should be able to find financial support for your work. But as I said, the university has support for collecting small data, collecting surveys, collecting resources, sharing the results, inviting visiting scientists, providing working environments -INT 10

INT-19 has mentioned an important example of a dynamic capability within the framework of social innovation. The solidarity network described and enacted allow entities to protect their individuality but also utilize each other's resources for new value creation. In this way, they structure their activities with less resources but with higher value capacity.

> Bunlar birbirlerini öyle bir tamamlıyorlarki, ben sizi bir araya getireceğim ve ben sizden birşey çıkaracağım. Hepiniz ayrı ayrı otonom kalıcaksanız, asla ve kata birleşmiyeceksiniz, ama siz birarya gelmenin, ikili üçlü ve dış paydaşları içeriye almanın yolunu bulacaksınız, ve birbirinizin mekanını ve kapasitelerini değerlendireceksiniz. Çünkü dedim, iktisadi olarak başka türlü ayakta kalamıyacaksınız. Şimdi burada iktisadi sürdürülebilirlik çok kritik , o yüzden başka bir dayanışma ağına ihtiyaç var. Büyük ölçek aynı zamanda iktisadi düzene teslimiyet getiriyor, onun parçası olmaya. Oysa bunlar, mevcut iktisadi düzenin dışında kalmaya çalışan şeyler … buna direnebilecek otonom yerler buralar INT-19

> They complement each other in such a way that (I said) I'm going to bring you together and I'm going to make something out of you. You are all going to be keep your autonomous identity and you're never going to merge, but you're going to find a way to come together, to bring in two, three new external stakeholders, and you're going to evaluate each other's space and capacities. Otherwise, I said, you will not be able to survive economically in any other way. Now, economic sustainability is very critical here, so we need another solidarity network for this. At the same time, large scale activities brings submission to the economic order and becoming compliantly part of it. However, small establishments try to stay out of the existing economic order… they become autonomous entries that fight against this order -INT 19

The inclusion and awareness is an important dynamic capability potential as well. This thesis was constructed to bring out the potential in this regard :

> Bununla ilgili daha fazla meslek gruplarınında devreye girmesi gerekiyor, çünkü, insanı bilen insanı kavrayanların yenilik kavramını doldurması ve dikeyleşmesi bana daha kolay geliyor.-INT 20

> More professional groups need to be involved in this, because it seems easier to me that those who know people and understand people fill in the concept of innovation and become vertically integrated with the structure-INT 20

The explorative resource capacity for SI in HEIs lie foremost in the joint activities of the different departments that are part of the internal HEI ecosystem. The actors are like the facades of a diamond which can inherently describe the situation context better with different perspectives. In the first example, efficiency in understanding methodology and activities were critical , whereas in this level the exploration potential needs to be detailed. In this regard, the exploration potential can be aligned to the mission, industry-partnership model the HEI wants to integrate, the type of research that would like to be conducted (qualitative, quantitative, mixed) as well as the usage and integration of data that it is inherently valued for the research. The explorative capacity can especially be enhanced with external contact points including internships for students, mobility for staff and also through YÖK university boards which can give an arena for discussion of different needs. The exploration is enhanced with the unique SI projects implemented and structured within the university.

4.2.1.3.3 Change Management Integration

Change management is important in social innovation practices as there are always important issues to be addressed for different groups. Among the predispositions of social innovation practices is the preconception that change requires great efforts. It is important to emphasize that change is in fact necessary to structure societies, yet without proper experience and adaptation, it may become an even bigger hindrance in the long term.

Stroh (2015) describes four steps for systematic change in systems thinking practices as follows a) building foundations for change readiness b) evaluating current reality c) bridging gaps and d) making an explicit choice/commitment. This usually comes with ‘tension’ or sometimes ‘conflict of interest’. However as mentioned by Sadabadi and Aramipou (2023), when there is a need for change or the people are ready for a change, people make explicit choices to leverage the voids and initiate change.

As mentioned by INT 24, there is great need for accepting the empowerment role of individuals and to take action for these processes.

> Her insan toplumsal değişimi kolay kolay kabullenemiyor. Buna yol açacak girişimlerde bulunamıyor, bulunsa bile bunun sonuçlarına katlanamıyor. Yani, onun için sosyal inovasyan ile ilgili konular çok küçük meseleler ile ilgiliymiş gibi durabilir. Ama uzun dönem içerisinde çok daha büyük değişimler getirecek konular olabilir, bunlarla da başa çıkmak her zaman o kadar kolay olmayabilir. -INT 24

> Not all people can easily accept social change. They cannot take initiatives that will lead to this, and even if they do, they cannot bear the consequences. That is, for him/her, issues related to social innovation may seem to be about very small issues. However, in the long term there may be issues that will require much bigger changes in the long term, and it may not always be easy to deal with them. INT 24

Impactful difference is possible with simple steps including change in terminology and also making people think with a different perception. This can be an important tool for designing relations and also enforcing new ways of thinking in application. INT 22 has worked on projects to remove biases in social settings, accordingly within the interview, a unique approach was to use terminology that was often not used in industry settings, which is an important contribution to instigate change in ways of thinking. The respondent had also emphasized that this change of attitude in employees are also reflected in their own social setting as posited by the social-ecological model.

> Belki bunlar çok norma uymuyor ama, beklentileri belki karşılık olmuyor ama benim amacım orada ilişikileri düzenleyebilmek. O yüzden belki huzur kelimesini kullanıyorum verimlilik yerine, düşüncelere belki önem veriyorum strateji değil -INT 22

> Maybe these things don't fit into our norms and also their expectations but my goal is to be able to regulate relations . That's why I use the word peace instead of productivity, maybe I care about thoughts, not strategy.INT 22

Similarly there is an important need to be open to take action to create change within a social setting. INT 30 has emphasized the role of private entities through social responsibility yet also emphasizes the industry's interest to create cultural value which is not seen within universities.

> Ama özel sektör bunu yaparken, Koç Müzesi bunu para kazanmak için yapmadı, ya da Nihat Erim (Erimtan) Müzesi para kazanmak için yapmadı. Ankara'nın bu eski şeklini nasıl koruruz, burdan nasıl bir kültürel değer yaratırız gibi, mantıklar ile

> yaklaşabildikleri için yapabildiler ama, çoğu üniversitede bu kafa yok. Ki , taşra üniversiteleri de dahil. Ki taşrada buna çok ihtiyaç var. -INT 30
>
> But while the private sector did this, the Koç Museum did not do it to make money, nor did Nihat Erim (Erimtan) Museum do it to make money. They were able to do it because they could approach it with a logic to preserve old provincial Ankara and what kind of cultural value it can be created from it, but most (city) universities do not have this mindset. Including provincial universities, which in fact is more needed in provincial regions.-INT 30

As emphasized by INT 15 change is not easy:

> Öyle çok kolay birşey değil, değişmek, değiştirmek, bundan başka türlü yapmak, zihinsel olarak, mali olarak, Bunu yapabilen sosyal girişimci, bunu yapamıyorsa zaten olamaz. -INT 15
>
> It's not an easy thing to change, to do something differently, mentally, financially. If a social entrepreneur cannot do this, , then it is (practically) not possible -INT 15

INT 31 also emphasizes the incremental process for change.

> Yani bazen topyekün bir değişiklik yapmak, bazen olanı da bozuyor. Yerinede pek birşey koyamıyoruz çoğu zaman, yeniden inşa etmek çok zor bir olay. Ama böyle taktik işleyen bir süreçte değişiklikler, sürecin daha ferah bir şekilde, daha verimli bir şekilde gitmesini sağlayabilir. Arada bir innovatif hamlelere, yani böyle radikal dönüşüm olmadan ihtiyaç var. Çünkü, hep aynı süreç işlediğinde, bürokrasi, hiyerarşi ve bunun gibi kavarmlar, ki bunun hepsi benim için önemli bunların zamanla nasıl olumsuz ve verimlilik karşıtı haline geldiğii gördük. -INT 31
>
> In other words, sometimes making total change disrupts what is already in process. Most of the time, we can't replace it and it's very difficult to rebuild too. However with a tactical approach, changes can be made to the processes more efficiently. Every once in a while, there is a need for innovative moves, without such a radical transformation. Because, when we are delved in the same process; bureaucracy, hierarchy and things like that, all of which are important to me, we can also observe how these can become negative and anti-productive over time.-INT 31

INT 32 also emphasizes the burden of finding a contact for changes in processes. As is reiterated, since the SI process is long, it is very likely that the process needs to be restructured, also if it is the first time this contact is made, the potential is also at the risk of being lost, since none of the institutions have had prior efforts working with each other, which can also lead the process into a vicious loop of confusion or risk the partnership being initiated as exemplified below:

> Türkiye’den paydaş bulduğunuz zaman, bu işler kolay ilerlemiyor. Mesela, ya görüştüğünüz kişi arada değişiyor, çünkü süreç çok uzun sürdüğü için , çoğu zaman kimse birşey bilmiyor. Örnek vermek gerekirse, şu anda belediye ile üniversitenin

> hiçbir projesi olmamış, o yüzden birini arayıp birşey soruyorsunuz, o ben bilmiyorum diyor, öbürüne yönlendiriyor, kendileri de sürecin nasıl işlediğini bilmiyorlar.-INT 32
>
> When you find stakeholders from Türkiye, the process does not run easily. For example, the person you're in contact changes in between, because it's too long in the process, and most of the time no one knows anything. To give an example, at the moment, the municipality and the university have not had any projects, so you call someone and ask something, they say I don't know, they direct them to the other, they also don't know how the process works- INT 32

To adhere to the principles suggested by Stroh (2015), foremost it is important to set a foundation for change management. Although the potential might be seen to exploit or explore new resources, without the flexibility to the implementor or the approval of certain bodies, it becomes difficult. Thus, change management integration entails the necessary foundation to allow change in approaches to be discussed and formalized to save time in decision making processes and to target the responsible to initiate the change. This is also a debate in regard to the role definition of the implementor. More tenured faculty may have the authority to take pro-active action to change certain dynamics, however the less-tenured faculty do not have the power to change but are expected to support and sustain the change. In this regard, through SI implementors, how to adapt to change should be formalized in the systematic to integrate change management principles. Changes in contact or the necessities of formalizing contact should be embedded in the HEI system.

4.2.1.4 Social Cohesion

Understanding the localities and the place where social innovation is created is an important input to the activities to be structured. Defining the context correctly also affects the remaining 6 headings listed in this category. Without an understanding of context, it is very hard to draw commonalities to collaborate within the system actors.

4.2.1.4.1 Context Evaluation

Context defines the ‘scanning’ potential of the entities to find problems and also solve solutions. Context and circumstances that are similar in general support replicability

and localization is important to deploy and scale models for SI practices (Georghiou, 2018).

However, INT 20 raises an important contribution of context to support creativity and also newness. Otherwise, as mentioned we have a viewing bias within our current location.

> Ama beslenmek burada önemli, çevrenizde görmüyorsanız, görmediğinizi yok sayabiliyorsunuz. Sizin probleminiz veya çevrenizin problemi olmadıkça sanki o alanda yenilik ihtiyacı yokmuş gibi davranabiliyor birçok kişi. -INT 20
>
> But inspiration is important here, if you don't see it around you, you can ignore what you don't see. Unless it is your problem or the problem of your environment, many people can act as if there is no need for innovation in that area. -INT 20

Understanding the context of good examples also helps deliver new examples and avoids the negativities of social innovation. Attendees have also mentioned that prior bad examples had ceased certain activities or made it difficult to collaborate with the same and/or different actors within the ecosystem. INT-13 has given the comparative example of Open University not being successful in the United States. The context should help determine the relationality and also the rationality of the study at hand.

> Mesela Open University, modelinin aynısını Amerikada kuruyorlar olmuyor çalışmıyor, ama İngilterede çalışıyor. Üniversitenin kendi misyonu, hedefi konumlaması, biricikliğini şey yapmak lazım, zaten bence de öyle olması lazım. Dolayısıyla, kendi 'context'inde- ortamında tanımlaması lazım. Oradan örnek vereyim, nanoteknoloji ile acayip birşeyler yapmaya odaklanmış iken, onun topluma yansıması ile ilgili evet birşey yapması gerekiyor , ama o AR-GE , o teknoloji ve o araştırmanın yapılabilmesi için ,desteklemesi ve yapması gereken şeyler ile çelişmemesi lazım. -INT 13
>
> They set up the same Open University model in the United States but it didn't work there, but it worked in the UK. The university needs to position its own mission, goal, and uniqueness, and I think it should be as so. Therefore, these needs to be defined in its own 'context'. Let me give an example from there, while someone is focused on doing something new with nanotechnology, yes, there is a need to do something about its reflection on society, but in order for that R&D, that technology and that research to be done, It should not contradict with initially what it should support and do,- INT 13

Lastly, the causalities of innovation should be structured in proper scientific rigor. Respondent INT 28 is also drawing attention to understand these activities within a

proper causality assumption. This also hints at the importance of the context and the underlying conditions that would make it understood. The example for the eagerness to adopt early and instigate this to younger generations at an unmature state is also an important risk to the innovation process . Innovation requires competence and intellectual capital for its proper implementation.

> İyice anlayıp değerlendirme gereken şeydir, bunu niye yapıyorum, bunu yapmamdaki temel sebep ve nasıl yapabilirimi , biraz daha bilgi gerektiren sebep-sonuç ilişkisini, gerektiren bir konudur, yerli yersiz kullanılmasına da, ben çok karşıyım. İlkokul birinci sınıfta çocuk ne inovsyon yapacak? . Ha, onun inovasyon diye adlandırdığnız şeyi biz başka birşey diyoruz, zaten yapılyor, ona inovasyon demiyoruz, bu kadarda zorlanmaya gerek yok.-INT 28
>
> It is something that needs to be thoroughly understood and evaluated, why I am doing this, the main reason for doing this and how I can do it, it is a subject that requires a cause-effect relationship that requires a little more information. I am very much against its unwarranted use. What innovation will the child do in the first grade of primary school? . Oh, what you call innovation, we call it something else, it's already being done, we don't call it innovation, there's no need to strain it.- INT 28

The comparative contexts of the 4 cities have been detailed in **Table 13**. This is a critical assessment to ensure what activities work best and what factors hinder the potential of the city. The table is an important guide for implementors for SI in either of the four cities to understand the contexts within these cities. The contextual conditions will prioritize the work to be done for SI. Respondents have often mentioned the potential of SI to develop in underdeveloped regions due to addressing a situation which is in need of immediate attention. In this case , SI practices become more visible and good examples will likely be mirrored elsewhere with higher visibility and process understanding.

As INT 19 mentions there is potential for SI's everywhere in Türkiye, however the reasons behind its success will differ due to context and the need of the main target group.

> Orada sosyal yenilikçilik, Türkiye'nin heryerinde başarılı olabilir, ama onun Türkiyenin heryerinde başarılı olmasının farklı gerekçeleri olacaktır.-INT 19
>
> Social innovation may succeed everywhere in Türkiye, but there will be different reasons for its success everywhere in Türkiye-INT 19

Table 13 Comparative Features of SI Ecosystem Implementation

Comparative Features of Ecosystem for SI Implementation	Cities			
	ANKARA	**ISTANBUL**	**IZMIR**	**KONYA**
Implementation proliferation	**Moderate** Need of different actors and visibility of different application areas.	**High** Competitive and supported by many NGO's	**High** Competitive and supported by mainly municipalities.	**Low** Supported by municipalities, lacking proliferation.
Openness to receive/implement SI	**High** Open to dialogue. Prominent examples through citizen engagement activities.	**High** Many actors with different priority interests. Open to dialogue through different platforms (i.e. IPA, Impact Hub)	**High** Open to receive new SI practices since the visibility of practices are quite strong. Collaborations are structured with quintuple helix dynamics. (i.e. Orijin, Tarkem)	**High** Public authority governance is dominant, municipality, university and public body implementations strong.
Cultural and social relations	**Moderate** Strong social relations through close proximity. Homogeneity and variety of actors present yet still lacking social cohesion.	**Moderate** Cultural and social activities abundant but heterogeneity of actors causes divergence in interest groups.	**High** Strong cultural relations to be self-sufficient.	**High** Strong cultural relations and habits. Homogeneity of actors is prevalent.
International Dialogue	**High** International dialogue through funded EU projects yet public institution involvement has risk of hampering initiatives through necrocracy.	**High** Strong international dialogue through funded EU projects and Istanbul city recognition. Different cultural groups and heterogeneity an important consideration.	**High** International partners preference to host events in Izmir and also EU and international cooperation is strong.	**Moderate** Hosting of international events has helped the visibility of the city and its potential resources.

Table 13 Comparative Features of SI Ecosystem Implementation (cont'd)

Comparative Features of Ecosystem for SI Implementation	Cities			
	ANKARA	**ISTANBUL**	**IZMIR**	**KONYA**
Mirroring Activities	**Moderate** Good examples (i.e. Ankara City Council, Ankara Greater Municipality) are mostly based within divisions of higher institutions.	**Moderate** Good examples are easily adapted with different actors. However, visibility of projects and implementation is critical.	**High** "Constantly alive and dynamic"-INT 20 Visibility of projects entices actors to come up with new methods and activities. Scaling-up activities present in different city regions.	**Moderate** Single-sourced solutions lack implementation area
Human resource potential	**Moderate researchers, Low implementors** TED and Ankara Social Science University has laid the foundation of an important HR structuring also through their distinctive programs and collaboration models.	**Moderate researchers, moderate implementors** Multiple actors from Quintuple Helix supports idea generation and inclusivity. However, SI awareness needs to be improved.	**Low researchers, moderate implementors** The dedication for SI comes predominantly external to the university. Application based practices have given way to the need of intermediators to organize the process.	**Low researchers, low implementors** The number of universities in comparison to the other cities is low. The activities are mainly driven by university-industry initiatives rather than need priority.

Table 13 Comparative Features of SI Ecosystem Implementation (cont'd)

Comparative Features of Ecosystem for SI Implementation	Cities			
	ANKARA	**ISTANBUL**	**IZMIR**	**KONYA**
Geographical Advantage	**High** Public Authority proximity, hub to Anatolian region, collaboration potential with Konya. Easily accessible to all regions in Türkiye.	**Moderate** International correspondence is easier within Istanbul. However, proximity creates difficulties in continuing collaboration and sustaining activities. There are a lot of 'co-work' spaces, however there is a need of critical resources to be consumed (i.e. time, money) which constricts socialization.	**High** Preferred meeting place for NGO's and industry and for launch activities. Easy to access and consumes less resources to sustain activities.	**High** In central Anatolia, easy to reach via Ankara and also is close to industry areas such as Kayseri.
Inclusion of Ecosystem Actors	**Moderate** Lack of spaces to socialize and work on ideas. Ankara City Council is the first to initiate a co-space with multiple actors. Technopark actors are less fragmented then Istanbul yet need to work together more.	**High** High industry presence, lots of potential 'co-work spaces' with different actors. Technopark actors are present but fragmented which limits higher potential.	**High** Technopark actors within universities are directed to work in cohesion. The university-industry matching is better than the other reference cities.	**High** Public value of SI is reflected through municipality activities, which suggests SI is a public good limited to the scope of service given. The ecosystem actors are strong, however need to demand SI. Currently the need is pushed through Konya Social Innovation Agency.

Table 13 Comparative Features of SI Ecosystem Implementation (cont'd)

Comparative Features of Ecosystem for SI Implementation	Cities			
	ANKARA	**ISTANBUL**	**IZMIR**	**KONYA**
Institutes with SI focus	**High** TED, Ankara Social Science University, SosyaPark, ImpactHub Ankara, Ankara Development Agency	**High** Impact Hub Istanbul, IMECE, ASHOKA, IPA	**Moderate** Origin, ASHOKA	**Low** Konya Social Innovation Agency
Municipality (Public Authority) Involvement	**High** Visibility through municipality practices supporting farmers and under-privileged groups.	**High** Geographical disparities can deter the quality of SI output.	**High** Municipality has inclusion programs to promote city culture.	**High** Structuring within municipality ensures there are follow-up SI practices. SI practices are undergone under a relevant division with clear aims of practice.
NGO involvement	**Moderate** Fellow-townsmenship is still prevalent Rights based advocation more common especially through occupational organizations which is an important potential for underrepresented societal actors.	**High** Proliferation with similar interest groups, still needs to build on collaborative means to work together and co-create.	**Moderate** Informal networking is more prevalent based on need, i.e. earthquake relief.	**Low** More of fellow-townsmenship rather than mission-based initiatives.

Table 13 Comparative Features of SI Ecosystem Implementation (cont'd)

Comparative Features of Ecosystem for SI Implementation	Cities			
	ANKARA	**ISTANBUL**	**IZMIR**	**KONYA**
Industry involvement	**Low** High industry potential but lack of engagement of industry actors. Examples were driven by needs by industry rather than industry supporting SI practices.	**Moderate** There is high industry potential. Funding outside of national agencies are industry driven with corporate social responsibility initiatives taking the lead for SI practices.	**Low** There is high potential with different interest groups for SI, i.e. fisheries, farmers and immigrants. Involvement emphasis are more of NGO and municipality.	**Low** There is evidence in support of activities (i.e. through monetary support), yet there is a lack of initiation of SI initiatives by industry.
Collaboration with other universities for SI practices in ecosystem	**Moderate** Two SI based universities have helped collaboration yet there is still competition among universities which inhibits ecosystem outreach.	**Moderate** Unique collaboration approaches are present through intermediary agencies which bring together different actors. The collaboration is also restricted by proximity.	**Low** Competition limits collaborative potential. There is also a limitation to actors' engagement, when one university is most likely to work with one actor.	**Moderate** Effective collaboration through intermediary agency which brings out potential for contribution. The academicians are still lacking interest.
Funding institutions and funding mechanisms	**Moderate** Mostly public funding agencies (i.e. Ankara Development Agency) Funding can be misused for grant access rather than true SI need.	**High** Quintuple Helix actors supporting SI practices. Rich ecosystem providing different sourcing from different actors.	**Moderate** Municipality activities are more governing in supporting practices.	**Low** Public funding through mainly municipality (i.e. Konya Social Innovation Agency) Strong political support.

Table 13 Comparative Features of SI Ecosystem Implementation (cont'd)

Comparative Features of Ecosystem for SI Implementation	Cities			
	ANKARA	**ISTANBUL**	**IZMIR**	**KONYA**
Social entrepreneur presence	**High** Dedicated SI actors are more prevalent in this ecosystem.	**High** Commercial entrepreneur presence is dominant. Demand practices are high.	**Moderate** Not fast paced enough to support initiatives yet social entrepreneur presence is valid.	**Moderate** Visibility required for SI practices and actors.
Ecosystem Maturity	**Moderate** Efforts to build ecosystem have borne fruit to the realization of new activities. Yet the quintuple actor involvement still needs to improve to attain its full potential. Sosyopark initiative is an important clustering activity to support ecosystem activities.	**High** Ecosystem is the maturest among the comparative cities. Learning is rich when associated with the critical actors and start engagement. The system actors are fast paced and action oriented.	**Low** High potential but ecosystem underdeveloped. A unique Aegean model is prevalent where university actors are encouraged to work with ecosystem actors.	**Moderate** Ecosystem actors are inclined to work with each other. The interaction is among the strongest due to repeat activities and also institutional structuring, which helps point of contact and accessibility to the right actors for SI.
Pilot implementation potential	**High** Local development practices to extend throughout the Anatolian region. Sosyokent has increased potential for pilot visibility.	**High** Huge returns for good-practices.	**High** High potential due to distance from public authorities, which leads it to be self-sufficient and open to different resource mechanisms/ Good examples are also easily mirrored/	**High** Pilot potential high with high engagement of Konya ecosystem actors. Public support also increases the chances of visibility.

Table 13 Comparative Features of SI Ecosystem Implementation (cont'd)

Comparative Features of Ecosystem for SI Implementation	Cities			
	ANKARA	**ISTANBUL**	**IZMIR**	**KONYA**
Demand /Supply potential for SI Practices	**Low Demand, High Supply** Ecosystem needs more initiatives 'pulled' by HEI and also HEI ecosystem actors. The initiatives are more 'pushed' as an obvious need through high capacity research potential.	**High Demand, Moderate Supply** Disparities in the city require solutions to different problems. Demand is created with engagement with ecosystem actors and a detailed needs assessment by intermediary agencies (i.e. municipalities).	**Medium Demand, Moderate Supply** Demand is driven by NGOs or intermediary networks. HEI activities are still lacking organized efforts and are based on individual efforts.	**Low Demand, Moderate Supply** A single supply node for primary activities limits the proliferation of interest within the ecosystem. It is necessary to include practices that reflect examples so that SI is not solely seen as a social good but a tool/approach relevant to all ecosystem actors.
Sustainability Practices (Co-creation, organization and SI culture)	**Moderate** Potential to structure practices through knowledge resource and institutional structuring. SI better understood with the SI institute initiatives. Still lacking in potential. Good public innovation examples present	**Low** Good examples are present, yet are not formalized in universities and mostly are driven by outside HEI ecosystem actors.	**Low** Open to co-creation. The attendees mention Turkish 'imece' culture prevalent in the Aegean ecosystem. Lack of joint working culture, lack of leading actors to initiate or follow-up initiatives. Spur of the moment, as needed culture prevalent	**High** Institutional structuring supports sustainability practices. Emphasis given to lessons learned and institutional memory. Activities coordinated with HEI actors.

Table 13 Comparative Features of SI Ecosystem Implementation (cont'd)

Comparative Features of Ecosystem for SI Implementation	Cities			
	ANKARA	ISTANBUL	IZMIR	KONYA
Areas with potential	**High Potential in the following areas:** Defense industry (as a developed industry to initiate social innovation practices). Machinery industry to support environmentally friendly solutions and also aid in assistive technologies. Technology development for SI. Development of public innovation practices. Entrepreneurial university development. Research and measurement potential high. Diplomacy is a strong potential.	**High Potential in the following areas:** Hub commercial entrepreneurship, important in framing social entrepreneurship dynamics with current know-how. Energy. Entrepreneurial university focus. Istanbul an important area for research-practicum implementations	**High Potential in the following areas:** Creative industries, Food-Agricultural practices, Creative Tourism, Life sciences, Health. Gaming industry.	**High Potential in the following areas:** Municipality and cultural embedded practices can be extended to build local capacity.
Legend (Single value)	High	Moderate	Low	
Legend (Double values)	High, high	Moderate, Moderate	Low, Low	

The context dependencies are also mentioned by INT 32, the respondent draws attention to the emphasis of the same topic being urgent and important in one context and not so significant in another context.

> Ortam fark oluşturur bence. Akademisyenin içinde bulunduğu habitatta önemli. Ankara'daki bir üniversitedeki akademisyenin gördüğü şey ile, Iğdır'dakinin farklı olacaktır. Benim gördüğüm yoksulluk ile, onun gördüğü yoksulluk çok farklı şeyler. Dolayısıyla, bölgenin kendi ihtiyaçları üzerine yapılacaklar konusunda, farklılaşmalar bence ciddi birşekilde olabilir.- INT 32

> I think the environment makes a difference. It is important in the habitat in which the academician is located. What an academic at a university in Ankara sees will be different from what he sees in Iğdır. The poverty I see and the poverty s/he sees are very different things. Therefore, I think there can be serious differences in terms of what to do about the needs of the region itself.- INT 32

As is detailed with **Table 13,** an initial contextual understanding allows the structuring of the ecosystem activities and also creates a great input. The contextual ecosystem dynamics that have been detailed include the proliferation of SI activities, openness to receive SI , cultural and social relations, access to international dialogue, show-case-mirroring activities, involvement of the quadruple helix actors, the maturity of SI activities as well as the supply and demand potential within the defined context. These headings were derived from the points emphasized by the respondents. As can be seen, the four cities have different unique contextual value-add and it is important to evaluate the context with this reference point. The cities have been comparatively listed to show justification for the scaling of the parameters and summarizes the means and roles of attainment of the different headings. Overall, Ankara actors hold the main potential to structure , validate and systematize SI applications , with two active SI institutions, that have been mentioned to add -value to the understanding of SI practices. İstanbul holds the potential proliferation for SI examples and the variation in actor involvement. It is quite rich in the applications also due to the heterogeneity of actors inside and outside the HEI institution. The main lacking point is the disparity of locations which limits the number of good cases to be seen within different contextual settings. İzmir, holds an informal collaborative potential, but lacks the maturity of SI implementation due to the lack of systematic to construct and follow the actors. Intermediary institutions have been helpful in bridging academics and business or integrating NGO involvement, yet the activities are limited to single-point contacts. Konya, has an interesting structuring where, SI activities are structured under the municipality through the SI agency, with rich access to the quadruple helix actors.

The embeddedness of the actors are better than the other cities, holding the most potential for SI activity. The activities however are more led by the SI Agency, where idea initiation is again not driven by an HEI actor but by a public actor.

4.2.1.4.2 Commonalities

Commonalities help create a potential of dialogue within the system actors. It is also an important means to understand the unique value add provided within an institution or among institutions. Commonalities within universities could include similar curriculum, staffing diversification, disciplines and also details of students and academic personnel that create a potential for action. Within the interviews there were also common calls that the attendees were elaborating on . However, an important concern especially in regard to the process of working with commonalities is that there is also the risk of infusing the system with solution actors that are not critical to the actors that need it, but are critical to the institution opening the call to support an SI action. This may deviate the important potentially in the ecosystem as emphasized by INT 21.

> Yani devlet desteği de güzel, ama suistimal edilebilyor bizim ülkemizde. Bir tek desteğe bakmamak lazım, çünkü birşeye destek vermeye başladığınızda ona kanalize etmeye başlıyorsunuz. Orada dikkat etmek gerekiyor-INT 21
>
> State support is also good, but it can be abused in our country. You shouldn't just look at support, because when you start supporting something, you start channeling it. There you need to be careful-INT 21

An important suggestion by INT-02 is to coordinate project activities within the ecosystem through a centralized needs analysis that pin points core needs and also better coordinates the resources.

> Örneğin, projeler bazında ihtiyaç analizi yapılarak bir proje yapılması öngörülüyor fakat, eğer ki devlet eliyle, ya da araştırma kuruluşlarının görevlendirilmesi ile ihtiyaç analizlerinin yapılıp, nerede boşluklar olduğu ortaya çıksa ve bunlara yönelik nokta atışı proje çağırıları çıksa, çok daha efektif çalışmalar yapılabilir kanaatindeyim. - INT 02
>
> For example, it is envisaged to carry out a project by making a needs analysis on the basis of projects, but if needs analysis is carried out by the state or with the assignment of research institutions, the gaps can be pinpointed and specific project calls can be

> issued for them. I believe in such a case much more effective studies can be carried out-INT 02

Commonality has been critical in initiating a reference ground among the SI applications. The respondents have mentioned that they can easily relate to the problem with the same resources that are deficient in their context to initiate action.

Thus it is easier to find a common ground for working principles that would support the working structure and to also prioritize the work to be done. For example, knowing İzmir is more embedded in its social relations allows for more informal means to communicate with the potential actors. This allows a sense of identity to the ongoing work principles of the actors and creates an ease in communication and also is not seen as a barrier for implementation. Similarly, HEIs with similar departments can have common SI themes of concern which could enhance the collaboration potential.

4.2.1.4.3 Contingency Conditions

Understanding contingency conditions is important feedback to explorative capacity. As INT 19 has mentioned, there are never 'absolute' conditions and we need to know how to work under deviations and the causalities that have made our solutions feasible. Contingency can also be an important area of research in regard to impact assessment and also tracing our impact potential in SI activities.

> Hikaye çok totaliterdir, bütündür. Ve biz onu severiz, insan evladı totaliteri sever…O an olan olaylarala, içine düşünülen olayda 'contingency' nin gelişmesi gerekiyor. Yani, bir olumsallığın olması gerekiyor, beklenen akışın dışına çıkan. Bütünsel yapıyı bozan ama yeniden kuran ve bütün olarak değil, bütünlemeci olarak değil, bir denk geliş ile, şanslı bir karşılaştırma ile. Yeniden kuran, yeniden tarif eden, olumsallıklara ihtiyacımız var. Bana sorarsan, sosyal yenilikçilik bir yerlere varacak ise, contingencyler ile varacak. Olumsallığa açık olanlar kazanacak. Mesela çok basit bir proje üretiyorsun, kaynak yönetimi açısından bir yere geldin ve kaynağı yitirdin. Bu karşılaşmada artık şunu yapman lazım, hani şu kaynak için ikna edemedim falan, boşver bildğin tüm yöntemlerden vazgeç. Bir karşılaşma ara, buradan nasıl bir olmusallıkla çıkarız biz. Ya da bu noktada aslında projeyi nasıl yaparız ki, daha iyi olsun-INT 19

> The story is very totalitarian, it is whole. And we love it, humankind loves totalitarianism... 'Contingency' needs to develop in the events that are happening at that moment, in the event that is being considered. So, there has to be a contingency, something that goes out of the expected flow. Disrupting but reconstructing the holistic structure, and not as a whole, not as an integrative, but by an encounter, by a lucky encounter. We need contingencies that reconstruct, redefine. If you ask me, if

> social innovation is going to go anywhere, it's going to get there with contingency. Those who are open to contingency will win. For example, you produce a very simple project, you have come to a place in terms of resource management and you have lost the resource. In this encounter, you have to do this, you know, I couldn't convince you for this source or something, never mind give up all the methods you know. Look for a new potential encounter, what kind of contingency will help you to get out of here? Or at this point, how do we actually do the project so that it is better? -INT 19

Funding dynamics should also be flexible to integrate contingency conditions and should not be delimiting to the specific study underway.

> Biz bir finansman aldığımız zaman, o kuruluşun kölesi gibi hareket etmiyoruz. Proaktif olabilmek adına biz onlara alternatif fikirler sunuyoruz, onların içerisinden bir tanesini seç diyoruz. Çünkü fon veren kuruluş sadece fon veriyor ondan sonraki süreçte aslında bütün o prosesi size bırakıyor. -INT 14

> When we receive funding, we do not act as slaves to that organization. In order to be proactive, we offer them alternative ideas, we say choose one among them. Because the funder only gives funds, in the next process, it actually leaves the whole process to you-INT 14

Accordingly, understanding contingency conditions is an important enabler in leading the SI process. This also justifies the generation of different scenarios and the adaptation requirements for each different requirement. Different from risk management, contingency to the social setting, allows enactment of action at the specific points necessary for action. It creates a preparedness to the action and it holds the potential where actions can be diverged at unique points of the implementation process. The contingency conditions also feed the change requests necessary that would allow for the barriers to be overcome for continual action. Several respondents have mentioned different contingency conditions (actors leaving project work, suspension of activity due to resource inadequacy, inclusivity of new actors, threatened impacts due to narrow scope) as reasons to adapt to the changing requirements of the SI process.

4.2.1.4.4 Networking Depth/Breadth

The extent of networking activities is an important input to social innovation activities. The interview attendees have emphasized variety in network actors and the frequency of contact for activities. However, there is no standard due to the different needs of the social innovation problem and also the context in which the activity is initiated.

Moreover, as mentioned by INT-04, there are also main differences as listed as follows:

Sosyal inovasyonun, hem örgütlenmesi hemde karakteristiki, diğer sektörlerden biraz farklılık arz ediyor.-INT 04

> The organization structure and the characteristics of social innovation are different from other sectors-INT04.

The networking diversity , depth (number of stakeholders) and the breadth (the variety) of stakeholders are important facilitaors for sustainability through follow-up by different stakeholders and also reducing the risks of a single contact entity.

