



### BUILDING A VALUE- CREATING ECOSYSTEM ON CAMPUS: THE <u>METU</u> CASE

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### -METUHAS 3 CAMPUSES.

### - ENGLISH AS THE MEDIUM OF INSTRUCTION AT ALL LEVELS AND DEGREES





### -THE CAMPUS AREA IS 4500 HECTARES (45 KM<sup>2</sup>) -FORESTED AREA OF 3000 HECTARES (30 KM<sup>2</sup>)

THE REFORESTATION PROGRAM (HEADED BY THE FIRST METU STUDENTS AND STAFF) OF THE CAMPUS WAS AWARDED WITH THE INTERNATIONAL <u>AGA KHAN ARCHITECTURE AWARD</u> IN 1995.





The Aga Khan Award for Architecture is given every 3 years to global projects that set new standards of excellence in architecture, planning practices, historic preservation and landscape architecture.







# **UNDERGRADUATE** PROGRAMS

### **ENGINEERING (13)**

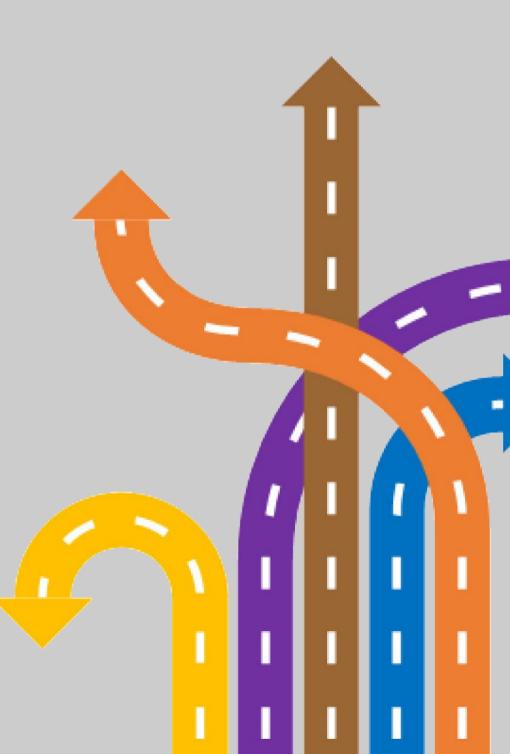
- Aerospace Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Electrical and Electronics Engineering
- Environmental Engineering
- Food Engineering
- Geological Engineering
- Industrial Engineering
- Mechanical Engineering
- Metallurgical and Materials Engineering
- Mining Engineering
- Petroleum and Natural Gas Engineering

### **ART & SCIENCES (10)**

Biology, Chemistry, History, Mathematics, Molecular Biology and Genetics, Philosophy, Psychology, Physics, Sociology, Statistics

### **ARCHITECTURE (3)**

- Architecture
- City and Regional Planning
- Industrial Design





### **EDUCATION (7)**

- Computer Education and Instructional Technology
- Educational Sciences
- Elementary Education
- Foreign Language Education
- Physical Education and Sports
- Secondary Science & Math. Education
- English Language Teaching (METU-SUNY)

# ECONOMICS & **ADMINISTRATIVE SCIENCES (6)**

- Business Administration
- Economics
- International Relations
- Political Science and Public Administration
- Business Administration (METU-SUNY Binghamton)
- Global and International Affairs (METU-SUNY **Binghamton**)



