



This project is co-financed by the European Union
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PRESENTER FULL NAME: Dr. Cansu Börüban Bingöl

ORGANIZATION: Brisa Bridgestone Sabancı Tyre Manufacturing And Trading Inc.

WORKSHOP NAME: Workshop#2-Twin Green and Digital Transition of Industry

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Description of the Organisation



BRIDGESTONE



No. 1 worldwide tyre and rubber company



142.000+ employees



150 countries, 144 plants



90 years of heritage

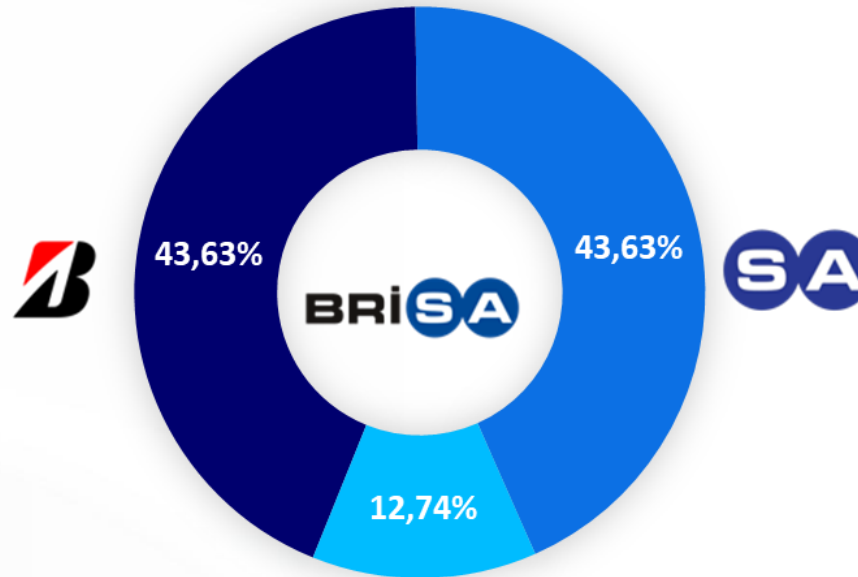


2 plants in Turkey (İzmit, Aksaray)

3.000+ employees

1.200+ sales points

Strong Partnership of 30 years



Leader in Turkish Tyre industry

SABANCI

One of the biggest company groups in Turkey

60.000+ employees

12 public companies

7 global partnerships

Activities in 14 countries

Diversified Portfolio

Export to 88 countries, 6000+ sales points

1,55 billion+ \$ investment in 30 years



Products

Consumer Tyres
(PSR, UHP, 4x4, RFT, LT)

Agriculture Tyres
(Bias and Radial)

Commercial Tyres
(TBR & LSR All)

Off the Road Tyres



Smart Services



B2B



B2C



Passenger Car Fleet Service Module



E-charge for electric vehicles



Tyre Brands



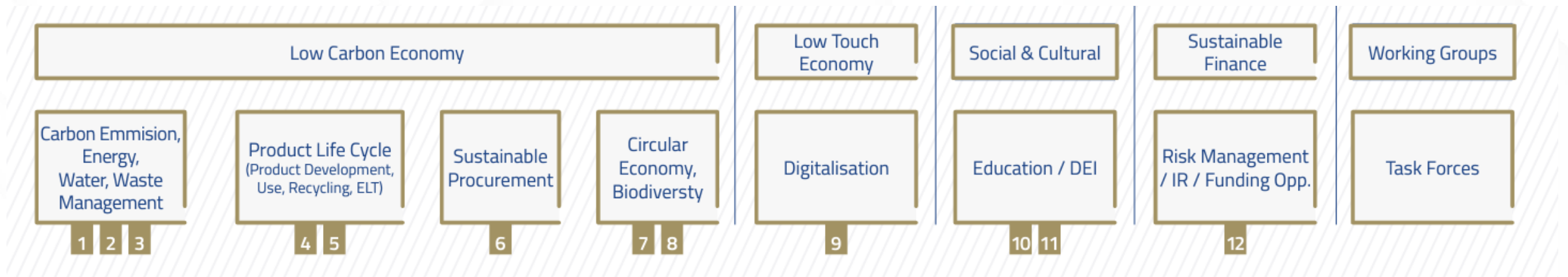
Retread Brands

Mobility Brands

Path to Sustainability

Brisa's 2030 Sustainability Goals

- » Reduce our carbon emissions by 56% compared to 2020,
- » Use 100% renewable energy sources,
- » Ensure that 79% of our suppliers, which account for emissions from the goods and services we purchase, commit to sustainability,
- » Utilize 40% sustainable materials in our products.



