

ÖZYEGİN
UNIVERSITY



TECHNOLOGY
TRANSFER
OFFICE

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InTTouch

RESEARCH NEWSLETTER

Director's Note

Technology Transfer Office of Özyeğin University (Özü TTO) keeps going full steam ahead its activities including obtaining sponsored research grants, developing university industry partnerships, increasing research outputs with commercial potential, managing Özü's intellectual property portfolio through filing and maintaining patents, and entering into commercial licensing deals.



Our first newsletter in 2016 presents an overall look at Özü's research & innovation performance in a nutshell, and gives some insights into what was achieved at Özü in 2015.

The number of large-scale grants from TÜBİTAK, İstanbul Development Agency (İSTKA), and the Horizon 2020 (H2020) Programs increased dramatically at Özü in 2015 and as a result, the total cumulative research funds reached approximately 51 M TL.

In addition to remarkable grants portfolio, Özü launched two unique, inspirational, and innovative university industry partnership programs, namely Vestel Academy and Turkcell Academy. These partnerships successfully resulted in two chair positions, SANTEZ, TEYDEB, ARDEB and H2020 projects, and several invention disclosures.

It was a great year for Özü in terms of creating new technologies and noteworthy success in intellectual property management. A considerable number of technologies developed at Özü, including but not limited to nanotechnology, robotics, lighting technologies, bio-additives, communication technologies, biomedical technologies, construction materials, and technologies for educational use. Özü TTO filed 13 new patent applications in 2015. In total, Özü holds 27 patent applications, 3 utility patent applications, and additional 6 country designations in national phase of a PCT application by the end of 2015.

As a notable commercialization outcome, one of Özü's spin-offs, eBrandvalue, created a spinoff success story in 2015 by admitting to Y-Combinator accelerator program in the US. In addition, Özü researchers

attracted several venture capital funding agents and efforts to get investments for Özü's patented technologies are in progress.

This has been another outstanding year for Özü and Özü TTO. As Özü TTO team, we would like to extend our sincere thanks to all Özü researchers. We appreciate their commitment and look forward to collaborating with our researchers involved in supporting the University's research and innovation activities.

Sincerely yours,

Nilay U. Papila, PhD

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ÖZYEĞİN UNIVERSITY TECHNOLOGY TRANSFER OFFICE AND THE RESEARCH PERFORMANCE (2014-2015)

ÖzÜ Cumulative Research Funds:
15,2 MTL

1

The project with the highest budget in ÖzÜ:
1003 project coordinated by
Özgür Ertunç with 3MTL budget

6

The most funded faculty and schools:

- %70 aculty of Engineering
- %8 Social Sciences
- %6 Faculty of Architecture

2

Grant Projects

- Highest budget Highest project #
- Özgür Ertunç
 - Mehmet Arık

7

First Horizon2020 Projects in ÖzÜ

- "PLOTINA" in the social sciences;
project coordinator Alper Açık
- "TRIBE" in engineering;
project coordinator Pınar Mengüç

3

**University- Industry Collaboration
(UIC) Projects**

- Highest budget Highest project #
- Murat Uysal
 - Mehmet Arık

8

Intellectual Property Rights

- 10 Patent applications
- 3 Utility model applications

4

**Özyeğin University
Technology Transfer Office**

It is chosen as a potential mentor
in the election with 12 candidates
by TÜBİTAK

9

**Researchers who have the highest
number of patent applications
jointly owned by ÖzÜ**

- Mehmet Arık
- Murat Uysal

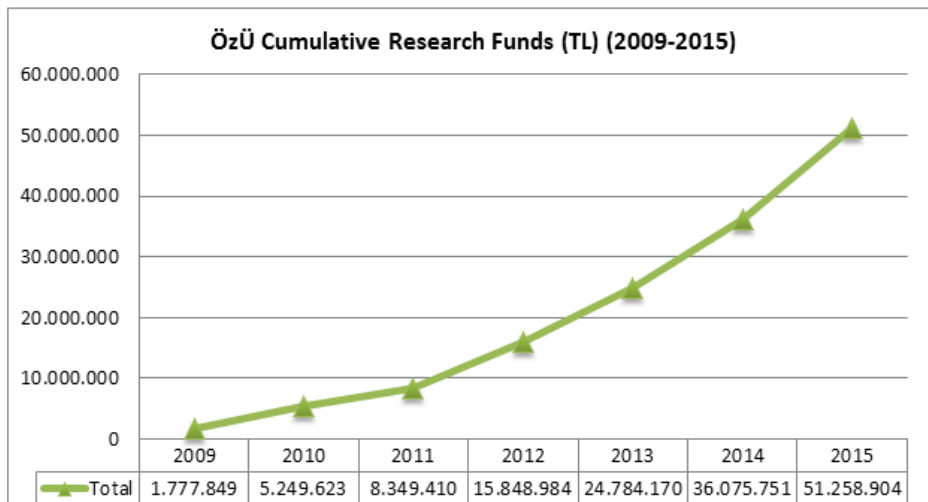
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National Expansion of ÖzÜ TTO

