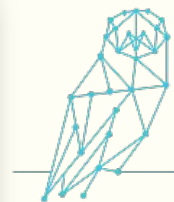


VRPROVA

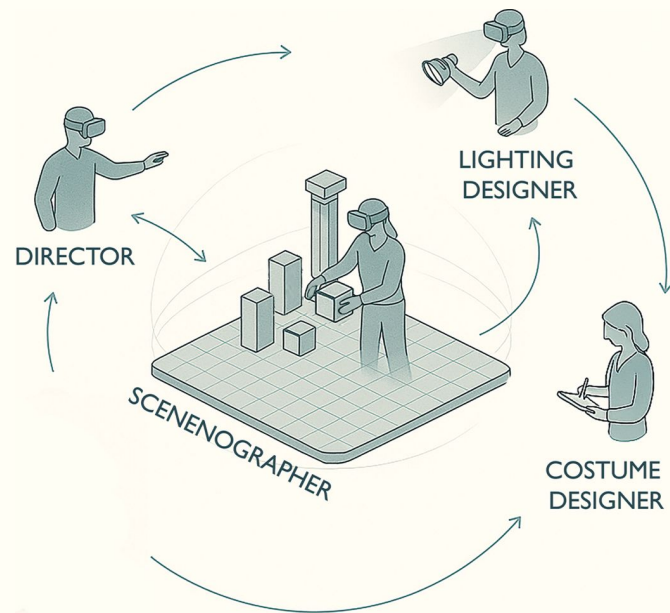
Requirements Analysis for a **Collaborative VR** Opera Rehearsal Platform



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The VRPROVA project

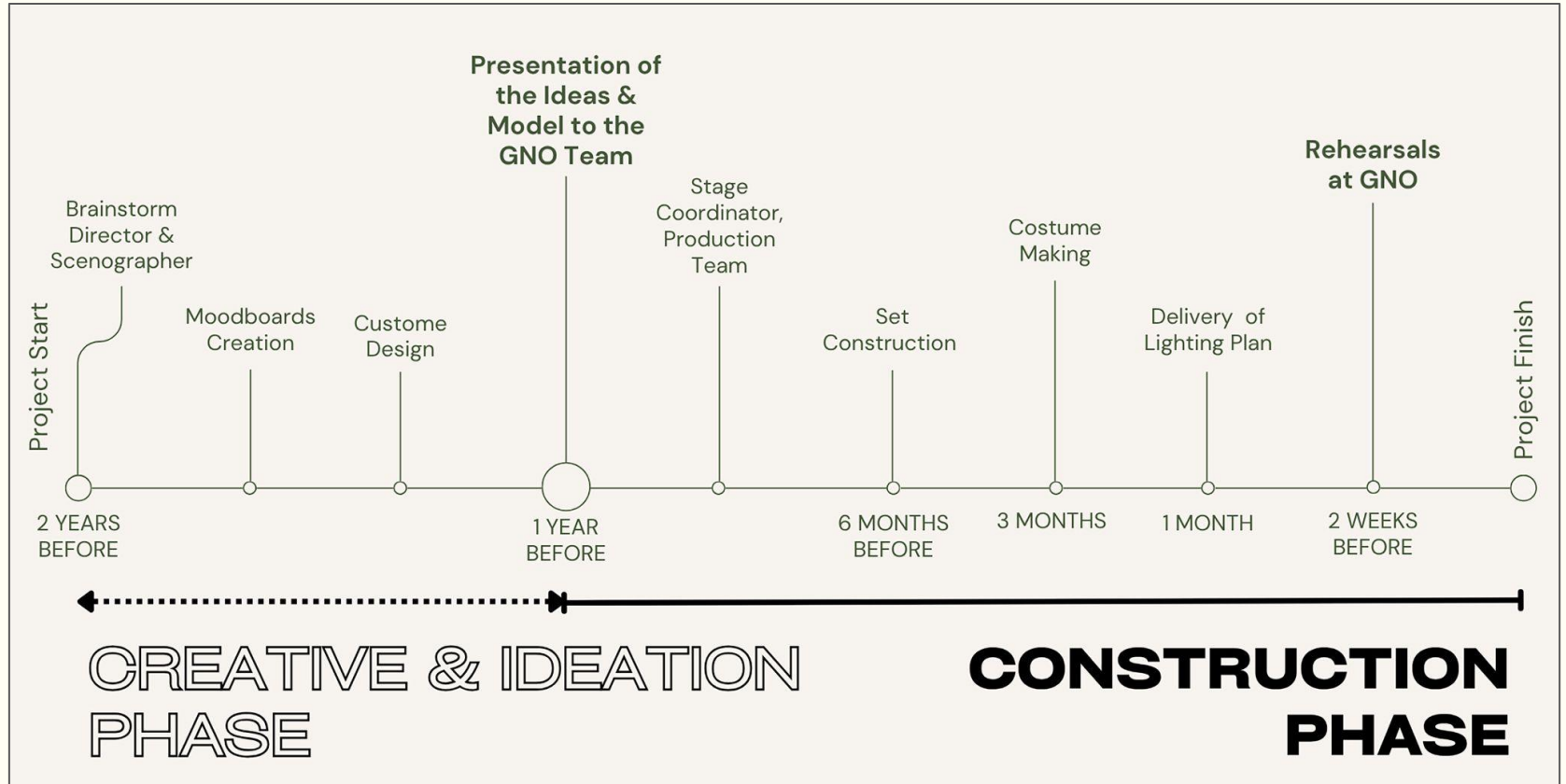
Collaboration between Digital Media lab, Aegean Solutions and the Greek National Opera.

