



MIDDLE EAST TECHNICAL UNIVERSITY  
JOINT ACTIVITY REPORT FOR  
SCIENCE AND TECHNOLOGY POLICY STUDIES (STPS)  
AND  
SCIENCE AND TECHNOLOGY POLICY RESEARCH CENTER (TEKPOL)  
2011-2021

SCIENCE AND TECHNOLOGY POLICY STUDIES &  
SCIENCE AND TECHNOLOGY POLICY RESEARCH CENTER (TEKPOL)  
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## INTRODUCTION

This document contains a short introduction to the activities of Middle East Technical University, Science and Technology Policy Studies graduate programs and Research Center for Science and Technology Policies, together fused under the acronym TEKPOL. It provides information about academic programs and the project portfolio, past and present from 2011 to 2020. This document aims at showing the depth and diversity of capabilities that exist within TEKPOL. Further information on any aspect of our research and teaching activities can be supplied upon request.

## ABOUT THE LOGO

The logo of TEKPOL symbolises an alert owl. The western cultures associate the owl with wisdom. The goddess of Athens in the Ancient Greek, Athena, had the owl as a symbol. Back in the Indo-European cultures the owl symbolised dignity, wisdom and dedication. The logo was inspired by Prof. Dr. Hasan Ünal Nalbantoğlu of Department of Sociology who unfortunately passed away in 2011.



(Logo in Color)



(Logo in B&W)

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## BACKGROUND INFORMATION

### Aim

Recent developments in science and technology hailed the onset of a new era. The information age is opening up new horizons that offer prospects for the development of a knowledge-based economy and society. But it creates new challenges as well. Turkey is about to face these challenges due to the ever-expanding technological capabilities in terms of both equipment and highly-skilled manpower. To foster sustainable development and increase competitiveness, Turkey has to continue investing in qualified human resources and Research and Development (R&D) in the forthcoming decades. However, the process of technological change that would lead us to a sustainable development path should best be managed by carefully-designed science, technology and innovation policies. The lack of qualified personnel in charge of designing and implementing science and technology policies is a major concern for public institutions. Indeed, policy makers in today's world have to familiarize with a diverse set of innovation theories and have to carry out multi-dimensional tasks that the information society demands, recalling for dynamic capabilities in the public sector. This requires, in turn, an ability to formulate and implement relevant policies aimed at fostering domestic scientific and technological capabilities in response to the accelerating pace of technological progress.

Stimulating R&D in private and public sectors has always been an integral part of the development plans that have been implemented in Turkey since 1963. From 2005 onwards, the national budget included resources aiming explicitly to promote R&D activities. Since then, public institutions were redesigned and given new roles to support R&D and innovative activities. The 11<sup>th</sup> Development Plan highlights the importance of R&D, innovation and entrepreneurship in increasing competitiveness to contribute to the economic and social development of Turkey.

Science, technology and innovation policies have been playing an important role in shaping the economic policy agenda in Turkey especially in the last decade. The government took initiative in order to increase R&D expenditures and develop a sound base for research, innovation and entrepreneurship. In 2020, the gross domestic spending on R&D in Turkey was about €6,75 billion. In 2020, the government allocated about €1,75 billion for the promotion of R&D activities in the private and public sector. However current total spending on R&D as a percentage of Gross Domestic Product (GDP) is just about 1,1%.

The education activities in TEKPOL started in September 1997 by means of the Master Program with the explicit objective to contribute to the aforementioned crucial issues. The research center was officially established in June 1998.

### Mission

TEKPOL has a multidisciplinary approach to the analysis of the economic, social and political factors that drive technological change and innovation. Our research and training programs span an extensive domain in close relation to recent policy questions concerning national and international regulations of science, technology and innovation, with a particular focus on the networks of interorganizational relations on the side of knowledge management issues.

Today more than 80 percent of the world population lives in the middle and low-income countries, some of whom in extreme poverty. We aim to analyze the contribution of science and technology to sustainable economic growth. Such an endeavour requires, in turn, an in-depth understanding of how knowledge is created in the public and private sectors, how it is diffused throughout the economy, and how it is utilized efficiently by economic actors. Determinants of innovation and the economic and social implications of these innovation activities are naturally part of our research agenda.

Another important issue on our research agenda is the analysis of strategies that can enable the development of technological capabilities in emerging economies, in order to take advantage of the present wave of globalization, through building faster growth policy options for these countries, thus reducing the present gaps in per capita income levels. Furthermore, our research focuses on the evolving economic, political, regional and cultural landscape so far, as they can influence how knowledge production and learning processes can be managed within the context of systemic arrangements and development strategies, to achieve sustainable economic development.

Finally, our research agenda coincides with recent trends in science and technology policy making around the world, such as evidence-based policy making and impact analysis, as well

as with interests of the public and private research institutions, private sector and the civil society organizations.

## ACADEMIC PROGRAMS

### M.Sc. Program

As a key to understand the knowledge-based society, the M.Sc. Program in "Science and Technology Policy Studies" is designed to equip students with the necessary know-how in economic and social policy-making, besides theoretical approaches to understand technological change. It aims to deal with economic, social, cultural and philosophical challenges of today's knowledge-based economy and society.

Modern science and technology have evolved to such a degree of complexity, that it calls for appropriate policies which can no longer be formulated adequately within the matrix of any single discipline. In order to match this level of complexity, recent policy issues require a multi-disciplinary approach. By encouraging both curiosity-driven and vigorously applied interdisciplinary research in science and technology, TEKPOL aims at preparing students towards tackling theoretical and applied issues. The graduates of the program will be qualified to work in technology and research-oriented organizations in the public sector, as well as the industry and universities. The success of the program can be judged by placement of its students to similar reputable programs in the United States and Europe for further studies such as, Technology and Policy Program of MIT; Kennedy School of Government, Harvard University; Sussex Policy Research Unit (SPRU) of Sussex University, UNU-MERIT of Maastricht University; Innovation, Management and Policy Department of Manchester University and CIRCLE of Lund University and Institute of Innovation and Entrepreneurship, University of Gothenburg.

### **Educational objectives**

The graduates of Science and Technology Policy Studies Master's Program;

- are preferred as potential PhD students by reputable universities in Turkey and abroad.
- can work as specialists in the technology and innovation policy units of related public and autonomous institutions.
- can work as specialists in the technology strategy departments of private companies.
- can give lectures on topics related to economics of technology and science, technology and innovation policy.
- can provide consultancy services in technology and innovation policy to public institutions and private companies.

### **Educational outcomes**

Upon completion of the MSc program our students,

- will gain an interdisciplinary perspective to analyze the economic and social consequences of technological development.
- will gain competence to develop harmonious strategies and policies to meet social and economic transformations that technology has introduced.

- have knowledge of related conceptual, methodological and applied knowledge to design science, technology and innovation policies.
- are equipped with conceptual, methodological and applied knowledge to provide technology and innovation strategy advice or consulting to private companies.

### **Program Structure**

Students enrolled in the program are required to take 3 mandatory courses which aim to provide students with the basic knowledge to understand historical, theoretical and institutional aspects of scientific and technological processes and practices. Students lacking the necessary background in their chosen field of specialization may be asked to take a maximum of three additional undergraduate courses upon the consent of the chairman of the program. In addition to the 3 must courses students have to take 4 elective courses. Upon passing the non-credit seminar course STPS 500 and defending their thesis proposals, students proceed to writing a thesis. A sketch of M.Sc. program is presented below.

M.Sc. with thesis (3 mandatory, 4 electives, one seminar course and M.Sc. Thesis)

Must courses

STPS 503: [Economics of Science, Technology and Innovation](#)

STPS 505: [Knowledge, Science and Technology in the Information Age](#)

STPS 507: [Research Methods and Ethics in Science and Technology Studies](#)

Restricted elective courses (at least one of these three courses have to be taken)

STPS 501: History of Science and Technology

STPS 512: Technological Change in Developing Countries

STPS 543: Recent Trends in Science and Technology Policy Making

From the second semester onwards, students have to enroll in non-credit MSc courses;

STPS 800-899 Special Studies

STPS 599 M.Sc. Thesis

Students have to complete all coursework (3 mandatory, 4 electives and one seminar course STPS 500) in the first four semesters. The students have to defend their proposals in the STPS 500 Prothesis Seminar course. If successful, the student proceeds to writing a MSc thesis. The maximum MSc education (with thesis) is 6 semesters.

### [Doctoral Program](#)

Understanding technological change entails developing a comprehensive interdisciplinary approach which is critical in designing and implementing appropriate science and technology policies. Ph.D. Program in Science and Technology Policy Studies is supported by various disciplines such as economics, administrative sciences, engineering, sociology, history, philosophy, communication and cultural studies.

Recent developments in the knowledge-intensity of economic activity and rapid technological advancements have significant socio-economic repercussions at the level of nation states, regions, industries, markets, and firms. Within this context, the program aims to confront these challenges by providing several concentration areas for policy making. The mission of the Science and Technology Studies Ph.D. program is to encourage scientific research and policy making particularly in the fields of technological change and innovation

processes, that are indispensable elements for understanding the structural changes in the current economic and social life. Consequently, the program creates a new set of opportunities for those who are at the early stages of their careers to pursue research training in a challenging and important area of inquiry.

### **Educational objectives**

The graduates of Science and Technology Policy Studies PhD program;

- can work as an academician or researcher at higher education institutions in Turkey and abroad.
- can work as a chief expert, coordinator and director at the science, technology and innovation policy units in related public and autonomous institutions.
- can work as a coordinator or director in technology management and strategy departments of private companies.

### **Educational outcomes**

Upon completion of the PhD program our students,

- will gain an interdisciplinary perspective to analyze and conduct research on the economic and social consequences of technological progress.
- will gain competence to develop and implement harmonious science, technology and innovation strategies and policies.
- will acquire conceptual and methodological knowledge to design long term science, technology and innovation policy.
- will have the knowledge to carry out academic research and teach on topics related with science, technology and innovation.
- will gain the necessary conceptual, methodological and applied knowledge to carry out impact assessment of science, technology and innovation policies.

According to the Higher Education Regulation (YÖK), students who graduate from a non-thesis graduate program cannot apply for a Ph.D. program.

### **Program Structure**

The program consists of 3 mandatory courses and 4 elective courses. After completing the coursework, the students have to take the qualifier exam in the 5th semester of the program. Upon successfully passing the qualifier exam, the student advances to writing a PhD thesis. The program offers courses on a wide range of areas by focusing on both the theoretical and policy foundations of technology, such as economics of innovation, political economy of technological change, general purpose technologies such as nano-technology, bio-technology and information and communication technologies, clustering of innovative activity, technology policy and impact assessment, technology and work organisation. A sketch of the Ph.D. program is presented below.

PhD. program (3 mandatory, 4 electives, qualifier exam and PhD thesis)

Must Courses

STPS 601 [Innovation, Technology and Economic Development](#)

STPS 602 [Technology and Industrial Strategy](#)

STPS 605 [Research Methods, Analytical Techniques and Ethics](#)

From the third semester onwards, students have to enroll in non-credit PhD courses;



STPS 900-999 Special Topics  
STPS 699 Ph.D. Thesis

Students have to complete all coursework (3 mandatory, 4 electives and one seminar course STPS 604) in the first four semesters. The students have to take the qualifier exam in the fifth semester. If successful, the student proceeds to writing a PhD thesis upon successful PhD proposal defense within six months of the qualifier exam. The maximum PhD education is 12 semesters.