Brisa R&D Center



- Certified R&D Center
- Bridgestone know-how and co-operation with technical center
- Focus area: Innovative products, EV tires, mobility solutions, sustainable materials, production & design

#1 in Tire Industry

396 Million TL

R&D Investment in Turkey
(2023)

71%

SDG-linked R&D and
innovation
investments/expenditures

88

R&D Personnel

30

R&D Projects

148

The number of
products in 2024

Facilities

- ✓ 6 Laboratories
- ✓ 119 Testing Machine

R&D Projects

- ✓ 3 not approved
 - ✓ 2 above threshold
 - ✓ 2 approved
- Total **7** application

NA

**HORIZON2020-
ERANET -ERA-MIN3**

International

Call: Raw Materials for the Sustainable Development and the Circular Economy

NA

HORIZON EUROPE

Call: HORIZON-CL4-2022-RESILIENCE-01-11: Advanced lightweight materials for energy efficient structures

NA

HORIZON EUROPE

Call: HORIZON-CL4-2023-TWIN-TRANSITION-01-42: Circular economy in process industries: Upcycling large volumes of secondary resources

Above threshold

HORIZON EUROPE

Call: HORIZON-CL5-2023-D6-01-10: Better infrastructure safety on urban and secondary rural roads throughout a combination of adaptable monitoring and maintenance solutions

Above threshold

HORIZON EUROPE

Call: HORIZON-CL5-2024-D5-01-06: New designs, shapes, functionalities of Light Commercial Vehicles (2ZERO Partnership)

Ongoing

DIGITAL EUROPE

Call: DIGITAL-2023-SKILLS-05-CYBERACADEMY: Cyber Security for Industry 4.0 Technologies in Operational Technology

Ongoing

**HORIZON CASCADE
FUNDİNG (MASTER)**

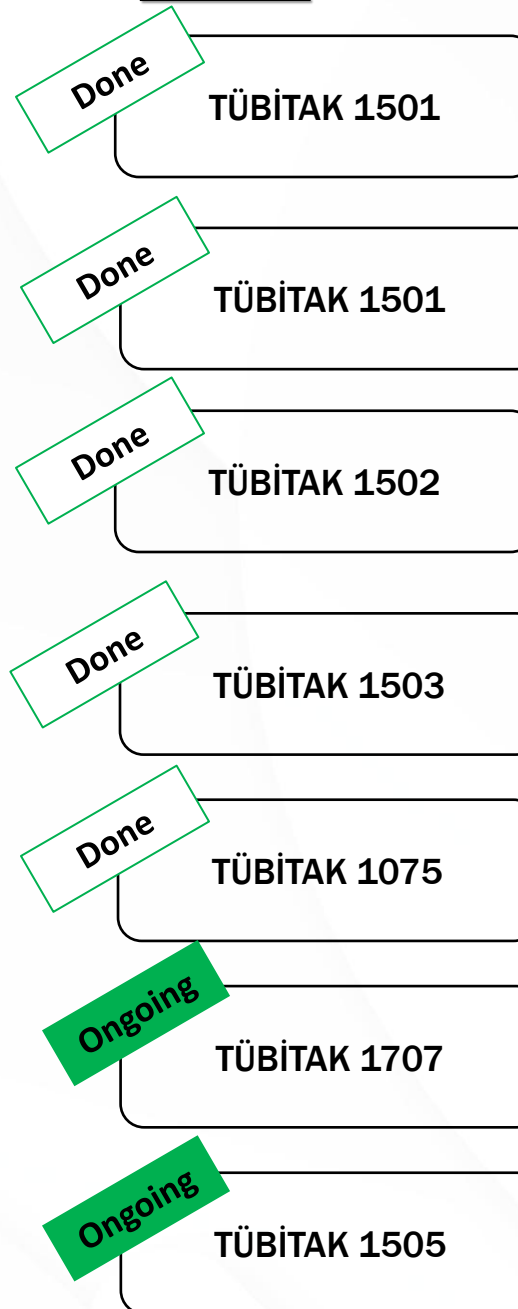
Call: Safety and ergonomics in workplace: XR-based environment for ergonomics training methods to evaluate and best-practices suggestion

R&D Projects

- ✓ **6** Industry-University
- ✓ **1** Industry-Start up

Total **7** projects

National



- Development of a new drive axle tread pattern and manufacturing methods with improved wear, rolling resistance, and wet grip performance for use in damper truck service in different sizes
- Development of an end-to-end innovative smart storage system for the tire industry
- Development of an innovative tread and performance characteristics cross tire for telehandler vehicles
- Investigation of innovative passenger and light commercial tire group tires by using carbon nanotubes and low-layer graphene in the tire tread compound
- Use of surface modified inorganic materials in passenger tire compounds
- Development of a bird and flock deterrent system powered by generative artificial intelligence, enhanced with optical, laser, sonic, and ultrasonic technologies, for both indoor and outdoor environments without causing harm
- Investigation of the use of heat resistance sulfur in tire compounds

