

SEREN5 Pitch Presentation



HyperNexus: Networked forensics and intelligence

Matthew Caruana Galizia
Executive Director

The Daphne Caruana Galizia Foundation and Hypergraph Limited



DAPHNE
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FOUNDATION



Technology in the pursuit of justice

Type of company/organisation: NGO and software development company

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Country: Malta

Experience

Criminal justice; forensics; data mining; organised crime; corruption; software engineering



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Technology in the pursuit of justice

- Partners in the proposal and will be technical lead.
- Coordinator will be a organisation that has necessary experience.
- Partners will include police forces and prosecutors' offices.

The Daphne Caruana Galizia Foundation

- Seven years of working to investigate and litigate against organised crime.
- We employ lawyers, professional researchers, software engineers and project administrators.



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Technology in the pursuit of justice

Our destination of interest:

HORIZON-CL3-2025-01-FCT-01: Open topic on modern information and forensic evidence analysis and on frontline policing

Our project idea:

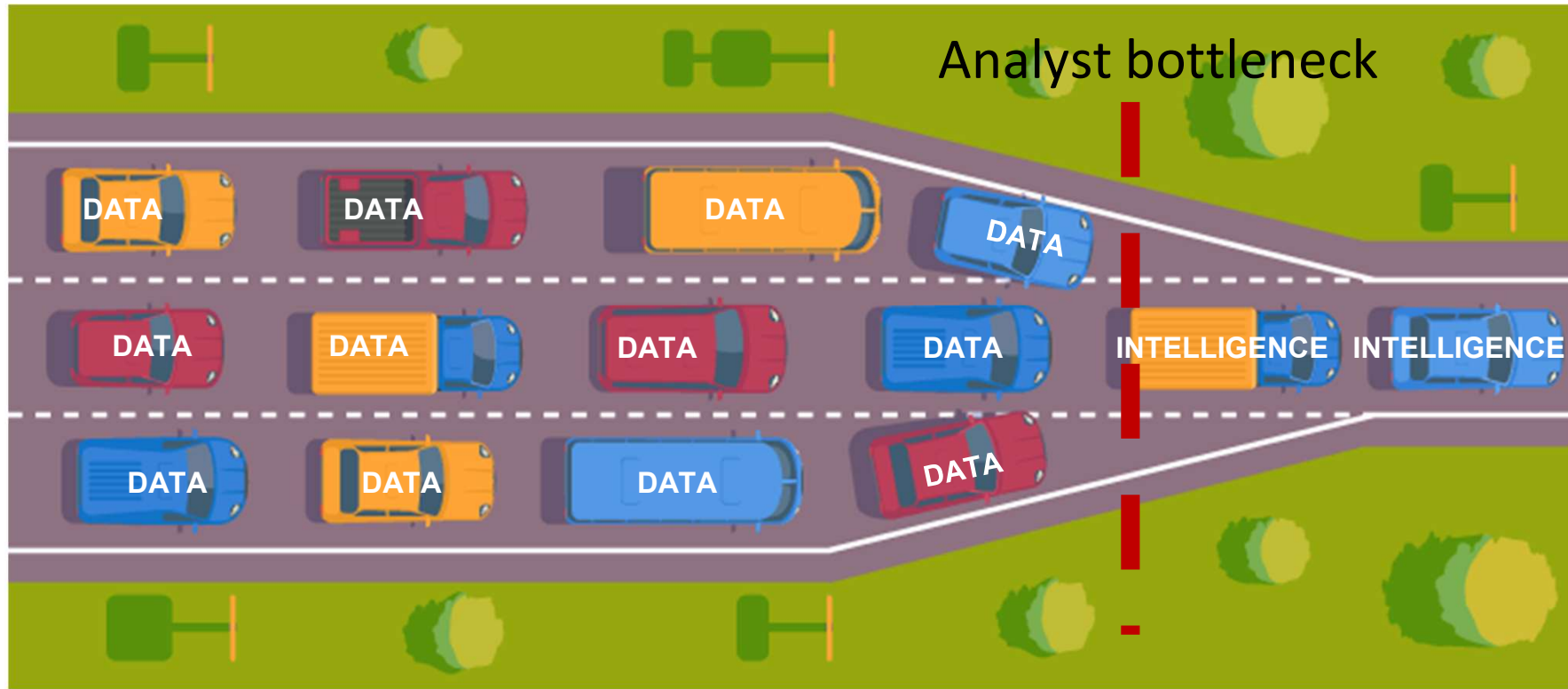
- **Break the manpower bottleneck in forensic evidence analysis.**
- **Develop machine learning strategies to extract intelligence from data on seized devices.**
- **Protocols for the automation of nexus discovery in intelligence held by different agencies.**



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Technology in the pursuit of justice

Leadership

Matthew Caruana Galizia

- *25 years of experience in software engineering.*
- *Specialised in handling big, unstructured data.*
- *Part of the Pulitzer-Prize winning team that analysed the Panama Papers, Paradise Papers and Swiss Leaks.*
- *Extensive experience with commercial forensic software in a professional, criminal justice context.*



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Technology in the pursuit of justice

Seized devices sitting in storage rooms in agencies and courthouses around Europe are a goldmine of information.

For that opportunity to be seized, we need radical innovations in the forensics space.

Our consortium aims to deliver on that innovation.



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Polish Platform
For Homeland Security



We connect, we manage, we train – we care!

