



## PRESS RELEASE

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# SPIRIT Project Showcases Four Innovative Use Cases with Captivating Video Demonstrations

The SPIRIT Project is advancing the future of real-time immersive telepresence by researching, developing, and demonstrating low-latency and scalable solutions. To validate and test the features of the SPIRIT platform, the project features four innovative use cases, each illustrated through a short video demonstration.

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

Led by the SPIRIT's partner University of Surrey, this use case explores the live teleportation of people from different locations into a shared virtual audience space. Imagine a distributed virtual performance where actors in separate locations are teleported as live holograms to a "virtual stage." This enables audiences to experience an immersive and unified event, no matter where the performers are. The challenge lies in ensuring synchronised data transmission to maintain seamless motion alignment, critical for an optimal user experience. [Watch the video](#) to discover how this technology transforms the future of virtual interaction.

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

The project's partner Fraunhofer HHI brings avatars to life with advanced real-time animation and streaming technologies. By leveraging neural networks and Mixed Reality (MR) devices, the system integrates avatars into the real world while enabling smooth communication. The solution reduces data transmission by splitting rendering tasks between cloud servers and end devices, ensuring low latency and stable performance.

**Check out the video** to discover how real-time animation is making avatars more immersive than ever.

## Use case #3: Holographic Human-to-human Communication

In a leap forward for immersive telepresence, SPIRIT's partner Ericsson showcases holographic communication, a new dimension in telepresence that streams real-time 3D human representations. This use case focuses on real-time human interaction, including capturing and streaming facial expressions for lifelike conversational calls. The video demonstrates how asymmetrical communication, where one person appears as a hologram, is redefining remote interactions.

**Watch the video** to experience how holograms are revolutionising human connection.

## Use case #4: Distributed Steering of Autonomous Mobile Robots (AMR)

This use case by Deutsche Telekom - T-System addresses the challenges of autonomous logistics by enabling hybrid navigation for Autonomous Mobile Robots (AMRs). Operators can remotely control robots in complex environments using advanced sensor and camera data, then switch back to autonomous mode for efficient operation. This innovation enhances safety and adaptability in industries such as logistics and manufacturing.

**Watch the video** to see how AMRs are transforming logistics with hybrid navigation capabilities. Learn more about these groundbreaking innovations by visiting the dedicated **SPIRIT Use Cases page**.

## About SPIRIT

Telepresence represents the next generation of communication applications that will significantly improve immersive experiences in both human-to-human and human-to-machine interactions by blurring the physical and virtual worlds. While this is already influencing how we work, it will have an even greater impact in the future, contributing to increased resilience to environmental disruptions, industry productivity, and energy efficiency. Due to their complexity, cost, data compression, and bandwidth requirements, these solutions have not been scaled yet.

**SPIRIT**, which is funded by the European Commission's Horizon Europe programme, researches, develops, and demonstrates low-latency and scalable solutions that will ultimately bring real-time immersive telepresence into practice.

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