

Project Ideas from European brokerage event of February 20-21 (Brussels)

“Chips JU 2024 Non Initiative Call”

Alberto Bianchi,

KDT SRIA 2024, INSIDE Industry Association (Leonardo S.p.A)

Livio Baldi,

President Chips Mirror Group Italy



ECS Brokerage Event



All Presentations at ECS brokerage event 2024 are available at:

<https://ecs-brokerage-event.eu/>

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<https://ecscollaborationtool.eu/>

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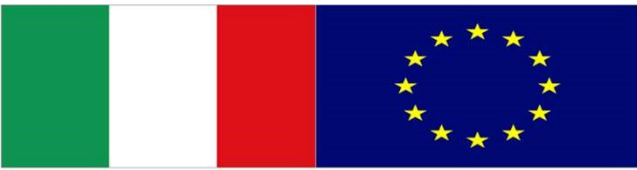
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ECS BROKERAGE EVENT 2024
20 & 21 February

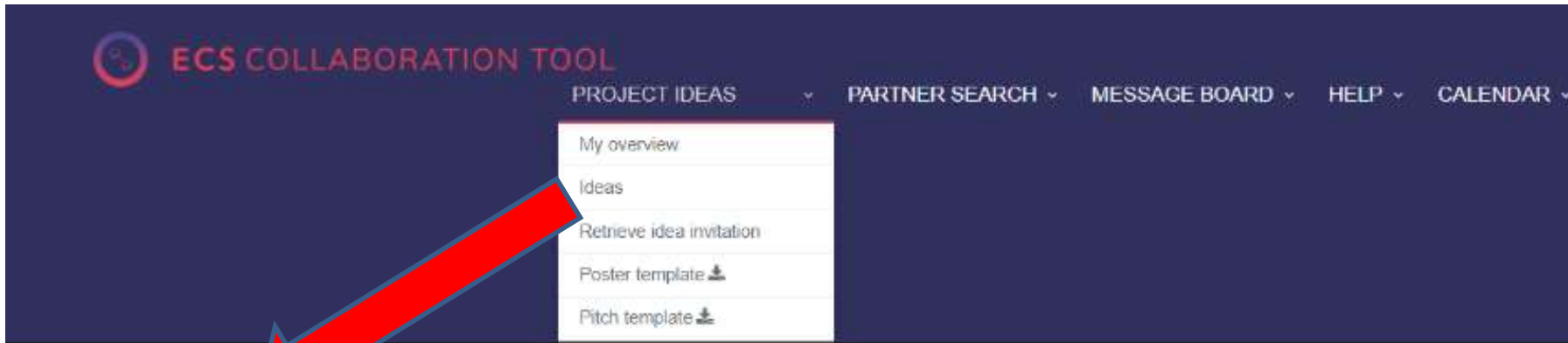
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ECS Collaboration Tool



Select Ideas:
You get a comprehensive list,
and you can select by:
SRIA chapter,
event (e.g. ECS Brokerage
2024) or
keywords.



IDEAS

Ideas

 Search

185 items on 24 pages

Fav	Project Idea	Acronym	Contact	Organisation	Created	Keywords
☆	Developing projects for the production and fleet management	Developing Projects for the production and fleet management of agv robots in smart factories; smart	FARUK IATAŞ	MODDYA Elektronik Elektronik Otomasyon Mühendislik Danışmanlık San. ve (TUR)	2024-02-01	Autonomous vehicles, Agv, Amr - Robots, Smart factory.

- + New Idea
- Message board
- Download list of Ideas

- ECS SRA Chapters
- 2.3. Architecture and Design: Method and Tools [79]
 - 1.1. Process Technology, Equipment, Materials & Manufacturing for ECS [64]
 - 3.3. Digital Industry [64]
 - 2.4 Quality, Reliability, Safety and

ECS SRA Chapters

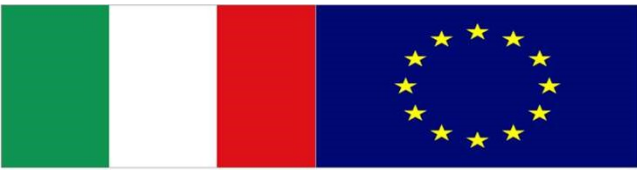
- 2.3. Architecture and Design: Method and Tools [79]
- 1.1. Process Technology, Equipment, Materials & Manufacturing for ECS [64]
- 3.3. Digital Industry [64]
- 2.4 Quality, Reliability, Safety and Cyber-Security [63]
- 2.1 Edge Computing

