

MEXT

NEXT GENERATION OF MANUFACTURING

powered by





rexroth
A Bosch Company

ABB

B/S/H/

SIEMENS

**GROUPE
RENAULT**



64 YEARS OF HISTORY

**269 LEADER COMPANIES
IN METAL INDUSTRY**

**60 BILLION DOLAR
CONTRIBUTION TO THE
ECONOMY WITH 40% OF
TOTAL EXPORTS**



**ANADOLU
ISUZU**

 **BOSCH**



Schneider
Electric



**ALL NEEDS FOR DIGITAL
TRANSFORMATION UNDER ONE ROOF**

**THE WORLD'S LARGEST AND MOST
COMPREHENSIVE DIGITAL TRANSFORMATION
AND CAPABILITY DEVELOPMENT CENTER**



DIGITAL FACTORY

REAL MANUFACTURING ENVIRONMENT WITH END-TO-END INTEGRATED IT/IOT SYSTEMS AND MORE THAN 160 DIGITAL USE CASES



DIGITAL&SUSTAINABILITY MATURITY ASSESSMENTS

WORLD'S BIGGEST "TWIN TRANSFORMATION IN MANUFACTURING" INITIATIVE



CAPABILITY BUILDING PROGRAMS

WORLD'S MOST COMPREHENSIVE "DIGITAL TRANSFORMATION IN MANUFACTURING" CURRICULUM



ECOSYSTEM

TECHNOLOGY AND SOLUTION PARTNERSHIPS WITH THE MOST SUCCESSFUL ONES OF THE WORLD



**2 REAL MANUFACTURING LINES
WITH LEADING TECHNOLOGIES
FOCUSED ON TWIN
TRANSITION**

**BEST NATIONAL / INTERNATIONAL
TECHNOLOGY PARTNERS**

**160+ USE CASES INCLUDING
50+ SUSTAINABILITY APPLICATIONS**

**TURKIYE'S FIRST END TO END INTEGRATED
DIGITAL MANUFACTURING FACILITY**

**AN INDUSTRIAL TEST-BED SUPPORTED BY STATE-
OF-ART TECHNOLOGY, EQUIPMENT AND
INFRASTRUCTURE**

5G MOBILE PRIVATE NETWORK INFRASTRUCTURE

**CUTTING-EDGE GPUS FOR AI AND HIGH PERFORMANCE
COMPUTING**

**THE WORLD'S FIRST VIRTUAL STEEL MANUFACTURING FACILITY
POWERED BY AN ANALYTICAL MODEL**



**WORLD'S MOST
COMPREHENSIVE "DIGITAL
TRANSFORMATION IN
MANUFACTURING"
CURRICULUM**

**NATIONAL AND INTERNATIONAL
PARTNERSHIPS WITH THE BEST
OF THE WORLD**

**CUSTOMISED TRAINING
CONTENT AND EXPERIENCE**



KOÇ ÜNİVERSİTESİ



İTÜ



**HARVARD
UNIVERSITY**



Fraunhofer


SIRI DIGITAL MATURITY ASSESSMENT




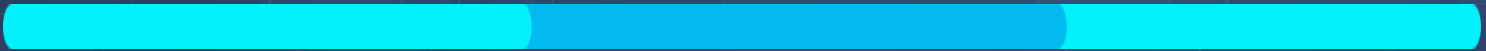
 **Covering all key elements of Industry 4.0**

 **Site visit and applicable roadmap**

 **Global benchmark opportunity**

 **Balance between technical rigor and practical usability**

 **Relevant for all companies, regardless of their size, maturity and industry**



250+ Companies Assessed by MEXT

10 Different Industries

10 Certified SIRI Assessors in MEXT

500 Target of Assessments Globally by 2025

Industries:



Automotive



Textile



Defense



Pharmaceuticals



Cement



Food & Beverage



Mining



Chemical



Energy (Oil and Gas)



Machinery Manufacturing

SIRI SUCCESS STORY



The Global Smart Industry Readiness Index

**TWO AUTOMOTIVE GIANTS
COLLABORATED WITH MEXT FOR THEIR
TIER-1 SUPPLIER TRANSFORMATION
PROGRAM WHICH TURNED INTO A
SUCCESS STORY**

