

HORIZON EUROPE CLUSTER 4: DIGITAL, INDUSTRY & SPACE

Manfred Halver | European and International Programmes
23.06.2022 | Vienna

SUMMER CALL

Call opened 17.6.

Closing 16.11.

Budget: 127 Mio €

Thematic areas are:

- **AI, Data and Robotics** (robotics for Industry; robotics capabilities; robotics physical intelligence and performance; AI for human empowerment, AI Excellence Centres)
- **2D materials** (devices and systems for energy storage/harvesting; composites, coatings, foams; adv. electronic and photonic 2D material-based devices, systems, sensors; biomed applications; Graphene coordination)

COMING UP NEXT WORK PROGRAMME 2023/24

- Spanning two years
- First deadlines expected March/April 2023
- 16 Calls for Proposals in 6 Destinations
- Covering a budget of 1.5bn € for 2023 and 1.2bn € for 2024

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DESTINATIONS – THE STRUCTURE OF THE CLUSTER

- 1** Destination 1: Climate neutral, Circular and Digitised Production
- 2** Destination 2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry
- 3** Destination 3: World-leading Data and Computing Technologies
- 4** Destination 4: Digital & Emerging Technologies for Competitiveness and Fit for the Green Deal
- 5** Destination 5: Open Strategic Autonomy in Developing, Deploying and Using Global Space-Based Infrastructures, Services, Applications and Data
- 5** Destination 6: A human-centred and ethical development of digital and industrial technologies

DESTINATION 1: CLIMATE NEUTRAL, CIRCULAR AND DIGITISED PRODUCTION

Communities covered:

- Manufacturing Industry, technology providers, ...
- Steel industry

Topics address e.g.:

- Photonics-based high-precision or complex manufacturing
- Manufacturing as a service
- Zero Pollution
- Hubs for circularity
- Reduction of Water consumption
- Upcycling secondary resources
- High-temperature processes
- Digital transformation

Partnerships:

- Processes4Planet
- Clean Steel

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DESTINATION 2: INCREASED AUTONOMY IN KEY STRATEGIC VALUE CHAINS FOR RESILIENT INDUSTRY

Communities covered:

- Materials industry, technology providers, ...

Topics address e.g.:

- Bio-inspired materials
- Smart sensors
- Advanced materials for agriculture
- Decarbonisation
- Critical raw materials
- Safe and sustainable chemicals and materials
- Affordable housing districts
- Bio-degradable polymers

Partnerships:

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DESTINATION 3: WORLD-LEADING DATA AND COMPUTING TECHNOLOGIES

Communities covered:

- Data owners, Data analytics, Computing technology providers, ...

Topics address e.g.:

- Complex data cycles
- Cognitive Computing Continuum
- AI-driven data operations and compliance technologies
- Smart IoT Platforms
- Standardisation and upscaling of Cloud-Edge-IoT Solutions

Partnerships:

- AI, Data and Robotics

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DESTINATION 4: DIGITAL & EMERGING TECHNOLOGIES FOR COMPETITIVENESS AND FIT FOR THE GREEN DEAL

Communities covered:

- AI-providers, Robotics integrators, 2D-material developers, ...

Topics address e.g.:

- Open Source for cloud/edge
- Advanced human-robot interaction
- AI-powered robots
- Micro-electronics and integration for industrial solutions
- Chip-scale optical frequency combs
- Sustainable and safe-by-design 2D-materials
- Quantum technologies
- Versatile light sources for manufacturing and medical

Partnerships:

- AI, Data and Robotics
- Photonics
- Key Digital Technologies

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DESTINATION 5: OPEN STRATEGIC AUTONOMY IN DEVELOPING, DEPLOYING AND USING GLOBAL SPACE-BASED INFRASTRUCTURES, SERVICES, APPLICATIONS AND DATA

Communities covered:

- Space technology providers, Earth observation organisations, ...

Topics address e.g.:

- Earth observation systems
- Future space ecosystem
- High thrust propulsion for space launchers
- Space transportation solutions and services
- Copernicus
- Quantum space communication and gravimetry
- Galileo and EGNOS evolution

Partnerships:

- (Space Partnership – in preparation)

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DESTINATION 6: A HUMAN-CENTRED AND ETHICAL DEVELOPMENT OF DIGITAL AND INDUSTRIAL TECHNOLOGIES

Communities covered:

- AI developers, Standardisation organisation, SSH experts, ...

Topics address e.g.:

- Trustworthy AI
- Advanced language technologies
- Grand challenges in AI
- Collaborative intelligence of human and machine
- Fighting disinformation
- Next generation internet (incl. New European Bauhaus)
- Extended reality technologies
- Progress towards Industry 5.0
- Supporting and promoting EU standardisation efforts
- Digital Humanism

Partnerships:

- AI, Data and Robotics

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GET IN TOUCH WITH US!

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