Klaudia Kaczmarek
Junior Project Manager
Polish Platform for Homeland
Security



Polish Platform

For Homeland Security

We are a Non-Profit - END USER ORGANISATION - uniting law enforcement, universities, research institutions and industry

Contact Details

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Country: Poland



67

projects



21

organised national and international conferences



38 552

trained individuals



40

team members



20

years of experience

Experience



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We coordinate, lead work packages and perform tasks in European and national projects in multiple programmes, i.a.: HORIZON, ISF, JUST, DIGITAL, ERASMUS+.

*Since 2006 we have been involved in dozens of projects.
Our flagship projects include:*



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Thematic Areas:



Practitioners' Networks



Preventing Radicalisation



Child Protection



Countering Cybercrime



Cybersecurity



Digital Forensics



Public Spaces



Pre-Commercial Procurement



Strategic Security

PPHS' contribution:

- *Community building;*
- *Identification of practitioners needs, gaps and requirements;*
- *Field tests and evaluation;*
- *Training;*
- *Legal analysis;*
- *Communication, dissemination and exploitation*
- *Access to the practitioners networks in Europe;*



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Destination and topics of interest:

Better protect the EU and its citizens against Crime and Terrorism

HORIZON-CL3-2025-01-FCT-01: Open topic on modern information and forensic evidence analysis and on frontline policing

HORIZON-CL3-2025-01-FCT-02: Open topic on prevention, detection and deterrence of various forms of crime and terrorism through an enhanced understanding of the related societal issues

HORIZON-CL3-2025-01-FCT-03: Open topic on improved intelligence picture and enhanced prevention, detection and deterrence of various forms of organised crime



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Project Idea: Standardisation in the area of Digital Forensics and fighting cybercrime

Objective: Develop a unified platform to enhance real-time forensic evidence analysis and frontline policing capabilities across Europe.

Key Features:

- ✓ Tools for crime scene reconstruction and evidence validation*
- ✓ Cross-border data exchange system with compliance to EU legislation and privacy*
- ✓ Evidence-based insights to support EU policy shaping in digital forensics and policing*

Who we are looking for?

We are seeking institutions with expertise in the standardisation of solutions used by LEAs to fight



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Do you want to become a PPHS expert?

Are you interested in **collaborative** events/actions?

Do you want to find out more about **our services**?



PPHS.PL

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*UPJŠ Faculty of Law – Department
of Criminal Law*

Alexander Pezlar
PhD. student
Pavol Jozef Šafárik University in
Košice



Pavol Jozef Šafárik University in Košice



Type of company/organisation: Public research Institution,

Contact Details

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Telephone/Mobile: +421 918 683 486

Country: Slovak republic

Experience: combined academic excellence with real-world criminal justice expertise. Transnational and organized crime, human trafficking, migrant smuggling, cross-border fraud, radicalization and extremism.

Border protection and customs/financial law. Ethics, all branches of law.



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Pavol Jozef Šafárik University in Košice



Role in the Proposal: B) Partner, We can provide strong expertise in the areas of **all branches of law, ethics (AI law, cybersecurity, international law, criminal law, forensics sciences, business law, financial and tax law etc.)** grounded in both academic research and practical application. In addition, we maintain established cooperation with **customs and police authorities at the highest level in Slovakia,** which may be particularly beneficial for aspects of the project related to security policy, enforcement, and regulatory frameworks.

Moreover we can offer a **full University potential such as collaboration Faculty of Medicine, Faculty of Science, Faculty of Law or Faculty of Public Administration.**

B) In the case of Partner, include any value that your organisation can bring to the consortia.



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Pavol Jozef Šafárik University in Košice



List the Destination/s and topic/s that are of your interest:

Destination of interest: Better protect the EU and its citizens against Crime and Terrorism:

HORIZON-CL3-2025-01-FCT-01, HORIZON-CL3-2025-01-FCT-02, HORIZON-CL3-2025-01-FCT-03

We are also interested in being partner at any topic that could require our expertise.



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Pavol Jozef Šafárik University in Košice



We can address critical challenges such as legal and regulatory barriers, ensuring evidence admissibility in courts, tackling the complexity of fraud and smuggling schemes, overcoming fragmented cross-border cooperation, and standardizing inconsistent evidence collection methodologies.

Our team comprises experienced attorneys specializing in criminal and procedural law, alongside customs and police detectives with extensive expertise in investigative and enforcement practices. This integrated approach ensures a robust understanding of both legal and operational aspects, enabling us to deliver comprehensive and effective solutions to complex challenges.



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Pavol Jozef Šafárik University in Košice



We maintain close and effective cooperation with customs and police authorities, which enhances our capacity to conduct thorough cross-border investigations and complex legal proceedings.



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Pavol Jozef Šafárik University in Košice



Pavol Jozef Šafárik University in Košice (UPJŠ), combines academic excellence with real-world criminal justice expertise.

Keywords:

Law, criminal law, Participation in active investigations and training, Development of law enforcement education modules, Access to data and insights, Forensic science in legal procedures, Victimology, Behavioral criminology, AI law, cybersecurity.



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Emergency Support System

Arkadiusz Szczepanski
CEO
UNIQ COMM Ltd.



UNIQ COMM Ltd.

The New Quality of Communication



Uniq Comm Ltd is a private company specializing in technology and communication solutions.

Contact Details

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Mobile: +48 694 437 108

Country: POLAND

Experience

Offshore industry experts in operational and crisis management.



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www.UniqComm.net



UNIQ COMM Ltd.

The New Quality of Communication



Proposal of Uniq Comm as a Future Project Partner

Uniq Comm is interested in international projects focused on improving communication and coordination in operational and crisis scenarios.

As a private company specializing in nonverbal communication, we offer innovative solutions that enhance situational awareness where verbal exchange is limited.

Our patented technology enables intuitive, silent communication and has been successfully tested by industry leaders, proving its value for emergency services and critical infrastructure protection.



