



# BUILDING A VALUE- CREATING ECOSYSTEM ON CAMPUS: THE METU 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 **AGA KHAN ARCHITECTURE AWARD** 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)

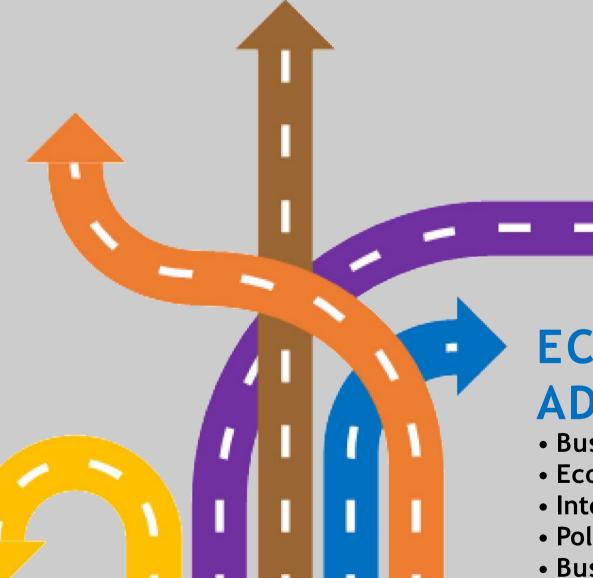
Biology, Chemistry, History, Mathematics, Molecular Biology and Genetics, Philosophy, Psychology, Physics, Sociology, Statistics

#### **ARCHITECTURE (3)**

- Architecture
- City and Regional Planning
- Industrial Design

### • Computer Education and

- 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)