## Courses

### Departmental elective courses that both Ph.D and M.Sc. students can take

- STPS 501 [History of Science and Technology](#)
- STPS 510 [Systems of Innovation](#)
- STPS 512 [Technological Change in Developing Countries](#)
- STPS 514 [Agent Based Simulation Models in Economics of Technological Change](#)
- STPS 515 [Innovation Policy and Governance: Trends and Challenges](#)
- STPS 516 [Science and Technology Places](#)
- STPS 517 [Innovation and SMEs](#)
- STPS 519 [R&D Policies and Evaluation Methods](#)
- STPS 521 [Technology and Work Organization](#)
- STPS 522 [Technology and Corporate Strategy](#)
- STPS 524 [ICT: Socioeconomic and Regulatory Issues](#)
- STPS 526 [Technological Change and the Labor Process](#)
- STPS 531 [Intellectual Property Rights and Regulation](#)
- STPS 532 [Intellectual Property Rights and Regulation II](#)
- STPS 543 [Recent Trends in Science and Technology Policy Making](#)
- STPS 545 [Knowledge and Technology Transfer in Innovation Systems](#)
- STPS 547 [Introduction to Information Network Security](#)
- STPS 548 [Managing Information Technology: Policies And Standards](#)
- STPS 549 [IT Governance](#)
- STPS 550 [New Economy: Impacts and Applications](#)
- STPS 551 [Technology and Social Theory](#)
- STPS 552 [Globalization and Technology Management](#)
- STPS 553 [Technology, Globalization and Labor](#)
- STPS 554 [Management of Technological Innovation](#)
- STPS 555 [Research Commercialization and Knowledge Intensive Entrepreneurship](#)
- STPS 557 [Qualitative Research Methods in Science and Technology Studies](#)
- STPS 558 [Bibliometrics](#)
- STPS 560 [Seminar in New Technologies](#)
- STPS 590 [Social Science Aspects of Innovation](#)
- STPS 603 [Technology Society and Culture](#)
- STPS 611 [Topics in Applied Econometrics I](#)
- STPS 612 [Topics in Applied Econometrics II](#)

**Non- departmental elective courses that both Ph.D and M.Sc. students can take**

- ADM 5258 [Advances in Organisational Theory](#)  
ADM 570 [Political Economy of Communication](#)  
ARCH 517 [Principles of Universal Design](#)  
ARCH 715 [Principles of Universal Design](#)  
BA 4111 [Managing Technology and Innovation](#)  
BA 5516 [Knowledge Management and Organisational Learning](#)  
BA 5618 [Project Management](#)  
ECON 413 [Introduction to Data Science](#)  
ECON 415 [Economics of Technology and Development](#)  
ECON 439 [Topics in Macroeconomics](#)  
ECON 451 [Industrial Economics](#)  
ECON 454 Economics of Regulation and Antitrust  
ECON 480 [World Economy](#)  
ECON 528 [European Econ. Integr. and Turkey](#)  
ECON 642 Technology, Growth and Development  
ECON 644 National Systems of Innovation  
ECON 666 [Economics of Innovation and Industrial Strategy](#)  
ECON 667 [Development Economics](#)  
ECON 692 [Evolutionary Economics](#)  
ECON 694 [Economics of Education Health and Human Capital II](#)  
EE 710 [Electricity Trading](#)  
IE 481 Industrial Networks and Clusters  
IS 535 [Regulatory and Legal Aspects of Information Systems](#)  
IS 580 [Knowledge, Discovery and Mining](#)  
IS 785 [Social Network Analysis](#)  
MSC 501 [Intro. to Media & Communication Theory](#)  
MSC 512 [Media and Politics](#)  
PHIL 515 [Philosophy of Technology](#)  
PHIL 516 [Philosophy of Technology II](#)  
RP 532 [Methods of Regional Analysis](#)  
RP 534 [Changing Economic and Political Structure](#)  
SOC 442 [Sociology of Science and Technology](#)  
SOC 643 [Advanced Issues in the Sociology of Knowledge](#)

## Graduate Dissertations in the PhD Program

The graduate dissertations can be reached via the Middle East Technical University Library. Dissertations from post 2000 era can also be reached in soft copy format available from the library (<http://lib.metu.edu.tr/>). The graduate dissertations can also be obtained electronically from the Higher Education Council Dissertation Bank (<http://tez2.yok.gov.tr/>).

2021

SARAÇOĞLU, Duygu. The effect of technology convergence on cross-sectoral co-evolution: The case of automotive & ICT sectors. (Supervisor: Assoc. Prof. İbrahim Semih Akçomak)

KARA, Okan. Economic complexity, human development and innovation capability (Supervisor: Prof.: Mehmet Teoman Pamukçu)

2020

DAĞ, Oğuzhan. An R&D roadmap for Turkish defense industry (Advisor: Assoc. Prof. Serhat Çakır)

EĞE, Ahmet Alper. Analyzing the incidence and causes of field of study mismatch, (Advisor: Prof. Dr. Erkan Erdil)

TİRYAKİ, Erkan. An impact assessment model for technology development programs, (Advisor: Assoc. Prof. Serhat Çakır)

TÜRK, Afşar. An investigation for maturity level and roadmap of unmanned aerial vehicle technologies in Turkey, (Advisor: Assoc. Prof. Serhat Çakır)

YONCACI, İlker. Development of a road map and emergency help and detection system for disaster search and rescue operations, (Advisor: Assoc. Prof. Serhat Çakır)

2019

ARPACI, Mustafa Cem. An extended technology acceptance model for evaluating factors affecting manufacturing industry SME decision makers adoption of ERP system, (Advisor: Assoc. Prof. Dr. Serhat Çakır).

AYDOĞDU, Ayhan. Nanotechnology road map for Turkish defense industry, (Advisor: Assoc. Prof. Dr. Serhat Çakır).

ÇİFCİ, Hasan. Technology foresight and modeling: Turkish cyber security foresight 2040, (Advisor: Assoc. Prof. Dr. Serhat Çakır).

DURUKAN, Cansu. Entrepreneurial decision-making in the video game industry: a study on entrepreneurs based in the METU Technopark, (Advisor: Prof.Dr. Nazlı Wasti Pamuksuz).

2018

ASLAN, Murat. The capability contribution of main defense industry firms to their suppliers: A dynamic capabilities view, (Advisor: Assoc. Prof. Dr. Serhat Çakır).

BURHAN, Mukaddes. Impact assessment of Vision 2023 technology foresight in defense sector, (Advisor: Assoc.Prof.Dr. Serhat Çakır).

DOĞAN, Muhsin. Emergence of research and innovation activities in the chemical industry at the beginning of the twentieth century: The case of IG Farben and Du Pont, (Advisor: Assoc. Prof. Dr. İ. Semih Akçomak).

EVSEL, Gülsevım. Human rights domain for reproductive biotechnology: a qualitative study on Turkish case, (Advisor: Doç. Dr. Cem Deveci).

ÖZTÜRK, Ceyhan. Essays on health and economic development nexus: New evidence from a panel of countries, (Advisor: Prof. Dr. Aysıt Tansel).

YÜKSEL, Nurdan. A new technology foresight model and its application in Turkish defense industry for aerospace communication technologies of 2040, (Advisor: Assoc. Prof. Dr. Serhat Çakır).

2016

ERDEN, Yelda. A policy design model for market formation of solar and wind electricity generation in turkey, (Advisor: Prof. Dr. Erkan Erdil).

UTKU İSMİHAN, Fatma Muazzez. Essays on the impact of knowledge on economic growth, (Advisor: Prof. Dr. Teoman Pamukçu).

2015

PEHLİVAN, Nilgün. Turkish olive and olive oil sectoral innovation system: A functional - structural analysis, (Advisor: Prof. Dr. Erkan Erdil).

SEÇKİN, Başar. Firm level absorptive capacity and the success of international technology transfer: The case of aerospace industry in Turkey, (Advisor: Prof. Dr. İrem Dikmen Toker).

YURTSEVEN, Alperen. E. Sources and determinants of intra-industry heterogeneity in the innovation proces, (Advisor: Prof. Dr. Teoman Pamukçu).

2014

ÇETİNKAYA, Umut Yılmaz .European Union innovativeness from the perspective of systems of innovation and complex systems,(Advisor: Prof. Dr. Erkan Erdil).

EMİROĞLU, Ali Ulaş. State-led catch-up: Chinese telecom equipment industry. (Advisor: Prof. Dr. Erkan Erdil).

TAŞDEMİR, Babacan .(The) Concept of 'information society' as the basis of EU's 'new' mediapolicy: A critical appraisal,(Advisor: Prof.Dr. A. Raşit Kaya).

BÜRKEN, Serkan. Technology development in Turkish automotive industry: A case of middle technology trap, (Advisor: Assist. Prof. Dr. İ. Semih Akçomak).

TEKNECİ, Pelin Deniz. Evaluating research performance of Turkish universities, (Advisor: Prof. Dr. Erol Taymaz).

2013

SATIK, Erdoğan. Financialization, information commodities, modularity, nearly-decomposable, real options, (Advisor: Prof.Dr. Erkan Erdil).

FINDIK, Derya. ICT adoption, firm resources, software investment, firm efficiency,(Advisor: Prof.Dr. Aysıt Tansel).

GÜLER, Hüseyin. EU framework programmes, international R&D networks, local buzz–global pipelines, knowledge flows, information and communication technologies, (Advisor: Prof.Dr. Erkan Erdil).

GÜRSOY, Serkan. Social capital, information and communication technologies, social media, (Advisor: Prof.Dr. Erkan Erdil).

2012

KALAYCI, Elif. Analyzing the determinants of R&D, its impact on productivity and efficiency of firms in the Turkish manufacturing industry, (Advisor: Assoc. Prof. Dr. Mehmet Teoman Pamukçu).

2011

TANDOĞAN, Vedat Sinan Impact analysis of industrial research and development subsidy programs in Turkey: An appraisal of quantitative approaches,(Advisor: Assoc. Prof. Dr. Teoman Pamukçu).

BEYHAN-BOZKIRLIOĞLU, Berna. Who interacts with whom? Individual and organizational aspects of university-industry relations in nanotechnology. The Turkish case, (Advisor: Assoc. Prof. Dr. Mehmet Teoman Pamukçu).

### Graduate Dissertations in the M.Sc. Program

The graduate thesis can be reached via the Middle East Technical University Library. Dissertations from post 2000 era can also be reached in soft copy format available from the library (<http://lib.metu.edu.tr/>) The graduate thesis can also be obtained electronically from the Higher Education Council Dissertation Bank (<http://tez2.yok.gov.tr/>). About 100 M.Sc. theses have been completed since 1999. A full list of M.Sc. thesis is available at our website <http://stps.metu.edu.tr/en/completed-msc-theses>.

2021

BAYKAL, Serra. Design and Proposition of Technology Policies to Diffuse Greenhouse Technologies in Turkey: A Case for Speaking Plant Approach (Supervisor: Assist.Prof. Arsev Umur Aydınoglu)

COŞKUN, Beyza. Fablabs and Their Contribution to Sustainability in The Context of Sociotechnical Systems (Supervisor: Assist.Prof. Arsev Umur Aydınoglu)

TAŞ, Ekin. Effectiveness of R&D Tax Incentives in Turkey. (Supervisor: Prof. Dr. Erkan Erdil)

2020

AKAR, Mehmet Furkan. Factors for firm level learning: A case from the defense industry in Turkey, (Supervisor: Prof. Dr. Erkan Erdil)

ERDOĞAN, Feridüddin Emre. Analysis of the relationship between defence and civil industries: Policy recommendations for Turkey, (Advisor: Prof. Dr. Erkan Erdil, Co- Advisor: Dr. E. Serdar Gökpınar)

ERDOĞDU, Sinem. Influencers of environmental technology Diffusion: A case study on diffusion of landfill gas to energy technology in Turkey, (Advisor: Prof. Dr. Erkan Erdil)

SOYAL, Barış. The relationship between corporate entrepreneurship and innovation and the moderating effect of transformational leadership, (Advisor: Prof. Dr. Nazlı Wasti Pamuksuz)

TIRAŞ, Merve. Triple helix model and Turkish rotary wing technology center,(Advisor: Prof. Dr. Erkan Erdil)

YILDIRIM, Ahmet Coşkun. The impacts of digitalization and Covid-19 on the business model of banking: A qualitative study on Turkish banks, (Advisor: Prof. Dr. Erkan Erdil)

YILDIZ, Yağmur. Explaining startup performance: How do entrepreneur and entrepreneurial team characteristics make the startup successful? (Advisor: Assoc. Prof. İbrahim Semih Akçomak, Co- Advisor: Assoc. Prof. Berna Beyhan)

2019

ATAY, Ahmet. The evaluation of an interdisciplinary postgraduate program: the case of science and technology policy studies (TEKPOL) at METU, (Advisor: Assoc. Prof. Dr. İ. Semih Akçomak).

AYDOĞDU, Esra. The impact of mentoring on start-ups, (Advisor: Assoc. Prof. Dr. Adil Oran).

BİLGE, Başak. Imagery intelligence technology foresight and modeling of mobile applications in the defense industry, (Advisor: Assoc. Prof. Dr. Serhat Çakır).

BOYACI, Asli. Turkish chemical sectoral innovation system: A case study on R&D centers, (Danışman: Prof. Dr. M. Teoman Pamukçu).

ÇAPLI, Levent Berke. Serious game development methodology with system and human oriented approach, (Advisor: Assoc. Prof. Dr. Serhat Çakır).

ÇAYKENARI, Harun. Product maturity management methodology in aircraft development projects, (Advisor: Assoc. Prof. Dr. Serhat Çakır).

DURUKAN, Başak. The impact of networking characteristics on entrepreneurial marketing: the case of technology-based firms in Ankara, (Advisor: Assoc. Prof. Dr. İ. Semih Akçomak).

HORATA, Ahmet Melih. Physical space matters: developing social capital for innovation in technopark buildings, (Advisor: Prof. Dr. Nazli Wasti Pamuksuz).

İLHAN, Ömer. Technological transformations: the case of industry 4.0 in Turkish pharmaceutical industry, (Advisor: Prof. Dr. Erkan Erdil).

KILIÇASLAN, Seda. The characteristics of financial innovation in developing countries: the case of Turkey, (Advisor: Assoc. Prof. Hasan Cömert).

MAVIŞ, Belkız. Investigation of contribution to technology transfer offices (tto) intellectual industrial property rights management and licensing services provided in university industry cooperation, (Advisor: Prof. Dr. Erkan Erdil).

ÖZÇAKMAK, Fuat. Supplementing ISRM models by kri implementation, (Advisor: Assist. Prof. Dr. Aybar Can Acar).