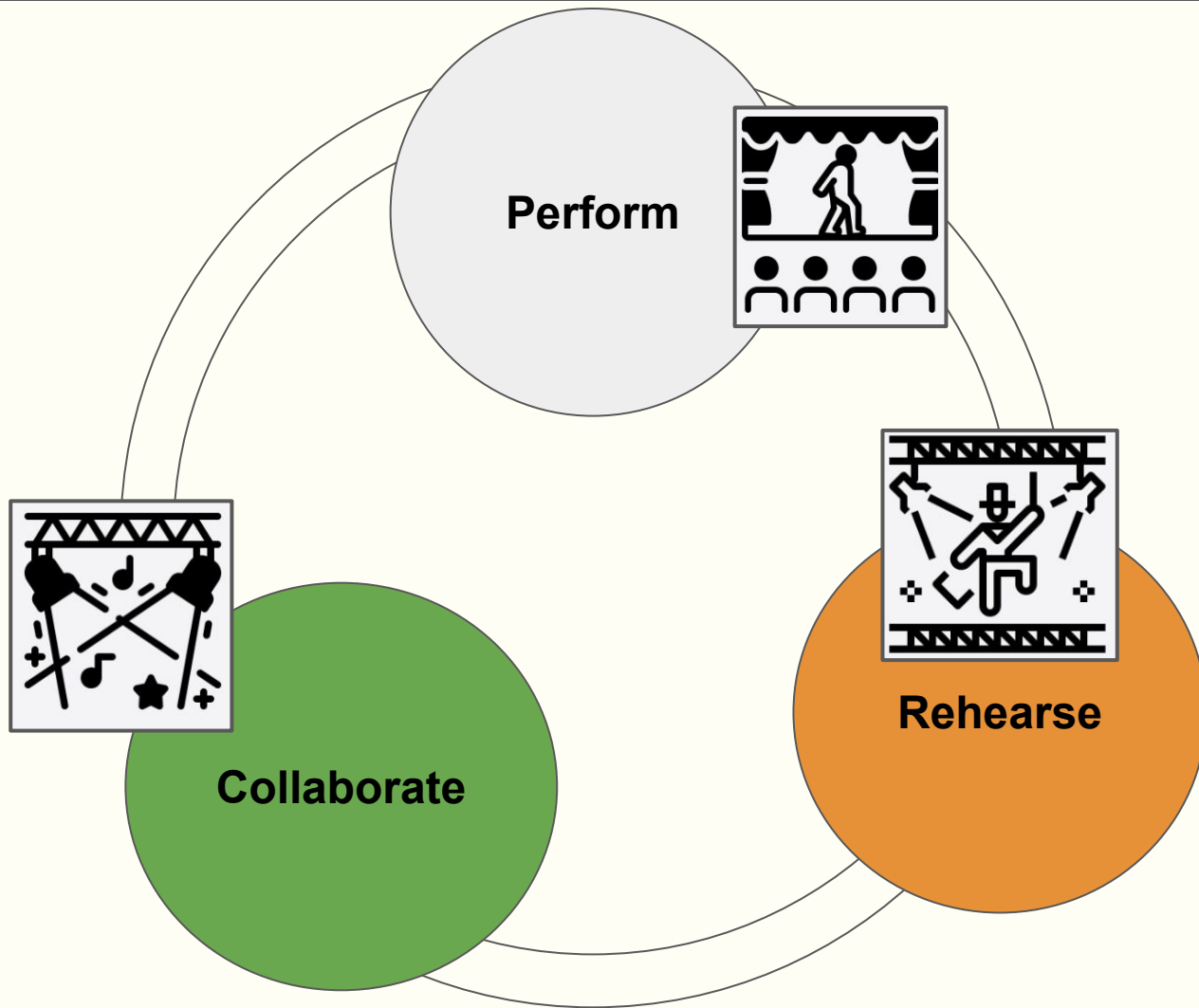
Project aim:

*“Digitally transform Theater and Opera production workflows by enabling **remote collaboration**, optimizing **time and resources**, improving **work safety** through simulation, and **reducing the need for travel**.”*

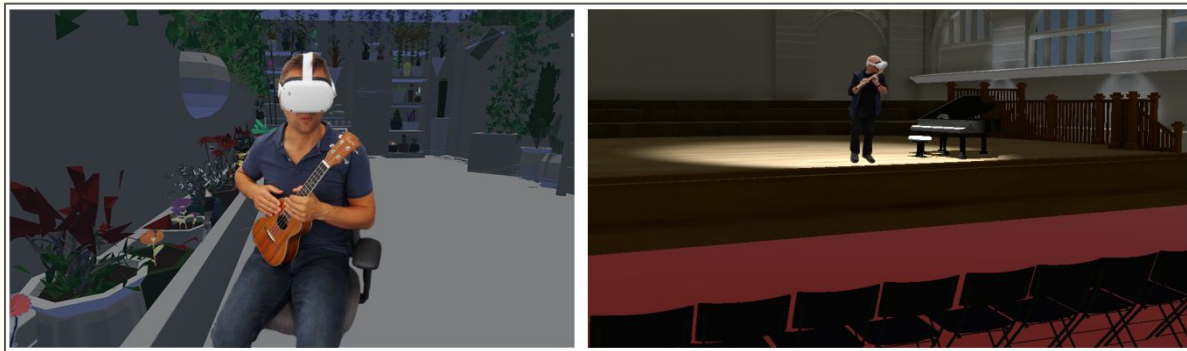


Project Timeline

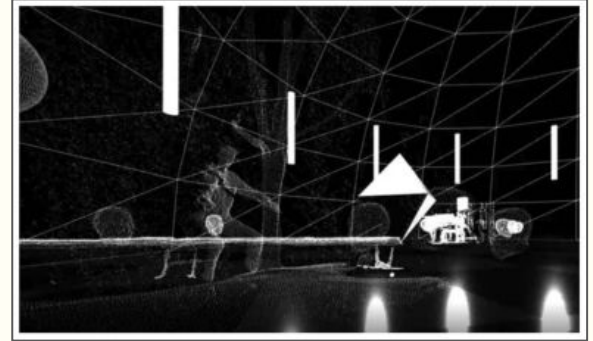
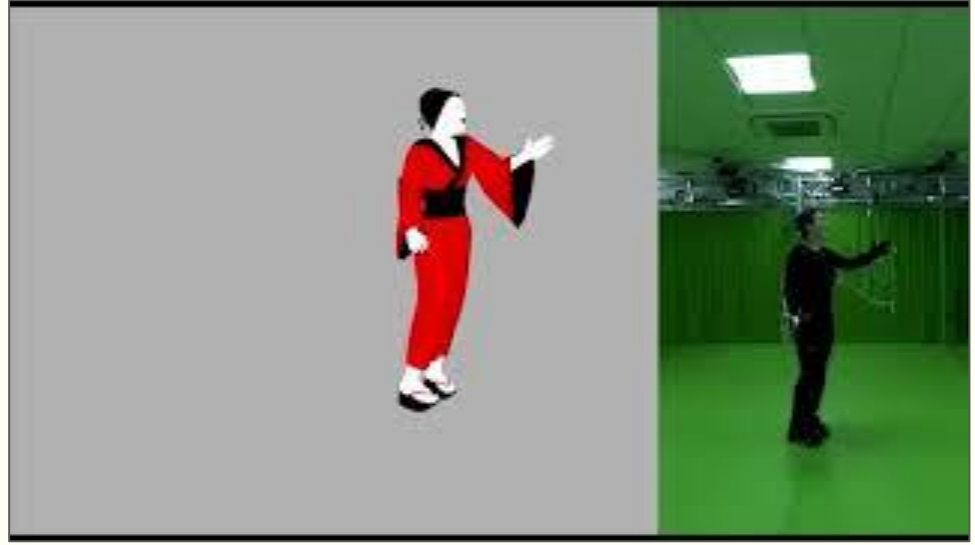