> Paydaşlar, sürdürülebilirliği sağlar. Bu tüm kurumlar içinde geçerli, bu kamu kurumuda olabilir, STK'da bireyselde. Paydaş olduğu noktada, aslında o çalışmada çalışmasını sağlayan ya da arkadan ittirici gücü devreye sokmuş oluyorsunuz -INT 20
>
> Stakeholders ensure sustainability. This is true for all institutions, this can be a public institution, it can be an NGO, it can be an individual. At this point when there is a stakeholder, you are actually activating the power that makes it work and your integrating a push -INT 20

INT 20 illustrates an important example to the lack of breadth within NGO's and its problems:

> Aynı alanlarda çalışan grupların toplanıp aynı komitede olması güçlü olması, güzel oluyor ama bu şeye benziyor bütün kadın dernekleri toplanıp, sadece kadınlarla ilgili,, kadınlara konuşursanız. Dertlendiğiniz, o erkeklerin bilinçlenmesi ile ilgili kısmı kaçırıyorsunuz. Bu yüzden belki duymuşsunuzdur, bir kaç erkek, kadın derneği kurmuşlar. Biz bu konuda bayrağı taşımak istiyoruz diye. Onlarda çok enteresan.-INT 20
>
> It's nice to have groups working in the same fields and be on the same committee, but it has this concern, if you get all the women's associations together and talk only about women, for women. You're missing the part about raising awareness of those men that you're worried about. That's why you may have heard, men have established women's associations wanting to carry the flag on this issue.-INT 20

The number of actors (depth) vs. the variety of actors (breadth) have been critical in instigating SI practices. The quadruple helix structure in innovation modelling is emphasized here. It is important to have representation from academic/research actors, industry, policy makers and the public. Foremost, the variety of actors have been

mentioned to add to the quality of the output. The variety also ensures that certain actors are not left out in the decision-making process. The variety in this category also supports the collaboration-cooperation potential to be modelled as well.

4.2.1.4.5 Collaboration-Cooperation Potential

After the conditions of the collaborators have been finalized, there is a need to understand the areas of collaboration and cooperation. Universities have been described through different roles, which also draws a need to match when each actor works best with each actor. The academicians have been criticized to be too 'individualistic' whereas social innovation practices require collective effort. Furthermore, there is still a need for a common language to also carry out the efforts. This disparity is emphasized by INT .13, where the potential is limited due to not creating a common ground for practice:

> Bir sürü kişinin birbirini anlamdığını düşünüyorum, aynı kelimeleri kullanmamak, aynı kelimeleri kullanıyor olsak bile, onun neye denk geldiği ile ilgili, böyle yarım anladığımız birşeyler yaşıyoruz. Dolayısıyla orada problem çok. Sosyal inovasyon Türkiyede bakacak olursak, yapacak çok şey var -INT 13
>
> I think a lot of people don't understand each other, we don't use the same words, even if we use the same words, we have something that is half understand. So there are a lot of problems there. If we look at social innovation in Türkiye, there are a lot of things to do.INT 13

Moreover, lack of site visits and also networking potential is an important trait that needs to be developed by the academician. INT 02 implies that academicians are more push driven in supporting such activities.

> Yani birşey olgunlaştıktan sonra o işbirliğinin oluşması zor oluyor, biraz üniversitelerde birazda yapı gereği yani ,çok bireysel olmaya müsait ortam, odada makale yazmak, ya da ders vermek, bunun ötesine çıkıp kamu kurumu ile işbirliğine gitmek, sektörlerle temas etmek, bence bunlar daha yeni yeni 'Code of Conduct' ını oluşturmamız gereken şeylerden bana sorarsanız.- INT-02
>
> In other words, once something matures, it is difficult to be involved in that collaboration. This is a little bit due to universities, a little bit due to their structure and their environment being very individual like writing articles in their room or lecturing. If you ask me we need to create a 'Code of Conduct' to go beyond those mentioned activities and to make them collaborate with public institutions, to contact industrial sectors. INT-02

4.2.1.4.6 Co-Creation Capacity

Sectoral differences also bring important potentials to social innovation practices. However the authors mention that although there are many examples across disciplines, these disciplines rarely interact with each other(Beckman et. al, 2023).

There is an important gap in co-creation capacity within and between institutions in the HEI system. Among the reasons listed include lack of inter-institutional efforts as mentioned by INT 04 and INT 02.

> Kurumlararası ve disiplinler arası işbirliği kültürünün hala ülkemizde çok zayıf olması. Hatta üniversite içerisinde bile, farklı kürsüleri ve kişileri bir araya getirip çalıştıramıyoruz. İşbirliği kültürü ve kapasitesinin gelişmemiş olmaması.- INT 04

> The culture of inter-institutional and interdisciplinary cooperation is still very weak in our country. Even within the university, we cannot bring together different chairs and people and make them work. There is lack of cooperation culture and capacity. INT-04

> Şahsi kanaatim, eğerki proje başvurusunda zorunlu olarak ortak olunması gerekmese üniversiteler gelmeyebilir. Kobilerde ve işletmelerde de var. Ülkemizde maalesef ortak çalışma ve işbirliği kültürü Türkiyede henüz çok gelişmiş durumda değil-INT 02
> In my personal opinion, universities may not come if it is not necessary to be a partner in the project application. It is also present in SMEs and businesses. Unfortunately, the culture of joint work and cooperation in our country is not yet very developed in Türkiye -INT 02

Moreover, restrictive mobility mentioned by INT 11 is also an important hindrance to joint activities.

> Bizim üniversitemizde, diğer üniversitelerde olduğu gibi, öğretim elemanının dışarıya çalışabilmesi çok mümkün değil, onun kapıları çok fazla kapatılmış durumda. Dolayısıyla çoğunluğu dışarıya iş yapmıyor, yapamıyorlar, yapılamıyor, izin verilmiyor. Ve de onun dışında da üniversite yönetimi, bölümlere sen sektörde bağlantı kurabilmen için ben şöyle bir kapı açayım, öyle bir yaklaşımları da yok. -INT 11

> In our university, as in other universities, it is not possible for the lecturer to work outside, the doors for this is tightly closed. Therefore, the majority of them (academicians) do not do business outside, they are not able to do it, they cannot do it, they are not allowed. And apart from that, the university administration does not have such an approach so that you can connect with the departments in the sector. -INT 11

Lack of stakeholder management and communication can also reduce the efforts as described by INT 16, who has both academy and also industry experience:

> 3-4 tane lansmanı yapılmış kamu projeleri var şu anda. Onların bile arka planda çok ciddi sıkıntıları var. Sıkıntılardan biri paydaşlar ile ilşki yönetimi, 2. İletişim yönetimi, çok ciddi sıkıntı ondan dolayı, kamu projeleri çok ciddi yaygın etkiye sahip olamıyor. Özel sektör projelerinde, sürdürülebilirlik sıkıntısı olabliyor,benim gözlemlediğim-INT 16

> There are currently 3-4 public projects that have been launched. In the background they have very serious problems. One of the problems is the management of relations with stakeholders. Second, communication management, is a very serious problem and thus public projects cannot have a very serious widespread impact. In private sector projects, there are usually sustainability problems.-INT 16

The potentials in this area are described by INT 13 through initialization of these practices :

> Üniversiteler burada nasıl rol oynarlar? stratejik hedeflerine ve planlarına bu tarz hedefler koyabilirler. Bölümlerin, kendi içerisinde yaptıkları planlar yanısıra, bölümler arası ortak talihlerin (yolların) olduğu çalışmaların teşvik edildiği mekanizmalarda oradan birşey çıkar. Bir kere, hiçbirşey olmazsa, kendi alanın dışında, senin bakış açından farklı düşünen, farklı birileri ile iletişime geçip, çalışabilme alışkanlığı, bir kere o kaslarımız gelişir, o kasların gelişmesi lazım, oraya yönelik olabilir-INT 13

> How can universities play a role here? they can set such goals in their strategic goals and plans. In addition to the plans made by the departments ,mechanisms by which the work in which there are common paths between departments should be encouraged. First of all, even if nothing happens (no output occurs), the habit of being able to communicate and work with someone outside your field, who thinks differently from your point of view, needs muscles development, these muscles need to develop and we could be addressing this-INT 13

Lastly, in essence the principle of governance mentioned in 4.2.1.2.1 is an important facilitator for these activities.

> İnsanlar bulundukları kurumdan bağımsız olarak, kendilerini heyecanlandıran projelerde mutlaka emek veriyorlar, birlikte çalışıyorlar yani paydaşlık çok görünür birşey bu alanda.-INT 18

> Regardless of the institution they are in, people definitely put effort in projects that excite them. In other words, stakeholders are very visible thing in this area-INT 18

Indeed volunteerism is valued, however the HEI actors should not be oblivious to the potential as mentioned by respondent INT-28:

> Ben çok zorlama olmaması gerektiğini, ama bilimler arası geçişlerin aktarılması gerektiğini, iki tarafında sosyal bilimciler ve fen bilimcilerin aslında birbirinden çok öğrenecek olduğu kanatindeyim. İki tarafta kendisine uygulanabilir hale getirmeil, ama onunda ilkeleri vardır ve onu ortaya koymalıdır. Üniversiteye düşen görevde o, temel prensipleri ve ilkeleri ortaya koymak, farklılıkların nasıl olduğunu, niçin olduğunu göstermekte bizim işimiz-INT 28
>
> I am of the opinion that (social innovation) should not be too forced, but that the transitions between sciences should be transferred, and that social scientists and basic scientists on both sides will actually learn a lot from each other. Both sides must make it applicable to them, but they have to lay principles and must lay them out. It is our job (as academicians) to lay down the basic principles, to show what the differences are and why.-INT 28

The co-creation potential can be systematized according to the needs of the different disciplines that want to undertake SI practices. This is an important enabler to integrate the working principles of disciplines with the working principles of SI. This creates a bridge to balance the skill sets and the approaches that would have previously hindered SI practices.

4.2.1.4.7 Transformational- Future Driven Capacity

It is important to see the future implications of the SI initiative. While the value frontier described in 4.1.1.1.4 emphasizes the potential of the current SI initiative and its strategy, the future driven capacity can be enhanced and enacted with the changing roles of society. The essence here is to understand the dynamics that drive a new future inclusive of SI practices.

INT 38 has portrayed a glimpse of the change in social dynamics in the future. As emphasized this will be put to the fore front when physical production will need to be structured differently with a normative perspective.

> Fiziki üretim yetersiz kalacak, o zaman, toplumsal refah ve sosyal buluş konuları, daha fazla öne çıkacak diye düşünüyorum. Türkiye'de ve Dünya'da bu doğrultuda ilerler diye beklentim var. Bu tabii daha fazla işbirliğine zorlayacak, farklı disiplinlerin bir arada olmasın zorlayacak. Uluslararsı kurumların birlikte hareket etmesini zorlayacak. Ülkenin ve belki politika yöneticilerinin, politika yapıcılarınında birlikte hareket etmesini zorlayacak diye düşünüyorum.-INT 38
> Physical production will be insufficient, then I think the issues of social welfare and social invention will come to the fore more. I have an expectation that Türkiye and the world will progress in this direction. This, of course, will force more cooperation,

> and will force different disciplines to co-exist. It will force international institutions to act together. I think it will force the country and maybe policy managers and policy makers to act together-INT 38

INT 14 emphasizes the systematic planning and refinement of teams and practices to be successful in future science practices. The example was given by the respondent's interest area to emphasize the team building needed in social innovation and the prolonged follow-up to create a systematic for future endeavors.

> Ve 1969 yılına geldiğimizde gerçekten aya bir insan indi. Ve bunların çalışmaları , akademilk çalışmalar olsun, testler olsun, 2021 senesinde perseverence'ın doğru fizik hesaplamaları ile, Marsa inmesini sağladı. Bu böyle birşey.Yani siz sadece NASA'yı kurarark bunu başarmıyorsunuz, aynı zamanda, farklı farklı üniversitelerde astro-fizik yani uzay biliminini gelştirebilmek için ,hocalar, öğrenciler, akademisyenler, asistanlar dev makaleller yayınlıyorlar, bunu NASA ile istişare ediyorlar. Ve diyorlarki biz 2021de Marsa biz bundan dolayı indirebildik. Biz, kendi hükümetimizi bunun dışında tutacak şekilde söylemeye çalışıyorum, çünkü tek başınıza birşeyleri başarabilmeniz mümkün olmuyor-INT 14

> And by 1969, a man actually landed on the moon. This work whether it is academic studies or tests, enabled Perseverance to land on Mars in 2021 with accurate physics calculations. It's something like this. In other words, you are not only able to achieve this by establishing NASA, but also, in order to develop this you have to work with astro-physics, space science, professors, students, academicians, assistants in different universities and publish huge articles and consult with NASA. They can say that we were able to land on Mars in 2021 because of this. I'm trying to say it in a way that excludes our own government from this, you can't accomplish anything on your own.-INT 14

This enabler is critical in transforming technology pulled processes into learning pulled proceses within the HEI context. Morever, it is important to have foresight to understand the changing dynamics. Foremost, from a Mode 1 knowledge production based in HEIs, there will be more of a need to create context specific solutions with non-academic actors outside the core HEI sphere.

4.2.1.5 Multiplicity

The dissemination of social innovation practices is an important factor for visibility. How these implementations are first introduced and adopted are important feedback to the approaches that can be integrated to increase its prevalent effect. The approaches taken in these steps also is an important indicator for the effectiveness of scaling activities for SI practices as well.

4.2.1.5.1 Common Elements-Purpose Scope

Among successful implementations, the implementors have mentioned a formalized DEC (Dissemination Exploitation and Communication) strategy to increase follow-up projects, to entice new stakeholders and also to sustain the activities of the social innovation initiative. It would be important to distinguish the main aim and how it was refined through the process and act accordingly. INT 10 ‘s words suggest different approaches to be taken to explain and exploit the initial social innovation initiative.

> Belki toplumsal inovasyon ve toplumsal yenilikleri, hangi seviyede ve kimlere ne kadarlık bir zaman ‘span’ı ya da ufku içinde etki edeceğini ayrıştırmak lazım. -INT 10

> Perhaps it is necessary to distinguish between social newness and social innovations, at what level and to whom and for how long it will affect the 'span' or horizon. -INT 10

Reflecting on the potentiality is nicely explained by INT 20, where indeed the more examples we see the better we can define the roles and the process to create it.

> …yanınızdaki kişi kadar aslında anlayabiliyor, algılayabiliyorsunuz. Sosyal inovasyon hangi alanda gerek, hangi çalışmalar var, hangi konularda gerçekten işe yarıyor ya da yaramıyor. Yani bununla ilgili ne kadar çok kişi ile konuşursanız, o kadar daha çok açılıyor. -INT 20

> …you can actually understand and perceive as much as the person next to you. In which field is social innovation needed, what studies are there, in which subjects does it really work or not. So the more people you talk to about it, the more it opens up- INT 20

The first element of multiplicity is structured to make sure the practices can be described to different groups in a lean and simple manner. The essence of effective communication mentioned by the respondents is the ease of communicating the activity and making sure the relevance can be exploited in a different setting. INT 20 had mentioned the use of creative videos to help the health practices at a hospital before COVID. These visuals were later utilized in COVID, emphasizing that need focused ideas can be timeless and can be re-used to increase impact at the source of the problem. The respondent reiterated that good SI practices are timeless and are forever there to support the sustainability of practices for future implementors.

4.2.1.5.2 Outreach Strategy and Tools

The use of digital technologies (DT) in higher education institutions have also been a hot debate in the literature (Kaputa et al. , 2022) . The work of Reis et al., (2018) has categorized digital technologies as per their functionality and distinction in regard to the purpose of technology. These have been listed respectively as a) Technological DTs b) Organizational DTs and c) Social DTs and in the same order reflect the newness of technology, support of technology for organizational activities and the output of technology to influence human life. In an analysis by Castro et al., (2020) and Kaputa et al. (2022), it is reiterated that the social dimension is on the rise for use of such technologies. The authors also mention the most influenced areas in DT usage within HEIs are in the areas of teaching, curriculum development and also organizational processes such as infrastructure. Oni (2023), has summarized the work of Constantinescu & Frone (2014) for technologies to support SI practices. For a technology to qualify as a social innovation tool, it should promote economic development, environmental sustainability and social advancements.

The most common tools preferred by management was social media , websites, teaching and meeting platforms and activity reports. In regard to the strategies impact tracing, using unconventional dissemination channels and working on perception management by working on findability and also accessibility to different communities was also suggested by respondent INT 20. SI implementors were also seemingly more sensitive to creating content that was suitable for people with disabilities and learning difficulties. Students are seen as important agents to disseminate SI ideas with their extended grasp of technology. This potential is clearly emphasized by INT 15 as follows:

> Dayanışmacı çok rekabetçi olmayan, dayanışmacı işbirliklerine ihtiyaç var, bunun içinde sosyal inovasyon merkezleri, ünkübasyonlar merkezler, üniversiteler, finans sağlayıcılar, yani sivil toplum, bunların hepsinin kıymetli ve önemli olduğunu düşünüyorum. Bu ekosistemde üniversitelerin önemli olduğunu düşünüyorum, çünkü ellerinin altında, muazzam önemli , sosyal inovasyonu kavradığında çoğaltan etkiyi üretebilecek muazzam bir genç kitlesi var, orayı mobilize edebilir, orayı kavramı tanıtabilir, caseleri gösterip, en azından burada birşey var, o anlamda gücü yüksek üniversitelerin.-INT 15

> There is a need for non-competitive solidarity collaborations. We need social innovation centers, incubation centers, universities, financial providers civil society for this. I think all of these are valuable and important. I think universities are important in this ecosystem, because they have a huge mass of young people who can produce and multiply the effect when they grasp social innovation, they can mobilize it, they can introduce the concept , they can show cases to draw attention to a point. In this respect the power of universities is strong. -INT 15

The respondents have often criticized the effectiveness of SI practices in university platforms. The most common social media platforms have been utilized, but industry and NGO partners have been credited to be more pro-active and raising attention in regard to their own approaches. In regard to EU project work, they have found multiplier events such as result share conferences effective in communicating and also discussing output.

This distinction of public and private entities are also emphasized by INT 16:

> Kamu biraz kendini göstermede, özel sektöre göre bir tık geride, neden ? sosyal medyayı o kadar etkin kullanmıyor, vatandaşlara ulaşma çabası özel sektör ile kamu sektör arasında ciddi bir fark var. Kamu benim işimi yapma, vatandaş beni gelsin bulsun, itme sistemler çekme sistemler, kamu biraz itme. -INT 16

> The public sector is a little behind the private sector, why? It does not use social media that effectively, there is a serious difference between the private sector and the public sector in trying to reach citizens. The public don't want interference in their job and they expect citizens to come and find them, like push systems, pull systems, public a little push driven-INT 16

There is a great potential for the outreach strategy to enhance the credibility of the public good being generated. SI is a public good and the better the good is portrayed, the higher chance it is accepted outside the implementing bodies. This is also an important chance to also improve the credibility of the actors, as the external actors see the responsible organs and also the implications in a direct manner. This has been best portrayed with activities of the municipalities which also helps to structure the strategies of implementation. For example, public procurement activities that are in alignment with SI principles can also help structure the activities outside the main context of implementation. The SI process can thus be seen as a detailed structure, like a supply chain, where the elements at all tier, levels require a societal outlook in practice. The resource needs can be supplied from an establishmet that values women empowerment and thus the inputs and outputs of the system are ethically SI driven.

4.2.1.5.3 Mirroring Activities

Mirroring activities are activities that are replicated within the ecosystem as seen done by other ecosystem constituents. These activities help multiply prominent practices and are also important enrichment practices within the social innovation ecosystem. Showcased examples perceived to be important and applicable are important drivers for SI implementation as mentioned by many of the respondents.

These are exemplified through the following respondents INT 07, INT 11 and INT 13 experiences of mirroring activities for accreditation, industry competency needs for graduates shaping curriculum work and also inter-departmental influence :

> Avrupa Üniversite Birliği var, Avrupadaki üniversitelerin bir nevi akreditasyon kurulu gibi. Eğer oraya dahil olmayan bir üniversiteden mezun olduysanız, sizin diplomanızı kabul etmeye biliyor. Ben yüksek lisans veya doktora yapacağım zaman, sizin önünüze bir takım ek dersler çıkarabiliyor. İlk ODTÜ almıştı bunu Ural Akbulut döneminde, 2. biz almıştık. -INT 07

> There is the European University Association, which is a kind of accreditation board of universities in Europe. If you graduated from a university that is not included there, they may not accept your diploma. When you decide to do a master's or doctorate, they can request additional courses for you. METU was the first to receive it during the Ural Akbulut period, we were the 2nd. -INT 07

> Diğer üniversiteler araştırma yapıpta, bu tür bir bölüm mezununun piyasadaki değerini fark ettikleri zaman, kendi programlarını da bu şekilde düzenliyorlar.-INT 11

> When other universities conduct research on the value of such graduates in the market, they organize their own curriculum in this way. -INT 11

> …ve bunları paylaşma, çünkü o şeye dönüşürse, aa bak biz böyle birşey yapıyoruz, diğer bölümlerden şöyle yapmış. Bizden onun şurasından, şöyle birşey yapalım dendiğinde, aslında birlikte birşeyler yapma kültürü , paylaşma ve motive etmeye dönüyor. – INT 13

> Sharing this turns into something that's like, oh look, we're doing something like this, the other departments are also doing this. When we are told to do something like this, the culture of doing something together actually turns into more of a share and motivation-INT 13

Another form of mirroring is ‘interest mirroring’ where the funding agencies are excited to contribute and sustain the social innovation activities that are of interest to their main activity focus.

> O zaman, bu etkiyle heyecanlanacak kapital ve yatırımcılar bulmamız gerekecek-INT 18

> Then, we'll have to find capital and investors who will be excited by this effect-INT 18

This is also an effective medium to create demand for SI practices as also mentioned by INT 19.

> Aslında bu tür bir öğretim yenilğinde ne, birilerinin ihtiyacı var ve talep var, bunlara erişmen ve bunları duyurman gerekiyor. -INT 19
> In fact, with this kind of teaching innovation, someone needs it and there is a demand, you need to access it and get the word out about it-INT 19

Lastly, the emphasis of the practice is supported with the number of visible practices as well as the number of people willing to commit to the activities as mentioned by INT 03 with a main manager role in the ecosystem:

> Üç-beş kişi (sosyal inovasyon) yapmak yetmiyor, yaygınlaştıracaksınız. Bu böyle kelebek etkisi gibi yaygınlaştırabilmeniz gerekiyor-INT 03

> It does not suffice to have three or five people (working on social innovation) , you need to spread it. You need to be able to spread it like the butterfly effect. -INT 03

The essence here is to see an implementation that is easier to replicate and which creates a demand for the SI practices. Keeping up with practices, as well as rivalry to imitate can also create an impetus to be the same among common level actors. If the initial seen example is structured in a coherent and planned out manner, the systematic is easily replicable and is seen to be sustained by directly mirroring the activities at hand. This is an example of an early scale-up for SI activities.

4.2.1.5.4 Repeated Practical Examples

The entrepreneurial scaling domain for SI is different. Georghiou (2018) emphasizes that in SI the emphasis on scale is the social innovation (process, product, model) rather than the organization itself. This implies that organizations that support SI may not need to expand or even could become obsolete but the dissemination and scale of SI maybe expanded after it is accepted and validated.

INT 19 draws attention to the practicality of ‘good examples’ in SI work. As the content, context and the social actors of practice will change the dynamics, it is important to understand why it worked in the specific ‘local’ context, but not expect

that these can always be replicable. In essence, even if there are replicable elements, there needs to be unique aspects integrated to sustain the practice at hand.

> Bir başarı olacak, ama bu başarı çok kısmi, çok yerel, çok belli guruplar içindeki projelerde olacak. Zaten dünyada yapılan haksızlık bu, bu projeler dünyada sanki herkes tarafından yapılabilirmiş ve yapılıyormuş gibi anlatımında sorun var.-INT 19

> There will be a success, but this success will be very partial, very local, very specific to the projects. This is already an injustice in the world, there is a problem in describing these projects as if they can be done and are being done by everyone in the world-INT 19

INT 18 details the essence of creating a suitable work model that can sustain and repeat itself. Different from miorroring in this category an element of structuring and sustainability needs to be emphasized to ensure the practice can be repeated as per need or within the scope of implementation :

> Kısıtlamadan şey yapmak lazım,nasıl destekleyebiliriz (sorusunu sormamız lazım)? Ve birkaç tanede iyi örnek çıkması lazım. Hem etkisi yüksek, hem çok iyi para kazanan. Kazandığı parayı, tekrar etkisine yatıran. Ya da işte ortaklarına da ciddi getiriler getiren. Çok iyi her ülkeden 5-6 tane iyi uygulama çıkması lazım ki, bunun daha görünür bir alan olmasını, ve zaten sizlerde okursunuz, birgün herkesin sosyal yatırımcı olacağı, herkesin girişimci olacağı ile ilgili bir kanı var bu alanda çalışanalar için. -INT 18

> We need to do something without restricting it and (asking the question) how can we support it? There should be a few good examples.It has to have high impact and also make good money. The one should invest back its money to its main (social) influence. It should also bring serious returns to its partners as well. There should be 5-6 very good applications from each country so that this becomes a more visible area, and you can already read that there is a belief that one day everyone will be a social investor, everyone will be an entrepreneur for those who work in this field- INT 18

The presumed ‘difficulty’ in initiating the practices or having high expectations to these practices is among the biggest hindrances mentioned form the participants. The essence here is to ensure that the solution is dedicated to the need and it is applicable in its simplicity to understand and implement. Several respondents have mentioned , even though a detailed model has been constructed, as actors change, the more complicated the model is to implement the harder it becomes to pursue or refine it, thus threatening the sustainability of the action in total. It is important to define an example that is reproducable and implementable. Otherwise, the SI project continuation is put at risk.

4.2.1.5.5 Knowledge Spill Over

The knowledge attained through the repeated examples need to be embedded in the practices to follow for SI implementations. Among the greatest difficulties is the communication of these activities to different audiences. This is also an important asset to be developed by the HEI actors, as how they utilize and communicate knowledge or practices bears a gap. There is expectation for the activities to be recognized by peers, however a greater difficulty is how they communicate these results to the external actors. In this sense a common ground for terminology-jargon is necessary. The approach of the HEI actors to receive recognition and credibility of their work is different in SI where collaborative efforts might remove the entity names in the essence to work in cohesion. The pressures of academia have resulted in more individualistic efforts rather than joint efforts. This is also a critical implication to structure and share the learned outcomes in a collaborative knowledge spill over utilized within and outside of the HEI context that it was created.

The announcement of outputs in an effective manner also aids in social acceptance by the relevant masses and may also increase the visibility of the work done by the academician. The need for this recognition and the following implications are mentioned by INT 20:

> Projelerin çıktılarının olması, gerçekten projesel olarakta tatmin eden birşey oluyor. Çıktıların beğenilmesi, bu da ne yazıkki insan olmamızdan kaynaklanıyor. Çıktıların birşekilde herkesce hoş görülmesi. Çıktının bir ticari değerinin olduğunun fark edilmesi ilgi uyandırıyor-INT 20
> The fact that the projects have outputs is something that really satisfying in the project. The need for the outputs to be liked, unfortunately stems from the fact that we are human. Outputs are somehow recognized by everyone is preferred. Recognition of the output having a commercial value raises interest-INT 20

Similarly, INT 20 has also reflected the needs of groups previously worked with emphasizing the inclusivity learned to be reflected in the upcoming practices. The spill-over enabler here is to be more visible and to be matched with the need. Moreover, making the functions more understandable to a greater mass outside the target group is an important barrier that needs to be overcome . This greatly shapes how best the idea, process and results are communicated and the social return on investment from its visibility.

> Görünürlük. Bulunabilirlik. Herkes için anlaşılabilirlik. Yapmaya çalıştığımız şeylerden bir şey daha, engelsizleştirmeyle alakalı çalışmalar yapıyoruz. İnternet sitesinin ve çeşitli fiziki ortamların çeşitli engelli gurupları için engelsiz hale getirilmesi ile alakalıda çalışma var diyebiliirim-INT 20
>
> Visibility. Findability. Understandable for all . One more thing that we're trying to do is we're working on to remove barriers. I can say that we have work to make the website and various physical environments barrier-free for various disabled groups-INT 20

In regard to the role of academicians , academicians have mentioned the effectiveness of their DEC strategy through a core partner and have not been actively involved in providing DEC services as mentioned by INT-18 which is an important attribute to be developed.

> Genel olarak üniversiteler ve akademisyenler bir işi iyi yapmak konusunda iyidir ama onun, görünürlüğünü sağlamak konusunda çok iyi olamıyoruz bazen. Ne kadar çok paydaş ile çalışırsanız, görünürlüğünüz o kadar fazla oluyor. Ben çok görünür olmadığımızı düşünüyorum yaptığımız işlere kıyasla.- INT 18
>
> In general, universities and academics are good at doing a job well, but sometimes we are not very good at making it visible. The more stakeholders you work with, the more visibility you have. I think we're not very visible compared to what we're doing INT 18

Lastly, sudden social abruptions like the pandemic and earthquakes are seen as important facilitators for change as mentioned by respondent INT 12:

> Dolayısıyla, daha önce baktıklarımıza farklı bakmamızı sağladığı için sosyal olgular, pandemiye çok şey borçluyuz-INT 12
>
> Since social phenomena makes us look differently at what we used to percieve before, we owe a lot to the pandemic-INT 12

Times of crises have shown to speed up the social acceptability of SI practices which also supports the interest and willingness to also share the know-how of good practices. Also, this also creates a commonality in purpose and scope as mentioned in 4.2.1.5.1 which extends the resources to initiate such type of action.

4.2.1.5.6 Diversification Practices through Quadruple Helix Density

Different diversification opportunities have been recognized within the study. Foremost, the plethora of social innovation activities might require a structuring to

contribute to main research tracks (i.e solar technology, agriculture, engineering , social sciences). This has been supported by the comments of INT 04.

> Inovasyon sektörel bir ayrıma tabii tutuluyor. Sektörel odaklanma çerçevesinde, inovasyonun özellikleri, karakteristikleri, farklılık arz ediyor-INT 04
>
> Innovation is subject to sectoral distinction. In the scope of sectoral specialization, the characteristics of innovation has different qualities. -INT 04

Moreover, diversification in research practices (i.e working with different disciplines, different actors, different regions) hold an important potential to utilize the needs and requirements of the Quadruple Helix Actors. INT 20 mentions an important hindrance in the propensity of HEI actors to work with a single or similar innovation agents. Moreover, without the integration of the diversified actors, this is also a risk in how actors contribute and the extent of the value-add attained from the practice also becomes questionable.

> Çoklu farklı bakış açısıyla çalışmadan, aynı kitleler olarak aynı şeyleri yapmaya meyiliyiz. Bunu işte kadın, çocuk, haklar çevre, yani körü körüne. Sosyal inovasyonda da, fanatizm var bana sorarsanız. Birşeye körü körüne odaklanıp, sadece o alanda, sadece o şeyin o alanda katkı sağlayacağına inanmak var- INT 20
>
> Without working with multiple different perspectives, we tend to do the same things with the same audience. This is done blindly for women rights, children rights, and the environment. If you ask me, there is fanaticism in social innovation. There is a blind focus on something and believing that only that thing will contribute in that area-INT 20

Previous, preconceptions on one-to-one partner matching and also valuing 1:1 vs. 1: n relationship styles can be an important strategy that universities can also work on as mentioned by INT 23.

> İlk biz bu tarz etkinlikler yaptığımızda, şu üniversiteler ile çalışmaya başladınız artık şu üniversite ile çalışamıyacaksınız., hep onlarla çalışmak durumunda kalabileceksiniz, çünkü üniversiteler arasında böyle bir rekabet var dendi. 2 sene sonra biz İzmirin bütün üniversitelerini dahil edebildiğimiz bir işbirliği yaptık. Bunlar aslında o anda çok farkında olmadığımız ama sonradan baktığımızda birşeylere bakış açısını değiştirebilirsen ve herkese eşit mesafede daha bağımsız ortamlar yaratırsan, aslında herkesin birlikte çalışmaya gönüllü olabileceğini gösteren şeylerdi. Sanırım bizim biraz daha odaklandığımız konular, kent kapsamında bunlar, işbirliği kültürü ile alakalı.-INT 23
>
> When we first did such activities and started to work with these universities, they said you will no longer be able to work with other universities, you will always

> have to work with them because there is competition between universities. These were things that we weren't very aware of at the time, but in hindsight, if you change the way you look at things and create more independent environments that are equal to everyone, everyone can actually be willing to work together. I think the issues that we're focusing on a little bit more, in the city, are related to the culture of collaboration. -INT 23

It is apparent that HEIs hold an important role in being a mediator among the practices conducted for SI. An important enabler is to remove the biases of former working groups and to be inclusive of working structures that have not been utilized before. This can be the case where technical universities only work with technical universities and they can structure their activities to work with social focused universities too. An important hindrance here is the lack of interdisciplinary work to understand different discipline potential and the lack of unique working styles such as participatory research which can require different forms of engagement styles and tools to make it happen.

4.2.1.5.7 Learning Regions- Thriving Ecosystem

A learning region is a regional example of dynamic capability, where the knowledge sources and knowledge base are extended within the collaboration network. For universities this could be organized through cluster potentials (i.e textile, automobile, agriculture) and also the thriving potential of the knowledge-base can be extended. In this regard, there is a dynamic system and with more examples to discuss, we can better understand the system steady state for better improved implications. This is also an action orientation towards the local actors to work within the periphery of their impact in a manner appropriate to the core SI need. All actors need to adapt to changes to facilitate and ease the SI operations, this is possible with mutual understanding and trust for the process. HEI actors hold an important moderation role to combine the joint efforts.

This is expressed through INT 18 as follows:

> Sistemin kendisini oluşturmasına izin vermemiz lazım. Bütün politikaların bu işi kolaylaştırıcı ve destekleyici yönde olması lazım. Nasıl, bu işi kolaylaştırabiliriz. Ben kalkınma ajanslarının önemli bir rol oynayabileceğini düşünüyorum. Belediyelerin önemli bir rol oynayabileceğini düşünüyorum üniversiteler ile birlikte çalışarak. Ve

> dediğim gibi, tamamen zorlayıp bir alana itmektense, öncelliklendirmekte şu anda yanlış politika olur. -INT 18

> We need to let the system create itself. All policies should be facilitating and supporting this work and making this job easier. I think development agencies can play an important role. I think municipalities can play an important role by working with universities. And as I said, it would be the wrong policy right now to prioritize and push it into one area altogether-INT 18

However in regard to the structuring, there is still debate to the efficiency of the SI units and entrepreneurial units present in Türkiye. Common themes of positive structuring that have been mentioned by the respondents include: sharing of work, creating space to engage with students, inclusivity of different departments, better matching opportunities, commitment to SDG (Sustainable Development Goals), capacity building, better alignment with university mission-vision and also defying hierarchical requirements. An alternative form of structuring has been suggested by INT 18.

