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AUGMENTED SCIENCE

PROJECT NO: 2023-1-PL01-KA220-SCH-000164042

ENRICHING LEARNING WITH AUGMENTED REALITY SIMULATIONS FOR INTERACTIVE SCIENCE

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Project Title: Augmented Science
Project Start Date: 01/12/2023
Project End Date: 30/11/2025

ABOUT THE PPROJECT

The **Augmented Science** project aims to become a benchmark in European science education through the integration of Augmented Reality (AR), enhancing the technological and pedagogical competencies of science teachers and students. By providing AR-enriched content and experiments, the project seeks to make science education more accessible and engaging, bridging the gap between traditional and digital education. It supports educators with innovative tools, fosters collaboration across the EU, and promotes digital transformation in education. Sustainability will be ensured through comprehensive dissemination, professional development, and open educational resources, strengthening the EU's capacity for digital education and making science learning more effective and appealing for students.

OBJECTIVES

The primary objective of the Augmented Science project is to develop, implement, and maintain AR-enriched science content and experiments for EU schools.

Specific goals include:

- Enhancing Science Educationby developing AR-enrichedcontent andexperiments to make learning more interactive and engaging
- Supporting Teachers and Academicians with tools and resources to improve teaching effectiveness and student engagement
- Promoting Digital Transformation by integrating digital technologies into science education to enhance digital readiness and resilience
- Facilitating Active Learning by a Web-based Active Learning System (WALS) to support interactive and hands-on learning experiences
- Fostering Transnational Collaboration between educators and researchers across the EU to collaboratively define science content and share best practices.

Augmented Reality (AR) based learning environment that will support science teachers' science learning and teaching processes and bring science labs to students' tablets or mobile phones. Such AR-enriched simulations are needed to make science education reachable attractive and continue active learning.

KEY RESULTS

Science Course Content-Scenario-Enriched Activities E-Book

AninnovativeBooktransforming traditionalscience contentinto **interactive AR-supported learning materials**, including downloadable activity cards via WALS.

AR-Enriched Experiments and Simulations

Mobile-based simulations enabling studentsto **manipulate variables, observe outcomes, and conduct experiments anytime, anywhere**, strengthening higher-order thinking skills.

Web-based Active Learning System (WALS)

Adigitallearningenvironment offering**hands-on AR applications,** supporting self-regulated learning, teacher leadership, and repeated experimentation without physical lab materials.

AUGMENTED SCIENCE PARTNERSHIP

The Augmented Science consortium includes

University of Lodz (Poland)

Bursa Uludağ University (Turkey)

Innovation Hive (Greece)

Polygonal North Oy (Finland)

PiriTeknoloji (Turkey)

Liceum Ogolnoksztalcace im. Wojska Polskiego w Nowym Dworze Mazowieckim (Poland)

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LONG-TERM VISION

Augmented Science strengthens Europe's capacity for future-ready science education by embedding AR-based methodologies into everyday teaching practice.
It empowers teachers, motivates learners, and ensures that science education remains engaging, accessible, and resilient in a digital age.

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