2

Global Automotive OEMs

44

Tier-1 Suppliers



MEXT

Supporting sectoral level transformation – The Turkish Employers' Association of Metal Industries (MESS)



Applying SIRI to transform Turkey's automotive sector

The Turkish Employers' Association of Metal Industries (MESS) is one of Turkey's largest and most active industry associations. To help its members leverage Industry 4.0 concepts and technologies, MESS established MEXT, a 10,000m² technology and innovation centre. Equipped with a state-of-the-art digital model factory, MEXT aims to provide direct support and guidance through training, research collaboration and capability development.

To support members in starting their transformation efforts on the right foot, and to gain deeper insights into the maturity profile of the community, the MEXT team turned to SIRI for its comprehensive framework, data-driven methodology and quantitative assessment programme. Through a five-step process, MEXT systematically leveraged SIRI to aid individual manufacturers, organizations (including themselves) and governments in developing more effective and targeted interventions for the broader manufacturing sector.

Phase 1

Building in-house competencies

To support their member companies in undertaking the OSA, seven of MEXT's industry experts were trained as CSAs. By building a pool of in-market CSAs rather than tapping into the existing global network, MEXT could combine SIRI expertise with local context and language to strengthen their engagement with member companies.



Phase 2

Organizing outreach activities to raise awareness

To raise awareness of SIRI among the manufacturing community, MEXT rolled out a communications and outreach campaign that included more than 20 seminars and workshops, together with digital collateral such as web content and promotional videos. Over 1,000 business executives from the Turkish community participated in various activities.



Phase 3

Conducting OSAs for Turkey's automotive manufacturing community

In collaboration with two of the largest automotive original equipment manufacturers in Turkey, MEXT conducted the OSA for over 20 of their suppliers to evaluate the digital maturity of their production sites and provide guidance on next steps.



Phase 4

Analyzing the aggregated results

Upon completing OSAs for manufacturing suppliers, MEXT analysed the aggregated results to uncover new trends, insights and recommendations for the automotive community. The key findings were:

①

Turkey's automotive sector is slightly ahead of the industry average

Based on the comparative chart, the SIRI Maturity of the Turkish automotive manufacturing sector is generally on par with or slightly better than the Automotive IPC, which aligns with the international average. Turkey's automotive sector performs over 10% better than the international average in 7 out of the 16 dimensions.