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UNIQ COMM Ltd.

The New Quality of Communication



Proposal of Uniq Comm as a Future Project Partner

We are ready to contribute our expertise and technology to a multidisciplinary consortium focused on security, crisis response, and the protection of strategic assets.

Uniq Comm is actively seeking collaboration opportunities with:

- institutions,
- uniformed services—such as police forces, fire departments,
- crisis management center
- EU-based stakeholders interested in jointly developing and applying advanced communication tools.



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Destination:

RESILIENT INFRASTRUCTURE

Topics:

HORIZON-CL3-2025-01-INFRA-01: *Open topic for improved preparedness for, response to and recovery from large-scale disruptions of critical infrastructures*

Project Idea:

Effective Management and Coordination in Emergency Situations



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What are the problems we seek to address ?

Effective management and coordination of actions in crisis situations to protect human life and infrastructure.

Who are we, What can we do ?

We are experts in the offshore industry, with strong competencies in both operational and emergency management. Together, we work tirelessly to deliver exceptional products and services that redefine communication standards. Our strength lies in our diverse team of experts, including communication specialists, software developers, and creative thinkers.





As a team of professionals, we have experience in international collaboration and have successfully gone through both the development and implementation phases of our system in the oil and gas industry.

The effectiveness of our project and solution has been confirmed through practical testing, which led to formal recommendations from major industry players such as TOTAL and Transocean.



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Summary and Objectives

Uniq Comm is seeking strategic partnerships with

- public safety institutions,
- crisis management authorities,
- research organizations,
- experienced EU project coordinators.

We offer a field-proven nonverbal communication technology tailored for high-pressure, mission-critical environments.

To maximize impact, we aim to collaborate with end-users for real-world testing, engage with research experts for evaluation and refinement, and participate in a well-funded, multidisciplinary consortium committed to delivering practical, operational results.



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Thank you for your attention

We would be pleased to explore future cooperation opportunities and welcome any questions you may have.

Contact Us



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*Smart and autonomous cyber defence
agents powered by Generative AI*

Alfonso Iacovazzi
Senior Researcher
RISE Research Institutes of Sweden



RISE Research Institutes of Sweden – Cybersecurity Unit

Competitiveness and sustainable transition grounded in science



Type of company/organization: Research Institution

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- Country: Sweden



Experience

AI for cybersecurity, Intrusion Detection Systems, Network Traffic Monitoring and Analysis, Privacy Preserving AI, Attacks against AI



- **Expertise:**

- *IoT Security*
- *AI & Security*
- *Privacy preserving AI*
- *Cloud Security*
- *5G/6G Security*
- *Automotive Security*

- **National and EU projects**

- *CYPRESS (CN - Coordinator)*
- *CUSTODES (HE - Coordinator)*
- *HARPOCRATS (HE)*
- *PANTSAT (ESA)*
- *etc*

- **Participating in:**

- European Cybersecurity Organization (ECSO)
- EU cybersecurity centre of excellence (CONCORDIA)
- EU Stakeholder Cybersecurity Certification Group (SCCG)
- Standardization (IETF, 5GAA, OMA, IPSO, ...)

- Leading the **National Cybersecurity Innovation Node**
- **RISE Cyber Range**

List the Destinations and topics:

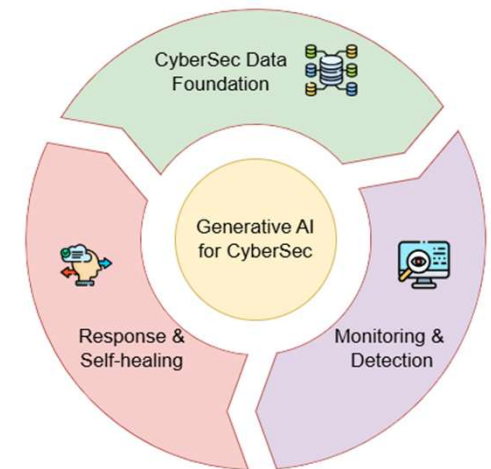
- **HORIZON-CL3-2025-02-CS-ECCC-01: Generative AI for Cybersecurity applications**

- HORIZON-CL3-2025-02-CS-ECCC-02: *New advanced tools and processes for Operational Cybersecurity*

- HORIZON-CL3-2025-02-CS-ECCC-03: *Privacy Enhancing Technologies*

Project Idea:

- *Using Generative AI not just as a **defensive tool** but as an **intelligent, adaptive, context-aware** cybersecurity force that **continuously learns, anticipates threats, and neutralizes them before they can cause any damage***



Problems



Evolving threat landscape

- More frequent attacks
- Increasingly sophisticated attacks
- More complex systems with hidden vulnerabilities
- Zero-days attacks and polymorphic malwares
- Attacks powered by (Gen) AI
- Attacks targeting AI



Data overload

- Massive amounts of data to be processed
- Lack of structure and data heterogeneity
- Missing labels and ground truth



Skill gaps

- Shortage of skilled cybersec professionals
- More complex data analysis and correlation

**RI
SE**

RISE Research Institutes of Sweden – Cybersecurity Unit

Competitiveness and sustainable transition grounded in science

*Role in the Proposal: **Coordinator***

***Consortium:** currently 10 partners confirmed – 1 large company, 4 research institutes, 2 universities, 3 SMEs*

***Looking for:** Industrial partners working on cybersecurity with creative ideas on the following topics:*

- AI for authentication and access control
- GenAI for malware analysis & reverse engineering
- GenAI for autonomous remediation after attacks
- Writing queries for SIEM
- Use cases in the critical infrastructure and space domains