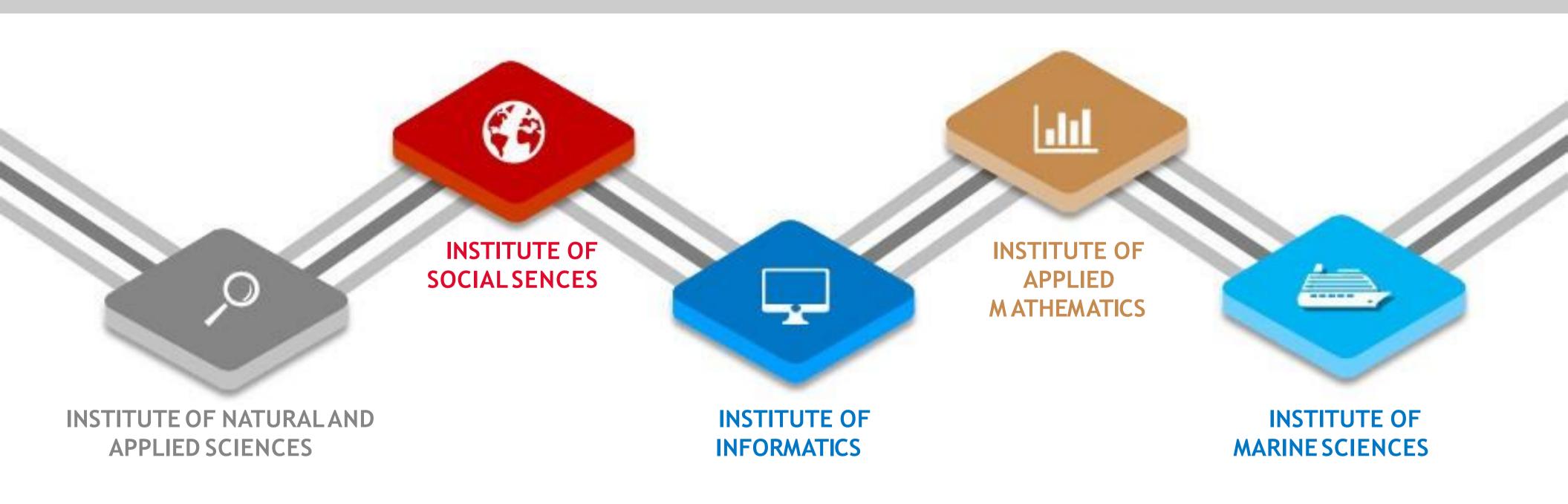


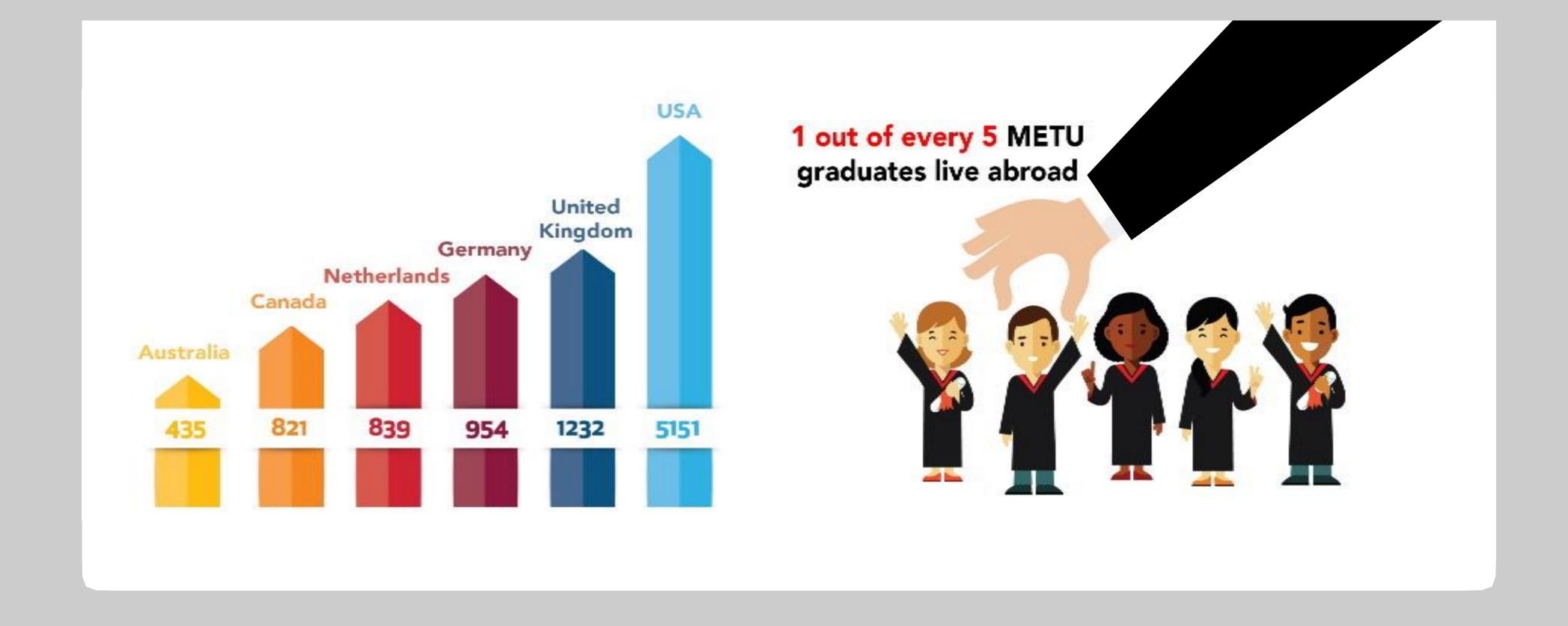
## ECONOMICS & ADMINISTRATIVE SCIENCES (6)

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



#### **GRADUATE EDUCATION**







#### REPUTABLE INTERNATIONALLY



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 RANKED AS AMONG TOP UNIVERSITIES IN THE WORLD.





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







campuses



faculties



107 graduate programs



30,000+

students (share of graduate students is 30 %)



5

institutes



69

postgraduate programs



1,250

full-time faculty members



41

undergraduate programs



3

interdisciplinary research centers





#### **METU**

#### AS A RESEARCH UNIVERSITY





Total number of projects
1100+

Total project budget ~720M TL

International projects







Total project budget
760M J



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 Medium Enterprise 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







**UNIVERSITY** 

Academicians

Students

Graduates

Research Centers

Laboratories

TECHNOPARKS

University-Industry
Convergence

Technology Transfer

International Cooperations

Clusters, Platforms & Synergy **INDUSTRY** 

Companies

Application Focused R&D

University-Industry Convergence

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







~1200

Projects carried out: (at a time)



>1.3 billion US\$

technology exports (not including manufacturing numbers)



>13 billion TL

technology sales (domestic)







### VALUE CREATING INNOVATION ECOSYSTEM

#### **INSPIRING**





### CREATING & SUPPORTING







### COMMERCIALIZATION & SCALING













**ODTU-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 FROM ENTRY IN UNIVERSITY.



Totally student-led student incubation center



Showing that entrepreneurship is a career path for university students



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







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.





