

Greenet



The network of Horizon Europe
Cluster 5 National Contact Point.

GENEL / PU



ANADOLU ISUZU

Gülenay Tunç

GREENET Brokerage Event
6th May 2025



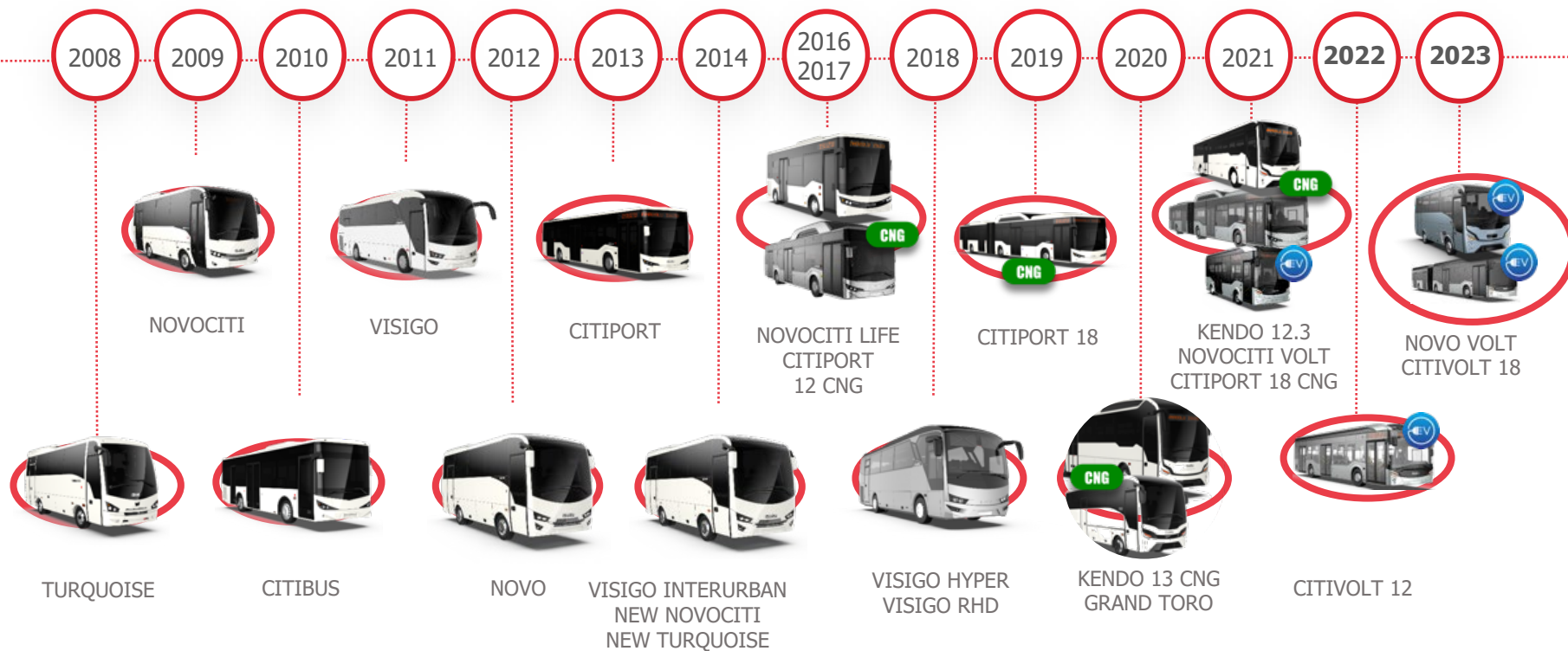
The GREENET project has received funding from the EU Horizon Europe programme under Grant Agreement No 101069604