SESKİR, Zeki Can. Current state of quantum information technologies in Turkey, (Advisor: Assoc. Prof. Dr. Serhat Çakır).

TAŞ, Hamit. Sellers and buyers perspectives on valuation of university patents in Turkey, (Advisor: Assoc. Prof. Dr. İ. Semih Akçomak).

YELDAN, Yiğit. Implementing real-time data analytics methods for predictive manufacturing in oil and gas industry: from the perspective of industry 4.0, (Advisor: Prof. Dr. M. Teoman Pamukçu).

YİĞİT, Muhammed Ali, Determination of program management methods and practices to be applied in the national combat aircraft development (txf) program by using the experience from the f-35 joint strike fighter (jsf) program, (Advisor: Prof. Dr. M. Teoman Pamukçu).

YÜKSEL, Aycan. Analysis of knowledge and technology transfer between research infrastructures and industry in Turkey, (Advisor: Prof. Dr. Erkan Erdil).

2018

KONAC, Enver Hakan. Academic entrepreneurs: motivational aspects, challenges and success criteria in technology development zones in ankara" (Advisor: Prof. Dr. Mehmet Teoman Pamukçu).

YAVUZ, Hasan. The critical success factors for manufacturing execution systems (mes) adoption in Turkey defense industry: An industrial case study" (Advisor: Assist. Prof. Dr. İ. Semih Akçomak).

2017

ÇİFTÇİ, Fatih Mert. Measuring the performance of techology transfer offices (Ttos): The case of Turkey, (Advisor: Assist. Prof. Dr. İ. Semih Akçomak).

2015

UYGUN, Zafer. Science diplomacy: A proactive policy approach for international cooperation in science and technology and an alternative model for Turkey, (Advisor: Assist. Prof. Dr. İ. Semih Akçomak).

2014

DEMİREZEN, Emre. Cooperation among METU technopolis firms with regard to their sectoral distribution,(Advisor: Assist. Prof. Dr. Seven Ağır).

ASLAN, Duygu. Sources and benefits of social capital for technology-based firms in STPs: A case of METU, (Advisor: Prof. Dr. Nazlı Wasti Pamuksuz).

HACIBAYRAMOĞLU, Merve Gül. The impact of succession on family bussiness innovation: A case study on manufacturing sector in Ankara,(Advisor: Assist. Prof. Dr. İ. Semih Akçomak).

2013

DÖNMEZ, Pınar. Use of technology in non-profit organizations and a model for efficient technology management in these organizations, (Advisor: Prof.Dr. Erkan Erdil).

2012

YASAN, Nehir. Exploring the research assistants' opinion Regarding the effects of graduate course on their research skills and science perceptions, (Advisor: Prof. Dr. Soner Yıldırım).

BOZTAŞ, Ömer. Determining a strategy for favorable acquisition and utilization of complex technologies: flight simulation training devices (FSTD),(Advisor: Prof. Dr. Erkan Erdil).

DURTAŞ BAŞPINAR, Canan Pelin. Financial strategic planning and knowledge management: A comparative case study on Turkish banking sector, (Advisor: Prof. Dr. Nusret Güçlü).

EVSEL, Gülsevım. Controversial issues related to reproductive biotechnology: An empirical study, (Advisor: Prof. Dr. Erkan Erdil, Co-advisor: Prof. Dr. Hayriye Erbaş).

EMİROĞLU, Sinem. Information society: National science and technology policies in Turkey and South Korea, (Advisor: Prof. Dr. Erkan Erdil, co-advisor: Doç. Prof. Dr. Funda Başaran Özdemir).

KARAOĞUZ, Hüseyin Emre. Varieties of capitalism and national systems of innovation: A new perspective on the convergence debate, (Advisor: Prof. Dr. Eyüp Özveren).

ŞAHAN, Fatih. The Impact of technology level and structural change of exports on the dynamics of international competitiveness: a sectoral disaggregated analysis of Turkish manufacturing sector, (Advisor: Assoc. Prof. Dr. Teoman Pamukçu).

ÖZTÜRK, Ayşen. Structural analysis and functional dynamics of national innovation system in Turkey and Germany: Lessons for Turkey, (Advisor: Prof. Dr. Erkan Erdil).

SARBAY, Zeynep Saygın. The CE marking and the implementation in Turkey: The challenges and the complexities, (Advisor: Sevilay Kahraman).

2011

SARIOĞLU İŞLER, Ayşen. My faithful machine: The role of technology in daily life: The case of singer sewing machine in Turkey, (Advisor: Prof. Dr. Onur Yıldırım).

## OTHER EDUCATION ACTIVITIES

### **Mini-course on Technological Innovation**

**Place: British Embassy of Turkey**

**Date: January 28-29, 2021**

This mini-course is designed to present the basics of the innovation process and science and technology policies. It also touches on the recent developments in innovation policy, design thinking, and smart production systems.

### **Teknolojik İnovasyon Yönetimi (Technological Innovation Management)**

**Place: Continuing Education Center, METU**

**Date: March-June 2020; March-June 2021; Specific programs for companies**

This short crash course in Turkish at Continuing Education Center aims at giving basic information on science and technology studies and touches upon hot topics in the field. The topics covered are:

- basic jargon, definitions, measurement of R&D and innovation
- design thinking
- innovation process and innovation management
- digital transformation, intelligent production systems
- government policy on research and innovation

## RESEARCH PROJECTS

### **Continuing Projects**

**METU Digital Innovation Center – METU-DIC**

**Funding Agency: EC-IPA, Ministry of Technology and Industry**

**Starting date: 01.03.2020**

**Contact Person: Erkan Erdil**



The infrastructure to be established will be located in the METU campus, since there will be R&D activities and METU as a research and technology organization (RTO), at the core of the DIC , as its main role. More than 90 academic members of METU-BILTIR Center Digital Transformation Platform, together with the graduate students, will conduct research studies and R&D industrial projects, based on the needs and demands of the manufacturing SMEs, to develop novel technologies in this field by using their expertise and the infrastructure to be established with the proposed operation. METU researchers, R&D personnel of SMEs and expert/research institutes from Turkey and Europe will be able to work together and provide important contributions to the European Research Area (ERA) intellectual capital on digital technologies. The center will be offering services in collaboration with solution partners and its activities will be complementary to other similar establishments; therefore, as a result, in addition to developing digital solutions, the center will be capable of working together with similar centers targeting to assist enterprises in their digital transformation journeys.

**Emergence of Creative Industries and Transformation of Economy Through Innovative Technologies: Games, Wearables and New Generation Film-making – ECITE**

**Funding Agency:** EC-IPA, Ministry of Technology and Industry

**Starting date:** 01.03.2020

**Contact Person:** Semih Akçomak

This proposed project is prepared to facilitate SMEs, micro-SMEs and entrepreneurs in creative industries to deliver innovative and good-value services and products in a safe collaboration environment with resources by mentoring and talent development facilities. The aim of this project is to establish a fruitful sectoral creative hub to promote sustainable and high-profit creative and digital industries, namely gaming, wearable technologies and new generation film-making and production. Furthermore, using the advantage of being located in one of the most prestigious universities in Turkey, the interaction between university, project partners and companies is expected to increase and lead to innovative and intellectual products. By creating a creative hub enriched with both experts and technological infrastructure, this project will provide SMEs a nourishing environment which is expected to boost their impact primarily on regional, national and ,in the long term, on a global scale.

**Türkiye Fotovoltaik Teknoloji Platformu (TFTP) Araştırma Programının Toplumsal Etkisinin Ölçülmesi (Measuring the Societal Impact of Turkish Photovoltaic Technology Platform Research Program)**

**Funding Agency:** TUBITAK 1004

**Starting date:** 01.02.2021

**Contact Person:** Erkan Erdil

This project aims to assess the societal impact of the technology development in solar energy and related technologies using quantitative and qualitative methods. In a scenario where investing in solar energy technologies is an aim under sustainable development goals, this project aims to assess the economic, labour market, export and environmental impact of development in solar technologies and diffusion of such technologies.

## **The Role of the Interplay Between Science and Invention Networks in Knowledge Cohesion: Evidence from European Regions**

**Funding Agency:** European Patent Office

**Starting date:** 22.05.2020

**Contact Person:** Semih Akçomak

The aim of this project is to analyse international collaborations in science on one hand, and inventive activity on the other, to see how the landscape of knowledge production and diffusion in Europe has changed in the last decade. The project further aims at investigating to what extent collaborations in science and collaborations in patents are related.

Governments around the world fund such collaborative initiatives; one similar, relevant example is the EU's Framework Programmes for research and innovation. Therefore, both academics and policy makers will benefit from knowing the impact of research collaborations on patents, as well as impact of patents on further research collaborations.

The research idea rests on the following four research questions which this project addresses: 1) Do patent and research networks have similar dynamics? 2) Do patents have any impact on the formation and evolution of research networks? 3) Do the innovation performances of regions affect the formation and evolution of patent networks? 4) Do the innovation performances of regions affect the formation and evolution of research networks?

## **HORIZON STE-Implementation of the Initiative for Global Leadership in Solar Thermal Electricity**

**Funding Agency:** European Commission – HORIZON 2020 Grant No: 838514

**Starting date:** 01.04.2019

**Contact Person:** Erkan Erdil – Yelda Erden Topal

HORIZON-STE is a Horizon 2020 funded project aiming at supporting the Implementation of the Initiative for Global Leadership in Solar Thermal Electricity (STE), also known as Concentrated Solar Power (CSP), which was launched by the European Commission and adopted within the Strategic Energy Technology Plan (SET Plan) of the European Commission. For more than a decade, Europe's Solar Thermal Electricity sector has become a worldwide technology leader. But the further deployment has been hindered in Europe since 2013, mostly due to retroactive changes in the investment conditions in Spain. To unlock this situation, the European Commission has launched a dedicated Initiative – Initiative for Global Leadership in Concentrated Solar Power focusing on 2 targets: a cost reduction target and an innovation target, in order to keep STE/CSP's global technology leadership and rebuild a home market in Europe.

## **SOLARTWINS-Solar Twinning to Create Solar Research Twins**

**Funding Agency:** European Commission – HORIZON 2020 Grant No: 856619

**Starting Date:** 01.01.2020

**Contact Person:** Erkan Erdil - Yelda Erden Topal

Research and Innovation (R&I) in Concentrating Solar Thermal (CST) technologies, promise global impacts through new and sustainable solutions to societal challenges. CST technologies include 1) Solar Thermal Electricity (STE/CSP), 2) Solar Heat for Industrial Processes (SHIP), 3) Solar Fuels, and 4) Clean and Fresh Water. Europe is currently a global technology leader in CST, and SolarTwins is designed to strengthen this leadership position. The goal of Solar Twins is to step-up the scientific excellence and innovation capacity of the promising institution,

METU-GÜNAM's CST research laboratory, through twinning with leading institutions PSA-CIEMAT and DLR. SolarTwins build on several EU CST R&I networks and activities, in which all 3 institutions participate; including EU-SOLARIS, EERA-JP-CSP, and SFERA-III. SolarTwins contains 3 Twinning Work Packages (WPs 1-3). WP1 contains cross-cutting activities including Joint Kick-Off Activities targeting stakeholders and External Training to strengthen local, regional and national R&I capacities. WP2 is dedicated to ESRs and contains 2 summer schools at METU, to be taught by experts from PSA-CIEMAT and DLR, and exchange of METU ESRs to PSA-CIEMAT and DLR for training and research mentoring. WP3 is dedicated to developing joint research lines between METU GÜNAM and each of PSA-CIEMAT and DLR. WP3 includes activities for METU-GÜNAM personnel at each of PSA-CIEMAT and DLR to formulate joint research lines, and METU-GÜNAM staff exchange to each of PSA-CIEMAT and DLR to develop joint research proposals. WP4 is dedicated to maximising the Impacts of SolarTwins and includes Exploitation, Dissemination, and Communication tasks, and a Final Conference. WP5 is dedicated to project management. SolarTwins is specifically formulated to lead to Joint Research Proposals that target large joint funding opportunities to increase competitive research funds for all partners, and result in more effective use of public research funds.

### **İzmir Akıllı Uzmanlaşma Stratejisi (Smart Specialization Strategy of İzmir)**

**Funding Agency:** İzmir Development Agency

**Start Date:** 01/06/2020

**Contact Person:** Erkan Erdil

İzmir Smart Specialization Strategy is prepared by İzmir Development Agency (İZKA) in order to determine the areas where TR31 İzmir Region has competitive advantage, to accelerate the region's R&D and innovation specialization and development process. The strategy making process will be carried out in accordance with the European Commission's Guide to Research and Innovation Strategies for Smart Specialization published in 2012 and the methodology used in other EU examples. Within the framework of the study, the data related to İzmir will be obtained from various data sources (both qualitative and quantitative) and this data will be analyzed to prepare a smart specialization strategy. TEKPOL advises in preparing the strategy document.