Events

- ECS Brokerage 2024 [49]
- ECS Brokerage 2023 [46]
- KDT kick-off and Brokerage 2022 [25]
- EF ECS 2022 Pre-Brokerage [19]
- ECS Brokerage Event 2022 [16]
- Xecs Matchmaking Event 2023 [12]
- ECS Brokerage Event 2021 [3]

Keywords

- Ai [23]
- Artificial intelligence [13]
- Edge computing [11]
- Edge ai [10]
- Deep learning [8]
- Machine learning [8]
- Industry 4.0 [6]
- Iot [6]
- MI [6]
- Safety & security [6]
- Sensors [6]



ECS Collaboration Tool



49 items on 7 pages

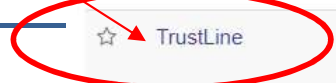
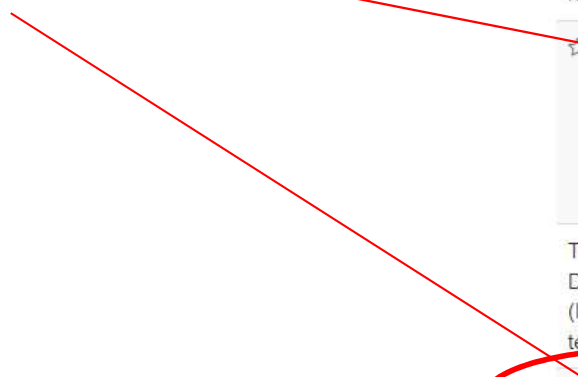
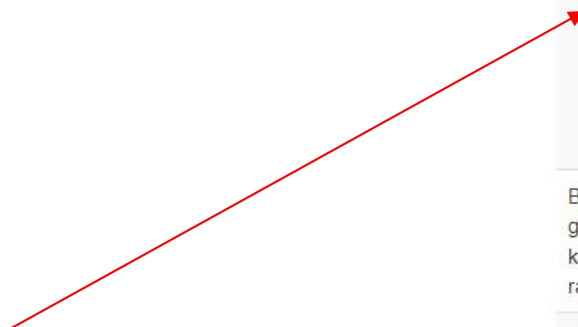
Search Reset

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☆	Developing projects for the production and fleet management	Developing Projects for the production and fleet management of agv robots in smart factories, smart	FARUK TATAŞ	MODOYA Elektronik Otomasyon Mühendislik Danışmanlık San. ve (TUR)	2024-02-01	Autonomous vehicles · Agv · Amr · Robots · Smart factory
☆	PROCCEPTION	Near-/In-sensor processing for next-generation perception systems	Edgars Lielamurs	Institute of Electronics and Computer Science (LVA)	2024-02-12	Sensor integration · Machine vision · Neuromorphic computing
☆	Green Monitoring Platform	Atmospheric, social, strategic, economic and green environmental impact monitoring	Gianluca Rossi	Ro Technology srl (ITA)	2024-02-14	Machine learning · Deep learning · Image processing · IoT applications · Data analysis
☆	TrustLine	Trust Factor Coefficient Based Dynamic Product Line Acceleration	Muhammed Akif AĞÇA	TOBB ECONOMY AND TECHNOLOGY UNIVERSITY (TUR)	2024-01-17	Cyber intelligence · Distributed computing · Stream processing · Middleware · Trusted computing

- 1.2 Componentss, Modules and System Integration [30]
- 2.1 Edge Computing and Embedded AI [27]
- 2.4 Quality, Reliability, Safety and Cyber-Security [22]
- 1.3 Embedded Software and Beyond [20]
- 1.1. Process Technology, Equipment, Materials & Manufacturing for ECS [19]
- 1.4 System of Systems [17]
- 3.3. Digital Industry [16]
- 2.3. Architecture and Design: Method and Tools [15]
- 3.1 Mobility [15]
- 2.2. Connectivity [13]
- 3.6 Digital Society [11]
- 3.4 Health and Well-Being [10]
- 3.5 Agrifood and Natural Resources [7]
- 3.2. Energy [6]

- Events**
- ECS Brokerage 2024 [49]
 - ECS Brokerage 2023 [46]
 - KDT kick off and...