> Belkide iller üzerinde, üniversitelerin biriikte çalıştığı hub'lar oluşturulmalı. Belki daha kolay olacak ise. Şey olarak görmemek lazım, şu üniversite şunu yaptı, şu üniversite bunu yaptığından ziyade, hep birlikte bu alanı geliştirebilmek için nasıl çalışabiliriz. Ürettiğimiz araştırmayı nasıl faydalı kılabiliriz. Ya da bu insanlarla beraber çalşıp problemlerini nasıl anlayabiliriz.Yani biraz sahaya inmek lazım, bu alan öyle bir alan.-INT 18

> Perhaps hubs should be established in the provinces where universities work together. Maybe it will be easier. It should not be a thing, to say, rather than this university did this, that university did that, how can we all work together to improve this field. How can we make the research we produce useful? Or how can we work with these people and understand their problems? So we need to go on-site in this field a little bit, this area is such an area-INT 18

Units which have been given autonomy in action are seen to be more successful. Otherwise there is criticism among the respondents to sustain such research units. Among the issues is to use these units to assign faculty for hire, but not to work in the core aim that it was intended for. Similarly, topics that are usually avoided by upper management (i.e political identities, LGBT +, gender roles) also halters some structuring activities. Some of the academicians have mentioned that these research topics were detailed and researched in settings outside the HEI ecosystem. The thrive and continuity of the regions and the structures are best shaped with the need focus rather than the needs prioritized with political and cultural restrictions.

4.2.1.6 Sustainability

The sustainability of social innovation projects entails the idea and the formation to continue in multifaceted ways. This includes follow-up projects driven by the initial need, application of the project methodology in different sectors and the rebirthing of new projects in this area. How we integrate and how we approach systematic practices within universities is also an important concern for sustainability practices. However, practices that are enforced top-down do not always bring the culture and the values to implement them effectively. Especially, if these practices are further seen as check-list items, the implementation core is lost. Respondent – INT 28, has mentioned an important concern in regard to forceful practices and also the misalignment of similarly focused work.

4.2.1.6.1 Data Driven Process Management

The ultimate goal of sustainability practices for social innovation is impact assessment. Impact assessment requires an objective approach to describe the societal factors within the social innovation idea context. Accordingly, there is a great need to be able to describe the event thoroughly, have a systematic to assess the long-term change potential and also be able to act on worked examples for improvement. In such instances these are the following main questions: Who generates data? Who maintains the data? Who checks the validity and timeliness of data? Similarly, as expressed by INT 15, universities are not the sole providers of data and knowledge. Accordingly, the responsibility and the roles for accessible data is an important contribution to social innovation practices.

> Elbette 21.yüzyıl, 20.yüzyıldan farklı olarak, bilginin biricik üretildiği merkez üniversiteler değil artık. Araştırma merkezleri var, inkübasyon merkezleri var, kanun hükmündeki kararname ile bir sürü akademisyenler atıldı, ve alternatif akademiler kuruldu, sokakta akademi var. O yüzden üniversiteyi çok merkeze-centrala alıp, bütün yükü ya da payeyi çok anlamlı görmiyorum. İçine yerleştiği kominite ile hareket edebilen, ve o sosyalin ihtiyaçlarına ve gereksinimlerine duyarlı bir ünviversite olmasını önemsiyorum-INT 15
> Of course within the 21st century, unlike the 20th century, universities are no longer the center where knowledge is produced. There are research centers, there are incubation centers, a lot of academics have been expelled by decree, and alternative

> academies have been established, there are academic formations on the street. That's why I don't see the universities taking on the whole burden and being at the center. I prioritize a university that can act with the community in which it is placed, and that is sensitive to the needs and requirements of the social- INT 15

Scientific rigor can be greatly improved with an understanding of collecting and working with social data. The inherent differences in how data is collected and how it is integrated creates disparity in encapsulating the process requirements. Another criticality is that data is created in multiple sources and there is a need for an entity to agglomerate and structure it to the relevance of the SI. HEIs hold an important role to act as a knowledge-body to integrate and construct data. Moreover, this data should become a public good and it is easier to share and collaborate with it through a public entity.

4.2.1.6.2 Understanding and Constructing Systematic-Developing Metrics

After reaching data sources, how to sustain and follow-up on the data processing requirements is also pertinent to the measures that we want to integrate too. Within an emphasis of interdisciplinary and transdisciplinary research, involving researchers with the responsibility of social innovation is a critical concern. INT 17 mentions the need to extend the responsibility of the academician outside of the current volunteer work supporting this area.

> Sosyal farkındalığı yüksek akademisyenler sadece bu alanda çalışıyor. Halbuki bunu da diğer bir sistemin parçası haline getirebilsek, bunu işlerininde bir parçası olarakta yapabilseler, işlerine gömelerinin, entegre etmelerinin ne kadar önemli olduğunu görebilseler, bunu anlatabilsek çok farklı bir yere gider-INT 17

> Academics with high social awareness only work in this field. However, if we could make this a part of another system, if they could do this as a part of their work, if they could see how important it is for them to embed and integrate into their work, if we could explain this, it would go to a very different place-INT 17

However inclusiveness does not mean, that the researcher is fully integrated to the functionality of social innovation practices. Foremost, they need to gain a holistic perspective to fully bring out their potential through their specialization and also diversification outreach. This is also an important implication to quality assurance of SI within the HEI context. The better the need is assessed, the better we integrate the metrics to support the outcome to ensure continued activity as mentioned by INT 16.

> Ben şeye benzetiyorum bunu fil, herkes bir ucundan tutuyor, kuyruğunu tutan bir halat diyor, ayağını tutan bir sopa diyor, bu bir sütündur diyor.İnovasyon işleri maalesef Türkiyede çok fazla kurumsal perspektiften bakamıyoruz, işletmenin bütününde bir inovasyon değişimi inovasyon yönetimini kurgulayabilmemiz için neler yapmamız gerektiğine dair bilinçli farkındalık çok az. Herkes bir tarafından bakıyor. INT 16
>
> I resemble it to an elephant, everyone holds it by one end,someone holding is tail says it's a rope, it they hold the foot they says it's a stick, it is a column. Unfortunately, we cannot look at innovation activities from a corporate perspective in Türkiye, there is very little conscious awareness of what we need to do in order to construct innovational change and implement innovation management in the whole enterprise. Everyone is looking at it from one side-INT 16

In this regard, new systems need to be formulated to fully solve the problem at hand as mentioned by INT 24.

> Büyük sorunlarla karşılaştığımız zaman, ya da çetrefilli problemlerle, buna kamu yönetimini alanında 'wicked problems' ya da kötücül problemler diyoruz. Çetrefilli problemler diyelim, çok büyük böyle sorunlarla karşılaştığımız zaman, sistem değişikliği öneriyoruz, bu sistemle olmuyor, sistemin değiştirilmesi lazım-INT 24
>
> When we face big problems, or complicated problems, we call them 'wicked problems' or malignant problems in the field of public administration. Let's call them complicated problems, when we encounter such problems that are very big, we propose a system change, it does not happen with the current system, the system needs to be changed-INT 24

One of the deficits of Turkish National planning is its limited time span in activities. In order to act and follow-up the activities and the goals need to be aligned for improving the current conditions. As mentioned by INT 14, without a strategic outlook to plan the SI activities in the long-term, we fall short of the actual impacts they can bear to our system.

> Sürdürülebilir kalkınma planı için , sizce kaç yıllık kalkınma planı gerekli, buna cevap vermek lazım. Dünyada mesela büyük devletlerin mesela 'Düveli muazzıma ' dediğimiz bu büyük devletlerin hayatta kalmasını sağlayan tek şey, 50 yıllık-100 yıllık plan yapmaları. 5 yıllık değil.- INT 14
>
> It is necessary to answer, for a sustainable development plan, how many years of development plan do you think is necessary,? The only thing that ensures the survival of these great states in the world, for example, which we call World Big's', is that they make a 50-year or 100-year plan. Not for 5 years. -INT 14

Lastly, with proper implementations, we can improve and restructure our systems. The essence is that good examples help in re-birthing solutions. Accordingly, the more we structure with effort, the better the problems to be solved are shown. INT 19 also

criticizes that activities can be diverted in spending too much time to plan and less motivation to act on a solution. This can be termed as a ‘comfort zone’ for academicians, where planning and restructuring is more familiar than field work.

> Ben modeli olabilir kıldıktan sonra, çok arzu ettiğim şey, o modelin kendisini yeniden üretmesi. Yani çünkü ben yapıyorum,ama ben nereye kadar yapabilirim. Ve ne kadar yapabilirim yani, bu önemli bir soru. Ve ben istiyorumki çoğalsın, ama dediğim gibi bu sosyal inovason veya girişimcilikteki gibi ölçeklemedeki gibi olmasın…Operasyona geçildiğinde ortaya çıkar. O yüzden burada tasarımı belli bir aşamada kesmek ve harekete geçirmek ve prototipi çalıştırmak gerek. Bundan çıkmak istemiyorlar, sonsuzca bunu konuşuyorlar. İki, bundan sonra bir örgütlenme ve belli bir sonra bu emeğe yatırım gerekiyor, bu işe zaman ayıracaksınız.-INT 19

> Once I have made the model possible, what I really want is for that model to reproduce itself. I can do it, but how far can I do it (by myself). And how much can I do it, so, that's an important question. And I want it to multiply, but as I said, it's not like a typical scaling like in social innovation or entrepreneurship…It occurs when the operation is started. Therefore, it is necessary to cut the design at a certain stage and activate it and run the prototype. However, they don't want to get out of it, they talk about it endlessly. Secondly, after that, there is a need for organization and after a certain period of time, you need to invest in this effort because you will devote time to this work-INT 19

There is a great potential for HEI actors to develop and refine metrics. A very important difficulty is the embodiment and interrelatedness of the social actors. For example, it is one thing to research disadvantaged groups such as women , children or unemployed. It is another case, when a woman who has a child and is also unemployed is included in the data set. There is no clear boundary to define a ‘successful’ project, but the change of progress needs to be made more visible to ensure practices are still fulfilling their purpose or that they need to be re-defined and re-structured as per the governance structures defined. Moreover, the contribution of the actors can also be assessed and valorized when codes of conduct, engagement and activity fulfilment are more formalized.

4.2.1.6.3 Push-Pull Boundary-Direct/Indirect Idea Initiation

There is a need to find a balance between the push-pull boundary of social innovation activities. A push-pull boundary posits when and how a social innovation is initiated. The idea initiator would be pushing the idea for enaction, whereas a pull-based

structure would request the necessary activation from the system. This balance also changes the relevant roles that need to be taken on within the social innovation process. Moreover, there is also an important decision to be made in regard to exploit SI capacity to increase the efficiency of operations vs. explore (find new ways) to structure the value add of the processes. As emphasized by INT 19, this balance is the critical driving force of social innovation, where all actors (humans, animals, nature) are to be shaped in balance.

> Kainattaki müşterek dengelerini koruyamadığımız müdetçe, hiçbir yenilik sosyal değildir-INT 19
>
> As long as we cannot maintain the common balance in the universe, no innovation is social-INT 19

Moreover, if we do not emphasize the ecosystem actors needs with our own it is hard to find the potential to accelerate and disseminate the activities. INT 23 mentions their approach as follows:

> (Çalışma) seçimlerimizi yaparken, şehrimizdeki diğer dengeleri ve diğer paydaşların önceliklerini , en az bizim kadar önceliğimize alıyoruz – INT 23
> When we make our work choices, we prioritize the other balances in our city and the priorities of other stakeholders as much as our own priorities-INT 23

INT 14 mention ideas to grow and also understand our roles that we need to balance:

> Çünkü bir ülkenin ayakta kalması, Google, Amazon veya Microsoft markaları yarattığımızda mümkün, ondan dolayı biz kendi içimizden çıkan markaları daha ne kadar büyütebiliriz, devlet ne kadar sübvanse edebilir, ya da özel sektör bunun yanında nasıl durabilir kafasında yani derdinde olmalı dertlenmelyiz, onu söylemeye çalışıyorum. -INT 14
>
> Because the survival of a country is possible when we create brands like Google, Amazon or Microsoft . What I am trying to say is that we should be concerned about how much more we can grow the brands that come out of our own country, how much the state can subsidize it,or how the private sector can stand by it?-INT 14

The balance required in the choice and approach for SI is also a prominent value-add area for HEIs. HEIs can act as mediators to balance the needs or per contextual or mission orientation or diversification of disciplines may choose to lead an exploirative or explorative role in SI as well.

4.2.1.6.4 Impact Assessment

Social impact is different from dissemination activities in regard to the implementation of the promoted activities. Public policies are important in knowledge transfer and also support alignment with main missions like Sustainable Development Goals, Development Programs and other SI priority supporting initiatives. Neither qualitative nor quantitative methods exclusively have systematized social impact measurement. However, for long-term tracing qualitative methods supplemented with narratives are suggested for assessment (Oliver et. al, 2020).

How we aim to create an impact is primarily defined by the need source and the mechanisms that we aim to use in the process. INT 14 illustrates the difference in viewing in understanding assessment and its design early on the process. These practicalities need a stricter rigor to understand if the dynamics have been satisfied.

> Bir projemiz var mesela, 112 tane mentorship session olması lazım, 140 tane de networking session olması lazım. Biz bunları tutturduğumuz zaman, vakıf başkanı biz bunu tutturduk dedğimizde bana ne diyor. Yani onun için önemli olan bu 140 tane networking, gerçekten kobilerin hayatlarına dokundu mu? Kimlerle doğru buluşturmalar yaptırdınız? Bunu ticari ortaklıklara dönüştürdünüz mü? Mentor-mentee toplantılarından da o şirketlere kurumsal kapasite geliştirebildi mi? Bunlara cevap verebiliyorsak sosyal etki yaratmışızdır-INT 14

> For example, we have a project and here should be 112 mentorship sessions, and there should be 140 networking sessions. What is important to the president of the foundation when we say that we have achieved this? Did these 140 networking sessions that was important to him really touch the lives of SMEs? With whom did you have the right meetings? Have you turned these (meetings) into business partnerships? Was the company able to develop institutional capacity from the mentor-mentee meetings? If we can answer these questions, we have made a social impact -INT 14

Proper impact assessment also has a funding potential as mentioned by INT 18. One of the open areas for SI practices within the Turkish ecosystem is to assess the impact of practices. However, this requires consistent resource dedication and time.

> Buradaki en teknik ve zor konulardan birisi, ki tüm dünyada böyle, tamam biz bir etki yatırımı yapıyoruz. Muhasebe sayesinde. Onun mali durumunu, riskini, getirisini çok net birşekilde ölçebiliyoruz ama, etkisini net bir şekilde ölçemiyoruz. Bu etkiyi net bir şekilde yatırımcılara anlatamıyoruz. O zaman

> ölçemediğiniz ve anlatamadığınız birşeyin denklemin parçası olması çok zor. -INT 18

> One of the most technical and difficult issues here, which is the case all over the world, is that we're doing impact investing. Thanks to accounting we can measure (the investments) financial situation, its risk, its return very clearly, but we cannot measure its impact clearly. We cannot clearly explain this effect to investors. So it's very difficult to convince to be part of the system which you can't measure. -INT 18

Other respondents have mentioned of the difficulty as well as the potential of impact assessment as illustrated by INT 15 and INT 30 respectively. Impact assessment is difficult, yet as suggested, several developed areas like Technology Assesment practices can be taken as a reference to develop models that best suite the societal concern or encapsulates the layered elements of the social construct.

> Çünkü sosyal alanda ölçmek zor, hemen kısa sürede etkiyi ölçemeyebilirsiniz. Ya da sosyal olan bir etkiyi, sizin etkiniz dışında bağımsızlaştırarak görebilmeniz zor. Elbette, ölçümü zor, ama yapılamaz değil, buna kafa yormak gerekiyor. Ne nasıl ölçülebilirliği üzerine daha çok çalışma yapmak gerekiyor-INT 15

> Because it is difficult to measure in the social field, you may not be able to measure the effect in a short time. Or it is difficult to see an impact that is social by making it independent of your influence. Of course, it is difficult to measure, but it is not impossible to do, it is necessary to think about it. More work needs to be done on what and how it can be measured-INT 15

> Sosyal inovasyonda, teorik sorunlardan bir tanesi ve önemli araştırma alanı, gelişeceğini tahmin ettiğim-ölçümleme. Biz normalde inovasyonu ölçümlemede bile çok yol almamıza rağmen, herşeyi capture (yakalayamayabiliyoruz). Sosyal inovasyonda çok daha büyük bir baki alan var. Bunu ölçecek frameworklar geliştirmek lazım. Burada ben mesela, teknoloji assessment literatürünün faydalı olabileceğini ve uygulanabilieceğini düşünüyorum sosyal inovasyona. Çünkü teknoloji assessment literatüründe de bir kantiatif ve kalitatif bakış açısı var. Bunu bir şekilde harmanlıyorlar, TA (Technology Assesment)'da oldukça established. Sosyal inovasyonda böyle bir oluşum yok. O yüzden belki oradaki literatürü alıpi oradan faydalanmak. Çünkü kalitatif şeyleri değerlendirmek lazım, kantitatif değil. -INT 30

> In social innovation, one of the theoretical problems and an important area of research will be measurement, which I predict will develop. Although we have normally come a long way in measuring innovation, we may not be able to capture everything. There is a much bigger area in social innovation. It is necessary to develop frameworks to measure this. Here, for example, I think that the technology assessment literature can be useful and can be applied to social innovation. Because there is a quantitative and qualitative perspective in the technology assessment literature. They kind of blend that, it's pretty established in TA (Technology Assessment). There is no such formation in social innovation. So maybe we should take the literature there and make

> use of it. Because you have to evaluate qualitative things, not quantitative items.- INT 30

Another apparent problem, mentioned by INT 04 is the lack of use of tools and the enforcement of legislation to support impact assessment within institutions. Transparency in reporting would assist this implementation.

> Ve aynı zamada etki analizinin ülkemizde mevzuatta var olduğu, ama uygulamada nadir uygulandığına dairde gözlem yaptık. Etki analizi sosyal girişimiliğin performans değerlendirmisidir. Mevzuatımızda bu etki analizinin, tüm kurum ve kuruluşlar tarafından yapılması gerektiği biliniyor. -INT04
>
> And at the same time, we observed that impact analysis exists in legislation in our country, but it is rarely applied in practice. Impact analysis is the performance evaluation of the social enterprise. It is known in our legislation that this impact analysis should be carried out by all institutions and organizations-INT 04

HEIs hold an important potential in shaping the legislation and the governing bodies for impact assessment. The credibility of the HEIs also puts into question if the formal views can be accepted by the public. Impact assessment practices are now integrated into Social Return on Investment initiatives, as well as social public bonds, to ensure an idea has reached its true fruition potential. Accordingly, how these values are structured will pave way to the future of SI research.

4.3 Change Potential for HEIs

Social innovation acts as a mechanism to initiate change in society. Social innovations adapt to the change of social practices, whereas social change is instigated through societal actors (Prodan, 2023). This section will detail categories of change potential of HEIs that is critical in the Turkish HEI context in alignment with the third research question : How does social innovation function as a force of change for HEIs? The suggestions are also integrated in the policy recommendations in Chapter 5. These areas hold a high change potential for SI practices in order to improve the SI practices in the HEI context. The headings are detailed and justified through sample quotations from the interviews. The main headings represent the most urgent concerns in SI applicability and awareness.

4.3.1 Data Driven Social Policies

Currently, data driven policies to supplement SI work are lacking in Türkiye. It is very difficult to trace the role of social science practices within R&D research and the publicly shared indicators such as the Global Innovation Index -GII (2023). Among the main strengths listed for innovation activities in GI index (2023) is the high percentage of tertiary enrollment (ranked 2) and national industry diversification (ranked 4) among the listed 132 countries. Moreover, it is first important to understand the areas to make a difference. In refection to the potentialities of social innovation in Türkiye, the head of the SI unit listed the following essentials for evaluation. INT 04 emphasized understanding the role of social science and humanities practices for SI and how we should better integrate the approaches through first understanding the dynamics and putting it to potential :

> …sosyal ve beşeri bilimlerde araştırma geliştirmenin bu bağlamda farkındalığının oluşturulması gerekliliği, kamudaki inovasyonunun daha bilinçli şekilde örgütlenmesi. Kamuda bizim inovasyon kapasitemiz gayet iyi ülkemizde, ama burada ne özel sektörün ne de kamunun girşimcilik ve inovasyon farkındalığı bağlamında yürütülmüyor. -INT 04
>
> … the necessity of creating awareness of research and development in the social sciences and humanities context, more conscious organization of innovation in the public sector. Our innovation capacity in the public sector is very good in our country, but it is not carried out in the context of entrepreneurship and innovation awareness view of the private sector or public sector view-INT 04

Another respondent INT 19 also mentioned the lack of data for social science practices and also draws attention to citizen science, which in principle is research conducted with participation from the general public . It is also known as crowd science or community science respectively. Inclusion of different ‘researchers’ from non-academic background is an important potential to be developed and a risk that needs to be mitigated :

> Türkiyede iktisatçı olursanız veri çok, çünkü iktisadi veri üretiliyor zaten, ama benim çalıştığım alanlarda veri yok. Devletin var olma alanıda veri üretmek ve veri üretmiyor. O yüzden yurttaşın veri üretmesi lazım diye birşeye kafayı taktım -INT 19
> If you are an economist in Türkiye, there is a lot of data, because economic data is already produced, but there is no data in the fields where I work. The state's sphere of existence is to produce data and it does not produce data. That's why I'm obsessed with citizens producing data-INT 19

As mentioned in 4.2.1.6.1 Data Driven Process Management section there is a clear gap in data processing requirements for assessment and evaluation. This is also reflected in ranking measures, as well as public data that is published by TUIK which does not encapsulate a social element of technology and also economic prosperity. Moreover, to ensure transparent practices, data attainment should be eased and also structured to include the dimensions of the subject being researched. This is also an important potential for social impact assessment, which still lacks a coherent methodology in integrating data from different data sources.

4.3.2 Instigating Values and Roles

The roles envisioned for HEIs for social innovation practices were detailed in section 4.2.1.2.4 Role-Leadership. As can be seen, it is important to 'step-into' these roles to ensure that the SI processes are maintained. **Table 14**, illustrates when these roles were critical (idea initiation, process, outcome/impact and sustainability) .

Table 14 also supports these ideas in distinction to the contexts of SI practice. As can be seen there are different ways to enhance the roles and also incorporate the institutional or regional norms that come with it. Moreover, as seen below INT 15 emphasizes that the roles 'presumed' in the social innovation process is subject to change. The conformist expectations of student and academician roles may not be acceptable and the needs to this need to be adapted.

> Dolayısıyla burada geleneksel, hoca böyle, öğrenci böyle, o yüzden öyle değil , yani mevcut varsayılan yaklaşım doğru ve geçerli değil,…(Roller değiiyor) Rekabetçi değil, dayanışma esaslı. Hiyerşik değil, dikey değil daha yatay. İş bölümü esaslı, daha sonra ekosistemdeki aktörlerin kolayca dahil olup, başka yere gidebilecekleri dinamik yapılar olabilirse başarılı olabiliyorlar. Öbür türlü , milyon tane girişim var. Onların durumuna dönüşebilir.-INT 15

> The presumed approaches that the instructor is like this, the student is like that, is not applicable. (Roles are changing) towards more solidarity based and non-hierarchical approaches…It's not competitive, it's co-creation-based. It's not hierarchical, it's not vertical, it's more horizontal. It (social innovation) can be successful if there are dynamic structures based on the division of labor, where the actors in the ecosystem can easily get involved and go elsewhere. Otherwise, there are a million startups. It can turn into (disparate) silo situations. INT 15

Table 14 summarizes the distinctions to the roles that can be taken on throughout the SI process. This implies new forms of academic competency and also leadership. The roles also need to be better integrated into the framework of action. The roles have been distinguished according to the context and boundary of role and also the critical time frame of involvement. It is important to consider that these interchangeable roles need to be managed among the HEI actors to ease the SI process and also ensure that the activities are sustained in the long run.

Table 14 Roles for implementors and managers in the SI Ecosystem

	HEI individual responsibilities Roles of change agents in respect to SI practices	**Main context of HEI role** INTRA (within the institution) EXTRA (within the HEI system) ENTRE (Outside HEI system)	**Time frame of HEI role** Input, Process, Output-Impact, Sustainability
Accelerator	*Prioritizing groups in most need of SI practices *Acting as multipliers of good practices to support high risk or disadvantaged groups	ENTRE EXTRA	Process
Supporter-Facilitator	*Supporting SI practices through resource share and knowledge share *Acts as an external agent to support initiative while not directly being involved to enhance other actor capacities *Finds appropriate funding to support process flow	ENTRE EXTRA	Input Process
Locomotive	*Use of facilities to extend SI activities *Ensuring activities are integrated to HEI institutions * Ensuring alignment to mission and strategic documents of relevance	INTRA ENTRE EXTRA	Input Process Sustainability

Table 14 Roles for implementors and managers in the SI Ecosystem (cont'd)

	HEI individual responsibilities Roles of change agents in respect to SI practices	**Main context of HEI role** INTRA (within the institution) EXTRA (within the HEI system) ENTRE (Outside HEI system)	**Time frame of HEI role** Input, Process, Output-Impact, Sustainability
Bridger	*Matching actors/resources within ecosystem to support resource management. *Increase exploitative and explorative capacities inside/outside ecosystem.	INTRA ENTRE EXTRA	Input Process
Restructurer **Renew Agent**	*Reshapes process and product outcomes to support SI practices *Ensure timely information is shared *Supports the implementation of good practices and supports implementation through methodology	INTRA ENTRE EXTRA	Process Output
Match Agent **Balance Agent**	*Bringing together different stakeholders to discussion and ensuring inclusivity * Acting as an agent in conflicts or for cases of conflicts of interest * Facilitating time constraint calls-resources with the correct actors	INTRA ENTRE EXTRA	Process Output Sustainability
Acceptance Agent	*Ensures SI practices are accepted as a credible agent *Ensures credibility among Quintuple Helix Actors	ENTRE EXTRA	Output Sustainability
Knowledge Generator	* Provides up-to-date information for SI research and ensure practice examples are validated and systematized. * Supports needs assessment and value creation	INTRA ENTRE EXTRA	Process Output

Table 14 Roles for implementors and managers in the SI Ecosystem (cont'd)

	HEI individual responsibilities Roles of change agents in respect to SI practices	**Main context of HEI role** INTRA (within the institution) EXTRA (within the HEI system) ENTRE (Outside HEI system)	**Time frame of HEI role** Input, Process, Output-Impact, Sustainability
Knowledge Research Base	*Provides data and research to support research activities and research initiatives are institutionalized and not lost. *Supports sustainability practices of HEIs and increases explorative capacity with joint resource share.	INTRA ENTRE EXTRA	Input Sustainability
Education Agent	*Enhancing knowledge capacity and proficiency of change agents * Providing tools to support SI practices outside HEI settings	INTRA	Process
Implementor	*Takes lead in idea generation, needs assessment and implementation * Gathers all relevant actors to ensure inclusivity *Develops systematic to model for other SI practices	INTRA	Input Process Output Sustainability
Quality Agent	*Ensuring credibility of practices and credibility of HEIs * Ensuring sustainability of practices *Process observer and feedback support	INTRA ENTRE EXTRA	Process Sustainability

Table 14 Roles for implementors and managers in the SI Ecosystem (cont'd)

	HEI individual responsibilities Roles of change agents in respect to SI practices	**Main context of HEI role** INTRA (within the institution) EXTRA (within the HEI system) ENTRE (Outside HEI system)	**Time frame of HEI role** Input, Process, Output-Impact, Sustainability
Multiplier	*Supports similar SI practices to flourish *Ensures SI practices with new potential are integrated into existing practices to increase outreach	INTRA ENTRE EXTRA	Output Sustainability
Enabler	*Ensures co-working culture with different ecosystem actors and also different disciplines * Acts as intermediary to understand quintuple helix problems and needs *Facilitates and eases the process through ecology , constituent and process knowledge	ENTRE EXTRA	Process
Gluer	*Ensures transparency among ecosystem actors and creates a safe space for engagement and actor involvement *Ensures sustainability of practices and provides support for missing links through match agent role *The gluer is more knowledgeable than the enabler of the process requirements to ensure needs are matched well.	ENTRE EXTRA	Process Sustainability

4.3.3 Legal Framework for Social Enterprises and Alignment to EU Regulatory Framework

Social enterprise status is still lacking within the Turkish Ecosystem. This hinders the potential of SI practices due to the legislative responsibilities and also misleads the mission and activity scope of the social entrepreneurs. Respondents have also mentioned that these entities can easily reach resources with this status. The social enterprises themselves can act as change agents themselves as mentioned by Mair et. al, 2015.

Social enterprises are categorized into 'conforming hybrids' or 'dissenting hybrids' . Conforming hybrids are termed to have adaptive responses to dominant institutional cultures of different leadership, whereas dissenting hybrids attempt to integrate different roles and reflect more creative adaptation(Mair et. al, 2015)

How universities act on their strategy scope also determines the range of foci to enhance social innovation activities. Moreover the priority of these activities also affects the time frame of involvement. It is inherently seen that the planning of these activities will become vital in proper value creation. This emphasis is seen in the alignment of policy frameworks within the EU.

INT-02 has mentioned the structured EU systematic as follows and has emphasized the long term focus of the programmes and policies to support them:

> Bana sorarsanız Avrupa Komisyonunun bu konudaki çalışma sistematiği çok iyi. Yani bir politika ortaya koyuyor, daha sonra o politikaları uygulamak için, çok yıllık programlara çıkıyor. Ve çok yıllık programları da proje çağrıları ile hibe ederek, devam ettiriyor. Dolayısıyla yapmaya çalıştığı o projeler ile o politikaların uygulanmasını hayata geçirmek -INT 02

> If you ask me, the European Commission's working system on this issue is very good. In other words, it puts forward a policy, and then it goes out to annual programs to implement those policies. It continues to support policies through the granting of multi-year programs to support project calls. Therefore, implementation of these policies are carried out with these projects. INT-02

In reference to the government roles to disseminate social innovation INT 16 emphasized that government intervention roles have a positive effect on the support and emergence of new SI in implementation and in new sectoral areas.

> …yaptığı bir düzenleme, veya getirdikleri usul veya esas, sektörü yönlendirecek herhangi bir çalışmada, sosyal inovasyonların ortaya çıkması için olanak sağlayabilir gibi geliyor bana-INT 16
> …it seems to me that a regulation they make, or the procedure or principle they introduce, can provide an opportunity for the emergence of social innovations in any work that will guide the sector-INT 16

It is important to enact on proper legislation, yet it is even critical to enforce the proper dynamics to sustain the activities. This is emphasized by INT 02 as follows:

> Ama, çeşitli kanunen önlemlerde alınıyor, mesela çeşitli dezavtantajlı gurupların, çeşitli oranlarda işyerlerinde istihdam edilmesi, ama bir kere istihdam edildikten sonra o toplumsal içermenin nasıl sağlanacağına yönelik sanayii, üniversite, işletme, bu tarz işbirliklerin çok net kurulması veya projelerin kurulması gerekiyor ki, bunlar ayakları yere basan uygulamalar olabilsin. Bir kısım yapılar var, halihazırda çatı çerçeve çizilmiş, fakat uyglanmasında alt bacakların oturtulması gerektiği kanatindeyim. -INT02
>
> Various legal measures are taken for different disadvantaged groups to be employed in workplaces at various rates, but once they are employed, there is a need of collaborative projects to be established very clearly with industry, universities, enterprises, on how to ensure their social inclusion, so that these can be grounded practices. There are some structures, the roof frame has already been drawn, but it is necessary to fit the lower pillars of the application.-INT02

Lastly, the legal infrastructure should be planned out to avoid misuse and increase the circulation of actors to increase entrepreneurial potential.

> Erken bir hukuksal teşvik yapısı oluşturulursa, yani herkes sosyal girişimci kılıfına bürünüpte herkes sistemi kötü kullanmaya-abuse etmeye başlarsa, ölebilir . Pek çok şeyde gördük böyle olmasını, o yüzden hukuksal altyapı ve teşivk mekanızmasını uzun vadeye yaymak, sistemin ve ekosistemin kendi kendine oturmasını oluşmasını, en azından devlet müdahalesi olmadan, devlet değilde, kurallar bütünü içine hapsetmeden, çünkü zaten kendisi çok özgür düşünen bir alan- INT 18
> If an early legal incentive structure is created and if everyone takes on the disguise of social entrepreneurs and if everyone starts to abuse the system, (social innovation initiatives) may die. We have seen this in many things, so spreading the legal infrastructure and incentive mechanisms over the long term, allowing the system and the ecosystem to settle on their own, at least without state intervention, not solely through the state, but without confining it to a set of rules, because it is already a very free-thinking field- INT 18

4.3.4 Democratization of SI

Democratization of social innovation practices is an important concern when structural dynamics are in danger of corruption. Political concerns of the respondents have also raised a concern for trying to continue structures with merit and technocracy. These are the limitations to the implementors, yet there is also the risk of the activities being provided to a select few due to misaligned project calls, prioritization of activities according to funder's morals and also the competition in trying to reach these resources.

> Özümde bürokrasi ve hiyerarşiye karşı değilim o bakımdan. Yani birtakım, ekpertiz ve uzmanlık alanları, meritrotik ya da olmayan hiyerşiler var. Bunlarda liyakat olduğu sürece ihtiyaç var, ama hep aynı yapı olursa, çok güzel işleyen bir yapı da olsa, bürokrasının katmanlaşması, yok o değilde, bürokrasinin fazla güç kazanmasına sebep oluyor, özellikle o alanlarda inovasyon kritik bir yer oluyor ve sosyal inovasyon bunun alttakiler ya da bürokrasi dışındaki taraflar üzerinden işliyor gibi geliyor. Bununla beraber bürokrasiye de faydalı olan birşey. -INT 31

> In that sense, I am not against bureaucracy and hierarchy at heart. In other words, there are a number of expertise and specializations, meritrotic or non-merirotic hierarchies. As long as there is merit in them, they are needed, but if there is always the same structure, even if it is a structure that works very well, the stratification of the bureaucracy causes the bureaucracy to gain too much power, especially in those areas, innovation is a critical place, and social innovation seems to operate through the parties below it or outside the bureaucracy. -INT 31

As stated by INT 19, the degeneration of political structures and political force is a risk at different levels. The respondent has especially mentioned the degradation in human resources (HR) and the need to raise qualified people for SI application.

> Fikirler ülkeye girdikçe bu kaynaklar yaratılacak, ama ne kadar filli gerçek karşılığını bulacak dersen, bulmayacak. Siyasi yozlaşma, yolsuzluğun artışı, her sektörde ve alanda, bunun ürettiği insan tipi, bu olduğu sürece bu ülkenin temel sorunu, en büyük yeniliğe ihtiyaç duyulduğu insan niteliği. Bizim nitelikli insan kaynağımız yok. -INT 19

> As these terms and ideas come into the country, these resources will be created, but there will be no real reciprocation. Political corruption, the increase in corruption, the type of people that it produces in every sector and field, as long as these are the main problems of this country, the quality of people is the greatest innovation needed. We do not have qualified human resources-INT 19

Accessibility to resources is also an important input to social innovation practices, resources need to be accessible to all stakeholders to bring out the value-add potential. This is explained by INT 20 as follows:

> Biz yaratıcı özellikli çalışmaları demokratikleştirmeye çalışan bir oluşum olmaya çalışıyoruz. Bunun ne demek olduğunu şöyle söyleyim, moda sektörü aslında demokratikleşmiş bir sektördür. Çünkü biz artık çok ünlü birisinin üstündeki t-shirtü de alıp giyebiliyoruz. Ya da onunla ilgili bir tasarımı ya da kumaşı bulabiliyoruz-INT 20
>
> We are trying to be an organization that tries to democratize creative work. Let me tell you what this means, the fashion industry is actually a democratized industry. Because now we can buy and wear the same t-shirt on a very famous person. Or we can find a design or fabric related to it-INT 20

Respondent INT 42 also emphasizes the potential disparity of accessibility to COVID shots in a time of heightened societal concern.