ANADOLU ISUZU R&D

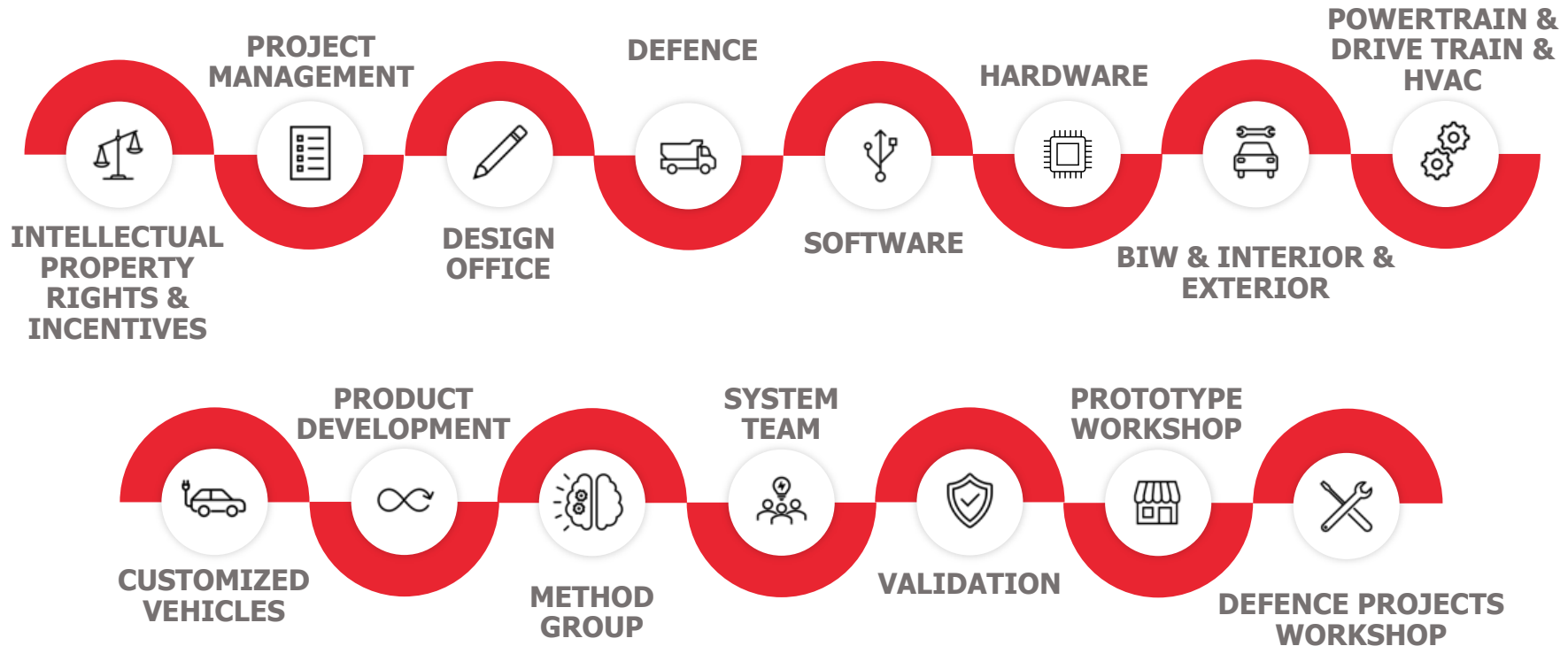


- One of the first centers to change status under the R&D Centers Law enacted **in 2009**
- **~300+** employees
- **6000 m²** indoor area
- **A center that covers all steps from sketch to product**, including the Design Office, R&D Office, Prototype Workshop, Special Projects Workshop, and Testing Center