# **GRADUATE EDUCATION**



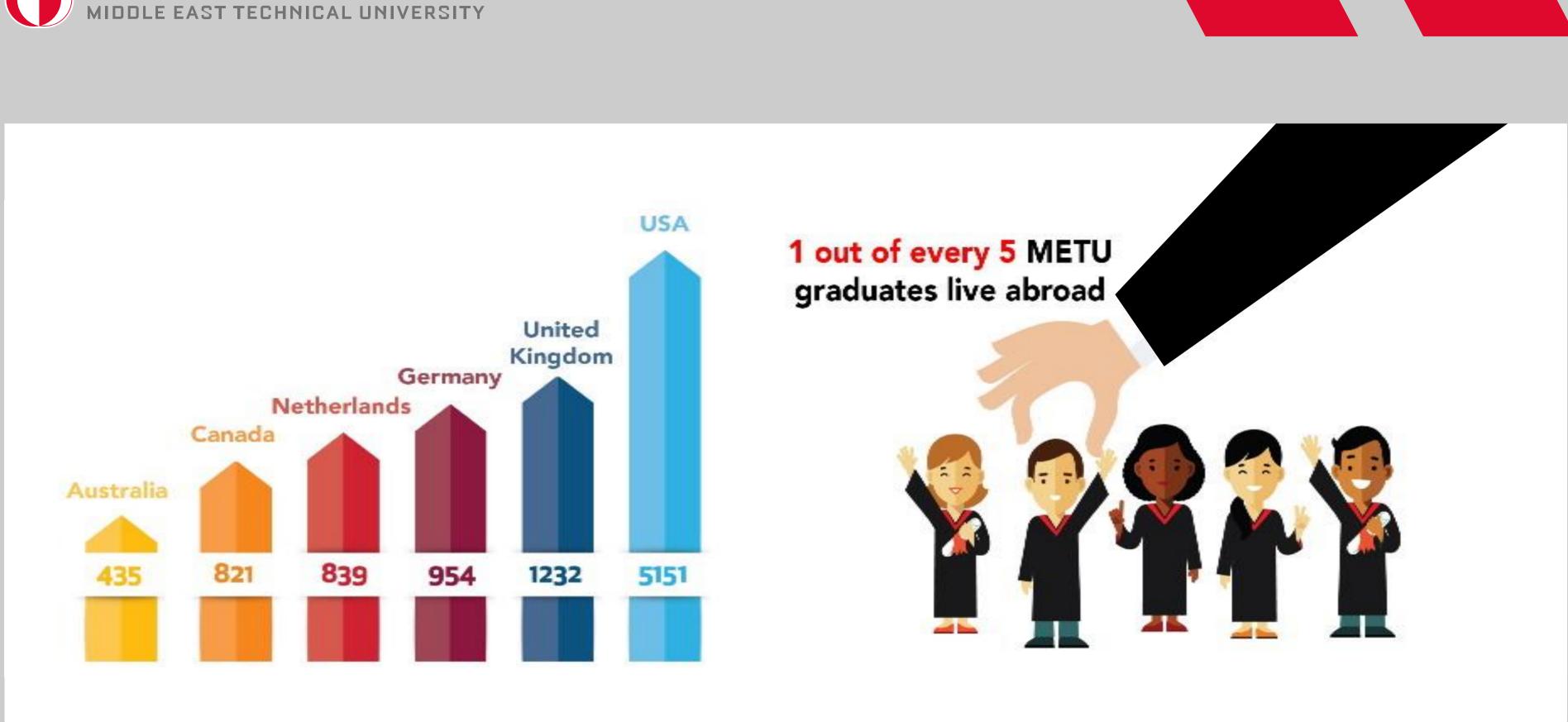
INSTITUTE OF NATURAL AND APPLIED SCIENCES INSTITUTE OF INFORMATICS



INSTITUTE OF APPLIED MATHEMATICS

### INSTITUTE OF MARINE SCIENCES







### **REPUTABLE INTERNATIONALLY**



THE WORLD RANKINGS METU RATED AMONG THE **TOP WORLD UNIVERSITIES** IN SEVERAL FIELDS/RANKINGS (QS, THE, LEIDEN, WEBOMETRICS and OTHERS) OVER THE YEARS.

THE **"WORLD UNIVERSITY RANKINGS 2014-2015"** RANK **85<sup>TH</sup>** AMONG TOP 400 UNIVERSITIES.

IN QS 2019, METU WORLD.



METU RANKED AS THE **TOP UNIVERSITY IN TURKEY I**N ENGINEERING AND TECHNOLOGY, BASIC SCIENCES, AND SOCIAL SCIENCES.



IN QS 2019, METU RANKED AS AMONG TOP UNIVERSITIES IN THE









campuses





**30,000+** 

students (share of graduate students is 30 % )



