ECS BROKERAGE EVENT

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CELESTIA at a glance

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CELESTIA | TST ECS R&D Background

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Distributed Artificial Intelligence Systems



Smart Edge Devices. ML on the edge. Digital Industry Supply Chain: Energy Management demonstrator.



Long Life Power Platforms for IoT



ML embedded models and algorithms for predictive maintenance and anomaly detection.

IoT Device: bearing condition monitoring with energy harvesting.



European ECOsystems for greeN Electronics



TST leads UC10: Green Soil Probe. Tools for estimation of batteries RUL (optimize recycling / replacement). Reuse components, improve recyclability, reduce waste, use more sustainable materials.



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RISCCOM

Secure low-power multipurpose system based on RISC-V for wireless communications



Low-power microelectronics RISC-V UWB technology DSP and cybersecurity Automotive IoT

PROACTIF

Unmanned Vehicles for Civil Security and Surveillance Missions



TST leads Mission 2.4: Port Security. Critical infrastructure safety and security: autonomous surveillance, perimeter protection, threats detection. Mini-UGV platform: Modular, upgradeable, all-terrain, indoor-outdoor, collaborative.





CELESTIA | TST Collaboration Expectations

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EU Programmes	Chips JU, Horizon Europe
Scope	Technology development, new market access
Potential research and innovation fields	Edge AI and Embedded ML HW-FW codesign AI assisted IoT design and assessment Edge-Cloud Continuum Autonomous Robotics Microelectronics SiGe, GaAs, GaN MMIC design SiP and Chiplets, heterogeneous integration AI assisted design RISC-V