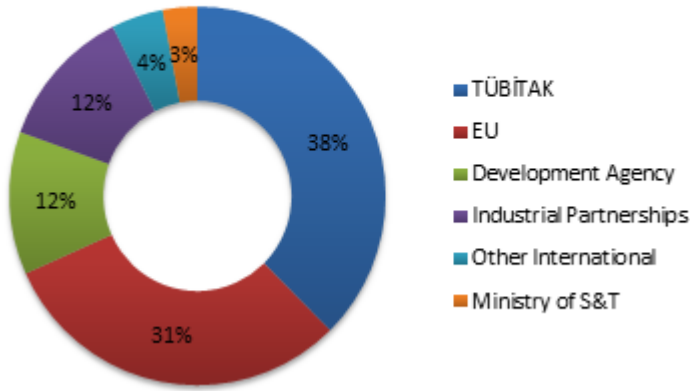
- Kocaeli
- Düzce
- Erzurum

10

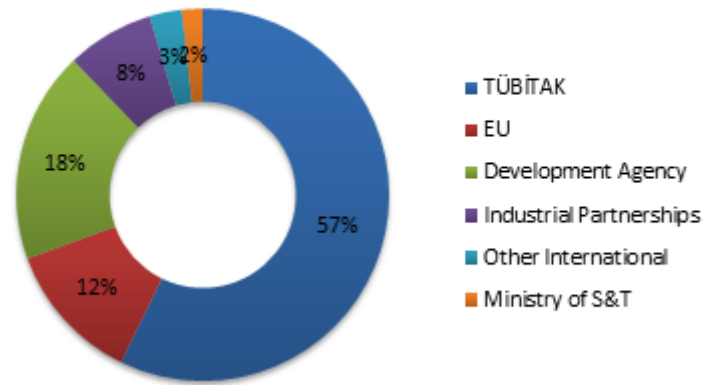
Sponsored Research Performance Overview



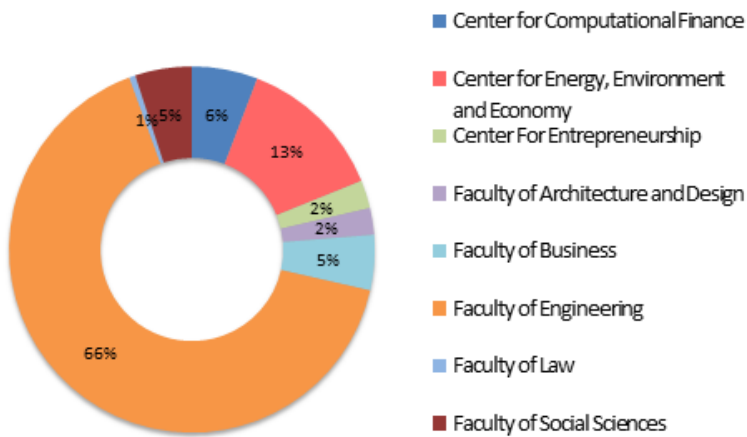
ÖzÜ Total Research Funds by Sponsors in 2009-2015



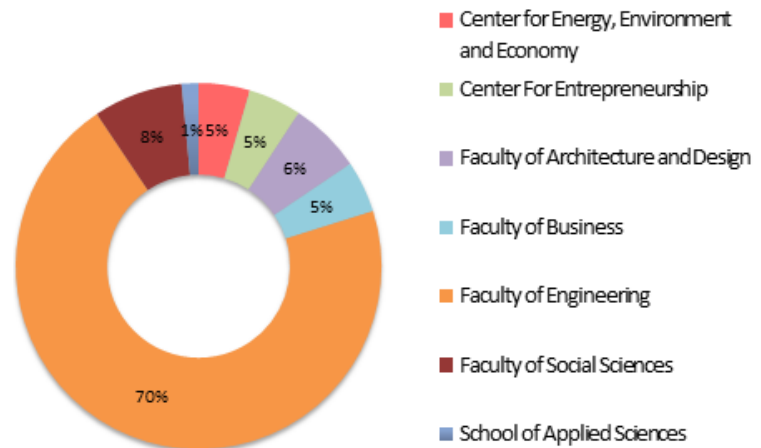
ÖzÜ Total Research Funds by Sponsors in 2015



