

Connecting 2025 CL1 Topics with Cluster 4 (Digital, Industry & Space) Cluster 5 (Climate, Energy & Mobility)

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Welcome to CL1 WP 2025

HORIZON EUROPE

CLUSTER 1

Destinations

Staying Healthy – Health promotion, disease prevention, and healthier lifestyles.
 Health-Promoting Environment – Impact of pollution and climate on health.
 Tackling Diseases – Better prevention, diagnosis, and treatment of diseases.
 Access to Healthcare – Equitable, innovative, and resilient health systems.
 New Tools & Digital Solutions – AI, biotech, and digital health innovations.
 Health Industry Competitiveness – Support for a strong, sustainable EU health industry.

Main features 2 0 topics 5 RIAs in two-stages Blind evaluation / Lump sum China not eligible to participate in IAs under D6 (Health industry) US eligible to receive funds 829.5 million EUR Www.healthncp.net



Main synergies with Cluster 4 and 5

AI & digital tools in healthcare (e.g. GenAI, health data platforms)
 Medical device manufacturing & conformity with digital processes
 Use of space tech like Copernicus and Galileo for health monitoring





Pollution & climate impacts on health (e.g. air, plastics)
 Shared goals with Green Deal and Zero Pollution Plan
 Focus on health-promoting environments and climate resilience



Topics Covered:

- ✓ CARE-01 (AI models)
- ✓ ENVHLTH-02 (micro/nanoplastics)
- ✓ TOOL-03 (AI / data)
- ✓ TOOL-05 (biotech translation)
- ✓ IND-01 (ATMP manufacturing)
- ✓ IND-02 (device conformity digitalisation)
- ✓ **IND-03** (clinical studies for innovative devices)







HORIZON-HLTH-2025-01-CARE-01

Topic: Modernisation, digitalisation and optimisation of chronic care and health workforce governance (RIA)

Deadline: 16 Sep 2025

Cluster 4 Relevance

Digital transformation of health and care systems by promoting the adoption of advanced digital tools, telemedicine, and data-driven care coordination. It links to Cluster 4 through the development and deployment of interoperable digital health solutions, AI-assisted decision support, and secure data infrastructures — areas directly tied to digital industry innovation and the EU's industrial and data strategies.

- Digital health tech companies telemedicine, remote care, AI tools
 AI & analytics experts predictive modeling, workforce planning
 Cybersecurity firms GDPR, secure data handling
 Standardization bodies ICT standards, certification
 - **IT & interoperability providers** EHR systems, data standards

Cluster 4 Keywords:

- Digitalisation of healthcare
- AI-assisted decision support
- Interoperability
- Telemedicine and remote monitoring
- Data-driven care coordination
- Cybersecurity & data privacy
- Smart health technologies
- Health information systems
- ICT for healthcare services
- Digital tools for workforce planning





HORIZON-HLTH-2025-03-ENVHLTH-02-two-stage

Topic: Advancing knowledge on the impacts of micro- and nanoplastics on human health (RIA) **Deadline:** 16 Sep 2025 - 16 Apr 2026

Cluster 4 Relevance:

This topic addresses emerging health risks from materials used in industrial processes and consumer products. It connects to Cluster 4 through the safe development, use, and monitoring of advanced materials, with emphasis on pollution, chemical safety, and SSbD principles.

Cluster 4 Keywords:

- Advanced materials
- Nanotechnology
- Chemical safety
- Toxicological modeling
- Environmental monitoring technologies
- Smart sensors
- SSbD (Safe and Sustainable by Design)
- Chemicals
- Value chains
- Decarbonisation
- Process industry
- Materials & nanotech experts for micro/nanoplastic properties & safer alternatives (SSbD).
- **Chemical & process industry actors** for insights on emissions and safe production.
- Sensor & monitoring tech SMEs for exposure detection tools.
- Digital/data experts for AI modelling, toxicology, and data integration.
- Scircular economy/value chain experts to track and reduce microplastic pollution.
- Manufacturing partners for cleaner production and mitigation strategies.

v.healthncp.net





HORIZON-HLTH-2025-01-TOOL-03

Topic: Leveraging multimodal data to advance Generative Artificial Intelligence applicability in biomedical research (GenAI4EU) (RIA) **Deadline:** 16 Sep 2025

Cluster 4 Relevance:

Development and application of advanced digital technologies, specifically **Generative AI**, to enhance biomedical research. Focus on high-performance computing, secure data processing, and **responsible AI**. The topic supports **the uptake of trustworthy**, interoperable, and privacy-preserving digital solutions, contributing to the EU's digital strategy and industrial competitiveness.