Project Idea: R&D

Focus points for Circular Economy:

- Sustainable and EUDR-compliant natural rubber
- Bio-based raw materials: Natural and/or synthetic rubber alternatives, biobased antioxidants, polymers & adhesives
- Recycled raw materials: Curing chemicals, rubber additives, antioxidants, oil
- Plastic recycling
- Carbon-based materials from end-of-life tires (ELT)
- Sustainable product design
- Digital product passport (DPP)
- EURO-7 compliance to decrease tire roadwear particles (TRWP)

Focus points for Circular Value Chain Decarbonization:

Due diligence
Traceability
Data tracking

Project Idea: Digitalization

- **Digital transition: Manufacturing, data management, control systems**
- **AI – predictive maintenance, decision making,**
- **Cyber security**
- **Digital twin: Manufacturing**
- **Data integration**
- **Operational Continuity**
- **Smart factory**

Project Idea: Mobility & Arvento



- **Services**
- **EV**
- **V2X communication (Vehicle-to-vehicle, vehicle-to infrastructure etc.)**
- **Connected Mobility**
- **Mobility as a Service**
- **Vehicle tracking**
- **Sensors – TPMS**
- **Road safety**
- **Fleet management**
- **Integrated mobile systems**

Project Idea

Strength: We have a cascade funding project about VR in ergonomics training

Call Topic: HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-02: Physical and cognitive augmentation in advanced manufacturing (Made in Europe Partnership) (RIA)

Deadline Dates: 23.09.2025

Brisa can participate as:

- ☐ **Demo partner for a high temperature manufacturing process**
- ☐ **Replicator partner with contribution about state-of-art analysis, commenting extension potential of technology to other industry.**

Project Idea

Call Topic: HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-31: From heat-driven processes to the use of mechanical and electric forces (Processes4Planet partnership) (IA)

Deadline Dates: 23.09.2025

Brisa can participate as:

- ☐ Demo partner for a high temperature manufacturing process
- ☐ Replicator partner with contribution about state-of-art analysis, commenting extension potential of technology to other industry.

Case Proposal:

We are conditioning (temperature wise) our raw materials before mixing process. The requirement is for the material stock area to stay between 50-65 °C. The material stays in a room for some time(24-72h) in batches. The temperature and time vary depending on the material type. The heating room itself is heated by steam supplied fancoils. Steam is generated using natural gas.

The main requirement is homogenous heating the material before undergoing mixing process. At the moment, there is no systematic fi-fo in the heating room(oven in Brisa wording). There is potential in homogenous heating of the material using alternative methods

Project Idea

Call Topic: HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-32: Green and resilient flexible production processes (Processes4Planet partnership) (IA)

Deadline Dates: 23.09.2025

Brisa can participate as:

- ☐ **Demo partner for a high temperature manufacturing process**
- ☐ **Replicator partner with contribution about state-of-art analysis, commenting extension potential of technology to other industry.**

Project Idea

Call Topic: HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-34: Smart integration of net zero technologies into Energy Intensive industries (Processes4Planet and Made in Europe partnerships) (IA)

Deadline Dates: 23.09.2025

Brisa can participate as:

- ☐ **Process industry partner with solar system use**
- ☐ **Akıllı şebeke uygulaması, güneş enerjisi için tahminleme sistemi**

Project Idea

Call Topic:HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-35: Developing and embedding upcycling technologies into viable business (Processes4Planet partnership) (IA)

Deadline Dates: 23.09.2025

Brisa can participate as:

- ☐ Valorisation of tyre waste of high-quality products
- ☐ Using recycled materials in tyres as a feedstock
- ☐ Analysing the regulations for new materials for defining the barriers

Project Idea

Call Topic: HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-36: Safe and clean processing technologies and products (Processes4Planet partnership) (RIA)

Deadline Dates: 23.09.2025

Brisa can participate as:

☐ **Demonstrator for tyre industry**

Project Ideas for Cluster-4

1. **HORIZON-CL4-INDUSTRY-2025-01-MATERIALS-45:**
Materials Commons for Europe (IA)
2. **HORIZON-CL4-INDUSTRY-2025-01-MATERIALS-52:**
Accelerate the uptake of life- cycle assessment (LCA) for Safe and Sustainable by Design (SSbD) chemicals and materials and resulting products (RIA)

Brisa interest areas:

- **LCA use-case and demo partner**
- **Recycled raw materials: Curing chemicals, rubber additives, antioxidants, oil**
- **Carbon-based materials from end-of-life tires (ELT)**



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