



HORIZON EUROPE

THE EU RESEARCH & INNOVATION PROGRAMME

2021 – 2027

ADELINA DINU

XR research and innovation workshop

21 October 2021



HORIZON-CL4-2022-HUMAN-01-14

eXtended Reality Technologies (RIA)



Expected outcomes



Innovative eXtended Reality industrial and societal applications, integrating technologies such as:

- Advanced visualisation
- 3D
- Augmented and Virtual Reality experiences
- Human-machine interaction and cooperation

with a focus on well designed and fully tested scenarios in real-world environment.



Scope

Research and innovation proposals to develop and demonstrate **novel eXtended Reality technologies**,

- combining human-machine interactions and real, mixed, augmented and virtual environments,
- aiming to augment the capabilities of users and machines and to provide seamless and persistent physical-digital experiences,
- while guaranteeing the privacy and rights of individuals and companies and ensuring safe, secure and trustworthy interactions.

Special attention will be given to including **end-users and transdisciplinary research** like social sciences and humanities, in order to deliver and enhance uptake of suitable, ethical and safe solutions.



The proposal will

- devise **innovative digital interfaces** that take advantage of spatial computing to allow users to interact with real-time contextual information activated by intuitive sensory triggers
- develop **novel multi-user virtual communication and collaboration solutions** that provide coherent multisensory experiences and optimally convey relevant social cues;
- improve the resilience, robustness, accuracy and semantic understanding of the current **mapping and positioning systems**, while providing real-time bidirectional synchronisation between models and interactive applications;



The proposal will

- facilitate the **exploitation of 3D data acquisition techniques**, enhancing its performance while reducing technology costs and providing efficient and scalable encoding, processing, storage and rendering means;
- enable the construction of compelling context-aware and embodied experiences by providing **solutions for the creation of convincing digital avatars and agents**, with natural looking and physically realistic behaviours, movements and expressions.

Conditions of the call



INDICATIVE BUDGET

- 19M€ (total)
- 5M€ - 8M€
- 3 projects expected to be funded



TYPE OF ACTION

- Research and Innovation Action

TRL

- Start at TRL 2 and
- By the end of the project achieve TRL 4-5



DATES

- 23 Nov 2021 Opening
- 05 Apr 2022 Deadline



Thank you!

HorizonEU

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