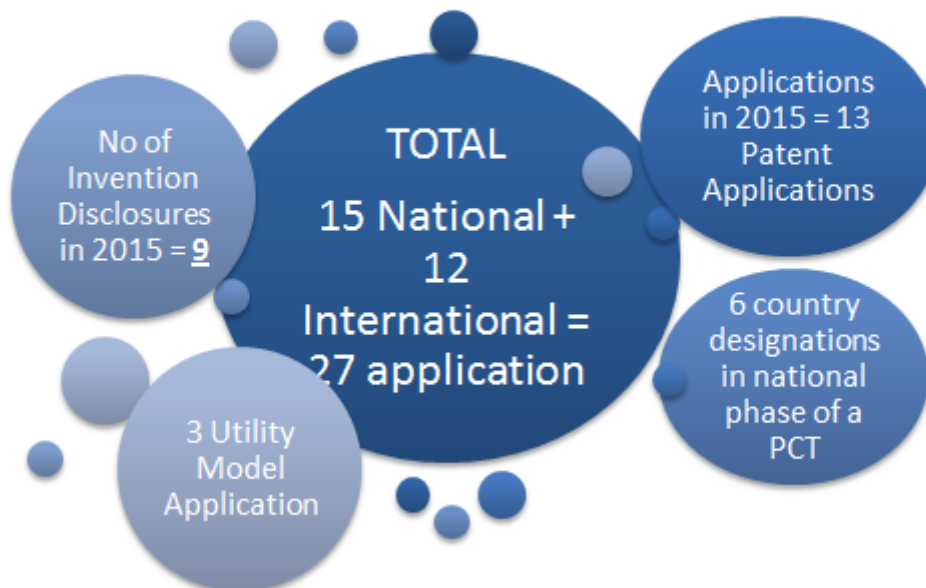
ÖzÜ Total Research Funds by Faculty in 2009-2015



ÖzÜ Total Research Funds by Faculty in 2015



Intellectual Property Management and Commercialization



Optic Wireless Communication Excellence Center

Optic Wireless Communication is one of the most recent and vital technological fields, which has a huge potential of opening a new era in communication sector. In this sense, the purposes of this project are to create a common space for technology and knowledge transfer and production as well as cooperated research projects and R&D activities and to facilitate the production of solutions for optic wireless communication by local facilities through industry – university partnership. In full accordance with the general objective of the project, Optic Wireless Communication Excellence Center (OKATEM) aims at establishing an R&D infrastructure with a high capacity to compete similar institutions all around the world.

(ÖzÜ Coordinator: Assoc. Prof. Mehmet Arık, Sponsor: ISTKA, Total Budget: 1,072,555 TL)

International Training, Certification, and Development Center for LED

The main purpose of this project is to contribute to the efforts to improve advanced technological developments such as energy efficiency LED technologies and to turn them into economical profits. Furthermore, the project aims at fostering industry, academia, and public sector partnership to facilitate technology transfer and to create a common ground for collaboration for further projects, and contribute to the advanced energy-efficient LED and electronics technological implementations in order to improve the quality of life in Turkey and globally. This project also seeks to improve the quality of service and technologies of industry by making a contribution to the transformation of LED Sector in Turkey.

(ÖzÜ Coordinator: Asst. Prof. Furkan Kır aç Sponsor: T UB ITAK 1007, Total Budget: 1,500,000 TL)

KGYS Smart Support Software Development Project

In this project, computer vision and machine learning will be adapted for human and object motion tracking, human detection, and recognition, as well as, object detection and tracking. A comprehensive application that is built on established database architecture will be developed for facilitating the access of valuable information by simple cues. System architecture will be designed for supporting multi-core CPUs for optimum resource usage. Finally, operators will easily be able to jump between important alarm triggers such as illegal zone accesses, leftover dangerous objects, etc. This research will generate publications in multiple fields, including machine learning, computer vision, image processing, multi-core optimization, and parallelization. The knowledge and technological progress that this research will generate will benefit the students at the Turkish institutes involved in this project, as well as greater general Turkish scientific community.

Development of a Domestic Urea Injection System and Its Engine Tests

In a collaborative R&D project,  z  Mechanical Engineering Department and Ford Otosan R&D center, which is the largest and the most competitive R&D center among all automotive industries in Turkey, will develop components for the future low-emission diesel engine. Investigations and developments, which

are related to fluid mechanics, systems control, optical measurement technologies, material design and production technologies will be conducted in a complementary manner, so that the know-how on the design and testing of critical components can be attained.