AI & data science experts – universities, research centers, AI hubs

- HPC & data infrastructure providers EuroHPC, EOSC platforms
- **Digital industry players** tech firms, health-AI startups
- Cybersecurity & data privacy specialists GDPR compliance, trustworthy AI
- Standardization bodies working on AI and health data interoperability

Cluster 4 Keywords:

- Generative Artificial Intelligence
- Multimodal data integration •
- *High-performance computing (HPC)* •
- Privacy-preserving data sharing •
- Interoperability
- Data infrastructure ٠
- AI in biomedical research •
- Trustworthy and ethical AI •
- Digital tools and technologies .





HORIZON-HLTH-2025-01-TOOL-05

Topic: Boosting the translation of biotech research into innovative health therapies (RIA) **Deadline:** 16 Sep 2025

Cluster 4 Relevance:

Tightly aligned with Cluster 4's strategic interest in biotechnology, industrial scale-up, and critical technology sovereignty, especially under the STEP platform. It supports innovation value chains from biotech R&D to production.

- **Biomanufacturers** for scaling up biotech production
- 🔄 Tech providers AI, robotics, digital twins for smart processes
 - **Materials/Chemicals companies** for advanced and bio-based inputs
 - Process industry/RTOs for sustainable, Industry 5.0-aligned systems
 - **Digital & automation experts** to support traceability and compliance
 - Value chain integrators to connect R&D to industrial and market deployment

Cluster 4 Keywords:

- Biomanufacturing
- Industrial biotechnology
- Translational research
- Innovation scale-up
- Strategic technologies (STEP)
- Bio-based industries
- Deep tech innovation
- Manufacturing
- Production
- Advanced materials
- Value chains
- Chemicals
- SSbD





HORIZON-HLTH-2025-01-IND-01

Topic: Optimising the manufacturing of Advanced Therapy Medicinal Products (ATMPs) (IA) **Deadline:** 16 Sep 2025

Cluster 4 Relevance:

This strongly overlaps with <mark>digitalisation and automation of production processes</mark> in **health-related manufacturing**. It supports **resilient, energy-efficient production**—key aims of Cluster 4, especially for **energy-intensive industries**.

Advanced manufacturing firms – for automation & GMP production
 Process engineers – for scale-up & continuous biomanufacturing
 Digital tech providers – for smart factories, AI, digital twins
 Materials/equipment suppliers – for ATMP-compatible tools
 Sustainability experts – for energy efficiency & SSbD

S Value chain facilitators – for upscaling & regulatory access

Cluster 4 Keywords:

- Advanced manufacturing
- Process automation
- Smart factories
- Manufacturing
- Production
- Industry 5.0
- Energy intensive industries
- Value chains
- Chemicals
- Process industry
- Quality by Design (QbD)
- Biomanufacturing





HORIZON-HLTH-2025-01-IND-02

Topic: Digitalisation of conformity assessment procedures of medical devices and in vitro diagnostic devices (CSA) **Deadline:** 16 Sep 2025

Cluster 4 Relevance:

This contributes to the **digital transformation of industry and** regulation, supporting AI-based conformity systems, cybersecurity, and data interoperability—all high on Cluster 4's agenda for smarter, safer industrial ecosystems.

Tech companies (AI, digital twins, RegTech, cybersecurity
 Medical device/IVD manufacturers with digitalisation goals
 Notified Bodies and conformity assessment experts
 Standards organisations (ISO, CEN) for interoperability
 Innovation hubs, industrial associations, and RTOs

Cluster 4 Keywords:

- Regulatory technology (RegTech)
- Digital twins
- Artificial Intelligence (AI)
- Cybersecurity
- Digital conformity assessment
- Interoperability standards
- Industry 5.0
- Manufacturing
- Production
- Value chains
- Chemicals





HORIZON-HLTH-2025-03-IND-03-two-stage

Topic: Facilitating multinational clinical studies of orphan and breakthrough devices (RIA) **Deadline:** 16 Sep 2025 - 16 Apr 2026

Cluster 4 Relevance:

Supports cross-border infrastructure, regulatory harmonisation, and digital clinical tools. Also relevant to the scale-up of innovative medical technologies, ensuring value chain development and access to EU markets.

