



Opening: 22 Jun 2021 - Deadline: 21 Oct 2021

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

eXtended Reality (XR)

- HORIZON-CL4-2021-HUMAN-01-13 – XR Modelling (RIA)
- HORIZON-CL4-2021-HUMAN-01-14 – XR for All – Haptics (RIA)
- HORIZON-CL4-2021-HUMAN-01-25 – eXtended Collaborative Telepresence (IA)
- HORIZON-CL4-2021-HUMAN-01-06 – Innovation for Media, including XR (IA)
- HORIZON-CL4-2021-HUMAN-01-28 – XR Ethics, Interoperability and Impact (CSA)



eXtended Reality Modelling (RIA)



EXPECTED OUTCOME

- Large-scale **XR models**
 - Increased interaction, context awareness, explainable autonomous decisions, human control, privacy and accessibility
- **Methodologies, tools and processes** in both offline and real-time context
- Improved **H2H and H2C XR interaction**
 - Support large set of languages and modalities
 - Avoid bias, ensure transparency & explainability
 - Energy efficient
 - Open data + standard interfaces for reproducibility and repeatability
 - Integration paths for EU industry take up



SPECIFIC CONDITIONS & BUDGET

- **TRL 2 (start) - TRL 5 (end)**
- **FSTP grants**
 - Min 20% EU contribution dedicated FSTP
 - Max 300K€ to each 3rd party
- **Total budget: 14.5M€**
 - 4.8M€ expected EU contribution per project
 - 3 projects expected to be funded

eXtended Reality for All – Haptics (RIA)



EXPECTED OUTCOME

- Affordable portable devices for instantly refreshable full-page **interactive tactile displays**
- Enable navigating, reading and editing digital content in both **standard braille and tactile graphics format** for visually impaired and especially deafblind
- Establish Europe as a **world leader** in developing XR accessibility solutions
 - Images, graphics and formulae + Multiline braille
 - Tactile feedback for distant learning/teleworking
 - Interoperable (with ICT devices, including AT)



SPECIFIC CONDITIONS & BUDGET

- **TRL 5 (start) - TRL 7 (end)**
- **Total budget: 6M€**
 - 1 project expected to be funded
- Visual impaired users should be involved in all stages of the R&D
- Their involvement in validating the solution is a minimum requirement

eXtended Collaborative Telepresence (IA)



EXPECTED OUTCOME

- Establishing **European industry leadership** in eXtended collaborative telepresence solutions
- Ensuring **ethics, privacy, security** and **safety**
- Aspects to address (several):
 - Optimal end-to-end quality, large number of simultaneous users, different I/O modalities, additional services integration, Collaborative meetings, open standard APIs, real-time and offline H2H and H2M, haptics, accessibility...
 - Integration paths for EU industries take-up



SPECIFIC CONDITIONS & BUDGET

- **TRL 4 (start) - TRL 6-7 (end)**
- **FSTP grants**
 - Min 50% EU contribution dedicated FSTP
 - Max 200K€ to each 3rd party
- **Total budget: 14M€**
 - 5-8M€ expected EU contribution per project
 - 2 projects expected to be funded

Innovation for Media, including XR (IA)



EXPECTED OUTCOME

- Prototyping of **advanced solutions**
 - Creation, distribution and consumption of new immersive media
- Support **innovation** in media, including XR
- Creation of a **European VR MediaLab**



SPECIFIC CONDITIONS & BUDGET

- **Type i - Modular tools/components/services**
 - TRL 4 (start) - TRL 8 (end)
 - At least one project to be funded
- **Type ii - Dedicated VR Media Lab (FSTP grants)**
 - Only one project to be funded.
 - Min 70% EU contribution dedicated FSTP
 - Max 500K€ to each 3rd party
- **Total budget: 26M€**
 - 8-9M€ expected EU contribution per project
 - 3 projects expected to be funded

XR Ethics, Interoperability and Impact (CSA)



EXPECTED OUTCOME

- A strong and competitive **XR ecosystem**
 - European companies playing a leading role in the wider deployment, adoption and acceptance of XR
- Improved quality of **XR experiences and applications**
 - Combining H2M interactions and real, mixed, augmented and virtual environments
 - Ensuring **ethics, privacy, security** and **safety**
- **Responsible** practices and guidance for XR developers and producers
- EU cross-industry **code of conduct** for XR
- **Rating** systems for XR users
- Evidence for the respect of EU legal framework on **personal data protection**
- Contributions to XR industry **standards** for interoperability and integration
- Support for a competitive and sustainable EU XR industry **ecosystem**



SPECIFIC CONDITIONS & BUDGET

- **Total budget: 2.5M€**
1 project expected to be funded

Topics Evolution



INTERACTIVE TECHNOLOGIES

- **ICT-25-2018-2020** (RIA & CSA)
- **ICT-55-2020** (IA)
 - Support European industries and a competitive and sustainable ecosystem of European technology providers.



ACCESSIBILITY

- **ICT-23-2017** (IA), **ICT-57-2020** (RIA)
- **DT-GOVERNANCE-05-2018-2019-2020** (CSA)
- **DT-TRANSFORMATIONS-23-2020** (CSA)
 - Address the needs of people with disabilities and promote their integration into digital society.



LANGUAGE TECHNOLOGIES

- **ICT-29-2018** (IA) **A European Language Grid**
 - Technology-enabled multilingualism for an inclusive Digital Single Market.



MEDIA

- **ICT-44-2020** (IA & CSA) **Next Generation Media**
 - Business innovation ecosystems; new user driven and enriched experiences in future media; technology and arts alliance

Key Actors



INTERACTIVE TECHNOLOGIES

- EU XR industry (both technology and service providers – SW&HW), XR organizations/hubs at EU, national and regional level, SME's, research centers and academia. SSH experts, with focus on legal, ethics, privacy, security and standards.



LANGUAGE TECHNOLOGIES

- European Language Grid, LT Innovate, National initiatives on Large Language Models, Language Technology providers, Research Centres, SMEs



ACCESSIBILITY

- Assistive technology producers (SW&HW), accessibility experts, people with disabilities (i.e. blind/deafblind), their representative organisations and the people they interact with (families, carers etc)



MEDIA

- Interdisciplinary cooperation (artists, designers, journalists and media professionals, filmmakers, game designers, programmers, academic researchers) covering as many subsectors as possible.