Rehearse

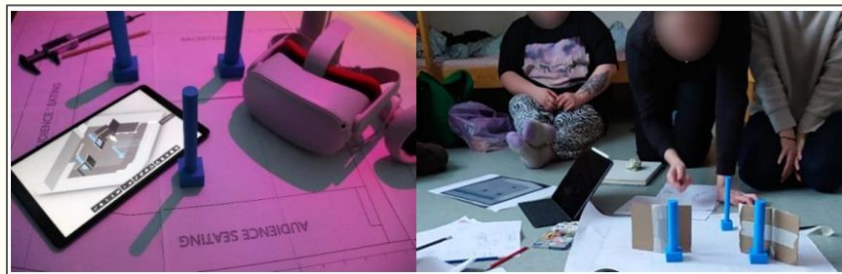
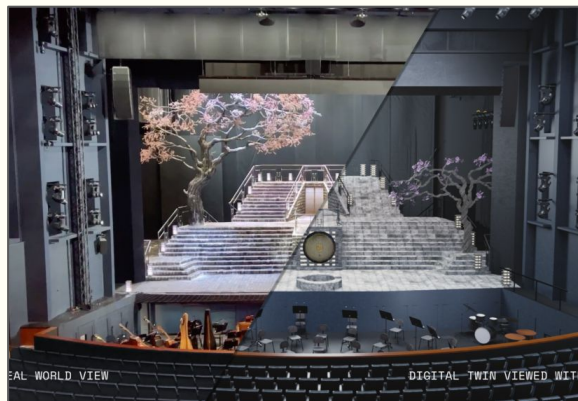
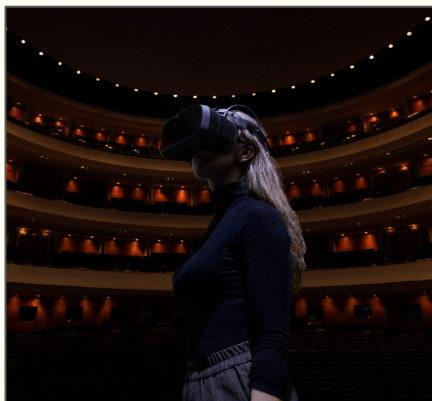