Digital health tech developers (AI, wearables, digital twins)
 Smart manufacturing & MedTech producers (scaling breakthrough devices)
 RegTech & QA experts (automated conformity assessment)
 Data infrastructure providers (interoperability, GDPR-compliant platforms)
 Advanced materials & sensor suppliers (SSbD, biocompatible components)
 Value chain coordinators (ensuring industrial and digital integration)

Cluster 4 Keywords:

- Clinical trial digitalisation
- Breakthrough technologies
- Cross-border data platforms
- Innovation ecosystems
- Interoperable digital infrastructure
- Smart medical devices
- Industry 5.0
- Manufacturing
- Production
- Advanced materials
- Chemicals
- Value chains



Topics Covered:

- ✓ **ENVHLTH-01** (pollution)
- ✓ **ENVHLTH-02** (micro/nanoplastics)
- ✓ TOOL-05 (biotech translation)



CLUSTER 5 CLIMATE, ENERGY AND MOBILITY





HORIZON-HLTH-2025-03-ENVHLTH-01-two-stage

Topic: The impact of pollution on the development and progression of brain diseases and disorders (RIA) **Deadline:** 16 Sep 2025 - 16 Apr 2026

Cluster 5 relevance:

Directly aligns with the **climate and pollution** mitigation goals of Cluster 5, particularly in addressing health impacts caused by environmental degradation.

Cluster 5 Keywords:

- Climate change and health
- Environmental pollution
- Air quality
- Sustainable living environments
- Urban health
- Health impacts of emissions

Environmental science institutes – for pollution exposure and climate-health data.
 Urban planning & smart city bodies – to integrate findings into healthier city designs.
 Air quality and mobility agencies – for real-world data and policy applications.
 Tech & AI companies – for sensors, data analytics, and modelling tools.
 Green industry & energy providers – to assess and reduce pollution sources.
 Public health & occupational safety bodies – for exposure-health outcome links.
 EU EU-level players (EEA, JRC, ESA) – for regulatory alignment and data infrastructure.





HORIZON-HLTH-2025-03-ENVHLTH-02-two-stage

Topic: Advancing knowledge on the impacts of micro- and nanoplastics on human health (RIA) **Deadline:** 16 Sep 2025 - 16 Apr 2026

Cluster 5 relevance:

Plastics pollution intersects with environmental sustainability and climate agendas.

Cluster 5 Keywords:

- Resource efficiency
- Plastic pollution
- Environmental sustainability
- Waste reduction
- Zero Pollution
- Circular economy

Environmental/climate research institutes – for pollution and risk modeling

- Sustainable materials & plastics innovators for studying or developing safer alternatives
- **1** Toxicology/risk assessment bodies for exposure and health impact studies
- > Earth observation/data providers for tracking pollution via satellite or sensors
- Environmental tech companies offering monitoring or analysis tools
- **Mobility actors** where transport contributes to plastic pollution (e.g. tire wear)





HORIZON-HLTH-2025-01-TOOL-05

Topic: Boosting the translation of biotech research into innovative health therapies **Deadline:** 16 Sep 2025

<u>Cluster 5 relevance</u>: Biotech innovation, especially if green or energyefficient, supports the **resource-efficient technology** goals of Cluster 5 and STEP (Strategic Technologies for Europe Platform).

Cluster 5 Keywords:

- Strategic technologies
- Sustainable innovation
- Biomanufacturing
- Green technology
- STEP (Strategic Technologies for Europe Platform)
- EU industrial resilience

- Green biomanufacturing experts for sustainable production of therapies.
- Leanroom/facility engineers for GMP-ready, energy-efficient biotech facilities.
- Orgital twin & smart manufacturing experts to optimize and monitor biotech processes.
- Sold-chain logistics providers for safe, low-carbon transport and delivery.
- Sircular economy specialists to handle and reduce biotech waste sustainably.



Thank you!

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