> Ülkemizde bireylerin hassasiyetlerinin arttığını gözlüyoruz. Ancak bu gelişimin, salgınla beraber devletler düzeyinde paralel ilerlemediğine de şahit oluyoruz. İnsanlığın ortak sorunu olan salgında aşının da ticaretin ve başka stratejilerin parçası olarak kullanılması sosyal yeniliklerin katkısının marjinal kaldığını gösteriyor-INT 42
>
> We observe that the sensitivities of individuals in our country are increasing. However, we are witnessing that this development did not progress in parallel with the epidemic at the level of states. The use of vaccines as part of trade and other strategies in the pandemic, which is a common problem of humanity, shows that the contribution of social innovations remains marginal- INT 42

Democratization of SI practices also ensure that the demand is matched with a quality supply to close the gap. Moreover, democratization also implies that SI practices are not evaluated under a single discipline and the inclusiveness of the academic actors ensure SI is not lost in a single view of practice.

4.3.5 Supporting New Collective Practices : Social Economy -Solidarity Economy

There is a need of supporting new structures for collective practices. These often require models that do not fit into regular practices like teal organizations, which have no hierarchy and also a leader, and these organizations are led collectively. INT 17 mentions the necessity to increase the actors and also work with and for the actors.

> Genel trendlere baktığımızda (sosyal inovasyonun) gelişiyor olduğu kesin. Sosyal ekonomi ve dayanışma ekonomisinin bir parçası olarak gelişiyor. Bunun birçok nedeni var, sosyal inovasyon kolektif bir çabayı gerektiriyor ve artık sosyal problemlerin, iklim değişikliği gibi, çok altından kalkmamızın zor olduğu şeyler, tek aktör yaklaşımı ile çözülemiyeceği kesinleşmiş durumda. Yani mutlaka , birlikte düşünüp birlikte üretmemiz gerekiyor -INT 17
> When we look at the general trends, it is clear that it (social innovation) is evolving. It is developing as part of the social economy and solidarity economy. There are many reasons for this, social innovation requires a collective effort, and it is now certain that social problems, such as climate change, which are very difficult for us to handle, cannot be solved with a single actor approach. In other words, we need to think together and produce together-INT 17

The solidarity culture should also be reflected in business attitudes as well, this is illustrated by the example of INT 14.

> İnsani yardım tarafında durmadık konunun-Suriye krizinin ama finansal entegrasyon tarafında durduk. Yani siz sürdürülebilirlik dediniz, aslında bu tür işlerin, bu tür konuların sürdürülebilirliği, gerçekten finansal entegrasyon ve ülke ticaretine katkısı var ise mümkün olabiliyor. Onun içinde bu kobilerin, Türk kobileri kadar değerli olduğunu hissettirmek ve madalyonunda iki yüzünün olduğunu hatırlatmak gerek-INT 14
>
> We did not stop on the humanitarian aid side of the issue for the Syrian crisis, but we stepped into the financial integration side. In other words, you mentioned sustainability, in fact, the sustainability of such businesses and such issues is possible if they really contribute to the financial integration and trade activities within the country. It is necessary to make these SMEs feel as valuable as the Turkish SMEs and to remind (external colllaborators) that there are two sides to the coin. -INT 14

4.3.6 Developing Technological and Process Enablers

Technological enablers have been emphasized within the interviews. Social innovation may provide a stepping stone for new technology development and also act as an enabler for technology adoption and also value-add creation at low costs. Infrastructural capacities need to be enhanced and also the value potential being reflected will also cause an interest for adoption.

> Bir tarafta dijital olarak üstünlüğünü ispat etmiş bir Batı Anadolu, bir tarafta da dijital eşitsizliklerden dolayı gerçek gündemden dışlanmış bir Doğu Anadolu ile karşı karşıyayız. Ankara'da bunun tam ortasına duryor, ondan dolayı da Doğu'nun Batı kadar yararlandığı yamalara gerek kalmadan puzzle'nın bütün taşlarının doğru kenetlenmesi geliştirilmediği takdirde, bizim bütün partileri içine alarak, bir sosyal etki yaratmaktan, sürdürülebilir olmasına dair bir şeyimiz yok , bir altyapımız yok maalesef.- INT 14

> On the one hand, we are faced with Western Anatolia that has proven its digital superiority, and on the other hand, we are faced with an Eastern Anatolia that has been excluded from the real agenda due to digital inequalities. Ankara is in the middle of this, so if the correct interlocking of all the pieces of the puzzle are not developed without the need for patches (subsidiaries) that the East benefits from as much as the West, with all the parties involved (actors) in creating social impact by involving all parties we have nothing to do with sustainability. , we don't have an infrastructure for it- INT 14

INT 16 draws attention to the open innovation potential with social innovation. This is also consistent with data management properties that need to be integrated into the facilitation of data.

> Organizasyonel siloları kamunun yıkması gerekiyor ki, vatandaşlarla daha iç içe geçebilsin. Katılımı artırabilsin.Burada bilgi teknolojileri çok ciddi bir, katilazör. Bilgi teknolojilerii çok iyi kullanması gerekiyor…Bu işin olmazsa olmazı, devlet vatandaşına şeffaf olamaz ise, inovasyonda ortaya çıkaramaz, bu bir gerçek yani. Şeffaflık önemli bir kriter.-INT 16

> The public needs to break down their organizational silos so that they can be more intertwined with the citizens to increase participation. Here, information technology is a very serious, catalyst. Information technologies should be used very well. … Maybe he needs to dominate them a little more, of course, transparency. An important must is, if the state cannot be transparent to its citizens, it cannot bring out innovation and this is a fact. Transparency is an important criterion. -INT 16

There is great potential in the value created for SI practices through technology. The technology usage can be reflected as an enabler (i.e through assistive technologies for disabled), it can act as an empowerment actor (i.e distance education and resource free set-ups), it can act as an efficient resource tool (i.e time management due to less travel or autonomy to work and include at different times). Most of the respondents have supported the view that technology has been an enabler, but it is also important to note that a technology can be developed through and SI initiative or an SI initiative can be supported by the enabling technology.

4.3.7 Value Add to Science Perception

Creative practices for different age groups and different stakeholders will also be a significant output of social innovation practices. This will also extend the 3rd mission activities. Social innovation has an important potential to remove the barriers between different disciplines and also reflect the newness as mentioned by INT 07. This area

can be integrated through science diplomacy practices and also citizen science practices as an input to data management practices, as well as the impact assessment for different age groups and also different role models. A better understanding of science is an important mediator for developing critical thinking skills and also enhancing research rigor as well. This also is an important facilitator to biases against newness and as mentioned by INT 10 understanding the potential benefits of a vague concept is also an important enabler to restructure activities in support of SI. The debate of 'science for science' and 'science for the public' is also reiterated with emphasis to support societal priorities.

> Bilim demek zaten yenilik demek. Yenilikte koşan birşey. Ben şöyle tarif ederim,hangi alan olursa olsun, birşeyi doğrusunu yanlışını ortaya koymaktır. Bu tıp alanında olabilir, tekink alanda olabilir, sosyal alanda da olabilir, eğer üniversite onunla ilgili gerçekleri ortaya koyarsa, üniversitenin işi orada biter-INT 07
> Science already means newness-innovation. Innovation is on the run. I would describe it this way, no matter what field it is, it is to reveal the right or wrong of something. It can be in the medical field, it can be in the technical field, it can be in the social field, if the university reveals the facts about it, the university will have properly completed its job there. -INT 07

> O yüzden, toplum için bilim olmalı, bilim için bilimde olmalı, çünkü toplum için dediğiniz şey o da subjektif bir kavram. Yani toplum içini nasıl tanımlıyorsunuz. Bugün, toplum için çokta birşey ifade etmeyen gibi gözüken bir bilimsel çalışma, belki 30 sene sonra çok fazla şey ifade edebilecek. O yüzden bilimin içeriğini de çok fazla pragmatik amaçlara da, endekslememek gerekir diye düşünüyorum- INT 10
> So, there has to be science for society, and also science for science's sake, because what you say for society is a subjective concept. So how do you define society? A scientific study that does not seem to mean much to society today may mean a lot in 30 years. Therefore, I think that the content of science should not be indexed too much to pragmatic purposes. -INT 10

INT 03 has reflected his managerial stance and academician role in emphasizing the importance of science practices in the development of society. Although, the emphasis is on natural science and technical discourse, there is also a need to explain humanities and social science distinctions within universities.

> Benim kişisel olarak görüşüm, fen ve matematiği topluma sevdirmek. Yani iyilik açısından, deprem vs. var ama, topluma bilimi sevdirmek bu ülkeye ve bu gezegene yapılacak en büyük iyilliktir. Zannetmeyelim ki, sadece Türkiyede insanlar matematikten, bilimden korkuyor. Amerika'da da böyle, biraz önce bahsettim. O bilim kitaplarının amacı, Amerikan halkının, bilimden,fenden,matematikten hoşlanmaması, uzak durması, onlara bunun o kadar korkacak birşey olmadığını,

> rahatlıkla öğrenebileceğini göstermek için yapıldı onlar. Topluma bilimi sevdirmek. Toplum bilimi sevmez ise gelişemiyorsunuz. -INT 03
>
> Personally, my opinion is to make science and mathematics popular within society… In other words, in terms of goodness, there are earthquakes and so on, but making the society love science is the greatest good that can be done to this country and this planet. Let's not think that only people in Türkiye are afraid of mathematics and science. It's the same in America, I just mentioned. To Americans who did not like science, natural science and mathematics the purpose of those science books was to show them that this was not something to be afraid of. To make the society love science. If society doesn't like science, you can't develop. INT 03

This is important both in understanding the similar approaches as well as the main distinctions of value add. The apparent contention is also mentioned by another respondent INT 28 as follows:

> Benim gördüğüm biraz fen bilimciler ve sosyal bilimcilerin çekiştiği nokta var. Onlar bizi çok beğenmezler, … işin hakçası, bizlerde onları beğenmeyiz. Sizinkisi de çok sıkıcı, bak bizimki sürekli değişiyor sizinki hep sabit. Tabii ki ,iki alanın iki ayrı özelliği var, çünkü biz insanla toplumla uğraşıyoruz. Bizim alanımızın temelinde insan var, diğerinin temelinde teknoloji ve madde var. Aslında madde ve teknoloji de insanın yararına. Bizim yaptığımız çalışmalarda teknoloji ve madde'nin yararına, ben bunların da geçişli olduğunu düşünüyorum. Biz alanımızda ilerledikçe mühendislerde alanında ilerleyecek, yeni ihtiyaçlarıız ortaya çıkacak, bambaşka ihtiyaçlar ortaya çıkacak. -INT 28
>
> What I see is that natural scientists and social scientists contend with each other… They don't like us, to be fair, we don't like them either. Yours is also very boring, look, ours is constantly changing, yours is always constant. Of course, the two fields have different characteristics, we are dealing with people and society our field is based on human beings, and the other is based on technology and matter. In fact, matter and technology are also for the benefit of humankind. Our work is also for the benefit of technology and matter, I think that these fields are also transitive. As we progress in our field, engineers will progress in their fields, new needs will emerge, and completely different needs will emerge -INT 28

As mentioned, the permeability of sciences is evidence to the potential of collaboration, this is also emphasized by INT07:

> Bu geçirgenliği, ortamda müsait, eskisi kadar katı değil, herkes görüyor ki, sosyal problemlerin çözümü için teknolojiye ihtiyaç var, teknolojinin gelişmesi için sosyal bilimleri algılamaya ihtiyaç var ve özellikle inovasyon için. Belki çok 'pure bilim' tarafından başta kabul görmüyor, ama o da endirekt şekilde bir şekilde geliyor.-INT 07
>
> This permeability, available in the environment, is not as rigid as it used to be, everyone sees that technology is needed for the solution of social problems, there is a need to perceive social sciences for the development of technology, and especially for innovation. Maybe it's not accepted by pure science at first, but it comes indirectly.-INT 07

INT 14 mentions the potentialities of universities for science dissemination through dedicated research on SI and to use this know-how to disseminate within the HEI.

> Hakemli ve tam hakemli dergilerde ya da yayınlarda, makaleleri yayınlayıp, hiç üzerine değinilmemiş konulara değinmek, ve bunların üzerinden bir 'know-how' oluşturmak ve o 'know-how' oluştuktan sonra bir sosyal inovasyona yönelmek ve bunun üniversite içerisindeki fakülte veya departmana dönüşmesini sağlayabilmek önemli bir yolculuk-INT 14

> It is an important journey to publish articles in peer-reviewed and fully peer-reviewed journals or publications, to address issues that have never been touched upon, and to create a 'know-how' through them, and to turn to social innovation after that 'know-how' is formed, and to help it public it within faculty or department within the university-INT 14

There is a huge potential for social innovation to help understanding of social science, basic science and humanities.

The usage of social science holds an important role in understanding the potential of the disciplines in the university.

4.3.8 University-Industry -Societal Alignment

The pace of industry and university is still a topic of argument. As mentioned with detailed examples from INT 19 and INT 08 there is a need to facilitate the needs in a manner that supports both sides. There is also a great potential in supporting HR for either of the areas.

> Şunu gördüm, sanayicininn ve iş dünyasının zaman mehrumu, ve hareket biçimleri , itkileri, hareket biçimleri, şunları bunları çok başka türlü çalışır… Zaman, hareket, mekan kavrayışlarınında farkı, buna topyekün ritim farkı diyebilirsin. Ben o zamanda, söylemiştim, TTO'lar birşeyleri çözecekse,arayüzde bunu çözmeleri gerekiyor. Akademisyeni buraya verirlerse öldürürler, bu adamı (sanayiciyi) akademiye verseniz muhatap olmaz. …Onlar bu arayüz ile çözecek herşeyi. O yüzden bu paydaşlar toplumsal yenilikçilik projelerinde ritimleri ile düşünülmesi gereken şeyler. Temel saikleri (nedenleri) ne ?, bunların motifleri ne?, nereden ?hareket ediyorlar_ ,neden besleniyorlar?_, geleneksel olarak neyi amaçlıyorlar ? ve nereye gidiyorlar ? Bunu dile getirsinler, getirmesinler. Marifet şu, onu anlayıp görüp, sizin kafanızda adlandırıp biçimlendirmeniz gerekiyor. Ve ondan sonra da bunların ritimlerine bakmanız gerekiyor. Bu ritimler, buluşur mu? -INT 19

> I have seen that the sense of time of industry and the business world and their ways of moving, and their impulse are in a way very different. The difference is in the conceptions of time, movement, space, you can call it a total rhythm difference. I said at the time, if TTOs are going to solve something, they need to figure it out in this interface. If they give the academician this position here, they will kill him/her, if you

> give this man (industrialist) to the academy, he will not be interested. ... That is why they will solve everything with this (TTO)interface. Therefore, the choice of stakeholders within social innovation groups should be considered with their rhythms. What are their main motives?, , where do they move from?, what do they feed on?, what do they traditionally aim for? and where are they going? Let them say it or not. The trick is that you have to understand it, see it, name it and shape it in your mind. And then you have to look at their rhythms. (and decide) Do these rhythms meet? - INT 19

> Sanayinin haklı olarak beklentileri ile, akademinin haklı olarak beklentileri ile ilgili örtüşmeyen taraflarda var. Çünkü sanayii, bütün dünyada kredi ile çalışan birşey, dolayısıyla kredide borcunu çabucak ödemen lazım, zaman süreci, işler gelişsin 10 y ıl, 15 yıl, ondan sonra sonuç alalım denebilecek durumda değil bir kısmı,.., daha kısa zamanda geri dönüşü olan işleri istiyor…. Ama akademide, daha uzun dönemli işler, temel katkıları getiriyorlar. Burada bir şey çıkar çatışması var-INT 08

> There are instances where the rightful expectations of the industry and the rightful expectations of the academy do not coincide. Because the industry works with credit all over the world, so you have to pay off your debt and loan quickly. The business Is not in a position to wait for results to will develop in 10 years, 15 years,, they want to contribute to jobs that have a shorter return time.... But in academia, longer-term work brings essential contributions. There's a conflict of interest here—INT 08

INT 14 mentions a lack of priority within the private sector for such activities. There is a potential for these practices to be implemented as in Germany and Portugal, where by law companies have to allocate a certain amount of their income, with tax exemption, to such activities. Otherwise, as mentioned by INT 19 and INT 08 the private sector does not easily use its capital to run these activities. This alignment requires a win-win dynamic where both parties are enticed to contribute. The quadruple helix actors need to find an incentive to invest resources for SI practices.

> Özel sektöre gidiyoruz cevap inanlılmaz geç geliyor ya da hiç gelmiyor. Birinci konu o. Ama özel sektör olmadığı takdirde, sivil topluma veya akademiye gittiğiniz zaman, zaten bu projeler kesinlikle birşeye dönüşüyorlar. Yani benim aslında söylemek istediğim şey şu, uluslararası bir kurumun, sizin proje ile ilgilenmenizden çok, memleketinizin önemli bir şirketinin bununla ilgilenmesinden daha doğail birşey olmamalı.-INT 14

> When we go to the private sector, their response comes incredibly late or not at all. That's the first issue. But if you don't have the private sector, when you go to civil society or academia, these projects definitely turn into something. In other words, what I really want to say is that there should be nothing more natural than an important company in your country being interested in your project rather than an international institution being interested in it.- INT 14

Bu tür işler için, hiçbir girişimci kolay kolay kendi sermayesini kullanmaz, biz devletin verdiği teşviklerden ve onun üzerine gelen kredilerle sermayemiz büyütür ve girişimlerimizi öyle yaparız. Bu sizin söylediğiniz alanın, karlılığı ve geri dönüşü , o anlamda çok uzun, bunun için devlet bana çok ciddi bir teşvik sunmadıkça, ben böyle işe girişmem. Siz devletin yapması gereken işi bana satmaya çalışıyorsunuz dedi. O zamanda çok şey anlamıştım. -INT 19

For this kind of business, no entrepreneur easily uses their own capital, we increase our capital with the incentives given by the state and the loans that come with it, and we make our initiatives in this way. This is the profitability and return of the field you are talking about, it is also very long in that sense, I will not engage in such a business unless the state offers me a very serious incentive for this. "You are trying to sell me the work that the state should be doing," he said. I understood a lot at that time. -INT 19

Sanayinin haklı olarak beklentileri ile, akademinin haklı olarak beklentileri ile ilgili örtüşmeyen taraflarda var. Çünkü sanayii, bütün dünyada kredi ile çalışan birşey, dolayısıyla kredide borcunu çabucak ödemen lazım, zaman süreci, işler gelişsin 10 y ıl, 15 yıl, ondan sonra sonuç alalım denebilecek durumda değil bir kısmı,.., daha kısa zamanda geri dönüşü olan işleri istiyor…. Ama akademide, daha uzun dönemli işler, temel katkıları getiriyorlar. Burada bir şey çıkar çatışması var-INT 08

There are instances where the rightful expectations of the industry and the rightful expectations of the academy do not coincide. Because the industry works with credit all over the world, so you have to pay off your debt and loan quickly. The business Is not in a position to wait for results to will develop in 10 years, 15 years,.., they want to contribute to jobs that have a shorter return time.... But in academia, longer-term work brings essential contributions. There's a conflict of interest here—INT 08

In regard to supporting internship collaboration , INT 11 has mentioned her concerns in regard to companies receding in collaborative efforts after they reach a maturation state.

Start-up firmalar belli bir yere geldikten sonra, piştikten sonra, bu dediğim 5-10 sene sonra, asıl verici olmaya başladığı dönemde, artık oradan ellerini ayaklarını oradan çekiyorlar çünkü, orada kendilerini fazlaca masraf yapar buluyorlar. Şimdi bu konu ile ilgili nasıl işbirliği sağlanabilir, temel soru bu?- INT 11

After start-up companies come to a certain maturity place, after 5-10 years, when they start to be the main giver, they recede (in cooperation) because they find themselves spending a lot (to grow) . Now, how can we cooperate on this issue, this is the fundamental question?- INT 11

Lastly, INT 02 has mentioned the potentiality of collaboration between industry and university yet this is still a relevant concern.

Esasen üniversitelerle bu çalışmaları yapmaya çalışıyoruz, işbirliği kapsamında ama temel olarak sektörle, sosyal yenilik içeren projelerin dezavantajlı gruplara yönelik, eğitim koşullarının artırılması, toplumsal içermelerin sağlanması ise henüz üniversite ve sanayii arasında çok net bir işbirliğinin kurulmadığını söyleyebilirim- INT 02

> Essentially, we are trying to carry out these studies with universities, within the scope of cooperation, but basically, I can say that a very clear cooperation has not yet been established between the university and the industry, in terms of increasing the educational conditions of the projects involving social innovation, for disadvantaged groups, and ensuring social inclusion.-INT02

A critical concern mentioned by INT 19 is how well academic actors are seen as true stakeholeders or constiuents.

> Mesela , bir akademisyen bir paydaş olmaya çok uzak-INT 19
>
> For example, an academic is far from being a stakeholder-INT 19

There is a great potential of academic actors integrating with ecosystem actors that are in contribution to the HEI ecosystem. There is still a great amount of potential to be aligned in means of cooperation means to create value. The value-add of the roles of the academician will be critical in providing an important outcome to the different sources for project, the means of conducing the project and the value provided by the opportunity for these projects.

4.3.9 Empowerment of Academic Actors

The actors of the HEI have an important potential to fulfill through social innovation. The inherent founding principles of universities are for public value, yet their still seems to be barriers for implementation. The richness of societal problems is also a research potential where science is disseminated and coordinated jointly. Empowerment of academic actors also ensures that SI practices are secured when demanded. INT 19 reminds of the core roles of universities.

> Türkiye Cumhuriyeti hukuk yasalarına göre, vakıf üniversitesi de devleti üniversiteleri de kamu statüsündedir. Bu yüzden üniversiteler, hukuken toplumsal yarar yaratmak durumundalar. Bunu yapmanın en pratik, en gerçekçi, uygulanabilir yolu yenilikçilik…Ama ben en tepedeki yöneticilerden başlayarak, öğretim üyeleri , öğretim görevlilieri hatta araştırma görevlileri, öğrencilerden, idari kadroya kadar tüm unsurları ile, bunun ne demek olduğu konusunda çok şüpheliyim. Toplumsal fayda yaratmak denilen şey, zaten kamunun doğrudan hizmet alanı.-INT 19
> According to the legal laws of the Republic of Turkiye, both foundation universities and state universities have public status. Therefore, universities have to create social benefits legally. The most practical, realistic, feasible way to do this is through innovation…But I am very skeptical about (if they know) what this means, starting with the top administrators, faculty members, lecturers and even research assistants, students and administrative staff. What is called creating social benefit is already the direct service area of the public-INT 19

The credibility and legitimation of universities is an important contributor to their action scope as mentioned by INT 17.

> Üniversite için hep şu çıktı…meşrütiyet kazandırma yönünde çok önemli birşeyi var. Bunu da belediyeden birisi söylemişti, biz belediye olarak gittiğimizde, kapıyı açmayacak insanlar, siz üniversite olarak gittiğinizde kapıyı açabildiğni, üniversitenin o yönde hala güvenilir, ve tarafsız görülen bir yanı var-INT 17
>
> For universities, it has always come out that it is very important in terms of legitimizing. Someone from the municipality said this, when they go as a municipality, people who do not open the door, when you go as a university, they can open the door, the university still has a reliable and unbiased perception in this direction. -INT 17

There are still instances that universities provide a credible approach and means to carry out SI activities. An important criticality is to improve the credibility of university actors to support SI work in future activities.

CHAPTER 5

DISCUSSION ON POLICY IMPLICATIONS

Societal problems can be addressed at two spectrums where science can be used to solve societal problems or can be used to pursue the researcher's own generic goals in production of knowledge, application of method and development of method and theory (Jahn et, al, 2012). It is important to integrate the conflicts of interest and enact proper mechanisms through policy tools and targets to ensure proper implementation. Van der Have and Rubalcaba (2016) see social innovation as an important tool for policy and management practices as they describe it to sustain public and private governance by providing structural change options for innovation endeavors, a mean to understand corporate priorities and also an important initiative to improve employee attitudes towards social discourse. The inclusivity implication of social policies is an important driver for individual empowerment and action. In the context of social innovation, Edmiston (2015) distinguishes between "policies for social innovation" and "policies as social innovation". Policy for SIs include strategies to improve social work entrepreneurship, social change entrepreneurship and social institutional entrepreneurship. On the other hand, SI policies through social innovation can support social entrepreneurship and innovation practices through new legislation, fiscal policy and public procurement practices (Ateş, 2020).

This section will begin with excerpts from the respondents and their view of policies for social innovation practices. Chapter 5 is structured in three sections, introducing the three main policy problems derived from the research. Section 5.1 will detail how HEIs can improve social (innovation) value, Section 5.2 describes the importance of supporting social/human capital for social innovation practices and lastly 5.3 will detail ways to improve the HE ecosystem/ecology dynamics to support better SI

practices. The policy implications are presented in respect to the most recurring themes discussed with the respondents.

INT 06 draws attention to a critical problem for SI practices in the policy realm. The respondent emphasizes the importance of pluralistic policies and how our values have deteriorated away from community focused practices. Individualism has hindered collective action and the role of NGO's and universities are quite important in this regard:

> Değerlerimizi unutturacak politikalar ile yönetildik, uzun süredir de böyle yönetiliyoruz. Bu sadece, partili cumhurbaşkanlığı meselesi de değil. Daha da ötesine gitmek lazım, burada bireyci olmaktan çok, toplumcu olmaktan çok bireyci politikaya yöneldik. Bireyci olmak, o kaygısızlık, bizi toplumsal kaygılardan yeterince uzaklaştırıyor. Bunu aşmamız, yırtmamız için gerekenler, bunu tek başına yapamayız, bunu bir rüzgar ile yapabiliriz. O rüzgarın asıl rolü iki aktörde kitleniyor. Birincisi sivil toplum kuruluşları, ikincisi de üniversite. Çünkü, toplum tabanında bilgi düzeyini genişletmek üniversitelere düşüyor. – INT 06

> We have been governed by policies that have made us forget our values, and we have been governed like this for a long time. It's not just a matter of a partisan presidency. We need to go further, here we have turned to individualist politics rather than communitarianism. Being individualistic, that carefreeness, distances us enough from social concerns. In order to get through this, to tear it up, we can't do it alone, we can do it with the support of a wind. The main role of the wind is locked to two actors. The first is non-governmental organizations, and the second is the university. Because it is up to universities to expand the level of knowledge to the basis of society.-INT 06

INT 18 emphasizes the enactment of proper policies as facilitators of SI system development. INT 18 mentions giving the system the flexibility to find its ideal process conditions and is important that the system should be easy to implement and operate. The respondent also mentions the potential of universities to work with another quadruple helix actor: municipalities:

> …sistemin kendisini oluşturmasına izin vermemiz lazım. Bütün politikaların bu işi kolaylaştırıcı ve destekleyici yönde olması lazım. Nasıl, bu işi kolaylaştırabiliriz. Ben kalkınma ajanslarının önemli bir rol oynayabileceğini düşünüyorum. Belediyelerin önemli bir rol oynayabileceğini düşünüyorum üniversiteler ile birlikte çalışarak. Ve dediğim gibi, tamamen zorlayıp bir alana itmektense, öncelliklendirmekte şu anda yanlış politika olur. -INT 18

> …we need to let the system create itself. All policies should be facilitating and supporting this work. How, we can make this job easier. I think development agencies can play an important role. I think municipalities can play an important role by

> working with universities. And as I said, it would be the wrong policy right now to prioritize rather than push it out into one area altogether- INT 18

It is important to enact on proper legislation, yet it is even critical to enforce the proper dynamics to sustain the activities for social inclusion. This is emphasized by INT 02 as follows:

> Ama, çeşitli kanunen önlemlerde alınıyor, mesela çeşitli dezavtantajlı gurupların, çeşitli oranlarda işyerlerinde istihdam edilmesi, ama bir kere istihdam edildikten sonra o toplumsal içermenin nasıl sağlanacağına yönelik sanayii, üniversite, işletme, bu tarz işbirliklerin çok net kurulması veya projelerin kurulması gerekiyor ki, bunlar ayakları yere basan uygulamalar olabilsin. Bir kısım yapılar var, halihazırda çatı çerçeve çizilmiş, fakat uyglanmasında alt bacakların oturtulması gerektiği kanatindeyim. -INT02

> Various legal measures are taken for different disadvantaged groups to be employed in workplaces at various rates, but once they are employed, there is a need of collaborative projects to be established very clearly with industry, universities, enterprises, on how to ensure their social inclusion, so that these can be grounded practices. There are some structures, the roof frame has already been drawn, but it is necessary to fit the lower pillars of the application.-INT02

Another gap is the lack of coverage of new practices which hinder the enhancement of scientific and technological knowledge as mentioned by INT 04 respectively. R&D practices are currently directly associated with basic science and engineering practices and are not matched with social science and humanities practices. This is a huge lost potential and as emphasized by INT 04 because it is not prevalent, it should not risk the potential research frontier.

> Araştırma altyapısının temel mantığı, bilimsel ve teknolojik bilginin üretilmesidir. Yani aslında üniversitedeki, bilgi veya araştırma geliştirme süreçlerinin topluma yansımasının bir arayüzüdür araştırma altyapısı. Böyle bir farkındalık yok, bizde iki yıl önce gittik işte, kalkınma bakanlığına, strateji bütçe başkanlığına, bizde devlet üniversitesiyiz, araştırma altyapısı niye kurmuyoruz?Ama sizde mühendisik yok, tıp yok, nasıl kuracaksınız, ne laboratuvarı kuracaksınız, çünkü Türkiyede böyle bir deneyim yok. -INT 04

> The basic logic of research infrastructures is the production of scientific and technological knowledge. In other words, the research infrastructure is actually an interface of the reflection of knowledge or research and development processes at the university to the society. There is no such awareness, we went to the Ministry of Development, the Strategy and Budget Presidency two years ago, we are a state university, why don't we establish a research infrastructure (for social science) ? But you don't have engineering, you don't have medicine, how are you going to set it up,

> what are you going to set up in a laboratory, because there is no experience in Türkiye. -INT 04

Three main policy problems are detailed on a macro, meso and micro dimension, with a reference to policy recommendations, policy aims, policy tools and targets. Vlados and Chatzinikolaou (2020) detail characteristics of macro, meso and micro policies in an entrepreneurial setting. To summarize, policies at the macro dimension prioritize economic growth, diffusion and enlargement of the socio-economic systems. Meso dimensions may target laws, regulations and standards targeting sub-system governance. Lastly the micro dimension aims to strengthen capacities and efficiency of actors and to support the implementation of all the dimensions. The dimensions are further detailed to include a policy design to include the policy tools to attain the policy aims and targets as suggested by Howlett et al., (2020). Relevant to SI policy research, Howlett et al., (2020) mention substantive and procedural implementation tools. Substantive tools are based on targeting the targeted actors and their behaviors in policy implementation. Procedural implementation tools on the other hand are more in-direct and help to structure the sub-systems of the policy implementation. The details of this structuring are detailed in **Tables 15-17.**

5.1 Improving HEI's social (innovation) value : 2 Macro, 3 Meso and 2 Micro Policy Recommendations

Improving innovation practices is a critical concern as mentioned by INT 16. The limited interest lacks research rigour and thus HEI actors need to be put in the forefront to support (social) innovation research.

> Türkiye'de gerçek anlamda inovasyon çalışan pek yok. Öyle bir açığımız var açıkçası. Akademik tarafta hiç yok, inovasyon yapanda yok. İnovasyon bilinci de yok. Sektör tarafında bu işe biraz ilgili olanlar var, danışmanlık yapanlar var.Ama, tabii onu akademik kurgu ile besleyemedikleri veya akademik perspektifi bilmedikleri içinde. Maalesef, güncel konu yazmışları takip eden var ama, ama o kitaplara bağlı kalarak gidebiliyorlar. Bu işin arka tarafı nedir, bu iş nasıl gelişmiş arka tarafında neler koyabiliriz kısmında çok ilgilenmiyorlar doğal olarak, iki tarafı da gözlemlediğim için, iki taraftaki eksikleri ve fırsatları görebiliyorum açıkçası-INT 16

> There are not many people studying innovation in Türkiye. Obviously, we have such a deficit. There is no innovators on the academic side. There is also no awareness of innovation. On the sector side, there is limited interest and there are those who give consultancy. But, of course, because they can't feed it with academic rigor they don't know the academic perspective. Unfortunately, (these sectoral) people follow and

> write about (these issues), but they only stick to (theoretic) books. Naturally, they are not very interested in the back end (of this innovation), how the innovation can be developed and what further can be put, frankly since I have observed both sides, I can see the deficiencies and opportunities on both sides- INT 16

In this regard as seen in **Table 15**, there is first a need to solve the structural problems prevalent that has hindered social innovation practices. The first macro policy recommendation in this regard is trying to remove the hierarchical burden and the top-down rigidities that have hindered new practices. Universities are in law, regulated by YÖK, however the need for departments and faculties to be flexible in working outside the ecosystem within a project scope, generating resources to sustain creative activities and also creating autonomy is a direct result of the need to be free in thought and action to best provide societal impact.

It is important to have an important reference to solving the problems of Turkish universities. Data based assessment is critical in transparent assessment. However, there is still a need to integrate correct parameters within the popular rankings like TIMES Higher Education, YÖKAK and Innovative and Entrepreneurial ranking as the societal elements have truly not been integrated. The rankings mention collaboration potential through projects within industry but do not reflect the inherent follow-up dynamics for future endeavors to reflect in technological and scientific output.

> Türkiye'de hiçkimse bizim üniversitelerin geride olduğunu kabul etmiyordu. …Türkiyede hiç bir üniversite, ne rektörler, ne dekanlar, hadi arkadaşlar yayın yapalım, hadi arkadaşlar bilimsel yayın yapalım demezlerdi. Maksat sıralamalar yüksek demek değil, bilimsel çalışmaları arıtırıp ,ülkemizin teknolojik ve bilimsel açıdan gelişmesini sağlamak. -INT 03

> No one in Türkiye accepted that our universities were behind…these rankings have had an effect. If there were no rankings, no university in Türkiye, neither rectors nor deans would say ok friends let's publish, let's make scientific publications. The aim is not to say that the rankings are high, but to refine scientific studies and to ensure the technological and scientific development of our country. INT 03

Lastly, distancing from science is an international dilemma also addressed by a former rector INT 03. Prioritizing science practices is an important medium to communicate implementation practices within the context of the learning environment.

> Amerikada bizim toplumda da bilime karşı birşey var, uzak durma var. Zaten o yüzdende, Amerikadaki doktora öğrencilerinin bir çoğu yabancıdır. Amerikalı insanlar , vatandaşlar doktoraya daha az heveslidirler. Laboratuvarlar genellikle, yabancılar (öğrenciler) ile doludur.-INT-03
>
> In America and also in our society, there is something against science, (society) stays away. That is why most of the doctoral students in the U.S. are foreigners. American people and citizens are less enthusiastic about obtaining Ph.D.s Laboratories are often full of foreign (students).-INT-03

The first macro level suggestion is to support the regain of institutional autonomy by instigating the core values of the university. This helps to support the visibility of value areas, transparency among action derivatives, improving staffing assignments and also avoiding political influence to sustain activities. Among the suggested policy tools include categorization of university types, resource generation autonomy at department/faculty level, streamlining operations and integration with SDG goals and 12th Development Plan in support of trans-multi-disciplinary research.