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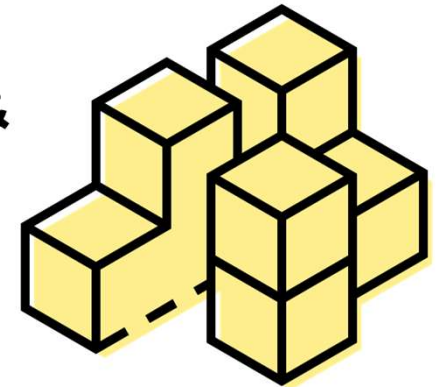
RISE Research Institutes of Sweden – Cybersecurity Unit

Competitiveness and sustainable transition grounded in science



What we are building

- A consortium with **top experts** in AI and cybersecurity
- Generative AI-powered agents for **real-time threat detection & self-healing**
- Modular framework with **plug-and-play cybersecurity enablers**
- Focused on **ethical AI hacking** and **autonomous cyber defence** based on **trustworthy AI**



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RISE Research Institutes of Sweden – Cybersecurity Unit

Competitiveness and sustainable transition grounded in science



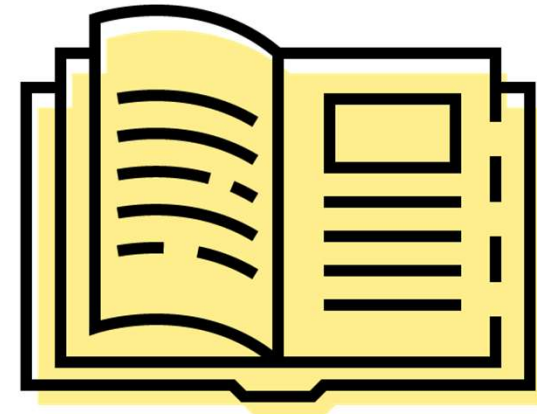
Contact details

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SEREN5 Pitch Presentation

Title of the Pitch Presentation:

*"Flood-Resilient Neighbourhoods:
A Community-Centric Urban Transformation
Model from Türkiye"*

Tagline of Municipality:

"Building Smart and Resilient Küçükçekmece" Phd.Nesrin BASPINAR

Project Coordinator

Kucukcekmece Municipality





Type of company/organisation: Local Government/Municipality

Contact Details

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Telephone/Mobile: +90 5334386800

Country: Turkey/Istanbul

Experience

flood resilience, urban transformation, social vulnerability, smart city, community-based adaptation, disaster risk reduction



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Role in the Proposal: A) Coordinator

Küçükçekmece Municipality will lead the project's local implementation, stakeholder engagement, and policy integration.

Looking for Partners:

Hydrology & flood modeling experts

Social sciences & disaster sociology institutions

Technology providers (IoT, Digital Twin, AI)

Community-based DRR NGOs

Municipalities with flood resilience challenges



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List the Destination/s and topic/s that are of your interest:

HORIZON-CL3-2025-DRS-01-02: Enhancing societal resilience to climate-induced disasters

Outline your Project Idea: *An integrated socio-technical model for urban flood resilience, combining social vulnerability mapping, smart city technologies, and participatory community engagement strategies, co-developed and piloted in Küçükçekmece, Türkiye.*



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What it is the problem/s you seek to address?

Küçükçekmece faces recurrent urban floods, exacerbated by rapid urbanization and insufficient community-based disaster strategies. Social vulnerability is often overlooked in risk governance.

What is the research/technology/expertise/skills you own to solve the problem.

We offer AI-driven early warning systems, nature-based infrastructure, and participatory resilience planning models to bridge the gap between urban transformation and social cohesion.



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Outline any experience in EU R&I projects or other.

- *Coordinator in UCPM Prevention & Preparedness Project on flood resilience.*
- *Involved in smart city applications and community-based disaster risk reduction.*

Discuss the Team, any key player that will be working on the project

- *Disaster Risk Experts*
- *Urban Planners specialized in nature-based solutions*
- *Social Scientists focusing on urban sociology*
- *Technical partners for AI and IoT solutions*





Conclusion and Key Take Aways Messages, if any...

Seeking EU partners to co-develop scalable flood resilience strategies for urban areas, leveraging Küçükçekmece's experience in local governance and community engagement.

Insert any KEYWORDS in relation to your Activities and Expertise

•Key Messages:

- Community-First Approach to Urban Flood Resilience*
- Integrating Social Sciences into Urban Transformation*
- Scalable, Smart, and Replicable Model for EU Cities*
- Keywords: flood resilience, smart city, social cohesion, disaster preparedness, climate adaptation, urban transformation*



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Thank You!!



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Civil Security for Society

Paulina Ińska
Project Manager
Polish Platform for Homeland
Security



Polish Platform For Homeland Security



Type of company/organisation: NON profit organization/ NGO

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Country: Poland

Experience

Cooperation with LEAs and other practitioners, project coordination, communication and dissemination, pilots and solutions evaluation



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Role in the Proposal: Coordinator or Partner, Project with citizen organizations, regional authorities and practitioners, LEAs

joint project with Police authorities from different countries struggling with natural disasters such as floods or fires and Universities specializing in this subject

PPHS an organization specializing in organizing conferences, trainings, workshops and responsible for communication tasks



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*Call: HORIZON-CL3-2025-01 Civil Security for Society,
HORIZON-CL3-2025-01-DRS-01: Open topic on citizen and regional
and/or local authorities' engagement in enhanced disaster risk
awareness, including education, and preparedness
deadline date: 12 November 2025*

Project Idea:

*Citizen-centered research and innovation action that deploys AI and
immersive education to improve disaster preparedness across
European regions facing diverse hazards - floods, forest fires,
earthquakes*



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In recent years, Europe has experienced several significant flooding and fires events, underscoring the escalating impact of climate change on the continent. The urgent need for comprehensive climate adaptation strategies and improved disaster preparedness to mitigate the impacts of extreme weather events.