### [Large Scale Research Projects](#)

#### **FEUTURE - The Future of Turkey - EU Relations: Mapping Dynamics and Testing Scenarios**

**Funding Agency:** European Commission

**End Date:** 01/03/2019

**Contact Person:** Erkan Erdil

FEUTURE is the largest research project on EU-Turkey relations the European Commission has funded so far, the relevance of which has once again been highlighted by current affairs. Hence, the aim of FEUTURE's research is to reveal the narratives and drivers of the EU-Turkey relationship, the likely scenario(s) for the future, and the implications these may have on EU and Turkey, as well as the neighboring countries and the global scene. FEUTURE is coordinated by Dr. Nathalie Tocci, Deputy Director of Istituto Affari Internazionali and Special Advisor to EU HRVP Federica Mogherini and Prof. Dr. Wolfgang Wessels, Director of the Centre for Turkey and European Union Studies at the University of Cologne. The FEUTURE consortium consists of 13 renowned universities and think tanks from the EU, Turkey and the neighbourhood.

**Project Selection Practises and the Analysis of Selection-Performance Relationship in Entrepreneurship Support Programs: The Case of Incubators and Accelerators in Turkey**  
**Funding Agency:** TÜBİTAK

**End Date:** 01/03/2019

**Contact Person:** İ. Semih Akçomak

This research project focuses on incubation and acceleration (university, public and private) programs which have been designed to promote technology-based entrepreneurship in Turkey. The aim of this project is to investigate the relationship between start-up selection practices, which are the most important process in the incubation and acceleration process, and the performance of selected start-ups. Incubators and accelerators have many different forms. In this project, we consider the differences between programs and include most of these different forms of programs. Focusing on the entrepreneurship support programs which select start-ups according to certain selection criteria, provide them business support services and assist them in accessing innovation networks, this research project investigates the factors which influence economic performance of these selected start-ups.

**Strengthening the EBRD's Approach to Innovation and Innovation Policy in Turkey**

**Funding Agency:** European Bank of Reconstruction and Development

**End Date:** 31/10/2018

**Contact Person:** M. Teoman Pamukçu

This commissioned research gives a detailed account of innovation policy activities, innovation policy tools and their effects on the Turkish STI ecosystem. It also presents the current state of the ecosystem and policies towards new technologies such as industry 4.0. The report includes comparisons of Turkey and other selected countries on the basis of the innovation ecosystem seeking for successful policy implementations. In essence the report aims to assist EBRD in designing and implementing innovation finance programs in Turkey.

**eScience in Environmental Research: An Assesment for an Integrated Research Agenda for Turkey**

**Funding Agency:** TÜBİTAK - European Commission (co-funded)

**End Date:** 01/12/2015

**Contact Person:** Arsev Umur Aydınoglu

The project is a multilevel assessment of research data management (RDM) activities in Turkey, for environmental sciences. In a nutshell, RDM is the ability to collect, analyze, share, and preserve data. The policy assessment focuses on RDM policy of Tubitak and compares it to other funding agencies in the U.S. and Europe. The technology assessment is about the bandwidth, hardware, software, tools, apps, and IT staff in Turkey. The attitudes towards RDM and practices of environmental scientists constitute the behavioral assessment. After the data is analyzed based on three assessments, a roadmap for Turkey, for integration to global repositories, is going to be prepared.

**Market Formation of Electricity Generation from Renewable Sources: The Cases of Solar Energy and Wind Energy in Turkey (TÜBİTAK 1002 - Short Term R&D Funding Program)**

**Funding Agency:** TÜBİTAK

**End Date:** 01/08/2015

**Contact Person:** Erkan Erdil

This project aims to design technology policies for diffusion of electricity generation based on renewable sources in Turkey. With global environmental concerns, clean and sustainable supply of electricity becomes an important issue. Increasing electricity prices, dominance of imported fossil fuels in the sector and abundant renewable energy sources also motivate environment-friendly electricity generation in Turkey. In such conditions, the diffusion of solar and wind electricity generation technologies is proposed as an alternative to solve the energy problem. For this purpose, formation and development processes of solar and wind electricity generation markets are investigated. Consequently, policy proposals for diffusion of these emerging renewable energy technologies are formulated. These policies aim to solve the systemic failures by strengthening inducement mechanisms and/or weakening blocking mechanisms in Turkish Technological Innovation System for solar PV and wind turbine technologies.

### **Strategic Analysis of Innovation Capacity in Ankara ICT Sector**

**Funding Agency:** Ankara Development Agency

**End Date:** 01/12/2014

**Contact Person:** Erkan Erdil

This project aims to map the ICT sector in Ankara. As a result of this mapping exercise, the potential strengths and weaknesses of the sector is determined. The project covers the firms established in five different Technoparks in Ankara. At the end of the project, a detailed policy analysis has been put forward.

### **Sharing Knowledge Assets: Inter-regionally Cohesive Neighborhoods (SEARCH)**

**Funding Agency:** European Commission FP7

**End Date:** 01/07/2014

**Contact Person:** Erkan Erdil

The EU has experienced a successful expansion in the recent years with the incorporation of new countries. These have changed the EU map, broadening the frontiers and thus revealing new neighbouring countries. Their integration offers new opportunities, but also implies some risks. Even though the ENP has demonstrated to be an integrative tool, which has provided an effective and clear framework to establish cooperation links within neighbouring countries, some important areas with considerable potential are open for further progress. SEARCH will focus attention on some areas which so far have been neglected in the analysis of the impact of the ENP, but are of central interest in the economic literature on cohesion. METU-TEKPOL has been responsible for the WP5 that is designed to investigate the current status of the social, cultural and institutional environment in the European countries and regions. For further details, see the project website at <http://www.ub.edu/searchproject/>

### **Era-Watch Country Report Turkey 2013**

**Funding Agency:** European Commission

**End Date:** 01/06/2014

**Contact Person:** Erkan Erdil

This report consolidates the recent developments in Turkey regarding science, technology and innovation. The current innovation climate and the policy status are explained in detail, using secondary data obtained from the ministries and government agencies.

## **Era-Watch Country Report Turkey 2014**

**Funding Agency:** European Commission

**End Date:** 01/06/2013

**Contact Person:** Erkan Erdil

This report consolidates the recent developments in Turkey regarding science, technology and innovation. The current innovation climate and the policy status are explained in detail, using secondary data obtained from the ministries and government agencies.

## **Technology, Task Composition of Jobs and Trade: Task-Trade Framework and Implication for the Turkish Labour Market**

**Funding Agency:** TÜBİTAK

**End Date:** 01/02/2013

**Contact Person:** İ. Semih Akçomak

This project discusses the labour market implications of globalisation, product fragmentation and outsourcing. We live in a world where goods, services, capital, labour and ideas are mobile, a fact that reinforces globalisation of production. Recent trends show that there is polarisation in employment and wages. We look at the causes of these trends and then discuss several indicators to measure globalisation of production. The recent literature is discussed with specific reference to three trends: (i) employment share of services sector has increased, (ii) employment share variation or difference in low and high skilled occupations has increased (job polarization), (iii) similarly, wage variation or difference in low and high skilled occupations have increased relative to middling jobs (wage polarization). We investigate the existence of such findings in the Turkish labor market for 2004-2010 period using Labor Force Survey data. There is evidence for wage and job polarization. Subsequently, we show that occupations have significant contribution in explaining the change in wage distribution.

## **Does Government Support for Innovation Matter? The Effectiveness of Public Support for Private Innovation (Project No FEM 35-18)**

**Funding Agency:** Euro-Mediterranean Forum of Economic Institutes (FEMISE Network)

**End Date:** 01/01/2013

**Contact Person:** M. Teoman Pamukçu

The aim of the project is to analyze, in a comparative perspective, the government support for innovation by firstly (initially) examining the main existing instruments of financial support for innovation in Turkey and Poland, and secondly to assess their effectiveness by applying recent econometric techniques to firm-level data for both countries obtained from the Community Innovation Survey (CIS). To this end, the same econometric methodology is applied to the Turkish and Polish 2008-2010 editions of the Community Innovation Survey for manufacturing firms. Two models are estimated: one following the now classical CDM model and assessing the role of innovation expenditure, but assuming government support exogenous; and another controlling for the endogeneity of the support but assuming a simplified version of the innovation performance equation. The evidence indicates that government support contributes to higher innovation spending by firms and this in turn improves their chances to introduce product innovations. The positive impact remains valid even when a possibly non-random selection of firms for government support programs is controlled for. In particular, the support from local governments proved inefficient or less efficient than the support from central government or European Union.

**Kazan, Ankara Defense and Aerospace Cluster Feasibility Report****Funding Agency:** Turkish Undersecretariat for Defense Industries**End Date:** 31/12/2012**Contact Person:** Erkan Erdil

Turkish Aerospace Industry (TAI) is a major player in Turkish Defense Industry. Recently the government planned to establish a cluster of firms in defense and aerospace industry in the vicinity of TAI. The establishment of a synthetic cluster should be carefully designed and the first step is to map the defense industry in Turkey to see whether firms are willing to participate in such a cluster. This feasibility project has been commissioned by the Undersecretariat of Defense and aimed to investigate the potential of a defense and aerospace cluster in Kazan region of Ankara.

**Analysis and Evaluation of METU Research Centers****Funding Agency:** METU-Presidency Office Research Coordination Dep.**End Date:** 09/11/2011**Contact Person:** Erkan Erdil

This project maps the current academic, research and funding situation in the Research Centers organised under the METU Rectorate. The project team visited 14 Research Centers and conducted interviews with the center heads. A detailed report has been delivered to the Rectorate and a summary report on the Research Centers in general has been delivered to the Ministry of Development.

**Clustering, international networks and performance of firms: some complement approaches for MENA's convergence****Funding Agency:** *Euro-Mediterranean Forum of Economic Institutes (FEMISE)*,**End Date:** 03/03/2011**Contact Person:** M. Teoman Pamukçu

The first objective has been to study if networks effectively ameliorated the TFP of firms and to compare international networks (imports of intermediate and capital goods, vertical or horizontal cooperation) and local networks. The second objective has been to verify whether the proximity of other exporting firms increases the probability of a firm to become an exporter. In the third part of the project, an experimental economic technique has been used to study how trust among business partners is affected by the information about the residence's partner's country of origin.

**Small Scale Research Projects****İzmir'de Bölgesel Girişim Sermayesi ile Yatırım Yapmak Üzere Odak Teknoloji Alanlarının Belirlenmesi****Funding Agency:** İzmir Development Agency**End Date:** 31/12/2020**Contact Person:** Erkan Erdil**Önceliklendirilmiş Alanlarda Ar-Ge Proje Destekleri: Bir Etki Analizi Çalışması.****Funding Agency:** BAP**End Date:** 31/12/2018**Contact Person:** Erkan Erdil

**Bilimsel Arařtırmalarda Mükemmeliyet Merkezlerinin Önemi: Japonya Örneđi.**

**Funding Agency:** BAP

**End Date:** 31/12/2018

**Contact Person:** Arsev Umur Aydınoglu

**Türkiye'deki Teknoloji Transfer Ofislerinin (TTO) Orta Vadeli Deđerlendirmesi**

**Funding Agency:** BAP

**End Date:** 31/12/2017

**Contact Person:** Erkan Erdil

**Türk Zeytin ve Zeytinyađı Sektörü: Bir Tarımsal İnovasyon Sistemi Yaklaşımı**

**Funding Agency:** BAP

**End Date:** 31/12/2016

**Contact Person:** Erkan Erdil

**1925-1945 Arasında Kimya Sektöründe İnovasyon ve Öğrenme Süreçleri Nasıl Farklılařtı?**

**Alman IG Farben ve Amerikan Dupont Örneđi**

**Funding Agency:** BAP

**End Date:** 01/12/2016

**Contact Person:** İ. Semih Akçomak

**Avrupa Arařtırma Alanının Çerçeve Programları Üzerinden Deđerlendirilmesi**

**Funding Agency:** BAP

**End Date:** 31/12/2015

**Contact Person:** Erkan Erdil

**Türkiye Ekonomisinde Firmaların İnovasyon Etkinliklerine Verilen Doğrudan Teşviklerin**

**Etkisinin Nicel Analizi**

**Funding Agency:** BAP

**End Date:** 31/12/2015

**Contact Person:** M. Teoman Pamukçu

**Türkiye'de İşgücü Piyasası Dinamikleri: İşgücü ve Ücret Kutuplaşması ve Mesleklerin Artan Önemi**

**Funding Agency:** BAP

**End Date:** 31/12/2015

**Contact Person:** İ. Semih Akçomak

**Strategy for State Economics Enterprises**

**Funding Agency:** Türkiye Kamu İşletmeleri Birliđi (TKİB)

**End Date:** 01/12/2015

**Contact Person:** Erkan Erdil

**Strategic Planning in the Public Sector**

**Funding Agency:** Ministry of Development

**End Date:** 01/12/2015

**Contact Person:** Erkan Erdil



**Türkiye İlaç Sektöründe İlaç Geri Ödeme Politikalarını Belirleyen Etmenlerin 2003-2013 Dönemi İçin Nicel Analizi**

**Funding Agency:** BAP

**End Date:** 01/12/2015

**Contact Person:** M. Teoman Pamukçu

**Teknoloji Ara Birimi Projesi**

**Funding Agency:** Ankara Chamber of Industry

**End Date:** 01/05/2015

**Contact Person:** Erkan Erdil

**Ankara İli Bilgi İletişim Teknolojileri Sektörü İnovasyon Kapasitesi ve Yetenekler: Bir Bölgesel İnovasyon Sistemi Yaklaşımı Uygulaması**