(ÖzÜ Coordinator: Asst. Prof. Özgür Ertunç Sponsor: TÜBİTAK 1003, Total Budget: 2,300,000 TL)

TRIBE: Total Renovation Strategies for Energy Reduction in Public Building Stock

TRIBE project aims to contribute to a citizens' behaviour change towards energy efficiency in public buildings, through their engagement in the experience of playing a social game, linked by ICT to real time data collected from 5 pilot buildings hosting around 1.300 regular users (employees, tenants...) and almost 12.000 eventual users (visitors). The targeted average energy savings in the pilots is 24,8% of the current energy consumption. TRIBE project will carry out serious game aims to engage more than 750.000 players by the end of the project, involving users of the targeted pilot facilities and their social networks.

(ÖzÜ Coordinator: Prof. Pınar Mengüç, Sponsor: EU – HORIZON2020, Total Budget: 217,500 EUR)

PLOTINA: Promoting Gender Balance and Inclusion in Research, Innovation, and Training

PLOTINA's aim is to foster excellence and social value of innovations in research, by preventing the possible waste of female unstated talents and ensuring diversification of views and approaches (taking into account the gender dimension) in research within the 48 months allotted by the call. The project is particularly significant because despite the increase in the number of female researchers in Turkey and in Europe, and the fact that they mainly tend to work in the public sector, e.g. in the Universities, few of them have an equal opportunity to make a contribution and enjoy the benefits of a scientific career. Alongside the phenomenon of vertical segregation, also known as the "glass ceiling", widespread horizontal segregation leads the majority of females to be grouped in certain types of occupations, and, in general, the higher the position in the hierarchy, the lower the percentage of women. This lack of gender balance potentially limits the international competitiveness of research and the expression of the maximum of excellence. Accordingly, one aim of the PLOTINA project is to develop, implement, disseminate and measure the impact of novel Gender Equality Plans (GEPs). These GEPs will be designed in order to reduce the gender gaps in recruitment, retention career progression and decision-making processes in all occupational environments including the academia. The success of the implementations will be measured according to the sustainable cultural changes they will bring about for our institutions.

(ÖzÜ Coordinator: Dr. Alper Acik, Sponsor: EU - HORIZON2020 , Total Budget: 155,937 EUR)

Activities

Partnership Days

- Bosch Termoteknik @January 20
- TOFAŞ @March 11
- EndPoint @March 18
- Esis Power @March 18
- Formülsoft @March 19
- Akım Metal @March 20
- Tırsan @April 1
- Conta Elastik Ürünler @April 1
- Migros @April 10
- GATE Elektronik @April 14
- PAVOTEK @April 14
- Acıbadem @April 14
- Sami Tongün @April 27
- Türk Telekom @April 29
- Uluslararası Suistimal İnceleme Uzmanları Derneği @April 30
- Conta Elastik Ürünler @April 30
- SVS Elektronik @May 13
- Vefa Holding @May 13
- STFA @May 20
- Ford Otosan @May 21
- Gravite @May 25
- BEYSAD @May 26
- TSK ARGE BİRİMİ @May 27
- Alotech @May 29
- Semiz Elektronik @May 29
- Novida @June 23
- Fibrebeton @June 30
- Sanal Kokpit @July 15
- Era Elektornik @July 28
- Yol Digital @July 29
- XYnaptios @August 5
- Pelsan @August 12
- EAE Aydınlatma @August 13
- Bantboru @August 13
- VODASOFT @August 14
- FİKSSAN @ August 25
- MİR Arge @August 25
- Logo Yazılım @August 26
- Reengen @September 13
- Vitra @September 13
- ACT @November 25
- Arçelik @November 27

Training Events Organised by ÖzÜ TTO

- Applied Project Management Training @ February 9
- Uludağ University Horizon2020 – SME Instrument Info Day/
- Certified Training @ February 11
- Uludağ Univeristy ARDEB Info Day @ February 11
- Applied Project Management Training @ February 26
- Commercialization of Technology, Seminar by Ömer Hızıroğlu, CLP @ March 7
- Expand Your Horizon with ÖzÜ TTO! - HORIZON2020 Training @ April 1
- Horizon2020 for Innovative SMEs @ April 28
- Applied R&D Project Writing Training for 1601 Program @ May 4
- Turkcell Technology -TTO- FBE Project Thesis Seminar @ May 28
- Information Session on Marie Sklodowska-Curie Actions @ June 16
- TÜBİTAK ARDEB Workshop with Target TTO @ July 23
- Seminar by Samir Demirormanlı from LES Turkey @ July 28
- Grant Programs Training for SMEs @ September 7
- TECHIN2B Training&Talk Series: Technologies and Patent Case Studies on Energy & Environment @ September 16
- A Panel of Panelists @ September 27
- Horizon 2020 Smart Cities and Communities & Energy Efficient Buildings Public Private Partnership International Brokerage Event @ October 13
- Information Session on National and International Grant Programs @ October 21
- Information Session on National and International Grant Programs for Özyeğin University Faculty of Law @ November 18-19
- H2020 Training with ADAPTTO @ December 8
- 13 University - Industry Collaboration Meetings have been organised by TTO