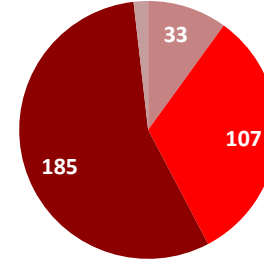
PRODUCT RANGE



R&D CENTER DIVISIONS



INTELLECTUAL PROPERTY RIGHTS & INCENTIVES



- UTILITY MODEL
- PATENTS
- NATIONAL DESIGN REGISTRATIONS
- INTERNATIONAL DESIGN REGISTRATIONS



NUMBER OF COMPLETED APPLICATIONS IN 2024

20 ONGOING R&D PROJECTS

37 NUMBER OF RESEARCHERS WITH POSTGRADUATE DEGREES

306 TOTAL R&D PERSONNEL

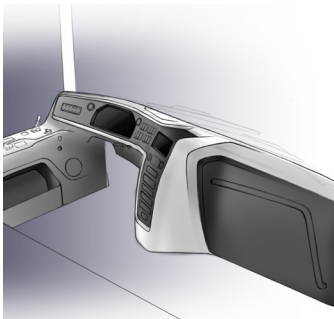
3 NUMBER OF RESEARCHERS PURSUING DOCTORAL STUDIES



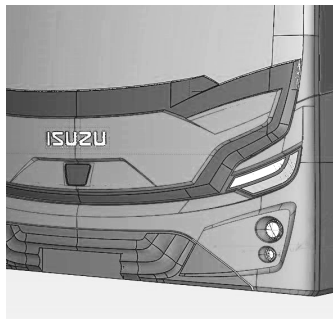
DESIGN OFFICE



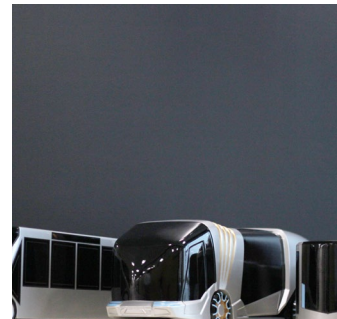
STYLING



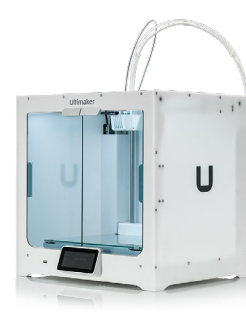
2D ILLUSTRATION



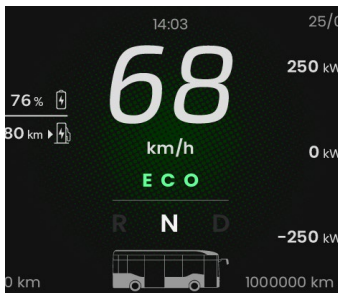
3D MODELLING



SCALE MODEL



3D PRINTER



INTERFACE DESIGN



GRAPHIC DESIGN



CMF



PHOTOREALISTIC RENDER



ANIMATION

SOFTWARE

SAE
J1939

CREATING INFRASTRUCTURE
ACCORDING TO J1939 STANDARD

IEC **PLCopen**
logic
ST LD IL
SFC FBD
IEC 61131-3

VEHICLE INSTRUMENT AND CONTROL UNIT
SOFTWARE IN ACCORDANCE WITH IEC 61131-3
STANDARDS



VEHICLE INSTRUMENT SOFTWARE
DESIGN AND PROGRAMMING



DESIGN AND INSTALLATION OF
CAN ARCHITECTURE



CUSTOM DESIGN BASED ON
CUSTOMER REQUIREMENTS



PROGRAMMING THE BODY
CONTROLLER
CONTROLS OF EQUIPMENT:
DOORS, HEADLIGHTS, WIPER
ETC.