MEXT'S INTERNATIONAL EXPANSION



Saudi Arabia



Azerbaijan

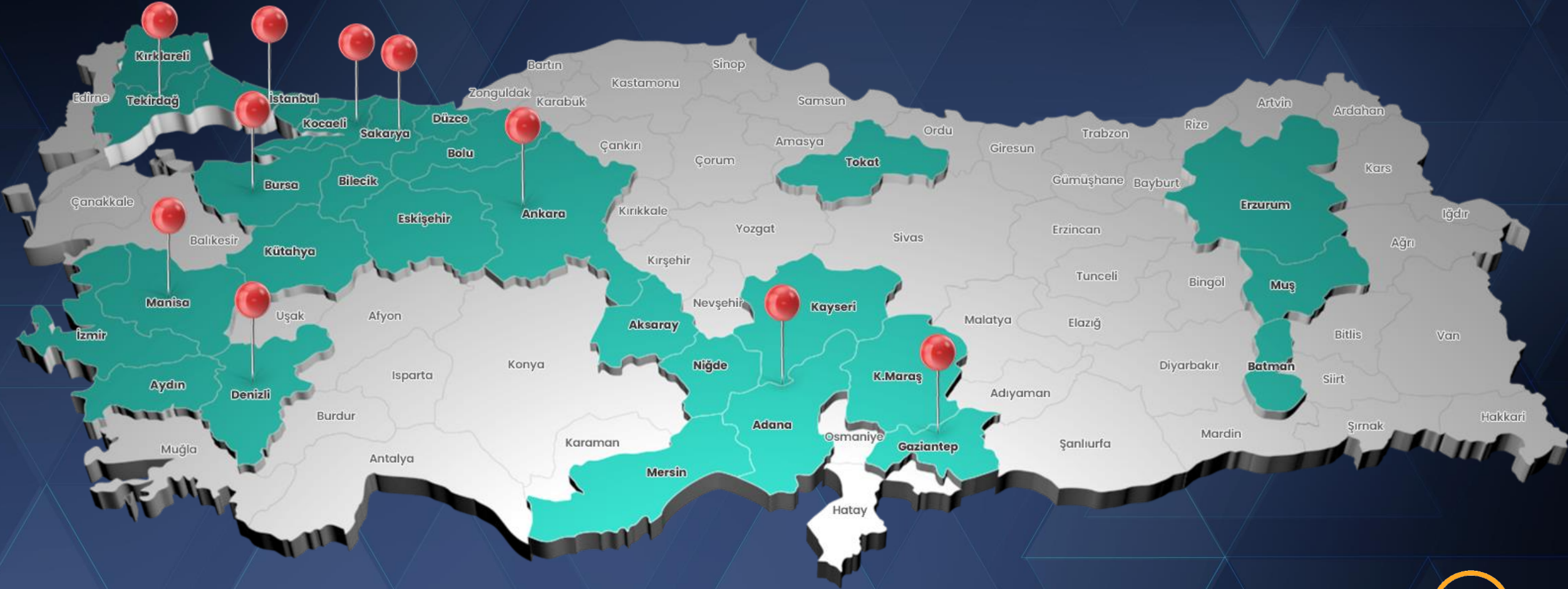


Germany



Access to 3 different countries with SIRI digital maturity assessment and consultancy services

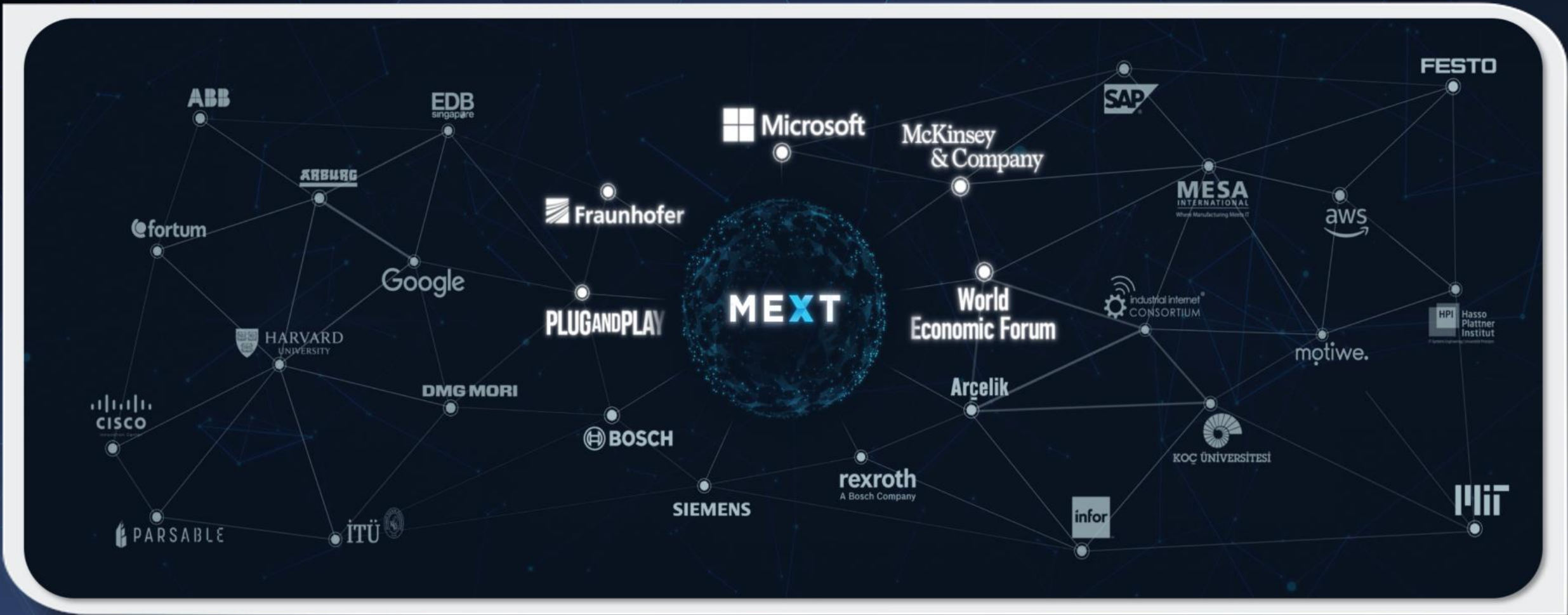
MEXT FOOTPRINT EXPAND TO 28 CITIES IN TÜRKİYE