For more detailed descriptions and for downloading poster and/or pitch





ECS Collaboration Tool



Description

Sought Partners

Involved Partners

If interested leave a comment to the coordinator

☆ **PROJECT IDEA TRUSTLINE**

Trust Factor Coefficient Based Dynamic Product Line Acceleration Mechanism for Intelligent Systems

Short Description
TrustLine Trust Factor Coefficient Based Dynamic Product Line Acceleration Mechanism for Intelligent Systems

Key Selling Points
Market need: Increasing number of nodes and diversity on components in growing intelligent systems require dynamic holistic views and trusted scalable system/data models to ensure (near) real-time functionalities. Innovation: Trust factor coefficient based dynamic holistic views enables to manage edge nodes and enable to build end-to-end holistic abstractions for the dynamic requirements of the use-case domains of trusted AI systems. Software driven hardware designs with trust factor coefficient based accelerated product line mechanisms. Business Impact: Growing AI systems will have trusted 5G connectivity at massive scale to ensure (near) real-time functionality of the system and enable intracontinental smart-city experimentalizations. See for details for initial DigBank 5G Connected Hybrid-Cloud smart-city experiments with improved Chip-set designs, have trusted computing features at any scale: <https://oexplore.ieee.org/abstract/document/10273674>, Trusted Distributed Artificial Intelligence (TDAI)

Already Involved

Partners Involved
Full stack system architects
Researcher/hardware designer for 5G Connected communication channels.

TOBB ECONOMY AND TECHNOLOGY UNIVERSITY (TOBB ETU)

Safiran Electronics and Defense Spain

emotion3D

Aerospac Valley

V-Research GmbH

Politecnico di Milano

Altek S.p.A.

Satcom Mobility System SAS

UEF (University of Eastern Finland)

Telecom Paris

RISE Research Institutes of Sweden AB

Excillum AB

Università degli Studi dell'Aquila

NXP Semiconductors France

Biorseyes Community association

TheProWow.Me Ltd

University of Turkish Aeronautical Association

Yongstak Microelectronics

Siemens Advanta Development

Birmingham City University

Aalto University

KnowL solutions BV

KU Leuven

Instituto de Telecomunicações

Bewell Teknoloji San.Tic.A.Ş.

B4Future

Looking for

Partners needed:
Expertise: Use-case experiments of smart-cities
Partner type: Any interested legal entity.
Countries: Türkiye, EU, USA and other interested countries.

Select other idea
TrustLine - Trust Factor Coefficient Based Dynam

Programme calls
Chips-JU Call 2023 - Pilot Lines
Chips-JU Call 2024

Idea presentation

EC'S Brokerage 2024

This idea will be presented as poster

This idea will be presented as presentation

Cyber intelligence · Distributed computing · Stream processing · Middleware · Trusted computing · Quantum systems · Hybrid-clouds · 5G · Cross border security

Request to join idea

Contact
Muhammed Akif AGCA
TOBB ECONOMY AND TECHNOLOGY UNIVERSITY (TOBB ETU)
Turkey

Uploaded documents
TrustLine_Poster TrustLine_Poster

Project idea pitch video
No project idea pitch video uploaded.

Comments
Comment LEAVE A MESSAGE...

Contact Person

Poster/Presentation if any

Video Pitch if any



ECS Brokerage Event 2024



- All the 49 Project Ideas are available on the Collaboration Tool. Among these:
 - 15 Ideas have inserted a poster
 - 19 Ideas have inserted a poster and a presentation

For detailed info you can download all the material from the ECS Tool <https://ecscollaborationtool.eu/>

In the following we list only ideas with at least two partners or at least a poster or presentation.