The second macro level area listed is a potential showcase area for social innovation practices. It is evident that poor socio-economic regions hold more potential for social innovation and also bear the more people in need of these activities. This is also an important policy implication to improve the current ecosystem, which also enforces sustainability of activities. As demonstrated, the richer the ecosystem actors, the easier it is to extend the impact within these regions. As was reflected for the four sampled cities, all cities have unique attributes that require contextual problematization for the specific SI problem.

The suggested meso level policy recommendations are a result of the divide seen in the perception of the university and the actors that are part of it. Universities have become distant from society, but there is also a stagnant view of academicians to only focus on core roles of teaching and research within their own discipline. Here, data driven research is an important meso level aim to restructure methodology and also enhance research rigor. The suggestions are also important in defining university ranking and also supporting the YÖKAK initiatives to ensure biases are removed and also structured for SI research and activities.

Lastly, the micro level implications include substantive tools (Howlett et al., (2020) to enact academic entities as change agents through formal social innovation practices rather than the current volunteerism approach. It also emphasizes the empowerment of the actors to ensure the roles are understood to improve co-working culture and to empower the HEI actors as solution-driven entities. The leadership of the HEI actors will be critical in sustaining these initiatives with the implication of understanding the roles and needs of the ecosystem context. It is important to structure the needs with an academic understanding taking into consideration that SI activities are systematic in nature.

Table 15 Policy Problem I: Improving university's social (innovation) value

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Macro Level	**Reorganization of HEI system**	Regain of institutional autonomy and instigating core values of university	*Categorization of university types (i.e. research types) for model of SI involvement *Strategic SI Alignment to Policy Documents and Targets (12th Development Plan and SDG National Targets) * Resource Generation Autonomy at department/faculty level for SSH research * Redefining Societal Impact in International University Rankings and also tenure * Internationalization Commitment through SI focused staff exchange for viewing better SI practices	*Visibility of university priority areas for value creation within the HEI ecosystem *Inventory of resources for value generation (Alignment to SI value creation) * Transparent SI value and action initiatives * Improving staffing and assignment dilemmas for SI research * Avoiding political influence to sustain SI activities
	Commitment to improving regional disparities	Applying SI examples to increase collaboration potential with universities	*Funding and research priority given to local co-creation initiatives for SI research *Enacting on '81 regions, 81 university priority' and cultivating mission-oriented SI research * Renewal of staff assignment processes to support SI related activities outside current university ecosystem	* Show case examples to improve methodology development and instigating SI culture *Empowerment of SI actors to work on structural needs to enhance inter-trans-multi-disciplinary research

Table 15 Policy Problem I: Improving university's social (innovation) value (cont'd)

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Meso Level	**Improving Image of Universities**	Improving disparate 'ivory tower' image and university biases	*University 'without' walls-Improving accessibility rules to universities * Improving intermediary activities (i.e. TTO) to include technological and social emphasis	*Removing biases of industry, SME, NGO collaboration and increasing funding opportunity * Increasing visibility of researchers and making them point of contact for societal problems *Increased engagement of stakeholders
	Improving 'Science' and 'Innovation' Perception	*Bringing out the value add among humanities, social science and basic science practices *Improving interdisciplinary practices	* Empowering departments to integrate SI and interdisciplinary research through accreditation and YÖKAK rules * Communicating SI outputs to society *Inclusion of societal engagement proliferation in tenure conditions *Increasing citizen science practices within university campuses to support inclusive science	* Improving academic engagement among disciplines *Discovering new research potential for 'quasi-wicked-difficult' problems *Quadruple Helix Actors able to engage with each other to discover their potential
	Increasing Data Driven Research	Improving rigor and methodology in SI research	*Open access and transparent data sources systematized and agglomerated in a central source *Development of a data collection tool to allow researcher/non-researcher to generate and access data * Share of different SROI assessment practices with HEI actors to understand social data	*Increasing accessibility of data for research * Improving data use /generation for non-academicians * Improving input to SDSN, SDG national/international indicators *Improvement of impact assessment-evaluation practices Distinction of R&D-Technology to Societal Implication Differentiation

Table 15 Policy Problem I: Improving university's social (innovation) value (cont'd)

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Micro Level	**Understanding of Research Potential for Social Innovation**	From 'volunteerism' to 'dedicated' research	*Increase of 'societal impact' publications * Increase of HEI contact points for SI research with ecosystem constituents	*Improving the lead of universities in SI initiatives
	Empowerment of HEI Actors	Understanding roles within ecosystem for representation	*Development of SI roles in the HEI system for students, faculty and administrative staff	*Empowering people to solve their own problems * Improving co-working culture

5.2 Increasing the HR capital for social innovation: 3 Macro, 3 Meso and 3 Micro policy Recommendations

An important indicator of research excellence is social robustness and a research agenda encapsulating more actors, openness and flexibility (Benner, 2011). The Human Resources (HR) capital is an important input to the system. Several respondents have emphasized HR to enhance social innovation activities. Foremost, INT 09 mentions the criticality of HR with the important implication that HR overseeding infrastructural capacity.

> … istediğiniz sistemi kurun, istediğiniz altyapıyı kurun, eğer doğru zamanda, doğru insan yok ise orada çöküyor…-INT 09

> … install any system you want, set up the infrastructure you want, if there is no right person at the right time, it collapses there…-INT09

This is also emphasized by respondent INT 08 and their emphasis to learn how a process will be developed with proper qualifications of the instructors.

> Dünya kültürüne bu inovasyon kavramı yerleşti, zaten sizde böyle tezlerle uğraşıyorsunuz. Ama bunun nasıl yapılacağını o kadar iyi bilmiyoruz. Ama gene çaba olmazsa birşeyde olmaz, pek çok şeyde de üniversite bazı şeyleri doğrudan doğruya kendisi yaptığı gibi, yetiştirdiği insanlara o değerleri becerileri verdiği zamanda etkili oluyor. Birde doğrudan doğruya birde, dolaylı olarakta katkısı oluyor ve olmalıda.-INT 08

> This concept of innovation has settled in the world culture, and you are already dealing with such theses. But we don't know how to implement it so well. But again, if there is no effort, nothing happens, and in many instances, the university is effective when it gives these values and skills and trains the people, This results in direct and indirect results as expected.-INT 08

INT 19 correlates the unwillingness of social innovation volunteers as well as the problems encountered due to the HR capacity quality as follows:

> Burada örgütlenme, istenç, gerekli emek ve zamanı ayırma, model tasarımından yeteri kadar zamandan harekte geçirme, bunların hepsinde bir sorun var. Bence insan kaynağının vasfında birşeylerde sorun var. Ben kendime bakınca şunu görüyorum, benim motivasyonum gibi motivasyonları yok herhalde. Çok ciddi bir motivasyon eksikliğ var.-INT 19

> Organization skills, willingness, allocating the necessary effort and time, taking enough time for model design, there are problems in all of this. I think there is something wrong with the quality of human resources. When I look at myself, I see that they don't have the same motivation as I do. There is a serious lack of motivation. INT-19

A social innovation practitioner INT 18 also emphasizes that the current HR capacity is not enough to fulfill the requirements of the ecosystem.

> …12 saatten fazla çalışıyorlar., çünkü çok fazla insan ilişkisi var, çok fazla iletişim var. Çok fazla bu ağı birlikte tutma çabası var. Ve az sayıda var etrafta, mutlaka öncelemek lazım ve işbirliği yapmak lazım.-INT 18

> …they work more than 12 hours. , because there are so many human relationships, there is too much communication. There's a lot of effort put forth to keep this network together. And there are a limited amount of people around, we must prioritize and cooperate.-INT 18

Lastly, the HR resource within the HEI is an important mediation for science diplomacy and also visibility of national and international practices.

> ODTÜ'nün parlak talebelerini Amerikaya gönderiyorlardı. Bunlar hem iki türlü oluyor, hem Türkler döndükleri zaman yeni bilimsel olayları yansıtıyorlar ve Türkiye'nin bilimsel bakış seviyesi değişiyordu, bir üste çıkıyordu, ve aynı zamanda da tabii ki , çift taraflı, Amerikaya da bir sempati uyandırıyordu bu, dolayısıyla bunu sadece ülkenizde değil, bence çevre ülkelere de yaymak iyi olur. INT-03

> They were sending the successful students of METU to America. There are two kinds (of outputs from this) , when the Turks return they reflect the new scientific events and the level of scientific outlook of Türkiye changed and elevated and at the same time, of course, it raised mutual sympathy for the United States, so I think it would be

> good to spread this not only in your country, but also in the surrounding countries. INT-03

Three macro level implications suggested in **Table 16** are foremost to structure the diversification policies especially for interdisciplinary research, to improve SI culture and to increase new project potential through national and international project work. The main initiatives to be enacted include improvement of hiring practices for interdisciplinary and SI researchers and the diversification of universities to support SI practice. The culture is based on improving the innovation culture in social sciences, as well as increasing the visibility of good practices. The institutions should address the SI needs and also incorporate a knowledgebase to support the priority areas at the university. To improve national and international competency, collaboration networks, open-source publications and consortium/project management practices should support these initiatives.

The meso level implications emphasize improvement of tenure conditions and the increase of contexts of SI practice through practicum and course work. Among the suggestions include more site visits to increase the span of applied social-commercial entrepreneurial activity. Internships for non-technical backgrounds are also suggested to understand the needs of the quadruple helix actors and an increase of CO-OP programs would support practicum to understand industry dynamics and extend student and academic level engagement. These programs can also be very effective in supporting empowerment practices as also suggested by Tracey and Stott (2017). Moreover, increase of open access publications, improved impact factor for SI publications and emphasis on interdisciplinary joint publications were among the suggested items to improve SI research regulations at HEIs.

Lastly, micro level implications endorse general skill sets to increase screening potential of the HEI actors through improved skill sets, creativity practices and inclusive constituent roles. The skill sets are suggested to be improved through core SI education, seminar and workshops for SI. Increased SI education to enhance systems thinking, group thinking and collaborative methods is also suggested as a means of improvement. Inclusivity is also ensured through integration of actors in the system via empowerment and allowing mechanisms to voice the needs of the actors.

This can be encouraged through an SI representative in each department/faculty to ensure SI topics are researched and the needs are communicated to leaders that understand SI requirements.

Table 16 Policy Problem 2: Increasing the HR capacity for Social Innovation

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Macro Level	**Improving HR Diversification Policies**	*Increasing interdisciplinary research potential in the HEI ecosystem	*Allocation of staff for interdisciplinary and SI research in each department/faculty *Instigation of inclusive hire practices for academics/non-academics to improve teaching and research input	*Improving tenure conditions and prestige of interdisciplinary researchers * Improving the HR proliferation for inclusive representation for SI practices
	Improving SI Culture	*Increase SI awareness among ecosystem actors *Improve SI methodology to sustain SI practices *Improve skillsets for SI practice	*Inclusion of non-technical departments in technical research through joint research agenda * University-YÖK awards for good societal practices * Creation of SI repositories at universities for institutional memory and methodology *Mandatory entrepreneurial and SI training for new academic staff to understand talent and competency for SI	* Increasing visibility for societal and holistic views in decision making processes at HEIs * Increasing awareness for SI practices at universities

Table 16 Policy Problem 2: Increasing the HR capacity for Social Innovation (cont'd)

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Macro Level	**Increasing International/National Project Competency**	*Improving multifaceted (context based) dimensions of SI	*Competency building in international projects through TUBITAK support funding * Inclusion of open-source publications in tenure evaluation to increase societal knowledge share	*Attention to local and global priorities *Improve international network for collaboration and funding *Improving project competencies for SI
Meso Level	**Increased SI Course Work-Project Work**	*Inclusion of (social) innovation culture in curriculum practices	*Increased SI course titles, project work offered in departments * Mandatory accreditation requirements of interdisciplinary work like in MÜDEK required by YÖKAK * Departments having protocol in minors/majors can promote interdisciplinary work by students/academicians	*Increasing HEI actor awareness for SI practices * HEI actors are up-to date with social innovation practices *Removing 'only voluntary effort' work bias * Improvement in usage of SI terminology and innovation type distinctions *Improving science bias of researchers (x science is better than y science)
	Increase of Practicum for inclusive theory	*Increase of practicality span for SI * Raising HR to better align industry and theoretical application	* Applied entrepreneurial activity in industry for students and academicians * Mandatory site visits for non-technical disciplines *Internships for non-engineer disciplines * Structuring of CO-OP programs with technical/non-technical dimensions	*Increasing skill set for emerging problems and enactment of timely action by HEI actors * Increasing network contact and practicality for SI problem context

Table 16 Policy Problem 2: Increasing the HR capacity for Social Innovation (cont'd)

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Meso Level	**Improvement of Tenure Conditions**	*Improve academician interest to SI * Improve better resource usage and improve voluntary work bias	*Inclusion of societal related practices in tenure rules *Increase of impact factor for network and out of campus activities in YÖKAK rules *Increase of points for interdisciplinary joint publications in tenure	*Increasing the number of researchers in SI *Increasing the variety of dedicated discipline researchers in SI * Increase publications to draw interest to SI implementations
Micro Level	**Improving SI Skill Sets**	*Improving individual competence to initiate SI work *Improving competencies of managerial roles	* Experience building practices (project writing, field site research) initiated by departments to support SI research * Renewal and introduction of core SI education (group thinking, systems thinking, critical thinking, collaborative methods) for students and academicians * Seminar and workshops for SI awareness and needs funded by TUBITAK, YÖK	*Awareness and enactment of SI potential by HEI actors *Academic engagement to foster SI from different disciplines *Training activities integrated into QMS (Quality Management System) as part of continuous improvement and ensuring sustainability
	Inclusive constituent SI roles	Enforcing the 'change agent' potential to individuals	*Defined SI roles in and enhanced feedback mechanisms (QMS, departmental, course surveys) for SI roles * Increasing 'voicing' and action pathways within departments through SI representatives in each department/faculty	*Empowering system actors and valuing their input to the system * Inclusion of variety of actors to enhance idea/solution potential

Table 16 Policy Problem 2: Increasing the HR capacity for Social Innovation (cont'd)

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Micro Level	**Increase of Creativity Practices**	*To improve the 'mind set' and radar span of HEI actors for new solution potential	* Increase of abstract thinking practices (open-ended practices) through case-based research or problems introduced to HEI actors *Increase of site-visits and out of campus experiences for all HEI actors (i.e different learning contexts, different industries, different quadruple helix entities)	*Removing barriers for SI problem initiation * Learning to work in different groups * Enhancing creative capacity and extending independent thinking *Enhancing networking potential

5.3 Improving ecosystem dynamics for social innovation : 2 Macro, 2 Meso and 1 Micro Policy Recommendations

There is a need of anchor institutions in ecosystems to function in aggregation and diffusion (Georghiou, 2018) to ensure there is demand for socially-driven missions. The last policy problem is in regard to developing the dynamics of social innovation within the ecology of activity. Enhancing ecosystem dynamics is part of regulating the actors involved to enhance the commitment to sustain these activities. Two macro level policy recommendations have been suggested for implementation which include extension of specialization regions for SI specialization and new legislative reforms to enhance democratization practices for social innovation. All of the macro suggestions enact to increase collaboration with the quadruple helix actors and to better understand national context settings. The policy tools also draw attention to the distinction of social enterprise types and the need to model the working structures to work with such type of implementation. The meso recommendations entail improving the dynamic capabilities through structural configurations and also aiming for

resource efficiency. This heading is important as the level of support for such practices will determine the structuring of the future activities as well. This also includes the internationalization of HEIs through the design of transnational campuses and the mobility practices to extend the SI vision. Moreover, inclusion of assistive technologies is also an important implication for a university structured to support disadvantaged groups. Moreover, the increase in SI structuring through in-campus/outside campus entities also play an important role in how SI institutions are structured within the HEI ecosystem. Lastly, the meso level policy suggestions help to improve public value aiming to increase interest of public citizens to public-society valued orientations and to improve on the change agent potential of the system actors. It is important to note that all actors within the HEI context are potential change agents, supporting new practices and also changing the principles of work for different type of practices. The suggested action items are summarized in **Table 17** respectively.

Table 17 Policy Problem 3: Improving ecosystem dynamics for social innovation

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Macro Level	**Learning Regions for SI practices to enhance contextual understanding**	*Enhancing the primary mission of university and integrating ecosystem infrastructural potential	*Analysis of SI economic value-add in regions of mission universities *Analysis of infrastructure of ecosystem for SI value add as part of strategic plan reporting * Implementation of policy documents in dedicated regions or universities * Improving the Law of the Technology Development Regions (No. 4691) for SI *Improving the Law on Supporting Research and Development Activities (No. 5746) for SI *Improving 6550 Law of Research Infrastructures for SI	*Enhancing the competence of ecosystem actors *Enhancing contextual know-how for SI research

Table 17 Policy Problem 3: Improving ecosystem dynamics for social innovation (cont'd)

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Macro Level	**Legislation reform for SI practices**	*Rules to diversify social innovation value-add by different actors *Improve legal status and financial regulation for social enterprises and social innovation work *Enacting financing instruments to support SI funding	*Distinction of social enterprise types and activity context by law: Such as Community Interest Company (CIC), L3C (Low-Profit, Limited Liability Company, Social Purpose Corporation (Flexible Purpose Corporation) *Integration of ESR reporting and SROI practices to follow impact and manage data *Independent financing schemes offered to HEI actors (crowdfunding, hybrid capital and microloans)	*Ensuring all quadruple helix actors can support SI practices in a flexible manner *Ensuring sustainability of SI practices through independent financial schemes available to the HEI actors.
Meso Level	**Improved Structural Configurations**	*Enhancing Point of Contact for SI activities *Enhancing collaboration in autonomous areas	* Increase of number of SI or societal research Institutions *Assignment of societal contribution coordinator at each university *In-campus-off-campus ecosystem entities supporting SI (TTO, Research Institutes, Student Clubs)	*Aim to align SI practices with university mission *Increased outreach and networking for SI practices *'Leave no one behind' principle enacted and critical groups and ideas are enforced without power relation pressure

Table 17 Policy Problem 3: Improving ecosystem dynamics for social innovation (cont'd)

At	Policy Recommen-dation	Policy Aims	Policy Tools	Policy Targets
Meso Level	**Resource Management Practices**	*Improving dynamic capabilities at universities and enhancing resource dynamism *Increasing technological enablers and use of digitalization potential	*National/International Exchange of staff for resource proliferation * Usage of European University Alliances for Resource Share *Transnational Campus Infrastructure Protocol *Inclusion of outside HEI (Quadruple Helix) actors to increase skills and raise SI awareness *Ease in assignment of academicians to other HEI institutions for value creation *Increase of Assistive Technology for Access to Society	*Improvement of resource capacity and also resource reuse *Allowing equal access to resources/entities for solution formulation and idea initiation
Micro Level	**Improving Public Value Acceptance**	*Understanding of public good for universities (public/private) in reference to municipality, health, government activities.	* Differentiating between public innovation and social innovation * Alignment of Resources within Public Entities	*Managing demand /supply as a global citizen *Managing Public Acceptance of Social Innovation

Ecosystem enhancement ensures the tiering and multi-dimensional entailment of SI process development. The ecosystem view ensures alignment of institutional bodies, resources and the actors that make up the ecology.

CHAPTER 6

FUTURE IMPLICATIONS AND CONCLUSIONS

The Global Innovation Index (2023) lists the innovative potential of the 138 economies of the world. The index entails seven main categories (institutions, human capital and research, infrastructure, market and business sophistication, knowledge and technology outputs and also creative outputs). Türkiye is ranked 39th among the countries with the best sub-indicator for tertiary enrollment (2nd place) and the main category of creative outputs ranked at 27th. Although enrollment is high, preference of science and engineering is ranked at 100 and the mobility is also staggering at 74th place. Among the worst indicators is the institutional ranking at 105, where interestingly entrepreneurship polices and culture is ranked at 50, whereas policies for doing business is drastically behind at 114. Türkiye is also among 25 countries, listed in the European Cooperation in Science and Technology (COST) research networks as an Inclusiveness Target country which still needs to improve on its innovation capacity. The European Higher Education in Area (2024) Bologna Process Implementation Report has also listed Türkiye among the countries in support of inclusion, diversity and equity. Among the factors that needed improvement in the report included fulfillment of first cycle higher education study and retention of students , as well as flexible models of lifelong learning in higher education. Türkiye was seen in support of facilitating synergies for lifelong learning and monitoring of enrollment and retention of higher education students. As can be seen with the indicators mentioned above, the social innovation potential is an important pivotal means to improve the operations of HEIs and other entities for the betterment of society. The detailed study has tried to understand the contextual features of SI activity, as well as the role of actors to support this initiative. This section includes an assessment of the lessons learned from the 42 respondents and its correspondence to literature to assess the value add of the study at hand.

Georghio (2018) summarizes three critical dimensions of social innovation as : goals, actors and means , with experimentation and scale supporting the initiatives to enhance the activities. The study has conducted a detailed assessment of SI examples within the HEI context to support the understanding of the contextual and driving factors to support SI in four different cities in Türkiye. Studies have been lacking the holistic perspective to demonstrate the activity dynamics of SI. The study has tried to encapsulate the how, what dimensions stemming from the ontological approach, in addition to the future oriented normative approach to support practices. The normative approach is also supported in the socio-technical discourse (Savaget, 2019) and entails an understanding of the reasons, direction and purpose behind what dynamics need to be restructured within the HEI context. The study has been inclusive of the categorization of social innovation actors as described by Tracey and Stott (2017) and has contextualized the following actors a)social entrepreneurship (actors outside of HEI ecosystem supporting SI practices i.e industry) b) social intrapreneurship (actors within the HEI, inter-intra departmental actors) c) social extra-preneurship (actors within the HEI ecosystem, i.e techno parks, research institutes) to entail a systematic description of the possible change agents within the HEI ecosystems. The study has concluded that the main actors (i.e students, academic staff, administrative staff) need to be empowered to bring out their intra-preneurship skills within the close proximity of the HEIs, are important agents of extra-preneuriship for mediation roles between close quadruple helix contacts of the HEIs and also are drivers for SI potential as external agents of social entrepreneurship, especially through the immense potential of qualified human force of graduates. The YÖK (2023) records supports this huge potential through the following numbers provided for the 2023-2024 academic year within the HE system: 184,566 academic staff, 6,950,142 number of students continuing (undergraduate-graduate) studies, 903, 673 graduates and 1,846,654 newly enrolled students respectively.

Although the core focus of universities has been technical innovation, Berg and Leicht-Scholten (2021) have suggested that the technical knowledge base for commercial-technical innovation can be used as an imitation point to develop social innovation ecosystems. However, the study has shown that there is still confusion among HEI actors in actuality to implement and systematize innovation, with industry partners

having a better understanding of the dynamics of initiating innovation due to the valorization of the commercialization potential. The definition of innovation by the respondents in the Turkish HEIs have also been criticized to be fragmented, lacking social implication and the term is seen to have had a wrong connotation associated with the terminology. There is a risk of innovation to be always perceived to be bearing good outcomes or structured for the good of the community, when in fact it may also create divides which risk social justice and equitability.

The biases and confusion in social innovation terminology included relatedness with philanthropy, corporate social responsibility, inclusive innovation, open innovation and public innovation. The respondents' background were critical in how the definition was structured and what was prioritized in the process. Participants who have had dual affiliation with disciplines, have worked outside of the HEI context or have experience in multi-disciplinary group work were more inclined to describe social innovation in a more inclusive fashion. A high potential to support Türkiye dynamics emphasized by INT 22, 28 and 30 included the lack of resources in the creation of the SI potential. Main reasons included the need to survive and voice needs to enforce the change potential for the SI effort. In fact, INT 30 also contextualized this lack through the Turkish War of Independence as a social innovation that took rise to a nation with new cultural understanding and principles. However, the same lack has also been criticized to negatively affect the SI efforts as the survival efforts have led to the misuse of SI to secure funds, through associations or education activities, which also diverts the true needs of the SI process in essence to be learning pulled and knowledge-based rather than fitting the industrial or sectoral requirements for commercial advantage.

In regard to cultural embeddedness, the 'Ahilik' system was given as an example by INT 01 and INT 21 to support solidarity initiatives in Türkiye but has been criticized for its degradation. This degradation has also been mentioned in the lack of quality of human resources to uphold to ethical principles and systematic within the SI culture. This was also mentioned as an important policy implication to the improvement of the understanding of SI principles. Moreover, negative externalities listed also included a

trend-based interest to the topic, participants or implementors avoiding dependance on others, fear of good ideas being stolen and a competition vs. a cooperation instigated HE culture. The value of the interactions through SI work is not seen as high value, lacking a feedback mechanism to share benefits and insights and there is also a misconception and an expectation that 'innovation' or 'social innovation' needs to have huge outcomes and impacts. This is also a hindrance to also taking the first step to understand and also initiate societal focused activities.

Positive externalities listed by the respondents has included usage of mass cultural tools to support the climate and design of SI research, as well as the potential of young groups and their generational differences to provide unique insight. The students are more often seen as change agents, consistent with the work of Belcher et al., (2022) who emphasize value creation for the main actors also including academic staff who are embedded within the HEI structuring. Students have also been assumed to be the main conduit to support SI practices in the work of Gustaffson (2023). In an era of poly crises, such as pandemic, earthquakes, Ukraine-Russia war, these conflicts have also acted as a catalyzer to extend SI practices and to understand social dimensions within research. Georghia (2018) has mentioned the importance of internalizing these externalities to be able to adapt to the changing needs of the external environment.

In this regard, HEIs are often criticized for the slow pace in adaption to the changing conjecture within their internal and external ecosystem environments. This also creates concern in mobilizing their physical and knowledge resources for common usage with cooperating actors and to also use these resources for the betterment of society. This discrepancy has also resulted in the rate of supply of SI solutions being lower than expected. The low demand for SI due to its potential not being evident is also a risk. The efforts to sustain SI practices is dependent on the individual efforts of the academician and is often not agglomerated within the HEI context. The suggested structural roles for agglomeration are SI institutes, community study units or SI responsible within universities. However, consistent with literature, the lack of governance and institutionalization and the need for entailing of embeddedness in understanding HEI levels (Schröder and Krüger, 2019; McDonnell-Naughton and

Carmen Păunescu, 2022) has drawn attention to the working dynamics of the SI units. SI units have been helpful in improving the theory and the understanding of the SI agents and the practical implications. The importance of their autonomy and unique rule of conduct has supported the activity proliferation and also the inclusiveness of the academic actors. However, it is debatable that if the unit's or divisions are not aligned with the strategic vision of the university or the core staff contributing to SI does not have department or faculty support, the activities are at risk of discontinuation. This is also in alignment with the results of Benneworth and Cunha (2015) where common interest and priority for HEI social innovation activities allows the social innovation processes to flourish as well. The units are important in ensuring points of contact for SI process activities and acting as knowledge bases to continue activities after the initial projects have ended. In essence, SI activities are project oriented, yet this also implies there is limited time span of outreach. The activity systematic should outgrow the project span and hence the impacts can be readily observed.

As the demand for SI increases, there will be a gap in provision of the SI resources to improve the capacities of society, which is mentioned as a critical dimension by Mulgan et al., (2007). It is seen that universities are lacking active stakeholder presence to govern their practices. This is also a critical gap mentioned in the work of Gustaffson (2023). There is a need for decentralized public policies that foster the autonomy of the university, and support the alignment of the trajectory of priority areas which are mentioned in the 12th Development Policy. The technological determinism of innovation needs to be re-evaluated with social innovation as an approach to enhance unique practices encapsulating a systematic approach. The research focus needs to shift to more intangible services and multifaceted SI activities as also mentioned by Brudenius et al., (2017). This is an important change of foci for the 3rd mission of the university as well. Association of technology , with core emphasis to engineers and technical professionals are important hindrances to professional identity. Academic identities in the HEIs need to be improved to include more variety like community engagement, facilitator etc. roles, rather than a pure research or education bred academician. This is also consistent with the outputs of Uslu (2022)

who has mentioned that although Turkish academicians prioritize teaching , the tenure rules prioritize research outputs and there is a need to re-structure this distribution to better support the career paths of the academician. Kocatürk and Karadağ (2021) have also emphasized the need of multidimensional evaluation within Turkish HEIs and the high ecosystem expectations pushing the academicians to look for new ways to add value within the HEI ecology. This is also correlated to the semi-open system structure of the HEIs in Türkiye mentioned by the authors, where academician engagement with quadruple helix actors and also internal/external ecosystem actors needs to be improved. The academician's competencies to enhance their skill sets in different settings (industry, policy making) will also improve the understanding of the structures that need to align for proper social innovation acceptance. Social innovation also questions the 'normative' view of academicians and raises uncomfortable grounds for disciplines that have not in the past included the societal impact of such disciplines, which also requires structures and techniques to be changed, including curriculum, practicum and also their role in contextual environments outside HEI systems. The inclusion of social innovation practices will encourage academicians in non-social fields to produce social knowledge relevant to different disciplines.

The leadership styles of institutional leaders have also come into the question within the study. The top- management approach within the institutions have been researched. The findings have been consistent with the work of West et al. (2017) for compassionate and collective leadership, which emphasize that leaders who are willing to respond to challenges require openness, transparency and compassion to address these pressing problems. In addition to the findings, an important potential is for SI practices to help build relationships with a common vision and mutual interest in collaborative work. SI leadership can also come to the fore of SI research.

Benner's (2011) indicator of research excellence entails social robustness and approaches that include more actors, openness and flexibility. Collective action for inclusiveness and democracy is prioritized to meet social needs (Purna and Puoli, 2023) and scaling up at a multi-level approach is suggested for sustainable outcomes (Castro-Arce & Vanclay, 2020). However, respondents of the study have mentioned

university specific contextual negativities that have hindered the SI initiatives for collaborative research. Although the respondents are from cities with potential of a rich ecosystem, the universities are still seen to be closed in structure. The 'ivory tower' analogy is still valid, where campuses are termed to be closed structures, without external actor access for communication. There is still a learned sense of hopelessness to tolerance of non-routine and a sense of resistance to learn new competencies that are not associated with performance metrics like publication, which are part of the tenure negativities in SI. Moreover, new structuring to accommodate SI practices (i.e intra departmental work) is seen as extra work and a burden on managerial responsibilities. Moreover, a critical concern mentioned is the oblivion approach of management to how value is created as mentioned by INT 16. When the value-add emphasis and support is less seen by upper management, there is great reluctance to be involved in SI activities. The academician is also criticized as not being divergent enough in roles and responsibilities. An example hindrance that has caused this 'limited view' is the inbreeding of staff among a specific HEI. Another criticality is the influence of politics in the academic freedom to do research (13 counts by respondents) in specific areas or to be involved with specific actors of the community. This has also degraded the professional role of the academician where the needs-based assessment cannot be applied and thus the potential of HEI actors to be 'voices' to the community is lost. Another important hindrance (8 counts mentioned by respondents) is the lack of communication and coordination within the HEI ecosystem. This is inherent in both close proximity (i.e in departments) and also far proximity (i.e with external actors) situations. Lastly, SI project work is relatively new in application, which also is restrictive in the administrative staff supporting such initiatives. There is a mismatch between the intended activities and the regulation or practicality to enforce it. Top-down enforcement (i.e through YÖK, Rectors, Faculty and Division Heads) have helped in sustaining the activities, yet top-down selection of SI themes has removed the researchers autonomy to construct his/her research and to draw attention to the core principles of application. The academician and HEI actors hold an important role to ensure that SI practices and support is not 'stake-driven' by actors providing funding, but that is 'need-driven' for the actors contributing to its process and which are benefitting from the outcome the most.

The context has also been found to be an important driver for SI success. Contextual conditions from Ankara, Istanbul, İzmir and Konya were detailed to help SI implementors grasp and understand the dynamics to support SI practices within this context. All cities are high in their potential to support SI activities, with Ankara demonstrating more prominent citizen engagement activities, Istanbul in its rich actors and open-dialogue setup, İzmir with higher visibility of projects and Konya is strong with the interconnectedness of its public actors. The main improvement factors for Ankara are the lack of industry involvement and for Istanbul it is the need for sustainability practices. İzmir and Konya were lacking in more than one dimensions in regard to the SI ecosystem dynamics. İzmir needs to improve its industry involvement, collaboration with universities, enhance its ecosystem maturity and to increase practices with sustainable outcomes. Lastly, Konya needs to improve the proliferation of SI activities, NGO and industry involvement and to diversify its funding options. Especially for funding as mentioned by Georghiou (2018) to include crowdfunding, hybrid capital and microloans, Türkiye has become familiar with such practices , through initiatives such as Adım Adım, which has provided an important impetus to understanding crowdfunding dynamics. Social bonds by Istanbul Development Agency (2023) were also recently released for a project entailing tackling of unemployment for the younger generation. It is important to differentiate where these ideas were generated as localization has been important to support replicability and scaling of SI models (Georghiou, 2018). No one size can fit all, but the commonalities can be used to leverage and adjust to the SI dynamics. Moreover, institutional theory is embedded within HEI practices to shape the new values and norms that are being restructured (Çinar and Benneworth, 2021). This is also supported by contingency theory and awareness to contingency conditions which highly structures the reasoning and adaptation styles of SI implementors. This is also an important contribution to societal impact, supporting the three dimensions of understanding the nature of societal impact, addressing the measurement of societal impact, and developing the policy implications of societal impact (European University Association, 2019).

Türkiye which is ridden with social disparities and social problems is in need of rich solutions to expand its Mode 1 (university based) role to a Mode 2 (actor based) (Nowotny et al., 2001) solution methodology. In this sense, several opportunities have also been listed by the respondents for Türkiye including developing social capital, diversifying food sourcing, sustainable energy, block-chain and assistive technologies, intellectual output generation, structuring of information, working for the ageing population and unique financing options to support the sustainability of SI practices.
For HEIs several unique opportunities were prevalent through SI practices. Foremost, understanding public value and public value creation. Regardless of university status (public-foundation), universities are public entities with the potential to create public value. This creation however is usually attributed to ministry and municipality activities, where HEIs are seen more as external actors. The HEIs need to re-structure their activities with a process-oriented scope to ensure the flexibility it is currently lacking. There is also a potential of aligning the public resources within the ecosystem to support new ways to exploit or explore the resource potential. Although funded by public entities, most of the laboratories are only given access to the premise the lab is at, at a certain campus. This limits the potential of especially the periphery of the HEI actors (i.e other HEIs or within the city dynamics) to make use of an underused resource within the local context. Moreover, this also brings new opportunities to govern the resources to match a need which is available and to direct resources to other needs of the ecosystem. This also makes the actors free to extend their resource generation autonomy to find physical and intellectual resources to sustain their activities.

There is also a huge potential to view the HEI ecosystem as an extended community to construct new work structures to support engagement in different specialization areas. Teaching is also in the brink of change to offer customized education solutions, in respect to the mass education activities offered. The roles of student-instructor is also questioned, where new actors from trans-disciplinary research is included as an expert. Similarly, students are also on the forefront to act as change agents, thus need

to be integrated into their new 'teaching' role to support SI practices. Disciplinary heterogeneity is also an advantage to be used to adapt to the different styles of interest. These roles need to be legitimatized to reaffirm and restructure academic identities as mentioned by Çinar and Benneworth (2021). In this regard the role of implementors and leaders developed within the idea initiation, process implementation, impact and sustainability is an important value add to distinguish among the competencies required for SI research. Talent management practices to support and raise the competitiveness of the actors will also come into question in the near future.