- Create social campaign involving police authorities, fire departments, universities and local authorities, develop technologies to support decision-making during disasters.*



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Ongoing Projects

We actively engage in projects funded by both national and European sources, as well as investing our own resources.

33

European Projects

Since 2016, we have been working on European-funded projects.

46

Past Projects

Since 2005, we have been involved in the conclusion of numerous projects.



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PPHS - we connect, we manage, we train – we care.

<https://ppbw.pl/en/>

*#Civil Security for Society, #Common safe future,
#International cooperation, #Experienced partner*



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Golden Ear Technology

Christophe Picard
RTD Business Developer
MetraViB Engineering

Engineering of possibilities: Expertise in acoustics, vibration, material fatigue and mechanical reliability for innovative and sustainable solutions

Type of company/organisation: Private.

Contact Details

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Telephone/Mobile: +33 607 429 518

Country: FRANCE

Experience

Acoustic gas leak detection solution

Development of anomaly detection by acoustics and vibrations



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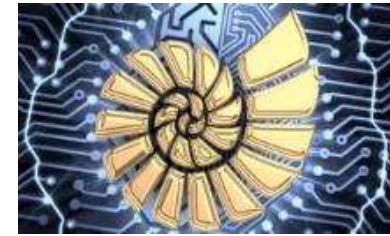
Engineering of possibilities: Expertise in acoustics, vibration, material fatigue and mechanical reliability for innovative and sustainable solutions

Role in the Proposal: Partner

Value that Metravib can bring to a consortia:

GOLDEN EAR TECHNOLOGY

3D automatic sound recognition technology for enhanced spatial recognition of an environment for threat detection, for search and rescue, for aided robot navigation



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Engineering of possibilities: Expertise in acoustics, vibration, material fatigue and mechanical reliability for innovative and sustainable solutions

List the Destination/s and topic/s that are of your interest:

HORIZON-CL3-2025-01-DRS-04: Advancing autonomous systems and robotics for high-risk disaster response, strengthening disaster resilience in conflict-afflicted crisis zones

Outline your Project Idea:

Bring the technological building block of audio modality for the identification and recognition of the acoustic scene in the environment of an autonomous robotic system.

Engineering of possibilities: Expertise in acoustics, vibration, material fatigue and mechanical reliability for innovative and sustainable solutions

What it is the problem/s you seek to address?

Equipping an autonomous system with super hearing capacity by:

- *Creating an Audio Language Model for the automatic recognition of any sounds (not just speech)*
- *Merging advanced acoustic processing with LLM based AI for audio*

What is the research/technology/expertise/skills you own to solve the problem.

- *Modeling of noise generation phenomena,*
- *Multi-microphone system for 3D spatial localization,*
- *Acoustic detection in low signal-to-noise ratio,*
- *Sound recognition in noisy environments, 3D recognition/localization/tracking of noisy objects or sound events,*
- *Machine self-learning for acoustics in an industrial context,*
- *Semantic analysis of industrial sound.*



Engineering of possibilities: Expertise in acoustics, vibration, material fatigue and mechanical reliability for innovative and sustainable solutions

Outline any experience in EU R&I projects or other.

Industrial research and development in B2B for over 30 years on sound recognition system for:

- Acoustic gunshot detection for Defence (on the market for years)*
- Acoustic detection of gaz leak in a plant (TRL8, in industrialization phase)*

Discuss the Team, any key player that will be working on the project

Senior acoustic engineers, embedded computer developers, hardware developers for acoustic measurement, Data scientists for audio.



Engineering of possibilities: Expertise in acoustics, vibration, material fatigue and mechanical reliability for innovative and sustainable solutions

Conclusion and Key Take Aways Messages

OPEN TO COLLABORATE ON DIGITAL GOLDEN EAR

SEREN5 Pitch Presentation



Dual Optical System for Illicit Materials

Dr Ross N Gillanders
Senior Research & St Andrews Innovation
Fellow
University of St Andrews



University of
St Andrews

Type of company/organisation: University

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Telephone/Mobile: +447908961601

Country: Scotland

Experience

Sensing, Optical detection, Explosives, Narcotics



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Role in the Proposal: Partner. The university is a member of the Scottish Institute of Police Research (SIPR)

USTAN has an excellent track record in developing optical chemical sensors for explosives (landmines & IEDs), drugs, and counterfeit alcohol.

We innovate in photonic-based chemical sensors and build robust portable systems.



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University of
St Andrews

HORIZON-CL3-2025-01-FCT-01: Open topic on modern information and forensic evidence analysis and on frontline policing

HORIZON-CL3-2025-01-FCT-04: Humanitarian demining / Unexploded Ordnance Disposal (UXO) of civil areas and unexploded ordnance risk education

HORIZON-CL3-2025-01-BM-01: Open topic on efficient border surveillance and maritime security

HORIZON-CL3-2025-01-BM-03: Open topic on better customs and supply chain security

We propose a dual Fluorescence/Raman system for detecting illicit materials that can be applied to transport/cargo hub screening, policing, and counter-terrorism.



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What is the problem/s you seek to address?

Common methods to detect illicit materials are slow, bulky, require training and consumables, and are non-portable. We propose a system that can be used to rapidly scan inside bottles and in the air for explosives, narcotics, and counterfeit alcohol.