Proposals (1)



Acronym	Title	Topic	Coordinator	Consortium	Material
TrustLine	Trust Factor Coefficient Based Dynamic Product Line Acceleration Mechanism for Intelligent Systems	Scalable system/data models to ensure real-time functionalities in growing intelligent systems.	Muhammed Akif AĞCA TOBB UNIVERSITY (TK)	25 (2 Italian)	Poster
PATCHUS	Wearable ultrasound patches will be the next game changer in healthcare.	Develop wearable ultrasound patch based on modular platform technologies (already proposed last year)	Mikael Sundholm Spinverse (FI)	>16	Presentation
CHIPMUNK	Chiplet based solutions accessible and affordable	Developing an open-source One Stop Shop for Chiplet based solutions. Exploring new avenues in advanced packaging technologies and heterogeneous integration	Panos Chronis Spinverse.com Tuomas Valtonen Univ. Of Turku (FI)	16	Presentation
COBRA	COncentration for BetteR Attestation	For multiprocessor systems: 1) improve the attestation of a single processor, 2) improve the attestation of an entire swarm of devices.	Jo Vliegen KU Leuven (BE)	6 (1 Italiano)	Poster
CHIPPASS 5.0	Energy-efficient and Trustworthy Chip Practices strengthened with Green Circularity- and Sustainability	To enhance manufacturing and production efficiency, reduce costs, and optimise supply chains by considering the environmental impact of production processes,	Alper Kanak ERARGE (TK)	8 (contacted)	Presentation
DroneAI	DroneAI for Resilient Nature	Drones for scanning of forest areas, and data used to drive autonomous devices for felling the correct trees.	Jari Rauma Univ Oulu (FI)	6 (only from Finland)	Poster



Proposals (2)



Title	Topic	Coordinator	Consortium	Material
Transitioning from ADC to TDC: Enabling Energy-Efficient Communication and Sensing	Using signals with a low duty cycle and time-to-digital converter (TDC) instead for 6G. Develop novel asynchronous circuitry and unexplored signal processing methods.	Arturs Aboltins Riga University (LV)	6	Poster
Solving human-centric Digital Society challenges of the future Industry 5.0 workplace	To develop innovative technologies as practical wearable sensor and actuator clothing, digital twin of the individual, AI tools for situation simulation, to reduce both physical and psychological strain	Krisjanis Nesenbergs Institute of Electronics and Computer Science (LV)	6	Presentation
INtelligent Design of ECS and IoT systems	To create AI-based tools that will help in the rapid and flexible visualization and evaluation of multiple performance indicators for IoT systems from early design stages.	Ramiro Samano Robles ISEO (PT)	7	Presentation
Toolkit for the Production of Semiconductors in Europe	Develop a toolkit to gather information and insight of human and machine, speed up experience forming while reducing CO2e and waste for chip production and packaging in Europe	Bas Johannes van der Linden Sioux Technologies (NL)	6	Presentation
Physics-aware Generative Prognostics and Health Management for Effective Operation and Lifecycle Man	To develop an innovative industrial framework for promoting an effective adoption of PHM supported by advanced machine learning (ML) and artificial intelligence (AI) in various advanced systems.	Dejiu CHEN KTH (SE)	5	Poster
Beyond Boundaries: Enabling Human-Like Performance in Diverse ROBOtic LaNDscapes	Open set-based autonomous robotic systems, focusing on advancing perception, scalable mapping and natural language processing (NLP) to perceive, plan and interact with complex and unstructured environments.	Janis Arents Institute of Electronics and Computer Science (LV)	5	Presentation



Proposals (3)