Perform

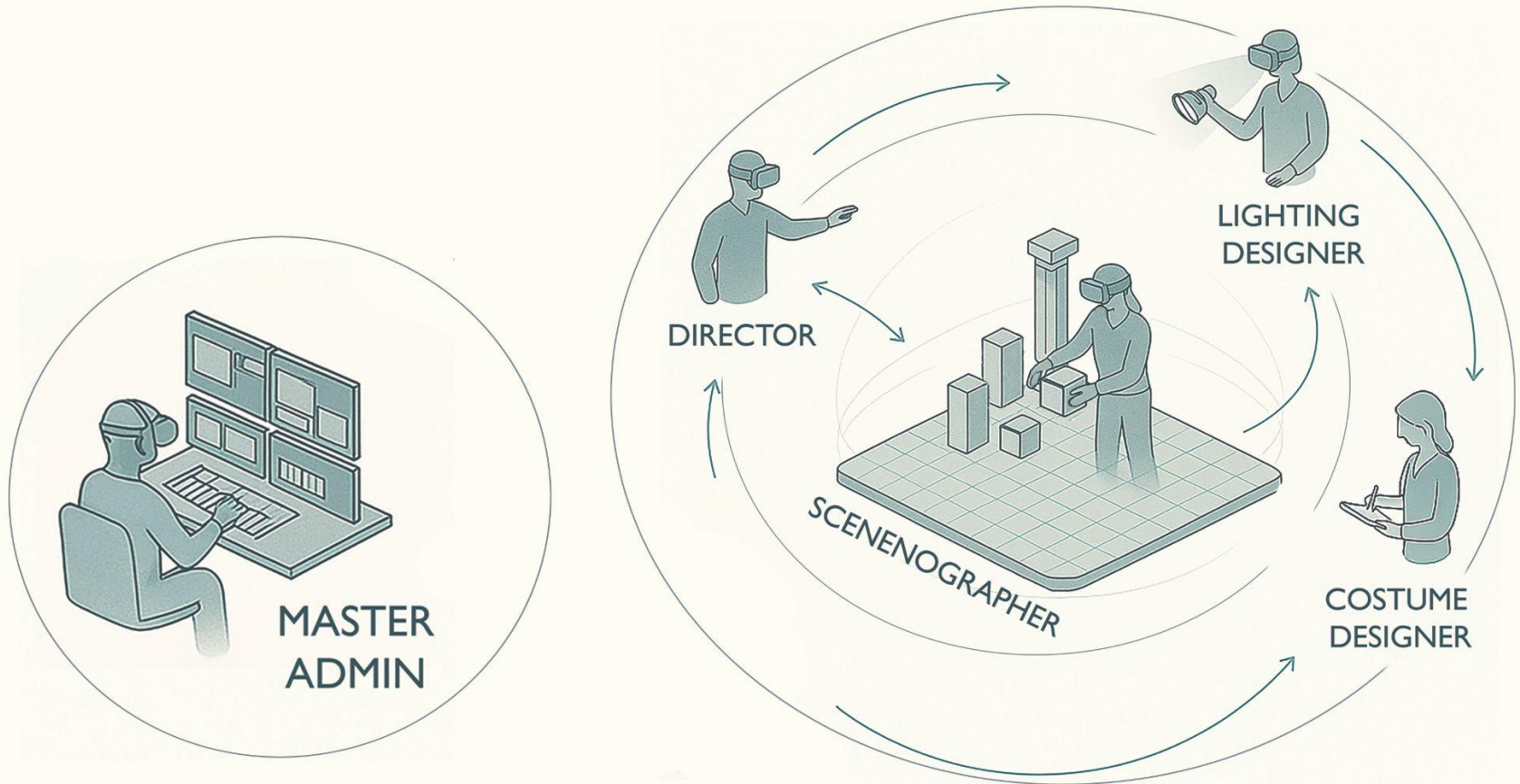


Collaboration

Finnish National Opera & Ballet (FNOB) VR Stage



VRPROVA Collaboration framework



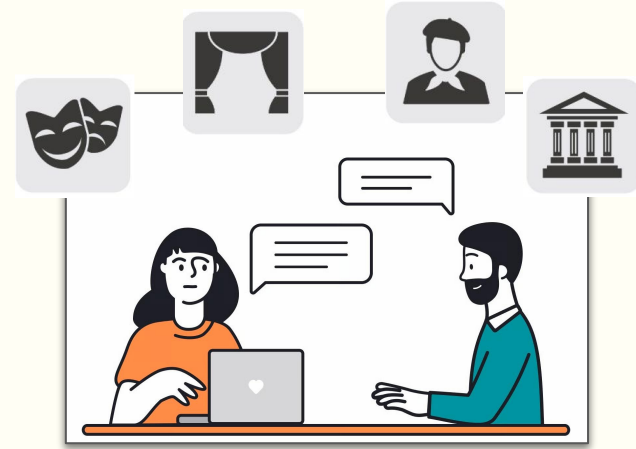
User Study with Theater crew

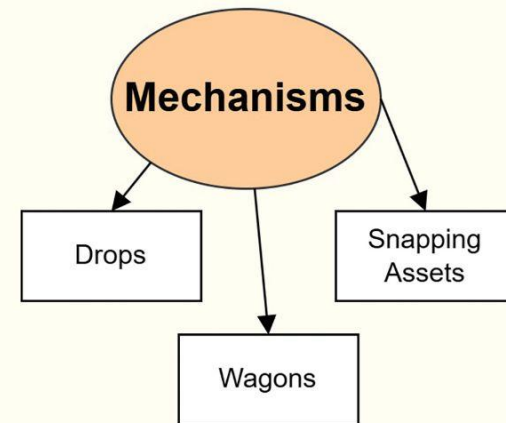
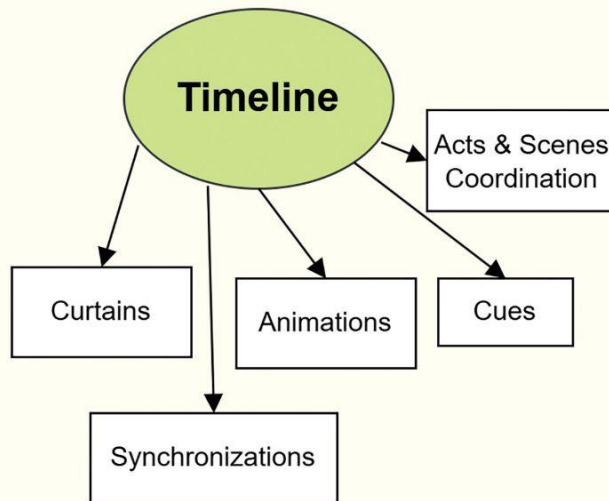
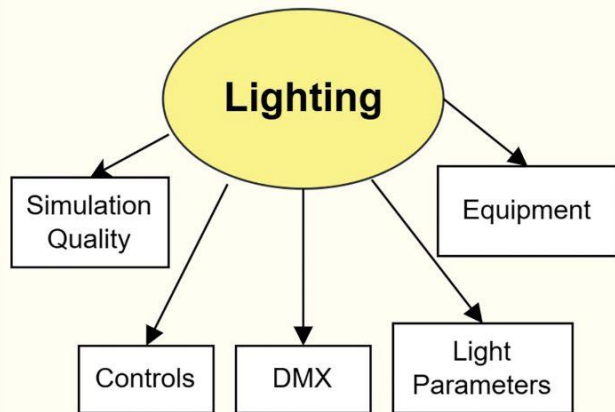
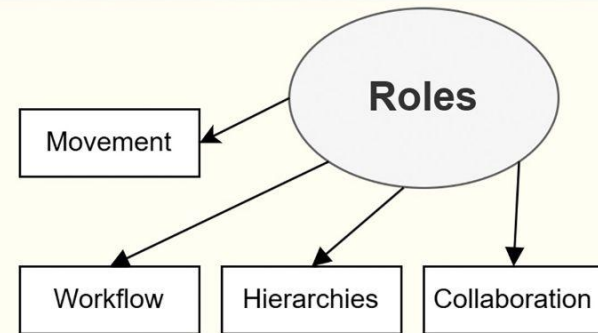