What is the research/technology/expertise/skills you own to solve the problem.

We have IP on selective fluorescence-based thin films for explosives in aqueous, vapour or particulate forms, and through-bottle Raman detection for non-destructive analysis of liquids.





Outline any experience in EU R&I projects or other.

TIRAMISU (FP7) – we participated in Technical Survey, Close-in detection and Validation WPs.

Team

Dr Ross Gillanders & Prof Graham Turnbull have extensive optical chemical sensor development to high TRLs from projects funded through EU FP7, NATO, and EPSRC. Dr Graham Bruce has pioneered non-destructive through-bottle chemical analysis using Raman spectroscopy. The School of Physics & Astronomy at St Andrews has high-class clean room facilities, dedicated labs for sensing of hazardous materials, and world-leading photonics labs.



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We offer our expertise in optical chemical sensing to participate in projects related to civilian security, including policing, aviation/transport hub security, landmine clearance, and counter-terrorism.



Portable fluorescence-based sensor



Landmine detection



Through-bottle whisky assessment

Keywords: Photonics, Explosives, Narcotics, Detection, Sensors

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Remote detection for civil security

Ivana Drobanova
Head of R&D project manager
SEC Technologies, s.r.o.



*Type of company/organisation: Private organisation, SME
Slovak Republic*

Contact Details

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Country: Slovak Republic

Experience

Remote detection, Toxic chemicals, Drug labs, Active detection, 6 km



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Role in the Proposal: B) Partner – WP leader, Task leader

- ***Advanced Remote Sensing of Chemical Threats***
- ***Support for CBRN Resilience and Preparedness***
- ***Illicit Drug Laboratory Detection***
- ***Technology Demonstration & Field Trials, Expert Knowledge and Training***



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List the Destination/s and topic/s that are of your interest:

HORIZON-CL3-2025-01-DRS-03 - *Open topic on testing / validating tools, technologies and data used in cross-border prevention, preparedness and responses to climate extreme and geological events and chemical, biological or radiological emergency threats*

HORIZON-CL3-2025-01-DRS-02 - *Open topic on Improving disaster risk management and governance to ensure self-sufficiency and sustainability of operations in support of enhanced resilience*

HORIZON-CL3-2025-01-FCT-02 - *Open topic on prevention, detection and deterrence of various forms of crime and terrorism through an enhanced understanding of the related societal issues*

Outline your Project Idea:

Remote chemical threat detection to enhance EU preparedness, resilience, and support for law enforcement in CBRN and drug lab



Funded by the
European Union

Lack of early detection and response tools for chemical threats, drug labs, and CBRN incidents in civilian environments.

We provide the world's only active standoff detector – Falcon 4G – capable of identifying chemical threats at distances up to 6 km in real-time, ensuring safe and remote detection.



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Outline any experience in EU R&I projects or other.

We are a technology partner in the CBRN-SOS project funded by the European Defence Fund (EDF). Additionally, we participate in national R&D projects supported by the Slovak Recovery and Resilience Plan.





Thank you

Please feel free contact me

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Telephone/Mobile: +421914108068



Funded by the
European Union

SEREN5 Pitch Presentation



*CEA for DRS-03, FCT-01, BM-03,
INFRA-01 and CS-ECCC-02*

Antonin Galtier
EUROPEAN AFFAIRS
CEA - French RTO

- XS-ABILITY
- TERRIFIC
- CLEANDEM

- STARLIGHT
- KINAITICS
- PERUN

- ARIEN
- CUSTOMAI
- ATLANTIS

- APPRAISE
- C-BORD
- ENSEMBLE

- MULTISCAN
- C-BORD
- CUSTOMAI

- GUARDIANS
- SPARTE
- TEAM-UP



CEA LIST/RTO

From Research to Industry



Contact Details

Email: *antonin.galtier@cea.fr*
Telephone/Mobile: *+33 1 69 08 54 29*
Country: *FRANCE*

Experience

- *CBRN instrumentation and expertise for analysis,*
- *AI for Crisis Management,*
- *federated AI & cybersecurity,*
- *Non destructive testing and sensors for monitoring solid, liquids and gas (e.g. X-ray, neutronic, IR, FTIR, Fiber optics),*
- *Electronics for miniaturisation & AI algos*



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• XS-ABILITY
• TERRIFIC
• CLEANDEM

• STARLIGHT
• KINAITICS
• PERUN

• ARIEN
• CUSTOMAI
• ATLANTIS

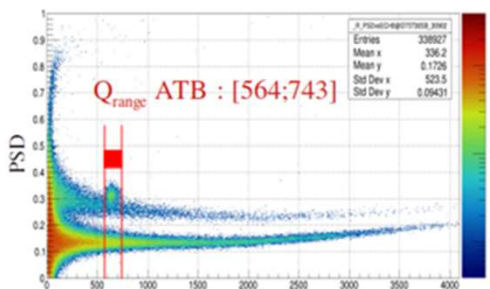
• APPRAISE
• C-BORD
• ENSEMBLE

• MULTISCAN
• C-BORD
• CUSTOMAI

• GUARDIANS
• SPARTE
• TEAM-UP

Focus on DRS-03 option B : miniaturized CBRN sensors

1. Small- multi-radiation detector



Example of PSD and of a plastic scintillator.