**Funding Agency:** BAP

**End Date:** 31/12/2014

**Contact Person:** Erkan Erdil

**Ankara'da Kreatif Sektör Kümelenme Analizi**

**Funding Agency:** BAP

**End Date:** 31/12/2013

**Contact Person:** Erkan Erdil

**Türkiye Ekonomisinde Cinsiyete Bağlı Mesleki Katmanlaşmanın Neden Olduğu Eşitsizliğin Boyutu, Sonuçları ve Politika Önerileri**

**Funding Agency:** BAP

**End Date:** 31/12/2013

**Contact Person:** Erkan Erdil

**Ankara İli Kentsel İnovasyon Sistemi İle Kurumsal Yapıların İncelenmesi: Kentsel Öğrenme Sistemlerinin İyileştirilmesi**

**Funding Agency:** BAP

**End Date:** 31/12/2012

**Contact Person:** Erkan Erdil

**Bölgesel Kalkınma Stratejileri Ekseninde Ankara İli Mobilya Üreticilerinin Tedarik Zinciri İlişkileri: Öğrenme ve Tasarım Arasındaki İlişki**

**Funding Agency:** BAP

**End Date:** 31/12/2012

**Contact Person:** M. Teoman Pamukçu

**Türkiye Ekonomisinde Doğrudan Yabancı Sermaye Yatırımlarından Kaynaklanan Bilgi Taşmalarının Ekonometrik Analizi**

**Funding Agency:** BAP

**End Date:** 31/12/2012

**Contact Person:** M. Teoman Pamukçu

## **Türkiye Ekonomisinde Yabancı Sermayeli Firmalar ve Ar-Ge Faaliyetleri**

**Funding Agency:** BAP

**End Date:** 31/12/2011

**Contact Person:** Erkan Erdil

## **Bilgi ve İletişim Teknolojileri ve Enerji Etkinliği**

**Funding Agency:** BAP

**End Date:** 31/12/2011

**Contact Person:** Erkan Erdil

## **Türkiye Ekonomisinde Doğrudan Yabancı Sermaye Yatırımları ve Yerli Firmaların Ar-Ge Faaliyetleri Arasındaki İlişkinin Nicel Analizi**

**Funding Agency:** BAP

**End Date:** 31/12/2011

**Contact Person:** M. Teoman Pamukçu

## **Other Projects That TEKPOL Members Advised**

2019

- TAEK (Turkish Atomic Energy Authority) National Policy and Strategy Document Project
- Digital Transformation in Automotive Industry in Turkey (TAYSAD)
- Xnovate (TTGV)

2017

- Genç İstihdamının Artırılması için Ankara Girişimcilik Ekosisteminin Geliştirilmesi – YEDP ANKARA GİRİŞİM Projesi
- Redesign of R&D Survey (TÜİK)

2016

- Investigation of Inter-Firm Technology Transfer and Collaboration by Social Network Analysis (MoSIT)

2013

- National Information Society Strategy, Ministry of Development
- National Electronic Communication Infrastructure and Broadband Strategy, Ministry of Transport, Maritime Affairs and Communications

2012

- Macroeconomic Projections and Opportunities, Information Society Strategy, Ministry of Development, Ankara
- National Electronic Communication Strategy, TÜBİTAK-ULAKBİM, Ankara.
- Workgroup on Building a Composite Index for Technology Development Zones, Ministry of Science, Industry and Technology, Ankara.

2011

- Analysis of Knowledge and Technology Transfer by Multinational Companies to Local Suppliers in the Turkish Automotive Industry, TÜBİTAK

## PUBLICATIONS OF FULL-TIME MEMBERS

### Publications in English

#### Articles

2021

Burhan, M. ve Cakir, S. (2021). Impact assessment of Vision 2023 defense technology foresight, *Foresight*, Vol. 23 No. 3, pp. 367-383. <https://doi.org/10.1108/FS-05-2020-0049>.

Erdil, E. Akçomak, İ.S., Çetinkaya, U.Y. (2021), Is There Knowledge Convergence Among European Regions? Evidence from the European Union Framework Programmes, *Journal of the Knowledge Economy*, <https://doi.org/10.1007/s13132-021-00754-5>

Erdil, E. and Gürbüz, K. (2021) "Prioritization and R&D Support Mechanisms: Turkish Case", *Journal of the Knowledge Economy*, 12, 962-91.

Özkaragöz Doğan, E., Uygun, Z. ve Akçomak, İ.S. (2021). Can science diplomacy address the global climate change challenge? *Environmental Policy and Governance*, 31(1), 31-45.

Sik, A.S., Aydinoglu, A.U., ve Aydin Son, Y. (2021). Assessing the readiness of Turkish health information systems for integrating genetic/genomic patient data: System architecture and available terminologies, legislative, and protection of personal data. *Health Policy*, 125(2), p.203-212.

Seskir, Z.C. & Aydinoglu, A.U. (2021). The landscape of academic literature in quantum technologies. *International Journal of Quantum Information*.  
doi:10.1142/S0219749921500012X

Dogan, G., Taskin, Z. & Aydinoglu, A.U. (2021). Research data management in Turkey: A survey to build an effective national repository. *IFLA Journal*, 47(1), 51-64.

2020

Erdil, E. ve Gürbüz, K. (2020). Prioritization and R&D support mechanisms: Turkish case, *Journal of the Knowledge Economy*, <https://doi.org/10.1007/s13132-020-00648-y>.

Erdil, E. ve Özer, Ö.K. (2020). Global innovation system Design: G20 as a playground, *ekonomik yaklaşım*, 2020, 31, 93-137.

Dogan, G., Taskin, Z. ve Aydinoglu, A.U. (2020). Research data management in Turkey: A survey to build an effective national repository. *IFLA Journal*.  
<https://doi.org/10.1177/0340035220917985>

Kadayıfçı, E.P., Ziya, H.E. ve Korkut, U. (2020). Discursive governance over pro-population politics in Turkey. *Sosyoloji Araştırmaları Dergisi*, 23(2), 244-283.

Nasser, H., Es, F., Zolfaghari Borra, M., Semiz, E., Kökbudak, G., Orhan, E., Turan, R. (2020). On the application of hole-selective MoOx as full-area rear contact for industrial scale p-type c-Si solar cells. *Progress in Photovoltaics: Research and Applications*, 2020;1-13.  
<https://doi.org/10.1002/pip.3363>

Sik, A.S., Aydinoglu, A.U., ve Aydin Son, Y. (2021). Assessing the readiness of Turkish health information systems for integrating genetic/genomic patient data: System architecture and available terminologies, legislative, and protection of personal data. *Health Policy*, 125(2), p.203-212.

Tekin, Y. (2020). Optimization of LDA parameters, 2020 28th Signal Processing and Communications Applications Conference (SIU), Gaziantep, Turkey, 2020, pp. 1-4, doi: 10.1109/SIU49456.2020.9302034.

Yıldırım, A.C. (2020). Turkish banks and digitalization: policy recommendations from a qualitative study, BDDK bankacılık ve finansal piyasalar dergisi, 14 (2), pp. 145-174, DOI: 10.46520/bddkdergisi.841167.

2019

Akçomak, İ.S. & Overvest, B. (2019). Low funding jeopardizes the European Commission's innovation missions, Vox CEPR Policy Portal. <https://voxeu.org/article/low-funding-jeopardizes-european-commission-s-innovation-missions>.

Aydinoglu, A.U. (2019). Türkiye dijital dönüşümü nasıl gerçekleştirebilir? Anahtar, 371.

Erdil, E. and Akdi, Y. (2019). Customs union effect in international trade: Turkish case, International Journal of Business and Management, 7, 43-58, <https://doi.org/10.20472/BM.2019.7.2.004>.

Erdil, E. (2019). Fourth industrial revolution and readiness of Turkey. Efil Journal of Economic Research, 2, 52-71.

Mariscal, C., Barahona, A., Aubert-Kato, N., Aydinoglu, A.U., Bartlett, S., Cárdenas, M.L., Chandru, K., Cleland, C., Cocanougher, B.T., Comfort, N., Cornish-Bowden, A., Deacon, T., Froese, T., Giovannelli, D., Hernlund, J., Hut, P., Kimura, J., Maurel, M.C., Merino, N., Moreno, A., Nakagawa, M., Peretó, J., Virgo, N., Witkowski, O., & Cleaves II, H.J. (2019). Hidden concepts in the history and philosophy of origins-of-life studies: A workshop report. *Origins of Life and Evolution of Biospheres*, 49(3), p.111-145. doi: 10.1007/s11084-019-09580-x.

Kadayifci, E. P. (2019). Transformation of Gendered Engineering Culture in Turkey. *Fe Dergi*, 11(1), 48-58.

Pehlivanli-Kadayifci, E. (2019). Exploring the hidden curriculum of gender in engineering education: A case of an engineering faculty in Turkey. *International Journal of Engineering Education*, 35(4), 1194-1205.

Es, F., Semiz, E., Orhan, E., Genç, E., Kökbudak, G., Baytemir, G., & Turan, R. (2020). Optimization of PERC fabrication based on loss analysis in an industrially relevant environment: First results from GünAM photovoltaic line (GPVL). *Renewable Energy*, 146, 1676–1681. <https://doi.org/10.1016/j.renene.2019.07.149>.

2018

Akçomak, İ.S. & Müller-Zick, H. (2018). Trust and inventive activity in Europe: causal, spatial and nonlinear forces. *Annals of Regional Science*, 60, 529-568.

Erdil, E. (2018). New avenues for regional innovations systems -Theoretical advances, empirical cases and policy lessons. [Book review]. *Regional Studies*. <https://doi.org/10.1080/00343404.2018.1553659>.

Erdil, E. & Çetin, D. (2018). Intra-OIZ and intra-industry knowledge spillovers in Ankara: A spatial econometric analysis. *Efil Journal of Economic Research*, 1, 8-32.

Şahinol, M., Aydınoğlu, A.U. & Kaygan, H. (2018). STS (in) Turkey as Extitution. EASTT Review, 37, (1).

2017

Aydinoglu, A.U. & Taskin, Z. (2017). Origins of life research: A bibliometric approach. Origins of Life and Evolutions of Biospheres, 48 (1), 55-71. doi: 10.1007/s11084-017-9543-4.

Aydinoglu, A.U., Dogan, G. & Taskin, Z. (2017). Research data management in Turkey: Practices and attitudes. Library Hi Tech, 35(2). doi: 10.1108/LHT-11-2016-0134.

Erdil, E. & Ertekin, Ş. (2017). Industry 4.0 and Turkish national innovation system: Challenges and prospects. International Scientific Journal Industry 4.0, 2, 197-200.

Grabowski, W. Pamukçu, M.T., Szczygielski, K. & V.S. Tandogan (2017). Does government support for private innovation matter? Firm-level evidence from two catching-up countries. Research Policy, 46, 219-237.

Kaygan, P. & Aydinoglu, A.U. (2017). The role of space in interdisciplinary collaboration in design education. International Journal of Technology and Design Education, doi:10.1007/s10798-017-9407-2.

2016

Akçomak, I.S., Kok, S. & Rojas-Romagosa, H. (2016). Technology, offshoring and the task-content of occupations: Evidence from the United Kingdom. International Labour Review, 155(2), 201-230.

Akçomak, I.S., Webbink, D. & ter Weel, B., (2016). Why did the Netherlands develop so early? The legacy of the brethren of the common life. Economic Journal, 126(593), 821-860.

Aydinoglu, A.U., Allard, S., Mitchell, C. (2016). Measuring diversity in disciplinary collaboration in research teams: An ecological perspective. Research Evaluation, 25(1), 18-36.

Erdil, E. & Çetinkaya, U. Y. (2016). Cohesion and competition of Europe: Innovation policy from the perspective of networks and entropy. Foresight and STI Governance, 10, 7-24.

2015

Akçomak, I.S., Garcia, A. & Santiago-Rodriguez, F. (2015). UNU-MERIT at 25 Years: How doctoral training at UNU-MERIT contributes to the community of scholars in the economics of innovation? Globelics Working Paper Series No 2015-11.

Aydinoglu, A.U., Allard, S., Mitchell, C. (2015). Measuring diversity in disciplinary collaboration in research teams: An ecological perspective. Research Evaluation, doi: 10.1093/reseval/rvv028.

Çetinkaya, U. M., & Erdil, E. (2015). Cohesion and competition of Europe: Policy suggestions from the perspective of network and entropy. STPS Working Paper Series, No: 1505.

Emiroğlu, U. (2015). Catch-up with generative state: Lessons from Chinese telecom equipment industry. STPS Working Paper Series, No: 1503.

