

LES ORRES 9 JANUARY 2023

Smart
Mountain
for
tomorrow

19th OCOVA FORUM

QROOM PLUS

Holographic co-working environment



The technological base: the Qroom system

- The world's first immersive holographic service station for real-time remote control of service and sales functions

A Quintetto patent integrating AI for multimodal interaction of interfaces and services, eliminating the need for space and travel, while maintaining human interaction and direct presence.



True real-time interaction with very low bandwidth consumption: fast and frugal. Awarded the European Seal of Excellence for Innovation by the European Commission.

A humanised and customised digital experience

- A simple mixed reality environment with high impact and effectiveness for retail/sales, services/projects, education/culture, real estate....

Users can:

- See each other simultaneously at a shared desk
- Talk to each other in real time in person
Interact with the direct holographic presence of a remote operator
- Sign, print, identify, and exchange documents of all kinds

Fully scalable:

- Cameras for mutual vision and direct eye-to-eye contact
- Environmental microphones/speakers
- Physical devices for paper content exchange
....integration of all types of devices for interaction with data, parameters, and validation of processes and procedures

Qroom - plus: the evolution of the species

- A co-working conference and operational interaction environment in real-time holographic telepresence.
- Qroom-plus reconstructs a teleconferencing environment with the holographic presence of the participating subjects
- Subjects can see each other, talk to each other and interact directly remotely
- Each participant has a holographic conference station
- In the project pilot, each individual participant interacts with three subjects in holography: if there are more than four participants, the individual participant can choose which ones to view
- Each workstation represents an operational module that can be combined with other identical modules to extend the number of participants.

Qroom - plus: operational diagram

- A co-working conference and operational interaction environment

From Milan, Anna

See, talks to, interacts with



Miku
Paul Carlo

From Seattle, Paul

See, talks to, interacts with



Anna
Miku Carlo

From Tokyo, Miku

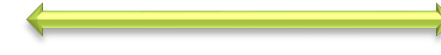
See, talks to, interacts with



Paul
Anna Carlo

From Rome, Carlo

See, talks to, interacts with



Miku
Paul Anna

All participants communicate and interact with each other in real time

Qroom - plus: project packages

- Research and development on innovative technologies and implementations

Optimisation of visual and colour perception of the 3D image:

- Materials for optimising holographic presentation
- Materials and definition of characteristics for the production of the privacy filter
- Research on OLED technology for holographic image optimisation



Software evolution of the holographic system and streams:

- Optimisation of current hologram presentation software
- New software for communicating holographic streams in real time
- New software for modular presentation of multiple real-time holograms

Prototype production



Where's the difference.....(not the usual holograms...)

- Existing holo systems:

1. Complex technical infrastructure
2. High costs outside individual events
3. Dark and non-natural environments
4. No or very little interaction (no possibility to deliver services in real time)
5. High bandwidth consumption
6. Environment limited to visual/audio communication in collective/theatre situation
7. Use of graphic and photographic processing technologies



1. Simple and essential structure
2. Low and controllable costs (purchase/licence/set up)
3. Bright and comfortable environment
4. Designed for real-time interaction between people (and enable operations and transactions)
5. Minimal bandwidth consumption (800 Kb/2 Mb per second)
6. One-to-many point-to-point communication
7. Standard hardware, essential equipment



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MERCI POUR VOTRE ATTENTION
THANK YOU FOR YOUR ATTENTION

Qroom Plus – holographic co-working environment

 Quintetto