#### 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**

**INCUBATION CENTERS** 



70+

**New Startups** Establish



150+

Startups/ Spin Offs Hosted



1000+ Mentorships



3000+

Access



2000+

**Trainings** 





Startups



750+ Employment

















**Firms** 

**A70**2

**ANIMATION TECHNOLOGIES &** 

**DIGITAL GAMING** 

**PRE-INCUBATION CENTER** 





**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 TRANSFER OFFICE**



500+

Company Interactions to create university-industry collaborations



700+

different academics matched with the industry

1.500+ joint R&D

projects



contracts (both R&D and consultancy agreements)



150+ inventions





340+ patent applications



200+ granted patents



8+ MTL

commercialization income

#### COMMERCIALIZATION & SCALING





### COMMERCIALIZATION & SCALING

#### **GROWTH CIRCUITVENTURES**

Aim

**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 19 startups



#### **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



7
Accleration
Programs in
2018 -2018

Acceleration Programs
For Each Stage
of Startups in
cooperation with

**Early Stage** 



**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.





#### 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.





## VALUE CREATING INNOVATION ECOSYSTEM









**ODTU-TEKNOKENT** 





#### **GIVING BACK**

COMMERCIALIZATION & SCALING













**ODTU-TEKNOKENT** 









## OUR BIGGEST CHALLENGE: 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)** 

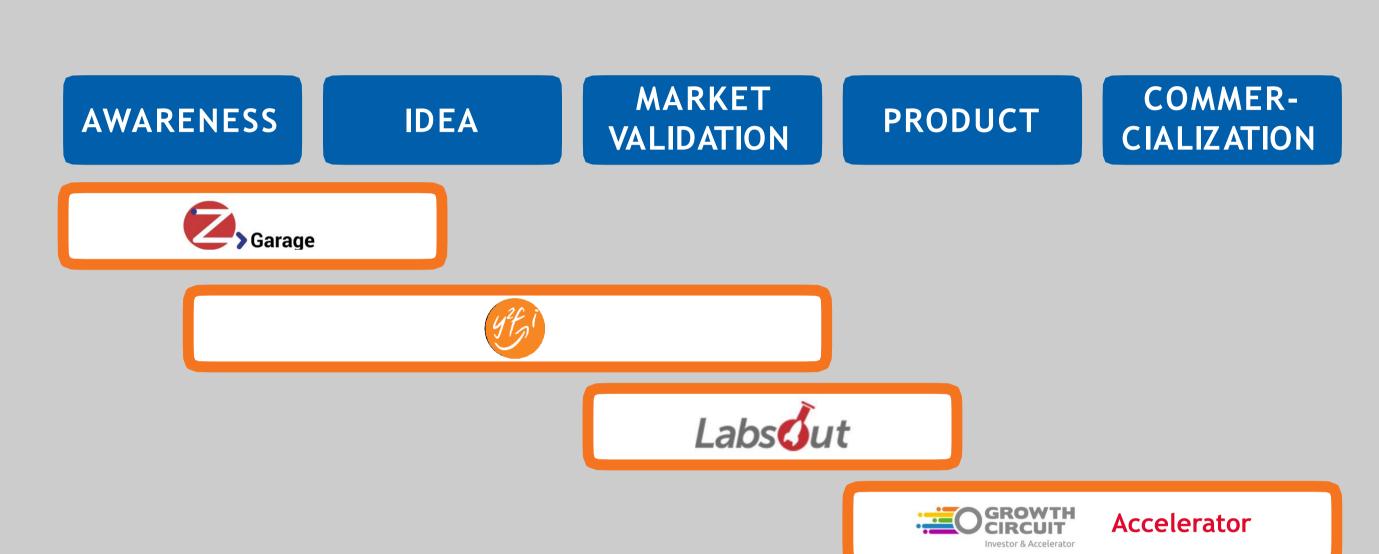
INDIVIDUALS / EARLY STAGE STARTUPS (Idea to product)

**ACADEMICIAN** 

**INTERNATIONALIZATION** 

**INVESTMENT** 

ANIMATION AND GAMING TECHNOLOGIES







**Pre-incubation** 



Incubation

GROWTH Ventures

**COMMUNITY & PHYSICAL SPACE** 