Erdil, E., Göksidan, H. T. (2015). Review of international Production and global value chain studies: The case of Turkish regional networks. STPS Working Paper Series, No: 1504.

Karagöl, B. (2015). 3D Printing: What does it offer and for whom? STPS Working Paper Series, No: 1502.

Pamukçu, M. T. & H. Ülkü, H. (2015). R&D, knowledge diffusion channels and productivity: Evidence from manufacturing firms in Turkey. *Journal of Productivity Analysis*, 44, 79–95.

Scharf, C., Virgo, N., Cleaves, H.J. II, Aono, M., Aubert-Kato, N., Aydinoglu, A.U., Barahona, A., Barge, L.M., Benner, S.A., Biehl, M., Brassler, R., Butch, C.J., Chandru, K., Cronin, L., Danielache, S., Fischer, J., Hernlund, J., Hut, P., Ikegami, T., Kimura, J., Kobayashi, K., Mariscal, C., McGlynn, S., Menard, B., Packard, N., Pascal, R., Pereto, J., Rajamani, S., Sinapayen, L., Smith, E., Switzer, C., Takai, K., Tian, F., Ueno, Y., Voytek, M., Witkowski, O., & Yabuta, H. (2015). A strategy for origins of life research. *Astrobiology*, 15(12), 1031-1042.

Taskin, Z. & Aydinoglu, A.U. (2015). Collaborative multidisciplinary astrobiology research: A bibliometric study of the NASA Astrobiology Institute. *Scientometrics* 103(3), 1003-1022.

2014

Aydinoglu, A.U., Suomela, T. & Malone, J. (2014). Data management in astrobiology: Challenges and opportunities for an interdisciplinary community. *Astrobiology*, 14(6), 451-461. doi:10.1089/ast.2013.1127.

Pamukçu, M.T. & Kalaycı, E. (2014). Assessing the drivers of R&D activities of firms in developing countries, evidence from Turkey. *The European Journal of Development Research*, 26, 853–869.

Pamukçu, M.T. & Kalaycı, E. (2014). Does R&D intensity contribute to technical efficiency in Turkey? *İktisat, İşletme ve Finans*, 29 (336), 9-30.

2013

Erdil, E., Cilasun, S.M. and Eruygur, A. (2013). Do R&D expenditure matter for labor productivity in OECD countries? An unresolved question. *Hacettepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 31, 71-82.

Erdil, E., Pamukçu, T. and Çetin D (2013). A snapshot of the national research system in Turkey. *Izmir Review of Social Sciences*, 1, 21-32.

2012

Akçomak, I. S. & ter Weel, B. (2012). The impact of social capital on crime: Evidence from the Netherlands. *Regional Science and Urban Economics*, 42 (1), 323-340.

Yasan, N., Medeni, T. & Yıldırım, S., (2012). Exploring the research assistants' opinions to improve science perception at graduate programs. *International Journal of eBusiness and eGovernment Studies*, 4(2), 37-46.

2011

Akçomak, I. S. (2011). Social capital of social capital researchers. *Review of Economics and Institutions*, 2(2).

Akçomak, I. S., Borghans, L. & ter Weel, B. (2011). Measuring and interpreting trends in the division of labour in the Netherlands. *De Economist*, 159 (4), 435-482.

Erdil, E., Bilici, Ö. and Yetkiner, İ. H. (2011). The determinants of Turkey's trade flows: A gravity model approach. *Actual Problems of Economics*, 118, 265-79.

2010

Erdil, E. and Kalyoncu, K. (2010). Economic growth and physical/human capital complementarity with nutritional level. *Actual Problems of Economics*, 104, 283-90.

Erdil, E. and Kalyoncu, K. (2010). Physical and human capital complementarity and worker effort level by nutritional level within labor-augmenting Solow type model. *European Research Studies Journal*, 13, 75-84.

Erdil, E., Uğurbaşı, S. H. and Albayrak, A. S. (2010). Evaluation of an electronic medical record System: Zonguldak Karaelmas University Hospital Survey. *ZKÜ Sosyal Bilimler Dergisi*, 6, 37-65.

Pamukçu, M. T. & Durukan, C. (2010). Global production networks and knowledge transfer mechanisms. *International Journal of e-Business and e-Government Studies*, 3(1).

[Books](#)

2018

Meissner, D., Erdil, E. ve Chataway, J. (eds) (2018). *Innovation and the Entrepreneurial University*. Berlin: Springer.

2014

Erdil, E., Çetin, D. (2014). *ERAWATCH Country Reports 2013: Turkey*. Luxembourg: Publications Office of the European Union. ISBN 978-92-79-39529-1

2013

Yetkiner, I. H., Pamukcu, M., & Erdil, E. (eds) (2013). *Industrial Dynamics, Innovation Policy, and Economic Growth Through Technological Advancements* (pp. 1-374). Hershey, PA: IGI Global.

[Chapter in A Book](#)

2021

Erdil, E. and Akçomak, İ.S. (2021), Economic drivers as anchors of EU-Turkey relations: Trade, Finance, and Knowledge. Saatçioğlu, B. and Tekin, F. (eds.) *Turkey and the European Union. Key Dynamics and Future Scenarios*. Nomos, pp. 121-144.

Erdil, E. and Çetin, D. (2021) *Infernum: Economic Impacts of the COVID-19 Pandemic on the Health Tourism Industry – A Snapshot*, in *Handbook of Research on the Impacts and Implications of COVID-19 on the Tourism Industry*, (eds.) M. Demir, A. Dalgıç, and F.D. Ergen, 115-34, Hershey: IGI Global.

Eksen G. C. and Pamukçu, M. T. (2021), The case of Academics for Peace in Turkey, in V. Frangville, A. Merlin, J. Sfeir and P-E. Vamdamme (eds), *Academic Freedom. Challenges and Threats*, 2021, Editions of Free University of Brussels, Brussels 107-120

2020

Akçomak, İ.S. ve Bürken, S. (2020). Middle-Technology Trap: The Case of Automotive Industry in Turkey, in Ferreira, J. J., Teixeira, S.J., Rammal, H.G. (eds). *Technological Innovation and International Competitiveness for Business Growth*, Palgrave, pp. 263-306.

2019

Kilic, O.O., Akyol, M.A., Isik, O., Gunel Kilic, B., Aydinoglu, A.U., Surer, E., Duzgun, H.S., Kalaycioglu, S., Taskaya Temizel, T. (2019). The Use of Big Mobile Data to Gain Multilayered Insights for Syrian Refugee Crisis. In: Salah A., Pentland A., Lepri B., Letouzé E. (eds) Guide to Mobile Analytics in Refugee Scenarios (pp. 347-379). Springer: Cham.

2018

Meissner, D., Erdil, E. and Chataway, J. (2018). Innovation Ecosystems and Universities. In D. Meissner, E. Erdil and J. Chataway (Eds.), Innovation and the Entrepreneurial University (pp. 3-14). Berlin: Springer.

Erdil, E. and Çetin, D. (2018). Smart Specialization and R&I Policy Framework in Turkey. In N. Caseiro, and D. Santos (Eds.), Smart Specialization Strategies and the Role of Entrepreneurial Universities (pp. 209-33). Hershey: IGI Global.

Göksidan, H.T., Erdil, E. and Çakmur, B. (2018). Catching-up and the Role of University-Industry Collaboration in Emerging Economies: Case of Turkey. In D. Meissner, E. Erdil and J. Chataway (Eds.), Innovation and the Entrepreneurial University (pp. 83-113). Berlin: Springer.

Meissner, D. and Erdil, E. (2018). Targeting on Innovation: Potentials and Limits of Entrepreneurial Universities. In D. Meissner, E. Erdil and J. Chataway (Eds.), Innovation and the Entrepreneurial University (pp. 319-27). Berlin: Springer.

2017

Erdil, E. and Göksidan, H.T. (2017). KTT and UIC: Theory and Empirics from Turkey. In D. Bayhan, H. Naquin and E. Velasquez (Eds.), Technology Transfer Book of Knowledge with Turkish TTO Good Practises (pp. 23-32). Ankara: TTGV.

2016

Erdil, E. & Pamukçu M. T. (2016). Analysing R&D Activities of Foreign Enterprises in Emerging Economies: Lessons from Turkey. In David A. Dyker (Ed.), World Scientific Reference on Globalisation in Eurasia and the Pacific Rim, Volume 1: Foreign Investment (pp.185-232). World Scientific Publishing.

Erdil, E. and Göksidan, H. T. (2016). Future-Oriented Positioning of Knowledge Intensive Local Networks in Global Value Chains: The Case of Turkey. In Gokhberg, L., Meissner D., Sokolov, A., (Eds.), Deploying Foresight for Policy and Strategy Makers (pp. 245-64). Springer International Publishing.

2015

Akçomak, İ.S., Akdeve, E. and Fındık, D. (2015). How do ICT Firms in Turkey Manage Innovation? Diversity in Expertise Versus Diversity in Markets. In Dyker, D. and Dai, X. (Eds.), The World Scientific Reference on Globalisation in Euroasia and the Pacific Rim. Volume II: Innovation (pp. 155-172). Singapore: World Scientific and Imperial College Press.

Erdil, E. and Güler, H. (2015). Does Participation in International R&D Networks Enhance Local Dynamism? In P.E. Thomas, M. Srihari and Sandeep Kaur(Eds.), Handbook of Research on Cultural and Economic Impacts of the Information Society (pp. 203-32). Hershey: IGI Global.



Erdil, E. and Pamukçu, M.T. (2015). Institutional Environment, Economic Performance and Innovation in Turkey. In Senen Florensa (Ed.), Research and Assessment on Euro-Mediterranean Relations (pp. 15-63). Barcelona: IEMED.

Pamukçu, M. T. and E. Erdil, (2015). Analysing R&D Activities of Foreign Enterprises in Emerging Economies: Lessons from Turkey. In David Dyker (Ed.), The World Scientific Reference on Globalization in Eurasia and the Pacific Rim: Volume I: Foreign Direct Investment (pp. 120-155). Singapore: World Scientific and Imperial College Press.

2013

Göksidan, H. T., Katsikis, I. N., & Erdil, E. (2013). The Potential Role of Government in Development Process of a Cluster Policy. In I. Yetkiner, M. Pamukcu, & E. Erdil (Eds.), Industrial Dynamics, Innovation Policy, and Economic Growth through Technological Advancements (pp. 114-132). Hershey, PA: IGI Global.

Sönmez, A., & Pamukçu, M. T. (2013). Foreign Direct Investment and Technology Spillovers in the Turkish Manufacturing Industry. In I. Yetkiner, M. Pamukcu, & E. Erdil (Eds.), Industrial Dynamics, Innovation Policy, and Economic Growth through Technological Advancements (pp. 30-51). Hershey, PA: IGI Global.

2012

Akçomak, İ. S. (2011). Incubators as a Tool for Entrepreneurship Promotion in Developing Countries. In Naude, W., Szirmai, E. Goedhuys, M. (Eds.), Entrepreneurship, Innovation and Economic Development (pp. 228-264). Oxford: Oxford University Press.

Pamukçu, T. & Sönmez, A. (2012). Technology Transfer in the Global Automotive Chain: Lessons from the Turkish Automotive Industry. In D. Audretsch L. Lehmann, A. Link and A. Starnecker (Eds.), Technology Transfer in a Global Economy, International Handbook Series on Entrepreneurship (pp. 303-334). Berlin: Springer.

#### Book Reviews

2021

Erdil, E. (2021) Diversities of Innovation, Regional Studies, Book review, 55, 987-88.

2019

Akçomak, İ.S. (2019) Creating cities/building cities: Architecture and urban competitiveness, book review, Regional Studies, (4)53, 614.

Erdil, E. (2019) New Avenues for regional Innovation Systems. Theoretical Advances, Empirical Cases and Policy Lessons, Regional Studies, 53, 448-49.

#### Reports

2021

Research and Innovation Outlook of Turkey, RIOT-2020. September 2021. Türkiye Teknoloji Geliştirme Vakfı, Katkı verenler: İbrahim Semih Akçomak, Serra Baykal, Beyza Bozyak, Erkan Erdil, Berker Karagöz, Ayşe Şehnaz Kart, Cansu Korkmaz, Ezgi Kotan, Tuncay Serdaroğlu, Dilek Şahin and Yağmur Yıldız.

<https://www.ttg.org.tr/tur/images/publications/616d3c9738fea.pdf>

2019

Akçomak, I.S. ve Bürken, S. (2019), The middle-technology trap: The case of automotive industry in Turkey, UNU-MERIT working paper series No: 2019-06.

<https://www.merit.unu.edu/publications/working-papers/abstract/?id=8084>.

Seskir, Z.C. & Aydinoglu, A.U. (2019). The landscape of academic literature in quantum information technologies. arXiv: 1910.06969

Berea, A., Denning, K., Vidaurri, M., Arcand, K., Oman-Reagan, M.P., Bellovary, J., Aydinoglu, A.U., Lupisella, M. (2019). The social sciences interdisciplinarity for astronomy and astrophysics: Lessons from the history of NASA and related fields. arXiv: 1907.07800.