Acronym	Title	Topic	Coordinator	Consortium	Material
SAFETONOMY	Assuring Safety of Autonomous Machinery and Safety Devices incorporating Machine Learning Approaches	To develop a blueprint for demonstrating safety of autonomous machinery and safety devices based on machine learning	Rasmus Jonas Adler Fraunhofer IESE (DE)	4	Presentation
DEEP-USP	Deep Learning Driven Ultrasound Signal Processing for Enhanced Bone Health Assessment	To leverage deep learning for the development of optimal ultrasound signal processing algorithms, aiming to establish an alternative method for evaluating bone health	Dans Laksis Institute of Electronics and Computer Science (LV)	3	Presentation
MMRE	Make Microelectronics Reliability Easy	To develop a solution that can model Reliability issues and incorporate Test for reliability requirements from the design phase, for defect rates < 1 PPM and time-to-ramp-up down by 40%	Maxime RUMPLER Aniah (FR)	3	Presentation
TRANSED-XR	XR based training for safety critical personnel in transportation industry	To develop a remote training system for the transportation industry, particularly for safety-critical personnel, using AR/VR technology to overcome current infrastructure limitations	Berk Kaan Çetincan Lider Teknoloji Geliştirme (TK)	3	Poster
TRUSTSDV	Improving automotive system intelligence & engineering towards safe, trustworthy vehicles	Managing and alleviating burden, improving automotive system development and engineering, while enhancing the degree of intelligence as promoted by the SDV concept,	Udayanto Dwi Atmojo Aalto University (FI)	automotive cluster not specified	Poster
CATAPULT	Propel cat qubits to fault-tolerant quantum computing era	The Catapult project addresses the scalability of control electronics for superconducting cat qubits and LDPC codes	Rémi de La Vieuville Alice & Bob (FR)	3	Presentation



Proposals (4)



Acronym	Title	Topic	Coordinator	Consortium	Material
CSAP	Competitive & Sustainable Advanced Packaging	To develop a competitive and sustainable Advanced Packaging technology that replaces slow and expensive process steps with ultra fast and low cost alternatives	Mark Luke Farrugia CITC (NL)	2	Presentation
DAWN	Design the Next Inference Unit for to accelerate Datacenter AI	Design efficient architectures for inference rather than training, provide a new way to connect/share memory and accelerators in a rack, provide technical Innovations to lower the total cost of solutions, for datacenter AI	Ke-Quang NGUYEN-PHUC Neurxcore (FR)	Design company, Foundry	Poster
NEUROWEARTEC	Neuromorphic Computing for Wearable Technologies to Empower Digital Society	To leverage neuromorphic computing to enable AI on wearable devices to process personal data on-device. This ensures timely, meaningful interactions while enhancing privacy and system reliability.	Armands Ancans Institute of Electronics and Computer Science (LV)	2	Presentation
IMUSES	integrated MUlti-SEnsor Systems for Environment (inc Air Quality), Safety and Health	Integrated Multi-Sensor Systems for Environment, Safety and Health • >50% performance-, cost- and power consumption improvem. vs. state-of-the-art including real-time monitoring and remediation for indoor/in-cabin settings.	Martin Schrems i-conel (AU)	consortium coordinated by TU Braunschweig	Presentation
PADAWA	Pragmatic Analog Design Automation With AI	Automate design of all non-functional circuitry in a mixed-signal IC:- Test structures- ESD- Power-down circuitry- Low-power techniques (based on Aniah tool)	Maxime RUMPLER Aniah (FR)	1	Presentation
PROCCEPTION	Near-/In-sensor processing for next-generation perception systems	direct neuromorphic processing of event streams of ADC readout or even the analog signals before conversion	Edgars Lielamurs, Institute of Electronics and Computer Science (LV)	Not specified	Poster & Presentation



Proposals (5)



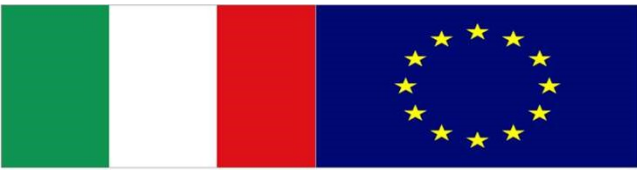
Acronym	Title	Topic	Coordinator	Consortium	Material
CHEMOC	CHiplet for European MOdular Chips	to build a set of European chiplets that include processors, accelerators, memories, etc. that will make use of standard interfaces (UCIe, BoW)	Yoan Dupret, Menta S.A.S. (F)	3	Poster
QuantumStack	Solving the Unsolvable with Quantum Computing	Enabling non-quantum programmers to access to Quantum Compilers and quantum-specific libraries to solve common problems A complete execution environment to orchestrate quantum and traditional computing	Davide Taibi, Università di Oulu (FI)	QIC partners	Poster
FAMN	French Automotive and mobility Network	Advanced Charging Solutions Electronic Components for Automotive, Automotive Powertrain- Oriented Technologies, System Modeling and Simulation	Mathieu SARAIVA, French Automotive and mobility Network (F)	6	Poster & Pitch
SAGILITY	Secure Agility	to manage the security configuration state of power systems. In particular, methods for crypto agility will be devised to ensure a migration to post-quantum cryptography (PQC).	Łukasz Brandt, B4Future (PL)	Not specified	Poster
Optisea	Optical interlinked communication and sensing for IoT in ocean space to outer space	micro mirror technology platform, tfor optical beam steering and beam shaping systems. This enables fast, secure and reliable free-space optical communication,	Ralph William Bernstein, SINTEF (NO)	Not specified	Poster
CHIPLETS AND 3D IC - CHISE	Chiplet and Heterogenous Integration Simulation Software	Design of Chiplets and 3D IC	Michael Dieudonne, Keysight Technologies	Not specified	Preentation