OSB

Consultancy & Training

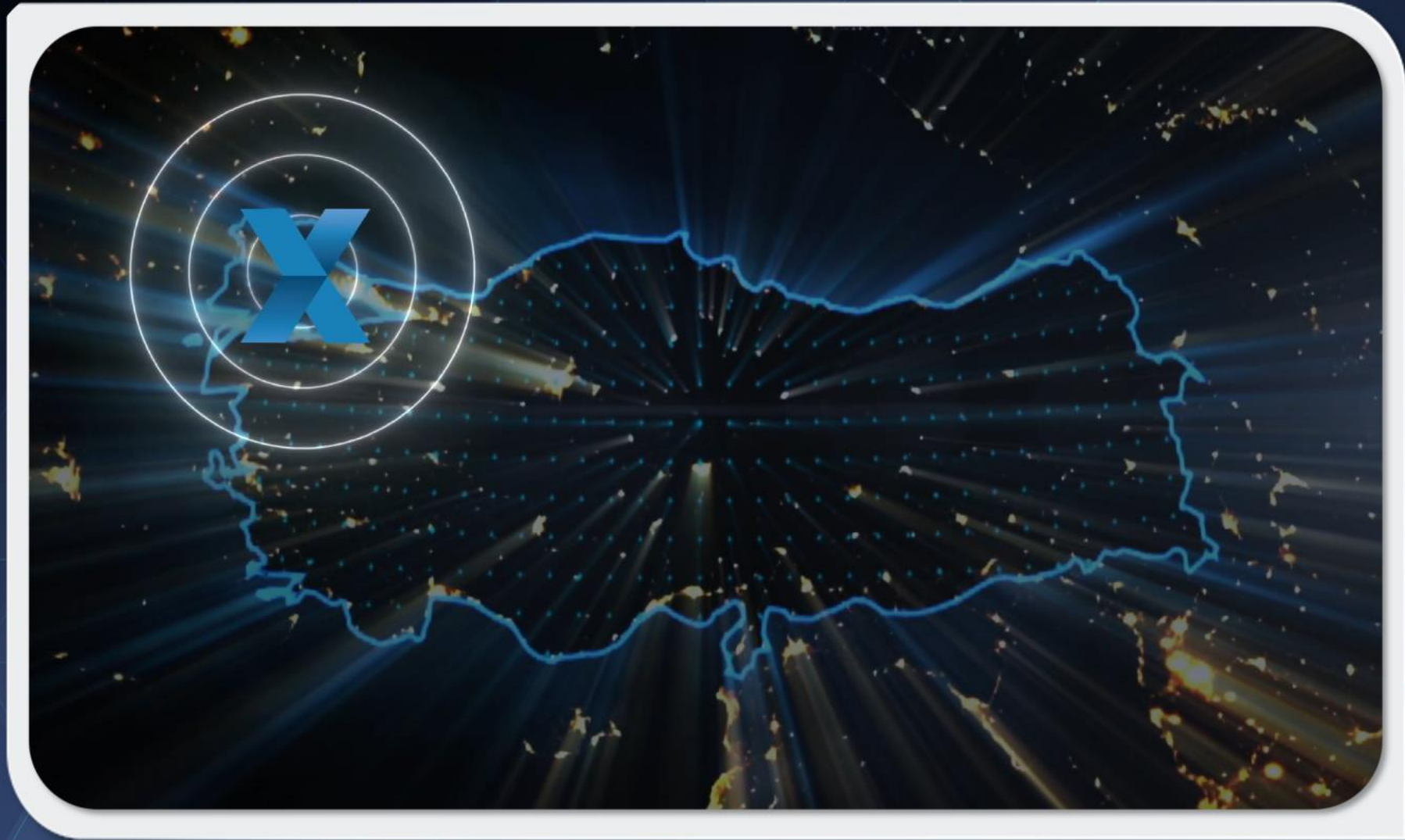




**EXTENDED ECOSYSTEM
TECHNOLOGY AND SOLUTION PARTNERS GLOBALLY**



**MEXT REPRESENTED TÜRKİYE AS ONE OF THE AFFILIATION CENTERS AT WORLD
ECONOMIC FORUM**



**RECOGNIZED
BY LEADING
INSTITUTIONS &
COMPANIES**

McKinsey
& Company




START-UP ECOSYSTEM AND VENTURES



START-UP ECOSYSTEM

OPEN INNOVATION AND
ENTREPRENEURSHIP ECOSYSTEM
HOSTED AT MEXT

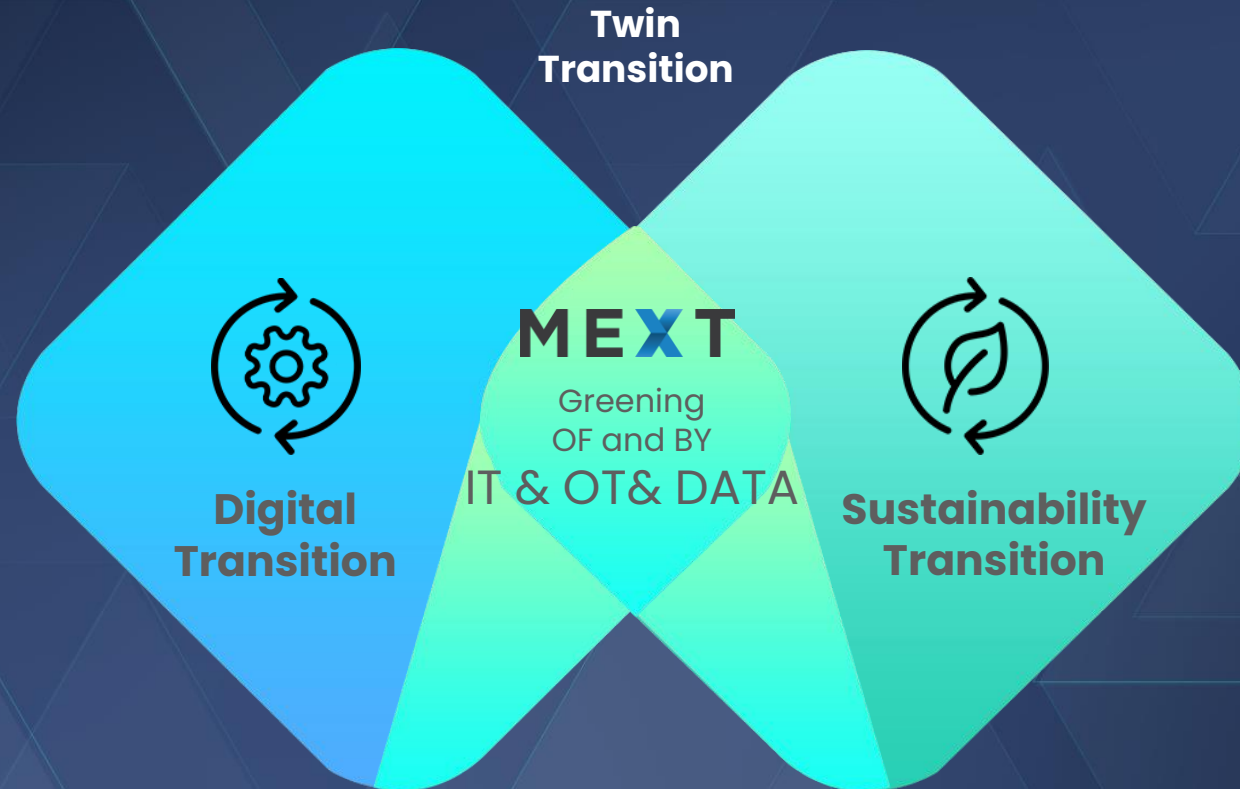
 **SUPPORT IN 1-1 MATCHING
AND POCs**

 **SCALING**

 **PRODUCT AND SERVICE
DEVELOPMENT**



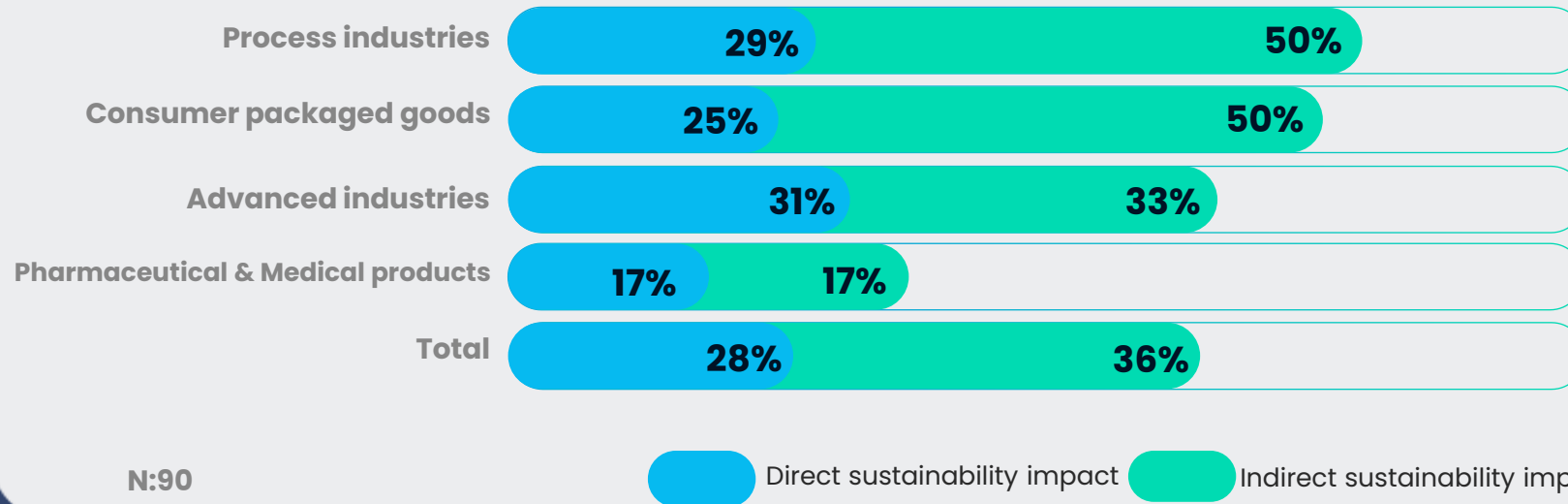
DIGITALIZATION ENABLES SUSTAINABILITY



4IR TECHNOLOGIES ENABLES SUSTAINABILITY

64% of Lighthouses report sustainability improvement as part of their 4IR transformation

Lighthouses citing sustainability KPIs from use cases



64%

of Lighthouses are driving sustainability through 4IR

All

Lighthouses showing sustainability Impact also show productivity impact

13 Sustainability Lighthouses in total Global Lighthouse Network

MEXT SUSTAINABILITY SERVICES



DIGITAL FACTORY

- **Sustainability Focused Use-Case Development**
- **Showcase for Lighthouse Sustainability Cases**



CONSULTANCY

- **Technology Driven Sustainability Road Mapping (COSIRI)**
- **Supplier Transformation Program**
- **Digital Toolkits**



CAPABILITY BUILDING

- **Sustainability Leadership Academy**
- **Denmark Project – Online trainings**
- **Deep-dive trainings (hydrogen, energy)**
- **Chief Sustainability Manager Training (CSM)**
From shopfloor operators to CxOs (4 levels)



ECOSYSTEM


- **Clean-Tech Technology Providers' Ecosystem**
- **New Business Models Green Business Building**
- **Technology Governance**
- **Sustainability Stakeholder Workshop**