Ozkan, O., Aydin Son, Y., Aydinoglu, A.U. (2019). Security and privacy concerns regarding genetic data in mobile health record systems: An empirical study from Turkey. bioRxiv 678912; doi: <https://doi.org/10.1101/678912>.

2018

Demircan, M., Durukan, C. and Eysel, G. (2018). Design of the interface structures in Turkey by studying best cases from international practices: Fraunhofer and DFKI. The White Paper of the Support to Development of a Policy Framework, Total Factor Productivity Project (TFP Project).

2017

Erdil, E. and Akçomak, I.S. (2017). Knowledge cohesion in European regions: Convergence and cohesion with Turkey (FEUTURE Online Paper No: 11). H2020 FEUTURE project.

2016

Erdil, E. and Akçomak, I.S. (2016). The future of EU-Turkey relations in changing economic environment (Guideline Paper of Work Package 3) H2020 FEUTURE project.

Erdil E., Gülen Çiftçi, G. and Pamukçu, T. (2016). Research and Innovation Observatory (RIO) Turkey Country Report 2015 financed by DG Research and Innovation, European Commission, Research and Innovation Observatory (RIO), Horizon 2020 Policy Support Facility, 2015-2016.

2015

Akçomak, I.S., Garcia, A. and Santiago-Rodriguez, F. (2015). UNUMERIT at 25 Years: How doctoral training at UNU-MERIT contributes to the community of scholars in the economics of innovation? Globelics Working Paper Series No 2015-11, Denmark: Aalborg University.

Çetinkaya, U. M., Erdil, E. (2015). Cohesion and competition of Europe: Policy suggestions from the perspective of network and entropy. STPS Working Paper Series, No: 1505.

Emiroğlu, U., (2015). Catch-up with generative state: Lessons from Chinese telecom equipment industry. STPS Working Paper Series, No: 1503.

Erdil, E., Göksidan, H. T. (2015). Review of international production and global value chain studies: The case of Turkish regional networks. STPS Working Paper Series, No: 1504.

Karagöl, B. (2015). 3D Printing: What does it offer and for whom?. STPS Working Paper Series, No: 1502.

2014

Erdil, E. & Çetin, D. (2014). ERAWATCH Country Reports 2012: Turkey. Luxembourg: Publications Office of the European Union. ISBN 978-92-79-34547-0.

Erdil, E. & Çetin, D. (2014). ERAWATCH Country Reports 2013: Turkey. Luxembourg: Publications Office of the European Union. ISBN 978-92-79-39529-1.

### Publication in Turkish

#### Books

2021

Akçomak I. S., Beyhan B., Çetindamar, D., Tandoğan S. (2021) Türkiye'de Yenilik Tabanlı Girişimcilik, İstanbul Bilgi Üniversitesi Yayınları, İstanbul.

2020

Turanlı, A., Şahinol, M. ve Aydınöğlü, A.U. (2020). STS TURKEY 2019 Konferansı Kitabı. İstanbul: İstanbul Teknik Üniversitesi Yayınları.

2018

Akçomak, İ.S. (2018). Ahlaksız Büyüme. Ankara: Efil Yayınevi.

2016

Akçomak, İ.S., Erdil, E., Pamukçu, T. ve Tiryakioğlu, M. (der.) (2016). Bilim, Teknoloji ve Yenilik: Kavramlar, Kuramlar ve Politika, 762 sayfa, Bilgi Üniversitesi Yayınları: İstanbul.

#### Chapter in a Book

2021

Akçomak, İ.S., (2021), Orta-teknoloji tuzağında devletin rolü, Tiryakioğlu, M. (derleyen) Türkiye'nin Yerli Üretimi ve Politik Ekonomisi içinde, Bilgi Üniversitesi Yayınları: İstanbul. s. 281-288.

Akçomak, İ.S. (2021), Türkiye'de ekonomik büyüme ve planlama, Kamucu Politikalar Sempozyumu Bildiriler Kitabı, TMMOB. Ankara.

Akçomak I. S., Beyhan B., Çetindamar, D., Tandoğan S. (2021), Türkiye'nin Yenilik Tabanlı Girişimcilik Öyküsü: Nereden Nereye? Türkiye'de Yenilik Tabanlı Girişimcilik içinde, İbrahim Semih Akçomak, Berna Beyhan, Dilek Çetindamar, Vedat Sinan Tandoğan, Editor, İstanbul Bilgi Üniversitesi Yayınları, İstanbul, pp.3-20.

Akçomak, İ.S. ve Koçak, K. (2021), Türkiye'de Kuluçkalar: Eski Yapılar ile Yeni Yapılar Birarada Yaşayabilir mi? Türkiye'de Yenilik Tabanlı Girişimcilik içinde, İbrahim Semih Akçomak, Berna Beyhan, Dilek Çetindamar, Vedat Sinan Tandoğan, Editor, İstanbul Bilgi Üniversitesi Yayınları, İstanbul, pp.233-254.

Erdil, E. (2021) Yerli ve Milli: Yaratıcı bir 'Ekonomi Politik' Hayali Mümkün mü?, in Türkiye'nin Yerli Üretimi ve Politik Ekonomisi, (ed.) Murad Tiryakioğlu, 191-94, İstanbul: İstanbul Bilgi Üniversitesi Yayınları.

Yazıcı, E ve Erdil, E. (2021). Pandemi Döneminde Küresel Sürdürülebilir Büyüme Gündemi / Global Sustainable Development Agenda in Pandemic Era. Sürdürülebilir Kalkınma ve Ekonomi. Kültür Üniversitesi. İstanbul.

Konaç, H. and M. T. Pamukçu (2021).Türkiye’de Akademik Girişimcilik”, I. S. Akçomak, B. Beyhanlıoğlu, D. Cetindamar and V.S. Tandogan (eds), Türkiye’nin Teknoloji-Tabanlı Girişimcilik Öyküsü, Bilgi Üniversitesi Yayınları, İstanbul

Pamukçu, M. T. (2021) Türkiye Ekonomisinde İthal İkamesinin Yükselmeyeşinin Nedenleri ve Teknolojik Değişme Süreçlerine Etkisi Üzerine Düşünceler, M. Tiryakioğlu (ed.) Türkiye’nin Yerli Üretimi ve Politik Ekonomisi, Bilgi Üniversitesi Yayınları, İstanbul, 155-178.

Aydinoğlu, A.U. (2021). Girişimcilik üzerine akademik çalışmalar: 2000-2019 yıllarının bibliyometrik analizi. In Akçomak, İ.S., Beyhan, B., Çetindamar, D. & Tandoğan, S. (Eds.) Türkiye’de Yenilik Tabanlı Girişimcilik, p.21-36. İstanbul: İstanbul Bilgi Üniversitesi Yayınları.

2020

Akçomak, I.S. ve Emiroğlu, U. (2020). Devlet Kaynaklı Teknolojik Gelişme: Girişimci Devlet ve Doğurgan Devlet, in Tiryakioğlu, M. (eds) Devletle Kalkınma, İletişim Yayınevi: Ankara, 73-102.

Erdil, E. ve Çakmur, B. (2020). Dijital Dönüşümün Ekonomi Politikası ve Türkiye’nin Dönüşüm Hevesi içinde, Yeniliğin Ekonomi Politikası, (derleyenler.) D.G. Aydın, D. B. Dikmen and S. Öztürk, 35-68, Ankara: Gazi Kitabevi.

Aydinoglu, A.U. (2020). Bilim iletişimi ve tarihi üzerine kısa bir inceleme. In Turanlı, A., Şahinol, M. & Aydinoglu, A.U. (Eds.) STS TURKEY 2019 Konferans Kitabı, pp.59-68. İstanbul: İstanbul Teknik Üniversitesi Yayınları.

Işılak, A. (2020). Türkiye Cumhuriyeti'nin İlk Üniversite Reformu Işığında: Beyin Göçü (Beşerî Sermaye Kaybı) ile Türkiye'nin Bilim ve Teknoloji Gelişimi İlişkisi. In Anlı, Ö.F., Demir, R., & Güney, A. Özne 33. Kitap Bilim ve Toplum Çalışmaları, pp.179-193.

2019

Akçomak, I.S. (2019) Türkiye’nin Bilim, Teknoloji ve Yenilik Politikası, Meraklısına Bilim. sarkac.org yazılarından bir seçki, içinde, (derleyen) D. Üçer Şaylan. 222-224, İstanbul: Bilim Akademisi Yayınları.

2016

Akçomak, İ.S. (2016). Bilim, Teknoloji ve Yenilik Politikalarının Kuramsal Çerçevesi. Erdil, E., Pamukçu, M. T., Akçomak, İ.S. & Tiryakioğlu, M., (Ed.), Bilim, Teknoloji ve Yenilik: Kavramlar, Kuramlar ve Politika içinde (s. 509-528). İstanbul: Bilgi Üniversitesi Yayınları.

Akçomak, İ.S. (2016). Teknoloji, Küreselleşme ve İşgücü Piyasaları. Erdil, E., Pamukçu, M. T., Akçomak, İ.S. & Tiryakioğlu, M. (Ed.), Bilim, Teknoloji ve Yenilik: Kavramlar, Kuramlar ve Politika içinde (s. 301-316). İstanbul: Bilgi Üniversitesi Yayınları.

Akçomak, İ.S. & Kalaycı, E. (2016). Ar-Ge ve Yeniliğin Ölçümü ve Ar- Ge ve Yenilik Anketi Verilerinin Araştırmada Kullanılması. Erdil, E., Pamukçu, M. T., Akçomak, İ.S. & Tiryakioğlu, M. (Ed.), Bilim, Teknoloji ve Yenilik: Kavramlar, Kuramlar ve Politika içinde (s. 107-126). İstanbul: Bilgi Üniversitesi Yayınları.

Akçomak, İ.S., Erdil, E., Pamukçu, M. T. ve Tiryakioğlu, M. (2016). Bilgi, Bilim, Teknoloji ve Yenilik: Kavramsal Tartışma. Erdil, E., Pamukçu, M. T., Akçomak, İ.S. & Tiryakioğlu, M. (Ed.), Bilim, Teknoloji ve Yenilik: Kavramlar, Kuramlar ve Politika içinde (s. 19-46). İstanbul: Bilgi Üniversitesi Yayınları.

Aydođan, S. U., Erdil, E., & Pamukçu, M. T. (2016). Türkiye Bilim, Teknoloji ve Yenilik Politikasının 1980 Sonrası Tarihiçesi ve Gelişimi. Erdil, E., Pamukçu, M. T., Akçomak, İ.S. & Tiryakiođlu, M. (Ed.), Bilim, Teknoloji ve Yenilik: Kavramlar, Kuramlar ve Politika içinde (s. 667-99). İstanbul: İstanbul Bilgi Üniversitesi Yayınları.

Erdil, E. & Pamukçu, M. T. (2016). Sermayenin Küreselleşmesi ve Araştırma-Geliştirme Faaliyetleri: Türkiye'deki Çokuluslu Şirketler Üzerine Bir Çalışma. Erdil, E., Pamukçu, M. T., Akçomak, İ.S. & Tiryakiođlu, M. (Ed.), Bilim, Teknoloji ve Yenilik: Kavramlar, Kuramlar ve Politika içinde (s. 589-614). İstanbul: Bilgi Üniversitesi Yayınları.

2015

Erdil, E., Pamukçu, M. T. & Akçomak, İ.S. (2015). Ankara ili bilgi iletişim teknoloji sektörü yenilik kapasitesi ve üniversite-sanayi işbirlikleri. Embel E. & Yılmaz Y. (Ed.), Ali Fıkrkoca Anı Kitabı: Yaşam, Düşünce ve İnovasyon içinde (s. 177-206). Ankara: Mülkiyeliler Birliđi Yayınları.

Pamukçu, M. T. & Tandođan V. S. (2015). Türkiye ekonomisinde yenilik desteklerinin değerlendirilmesi: 2008-2010 dönemi için bir etki analizi değerlendirmesi. Emre Özçelik (Ed.), Oktar Türel ve Yakup Kepenek'e Armađan Kitap içinde (s. 71-90). Ankara: İmge Yayınevi.

2014

Akçomak, İ. S. (2014). Teknoloji, İnovasyon ve Ekonomik Büyüme. Aysan, A.F. & Dumludađ, D. (Ed.), Kalkınma Literatüründe Yeni Yaklaşımlar içinde (s. 473-493). Ankara: İmge Yayınevi.

Articles

2021

Akçomak, İ.S. ve Seskir, C. (2021), Türkiye'de ve dünyada kuantum teknolojilerinin mevcut durumu: Toplumsal çerçeveden bir bakış, Toplum ve Bilim, 157, 159-187.

Akçomak, İ.S. ve Erdil, E. (2021), Dijital Ekonomi, İktisat ve Toplum Nisan 2021 özel sayısı editörlüğü.

2018

Erdil, E. (2018). Dijital dönüşüm/endüstri 4.0 ve Türkiye. İktisat ve Toplum, 8, 57-61.