The necessary social innovation constructs for social-technical systems within the Turkish HEIs is also an important outcome of this study. Socio-technical system design includes various elements such as socio-technical tools, principles, organizational structuring and organizing work to improve the experience and efficiency of the system actors (Davis et al., 2014). Foremost, SI practices require flexibility and creativity to solve problems which require the HE socio-technical systems to tolerate newness and timely change structures. Grant et al., (2011), has mentioned the importance of resolving problems at point, which is also a significant implication of interdisciplinary and transdisciplinary work by the HEI actors for social innovation. This requires the HEI system boundaries and the actors to be more open to different work models which support quadruple helix actor involvement with a preferred boundaryless HEI interaction. Kocatürk and Karadağ (2021) have mentioned that Turkish HEI systems display semi-open system characteristics and the APIKS (2021) report emphasized the limited interaction of HEI actors with industry. The socio-technical system which supports SI practices needs to ensure an open system state. New roles in work detailed in **Table 14** are also an important implication to the socio-technical system discourse. As mentioned, the roles are interchangeable in respect to the SI process stage , the SI demand boundary and the system boundary defined within the course of interaction. This is consistent with Bhattacharya's (2013) emphasis of involving stakeholders as both enactors and enablers consistent with the change agent approach. Moreover, technology has been an important enabler as a critical socio-technical tool to expand SI activities. Assistive technology tools are also important enablers to include disabled and elderly individuals in the system. Similarly,

organizational structuring within the system should allow the actors to communicate and engage continuously in support of the autonomous areas needed for SI value creation. Lastly, the needs described in the SI conceptual model developed by the author should be embedded to structure the necessary procedures and culture to align with SI needs.

In structuring the responsibilities within the HEI ecosystem, several critical structuring differences may also come about. Foremost, adoption to new solidarity-based governance models cannot be structured outside the HEI contribution. This can greatly be shaped with a value based priority setting for universities. This could also structure the impact fields of the HEIs. This should also open the university to support its fruition to reach its full potential as a visible and not hidden public entity. This would increase the value and prominence of the HEIs , as well as the supporting actors to maintain such practices. This also can support to uphold to the quality of HEIs to act as experts in their region and to support the Quintuple Helix structure in alleviating the problems of its locality. With the defined role of legal structures, it can be easy to work with entities that do not require money for transaction of activities. The SI focus also supports the role of entrepreneurial universities but without the sole emphasis on commercial entrepreneurship initiatives.

Data generation potential of HEIs as knowledge-service based entities holds an important contribution to SI. The interrelatedness of the social actors can be better observed in contexts where the same students and academic are present for 2 years (vocational schools) and 4 years (undergraduate). This is an important contribution to observe and construct with similar entities in the changing dynamics of the SI. In SI research it has been problematic to define a wholesome definition due to the layering of entities and also the faster pace changing contexts for industry or NGO work. The accessibility of social data can also be ensured with the presence of universities as public entities.

Lastly, the quality of the outputs of the system is fed in by the inputs provided. As much as there are different rankings provided for universities, the ranking or quality

practices do not yet encapsulate the SI dimensions needed to improve and systematize the practices. Foremost, the success of the academician to adopt these practices should also be integrated into the tenure or promotion conditions provided by both the HEI itself , YÖK and higher authorities. Interdisciplinarity and trans-disciplinarity will come to the forefront of activity and teaching design. With other supporting practices mentioned by Belcher er al., (2022), through scholar practitioner model, Mode 2 research, problem-driven iterative adaptation and sustainability science. Tacit knowledge generation principles and how best to target quality research and activities will be put on the table to also support internalization efforts, sustainable, responsible innovation (Stilgoe et al., 2013) with its four dimensions of anticipation, reflexivity, inclusion and responsiveness which need to be structured for SI research. Lastly, Responsible Research and Innovation (RRI) (Berg and Leicht-Scholten, 2021) is also possible with the SI principles to structure HR and also to tackle underperformance with aligned missions, activities and scope of impact.

To summarize and conclude, social innovation bears an important potential to act to society's multi-faceted and difficult impending needs. However, it is yet to be properly understood and implmented across the level of actors within different HEI ecosytem constiuents. HEIs and its actors are seen as important change agents, yet they are still lacking the awareness and the structure to support these practices. Among the main challenges that hinder collective understanding is the silo perspective of different disciplines, lack of multi-levelling of social innovation problem structure and the power relations which can deter the accessibility and inclusivity of the real actors that are affected and which the SI analysis aims to resolve (Beckman et al., 2023). Turkish HEIs have a path dependancy tendancy,thus it is very difficult to change practices that are not easily accepted and established. HEI institutions firstly hold the responsibility to undersand and demand the potential for SI practices so that the value-add can be maintained and developed. Among the ambiguities within social innovation is its difference from technical innovation. There is no consensus to the understanding as practioners are very much divided in this matter. There is a propensity of researchers and practioners working in social science and humanities to argue that every innovation has a social implication. Some argue that there are common areas and some

refute this argument altogether saying that social innovation by nature is completely different due to its collaborative strong suit. The view of the researcher is that social innovation should be encapuslating of all types of innovations and in essesnce every design used in communites and societies should have a societal facet embedded in its purpose. Our current problem is that the activites are driven by incomplete dimenions which risk losing the potential of the effort in all types of communities. The social innovation 'mind-set' is driven by social purpose and extends from self interest to mutal interest in design and application. It should not be forgotten that socio-technical systems, include the sub systems of social-technical-environment and the current dilemma faced by society is to be acting in and for the singular dimensions of any of the subsystems. Social innovation entails the unison of action, purpose and

responsibility. It is in this realization that HEIs need to uphold to different roles and responsibilities of social innovation to ensure the effective and inclusive continuation and understanding of the true essence of social innovation. HEI institutions are integral actors within the Quadruple-Quintuple Helix, as well as in national innovation systems. It is not easy to overcome the power relations, path dependance and the already existing knowledge constellations to support social innovation, as institutional changes are not easy. Moreover, how actors working with/for/in HEIs can be incentivized to work as potential social entrepreneurs within HEI ecosystems, with HEI ecosystems and outside HEI ecosystems is a great responsibility and potential area for HEIs. The roles embodied within and outside the ecosystem boundaries are not mutually exclusive. The value potential is this critical essence of pollinating of the attitudes and culture embodied within social innovation research environments. The current view of implementors within the Turkish HEI system is that social innovation is intrinsically driven and is mainly a volunteer initiative often confused with social responsibility. Indeed the responsibility of the HEI actors should be to promote the research, collaboration and institutional potential as an extension of the 3rd mission within their impact domain and not to wrongly reframe and mirror it. If it is demanded in this manner, ways to answer to the interest of social innovation practices will also be in the imminent agenda of HEIs. The proper framing and communicating of the social innovation requirements will also help social innovation to be not

miscategorized as a ‘buzz’ word and to be evaluated in its full potential. HEIs are also accepted as public entities and contextually speaking the social innovations within the public institutions are also called public innovation. However, this term is mostly framed in public entities like ministries and municipalities. Popular usage of social innovation rather than public innovation within HEIs is an important implication to the contribution of the multiplicity of the actors that HEIs embody and work with. The collaborative entities within public innovation can be limited to service giver and service provider and the service being seen as a public good. In the perspective of social innovation, there is a multiplicity of actors and the output is a community outcome. Social innovation is also in coherence with 4th generation university initiatives due to the collaborative and entrepreneurial nature of the target. Finding ways to work with different disciplines and teams is indeed a challenge. To enhance co-creation capacities HEIs need to remove the divides from their disciplinary heterogeneity , epistemologist practices and different forms of external engagement as also emphasized by Çınar and Benneworth (2021).

There are many ways that change can be fueled within and with HEIs. The study has been significant in listing and detailing these implications. Foremost, there is a great need to have data driven social innovation implementations. The contributions of social science and humanities disciplines for economic and R&D indicators is lacking. Similarly, ranking listings have in the last 5 years been inclusive of societal indicators. The YÖKAK indicators are more of reflecting community engagement rather than promoting and improving SI activities. There is no tracing of resources to the social innovation activity potential. The indicators also give quantitative numbers of the number of engagements but do not indicate if the relations among the quadruple helix actors are sustained. Moreover, the indicators are aggregate and not traceable to individual resources and the effect of contextual factors in the creation of this impact. This data should be maintained at different levels, inside HEI ecosystems and outside HEI ecosystems to link the social innovation potential of the researcher. One of the problems mentioned by the interviewers is the single contact relationship building which risks the continuation of future collaboration. With participatory research models and transdisciplinary models becoming prevalent the credibility and the source

of data collection will also start to emerge as a problem. Another important implication for SI applications is the roles and responsibilities needed at different points in time. From idea initiation to the sustainability of the activities, there are different leading roles necessary to streamline and ease social innovation practices .These roles are also necessary for action within the internal and external HEI ecosystems. Currently HEI actors are taking on more of participative rather than leading roles. This is also affecting the structures and methodology of SI rigor. Academicians have an important role to ensure practices are maintained to its potential.

Another implication is the legal frameworks to entice participation of communities. Social enterprise status is still in debate in Türkiye. On one hand it is promising since there needs to be a critical mass to showcase the needs and requirements of social innovation and social entrepreneurship. However, it is a risk if social entrepreneurs to contribute to the HEI ecology when they are requested legal entity for collaboration and they are rejected for participation due to status or are subject to difficult requirements under the structuring of companies or foundations. The EU has made social innovation an important flagship initiative and mention social innovation in critical documents, which was usually the first SI encounter of the Turkish academicians. In Türkiye, TUBITAK and TechnoPark project assessment criteria require mention of a societal impact within the project. However, social innovation is still not mentioned in the documents. HEIs need to play a pivotal role in the democratization of SI practices. The respondents have heavily mentioned SI projects being funded by external sources. This bears a risk in certain interest groups governing SI applications to their interest. This also creates a risk to the inclusivity of certain actors to the preference of the guiding or funding agency. HEIs have a chance to use their credibility to ensure that practices are enforced in a equitable manner. Tines of crises like the pandemic and the earthquake have shown the need to create new ways to reach actors within a community. HEIs will be pressured to provide unique education credentials to ensure customized education to the demands of the actors. These call for understanding the needs of the community as well as the interested groups that will likely be investing their resources to collaborate with the HEI institutes. New requests need to be addressed in a manner to ensure timely output and

also meeting the expectations of the interested parties in a quality manner. The HEI requests also need to be aligned to apparently different models of finance, transportation, structuring and work principles to ensure that its practices are aligned with the norm. Especially in public universities which face backlash due to bureaucratic slowness, it is evident that universities will be left out of decision-making processes due to this misalignment. Thus HEI need to be communicators to look at a lens that encapsulates these needs and has the capacity and capability to make these changes. This emphasizes the empowerment of actors through education and practicum. HEIs have distinctively engaged in different ways to build this capacity, through courses, lectures and seminars. The practical implications of these courses need to be accounted to understand the lacking skills to ensure SI project/activity fruition.

Another distinctive feature is that each HEIs active change agents could be different. Although all actors have the potential, cultural and structural positioning of universities have made it difficult for some groups to voice their needs or be advocates of certain topics. In this regard, to improve the capacity of HEI's there are three important implications for action. These are improving the social value of social innovation, increasing HR capital for social innovation and improving ecosystem dynamics for social innovation reflected in the policy aims of the research.

The suggestions given are indicative to the responses, requests and needs of the social innovation implementors. It is apparent that without a clear understanding of social innovation in its context it is difficult to communicate and structure the changes necessary for transformation. It is important that HEIs also integrate these change dynamics in their quality management and institutional structures to ensure know-how is integrated into their institutional memory to be used to better work with HEI actors.

The study has provided important input in the following areas:

a) Definition of SI in the university context: There are a plethora of definitions within SI literature, yet a contextual definition encapsulating the HEI needs

and priority areas were missing. Without knowing the reference to work with it is very difficult to improve the practices and processes of implementation

b) Detailing of sample SI practices from idea initiation, process, output and sustainability to illustrate ways to construct a systematic to build on an idea. The different approaches can be mixed to meet the need of the specific SI. This will also act as reference to give idea of effective implementation. An interested reader may decide to design according to the structures detailed in the document.
c) SI Conceptual Model for Managers and Implementors: The Model was derived through the codes and content generated through the interviews. The questions had reflected detail of the process dynamics, which was integrated into a systematic. An early implementor can easily view the model and assess what needs to be done to further their activities
d) Ecosystem SI Potential Mapping : The reference cities Ankara, Istanbul, İzmir and Konya can be viewed in comparison to their SI capacities and their reasoning for rating. It is a current depiction of the potential of the cities for SI and can act as an impetus to implementors to conduct activities in these cities. It is also a refence point for other cities in the way to compare and contrast important variables of the context for SI
e) Role of HEI actors for SI: 15 roles for SI practice was suggested with contextual and time reference of implementation. It will be important to develop the competencies to work with the different actors.

HEIs provide many knowledge-based services which require different mechanisms to stimulate joint efforts and sustainable practices. It is important to understand the relation dynamics to foster better ways to enhance the output intended from the service. Social innovation, is yet a new undertaking, which requires understanding of the clear boundaries of its implementation and the underlying realities to foster it. In this regard, the apparent dichotomy of individual vs. collective action within the HEI system is also both an important barrier as well as opportunity frontier to understand the collaborative effort and the interrelatedness of the value process. Future work in SI practices will require researching contextual value frontier for ‘similar’ research

problems. This is also an important opportunity for SI in underdeveloped regions which require the most support for societal disadvantaged groups. Data managed SI structuring will also need to be in the forefront to define and derive systematic metrics to reflect impact of SI activities. Data collection for social innovation practices is likely to be diversified, which brings the academician as a quality agent within the ecosystem to assess the proper rigor and collection of the data for SI research. The study has been unique to include different tiering dynamics (management-implementor) and quadruple helix actors, and there is a need to understand the different views (student-instructor, administrative staff) within a similar SI process, to clearly define the roles necessary for effective implementation. The HEI context is still in need of investigation for SI practices as increased SI visibility also will help to structure the output and impact of the process stages. SI implications to formalized quality management schemes can also be investigated to understand the formalization and integration of the suggested SI methodology within the HEI context.

Lastly, in alleviating 'grand challenges', how HEIs reflect and re-define their roles in the community will continuously be challenged. Universities and professionals within the HEI ecosystem will need to redefine their role to support communities and world conjecture in a timely and aligned manner. There are formal structures that support these practices yet an underlying concern is giving autonomy to these units independent of the hierarchy that hinders within the institutional settings of universities.

Academia has yet to discover the research and collaboration potential for this science. The underlying difficulties raised are inherent in the perceptions of the actors and the lack of culture to work in distinctively different groups to create collective value. The singularity of choices and the differing priorities have made social innovation practices primarily voluntary in application. However, it is important that social innovation practices are valued in a proper research context and the output is accepted and prioritized by the system actors. Success is often described through the impact created, yet sustainability requires the practices to be continued to extend the value created. This requires developing approaches that are relevant to the context and purpose of

solution. The multidimensional nature creates difficulty in assessment however social-data driven management approaches, enlargement of ecosystem actors and show-case of practices will enhance the social innovation potential within the higher education ecosystem to improve on its 3rd mission initatives.

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APPENDICES

APPENDIX 1- ETHICS COMMITTEE FORM

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER

ORTA DOĞU TEKNİK ÜNİVERSİTESİ
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16 HAZİRAN 2020

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof.Dr. Yaşar KONDAKÇI

Danışmanlığını yaptığınız **Hande ERYILMAZ'ın "Üniversitelerde Sosyal Yenilik Dinamikleri: Değişim İçin Sürdürülebilir Bir Model"** başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve **205 ODTU 2020** protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.

Prof.Dr. Mine MISIRLISOY
Başkan

Prof. Dr. Tolga CAN
Üye

Doç.Dr. Pınar KAYGAN
Üye

Dr. Öğr. Üyesi Ali Emre TURGUT
Üye

Dr. Öğr. Üyesi Şerife SEVİNÇ
Üye

Dr. Öğr. Üyesi Müge GÜNDÜZ
Üye

Dr. Öğr. Üyesi Süreyya Özcan KABASAKAL
Üye

APPENDIX 2- SEMI-STRUCTURED INTERVIEW FOR IMPLEMENTORS

A- SOSYAL YENİLİK TANIMI VE FARKINDALIK

A.1 SOSYAL YENİLİK(İNOVASYON) TANIMLAMA VE ALGILAMA BİÇİMİ

1. Sosyal yeniliği nasıl tanımlarsınız?
2. Sosyal yenilik konusu ile tanışıklığınız nereye/ne zamana dayanıyor?
   a. Sosyal yenilik kavramını nerede/ne zaman duydunuz?
   b. Başka hangi tür kavaramlarla ilişkilendiriyorsunuz? (Girişimcilik, yenilik yönetimi vb.)
3. Sosyal yenilik ile ilgili bir eğitim aldınız mı yada gerçekleştirdiniz mi? (Bu eğitim bir sertifika olabilir veya lisans veya lisansüstü eğitiminiz sırasında aldığınız/gerçekleştirdiğiniz bir dersin parçası olarak)

A.2 SOSYAL YENİLİK İLE DEĞER YARATIMI VE DEĞER YARATIM NEDENLERİ

4. Sosyal yeniliğin topluma katkısı hakkında ne düşünüyorsunuz?
5. Sosyal yeniliğe ilgilinizin temelinde yatan faktörler nelerdir? Sosyal yenilik projesi yapmadaki motivasyonunuz nedir?
   a. Bireysel kariyer? Topluma katkı? Kişisel özellikler

6. Toplam kaç tane sosyal yenilik projeniz bulunmaktadır? Yürüttüğünüz sosyal yenilik projelerinizi kısaca tanıtır mısınız?
   a. Bu projeleri önerme fikri nasıl ortaya çıktı?
   b. Bu projelerin topluma katkısı nedir?
   c. Bu projede paydaşlarınızla nasıl bir araya geldiniz?

7. Sosyal yenilik uygulamalarında paydaşların (akademisyen, öğrenci, yönetici) değer yaratım sürecine sizce temel katkıları nedir?

B- UYGULAMA ESASLARI

B.1 SOSYAL YENİLİKLE DEĞER YARATIM SÜRECİ VE DİNAMİKLERİ

1. Sosyal yenilik projesi yürütme deneyiminizi anlatır mısınız?
   a. Proje yazma, proje yürütüme, bütçe işleri bakımında keyif aldığınız veya zorlandığınız kısımlar nelerdir?

2) Sosyal yenilik projesi yaptığınız çalışma grubunu tanıtır mısınız?
   a. Bu grubu nasıl oluşturdunuz?
   b. Grubun kompozisyonu nasıldır?
   c. Sosyal innovasyon çalışma gruplarına öneriniz nedir?

3) Üniversitenizin kurum içi/dışı ilişkilerini nasıl değerlendiriyorsunuz? Kimlerle neden çalışmayı/çalışmamayı tercih ediyorsunuz?
   a. Bölgesel dinamikler- paydaş ve hedef kitle seçimini etkiliyor mu ?
   b. Birimizin/üniversitenizin kattığı en önemli farklılık nedir?

4) Bu süreçlerde kurumunuzun rolünü nasıl tanımlarsınız? Katkılarını ve/ya eksikliklerini açıklayabilir misiniz?
   a. Kurumunuzun açık bir SI stratejisi var mıdır?
   b. Yönetişim modelini (liderlik, takım oluşturma, birimler arası koordinasyon, iş ilişkileri, değerler) nasıl tanımlarsınız?
   c. Kurumunuz isteklerinize hızlı cevap verebildi mi?
   d. İşbirliği ve eşleştirmeler bireysel mi yürütüldü ?
   e. Altyapı, eleman yeterli miydi?

B.2 SOSYAL YENİLİK BAŞARISI VE ETKİ ANALİZİ

5) Bir sosyal yenilik projesinin başarısı nasıl ölçülebilir?
   a. Başarı göstergeleri nelerdir?
   b. İhtiyaçlara etkin cevap verebilme potansiyeli nedir?
   c. Projenizin devamlılığını nasıl sağlıyorsunuz?
   d. Bilgi -kaynak yönetim birikleriminizi ve tecrüblerinizi kurumunuzda yada başkalarıyla paylaşıyor musunuz?

6) Projenizi topluma/kamuoyuna tanıttınız mı? Süreç hakkında bilgi verebilir misiniz?
   a. Bitmiş projeleriniz için devam projesi yazdınız mı?
   b. Aldığınız dönütler, başka paydaşlarla işbirliği olanağı yarattı mı size?
   c. Ne tür faaliyetlerde bulundunuz? (Eğitim toplantıları, reklam, hedef kitle potansiyeline ulaşma vb.)

C-SOSYAL YENİLİĞİN DEĞİŞİM YARATMA POTANSİYELİ

C.1. SOSYAL YENİLİK VE GELECEK ÖNGÖRÜSÜ/KATKISI

1. Sosyal yeniliğin dünyadaki ve Türkiye'deki geleceğini nasıl görüyorsunuz?
   a. Alanınızdaki çalışmaların sosyal değişim getirme potansiyeli nedir?
      i. Algı, davranış ve yapıları farklılaştırma şekilleri
      ii. Refah düzeyi geliştirme
   b. Üniversitelerin bu alandaki değişim potansiyelinde temel rolü neler olmalıdır?

C.2. SOSYAL YENİLİĞİN SÜRDÜRÜLEBİLİRLİK İLKELERİ

2. Sosyal yenilik çalışmalarının üniversitelerde sürdürülebilirliği konusundaki görüşleriniz nelerdir?

a. Her üniversite kendi stratejisini mi geliştirmeli? Veya kalkınma alanları ve/ya sürdürülebilirlik ilkeleri doğrultusunda mı hareket edilmeli?
b. Önceliklendirme alanları nasıl oluşturulmalı?
c. Kurum kültürü ve belge birikimi açısından, bu konuda kalite ve strateji belgeleri oluşturma çabanız var mı?
d. Birimler varsa bu konudaki katkıları ve kazanımları sizlere ne oldu? Neler farklılaşabilir?

C.3. SOSYAL YENİLİK İÇİN YAPILANDIRMA POLİTİKALARI-BÜTÜNCÜL YOL HARİTASI

3.Sosyal yeniliği üniversiteniz, Ankara bölgesi ve ülkeniz genelinde değerlendirdiğiniz zaman gelişiminde ve yaygınlaşmasında doğru stratejiler geliştirilmesinde, hangi faktörlerin önemli rol oynayacağını düşünüyorsunuz? Hangi kapsayıcı yaklaşımlar önemli?

a. Bütüncül/kapsayıcı politikalar
b. Yerel-yurtdışı önceliklendirme alanları
c. Planlama
d. Kaynak ve bütçe

4) Belirtmek istediğiniz ek görüş var mıdır?

Katılımlarınız için içtenlikle teşekkürler.

APPENDIX 3- SEMI-STRUCTURED INTERVIEW FOR UPPER MANAGEMENT

KURUM YÖNETİCİLERİ İÇİN GÖRÜŞME SORULARI

A.SOSYAL YENİLİK TANIMI VE FARKINDALIK

A.1 SOSYAL YENİLİK (İNOVASYON) TANIMLAMA VE ALGILAMA BİÇİMİ

1.Sosyal yeniliği nasıl tanımlarsınız?
2.Sosyal yenilik konusu ile ilk olarak ne zaman ve nerede tanıştınız?

a. Sosyal yenilik diğer yenilik türlerinden sizce neden farklı?
b. Sosyal yenilik kavramını başka hangi kavramlarla ilişkilendiriyorsunuz? (Girişimcilik, yenilik yönetimi vb.)

3. Sosyal yenilik veya yakın bulduğunuz alanlarla ilgili bir eğitim aldınız mı yada seminer/organizasyon gerçekleştirdiniz mi?

A.2 SOSYAL YENİLİK İLE DEĞER YARATIMI VE DEĞER YARATIM NEDENLERİ

4.Sosyal yeniliğin topluma katkısı hakkında ne düşünüyorsunuz?

a. Biriminizde/fakültenizde/üniversitenizde nasıl bir değer yaratımı söz konusu olabilir?

5.Üniversitenizde bir sosyal yenilik birimi ya da ofisi var mı? Hangi amaçlarla kuruldu?
6. Üniversitenizde/fakültenizde tamamlanmış/mevcut yürütülen kaç tane sosyal yenilik projeniz bulunmaktadır? Projelerin dağılımlarından ve amaçlarından kısaca bahseder misiniz?

a. Bu projeleri önerme fikri nasıl ortaya çıktı?
b. Bu projelerin topluma katkısı nedir?
c. Bu projede paydaşlarınızla nasıl bir araya gelindi?

B. UYGULAMA ESASLARI

B.1 SOSYAL YENİLİKTE DEĞER YARATIM SÜRECİ VE DİNAMİKLERİ

1. Fakültenizin/Kurumunuzun/Birimizin bir sosyal yenilik stratejisi var mı? Toplum faydası düşünülerek ağırlıklı hangi alanlarda çözüm üretildi/üretiliyor?

a. Yönerge veya strateji belgesi var mı?
b. Kaynak kulllanımı -bütçeleme kuralları var mı?
c. İşbirliği yapılandırmaları var mı?
d. Bölüm içi, bölümler arası, fakülteler arası, üniversiteler, kurumlar arası bir işbirliği stratejiniz var mı?

e. Hedef odaklı: Yıllık x adet proje; y birimlik hedef kitleye ulaşma gayesi var mı?

f. Yönetişim modeli nedir? (liderlik, takım oluşturma, birimler arası koordinasyon, iş ilişkileri, değerler) nasıl tanımlarsınız?

2. Sosyal yenilik uygulamalarında sizlerin yönetici olarak değer yaratım sürecine katkılarınız nedir? Bu sürece nasıl liderlik ediyorsunuz?

a. Paydaş bulma- Eşleştirme
b. Kaynak yaratımı ve değer yaratımı

3. Sosyal yenilik yürüten fakülte/üniversite paydaşlarınıza ne gibi destekler veriyorsunuz?

a. Takdir /Ödüllendirme
b. Öncellikli alanları destekleme
c. Eşleştirme
d. İhtiyaç analizi

4. Sizce ne tür zorluklar ve/veya eksiklikler, ortaya koyulan sosyal yenilik projelerinin sayısını azaltıyor?

a. Yönergeler/Politikalar
b. Birimler, bölümler ve diğer paydaşlar arası koordinasyon sorunları
c. Partner ve hedef kitle sorunları

5. Kendi kurum kaynaklarınızın etkinliğini nasıl değerlendirirsiniz? Sosyal yenilik yapılabilmesi için ne tür ihtiyaçlarınız var?

a. Yeterli alt yapı var mı?
b. Yeterli eleman var mı?

6. Üniversitenizin kurum içi/dışı ilişkilerini nasıl değerlendiriyorsunuz? Kimlerle neden çalışmayı yada çalışmamayı tercih ediyorsunuz?

a. Bölgesel dinamikler- paydaş ve hedef kitle seçimini etkiliyor mu?
b. Birimizin/üniversitenizin kattığı en önemli farklılık nedir?
c. Hangi paydaşlarla daha çok çalışıyorsunuz? Sanayi, işveren.

B.2 SOSYAL YENİLİK BAŞARISI VE ETKİ ANALİZİ

7. Bir sosyal yenilik projesinin başarısı sizce nasıl ölçülmeli?

a. Başarı göstergeleri nelerdir?
b. İhtiyaçlara etkin cevap verebilme potansiyeli nedir?
c. Projenizin devamlılığını nasıl sağlıyorsunuz?
d. Bilgi -kaynak yönetim tecrübenizi kurum içinde yada başkalarıyla paylaşıyor musunuz?

8. Projelerinizi topluma/kamuoyuna tanıttınız mı? Süreç hakkında bilgi verebilir misiniz?

d. Bitmiş projeleriniz için devam projesi yazdınız mı?
e. Aldığınız dönütler, başka paydaşlarla işbirliği olanağı yarattı mı size?
f. Ne tür faaliyetlerde bulundunuz? (Eğitim toplantıları, reklam, hedef kitle potansiyeline ulaşma vb.)

C.SOSYAL YENİLİĞİN DEĞİŞİM YARATMA POTANSİYELİ

C.1 SOSYAL YENİLİK VE GELECEK ÖNGÖRÜSÜ

2. Sosyal yeniliğin dünyadaki ve Türkiye'deki geleceğini nasıl görüyorsunuz?
    c. Alandaki çalışmaların sosyal değişim yaratma potansiyeli nedir?
        i. Algı, davranış ve yapıları farklılaştırma şekilleri
        ii. Refah düzeyini artırma
        iii. İşbirliklerini güçlendirme
    d. Üniversitelerin bu alandaki değişim potansiyelinde temel rolü neler olmalıdır?

C.2 SOSYAL YENİLİĞİN SÜRDÜRÜLEBİLİRLİK İLKELERİ

2.Üniversitenizde/bölümünüzde/biriminizde sosyal yenilik çalışmalarının sürdürülebilirliği konusundaki görüşleriniz nelerdir?

a. Her üniversite kendi stratejisini mi geliştirmeli? Kalkınma alanları ve/veya sürdürülebilirlik ilkeleri doğrultusunda mı hareket edilmeli?
b. Önceliklendirme alanları nasıl oluşturulmalı?
c. Kurum kültürü ve kurumsal arşivleme açısından, bu konuda kalite ve strateji belgeleri oluşturma çabanız var mı?
d. Birimler varsa bu konudaki katkıları ve kazanımları sizlere ne oldu? Neler farklılaşabilir?

C.3 SOSYAL YENİLİK YAPILANDIRMA POLİTİKALARI-BÜTÜNCÜL YOL HARİTASI

3.Üniversiteniz, Ankara bölgesi ve ülkemiz genelinde sosyal yenilik kavramının gelişmesi ve yaygınlaşması için doğru stratejiler oluşturulması bağlamında hangi unsurların önemli rol oynayacağını düşünüyorsunuz? Hangi kapsayıcı/bütüncül yaklaşımlar önemli?

a. Bütüncül/kapsayıcı politikalar
b. Yerel- yurdışı öncelliklendirme alanları
c. Planlama
d. Kaynak ve bütçe

4. Belirtmek istediğiniz ek görüş var mıdır?

Katılımlarınız için içtenlikle teşekkürler.

APPENDIX 4- SEMI-STRUCTURED INTERVIEW FOR NGOs

STK VE KURUM YÖNETİCİLERİ İÇİN GÖRÜŞME SORULARI

A.SOSYAL YENİLİK TANIMI VE FARKINDALIK

1.Sosyal yeniliği nasıl tanımlarsınız?
2.Sosyal yenilik konusu ile ilk olarak ne zaman ve nerede tanıştınız?
   c. Sosyal yenilik diğer yenilik türlerinden sizce neden farklı?
   d. Sosyal yenilik kavramını başka hangi kavramlarla ilişkilendiriyorsunuz? (Girişimcilik, yenilik yönetimi vb.)

3. Sosyal yenilik veya yakın bulduğunuz alanlarla ilgili bir eğitim aldınız mı yada seminer/organizasyon gerçekleştirdiniz mi?

4.Sosyal yeniliğin topluma katkısı hakkında ne düşünüyorsunuz?
   a Mevcut kuruluş/STK'nızda nasıl bir değer yaratımı söz konusu olabilir? Üniversitelerin rolü nedir?
5.Sosyal yenilik birimi veya benzer oluşumlarla işbirliği içinde oldunuz mu? Üniversitelerle ilişkinizi nasıl tanımlarsınız?
6. Tamamlanmış/mevcut yürütülen kaç tane sosyal yenilik projeniz bulunmaktadır? Projelerin dağılımlarından ve amaçlarından kısaca bahseder misiniz?
   a. Bu projeleri önerme fikri nasıl ortaya çıktı?
   b. Bu projelerin topluma katkısı nedir?
   c. Bu projede paydaşlarınızla nasıl bir araya gelindi?

B.UYGULAMA ESASLARI

7. Şirketinizin/STK'nızın sosyal yenilik stratejisi var mı? Toplum faydası düşünülerek ağırlıklı hangi alanlarda çözüm üretildi/üretiliyor?

8. Sosyal yenilik uygulamalarında sizlerin yönetici olarak değer yaratım sürecine katkılarınız nedir? Bu sürece nasıl liderlik ediyorsunuz?

9. Sosyal yenilik yürüten paydaşlarınıza ne gibi destekler sağlıyorsunuz? Üniversitelerin sizlere destekleri neler?

10. Sizce ne tür zorluklar ve/veya eksiklikler, ortaya koyulan sosyal yenilik projelerinin sayısını azaltıyor?

11. Kendi kurum kaynaklarınızın etkinliğini nasıl değerlendirirsiniz? Sosyal yenilik yapılabilmesi için ne tür ihtiyaçlarınız var?

12. Üniversitelerin sizlerle kurum içi/dışı ilişkilerini nasıl değerlendiriyorsunuz? Kimlerle neden çalışmayı yada çalışmamayı tercih ediyorsunuz?

13. Bir sosyal yenilik projesinin başarısı sizce nasıl ölçülmeli?

14. Projelerinizi topluma/kamuoyuna tanıttınız mı? Süreç hakkında bilgi verebilir misiniz?

C.SOSYAL YENİLİĞİN DEĞİŞİM YARATMA POTANSİYELİ

15. Sosyal yeniliğin dünyadaki ve Türkiye'deki geleceğini nasıl görüyorsunuz?

e. Alandaki çalışmaların sosyal değişim yaratma potansiyeli nedir?
    i. Algı, davranış ve yapıları farklılaştırma şekilleri
    ii. Refah düzeyini artırma
    iii. İşbirliklerini güçlendirme
f. Üniversitelerin bu alandaki değişim potansiyelinde temel rolü neler olmalıdır?

16,Üniversitler ve STK/kurumlarda sosyal yenilik çalışmalarının sürdürülebilirliği konusundaki görüşleriniz nelerdir?

17. Bulunduğunuz bölge ve ülkemiz genelinde sosyal yenilik kavramının gelişmesi ve yaygınlaşması için doğru stratejiler oluşturulması bağlamında hangi unsurların önemli rol oynayacağını düşünüyorsunuz? Hangi kapsayıcı/bütüncül yaklaşımlar önemli? Üniversiteler bu ekosistemde nerede olmalı?

e. Bütüncül/kapsayıcı politikalar
f. Yerel- yurdışı öncelliklendirme alanları
g. Planlama
h. Kaynak ve bütçe

18.. Belirtmek istediğiniz ek görüş var mıdır?

Katılımlarınız için içtenlikle teşekkürler.