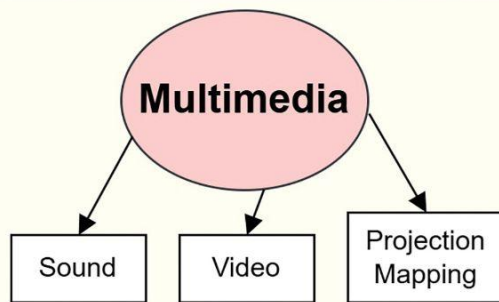
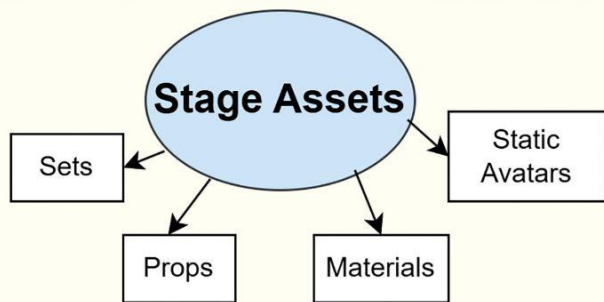
- ❑ **17 Theater professionals** (both from the Greek National Opera and externals)
- ❑ **Roles included:** Directors, Scenographers, Stage designers, Technical directors, Technical safety crew, Costume designers, and Lighting designers
- ❑ Approx. **1 hour long** semi-structured interviews