DIGITAL FACTORY

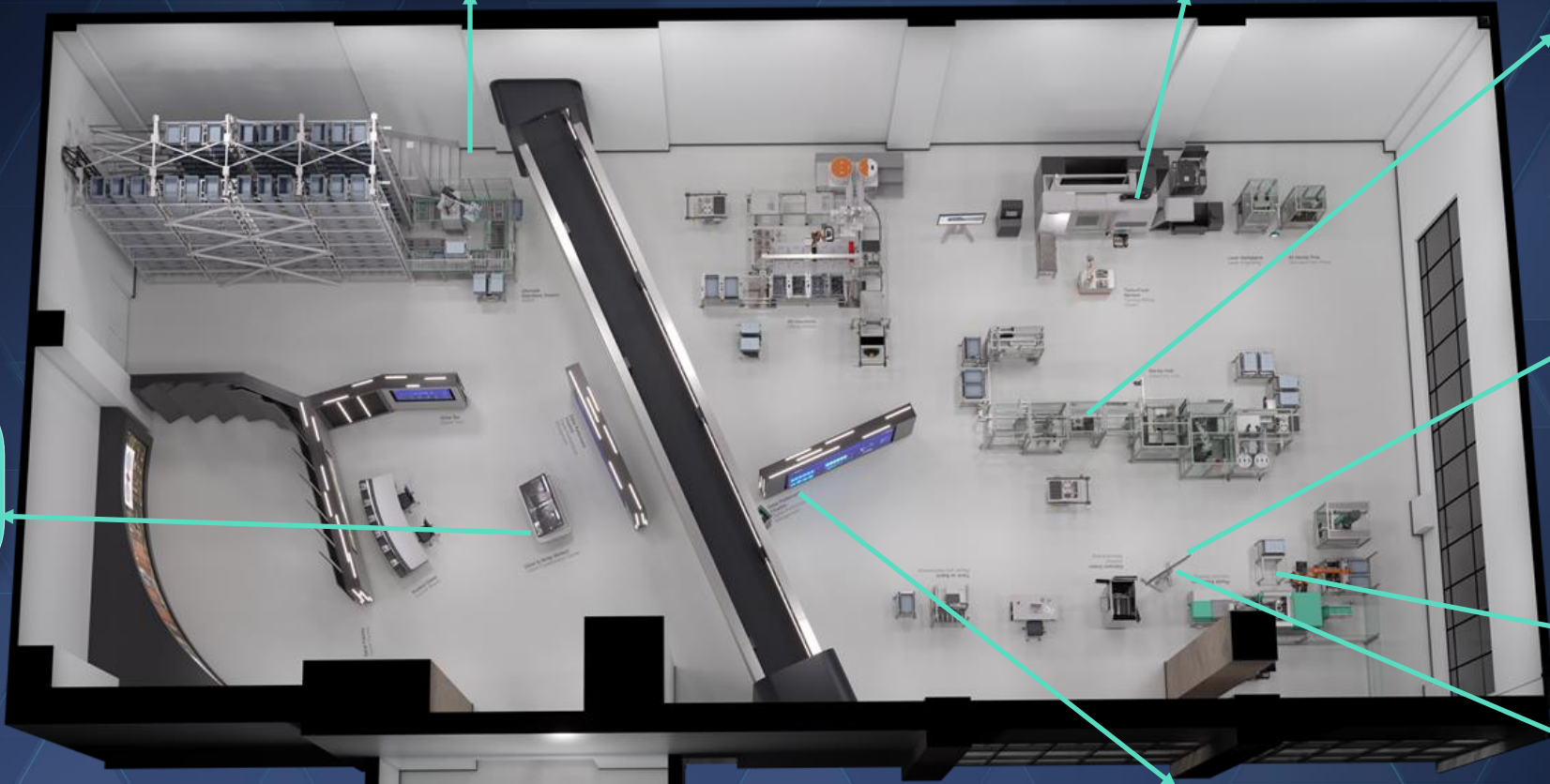

Health and Safety


Real-time CNC Process Adjustment


Compressed Air Efficiency


Data Governance Platform


Biopolymer




Digital Twin
Zinc Coating
Heat Optimization
Furnaces


Machine Health Monitoring


Carbon Footprint Calculation


Product Carbon Footprint

COSIRI SUSTAINABILITY MATURITY ASSESSMENT



Kick-starting the company's sustainability journey



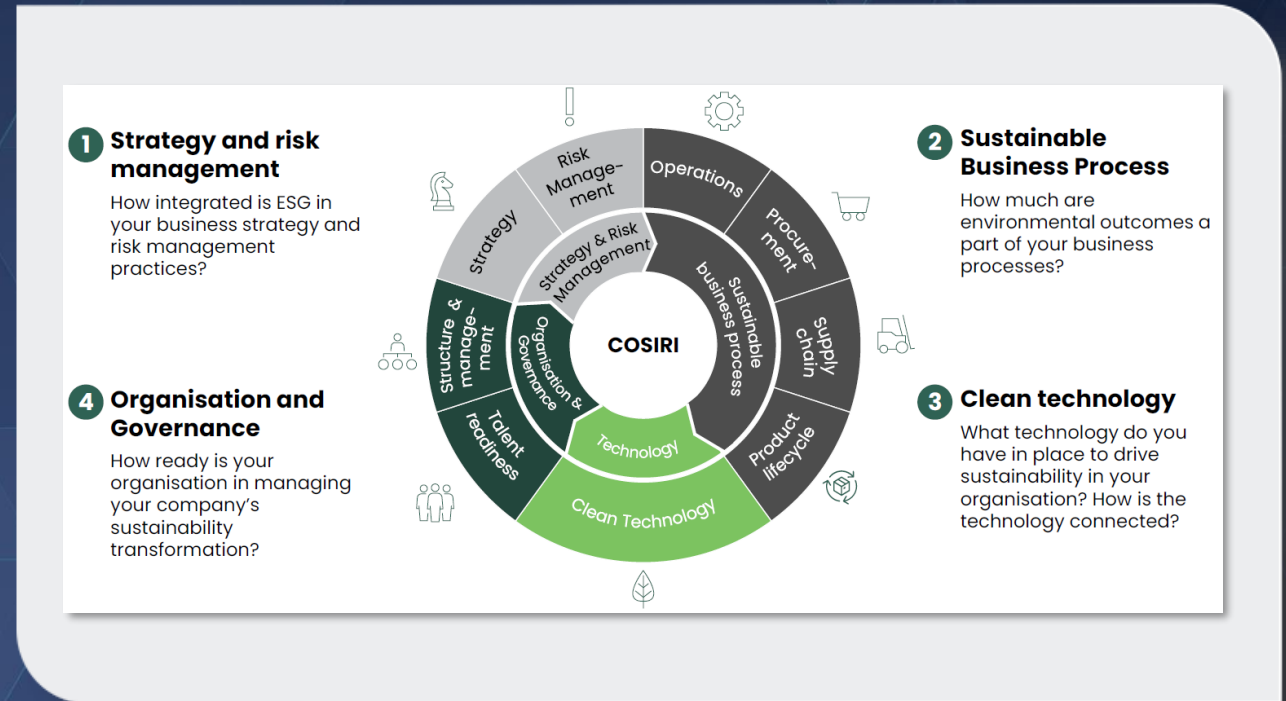
Evaluation of the current sustainability maturity level of the manufacturing plant



Roadmapping with the solid actions based on business objectives and priorities



Conducted by 8 in-house COSIRI Assessors who are experts on their industries



MATURITY
(AM – Assessment Matrix)

PRIORITISATION
(PM – Prioritisation Matrix)

STRATEGIC ROADMAP
(Company Specific Use Cases)

SUPPLIER TRANSFORMATION PROGRAM

WHY?



Being on track with the company's strategic net-zero targets, as the suppliers are one of the biggest emission sources



Guaranteeing the security of supply by kickstarting and securing the decarbonization of its suppliers



Gaining the first movers' advantage by serving the net zero product to the market



Pioneer project for global alliances

WHAT?



BASELINE

Prioritize and Identify Key Suppliers



DIAGNOSIS

COSIRI Assessments



STRATEGY

Set Targets & Timeline



MONITOR

Move to Action & Monitor

MEXT

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