



RIALE-EU

Remote Intelligent Access to Lab Experiments in EUrope

CRS4

Research sector: High Performance and Quantum Computing, Biosciences and Advanced Studies

RIALE-EU is a **didactic platform** that gives teachers and high school students **remote access** (live and asynchronously) to experimental activities of **technical and scientific laboratories** of universities, research institutions and schools.

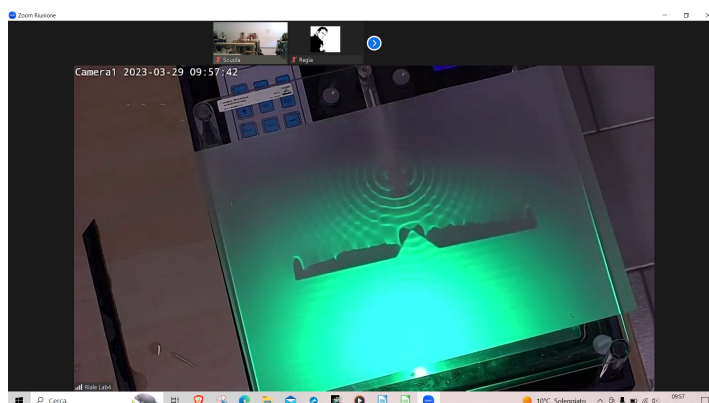


Fig. 1 Live session

During the **live sessions**, teachers and their classes participate to an experiment carried out by the lab researcher or lab technician. The **remote interactions between classes and the domain expert** is possible thanks to the video cameras and the sensors/actuators installed in the hosting laboratory.

The **asynchronous sessions** allow users to access and use the content of an **Interactive Timeline** (TL) that includes the video recording of a lab live session and other multimedia contents supplied by the hosting lab experts (audio, videos, texts, documents, links). Students can therefore view, at leisure, the **educational contents** necessary to comprehend each step of the scientific process investigated.

OBJECTIVES

- To enable students to explore the world of **scientific research**;
- To foster the **dialogue** between the scientific and school communities;
- To experiment with an **innovative teaching environment** aimed at developing technical and scientific knowledge;
- To facilitate students' **orientation**;
- To promote **scientific excellence** among schools;
- To support **education continuity** through remote access to labs in condition of confinement measures.



Fig. 2 Timeline displaying the video of the experiment and related educational contents

ENTITIES TO WHICH THE PROJECT IS ADDRESSED

- Secondary state schools, universities and research centres.

WHAT IS REQUIRED FROM THE HOSTING LABS?

- To sign a joint agreement with CRS4;
- To select, in collaboration with CRS4 educational team, the experimental proposals to be included in the catalogue;
- To suggest teaching materials related to experiments to share with students;
- To be willing to give teachers information on the scientific aspects of experiments, if requested;
- To conduct experiments and interact with students during the synchronous sessions.

ROLE OF CRS4

- To establish, in collaboration with the hosting lab experts, the experimental proposals to be included in RIALE-EU, keeping in mind the educational objectives that can be associated with the scientific topic;
- To provide and install the devices required for the synchronous session to take place, in agreement with the heads of the hosting laboratories;
- To create and update a catalogue of experiments from which teachers can choose and book live sessions;
- To manage the bookings of live experimental sessions
- To develop and keep running both the RIALE-EU platform and the interactive TLs containing videos and other materials related to the experiments
- To coordinate the experimental set up

FUNDING

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