SOFTWARE DEVELOPMENTS AND INTERFACE
DESIGNS COMPLIANT WITH GSR AND
REGULATIONS



PROGRAMMING THE TRACTION
CONTROL UNIT
ELECTRIC TRACTION MOTOR
TORQUE CONTROL AND
FUNCTIONS



BATTERY AND CHARGING
SCENARIO MANAGEMENT
SOFTWARE



ANADOLU ISUZU
DIAGNOSTIK PROGRAM

DESKTOP INTERFACES
AND DIAGNOSTICS
SOFTWARE

CYBER SECURITY & SOFTWARE TESTING



CYBER SECURITY ORGANIZATIONAL
STRATEGY AND SUPPLIER
MANAGEMENT SYSTEM



SOFTWARE UPDATE MANAGEMENT
SECURITY VULNERABILITY MONITORING
& ANALYSIS & RESPONSE



CYBER SECURITY REQUIREMENTS
ANALYSIS, ARCHITECTURAL DESIGN,
THREAT ANALYSIS AND RISK
ASSESSMENT



CYBER SECURITY SOFTWARE
DEVELOPMENT, VALIDATION AND
VERIFICATION



SOURCE STATIC CODE ANALYSIS



FUZZ & PENETRATION TEST



HARDWARE-IN-THE-LOOP (HIL)
SOFTWARE-IN-THE-LOOP (SIL)

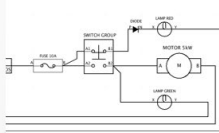


PROTOTYPE TOOL SOFTWARE
VERIFICATION AND DOCUMENTATION

HARDWARE



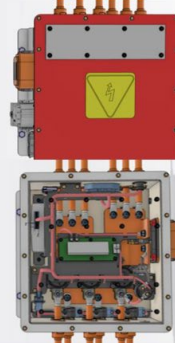
COMPONENT SELECTION AND
CREATING SYSTEM ARCHITECTURE



ELECTRICAL CIRCUIT DESIGN AND
ANALYSIS



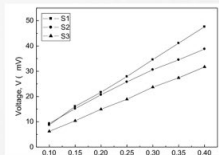
ELECTRICAL SYSTEMS LOCATION AND
INTEGRATION



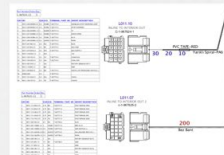
HARDWARE DESIGN



PROTOTYPE, COMMISSIONING,
SIMULATION AND TEST



ELECTRICAL CHARGE ANALYSIS



ELECTRIC WIRING DESIGN

NEW SYSTEMS



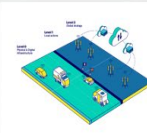
BATTERY SYSTEM
SELECTIONS



ELECTRIC ENGINE COMPARISON
SIMULATION AND SELECTIONS



ELECTRIC VEHICLE SYSTEM DESIGN AND CHOICES



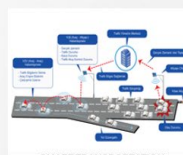
INTERNATIONAL VALUE-
ADDED PROJECTS



ALTERNATIVE FUELED
VEHICLES



AUTONOMOUS
VEHICLE STUDIES



SMART TRANSPORTATION
SYSTEMS AND CONNECTED
VEHICLES

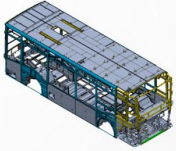


FLEET TRACKING SYSTEMS



ALTERNATIVE CHARGING
SYSTEMS

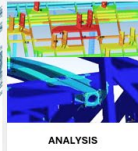
BIW



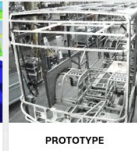
MATERIAL AND PROFILE



DETAIL DESIGN



ANALYSIS



PROTOTYPE

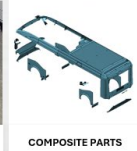


PUBLICATION

EXTERIOR

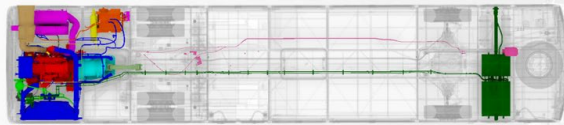
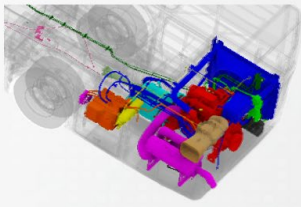
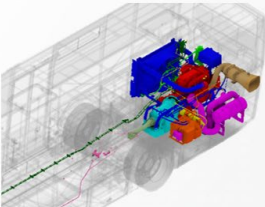


