

# SOCAR TÜRKİYE

Research & Development and Innovation Inc.

SOCAR Global

SOCAR Türkiye

SOCAR Türkiye R&D

## MISSION & VISION



SOCAR Türkiye R&D and Innovation Inc. has been established to support its holding companies in terms of technology solutions/operation efficiency which is aligned with strategic aspirations of SOCAR Global and SOCAR Türkiye Vision 2035



**ESTABLISHED**  
13.12.2019

With 54 years of R&D experience as part of Petkim

**R&D Center Facilities and Capacities**

Established on 1.200 m<sup>2</sup> area

Pilot Plant

Offices

Laboratories

Rheology  
Catalyst  
Polymer Characterization  
Environment & Biotechnology  
Chemical Analysis  
Chromatography

**NUMBER OF EMPLOYEES 34**

**25**  
Researchers



**11** Ph.D.



**11** Master's Degree & Candidate



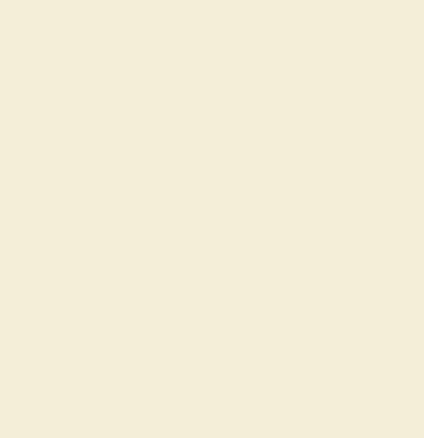
**4**  
Management



**5**  
Bachelor's Degree



**2**  
Ph.D. Candidate



**5**  
Associate Degree



**5**  
Technicians



**Innovation and Global R&D Initiatives Department**

**7**  
Researchers

**Research & Development Areas**

**Product Development Department**

**14**  
Researchers  
**17**  
Different Projects

**Process Development & Sustainability Department**

**13**  
Researchers  
**24**  
Different Projects

**Number of Projects**

**41**

**%18**  
Product & Application Development

**%39**  
Operational Efficiency (Catalyst & Digitalization)

**%43**  
Energy Transition & Circular Economy & Environmental Solutions

## R&D Departments and Projects

### Projects & Activities

UAV Solutions for Industries



Process Development & Sustainability Department

Product & Application Development Department

New Speciality Plastic Products for Several Applications



Development of Corrosion Monitoring Model



Environmental Biotechnology Products for Wastewater Treatment



Sustainability Projects: Green/Blue Hydrogen Production, SAF Production and DME Synthesis



MB Products for Plastic Processing Industries



Custom Reactor Modelling and Optimization



New Generation Polymerization Catalysts



ImCube: Static Particle Size Analyzer



Chemical Recycling of Waste Plastics



**SOCAR TÜRKİYE R&D AND INNOVATION IN NUMBERS 2022**

**43** Collaborations and partnerships

**41029**  
Different Universities | Different Industries | Registered Patents

**8** Published Articles

**44** Innovative Products

**5** Awarded EU Projects  
**2** Awarded National Projects

**331**  
Circular Economy & Environmental Solutions | Operational Efficiency (Catalysts & Digitalization) | Product and Application

**38** Patents

**3** Patent Application  
**8** Registered Patents

Commercialized Products  
LDPE 1019-EC, PP EH122, PPA MB/AB, MB/Slip MB, PP AG251

Ready to be Commercialized  
ImCube, BIOTECH PET01, SmartXSensor, SmartXFLy

## COLLABORATIONS & PARTNERSHIPS

22 signed collaborations and agreements in 2022

**4** Universities

Gebze Technical University  
Celal Bayar University  
Izmir Institute of Technology  
Middle East Technical University

**10** Industry

(Technology supplier, Research Centres)  
ASPILSAN  
AON Solutions Turkey  
3P18 Independent Consultants  
McKinsey-Consulting  
Phenomenex  
OLI SYSTEM  
SIEMENS  
PWC  
NexantEca

**29** with Group Companies

Star Refinery Inc.  
Petkim Petrochemical Holding Inc.  
Gas Business Unit

**7** Countries

Azerbaijan  
Belgium  
France  
Germany  
Italy  
USA

## SUCCESS STORIES

**BIOLINK**  
Sustainable Bioplastic Production from Agricultural Food Wastes

**SAYEM**  
Development of Novel Material, Production and Bench Technologies for Additive Manufacturing

**2** National Projects

**5** EU Projects

**4** New Memberships

**CARMOF (H2020)**  
Tailormade 3D Printed Structures Based on CNT and MOF for Efficient CO<sub>2</sub> Capture

**CO2FOKUS (H2020)**  
CO<sub>2</sub> Utilization Focused on Market Relevant Dimethyl Ether Production via 3D Printed Reactor and Solid Oxide Cell Based Technologies

**NEFERTITI (H2020)**  
Innovative Photocatalysts Integrated in Flow Photoreactor Systems for Direct CO<sub>2</sub> and H<sub>2</sub>O Conversion into Solar Fuels

**LOUISE (H2020)**  
Low-Cost CO<sub>2</sub> Capture by Chemical Looping Combustion of Waste-Derived Fuels

**CIRCULAR TwAIn (HEUROPE)**  
AI Platform for Integrated and Circular Manufacturing