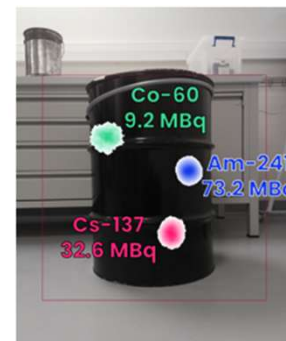
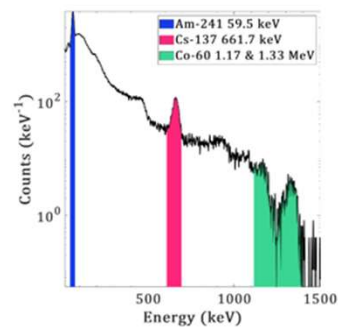
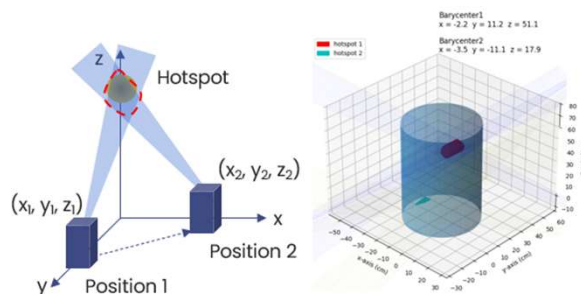
- Expertise in
- Scintillators
 - Spectro-imaging
 - Algorithms for Real-time synchronisation with the 3D reconstructed map
 - Electronics for Lightweight version

	CEA Background
Scintillator	Triple discriminating scintillators synthesis
Detection head	Scintillator + PMT
Electronic	Commercial electronic
PSD algorithms	Discrimination and dose rate determination

2. Nanopix embedded on UGV/UAV



NANOPIX embedded on UGV in the framework of the European project TERRIFIC



Results from the H2020 Euratom CLEANDEM.

Focus on DRS-03 option B : miniaturized CBRN sensors

3. Radioactive gases test-bench and associated measurements methods

Two materials were identified in the FET-OPEN SPARTE project:

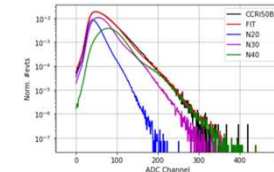
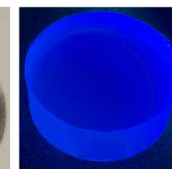
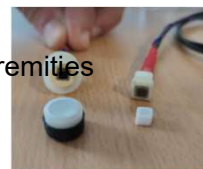
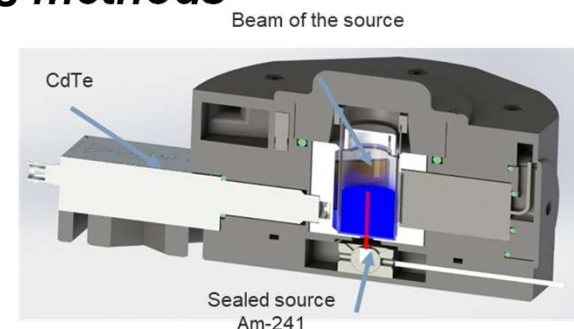
- Metal Organic Frameworks (MOF): tested and found to have “memory” effect – inappropriate for direct online measurement
- Inorganic aerogel scintillators: best candidate with gas separation capabilities

4. GN tracker for handheld detection of gamma-ray, fast and thermal neutrons

5. Single-head detection miniaturized active dosimeter from commercial plastic scintillator and SiPM based devices to measure the equivalent dose to the extremities.

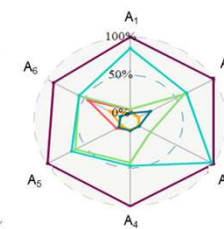
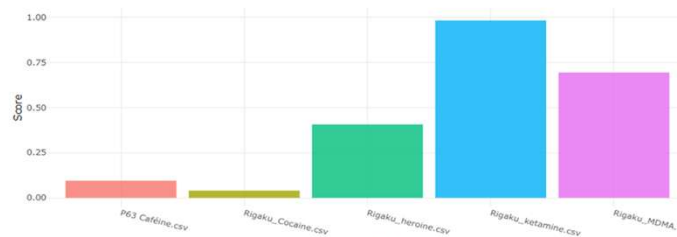
Ultra-compact active dosimeter mounted on a ring:

- **Online measurement** for gamma-rays for determining the individual equivalent dose to the extremities
- Miniaturized system based on **plastic scintillator**, **SiPM** and ultra-compact electronics
- **Homemade algorithm** for data analysis and dose measurement
- **Metrological calibration** made by the Henri Becquerel National Laboratory



Focus on FCT-01 option C (and B) : modernisation of frontline policing (and forensic analysis using new and emerging technologies)

1. CROSS-Methodology and AI-based solutions for CBRN multi-threats Detection and Evidence Collection



Ketamine + MDMA (+ close traces of Heroin)

Tusibi (2C-B)

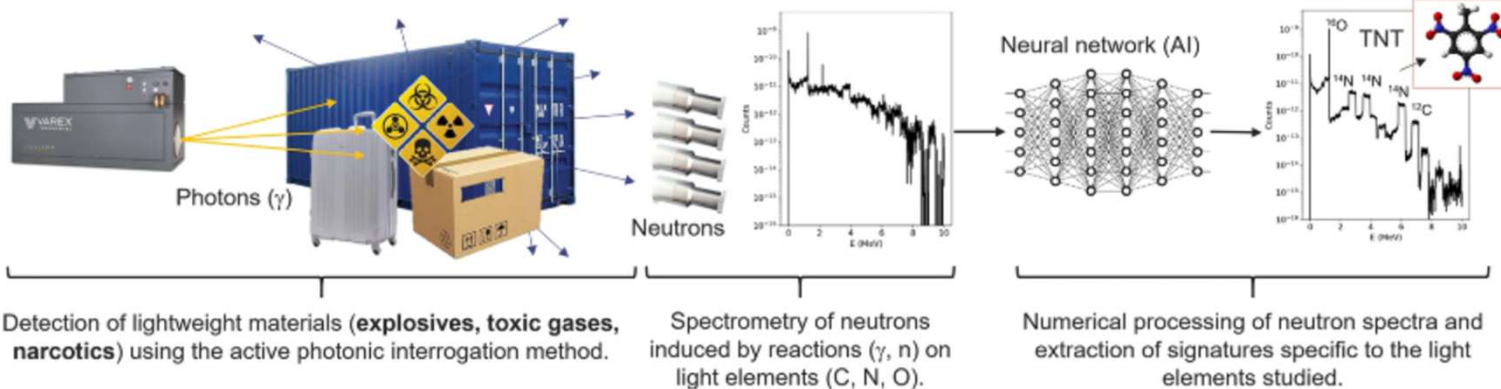
Sensing methods (FTIR, RAMAN ✓OK NMR ✓testing (GC/LC)-MS ✓targeted other measures from innovative technologies ✓targeted)