APPENDIX 5- PARTICIPANT CONSENT FORM

PROJE YÖNETİCİSİ VE KURUM YÖNETİCİSİ GÖNÜLLÜ KATILIM FORMU

Merhabalar, ben Hande ERYILMAZ. Orta Doğu Teknik Üniversitesi (ODTÜ) Bilim ve Teknoloji Politikaları Çalışmaları (TEKPOL) Anabilim Dalı doktora öğrencisiyim. Tez Danışmanım Eğitim Fakültesi Öğretim Üyesi Prof. Dr. Yaşar Kondakçı ile beraber üniversitelerde sosyal yenilik kavramını incelemek ve uygulama alanlarını araştırmak üzere bir tez çalışması yürütüyoruz. Üniversiteler değer yaratma potansiyelleri ve araştırma faaliyetleriyle içinde bulundukları toplumun önde gelen kurumlarıdır. Amacımız, üniversitelerin mevcut altyapı ve kaynaklarıyla toplumun ihtiyaçlarını ve beklentilerini hangi oranda ve ne şekilde karşılayabildiklerini saptamaktır. Bu amaç doğrultusunda, toplum için değer yaratma kapsamında, üniversitelerin sosyal yenilik (inovasyon) ekosistemindeki rolünü, kurum yöneticileri ve bu konuda değer yaratmış proje yöneticileriyle beraber irdelemeyi hedeflemekteyiz. Bütüncül bir yaklaşımın benimsendiği bu çalışmada sosyal yenilik konusunda tüm paydaşların ihtiyaçlarının, katkılarının ve potansiyellerinin ortaya konulması amaçlanmıştır.
Görüşme proje yöneticilerine 17 ve kurum yöneticilerine 18 ana sorudan oluşmakta ve yaklaşık olarak 45 dakika-1 saat sürmektedir. Görüşmeler yüz yüze gerçekleşecek şekilde planlanmıştır. Görüşmede, katılımcılar mesleki bilgi ve tecrübelerinden yola çıkarak fikirlerini paylaşmaktadır.
Bu görüşmeye katılarak, sosyal yenilik uygulamalarının yaygınlaştırılmasına ve üniversitelerin ve proje sahiplerinin bu alanda karşılarına çıkan zorlukları aşmalarına katkı sağlamış olacaksınız.
Görüşme esnasında verdiğiniz bilgiler, herhangi bir şahıs/kurum ile paylaşılmayacaktır. Görüşmede sizden kimliğinizi açıklamanız veya dolaylı olarak kimliğinizin açığa çıkmasına neden olacak herhangi bir bilgi telep edilmeyecektir. İletmiş olduğunuz bilgiler, sadece araştırma kapsamında değerlendirilecek olup güvenli bir şekilde ve anonim olarak saklanacaktır. Eğer sorularınız ya da daha fazla bilgi talebiniz var ise çalışma öncesinde ya da esnasında bize iletebilirsiniz. Bu konuda size destek vermekten memnuniyet duyarız.

Çalışma hakkında daha fazla bilgi talebiniz var ise, araştırma yürütücüsü olarak bana aşağıdaki iletişim bilgileri yoluyla ulaşabilirsiniz.

Hande ERYILMAZ, Doktora Adayı
Elektronik posta: [redacted]
Cep telefonu: 0-536-[redacted]

Katılım göstermeniz durumda, bu belge iki nüsha halinde hazırlanacaktır. Belgelerden biri sizde diğeri ise sizinle bağlantı kurulmasını sağlamak üzere araştırmacıda kalacaktır.

Çalışmamıza katkı vermek isterseniz, lütfen aşağıda boş bırakılan yere adınızı, soyadınızı ve tarihi yazınız ve ardından imzanızı atınız. Lütfen ilk görüşmemiz için iletişim yolu tercihinizi yazınız ve ayrıca size uygun tarih/saat belirtiniz.. Katılımınız ve destekleriniz için şimdiden çok teşekkür ederiz.

Ad, Soyad: _____ İmza : _____

Tarih : _____

Tercih ettiğiniz iletişim yolu bilgisi:

Tlf: _____ (Ofis)_____ (Cep)

Elektronik posta:_____

APPENDIX 6- SUMMARY OF SI PRACTICES WITH FULL IDEA INITIATION-PROCESS-OUTCOME AND SUSTAINABILITY PRACTICES

Main SI Focus	Idea initiation, summary of Activity Scope and Outputs	Summary of Expected Direct/Indirect SI Outcomes	Sustainability Practices for SI Activity
Improving entrepreneurial skills of women farmers- INT 1	*Empowering women farmers through training activities to increase their economic activity * Evaluation of barren lands for economic output * Developing the skill set of women farmers to open establishments	*Utilization of empty land for economic activity * Creating a food brand for the community * Creating an international product at a local setting	* Development of a new business model for the farmers in consideration to local practices * Inclusion of local municipality and development agency for branding activities * Additional education to the farmers
Decreasing informal employment- INT 2	*Decreasing informal employment * Improving qualifications of employees facing informal employment	* Increasing the working conditions of workers * Understanding the needs of employers *Improving occupational health conditions of workers *Development need-based incentive schemes for increased employment	*Collaboration with chamber of industry and members
Improving SI ecosystem-INT4	*Increasing interaction with stakeholders * Researching business models to support sustainable SI practices	*Understanding SI ecosystem needs * Increasing contact potential with partners * Restructuring ecosystem constituents for better access and collaboration	*Impact assessment through different ecosystem institutions *Development of a Social Park for companies with SI focus
Innovative Design Project- INT 5	*Raising awareness of vocal training and engineering students for new technology * Development of digital learning sources for technical processes via augmented and virtual reality, 3D designs * Application in a company setting	*Improvement of student competencies and familiarity with new technology * Developing competency of line workers	* Use extended to a new setting in the factory with the aim to decrease scrap and wastage in production line * Development of a 3D model where workers can see the production process clearly to reduce mistakes * Implementation also deciphered a new need for deaf workers and birthed a new project * Lack of technical terminology within sign language brought new visuals for technical knowledge enhancement and also supporting deaf dictionary

Main SI Focus	Idea initiation, summary of Activity Scope and Outputs	Summary of Expected Direct/Indirect SI Outcomes	Sustainability Practices for SI Activity
Hobby Workshops-INT 5	* To avoid harmful effects of internet café culture among teenagers * Creating safe spaces for teenagers outside school hours * Providing an informal learning environment for teenagers	* Use of idle time for value-add activities like building remote control cars, drones * Reverse engineering activities where students break-down products to increase their mechanical skills	*Structured for 6 different hobby interests * Provision of safe environment similar to café, where refreshments-food provided by project budget * Increasing activity variety to promote interest of attendees * Development of similar hobby cafes in different regions
Climate Monitoring for citizen prosperity-INT 6	*Regional observational stations set up to monitor temperature and climate changes within the Ankara region * Aim to take precautions for elderly and disabled * Improving municipality activities to support climate change issues	* Improved settlement decisions and awareness of risks due to deforestation or building density * Early precautions of elderly and disabled to improve overall health * Efficient water and electricity usage by municipality to fight climate risks	*Open Data Access to raise awareness and interest of community * Structuring idea model to work with different municipalities
Founding of ACMW-INT 9	* Lack of visibility of women in IT * Improving gender related issues in the IT sector	* Visibility of women in IT sector as role models *Initiation of international empowerment initiative	*Founding of ACMW and extension of international branches
Skill enhancement of IT students -INT 11-12	*Improving skill sets of students * Improved internship conditions for students * Dialogue with industry partners to increase training effectivity * Aim to empower students in career track	* Student specialization according to talent management and interest * Assessment criteria to increase engagement with partners for sustainable practice * Curriculum design according to sector needs * Match of education and sector competencies for increased employability	*Input from sector, graduates and students for continuous improvement * Approved and potential industry partners for quality internships and practicum * Project work to enhance student talents

Main SI Focus	Idea initiation, summary of Activity Scope and Outputs	Summary of Expected Direct/Indirect SI Outcomes	Sustainability Practices for SI Activity
Makerspace initiative at university- INT 13	*Creating an open area for interdisciplinary work and collaboration	* Change of student and instructor attitude to work with different disciplines * Development of new infrastructure capacities such as e-campus for wider accessibility of services	* Support for IT related factors * Promotion of area through outputs created in the area
Refugee Entrepreneurship and Digital Governance - INT 14	* Developing governance program to integrate refugees as financial actors of the economic system * Improving work culture in the Turkish job market * Enforcing SDG and EU Goals of: Leave no one behind	* Gaining economic independence of refugees * Digitization of services of municipalities to better serve citizens and building capacity	*Training activities for the refugees * Follow-up activities and effectiveness tracking of program * Matching refugee with direct business model needs (i.e. follow-up on legislation, increasing market and brand potential of service) * Working with Quadruple Helix *Supporting social practices with research and site findings
Mapping of social entrepreneur's activities at National and International Level-INT 15-INT 18	*Developing social entrepreneur profile in Türkiye in collaboration with international partners for local/international comparison * Developing activity styles and needs of SI actors * Understanding financial instruments and legal status needs of the ecosystem	*Development of a profile set to address common needs of entrepreneurs in the ecosystem, usually highly educated women *Understanding the dynamics of value creation to sustain their activities * Understanding the financial mechanisms needed to support activities * Assessment of the legal statuary of entrepreneur led initiatives and their needs	* Follow-up reporting on entrepreneurship culture in Türkiye * Acting on the needs assessment through follow-up projects *Working on regional disparities to resolve hindrance to entrepreneurial activity
Development of a technology truck for mobile education access-INT 16	*Enabling children to access technology where there is limited access to education resources * Raising interest in Virtual Reality and robotics	* Increasing interest through gamification practices * Increasing accessibility to technology resources * Extending geographical span of access through mobile truck	* Difficult to sustain after project span due to funding and purchasing concerns * Implementation partially sustained with industry sponsors

Main SI Focus	Idea initiation, summary of Activity Scope and Outputs	Summary of Expected Direct/Indirect SI Outcomes	Sustainability Practices for SI Activity
Developing data policies for SI practices -INT 17	*Use of data science to solve social problems * Working with interdisciplinary teams to understand different data types for holistic modelling of social problem	* Increasing accessibility of data for social scientists * Developing standards for data collection and reporting * Enhancing awareness for different type of data needs	*Data management practices are coordinated with a different unit in the university to sustain activities related to social data *Raising awareness on data valorization for social science practices at seminars and workshops * Contribution to impact assessment and follow-up through longitudinal data
Value creation for SI through spatial proximity resource mediation -INT 19	*Use of networks to mediate needs of ecosystem partners * Developing dynamic capabilities through resource share practices among partners *Matching of complementary resources for greater impact	*Reduction of resource needs of ecosystem partners through collaboration *Set-up of implementation model for repetitive activities *Improving screening and collaboration potential with partners for extended activities	*One-size does not fit all and there is a need to improve model for different contexts * Lack of interest to sustain independently and dependence on first point academician to develop ideas limited potential impact spans
Use of creative practices to empower people with disabilities-INT 20	*Using art to enhance skill sets of people with disabilities * Using art to democratize practices and enhance accessibility to resources	*Working with families to raise awareness * Empowering people with disabilities and increasing their chances of employment	* Joint activities with person with disability and parents * Improving conditions within social contexts through contacts with schools and municipalities
Data visualization practices for public health-INT 20	*Raising awareness to different health risks through generation of 6 virtual and 2 physical models for higher impact, where 2 models applied for a patent *Improving sanitary conditions of individuals by giving information through art work	*Use of art in public spaces and also hospitals to improve patient and public health * Use of creativity to help people follow rules in an informal style	*Use of work in hospitals and also different disciplines * The art has been effectively utilized within the COVID pandemic to reduce spread of virus
Start-up initiative for musicians and bands-INT 21	* Enhancing artist's entrepreneurial and project management skills * Improvement of resource management skills at concerts * Increasing engagement with other music groups and improving booking options for artists * Enhancing abstraction skills through music and creativity-	* Understanding resemblance of band activities with project management work * Enhancing the skill sets of artists to open to new markets and also develop their music genre	* New venture that requires systematic for sustainable activities

Main SI Focus	Idea initiation, summary of Activity Scope and Outputs	Summary of Expected Direct/Indirect SI Outcomes	Sustainability Practices for SI Activity
Improving cultural biases through social psychology practices -INT 22	* Development of aesthetic thinking to remove cultural-institutional biases * Removing biases to enforce engagement with different people in the community *Changing thinking norms of institutional leaders to extend institutional practices	* Removing biases in social norms and also activity management practices * Enhancing skill set of leaders to encapsulate diversity with less bias * Changing work models to incorporate more inclusive practices	* Social media activities on different biases in the community with different guests * Focusing on project work that aligns with NGO values
Sustainable Fashion -INT 23	*Improving conditions in the fashion and apparel industry * Improving the accessibility of fashion and apparel * Construction of a network for the fashion industry * Improving the commercialization of apparel and designs	*Improvement of joint problems in the apparel industry * Recycling and upcycling of wastes in the fashion industry * Increase in awareness to sustainability practices in the industry * Creative opportunities for fashion designers to use textile waste	*All sectoral representatives were included in the design process * Role definitions and responsibilities were clearly established * Collaboration with university to include annual projects for such practices
Ankara City Council-INT 24	*Improving participatory practices of citizens to solve city problems * Developing open dialogue and collaboration culture among citizens * Increasing citizenship practices	*Learning of citizenship rights * Empowerment of community members in decision making processes * Leaving no one behind * Increase of dialogue and communication among citizens	*Inclusion of participatory work groups * Transparency in work group systematic and involvement of members* Creating resources through volunteerism or sponsorship for events in the city
Crowdfunding and Co spacing activities -INT 25	*Creation of crowdfunding platform to support SI activities*Bringing out SI potential within communities through creative spaces * Matching of providers with people in need and taking role of match agent * Working to extend community engagement and diversification	*Providing initial funding for continuation of activities for economic empowerment or resolving a disability need * Enhancing networking capabilities for higher SI impact * Extension to different resource types *Agglomeration of NGO needs for active field participation	*Avoiding working in core groups and increasing heterogeneity in project scope and dissemination scope *Finding other resource options other than monetary support for start-ups or NGO's * Diversification of networks * Avoiding innovation terminology to create a relatable common language for public awareness and engagement

Main SI Focus	Idea initiation, summary of Activity Scope and Outputs	Summary of Expected Direct/Indirect SI Outcomes	Sustainability Practices for SI Activity
Empowerment of Teenagers-INT 26	* Increasing technology adoption through teenager awareness *Increasing competencies to work with technology and also creating new solutions approaches through gamification *Improving learning rigor and project experience	*Improving IT literacy of individuals * Extending science methodology to create research culture	* One year mandatory, other years voluntary work *Integration of different types of education to build competency * As the individual credentials increase assignment of higher responsibility *Performance metric to measure individuals that stay in the system
Music Entrepreneurship-INT 27	*Designing an entrepreneurial course for graduate students * Building network for entrepreneurial activity *Booklet for instruction of steps and methodology *Development of a mobile application to foster up-to date information on art events and sources	*Learning of soft/hard skills *Music students better expressing themselves and improving people skills *Finding commercialization potential for their music work *Readiness for professional life *Increasing employability of art/humanities students * Building network with other artists * Holding on within job market * Being up to date to field with different forms of visual sources (e-books, podcasts)	*Opening course as a mandatory elective *Using previously designed project output (14 week syllabus) within course curriculum * Follow-up of student and open-communication with department *Support by faculty to engagement of entrepreneurial activity of student * Developing Portfolio Careers for students
Teacher Training for Primary Education-INT 28	*Activity to stop a village school closing due to lack of enrollment *Implementing collaborating activities with volunteers and NGO *Increasing the creativity and skill set of teachers * Increasing enrollment and activity range of school and making the school the most preferred in the region *Enhancing the infrastructural capacity of the school	*Empowerment of teacher and importance of role model (Teacher awarded teacher of the year award) *Collaboration of graduate and mentor instructors to enhance teacher effectiveness * Collaboration with different stakeholder (ministry, NGO) for higher impact and resource generation * Empowering families through online training for psychological well-being and better parent roles	* Volunteer internships with undergraduate students supporting activities and creating new projects * Inclusive participation of education system (students, teachers, parents) *Extended network with graduates for resource deployment and experience exchange * International project work jointly coordinated with an English master course to enhance experience variety of students in coping with different scenarios *Inclusive activity scope with teachers, students and parents

Main SI Focus	Idea initiation, summary of Activity Scope and Outputs	Summary of Expected Direct/Indirect SI Outcomes	Sustainability Practices for SI Activity
Primary Care Training for 0-3 age-INT 28	*Opening up a 0-3 age care program at a municipality in a different city * Forming an interdisciplinary team (Pre term birthing nurse, psychologist, maternity nurse, pre-school educators, pedagogue, adult education experts) * Reaching out to an age group 0-3 which is not easily accessed for research purposes * Preparation of activity chart for 3 years to engage child with parents * Practicum to parents on child care practices *Recyclable and easy to make toys integrated to given parents resources to engage with child	*Building competence and awareness of parents * Researchers reaching out to mother, father and child at the same time *Theory and practicality combined * Utilization of technology to build hybrid program and use resources efficiently	*Empowerment of local area professionals to continue the program *Using technology to increase engagement through open discussion hours * Hybrid design to effectively use resources * Raised awareness of parents putting pressure on municipality to design new pre-school activities for ages 3+ * Research continued to measure the effects of before/after and continuation of longitudinal study *Measurement model to assess effectiveness of program and revision as necessary through the input *Engagement of different professionals in two different cities
Developing agricultural communities-INT 29	*On-site assessment of farmer needs * Building the agriculture ecosystem with different constituents *Value to context-problem specific solution formulation * Explaining and demonstrating sustainability practices	*Engagement with farmer communities, associations, ministries * Site interviews and regular stakeholder meetings *Holistic approach with system actors	*Engagement of actors to different problems of the community (disadvantages of wrong irrigation activities, proper site selection, working to overcome diseases in plants)
Protection of nomad routes-INT 30	*Tracing the routing of Yörük nomads to protect cultural heritage	*On-site observation and stay with nomads * Recording of cultural values and activities * Protection of cultural heritage and drawing of routes	*No follow-up activity designed
Digitization of Resources INT 31	*Creating Digital Outputs for Archival Purpose *Mapping Data Sources *Live interviews and Q&A * Working against misinformation * Data visualization for higher impact	* Archival of 10 + year data * Discovery of talents	* Opening documents to public and allowing feedback for improvement *Idea generation in classroom with rich feedback from students * Content dissemination chosen from high-profile accounts * Use of visual tools for effective communication

Main SI Focus	Idea initiation, summary of Activity Scope and Outputs	Summary of Expected Direct/Indirect SI Outcomes	Sustainability Practices for SI Activity
Distinction of innovation types in industry -INT 32/INT33	*Distinguishing innovation activities and researching activity potentials of firms	*SI was an indirect output but need was realized *Practices and funding on organizational innovation and not product/process innovation	*Outputs shared with ecosystem actors * No-follow up activity designed
Women's cooperative INT 34	*Awareness for Women's rights, LBGT+ rights, women's rights, researching sensitive topics not allowed at universities	* Removing biases on gender equality and feminism * Increasing employability chances of younger generation * Improving conditions of retired single women academicians *Disseminating results of project work in the selected subjects	*Every member and volunteer is subject to education topics on gender equality, as well as competency building education (i.e. project writing, idea creation) and is integrated into the trainee pool *Ethics of conduct and principle values defined *Membership initiation differentiated according to tenure and involvement
Creativity enhancement of industry partners INT 35	*Networking with ecosystem partners to enhance understanding of dimensions of work	*Awareness to mediator-matching roles * Development of network for follow-up activities	* Needs analysis and matching with mentor
Skill platform and building ecosystem INT 36	* Non-formal education to develop skills and interests for students and work groups *Improving brand value of city *Increasing civic engagement for participatory action	* Enhancement of skill set * Instigating a SI culture within city * Increasing awareness of SI value	*Interdisciplinary groups in project implementation * Relations with university and municipality * SI seen as public value * Strong networking and local dynamics awareness
Sports Entrepreneurship-INT 37	*Use of hobby or interests for public awareness * Increased involvement of people in sports *Unique means of donation and social contribution	*Involvement of people in hobby activities to raise money for favored causes and for societal awareness * Increasing societal impact through an agglomeration of efforts of different contributors *Diversification of responsibility across the nation and not limited to a single region or community	*Priority given to practicality and ease of involvement * SI model activity scope extended to different sports branches to include fundraising activities for animals, student bursaries and other person's in need *Values of Trust – Solidarity – Belonging – Kindness – Diversity – Fun – Success developed * External auditing and SROI reporting for transparency

Main SI Focus	Idea initiation, summary of Activity Scope and Outputs	Summary of Expected Direct/Indirect SI Outcomes	Sustainability Practices for SI Activity
Student club engagements in societal activities-INT 39	*Voluntary engagement of students to societal problems * Increasing practicum and social skills outside of university context	*Raising awareness to societal problems and needs * Developing unique solution approaches to solve problems with limited resources	*Involvement and support of university upper management * Research output tried to be referenced on 'real' data
Migration and Gender Awareness Activities -INT 40	*Gender awareness in public institutions and prisons * Migration related on-site research * Supporting early-stage researchers working on migration to increase their site skills and build their collaboration network	*Informal training for researchers in migration field * Increase of collaboration potential with different domain researchers	*Regular online meetings on new topics and methodology discourse * Presentation of site work or publication for greater impact and assessment
Supporting rural children- INT 42	*Reaching out to schools with limited infrastructural capacity * Developing creativity and critical thinking skills of students *Supporting equal opportunity practices to promote education *Empowering young children with role models	*Change of mindset of students * Empowering students with visible examples of success and volunteer support * Support of teachers in activities and also in resource requirements * Improving the physicality of the school to increase interest in education *Improving biases against leading institution	*Involvement and extension of volunteers, graduate networks * Involvement of successful students in exchange activities such as summer science schools * Regular feedback from activities * Continuation of activities through university and graduate volunteers * Founding a science and art village to support science practices and introduce young children to science at early ages

APPENDIX 7- CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Eryılmaz, Hande

Nationality: Turkish (TC)

Email: [redacted]

EDUCATION

Degree	Institution	Year of Graduation
MS	METU Industrial Engineering	2009
BS	ATILIM University Industrial Engineering	2002

WORK EXPERIENCE

Year	Place	Role
2023-	[redacted]	Senior Researcher
2023-2023	[redacted]	Project Researcher
2020-2022	[redacted]	Quality Manager
2002-2019	[redacted]	Research Assistant, Instructor

PUBLICATIONS

1. Uzmanların Kaleminden Proje Yönetimi: Uygulama Rehberi ve Deneyim Paylaşımları, (2024), Yayın No: 5191 ISBN 978-625-397-997-3 Yayıncı: Nobel Editör: Yücel Efe

2.Eryılmaz, H., (2015), "Biyomimikri ve Ergonomi: Tasarımda Doğadan Yenilikçi İlham",Süleyman Demirel Üniversitesi,Mühendislik Bilimleri ve Tasarım Dergisi, 3(3), ÖS: Ergonomi,2015, 469-474.

3. Eryılmaz, H., (2015), “Mobil Ulaşım Hizmetleri Bilgilendirme sisteminde arayüz tasarımı incelemesi”, Süleyman Demirel Üniversitesi,Mühendislik Bilimleri ve Tasarım Dergisi, 3(3), ÖS:Ergonomi 2015, 475-479.
4. Devrim Ictenbas, B. and Eryılmaz, H. (2011). Determining Learning Styles of Engineering Students to improve the design of a service course, Procedia-Social and Behavioral Science Journal Vol 28, pp 342-346.
5. Devrim Ictenbas, B. and Eryılmaz, H. (2011) . Linking Employers’ Expectations and Teaching Methods: Quality Function Deployment Approach, Procedia-Social and Behavioral Science, Journal Vol 28, pp 568-572.
6. Devrim Ictenbas,B. and Eryılmaz, H. (2011).Quality Function Deployment as a Strategic Planning Tool, International Conference on Business and Management, International Journal of Social Sciences and Humanity Studies, Vol 3(2), pp 73-82.

APPENDIX 8- TURKISH SUMMARY / TÜRKÇE ÖZET

Giriş

Yükseköğretim kurumları eğitim, araştırma ve toplum odaklı faaliyetleri açısından toplumun ve yenilik ekosisteminin önemli bileşenleridir. Bu kapsamdaki tüm vakıf ve devlet üniversitelerin işleyiş ve yönetişim altyapısı 2547 no'lu Yükseköğretim Kanunu'na tabiidir. Yükseköğretim kurumları, nitelikli insan kaynağı sağlayarak, üniversite-sanayii işbirliklerini geliştirerek ve farklı alanlardaki araştırmaları ile bilgi altyapısını destekleyerek dörtlü sarmal (politika yapıcıları, toplum, araştırma ve sanayii) bileşenlerinin etkin diyaloğu ve işbirliği için önemli kurumlardır. Fakat bu etkinin öne çıkabilmesi ve sürekliliği, ancak kurumların kendi temel misyonları, mevcut rolleri ve kaynakları (Mazzucato, 2018) ile uyumlu iş tasarımları ve modelleri ortaya çıkararak mümkündür. Kurumsal uygulama farklılıkları ve öncellikler, üniversitelerin kendi kaynaklarını daha iyi bir etki yaratabilmek için nasıl kullanması gerektiği ile ilgili soruları gündeme getirmektedir. Bu kapsamda yükseköğretim kurumları ve aktörleri , kendi bağlamlarında daha etkin ve dönüştürücü çözümler üretebilmek için fırsatlar aramalıdır (Avelino vd., 2017).

Türkiye, COST araştırma ağı içinde listelenen yenilik kapasitisini geliştirmeye ihtiyaç duyan 25 ülke arasındadır. Yine, ulusal ve uluslararası düzeylerdeki çok-yönlü, karmaşık, çok-boyutlu sorunların çözümü , başta üniversiteler olmak üzere, alanlar arasında bilgi birikimini kullanan veya değerlendiren (Paunescu vd., 2022) bileşenler ile mümkündür. Bu da üniversitelerin kendi rollerini, bu çok boyutlu ve çok yönlü bakış açısı ile yapılandırması ve tanımlanmasını gerektirmektedir (McDonnell-Naughton ve Păunescu, 2022). Problem ve ihtiyaçları tanımlarken, toplum öncellikleri doğrultusuda şekillendirebilmek ve bu kapsamda yükseköğretim kurumlarının kendi eksosistemlerinde kritik ve öncü rol oynayabilmesi ile mümkündür. Burada yükseköğretim kurumlarına, kapasite geliştirebilmek, bu kapasitelerin uygulanması ve toplum için/içinde kullanılması için katalizör görevi görmek, sosyal etkiyi artırmak ve yine bu bağlamdaki problemlerin çözümü için bakış açısı ve kültürü değiştirebilmek adına önemli roller düşmektedir (Paunescu vd., 2022, Svennevik ve Saidi, 2022). Yine, özellikle sosyal inovasyon bağlamında ekosistem dinamiklerindeki yasal

düzenlemeler ve destekleyici mekanizmalar içinde yükseköğretim kurumlarının öncü olabilmesi araştırmacılar tarafından hatırlatılmaktadır (Mazzucato, 2018).

Sosyal inovasyon, toplumsal ihtiyaçları kapsayıcı ve sorumlu bir şekilde el alabilmek için önemli bir yaklaşımdır (Belcher vd., 2022). Sosyal inovasyon çalışmalarının, sistematik uygulanışı, kurumların bilgi aktarım ve öğrenme potansiyelini, etkinliği ve etkiliğini artırmıştır (Wu, 2023). Burada yükseköğretim kurumlarının iyi uygulamaları ve yeni yöntemleri nasıl karşıladığı, işlediği ve diğer işlerine ne şekilde yansıtabildiği kurumsal hafıza ve bu alandaki bilgi tabanını oluşturmak adına oldukça önemlidir (Rodgers ve Soderbom, 2013). Zalite ve Mazure (2017), yükseköğretim kurumlarında sosyal inovayon çalışmalarının üç temel gerekliliğini şu şekilde listelemiştir: Toplumsal sorunların tespiti, toplumsal sorunlara karşı ilgi uyandırmak/farklı bileşenleri eyleme geçirebilmek ve son olarak, yaşam kalitesini artırarak, ülkelerin rekeabetçi gücünü geliştirebilmek. Bu doğrultuda, yükseköğretim kurumlarının bu alandaki potansiyelini keşfetmesi ve toplum aktörlerini/bireylerini güçlendirerek, fikirlerde ve uygulama pratiklerinde sistematik değişim yaratabilmesi önemlidir (Scholl, 2013). Yükseköğretim kurumları bilgi kaynakları ve varlıklarını doğru değerlendirememek konusunda eleştiri almaktadır (Svennevik ve Saidi, 2022). Whittle ve Rampton (2020), bu konudaki işbirliğinin, dinamik çevre ekosistem aktörleri ile ve yine akademik aktörlerin (öğretim elemanı ve öğrenci), dijital yetkinlik ve girişimcilik becerilerinin geliştirilmesi ve güçlendirilmesi ile yapılabilmesini önermiştir. Literatürde, inovasyon ve yenilik yaklaşımları bakımından, yükseköğretim kurumlarının daha çok müfredat geliştirme, pedagoji ve kurumsal yönetişim alanlarında yenilik faaliyetlerine odaklandığı gözlemlenmiştir; bu doğrultuda toplumsal etki ve mevcut yükseköğretim kaynaklarının değişim potansiyeli olarak değerlendirilmesi ile ilgili çalışmalara ihtiyaç duyulmaktadır (Kolleck vd., 2017; Schröder ve Krüger, 2019). Yine Gaisch vd. (2019) tanımında geçen 3.misyon hedefi de toplumsal katkı boyutunun öğretim, öğrenme, uygulama ve çeşitli araştırma faaliyetleri ile yürütülebileceğini vurgulamaktadır.

Problem Tanımı ve Çalışmanın Önemi

Fikir üretme ve bilgiyi yaygınlaştırmada yükseköğretim kurumlarının kritik rolleri vardır (Bayuo vd., 2020). Buna ek olarak, bu bilgi ve birikimin nasıl üretildiği,

sürekliliği ve yaygınlaştırılması da , yükseköğretim kurumlarının sürdürülebilirlik faaliyetlerinin kurgulanmasında oldukça önemlidir (Stephens vd., 2008). Yine yükseköğretim kurumlarının, karmaşık problemlerde izlek bağımlılığı riski vardır (Jahn vd., 2012; Moulaert ve MacCallum, 2019; Belcher vd., 2022; Swennevik ve Saidi, 2022) ve bu kapsamda yükseköğretim kurumlarının farklı toplum bileşenlerinin ihtiyaçlarını anlamak adına bütüncül ve sistematik yaklaşımlara ihtiyaç duymaktadır. Bu kapsamda Elliot (2013) bu faaliyetlerin: stratejik olmasını, liderlik ve etik sorumlulukların belirgin olmasını, birden fazla bileşenler ile sistematik etkileşim içinde olunmasnı ve etkileşimlerin sosyal inovasyon faaliyetleri için itici güç olmasını tavsiye etmiştir. Yükseköğretim kurumları bu kapsamaki sistematiği doğru kurgulayabilecek ve bu ekosistemdeki etkileşimleri değere dönüştürecek önemli bileşenlerdir. Fakat, Türk yükseköğretim eksosisteminde, özellikle 3.misyon bağlamındaki çalışmalar kapsamında bu değeri sosyal inovasyon odağında kurgulayan bir çalışmaya rastlanamamıştır.

Türkiye'deki üniversitelerin toplum etkileşimi literatürdeki çeşitli çalışmalarda yetersiz bulunmuştur (Özoğlu vd., 2016 ; Yücel ve Çalık, 2023; Guzman vd., 2022). Bu konunun gelişim alanlarını destekleyecek üniversite türleri araştırma üniversiteleri ve misyon-odaklı üniversitelerdir. Türkiyede 2024 yılı itibari ile 23 araştırma üniversitesi ve 22 misyon odaklı üniversite bulunmaktadır. Özellikle misyon odaklı üniversitelerin temel amaçları şu şekilde sıralanabilir: bu üniversitelerin bölgesel dinamikleri göz önünde bulundurularak, yükseköğretim kurumu aktörlerinin girişimci yetkinliklerini geliştirmek, yeni iş modellerine açık olabilmek ve yine bu kurumlarda işbirliği fırsatlarını daha etkin değerlendirebilmektir (Yücel ve Çalık, 2023). Bu farklılaşmalar temel makro boyutlarda yansıtılsada, uygulama pratiklerinde yükseköğretim kurumlarında birçok geliştirilmesi gereken özellikler vardır. Kocatürk ve Karadağ (2021) çalışmalarında yükseköğretim kurumlarının çoklu boyutlarda irdelenmediğini belirtmişlerdir. Yine bu çalışmada altyapısal eksiklikler ve uygulama birimi bazında özerklik olmadığı için, misyon odaklı çalışmalar yürüten üniversitelerin bile araştırma sürekliliği açısından risk altında olduğu vurgulanmıştır. Üniversitelerin yarı-açık sistemler olduğu belirtilmiş, kurum içi ve dışı etkileşimin zayıf olduğu, karar süreçleri ile ilgili bir mekanizma olmadığı ve akademisyenler üzerinde yüksek beklenti kaynaklı baskı olduğu vurgulanmıştır. Uslu (2022) çalışmasında ise Türkiye, Güney

Kore ve Almanya kıyaslamasında, öğretim elemanı başına düşen öğrenci sayılarında büyük farklılıklar olduğunu göstermiştir. Burada öğretim elemanı başına düşen ortalama öğrenci sayısı Türkiye için 47.82 , Güney Kore için 37.84 ve Almanya için 7.4'tür. Araştırmacı, yine Türk akademsiyenlerin atama yükseltme kriterlerinin araştırma odaklı olmasına ragmen birçok akademisyenin zamanının öğretim faaliyetleri ile geçirdiğini vurgulamıştır. Yine Guzman vd. (2022) çalışmalarında, Şili ve Türkiye'deki üniversitelerdeki toplum faaliyetleri kıyaslandığında, Türk araştırmacılarının Şili'ye kıyasla toplum odaklı faaliyetler yürütmede, bireysel, kurumsal ve profesyonel boyutlarda destek göremediğini ortaya koymuşlardır. Son olarak, APIKS (2021) raporunda da Türk akademisyenler arasında öğretim faaliyetlerinin, araştırma ve toplum faaliyetlerinden daha yaygın olduğu vurgulanmıştır. Araştırma sonuçları içerisinde yine endüstri etkileşimi ve işbirliği yetersiz bulunmuş, yetkinlik geliştirme için zaman ayırma ve mevcut yayınların etkilerininin araştırılması konusunda eksiklikler tespit edilmiştir.

Bu çalışma Türkiye'deki yükseköğretim ekolojisi bağlamında, yükseköğretim kurumlarının yürüttüğü veya yükseköğretin kurumları ile yürtülen sosyal inovasyon çalışmalarını kapsamaktadır. Amaç, yükseköğretim ekolojisindeki tüm aktörler ile yükseköğretim kurumlarındaki sosyal inovasyon potansiyelini ortaya çıkarabilmektir. Yukarıda bahsedildiği üzere, birçok alanda, farklı kısıt ve ihtiyaçlar yüzünden, yükseköğretim kurumlarının özgün , kapsayıcı ve yapıcı yakalaşımlara ihtiyacı vardır. Bu ihtiyaçların 3.misyon kapsamında doğru potansiyeli ve sistematiği ile ortaya çıkarılması sosyal inovasyon ile mümkündür.

Bu kapamda bu çalışma üç araştırma sorusunun cevabını bulmayı hedeflemiştir:

1) Yükseköğretim ekosisemindeki bileşenler sosyal inovasyonu nasıl tanımlar ve nasıl algılar?
2) Sosyal inovasyonun yükseköğretim kurumlarında gelişmesine hangi faktörler olanak sağlar?
3) Sosyal inovasyon değişim unsuru olarak yükseköğretm kurumlarında nasıl işler?