Training Event Attended by ÖzÜ

- TTO Meeting at TEKNOPARK İSTANBUL @ January 9, Istanbul
- Info Day for İSTKA New Calls @ January 19, Istanbul
- Collaboration Day with Enginsoft @ January 29, Istanbul
- İSTKA Financial Reporting Practices @ February 9, Istanbul
- Technical Assistance and Capacity Building Workshop @ February 12, Ankara
- Production Protection Ways/ Software Patents and Applications Training @ March 4, Istanbul
- Clean Sky 2 Info Day @ March 16, Ankara
- TECHIN2B @ March 31, Istanbul
- TECHIN2B @ April 22, Istanbul
- Horizon2020 for Turkish Industry @ May 6, Istanbul
- Horizon2020 MSCA Actions Info Day @ May 13, Istanbul
- Being a Team as TTO @ June 6, Istanbul
- 8. ÜSİMP National Congress @ June 9, Konya
- IP Management on Electronics - Informatics - Big Data @ June 18, Istanbul
- Collaboration Meeting with Banu Onaral @ June 24, Istanbul
- ODTÜ T Jump Collaboration Meeting @ July 8, San Francisco
- Turkish American Business Connection (TABC) @ July 8, San Francisco
- Opportunities Arising from a Patent @ July 28, Istanbul
- Information Sharing Panel on TÜBİTAK-ARDEB Projects on the Evaluation Process @ August 28, Istanbul
- Collaboration Meeting METU Informatics Institute @ September 2, Ankara
- Information Day with Ministry of Health General Directorate for EU and Foreign Relations @ September 2, Ankara
- Information Day for Tübitak 1512 Program @ September 8, Ankara
- The 35th National Operational Research and Industrial Engineering Congress (YAEM) @ September 10, Ankara
- IP Camp Cesme 2015 @ October 1-3, Izmir
- HUNİTEK Symposium at Hacettepe University @ October 14, Ankara
- Managing IP in Universities @ October 15-16, Istanbul
- Information Meeting on H2020 Health, Demographic Change and Welfare Area @ October 16, Istanbul
- Intellectual Property Management and Tech Venture Workshop @ October 25-28
- LES Annual Meeting 2015 @ October 25-28, Istanbul
- Information Sharing Meeting on Human and System Integration @ October 28, Istanbul
- ÜSİMP Patent Fair @ November 11-12, Istanbul
- H2020 SME Instrument Event @ November 17, Ankara
- LES100 Education @ November 30, Istanbul
- TTO Bridge at Elazığ University @ November 30, Elazığ
- Clean Sky 2 Info Day @ December 15, London
- Being a Team as TTO 2 @ December 22, Istanbul
- SME Instrument Bid Writing @ January 25-26
- IP & Horizon 2020 Workshop: How to deal with your Intellectual Assets @ February 02
- Financial Workshop @ February 22-23

Meetings with Other TTO's

- Kocaeli University TTO on May 25, 2015, İstanbul
- Hong Kong University of Science and Technology: HKUST on August 3-7, 2015, Hong Kong
- Sakarya University ADAPTTTO on August 28, 2015, İstanbul
- MEF University on December 07, 2015, İstanbul
- Sakarya University ADAPTTTO on December 08, 2015, İstanbul
- Bahçeşehir University TTO on December 23, 2015, İstanbul
- Bahçeşehir University TTO on January 08, 2016, İstanbul
- Kocaeli University TTO on January 11, 2016, İstanbul
- Kocaeli University TTO on February 01, 2016, İstanbul
- Gaziantep Üniversitesi (Target TTO) on February 03, 2016, Gaziantep
- Bahçeşehir University TTO on February 12, 2016, İstanbul
- Sakarya University ADAPTTTO on February 25, 2016, İstanbul



Awards

- Assoc. Prof.Dr. Mehmet Arık received for the project titled "International Field Reversible Thermal Conenctor (RevCon) Challenge" from University of Missouri – Columbia's Department of the Air Force / Air Force Research Laboratory.
- Asst. Prof. Dr. Berna Zengin Arslan received the Science Academy's Young Scientists Program Award (BAGEP) 2015.

TTO Team



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