MATERIAL SELECTION AND WEIGHT/COST ASSESSMENT



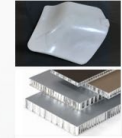
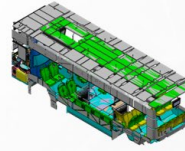
DESIGN OF WINDOWS

POWERTRAIN



- ENGINE
- COOLING SYSTEM
- AIR INDUCTION SYSTEM
- EXHAUST SYSTEM
- TRANSMISSION
- SHAFT AND RETARDER
- ADBLUE SYSTEM
- FIRE DETECTION AND EXTINGUISHING SYSTEM
- FAN HYDRAULIC SYSTEM
- FUEL SYSTEM
- ENGINE OIL SUPPLEMENT SYSTEM
- SHIFT MECHANISM AND WIRES
- CLUTCH KIT

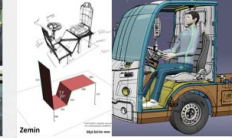
INTERIOR



MATERIAL SELECTION

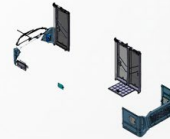


INTERIOR DESIGN



PLACEMENT AND ERGONOMICS

MECHANISM



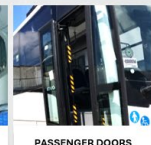
WHEELCHAIR RAMP AND LIFT SYSTEM



TRUNK LID DESIGN

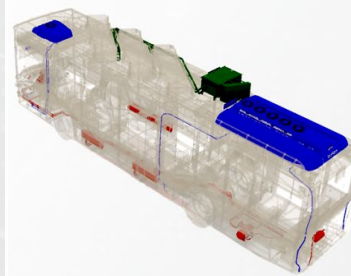


ARTICULATION SYSTEM INTEGRATION

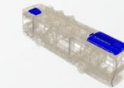


PASSENGER DOORS

HEATING VENTILATING AND AIR CONDITIONING



3D THERMAL SYSTEMS DESIGN



CABIN COOLING SYSTEM



CABIN HEATING SYSTEM



BATTERY THERMAL MANAGEMENT SYSTEM

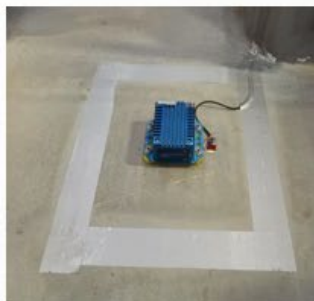


ALGORITHM DEVELOPMENT

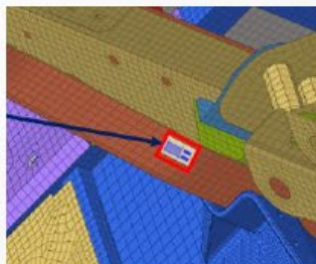


PREPARING TEST PROCEDURES AND PERFORMING TESTS

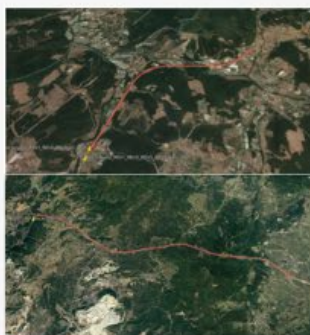
TEST-ANALYSIS CORRELATION



**ACCELERATION
MEASUREMENTS**



**STRAIN GAUGE
MEASUREMENTS**



ROUGH ROAD TESTS

THERMAL TESTS:

- FOG TEST
- ICE TEST
- TASE TESTS

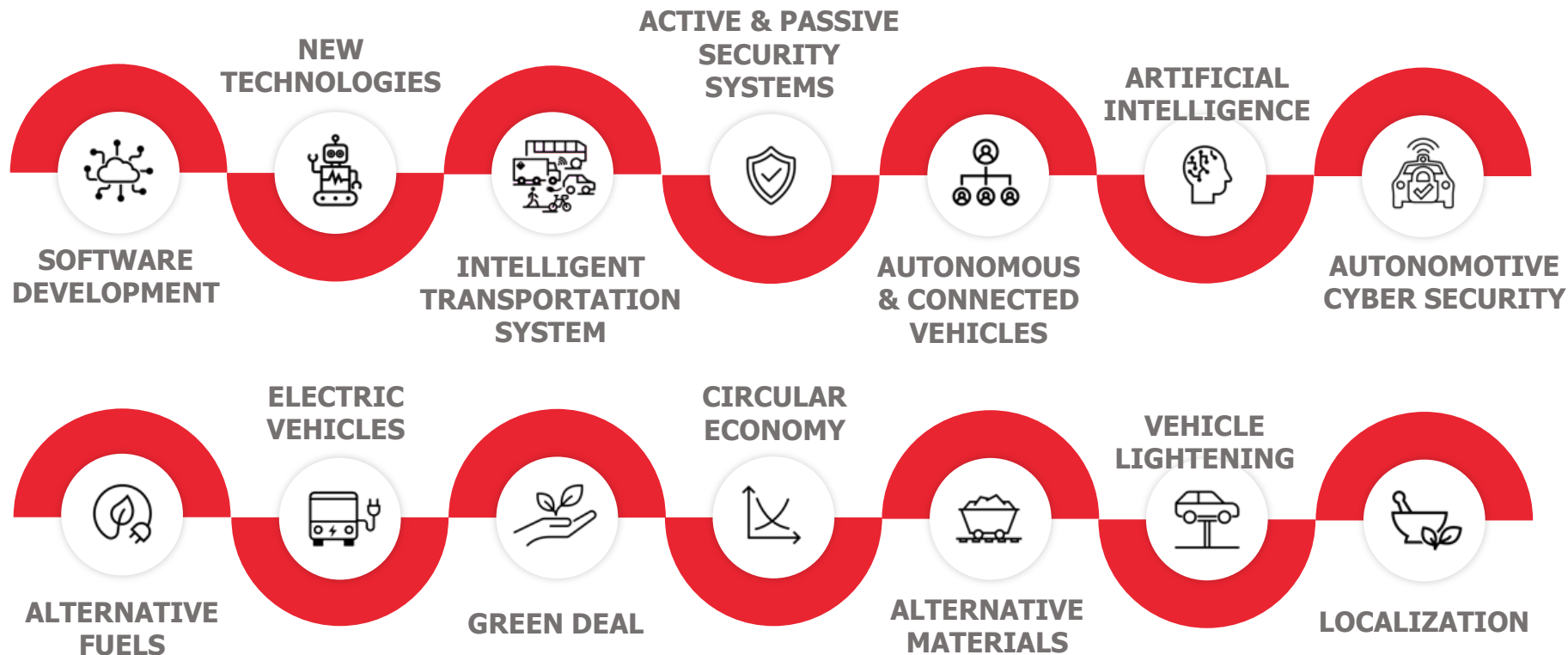
VEHICLE DYNAMICS TESTS

- ANTI-ROLL BAR TEST
- TURNING RADIUS TEST
- HUMB PASS TEST
- LANE CHANGE TEST
- STABILITY TEST

BODY VALIDATION TESTS:

- VEHICLE LOADING (STRAIN GAUGE MEASUREMENT)
- WHEEL-COG IMPACT TRANSMISSION (ACCELESS MEASUREMENT)
- BROKEN ROAD-BODY VIBRATION (STRAIN GAUGE MEASUREMENT)