Proposals (6)



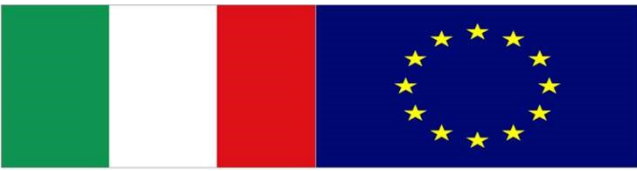
Acronym	Title	Topic	Coordinator	Consortium	Material
IMUSES	integrated Multi-SEnsor Systems for Environment, Safety and Health	Multi-Sensor smart systems platform including chemical for monitoring pollutant gases, chemicals, particulate matter (PM-UFP), or biological pollutants (pollen, bacteria, viruses) Mobile Breath analysis and physiological parameters	Martin Schrems, i-conel GmbH (A)	Existing but not specified	Poster & Pitch
PIEBUS	Packaging and Integration Enabled By Ultra-Short pulse lasers	Laser-induced selective metal plating (SSAIL technology) for heterogeneous integration chips and electronics: to explore the feasibility of new technology in various chip packaging platforms	Gediminas Raciukaitis, FTMC - Center for Physical Sciences and Technology (L TU)	Not specified	Poster & Pitch
MCDAID	Mixed-Criticality Distributed AI Deployment	Development, verification, certification and deployment of distributed, mixed-criticality AI systems Output: Opensource AI edge computing stack	Hans Dermot Doran, ZHAW / InES ()	Existing but not specified	Poster & Pitch



to what to pay attention?



- Novelty of the idea and appropriateness of the in/out expected TRL level
- Adherence to the Focus Topics or to the SRIA24
- Industrial and Academic strenght of the Consortium
- Italian Universities and RTOs cannot join without at least one Large Enterprise or SME
- Only for the newcomers:
 - Presence of other Italian partners to whom to ask for national rules and asking to national cluster coordinator challenges and constraints
 - Knowledge in case of absence of other Italian partners, of all the Italian rules



SMEs ACTIVE PRESENCE

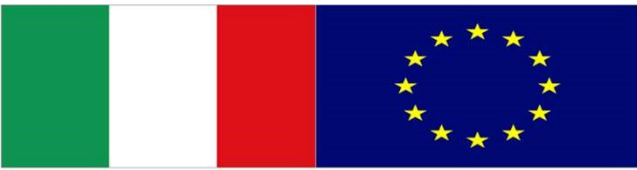
All SMEs pitches can be downloaded from the event web site

<https://ecs-brokerage-event.eu/>

- **SAT** - automotive, transportation, mining & medical – Torino -
<https://www.satechnology.eu> (PoC riccardo.groppo@satechnologies.eu)
- **Abinsula** - IoT, Automotive, Agritech, CyberSecurity Cagliari - Sassari, Torino, Reggio Emilia – <https://abinsula.com/> (PoC katuscia.zedda@abinsula.com)
- **Active Technologies** - AWG & PPG product portfolio Ferrara -
<http://www.activetechnologies.it/> (PoC ramponi@activetechnologies.it)

Other not Italian SMEs with a pitch at the conference:

- Weeroc; ERAGE AND ERGTECH; Excillum; Noldus; ACORDE; Logicdev; Percipio Robotics; Verum; CISC; Artech International; Pibond; Cosylab; Nanomakers



Thank you and good luck!

For any further info do not hesitate to get in touch with us:

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