



BOF meeting 22 November 2019, Brussels

Preparatory Actions State of Play

Flagships Unit
DG Connect, European Commission

Roadmaps



Time
Machine

- ✓ Draft available
- ✓ <https://www.timemachine.eu/time-machine-roadmaps-mapping-the-future/>

HUMANE  AI ✓ To be published



LifeTime

- ✓ To be published



<https://www.restore-horizon.eu>

- ✓ Draft available
- ✓ https://www.restore-horizon.eu/wp-content/uploads/2019/11/RESTORE_RoadMap_07.11.19.pdf



- ✓ Draft available
- ✓ https://sunriseaction.com/wp-content/uploads/2019/11/Roadmap_12_11_19.pdf



- ✓ Draft available
- ✓ www.energy-x.eu/research-needs-report/

❑ Perspective in Horizon Europe

- TM proposes a **research agenda** to turn Europe's cultural Heritage into a living social and economic resource, thus addressing most major challenges of HE **pillar II – Cluster Culture, Creativity and Inclusive Society**
- TM will develop multimodal historical and geographic datasets of an unprecedented semantic complexity that will give a new impetus for **AI, big data** and **machine learning** research, methods and application fields.
- As a backbone for critical technologies, TM will contribute to these areas of in **Pillars I and II** of HE, and give a strong boost to **SSH** topics.

❑ Community actions beyond the CSA

- TM is particularly relevant to **Digital Europe** -wide use of digital technologies across economy and society /education and culture.
- TM offers concrete methodologies and tools in line with the objectives of the **Creative Europe successor programme**.
- TM will establish synergies with the **Regional Development and Cohesion Funds** for the development of local Time Machines,
- The Time Machine Organisation was created in Oct 2019 for ensuring the sustainability of the action. Currently: 380 members
- The TM digitisation and processing infrastructure is designed in strong cooperation with Europeana, DARIAH, CLARIN and JPI Cultural Heritage.



<https://www.humane-ai.eu>

□ Perspective in Horizon Europe

- Primarily under Pillar II
 - Activities foreseen under Cluster 4, aiming for significant European advances in AI, characterised by increased societal engagement and human-centred approaches, fostering acceptance with multidisciplinary approaches and awareness raising through dissemination activities.
- Candidate Partnership « AI, data and robotics » would help structuring the European AI community, develop a strategic research agenda and federate efforts around a topic that holds great potential to benefit our society and economy on Robotics and AI
- AI comes up as a topic in many other areas

□ Community actions beyond the CSA

- Various organisations coming together in stakeholder meetings with the aim of setting the agenda for Europe
- Human-centred approach widely endorsed as central to scientific foundations and technological breakthroughs needed for a European AI



Perspective in Horizon Europe

Pillar I

*LifeTime can **offer topics to all three instruments in Pillar I:***

(first discussions with EOSC and HPC representatives have taken place)

Pillar II

*LifeTime can make valid contributions to clusters „**Health**“ as well as „**Digital, Industry and Space**“.*

*Examples include: **Cancer Mission, IHI, various other partnerships, etc.***

Pillar III

*Europe is home to pioneers in **single cell omics, AI, organoids**. Joined efforts of tools in pillar III can pave the way to **Global leadership in these fields**.*

Community actions beyond the CSA

Extended community

- Implemented Associated Partnership: **>90 Research Institutions**
- Growing industry support: **>70 companies**
- Collaboration with **other initiatives**: de.NBI, ELIXIR, ELLIS, EpiGeneSys, EU-Life, EuroBioImaging, HCA, HPC-centers, IHEC, SCOG, various ITNs, 4DNucleome, etc.

Outreach

- Active on Twitter **>1600 followers**
- Info-meetings with journalists, Paris
- Articles in major **national journals**,
- Long Night of Science and general Science Week events.
- Meetings with **politicians and policy makers** (national and European)

National efforts

AT: Single Cell Meeting Nov `19 – **BE:** VIB Single Cell Accelerator Programme – **DE:** Helmholtz POF Cellular Medicine, BMBF Single Cell Omics Germany, BIH single cell focus – **FR:** INSERM Human Developmental Cell Atlas – **IT:** Human Organoid Models Integrative Center – **PL:** “Polish LifeTime”

☐ Perspective in Horizon Europe

■ Pillar I

- Applications to ERC and Maria Sklodowska-Curie Program
- Research Infrastructure (Translational Hub's)

■ Pillar II

- Cluster Health

■ Pillar III

- European Innovation Council (EIC)
- European Innovation Ecosystems & EIT Health

■ Partnership (Innovative Health Initiative) or Mission Area (Cancer)

☐ Community actions beyond the CSA

- Application to CSA (call h2020 SC1-HCO-19-2020) and *Horizon Europe* calls
- Possible future models:
 - Follow-up CSA RESTORE (long-term perspective within Horizon Europe)
 - Forming a foundation or non-profit company
- Network of regional clusters on Advanced Therapies

Perspective in Horizon Europe



Community actions beyond the CSA

to be done jointly with ENERGY-X under the umbrella of the new initiative SUN-ERGY



2020

- Building a SUN-ERGY roadmap based on the roadmaps of the CSAs SUNRISE and ENERGY-X and identifying R&I actions for the period 2021-2023
- Strengthening the SUN-ERGY community in MS & AC and beyond

2020-2024

Ramp-up phase towards a partnership with a follow-up CSA + calls in the HE WPs based on the identified actions (see previous item) contributing to the activities of the CSA

2024

Co-funded or institutionalized SUN-ERGY partnership

☐ Perspective in Horizon Europe

- Primarily under Pillar II
 - Partnership
 - Missions (Mission areas: Adaptation to climate change including societal transformation; Climate-neutral and smart cities)

<https://www.energy-x.eu>

☐ Community actions beyond the CSA

- Cooperation & merger with SUNRISE
 - Cooperation with SUNRISE ongoing
 - Submission of joint proposal for a partnership in Horizon Europe (June)
 - Decision to join effort in a common initiative, SUN-ERGY, announced in August. ENERGY-X and SUNRISE will officially merge as of March 2020.
 - Establishment of common Scientific- and Industry boards in progress
- EuropaCat joint ENERGY-X/SUNRISE presentation (August 2020)