

Horizon Europe, Cluster 4: Digital, Industry and Space

Present status of the Work Program 2021 – 2022 preparations

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PRELIMINARY HORIZON EUROPE STRUCTURE



NOTICE:
All indicated sums are too high (-13%)

Cluster Work Programs are divided into several Destinations. In CL4 they are:

- 1. Climate neutral, circular and digitised production
- 2. A digitised, resource-efficient and resilient industry
- 3. World leading data and computing technologies
- 4. Digital and emerging technologies for competitiveness and fit for the green deal
- 5. Strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data
- 6. A human-centred and ethical development of digital and industrial technologies

CL4, Destination 1 (Climate) topics

- Green, flexible and advanced manufacturing
- Advanced digital technologies for manufacturing
- A new way to build, accelerating disruptive change in construction
- Hubs for circularity, a stepping stone towards climate neutrality and circularity in industry
- Enabling circularity of resources in the process industries, including waste, water and CO₂/CO
- Integration of Renewables and Electrification in process industry

CL4, Destination 2 (Resources) topics

- Novel paradigms to establish resilient and circular value chains
- Raw materials for EU strategic autonomy and successful transition to a climate-neutral and circular economy
- Green and Sustainable Materials
- Materials for the benefit of society and the environment and materials for decarbonising Industry
- Materials and data cross-cutting actions
- Improving the resilience and preparedness of EU businesses, especially SMEs and Startups

CL4, Destination 3 (Data) topics

- Data sharing in the common European data space
- Strengthening Europe's data analytics capacity
- High-end computing for exascale performance and beyond
- From Cloud to Edge to IoT for European Data

CL4, Destination 4 (Digital) topics

- Ultra-low power processors
- European Innovation Leadership in Electronics
- European Innovation Leadership in Photonics
- 6G and foundational connectivity technologies
- Innovation in AI, data and robotics
- Tomorrow's deployable Robots: efficient, robust, safe, adaptive and trusted
- European leadership in Emerging Enabling Technologies
- Flagship on Quantum Technologies: a Paradigm Shift
- Graphene: Europe in the lead

CL4, Destination 5 (Space) topics

- Foster competitiveness of space systems
- Reinforce EU capacity to access and use space
- Evolution of Space and ground infrastructures for Galileo/Egnos
- Evolution of services of the EU Space Programme components Galileo, EGNOS and Copernicus
- Development of applications from the EU Space Programme components
- Innovative space capabilities: SSA, GOVSATCOM, Quantum
- Space entrepreneurship ecosystems (incl. New Space and start-ups) and skills
- Targeted and strategic actions supporting the EU space sector

CL4, Destination 6 (Human-centered) topics

- Leadership in AI based on trust
- An Internet of Trust
- New digital interactions, 3D, augmented and virtual reality
- Digital learning technologies, including upskilling of the workforce
- Cross-cutting topics

HEU Partnerships

- Part of the Horizon Europe program
- Outside the Work Program 2021 – 2022, each partnership will have their own Work Program
- Partnerships are normally joint efforts to achieve something that the normal WP can not be used
- Most partnerships are between the EU and different Industry Associations
- Only a few are tri-partite: EU – Industry – Participating States

HEU Cluster 4 Partnerships

- European Partnership for High Performance Computing
- European Partnership for Key Digital Technologies (KDT)
- European Partnership for Smart Networks and Services
- European Partnership on Artificial Intelligence, Data and Robotics
- European Partnership for Photonics
- European Partnership for Clean Steel - Low Carbon Steelmaking
- European Partnership on Metrology
- European Partnership Made in Europe
- Processes₄Planet – Transforming the European Process Industry for a sustainable society
- European Partnership for Globally competitive Space Systems

Kiitos

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