Erdil, E. (2018). Ahlsız Büyüme. [Kitap incelemesi]. SBF Dergisi, 74, 307-309.

2016

Aydinođlu, A.U. ve Kaygan, P. (2016). Çok aktörlü süreçler. Yirmibir, 149(5), 34-38.

Erdil, E. ve Pamukçu, M. T. (2016). Bilim, teknoloji ve yenilik politikaları. İTÜ Vakfı Dergisi, 73, 18-21.

2015

Erdil E. ve Pamukçu, T. (2015). Ar-Ge, İnovasyon ve gelişmekte olan ülkelerin rekabet gücü arasındaki ilişkiler. Elektrik Mühendisliđi, 455, 15-23.

Erdil, E., Pamukçu, M. T., Akçomak, İ. S. (2015). Ankara ili bilgi iletişim teknolojileri sektörü yenilik kapasitesi ve üniversite-sanayi işbirlikleri. STPS Working Paper Series, No: 1501.

2013

Akçomak, İ. S. ve Gürcihan, B. (2013). Türkiye işgücü piyasasında mesleklerin önemi: İşgücü ve ücret kutuplaşması. İktisat, İşletme ve Finans, 28 (333), 9-42. (SSCI)

Akçomak, İ. S. (2013). İşgücü piyasasındaki güncel dinamikler: Teknoloji, küreselleşme ve ithal girdi kullanımı. Ekonomik Yaklaşım, 24(88), 67-101.

Erdil, E., Pamukçu, T. Akçomak, İ. S. ve Erden, Y. (2013). Değişen üniversite-sanayi işbirliğinde üniversite örgütlenmesi. A.Ü. SBF Dergisi, 68 (2), 95-127.

2012

Erdil, E., Pamukçu, T. ve C. Durukan (2012). Savunma sanayinde bir kümelenme örneği: Ankara Kazan savunma ve havacılık kümelenme girişimi. Savunma Sanayi Gündemi, 19, 11-14.

2011

Pamukçu, M. T. (2011). Türkiye otomotiv yan sanayinde gerçekleşen teknoloji transferinin analizine yönelik bir çalışma (Analysis of technology transfers toward supplier firms in the Turkish automotive industry). ODTÜLÜ Dergisi, 47, 80-84.

#### Reports

Akyol, M.A., Kılıç, O.O., Taskaya Temizel, T., Aydınoglu, A.U., Surer, E. (2019). Sosyal fayda için büyük veri analizi: Suriyeli mülteciler için bir durum çalışması. Türk Standartları Enstitüsü Dergisi, 679, 34-41.

Erdil, E., Pamukçu, M. T., Akçomak, İ. S. (2015). Ankara İli Bilgi İletişim Teknolojileri Sektörü Yenilik Kapasitesi ve Üniversite-Sanayi İşbirlikleri. STPS Working Paper Series, No: 1501.

## AWARDS

2021

**Serra Baykal**, Design and Proposition of Technology Policies to Diffuse Greenhouse Technologies in Turkey: A Case for Speaking Plant Approach, Technology Development Foundation of Turkey (TTGV) Dr. T. Fikret Yücel Research Award, MSc. Thesis.

2020

**Ahmet Alper Ege**, Analyzing the incidence and causes of field of study mismatch, Turkish Economic Association (TEK-TEA) best PhD Thesis award.

**Cansu Durukan**, Entrepreneurial decision-making in the video game industry: a study on entrepreneurs based in the METU Technopark, METU Graduate School of Social Science Best Thesis Award, PhD. Thesis.

2019

**Duygu Saraçoğlu**, Is there a cross-sectoral co-evolution based on convergence between automotive and ICT sectors, 11. European Meeting on Evolutionary Applied Economics, Best Young Scholar in Evolutionary Political Economy.

**Muhsin Doğan**, Emergence of research and innovation activities in the chemical industry at the beginning of the twentieth century: The case of IG Farben and Du Pont, METU Graduate School of Social Science Best Thesis Award, Phd Thesis.

**Zeki Can Seskir**, Current state of quantum information technologies in Turkey, Technology Development Foundation of Turkey (TTGV) Dr. T. Fikret Yücel Research Award, MSc. Thesis.

2018

**Enver Hakan Konaç**, Academic entrepreneurs: Motivational aspects, challenges and success criteria in technology development zones in Ankara, METU Mustafa Parlar Thesis Award, MSc Thesis.

**Cansu Durukan**, Narooz, R., and Wasti Pamuksuz, N. Best Developmental Paper in Cultural and Creative Industries Track. 32nd Annual BAM Conference.

2016

**İbrahim Semih Akçomak**, Science Academy Turkey, Young Scientist Award Program.

2015

**Duygu Aslan**, Sources and benefits of social capital for technology-based firms in STPS: Case of METU Technopolis, METU Graduate School of Social Science Best Thesis Award, MSc. Thesis.

2014

**Derya Fındık**, ICT adoption, software investment and firm efficiency in Turkey, Serhat Özyar Honor Award for Phd Thesis.

## ORGANIZATION OF CONFERENCES

### **STS TURKEY 2020 KIŞ OKULU**

Date: 14-16 January 2020

Hosted by: METU-TEKPOL, METU-Department of Industrial Design, Orient Institute İstanbul

Venue: Orient Institute İstanbul

### **STS TURKEY 2019 KIŞ OKULU**

Date: 24-26 January 2019

Hosted by: METU-TEKPOL, METU-Department of Industrial Design, Bilkent University

Venue: Bilkent University

### **ASTROBİYOLOJİ TÜRKİYE 2019**

Date: 6<sup>th</sup> of August 2019

Hosted by: METU-TEKPOL, Sabancı University

Venue: Sabancı University

### **STS TURKEY 2019 ULUSAL KONFERANSI**

Date: 10-12 Eylül 2019

Hosted by: METU-TEKPOL, İTÜ STS, STS TURKEY

Venue: İTÜ Ayazağa Yerleşkesi

### **BLUEPRINT TO THE DIGITAL ECONOMY SYMPOSIUM**

Date: April 15th, 2019

Hosted by: METU-TEKPOL, Lomonosov Moscow State University, Center of Digital Economy.

Venue: KKM Building METU, Ankara, TURKEY

**20. YIL SEMİNERLER DİZİSİ: PİZZA SEMİNERLERİ**

Date: April 13th, 2018 - ongoing

Hosted by: METU-TEKPOL, TTGV

Venue: FEAS A Building METU, Ankara, TURKEY

**THE 20th ANNIVERSARY OF TEKPOL FORUM: YESTERDAY, TODAY AND TOMORROW OF TECHNOLOGY**

Date: November 8th, 2018

Hosted by: METU-TEKPOL, TTGV

Venue: Faculty of Architecture Auditorium, METU, Ankara, TURKEY

**STS TURKEY 2018 KONFERANSI: TOPLUM İÇİN BİLİM VE TEKNOLOJİ ÇALIŞMALARI**

Date: September 10th-11th, 2018

Hosted by: METU-TEKPOL, METU-ID, Orient-Institut İstanbul

Venue: KKM Building METU, Ankara, TURKEY

**20. YIL FOTOĞRAF SERGİSİ: COSMOS: LIGHTS FROM FARAWAY**

Date: June 5th-19th, 2018

Hosted by: METU-TEKPOL

Venue: KKM Exhibition Hall, METU, Ankara, TURKEY

**20. YIL SEMPOZYUMU: BİLİM VE TEKNOLOJİ POLİTİKASI DİSİPLİNLERARASI EĞİTİM VE ARAŞTIRMA NEREYE?**

Date: May 15th, 2018

Hosted by: METU-TEKPOL

Venue: KKM D Building, METU, Ankara, TURKEY

**INNO4SD SUSTAINABILITY TRANSITIONS AND COUNTRY REVIEW WORKSHOP**

DATE: May 25th, 2017

HOSTED BY: The Global Network of Networks about Innovation for Sustainable Development,

Inno4SD Network, UNU MERIT United Nations University (UNU-MERIT)- Maastricht

Economic and Social Research Institute on Innovation and Technology Maastricht University, Middle East Technical University, Science and Technology Policies Research Center (TEKPOL)

VENUE: Teknokent Conference Hall METU, Ankara, TURKEY

**JOINT WORKSHOPS ON “ECONOMIC, ENERGY AND CLIMATE CHANGE DRIVERS” WORK PACKAGES**

DATE: September 26th-27th, 2016

HOSTED BY: TEKPOL and METU-CES

VENUE: İİBF B Binası METU, Ankara, TURKEY

**EUROLICS WORKSHOP ON UNIVERSITY-INDUSTRY INTERACTION**

DATE: November 26th-27th, 2015

HOSTED BY: TEKPOL, METU-TEKNOKENT and EUROLICS

VENUE: TEKNOKENT Conference Hall, METU, Ankara, TURKEY



## **THE 11TH GLOBELICS INTERNATIONAL CONFERENCE: ENTREPRENEURSHIP, INNOVATION POLICY AND DEVELOPMENT IN AN ERA OF INCREASED GLOBALISATION**

DATE: September 11th-13th, 2013

HOSTED BY: TEKPOL, YBU-REKMER, Ankara Development Agency and GLOBELICS

VENUE: Faculty of Economic and Administrative Sciences, Building B, METU, Ankara, TURKEY

## **DESIGN AND EVALUATION OF INNOVATION POLICY IN AN EMERGING ECONOMY CONTEXT (DEIP)**

DATE: December 6th-10th, 2010

HOSTED BY: UNU-MERIT, TÜBİTAK, TEKPOL

VENUE: TUSSIDE, TÜBİTAK Gebze Campus

## **14TH ANNUAL INTERNATIONAL CONFERENCE ON ECONOMICS AND SECURITY**

DATE: June 17th-18th, 2010

HOSTED BY: EKOLIDER, Izmir University of Economics, Izmir, TURKEY and TEKPOL

VENUE: Izmir University of Economics, Izmir, TURKEY

## **WORKSHOP ON INTERNATIONALISATION OF R&D ACTIVITIES**

DATE: May 25th-26th, 2010

HOSTED BY: TEKPOL and Institute for Prospective Technological Studies (IPTS), Seville

VENUE: Faculty of Economic and Administrative Sciences, Building B, METU, Ankara, TURKEY

## **PIZZA SEMINARS**

To commemorate the 20<sup>th</sup> year anniversary of TEKPOL a seminar series has been initiated in 2018. The aim of the seminars is to reach wider public in Turkey who is related in science, technology and society. The seminar language is Turkish but occasionally we have English speakers. So far, we had 16 seminars in 2018; 15 in 2019; 4 in 2020; 10 in 2021.

## **NETWORK**

### **International Cooperation**

Through joint-projects, organization of conferences and alumni of the STPS M.Sc. and PhD programs, TEKPOL is linked to many reputable international universities, research institutes and organizations including;

- European Commission, Brussels, Belgium.
- UNU-MERIT, Maastricht University, Maastricht, The Netherlands.
- IPTS, The Institute for Prospective Technological Studies, Joint Research Center of the European Commission, Seville, Spain.
- GLOBELICS, Global Network for Economics of Learning, Innovation, and Competence Building Systems, Denmark-Brazil.
- EUROLICS, The European Network for the Economics of Learning Innovation and Competence Building Systems, Denmark.
- FEMISE, Euro-Mediterranean Forum of Economic Research Institutes, Marseille, France.

- ERF, Economic Research Forum, Egypt.
- Institut Mines-Télécom Business School, Paris, France.
- The Higher School of Economics (HSE), Moscow.
- International Schumpeter Society (ISS), Jena, Germany.
- Lomonosov Moscow State University, Center of Digital Economy, Moscow.

### National Cooperation

TEKPOL is a national hub on science, technology and innovation related debate. It is the only research center in Turkey that can coordinate research and education concurrently. This unique expertise in both education and research has broadened the scope of TEKPOL's national network. Through joint-projects, organization of conferences, consultancy activities and alumni placement, TEKPOL is a central node in the national network of science, technology and innovation policy. The research center is linked to:

- Ministry of Technology and Industry
- Ankara Development Agency
- Izmir Development Agency
- Çukurova Development Agency
- Fırat Development Agency
- Turk Patent, Turkish Patent and Trademark Office
- TUBITAK, The Scientific and Technological Research Council of Turkey
- TGGV, Technology Development Foundation of Turkey
- KOSGEB, Small and Medium Enterprises Development Organization
- Presidency of Defence Industries
- Higher Education Council
- TAI, Turkish Aerospace Industry
- ASELSAN, Turkish Armed Forces Association
- METUTECH, Technology Development Zone at METU
- Cyberpark, Technology Development Zone at Bilkent University
- İVEDİK Industrial District
- OSTİM Industrial District
- YASED, International Investors Associations of Turkey
- Bursa Chamber of Commerce and Industry
- E-BİLTEM, Ege University
- Center for Innovation and Competition Based Development Studies, Bosphorus University
- EKOLİDER, İzmir University of Economics
- STS TURKEY

## PEOPLE

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Courses: STPS 519

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Courses: ECON 413, ECON 448, ECON 451, ECON 651, ECON 691, ECON 692

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