The consortium

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SPIRIT

Scalable Platform for Innovations on Real-Time Immersive Telepresence

www.spirit-project.eu

Mission

- SPIRIT's mission is to create Europe's first multisite and interconnected framework capable of supporting a wide range of application features in collaborative telepresence.

  Funded by the European Commission's Horizon Europe programme, SPIRIT will **research, develop, and demonstrate** low-latency and scalable solutions that will ultimately bring real-time immersive telepresence into practice.

Objectives

- **Support a wide range of networking bandwidth** with adequate compression transmission of information.

- **Overcome the limitations of the current technologies** handling a large number of simultaneous users.

- **Support different input and output modalities** as the bandwidth capacities extend.

- Through open standards, **support the integration of additional services.**

- **Ensure security and protect user privacy** as well as implement innovative identity management solutions.

.... And more!

Use cases

Use case #1 — **Multi-Source Live Teleportation with 5G MEC Support**

UNIVERSITY OF SURREY

Led by the University of Surrey

Use Case #1 involves **live teleportation of people from different Internet locations into a shared virtual audience space** so that the audience has the immersive perception that everyone is in the same physical scene. In addition to the traditional network requirements for supporting teleportation applications, – such as high bandwidth-, **data synchronisation** will be critical in **supporting multi-source teleportation operations to ensure user quality of experience (QoE).**

Use case #2 — **Real-Time Animation and Streaming of Realistic Avatars**

Fraunhofer HHI

Led by Fraunhofer HHI

Use Case #2 **proposes a scenario where the avatar is animated by an animation library using a neural network.** The input to this network is media captured on a mobile device.
The rendering of the object is split between a cloud server and the final device to reduce the amount of data transmitted. Congestion control algorithms ensure low network latency.
The final device integrates the avatar into the real world and allows the user to interact with it.

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