

# CO-CREATION STAGE: A WEB-BASED TOOL FOR COLLABORATIVE AND PARTICIPATORY CO-LOCATED ART PERFORMANCES



Communication



Héctor Rivas, Ana Dominguez, Stefano Masneri, Iñigo Tamayo, Mikel Zorrilla (Vicomtech, San Sebastián, Spain)
Pedro Almeida (Universidade de Aveiro, Portugal)

Alina Striner, Jie Li, Pablo Cesar (Centrum Wiskunde & Informatica, Amsterdam, Nederland)





### Introduction

The Co-Creation Stage is part of the toolset developed in the Traction H2020 project which enables community performing art shows, where professional artists and non-professional participants perform together from different stages and locations.

Co-Creation Stage is a new web platform that allows to centralize streams from different audio and/or video sources and provides a web interface that allows to create scenes from those streams so that they can be visualized by several devices simultaneously. Remote devices can have two roles:

- Passive: which can visualize the show.
- *Active:* which apart from visualizing the content can send a stream through the camera and participate in the show.

The scene, the layout of the viewers and the streams will be managed by an operator.



CARBYNE
BOSCH
Video Management System

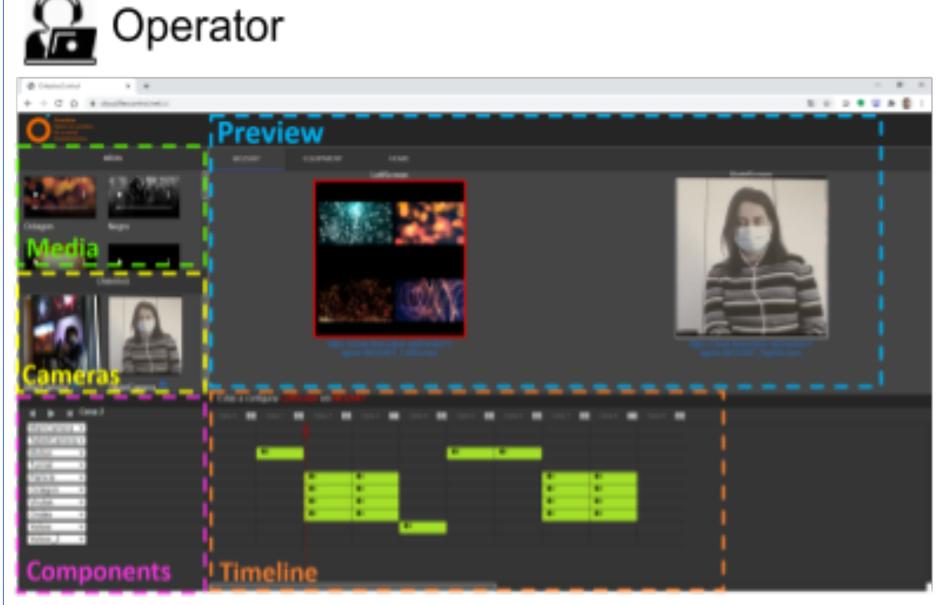
OBS Studio

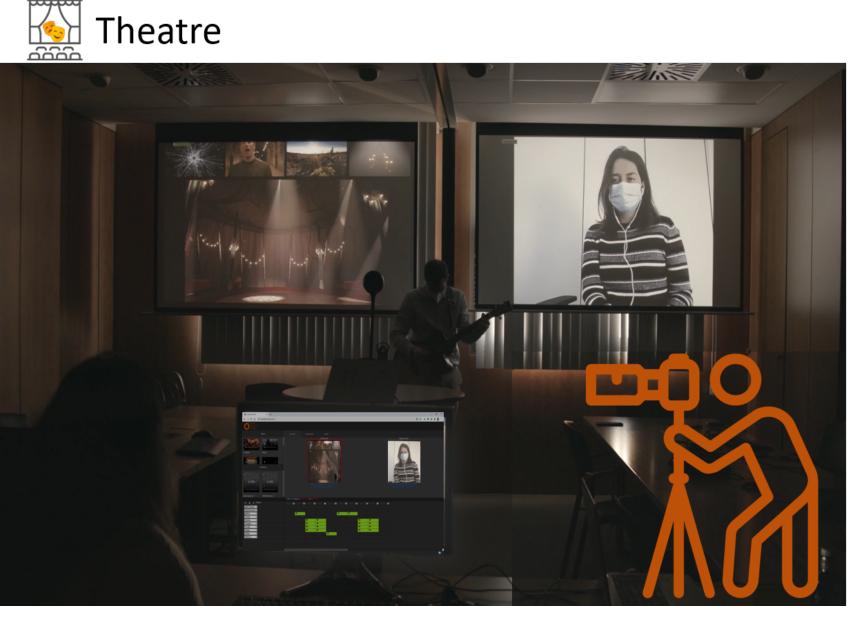
Co-creation
STAGE

Distributed Live
Music

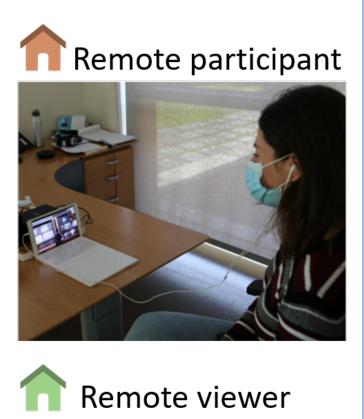


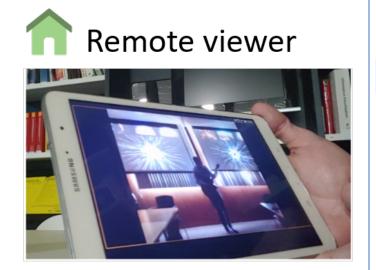
## Architecture and Design





Remote participant





There are three roles in the platform and each one has its own interface:

- The *Control*: it is the interfaces that uses the operator. It allows to create the event, to manage the sources (cameras and videos) that it will contain, as well as the devices that will show the content. It is also allows to customize the layout template that each device will show and action them in real-time.
- The Viewer: it is the interface that allow to each device visualize the content. The layout of this interface it is provided by the operator.
- The Remote Participant: it has an interface that offers the functionalities required to integrate the live audio and/or video streams

### User Tests



Orchestration



Tests were conducted in December with 4 users. The tests were run in two separate rooms, one acting as the main stage and another room to simulate the connection of a remote stage. All the users agreed on the fact that the system was user friendly and on the usefulness of the tool for enabling distributed performances, but they also identified some usability issues that were used to define the requirements for the next iteration of the tool. The main categories issues are:

- Audio quality

Remote audience

- Some user interface issues
- Some user experience issues

The Co-Creation Stage was tested in a real environment. It was tested in the Leiria (Portugal) young correctional facility.

## Conclusion and Future Work

After testing the platform in a real environment, the feedback from the users provided positive indications towards the use of such a tool in collaborative and participatory co-located art performances.

Next steps are to incrementally improve the Co-Creation Stage interface and functionalities based on the feedback gathered during the user tests. Moreover, the Co-Creation Stage tool will be used in other performance in Barcelona during 2022.