*“What are your **typical workflows** in Theater or Opera productions?”*

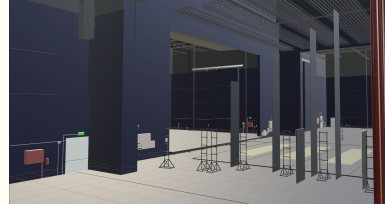
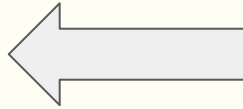
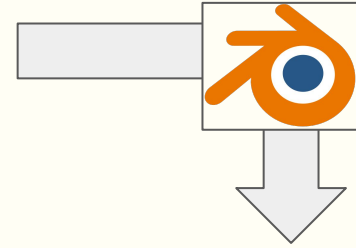
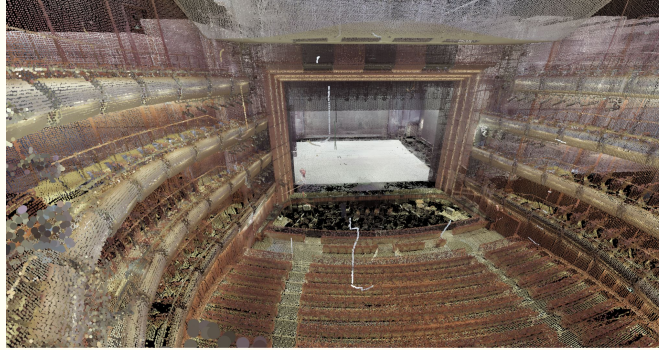
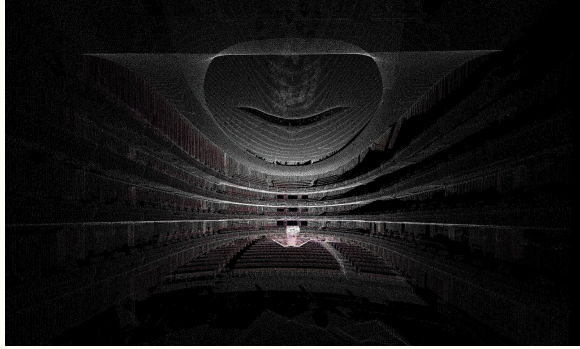
*“What are the **main challenges** you encounter when collaborating with others?”*

*“How often do you communicate your ideas using **CAD models** or **3D software**?”*





Model Import Linear Framework



Model inspection through sketchfab:

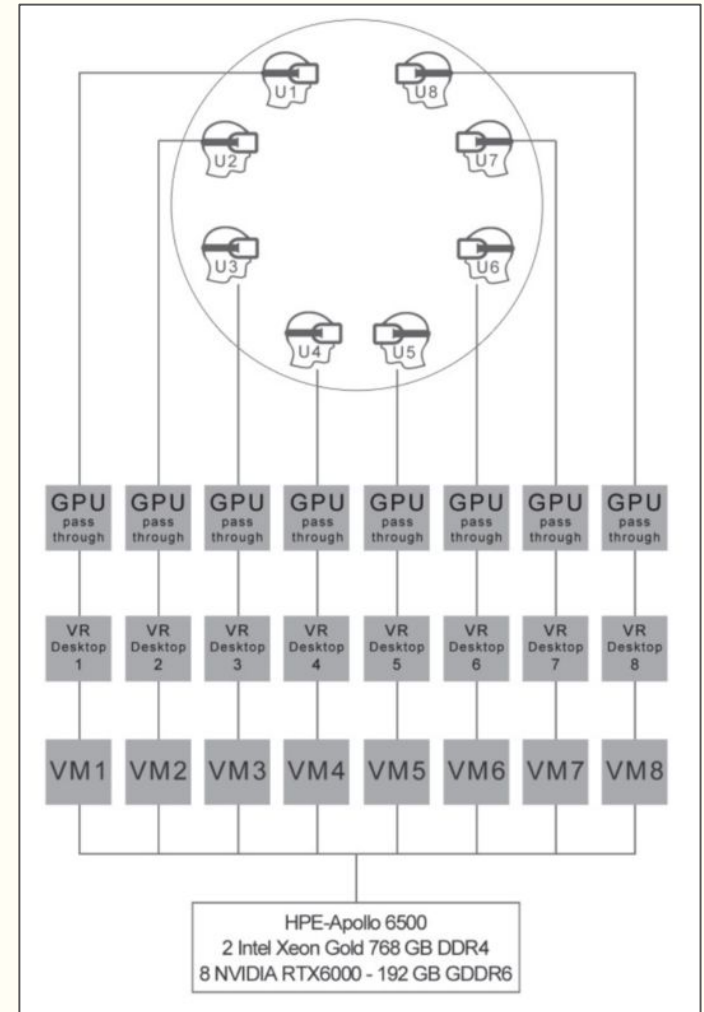
<https://sketchfab.com/3d-models/greek-national-opera-stavros-niarchos-hall-e3e2a6b2093f418db7764ee1e6bbd490>

The system

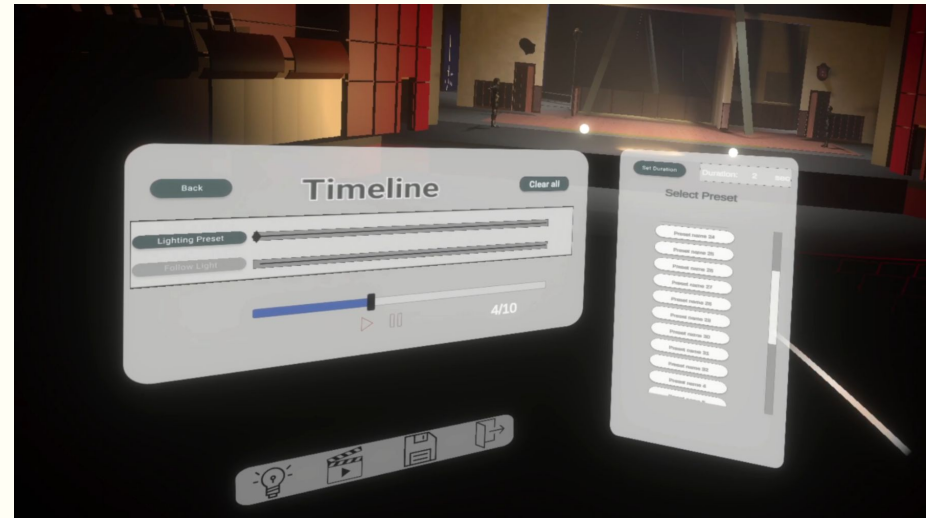
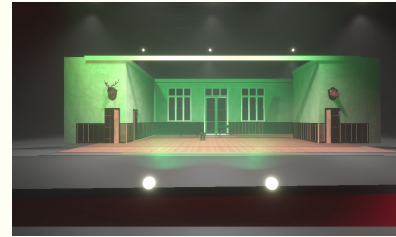
- ❑ Built with **Unity** 2022.3.12, **OpenXR**, XR Interaction toolkit (**XRIT**)

Server - Client communication

- ❑ Nvidia's CloudXR
- ❑ Photon Unity Networking 2 (PUN)



Interacting with a scene



Lighting designer demo



Next steps

- ❑ **Evaluation phase** with GNO for the **Scenographer, Lighting Designer** and **Multimedia Designer** within VRPROVA
- ❑ Delivery of 2 to 3 **complete plays** within the VRPROVA including all stage assets, lighting cues, sounds
- ❑ **Actors and Dancers** integration



Questions & Remarks ?