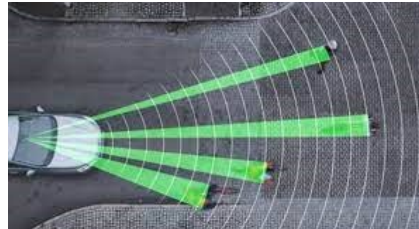
OUR FOCUS



INTELLIGENT TRANSPORTATION SYSTEMS



BLIND SPOT DETECTION SYSTEM



PEDESTRIAN AND BICYCLE DETECTION SYSTEM



TRAFFIC SIGNAL SYSTEM



DRIVER FAILURE AND VIOLATION DETECTION

ARTIFICIAL INTELLIGENCE



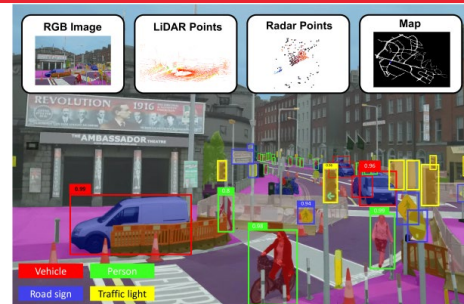
PREDICTIVE MAINTENANCE



AUTOMOTIVE CYBER SECURITY



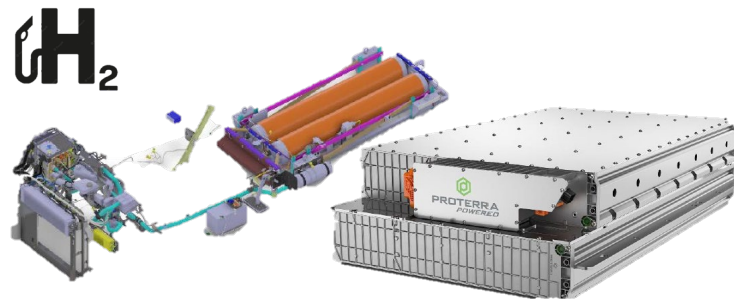
HARDWARE, SOFTWARE AND INFRASTRUCTURE DEVELOPMENT OF AUTONOMOUS DRIVING



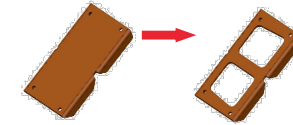
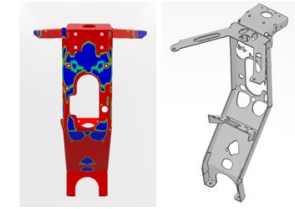
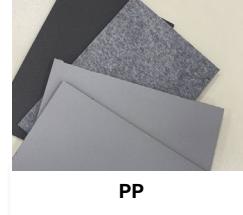
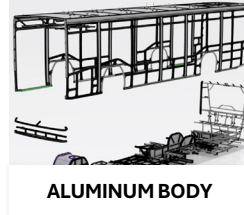
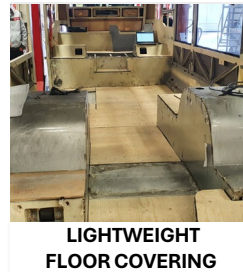
DATA ANALYSIS



ALTERNATIVE FUELS



ALTERNATIVE MATERIALS, BIOMATERIAL, GREEN DEAL, LIGHTENING, CIRCULAR ECONOMY



Call Topic	Type of Action
HORIZON-CL5-2025-04-D5-01: Efficient wireless stationary bidirectional charging solutions for road Light Duty Vehicles (2ZERO Partnership) – Societal Readiness Pilot	IA
HORIZON-CL5-2025-04-D5-02: Cybersecure and resilient road e-mobility ecosystem (2ZERO Partnership)	IA
HORIZON-CL5-2025-04-D5-03: Safe post-crash management of road Light Duty Battery Electric Vehicles (BEVs) (2ZERO Partnership)	IA
HORIZON-CL5-2026-01-D2-01: Development of sustainable and design-to-cost batteries with (energy-)efficient manufacturing processes and based on advanced and safer materials (Batt4EU Partnership)	IA
HORIZON-CL5-2026-01-D2-04: Integrating advanced materials, cell design and manufacturing development for high-performance batteries aimed at mobility (Batt4EU Partnership)	RIA

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COUNTRY:TÜRKİYE



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