institutes

69 postgraduate programs 1,250 full-time faculty members



41 undergraduate programs

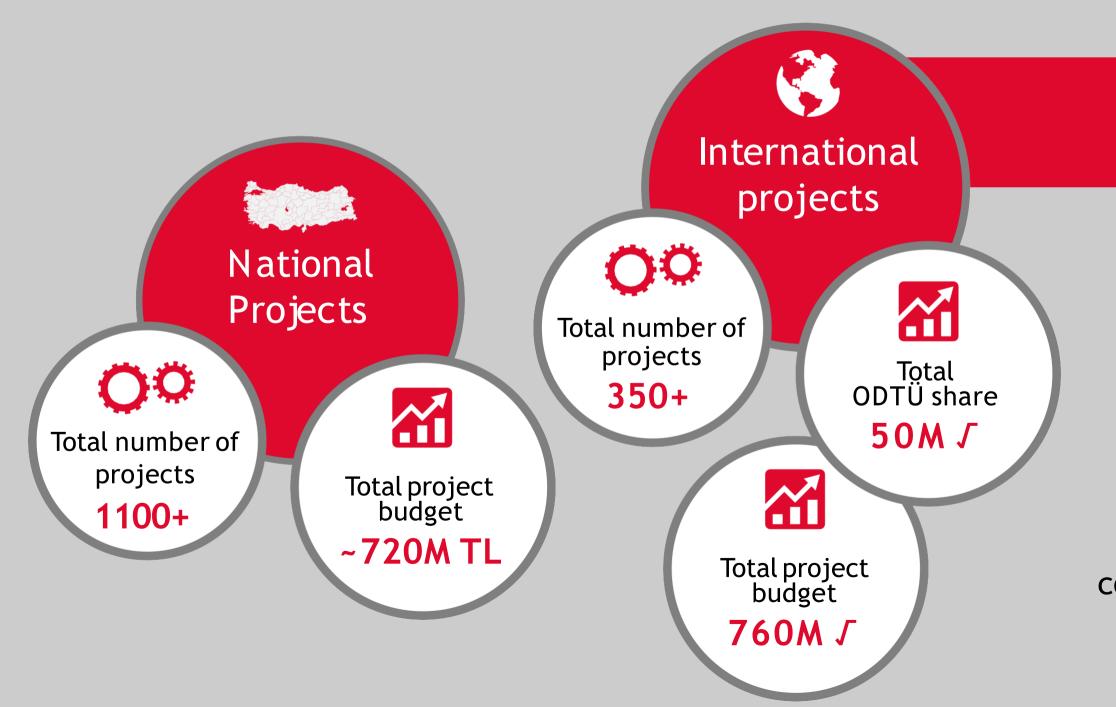






### **METU** AS A RESEARCH UNIVERSITY





### DOĞU TEKNİK ÜNİVERS EAST TECHNICAL UNIVE

# **20-25 %**

of totalincome comes from competitive research incomes



### FIRST INITIATIVE IN UNIVERSITY-INDUSTRY COLLABORATION

ODTÜ TEKMER (Technology Development Center) was established in 1992 in collaboration with KOSGEB (Small and MediumEnterprise Development Organization)

Main objectives

- Transferring technological and scientific know-how in university to economy and production
- Supporting commercialization of R&D and innovation work results
- Encouraging and supporting technology-based entrepreneurship
- Increasing R&D and innovation capacity











Academicians

Students

Graduates

Research Centers

Laboratories

TECHNOPARKS

University-Industry Convergence

**Technology Transfer** 

International Cooperations

Clusters, Platforms & Synergy

Application Focused R&D University-Industry Convergence

### INDUSTRY

Companies

Commercial Product Application



# **ODTU·TEKNOKENT**



380+ Technology Companies

more than 60% are started up in ODTÜ TEKNOKENT



A total closed area of 170.000 m<sup>2</sup>

3 campuses







Projects carried out: (at a time)

# >1.3 billion US \$

technology exports (not including manufacturing numbers)



technology sales (domestic)







# VALUE CREATING **INNOVATION ECOSYSTEM**







MAKING PART OFCOMMUNITY

### **ODTÜ·TEKNOKENT**











### **INSPIRING**

•CREATING AWARENESS ON ENTREPRENEURSHIP AS A CAREER OPTION

• SUPPORTING STUDENTS TO BE ENTREPRENEURS OR WORK FOR START-UPS RATHER THAN CORPORATIONS.







### A COMMUNITY, LEARNING AND PRACTICING ENTREPRENUERSHIP FROMENTRY IN UNIVERSITY.



Totally student-led student incubation center



Showing that entrepreneurship is a career path for universitystudents



Educating more than **1.000** students on innovation and entrepreneurship every year.

### INSPIRING





AIMS TO CONVERT THEORETICAL KNOWLEDGE AND PRACTICAL EXPERTISE OF STUDENTS INTO INNOVATIVE PRODUCT IDEAS AND SOLUTIONS TO SOCIETAL PROBLEMS.



### INSPIRING







ODTÜ DF brings together interdisciplinary student teams to develop innovative product ideas and prototypes through extra-curricular programAn incubation center, run by students, for students.



METU DF provides rapid prototyping and product development infrastructure to relevant departments at the university.



In Design Factory, universities, technoparks, industry and community organizations cooperate to redefine real problems and to produce solutions using design thinking methods.

### **INSPIRING**



### **CREATING & SUPPORTING**

- •LEADING THE WAY TO ENTREPRENEURS AND STARTUPS FROM THE VERY EARLY STAGES.
- PROVIDING SUPPORT FOR DIFFERENT NEEDS IN THE PROCESS FROM IDEA TO PROTOTYPE AND FROM PROTOTYPE TO THE MARKET.





# PRE-INCUBATION & INCUBATION PROGRAMS





New Startups Establish



**150+** Startups/ / Spin Offs Hosted



**1000+** Mentorships •)) 3000+ Access

2000+ Trainings



ANIMATION TECHNOLOGIES & DIGITAL GAMING PRE-INCUBATION CENTER



**100+** Games



### CREATING & SUPPORTING







### **COMMERCIALIZATION & SCALING**

- INTENSIVE R & D IS REALISED DUE THE CULTURE OF THE CITY AND UNIVERSITY ITSELF, HOWEVER COMMERCIALIZATION IS VERY LIMITED.
- **PROVIDING INTERFACES** FOR THE COMMERCIALIZATION OF RESEARCH PROJECTS.







