Security R&D and Innovation Event 2024

HoloZcan Final Conference

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Space4Security 2024

Date: **11.10.2024**
Location: **Permanent Representation of Hungary to the EU - Rue de Trèves 92-98, 1040 Brussels.**

Registration link: https://forms.office.com/e/WGMSPE00Yr

The security of Europe is an increasingly urgent issue and a major challenge that requires extensive cooperation in the field of security research.

This event provides an opportunity to showcase the results and progress of some of the high quality security research and innovation projects supported by Horizon 2020 and its successor, Horizon Europe. The event will allow participants to engage in interactive panel sessions, presentations and demonstrations, where they can collectively discuss the latest research findings and innovative solutions aimed at enhancing societal resilience and CBRN (especially biothreat) detection.

The event is organised by the Hungarian Presidency of the Council of the EU and the HoloZcan project, in cooperation with SFC Nonprofit's annual Space4Security event. This event demonstrates the benefits of cross-cluster and interdisciplinary cooperation. Member projects are from CERIS, SRC, CSTAC, the BRIDGE initiative, as well as from Cluster 2 Twin Transition.

Program

09:00 – 09:15 Registration and coffee

09:15 – 09:45 Welcome addresses

- ➔ Lénárd Zsákai (Permanent Representation of Hungary to the EU),
- ➔ Oleksandr Chemerys (Cluster 3 NCP, Ukraine)
- ➔ Györgyi Bela (HoloZcan, project coordinator, IDEAS Science Ltd.)
- ➔ Zoltán Székely (Space4Security 2024: cross-cluster cooperation, SFC Nonprofit)

09:45 – 10:40 SESSION 1: HoloZcan project presentations (Chair: Györgyi Bela)
Topic: How can biohazard detection technologies be made more rapid, automated, portable, and able to handle complex samples?
- ➔ Béla Mihalik (IDEAS Science Ltd.)
- ➔ Bas van der Linden (Sioux Technologies)
- ➔ Mariana Ferrari (Institut Pasteur)
- ➔ János Pálhalmi (DataSenseLabs Ltd.)

10:40 - 11:00 Coffee break

11:00 – 12:00 SESSION 2: HoloZcan panel discussion (Chair: Michał Bijak)
Topic: In this session, panelists will discuss and share their perspectives on the future biological threats we face and how we can prepare for them. They will examine the current limitations of detection technologies and discuss the technological solutions needed to detect and identify biological threats. The conversation will also address strategies for overcoming the barriers to identifying biological threats and bridging the gaps in bringing technologies from the lab to the field. With stimulating discussions and end-user perspectives, this session aims to provide valuable insights into the challenges and opportunities in the field of biological threat detection and preparedness.

12:00 – 13:30 Walking LUNCH and satellite demonstrations
Satellite demonstrations: interactive demonstrations where we engage with participants informally in front of visual walls and showcase various elements of the HoloZcan system
- ➔ "Innovative Bioaerosol Measurement: The HoloZcan Compact Device"- IDEAS
- ➔ "Advanced Bioaerosol Sampling Techniques: Live Demonstration" - ZugMed
- ➔ "AI-Powered Bio Classification: Cutting-Edge Solutions in HoloZcan project" - DataSenseLabs
- ➔ "Insight into HoloZcan: Simulations and Experimental Showcases" - Polimi and IDEAS
- ➔ "Virtual Reality for Disaster Preparedness: Integration with HoloZcan Device" - SFC

13:30 – 14:15 SESSION 3: Better preparedness with Virtual Reality (Chair: Kitti Kerekes)
Topic: How can we use virtual reality solutions to enhance security innovations, broaden their reach and effectiveness?
→ presentation of PEERS (Zoltán Székely)
→ presentation of B-PREPARED (Orsolya Székely-Keresztesi)
→ demonstration with VR headsets (Dávid Kabelitz)

14:15– 14:45 SESSION 4: Cross-cutting topics supporting resilience (Chair: Orsolya Székely-Keresztesi)
Topic: What innovations from other fields of science contribute to our resilience?
→ presentation of DRIVE2X (Bence Juhász)
→ presentation of FITTER-EU (Kitti Kerekes)

14:45 – 15:15 Coffee BREAK

15:15 – 16:00 SESSION 5: Outlook remarks from invited stakeholders and industrial experts (Chair: Zoltán Székely)
Topic: In this closing panel session, we invite industry and end-user partners to discuss how security technology research and innovation projects can further contribute to societal resilience and reach the market. Topics will include the transition from laboratory-based research to field applications, commercialisation pathways and the role of public-private partnerships in promoting the uptake of these technologies.

16:00 – 16:30 COCKTAIL and FAREWELL

These projects collectively contribute to the event by sharing their research findings, innovative solutions, and collaborative efforts in enhancing security and resilience across various sectors.

HoloZcan: Deep Learning Powered Holographic Microscopy for Biothreat Detection on Field HoloZcan focuses on developing advanced biohazard detection technologies that are rapid, automated, portable, and capable of handling complex samples. www.holozcan.com

PEERS: PracticE Ecosystem for StandaRdS A coordination and support action delivering transformational change in the EU CBRN-E environment through standardisation. https://peers-project.eu/

B-PREPARED: Building PREPAREDness with Collaborative Knowledge Platform, Gamification and Serious Game in Virtual Reality The project aims to teach disaster survival skills to European citizens in an immersive gamified format. https://b-prepared-project.com/

DRIVE2X: Delivering Renewal and Innovation to mass Vehicle Electrification enabled by V2X technologies The DriVe2X project aims to accelerate the uptake of vehicle electrification through new bi-directional smart charging technologies and widespread awareness of V2X, fostering their roll-out in European smart cities. https://drive2x.eu/

FITTER: Fair and inclusive twin transitions for a stronger social Europe FITTER-EU is aimed at contributing to existing research on the origins, dynamics and determinants of inequalities and enable anticipatory governance to support a fair and inclusive twin transition in Europe. https://fitter-eu.com/

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