Çalışmanın araştırma soruları, sosyal inovasyon çalışmaları ile ilgili literatürdeki aşağıdaki eksiklikler doğrultusunda yapılandırılmıştır:

- Sosyal inovasyon tanımlarındaki çokluluk ve yükseköğretim bağlamında uygulanabilir bir tanım ortaya konmamış olmaması, belirli uygulama sahalarındaki yaklaşımlar ile şekillendirilmiş olması,
- Üçlü-dörtlü-beşli sarmal modellerinde yükseköğretim ve araştırma kurumlarının önemli bir bileşen olmasına ragmen, bu bileşenlerin etkileşimlerinde yükseköğretim kurumlarının bu etkileşim modellerinde liderlik edememesi,
- 3.misyon ve 4. jenerasyon üniversitelerin yetkinliklerini anlayabilmek ve bu doğrultuda roller geliştirebilmek,
- Yükseköğretim kurumlarında bu çalışmalar için bir sistematik oluşturarak, karar süreçleri ve yönetişim süreçlerine destek olabilmek,
- Değişen katılımcı ve sorumlu araştırma ihtiyaçlarına yönelik, akademisyenleri hazırlamak,
- Özgün ve yaratıcı değişim dinamiklerini yükseköğretim ekolojisine dahil edebilmek,
- Kamu değeri yaratabilmek adına bilinç oluşturabilmek ve değer yaratım süreçlerini çeşitlendirmek ve sistematize edebilmek,
- Yükseköğretim aktörlerini potansiyel değişim ajanları olabilmek konusunda yetkilendirmek ve tüm ekosistem katmanlarında sosyal girişimci olarak değer üretebilmelerine olanak vermek.

Kapsam ,Yöntem ve Temel Kısıtlar:

Türkiyede, 2024 yılı itibari ile, devlet ve vakıf üniversiteleri olmak üzere 208 üniversite bulunmaktadır. Bu çalışmada öncellikli olarak sosyal inovasyon merkezi ve/veya sosyal inovasyon çalışmaları olan kurum ve uygulayıcılar tercih edilimiştir. Bu konuda örnek uygulamaları fazla olan ve yükseköğretim ekoloji dinamiklerinin daha zengin olabileceği düşünülen Ankara, İstanbul, İzmir ve Konya illeri tercih edilmiştir. Çalışma Türkiye'deki yükseköğretim kurumlarında çalışan (uygulaycı ve/veya yönetici) ya da bu kurumlar ile proje işbirliği yapmış proje yöneticileri ile gerçekleştirilmiştir. Katılımcılar arasında vakıf ve devlet üniversitelerinden uygulayıcılar olduğu gibi, dörtlü sarmal inovasyon modelinde temsil edilen (kamu, araştırma, endüstri ve toplum) bileşenlerinde de üniversiteler ile çalışmış/çalışıyor

olan proje yöneticileri tercih edilmiştir. Burada amaç, üniversite ve yükseköğretim dinamiklerini iç ve dış gözlem ile değerlendirerek, bütüncül çıkarımlar ve mevcut ihtiyaçları ortaya koyabilmektir.Bu kapsamda 42 kişi ile yarı -yapılandırılmış mülakatlar gerçekleştirilmiştir. Bu mülakatlar çalışmanın temel üç araştırma sorusunu cevaplandırmak üzere literatür taraması ve ikincil veri kaynakları kullanılarak oluşturulmuştur. Oluşturulan araştırma soruları için tez danışmanı ve iki öğretim üyesi uzman görüşü alınmıştır. Mülakat sürecini başlatmadan önce, çalışma için ilgili etik kurulu izni alınıp, ilgili katılımcı profili için uygunluk alınmıştır. Bu çalışmada genel nitel çalışma yöntemi kullanmıştır. Araştırma sorularının kapsamlı anlaşılması ve ana konunun esneklik ile detaylandırılmasında, genel nitel çalışma yöntemi tercih edilmektedir (Ellis and Hart, 2023). Bu yöntem, geleneksel nitel araştırma yöntemlerinin kısıtlarını ortadan kaldırarak, anlatıların üst düzey incelenmesine olanak sağlamaktadır (Prosek and Gibson, 2020 ; Elis and Hart, 2023). Veri toplanmasında zorluk yaşandığında ve yine keşif odaklı sorular sorulduğunda, Kahke (2014) bu yöntemin mevcut verilerden kapsamlı anlam çıkarılması ve temaların detaylandırılmasına da yardımcı olduğunu belirtmiştir. Bu metodolojinin avantajları arasında, bir kaç nitel metodolojiyi birleştirmeye olanak sağlar. Vaka çalışmaları gibi, birden fazla veri türü (birincil ve ikincil veri) kullanılan çalışmalarda, kavram, model ve teori geliştirilmesine yardımcı olur (Yin, 2009). Verilerin analizi için Yıldırım ve Şimşek (2016)'in önerdiği beş temel adım olan verinin kodlanması, temaların oluşturulması, kodların ve temaların düzenlenmesi, sonuçların analiz edilmesi ve sonuçların raporlanması adımları detaylı bir şekilde izlenmiştir. Yine verinin analizinde güvenirliği sağlamak adına inanırlık, aktarılabilirlik, tutarlılık ve doğrulanabilirlik başlıklarındaki gereklilikler çalışma kapsamında yerine getirilimiştir.

Bu çalışmadaki temel kıstılar şu şekilde özetlenebilir: her ne kadar genel nitel araştırma yöntemi esneklik sağlasa da, belirtilen bazı konularda kısıtları vardır. Öncellikle bu yöntem, çeşitliliğe ve çok yönlülüğe izin verirken, araştırmacının eksik araştırma altyapısı olması durumunda, araştırılan konu ile ilgili derinleme irdeleme kaçırılabilir (Brown, 2019). Bu yöntem kullanımında tek tip yaklaşım olmadığı için, araştırmacının geçmiş alan bilgisi araştırma sürecinin şekillenmesinde büyük rol oynamaktadır. Bu konuda araştırmacıya nitelikli sonuçlar elde edebilmesi için önemli

sorumluluk düşmektedir. Bir başka önemli kısıtlardan bir tanesi de , katılımcı ve bölge seçimidir. Bu çalışma 4 büyük ilimizde gerçekleştirilmiş, ekosistem içinde uyguluyacılar ve yöneticiler sadece dahil edilmiştir. Aktarılan proje deneyimleri tamamlanmış ve/veya mevcutta devam eden sosyal inovasyon projelerini içermektedir. Bu doğrultuda sürece dahil olmuş öğrenci ve idari personele ulaşmak oldukça güçtür. Yine Türkiye'deki diğer illerdeki olası sosyal inovasyon çalışmaları ve sosyal inovasyon bakış açısı kapsam dışında tutulmuştur. Temsiliyeti çeşitlenidirebilmek ve bu kısıtlılığı aşabilmek için tek bir bilim dalındaki akademisyenler seçilmemiştir, farklı disiplinlerdeki uygulaycıların görüşleri araştırmaya dahil edilmiştir. Geliştirilen kavramsal model, kurumsal teori (Çınar and Benneworth, 2021) dinamikleri de göz önünde bulundurularak, kurum kültürü, kurum öncellikleri ve yine kurumun bileşenlerini en iyi şekilde yansıtacak şekilde temel adımların içerik uygulamalarında farklılık gösterebilir. Burada amaç, yükseköğretim kurumları bağlamında kavramsal bir sistematik oluşturarak, mevcut ve yeni sosyal inovasyon uygulayıcılarına etkin bir metodoloji sağlayablmek ve bu alandaki çalışmaların sürekliliğini ve görünürlüğünü artırabilmektir. Farklı alanlardaki uygulama örnekleri ile bu temel metodoloji adımlarında yapılabilecek faaliyetler çeşitlendirilebilir. Son olarak, bu alandaki veri altyapısı ve izlenebilirlik oldukça zayıftır. Bu bağlamda, etki odağı çalışmaları ve yine süreç takibi için bu süreç kısıtlarınında daha fazla örnek uygulama ve süreç takibi ile aşılması gerekmektedir.

Çalışma Sonuçları

Bu çalışma sonucunda yükseköğretim ekosistemindeki sosyal inovasyon algısı, uygulama prensipleri ve uygulama bölgelerindeki ekosistem dinamikleri irdelenmiştir. Çalışmanın özgün katkılarından ilki, sosyal inovasyon tanımını Türk yükseköğretim ekolojisi bağlamında tanımlayabilmektir. Bu tanımın özgün çerçevesi, katılımcı girdileri ve araştırma sonucunda, şu bileşenleri içermektedir:

- Yükseköğretim ekolojisindeki kaynakların etkin kullanımını sağlayacak, özgün çözümlemeler yaratabilmek,
- Süreç ve zaman odaklı eylem kültürü ile, sosyal inovasyon adımlarını girdi, süreç, çıktı ve sürdürülebilirlik bileşenleri ile yapılandırmak ve etkisini takip edebilmek,

- İnovasyon modellerindeki üniversite rolününün etkinleştirilmesini sağlayabilmek adına, sosyal inovasyon çalışmalarında sadece katkı bileşeni değil, öncü bileşen olarak, bu faaliyeleri yapılandırmak ve çeşitlendirebilmek,
- Yükseköğretim kurumlarının kendi ekolojilerindeki değişimlere uyumlanmasını sağlamak, değişim için farklı aktör ve rolleri benimsetmek,
- Sosya-teknik sistemler olarak yükseköğretim kurumlarının gömülü ve çok katmanlı yapılarında, bireysel etki ve sistemsel etki boyutlarını anlamak ve farkındalık yaratmak,
- Bu faaliyeletlerin yapılandırılmasında, kurum içi-dışı sorunlar ve kaynaksızlık gibi problemleri aşabilmek için esneklik ve süreklilik sağlayabilmek,
- Yükseköğretim kurum aktörlerinin adil ve kapsayıcı uygulamalarını zenginleştirmek ve odağı gerçek ihtiyaç sahiplerine odaklayabilmek,
- Sosyal inovasyon çalışmalarının gerekliliklerini anlayarak, doğru uygulamalar gerçekleştirmek ve bu konudaki çalışma alışkanlıklarını ve yöntemleri interdisipliner ve transdisipliner çalışma prensipleri ile harmanlayarak, daha kapsayıcı ve özgün çözümler getirebilmek.

Çalışmanın ikinci önemli katkısı, farklı alanlardaki özgün örneklerin fikir oluşum süreçlerini, geliştirilen sistematikleri, doğrudan ve doğrudan olmayan etkilerini ve yine sürekliliklerini sağlayabilmek adına yapılan faaliyetleri derlemektir.Uygulayacılar için fikir verebilecek, sürecin anlatısını inceleyerek, benzer ihtiyaçlar için ortak ve özgün kurgular oluşturabilmek adına bu sentez, süreç gerekliliklerini anlayabilmek adına yükseköğretim ekolojisinde geliştirilen sosyal inovasyon faaliyetleri için literatüre önemli bir katkıdır.

Çalışmanın üçüncü önemli katkısı ise geliştirilen kavramsal modeldir. Sosyal inovasyon literatüründe yazar genel kapsayıcılıkta sadece iki genel uygulama sistematiğine denk gelmiştir (Social Innovation 2013, Murray et al., 2010). Oluşturulan bu model, farklı olarak, yükseköğretim alanında ve yapılandırılmış adım detayları ile beraber, 42 uygulayıcı ve yönetici deneyiminin sonucu olarak, belli sorulara verilen cevapların, tavsiyelerin ve deneyimlerin yansıtılması ile ortaya çıkarılmıştır. Adımlar, farklı disiplin ve farklı uygulama örneklerini yansıtan uygulayacıların, öncelliklendirdiği çalışma prensipleri, zorluklar, iyi örnekler ve etkin

sosyal inovasyon faaliyetleri için ihtiyaç duyulan deneyimleri yansıtmaktadır. Bu modelin amacı yeni uygulayacılara bir sistematik oluşturmak ve bu konudaki çalışmaların yükseköğretim bağlamında planlanmasına katkı sağlayabilmektir. Bu model, bu alandaki çalışmalar için ortak referans noktası oluşturarak, gelecekte yapılması gereken faaliyetleri ve iyi örneklerin görünürlüğüne de katkı sağlayabilecektir. Model kurugusunda altı temel başlığa önem verilmiştir. Bunlar sırası ile : sosyal fikir oluşumu, yönetişim, kaynak yönetimi, sosyal bağlılığın geliştirilmesi, çoğaltıcı faaliyetler ve adımlar ve sürdürülebilirlik bileşenleridir. Her bir başlık, adımları ile detaylandırılmış, iyi uygulayıcı örnekleri ile açıklanmıştır. Bu model adımları yükseköğretim ekolojisindeki sosyal inovasyon uygulayacıları için önemli bir referans oluşturmaktadır. Bu konuda ilk uygulayacılar için bir yol haritası sunmakta, mevcut uygulayacılar için bu adımları geliştirebilmek ve etkinleştirebilmek adına önemli bir çıktı niteliği oluşturabilecektir. Katılımcılar en çok bu konudaki sistematik ve metodoloji eksiğinden yakınmıştır. Bu temel soruna çözüm üretebilmek adına farklı uygulayacıların deneyimleri , ortak temalar ve gereklilikler ile genişletilmiş ve özgün bir sistematik oluşturulmuştur.

Çalışmanın önemli dördüncü katkısı ise Ankara, İstanbul, İzmir ve Konya özelindeki sosyal inovasyon ekosisteminin detaylandırılmasıdır Bu ekosistmlerde yürütülen faaliyetlerde öne çıkan güçlü ve zayıf yönler, karşılaştırmalı olarak örneklenmiştir. Bu bölgelerde sosyal inovasyon çalışmaları yürütmek isteyen yeni uygulayıcılar, bu dinamikleri bilerek, mevcut bağlamlarına yönelik daha kapsayıcı ve bütüncül çözümlemeler getirebilecektir. Tüm şehirlerde yüksek bir sosyal inovasyon potansiyeli vardır. Bu şehirlerdeki güçlü ve geliştirilmesi gereken yönler şu şekilde özetlenmiştir:

- Ankara vatandaş katılımı ve toplum etkileşimi konusunda öne çıkmıştır. Istanbul ilinde ise bileşen/aktör çeşitliği ve açık diyalog zeminleri , sosyal inovasyon faaliyetlerine olumlu katkılar yapmaktadır. İzmir yapılan projeler açısından görünürlüğü yüksek uygulamalarda başarılıdır ve Konya kamu bileşenleri ile etkileşiminde (belediye, üniversite, araştırma altyapıları) çok önemli bir örnektir.
- Geliştirilmesi gereken özellikler arasında Ankara için sanayii işbirliği ve İstanbul için sürdürülebilirlik çalışmaları öne çıkmaktadır. İzmir ve Konya

birçok bileşende gelişim potansiyeli göstermektedir. İzmir sanayii işbirliğini, üniversite işbirliğini ve sürdürülebilirlik faaliyetlerini genişletmesi gerekmektedir. Konya ise aktör ve uygulama çeşitliliğini artırarak, tek bir kurum veya aktör özelinden öte, çoklu ve katılımcı örneklere açıktır. Güçlü kamusal bağlantıları ve işbirliği örnekleri bu alandaki önemli faaliyetler için güçlü bir ekosistem potansiyelini yansıtmaktadır.

Son olarak, çalışma sosyal inovasyon süreçlerinde gereken yönetici ve uygulayıcı rollerini detaylandırmıştır. Bu özgün katkı, yükseköğretim aktörlerinin birden fazla rolde yetkinlik kazandırılması vurgusunu da ortaya koymaktadır. Bu yetkinlikler, ekosistem içi ve dışı iletişimi, yaratıcılık ve aynı zamanda sistem içinde kaynak kullanma becerilerini artırmayı hedeflemektedir. Bu roller, aynı zamanda sosyal inovasyon geliştirme sürecinin hangi aşamalarında hangi yetkinliklerin gerekli olduğunu ortaya koyarak, uygulaycılara gereken ihtiyaçlar konusunda da yönlendirmektedir. Bu rollerin yükseköğretim sosya-teknik sisteminin yapısal ve uygulama esaslarına da katkı sağlaması beklenmektedir.

Çalışma yükseköğretim kurumlarında dokuz alanda değişim potansiyeli ortaya koymaktadır:

- ***Veri temelli sosyal politikalar***: Sosyal olgularda değişim etkisini takip edebilmek, sosyal inovasyon probleminin çözümleme kurgusunun etkinliği açısından çok önemlidir. Gerçek ihtiyacın veri üzerinden anlaşılması, takip edilmesi ve değerlendirilmesi, bu alandaki akademik yöntem ve metodolojileri de geliştirebilecektir.

- ***Kurum değerlerinin ve rollerinin anlaşılması:*** Kurumun temel rolü, öncelliği ve değerleri, sosyal inovasyon faaliyetleri ile uyumunu da yansıtmaktadır. Bu bağlamda üniversitelerin 3.misyon faaliyetlerini ve toplumla nasıl temas içinde olmak istediklerini kurum kültürlerine ve bağlamlarına göre doğru kurgulamalıdırlar. Bu aynı zamanda mevcut altyapı ve kaynaklarında etkinliğini sağlayarak, kaynak verimliliği ve çeşitliği de sağlayarak, dinamik kapasitelerinin de ortaya konulmasına olanak verebilecektir. Sosyal inovasyon sürecinde farklı ihtiyaçlara göre, farklı roller ve yetkinlikler gerekeceği için,

bu yetkinliklerin güçlendirilmesi ve bu konudaki liderlik vasıflarınında ortaya çıkarılabilmesi oldukça önemlidir.

- ***Sosyal girişimler için yasal düzenlemeler:*** Sosyal girişim faaliyetleri için yasal düzenlemeler ülkemizde yeteri düzeyde değildir. Yine bu konudaki desteklerin ve iş modeli çeşitlilikleri, bu konudaki faaliyetlerin daha az bürokratik engel ile sağlanabilmesine olanak verecektir.

- ***Sosyal inovasyon faaliyetlerinin demokratikleşmesi:*** Bu faaliyetlerin sürdürülebilirliği için fonlayan kuruluşlar, öncelliklendirilen alanlar, belirli bir kesimin tekelinde veya amacına hizmet edecek şekilde olmamalıdır. Bu faaliyetlerin gerçek ihtiyaç sahibi ve yaygın etkisi yüksek araştırma ve kişiler için kullanılması önemli bir gerekliliktir.

- ***Yeni kolektif uygulamaların desteklenmesi:*** Üniversiteler 'fil dişi' kule benzetmesi ile toplumdan kopuk olmamalıdır.Bu kapsamda değişen ve talep edilen sosyal değişimlerin takibi ile, bu konudaki araştırmalar ve değer yaratımı ile öncü olabilmelidir. Üniversitelerin yine eleştirilen 'bürokratik', 'sistematik olmayan' ve 'karar mercilerindeki yavaşlığı' bu etkileşimler ile bu kurumları daha çevik yönetime teşvik etmelidir.

- ***Sosyal inovasyon için teknoloji kullanımı:*** Sosyal inovasyon faaliyetlerinde teknoloji kulanımının yaygın etkiyi oldukça artırdığı katılımcılar tarafından belirtilmiştir. Yine bu yönde, engelli erişim ve sürekli erişim olanaklarının çeşitlendirilmesi, bu faaliyetlerin görünürlüğü açısından oldukça önemlidir. Yine pandemi ve deprem gibi afetler, bu alandaki uygulamaların daha hızlı anlaşılması ve kabul görmesi adına önemli bir katalizör görevi görmüştür.Toplu bir uygulama pratiği, bireysel pratiklerden daha görünür ve etkili olduğu gözlemlenmiştir.

- ***Üniversite-Endüstri-Toplum Uyumlanması:*** Üniversitenin tüm bu bileşenleri doğru okuması ve değerlendirmesi gerekmektedir. Bu bileşenlerin değer yaratımında öncü olabilmesi için, doğru etkileşim modelleri oluşturulması

gerekmektedir. Akademisyenlerin bu konudaki ‘dış’ odağını ve yaklaşımını geliştirmesi gerektiği mülakatlarda da vurgulanmıştır. Burada interdisipliner çalışan veya daha önce sanayii/akademi dışı denyimi olan yükseköğretim aktörlerinin, sosyal inovasyon konularında daha kapsayıcı ve birleştirici roller alabildiğini ortaya koymuştur.

- ***Akademik Aktörlerin Güçlendirilmesi:*** Yükseköğretim ekosistemi içindeki tüm aktörler, bireysel değişim potansiyelinin farkında olabilmelidir. Burada sadece öğretim elemanlarına değil, öğrenciler, idari personel ve yine tüm toplum bileşenlerinin rolleri, özgüm fikir paylaşma, uygulama ve takibini sağlamak adına şeffaf ve özgür bir etkileşimi gerektirmektedir.

Yukarıdaki temel çıkarımlar doğrultusunda politika önerileri de 3 başlık altından toplanmıştır. Bu önerilerin makro, mezo ve mikro düzeyde tavsiyeler oluşturulmuştur:

- ***Yükseköğretim kurumlarında (sosyal) inovasyon değerinin anlaşılması***: Bu başlıkta oluşturulan makro düzey öneriler için politika araçları arasında üniversitelerin kategorizasyonu, üniversitelerin bölüm/fakülte düzeyinde kaynak yaratma bağımsızlığı ve politika dokümanları ile uyumluluk (Birleşmiş Milletler Sürdürülebilir Kalkınma Hedefleri)ve 12. Kalkınma Planı Hedefleri ile uyumlandırma önerilmiştir. Yine misyon üniversitelerinde olduğu gibi sosyo-ekonimik olarak daha çok sosyal inovasyon faaliyetlerine ihtiyaç duyulan bölgelerin öncelliklendirilmesi, bu alandaki sosyal inovasyon faaliyetlerini daha görünür kılabilecektir. Mezo seviyede ise, üniversite algısı ve güvenirliği konusundaki veri odaklı faaliyetler vurgulanmıştır. Mikro düzeyde ise bu konudaki yükseköğretim aktörlerinin bu faaliyete ilgi duyması ve liderlik edebilmesi konusundaki öneriler sıralanmıştır.

- ***Yükseköğretim kurumlarındaki insan kaynağı potansiyelinin geliştirilmesi ve etkinleştirilmesi:*** Makro düzeyde üniversitelerdeki istihdam araçlarının çeşitlendirilmesi vurgulanmıştır. Burada ulusal ve uluslararası işbirliği olanakları da etkileşim ve nitelikli çıktıları etkilemektedir.Mezo seviyede ise öğretim üyelerinin atama yükseltme kritelerinin iyileştirilmesi ve teknik-teknik

olmayan alanların birbiri ile etkileşimini sağlayabilecek öneriler getirilmiştir. Son olarak, mikro düzeyde ise bu alandaki aktörlerin yetkinliklerinin geliştirilmesi üzerine yaratıcı ve kapayıcı bilgi ve becerilerin geliştirilmesine değinilmiştir.

- ***Yükseköğretim ekolojisi bağlamında sosyal inovasyon ekosisteminin geliştirilmesi:*** Bu başlıkta makro düzeyde yasal düzenlemeler ve sosyal inovayon kültürünün gelişebilmesi için işbirlikleri ve öğrenme bölgelerine değinilmiştir. Yine mezo ölçekte, kaynak yönetimi ve üniversite içi-dışı yapılandırma gerekliliklerine değinilmiştir. Mikro düzeyde ise sosyal inovasyon algısının düzelmesi ve özellikle sosyal inovasyon çalışmalarının sadece 'gönüllülük' faaliyetleri içinde algılanmaması yönünde girişimlere ihtiyaç duyulmaktadır.

Değerlendirme ve Sonuç:

Global Innovation Index (2023) raporuna göre 138 ülke arasında Türkiye yükseköğretim kayıt oranları açısından 2. ve yaratıcı çıktılar açısından 27. gözükmektedir. Fakat, bu oran dolaşım faaliyetlerine göre değerlendirildiğinde, Türkiye 74.sıraya ve yine mühendislik ve bilm alanlarınnı seçiminde 100. sıraya bizi geriletmektedir. Yine European Higher Education in Area (2024) Bologna Process Implementation raporuna göre Türkiye katılımcılığı ve çeşitliliği destekleyen ülkeler arasındadır. Fakat yukarıda belirtilen yükseköğretim kurumlarına kayıt oranlarına ülkece iyi bir performans sergilesekte, yükseköğretim kurumlarında eğitimi tamamlama ve öğrencilerin kurumlarda kalma oranları oldukça düşüktür. Bu bağlamda, sosyal inovasyon faaliyetleri için önemli fırsat alanlarınn olabildiğini uluslararası raporlarda desteklemektedir. Gerghio (2018) sosyal inovasyon çalışmaları için üç kritik boyuttan bahseder: amaç, aktörler ve araçlar. Bu bölümde, yükseköğretim ekolojisindeki sosyal inovasyon çalışmaları ile ilgili mevcut yaklaşımlar, kısıtlar ve potansiyeller süreç ve aktör/bileşen etkileşimi ile ortaya konulacaktır. Bu çalışma Türkiye'nin dört büyük şehrindeki uygulamalar ve uygulayacılar üzerinden yapılandırılmıştır. Bu çalşmada, nasıl ve ne boyutlarına odaklanılan ontolojik yaklaşım ile, gelecek odaklı normative yaklaşımlar (Savaget,

2019) harmanlanmıştır. Çalışma aynı zamanda Tracey ve Stott (2017)'nun üç temel ekosistem kurgusundan da yararlanmıştır. Bunlar sırasıyla yükseköğretim ekolojisi dışı aktörler (örnek: endüstri, politika yapıcıları), uzak iç yükseköğretim ekolojisi aktörleri (örnek : araştırıma enstitürleri, tekno-park) ve yakın iç yükseköğretim ekolojisi (örnek: bölümler /fakülteler) arası aktör bileşenlerini içermektedir. Bu kapsamda çalışmanın en önemli çıkarımları arasında sırasıyla bu tanımlamalar doğrultusunda üniversite aktörlerinin yetkinliklerinin geliştirilmesi, güvenirlilik ile kurumlar arası işbirliği için aracı olmak ve yine bu faaliyetlerin öncülüğünü üstlenmek gibi önemli sorumluluklar düşmektedir. Bu aktörlerin etkileşim boyutu YÖK (2023) verileri ile de desteklenmektedir. 2023-2024 başlangıcı itibari ile Türkiye'deki yükseköğretim kurumlarında 184,566 öğretim elemanı, bölüm ve programlara devam eden 6,950,142 öğrenci, 903, 673 mezun ve 1,846,654 yeni kayıt öğrenci bulunmaktadır. Berg ve Leicht-Scholten (2021), yükseköğretim kurumlarının ağırlıklı teknik inovasyon bilgisini, sosyal inovasyon için bir başlangıç noktası olabileceğini belirtmiştir. Fakat mevcut çalışma, inovasyon ve yenilik yönetim faaliyetlerinin Türkiye'de hala sistematik bir seviyeye ulaşmadığı ve yine katma değer yaratımında piyasa ve ekosistem işbirliğinin oldukça kısıtlı olduğunu göstermiştir. Yine inovasyon sürecinin 'sosyal boyutlarının' olup olmadığı konusunda yerleşik bir algı gözlenememiştir. Sosyal bilimcilerde bu algının kabülü ve gerekliliği daha çok vurgulanabilirken, yine sosyal inovasyon'un, teknik inovasyon ve diğer inovasyon türlerinde farkı ile ilgili yaygın bir tarifleme ve kanıya rastlanamamıştır. Bu kapsamda, anlatılardan ne olduğu veya olmadığı, katılımcılar ile detaylandırılarak, yükseköğretim kurumları bağlamında bir sosyal inovasyon tanımına ulaşılmıştır. Yine, önemli bir çıkarım, inovasyonun hep iyi algılanma riskidir. İnovasyon süreçlerinin tasarımında toplum için faydalı olma hali öncelensede, bütüncül tasarlanmayan yaklaşımlarda belli bir bileşen ile ilgili daha büyük ayrımlar yaratma riski de bulunmaktadır. Sosyal inovasyon terminolojisi ile birlikte anılan veya yaygın olarak karıştırılan temel konular arasında hayırseverlik, kurusmal sosyal sorumluluk, kapsayıcı inovasyon, açık inovasyon ve kamu inovasyon olarak bahsedilmiştir. İnterdisipliner çalışan ekosistem aktörleri ve yine hem sektör/akademi dışı deneyimi olan akademisyenlerde daha kapsamlı bir tariflemeye rastlamak mümkündür. Türkiye'deki 'kaynaksızlık' çıkmazları ve kurum/bölge kaynak eksiklikleri, sosyal inovasyon için önemli bir gelişim potansiyelidir. Bu kapsamda var olma çabası, söz sahibi olabilmek ve yine

değişim yaratabilme gereksinimleri bu konudaki eylem kültürünü şekillendirmektedir. Bu konudaki eksikler bir yandan da , bazı fonlama çabalarında , gerçek ihtiyaç sahibine faydalı olmak yerine, proje fonlaması alıp, sermaye oluşturma riskini de ortaya koymaktadır. Yine bu konuyu fonlayan kurumların öncellikleri, belirli konuların öncelenmesine destek olabilmektedir. Fakat, bu konuda da proje amacının ve ilgili sosyal grubun gerçekte fayda görmesi ve tarafsız yararlandırılması kritiktir.

Türkiye'deki sosyal inovasyon kültürünün yaygınlığı 'Ahilik kültürü' temelleri ile ilişkilendirilebilir, fakat katılımcılar bu kültürün kaybolması ve yozlaşmasından yakınmışlardır. Bu da yine, bu çalşmalar için etik değerlere bağlı, nitelikli insan kaynağı gereksinimini ortaya koymuştur. Sosyal inovasyon çalışmalarındaki temel eleştiriler, 'moda' bir terminoloji olması, başkalarına bağlı olma kaygısı, yeni fikirlerin başkaları tarafından çalınması ve yine rekabet odaklı bir kültürün yaygın oluşu olarak belirtilmiştir. Sosyal inovasyon çalışmalarındaki katma-değerin yeterli görülmeyişi ve yine 'inovasyon' veya 'sosyal inovasyon' faaliyetlerindeki çıktıların ve etkilerin büyük olma beklentisi, bu çalışmalar için ilk adımın atılması ve desteklenebilmesini engellemektedir. Bu alandaki güçlü ve itici ivmeler arasında, sosyal medya araçlarının yaygınlığı sosyal inovasyon kültürü ve iklimini şekillendirmektedir, yine özellikle bu alandaki katılımcılardaki yaş farklılıkları, daha özgün değerler üretilmesini desteklemektedir. Belcher vd., (2022) çalışmasını da destekler nitelikte, özellikle öğrenciler bu ekolojide önemli değişim ajanlarıdır ve bu faaliyetlerin devamlılığı açısında da Gustaffson (2023)'un çalışmasına paralel olararak önemli rolleri bulunmaktadır. Burada özellikle, geleneksel sistemde, eğitici sadece öğretim elemanı'dır varsayımı ve kabülü yerine, öğrencilerin de bu ekosistemde öğretici rolüne bürünebileceklerini göstermiş ve uygulama örnelerinde bu katma değer gözlemlenmiştir. Burada önemli bir çıkarım, Georghia 'nın (2018) da bahsettiği gibi bu değişiklikleri doğru benimseyip, uygun şekilde tüm çevresel ihtiyaçlara yönelik adapte edebilmek için yetkinlik kazanmak gerekmektedir. Fakat, yükseköğretim kurumları iç ve dış ekosistem bileşenleri ile etkileşimlerinde değişime adapte olmakta yavaş kaldıkları görülmektedir. Bu da yine mevcut ekoloji içinde bulunan kaynakların da doğru kullanılması ve yine özgün değer yaratılmasını kısıtılmaktadır. Bu sorun yine sosyal inovasyon çözümleri için üniversitelerin öncü olabilmesinde de problem yaratarak, çabaların bireysel düzeyde kalma riskini de ortaya koymaktadır. Literatürde

de, henüz yükseköğretim alanında sosyal inovasyon yönetişim ve yapılanma gereksinimlerinin henüz karşılanmadığı tespit edilmiştir (Schröder ve Krüger, 2019; McDonnell-Naughton ve Carmen Păunescu, 2022). Bu bağlamda bu faaliyetlerin özgün çözüm ihtiyaçları, bu konuların rahat tartışılabilmesi, farklı bölüm ve birimlerin etkileşim halinde olabilmesi ve yine belli bürokratik hantallığın aşılabilmesi için özerk çalışma alanlarının etkililiği birçok katılımcı tarafından vurgulanmıştır. Burada yine sosyal inovasyon merkezleri olan ve olmayan üniversitelerin sosyal inovasyon etkinliği tartışma konusudur. Buradaki en büyük temel çıkarım, sosyal inovasyon faaliyetleri üniversitelerin ana hedefleri ve misyonları ile uyumlandırılmadığı zaman , faaliyetlerin etkililiği kaybolmaktadır. Benneworth ve Cunha (2015) ortak ilgi ve öncelliklendirme yaratılabildiği zaman, bu faaliyetlerin gelişebildiğini belirtmiştir. Buradaki önemli nokta, bu faaliyetlerin devamlılığı niteliğinde, bu konudaki birim/kişi temsiliyetinin önemidir. Yine projeler süreli olduğu için, bu konudaki birikimlerinde kuruma kazandırılması adına bu yapılanmalar kritik rol oynamaktadır.

Sosyal inovasyon faaliyetlerine gelecekte daha fazla talep oluştuğunda, bu talebin karşılanması yönünde şu anda yükseköğretim kurumları mevcutta henüz hazır değillerdir. Burada Gustafsson'un (2023) eleştirdiği paydaş etkileşimi oldukça yaygındır. Yine sistematik yaklaşım noksanlığı, çok partnerli-çok amaçlı-çok yönlü problem metodolojisinin noksanlığı ve yine çıktı odaklı olmayan, süreç yönetiminin geliştirilmesi gerekmektedir. Bu başlıklar 3.misyon faaliyetlerindeki sosyal boyut açısından da önemli girdilerdir. Bu amaçla akademisyenin, sadece eğtim ve araştırma rolleri değil, bu faaliyetler için gerekebilecek ara buluculuk gibi yetkinliklerininde geliştirilmesi gerekliliği görülmüştür. Bu da Uslu'nun (2022) çalışmasında bahsettiği kariyer gereklilikleri ile mevcut uygulama pratiklerindeki farklılıkları ortaya koyma ve bu konudaki yetkinlikleri farklışaştırma gereksinimlerini ortaya koymaktadır. Yine yükseköğretim kurumlarının çok yönlü değerlendirilmesi ve akademisyenlerin özgün yaklaşımlara yönelmesi gerekliliği Kocatürk ve Karadağ (2021) tarafından vurgulanmıştır. Yine yazarlar, Türk yükseköğretim ekolojisinin yarı-açık bir yapıda olmasını eleştirmiştir. Bu bir anlamda dörtlü sarmal bileşenleri ve inovasyon modellerindeki öncü olabilme potansiyelini de tehdit etmektedir. Bu yöntemsel yaklaşımlardaki farklılıklar, sosyal olgular üzerinde çalışmamış bölüm ve disiplinleri de farklı düşünmeye ve bu alanda farklı sosyal bilgiler üretmeye itebilecektir.

Sosyal inovasyon, düşünce yapılarında, yenilik yönetim becerilerinin geliştirilmesinde ve yine özgün çözümlemeler ortaya konulabilmesinde yükseköğretim ekolojisinde kritik yer alabilecektir. Sosyal inovasyon kültürünün kazandırılması adına tüm yükseköğretim bileşenlerinin yeniliğe ve sosyal olgulara yaklaşımlarının zenginleştirilmesi ve bu konudaki bilincin artırılması için daha fazla çabalar gerekmektedir. Bu çalışma ile Türkye yükseköğretim ekolojisindeki, sosyal inovasyon gereksinimleri ve metodoloji gerekliliği sistematik olarak sunulmuş ve değerlendirilmiştir. Bu alandaki faaliyetlerin geliştirilebilmesi adına araştırma katkısı sağlanmıştır.

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