# **TECHNOLOGY TRANSFEROFFICE**



Company Interactions to create university-industry collaborations



projects

different academics matched with the industry

700+



contracts (both R&D and consultancy agreements)

Ø 150 +20+ commercialized inventions patents Ê

340+

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patent applications

200 +granted

patents

8+ M TL commercialization income

### **COMMERCIALIZATION** & SCALING





# **GROWTH CIRCUITVENTURES**



**Investment Focus** 

Geography

### Invesment Size

Invesment Portfolio

To build Turkey's global and fastest growing companies

Investment in early startups (pre-seed and seed)

Ankara, İstanbul and San Francisco

Between \$ 50,000 and \$250,000 per venture

A total of \$ 360,000 investment ranging between \$ 20.000 to \$25.000

realized to 19startups

### COMMERCIALIZATION & SCALING



# **GOING GLOBAL**

- •DESIGNING **SPECIAL MECHANISMS** FOR GLOBALIZATION, SO AS TO SUPPORT COMPANIES THAT USUALLY TEND TO GROW LOCALLY.
- •CREATING STARTUPS AND ACADEMIC SPIN-OFFS TO BE **BORN GLOBAL**.







# **GROWTH CIRCUITACCELERATOR**

- •Established in **2014**
- Contribution to the network development of Turkish entrepreneurs
- Promotion of Turkish Startup environment in SF ecosystem with constantly organized activities at **Growth Circuit**

0¢ 145 Startups Accelerated

**Acceleration Programs** For Each Stage of Startups in cooperation with



### **GOING GLOBAL**



### **Pre/Post Revenue**







### **IP FOCUSED ACCELERATOR - LABSOUT**

- •RESEARCH BASED (INTELLECTUAL PROPERTY FOCUSED) START-UP ACCELERATOR.
- •OBJECTIVE: HELP IDENTIFY, DEVELOP, AND SPEED UP THE COMMERCIALIZATION OF UNIVERSITY - BASED INTELLECTUAL PROPERTY THROUGH COMMERCIALIZATION BY LICENSING THE TECHNOLOGY TO THE NEW START-UPS ESTABLISHED BY THE INVENTORS.

### **GOING GLOBAL**



### MAKING PART OF COMMUNITY

### •REGARDLESS OF THE PROGRAM OFFERED, IT IS IMPORTANT TO SET UP THE COMMUNITY CORRECTLY, TO LAY THE GROUNDWORK FOR ENTREPRENEURS AND STARTUPS TO COLLABORATE BY PROVIDING SUPERSTRUCTURE AND INFRASTRUCTURE FACILITIES.







# **CO-WORKING**

- •Established in **December 2018**
- Turkey's first technopark supported co-working zone
- •Total closed area of 2.300 m<sup>2</sup>, serving more than 300+ members
- •Offers various membership models and services in the form of private and shared offices, co-working, virtual office, meeting rooms and event area.

### MAKINGPART OF COMMUNITY



# **VALUE CREATING INNOVATION ECOSYSTEM**

**CREATING &** 

**SUPPORTING** 

**ODTÜ·TEKNOKENT** 

INSPIRING

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ODTÜ METU

tasarım fabrikası.

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**GIVING BACK** 

COMMERCIALIZATION & SCALING













### MAKING PART OFCOMMUNITY

### **ODTÜ·TEKNOKENT**











# OUR BIGGESTCHALLENGE: Being the first mover

- METU HAS TAKEN A PIONEERING ROLE IN THE CREATION OF AN INNOVATION ECOSYSTEM AND SUPPORTING ENTREPRENEURS IN TURKEY.
- BEING A PIONEER, MANY CHALLENGES WERE ENCOUNTERED SINCE THE SYSTEM IS NOT YET COMPLETELY ESTABLISHED.
- OVERCOMING THESE CHALLENGES CAN ONLY BE POSSIBLE BY TAKING A PROACTIVE ROLE IN RELATIONS BOTH WITH THE PUBLIC AND PRIVATE SECTOR AND TAKING AN ACTIVE ROLE WITHIN THE CREATION OF AN ECOSYSTEM.





### **ODTU & ODTU TEKNOKENT Entrepreneurship Programs**

**ODTU STUDENTS (3.-4. GRADE)** 

**INDIVIDUALS / EARLY STAGE STARTUPS (Idea to product)** 

**ACADEMICIAN** 

**INTERNATIONALIZATION** 

**INVESTMENT** 

ANIMATION AND GAMING **TECHNOLOGIES** 

**COMMUNITY & PHYSICAL SPACE** 