Methodological points (Explainable and reliable AI-based detection by crossing sensing)

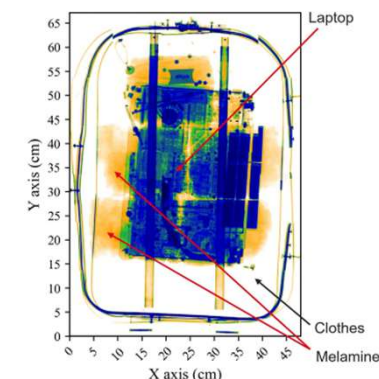
Use cases in explosives, drugs, etc.

Focus on BM-03 : open topic on better customs and supply chain security

1. Innovative non –invasive system for detection of illicit materials

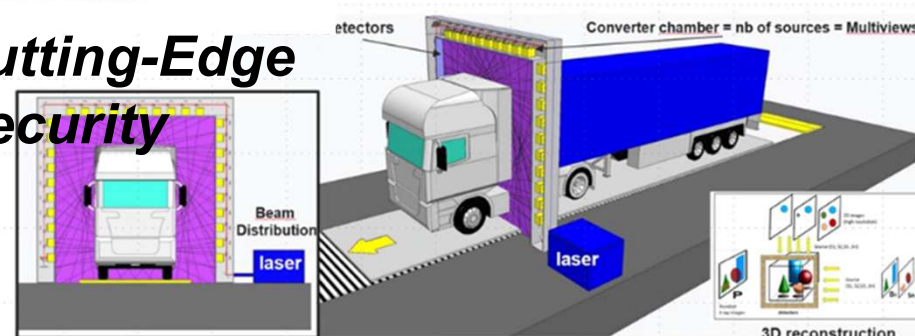


Suitcase with melamine, clothes and laptop:



Dual-energy image 80 kV – 140 kV

2. Advanced inspection system integrating cutting-Edge Technologies to improve Cargo Container Security
MULTISCAN 3D Project



- XS-ABILITY
- TERRIFIC
- CLEANDEM

antonin.galtier@cea.fr

HORIZON-CL3-2025-01-BM-03

- GUARDIANS
- SPARTE
- TEAM-UP

SEREN5 Pitch Presentation

amADEUS



Guillaume Roux
Innovation funding expert
Amadeus



AMADEUS

Type of company/organisation: Private

Contact Details

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Telephone/Mobile: +33 6 27 65 30 34

Country: France

Experience

Aviation, transport, tourism, data spaces, cybersecurity, AI



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European Union



amADEUS

Role in the Proposal: Partner

Cybersecurity calls:

- *access to large real-world operational datasets regarding travel and transportation (essential entity under NIS2 directive)*
- *possibility of real-world environment testing and implementation*
- *expertise in collaborating in cybersecurity, AI and EU projects*
- *project management, data science and engineering*



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European Union



aMADEUS

List the Destination/s and topic/s that are of your interest:

- *HORIZON-CL3-2025-02-CS-02 New advanced tools and processes for Operational Cybersecurity*
- *HORIZON-CL3-2025-02-CS-01 Generative AI for Cybersecurity applications*
- *HORIZON-CL3-2025-01-INFRA-01 Open topic for improved preparedness for, response to and recovery from large-scale disruptions of critical infrastructures*

- *HORIZON-CL3-2025-BM-01-02 Open topic on secured and facilitated crossing of external borders*

Outline your Project Idea:

- *CS-02: R&D and testbed in cross-sector consortium to expand SOC/CSIRT functionalities, in particular CTI sharing, phishing, functional abuse and automated threats detection*
- *CS-01: R&D and testbed for GenAI technologies to improve monitoring and detection of cyber attacks*
- *INFRA-01: R&D and testbed for new response and recovery capability for airports against cyber attacks*



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AMADEUS

What it is the problem/s you seek to address?

Transportation is one of the most critical sectors and we want to secure in a proactive way all the software and hardware components we develop and maintain for it

What is the research/technology/expertise/skills you own to solve the problem?

- *Research capabilities*
- *Large scale security operations for thousands of customers*
- *Large operational datasets*
- *Production environment with real world-condition*



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amADEUS

Outline any experience in EU R&I projects or other.

- *RESCUE - A RESilient Cloud for EUropE*
 - *Cyber-resilient digital twins for data centers and edges (2024-Ongoing)*
- *DiSIEM - Diversity Enhancements for SIEMs*
 - *Existing SIEM systems enhancement to improve long-term security (2016-2019)*

Discuss the Team, any key player that will be working on the project

- *Dr. Olivier Thonnard, Director of Global SOC*
- *Claudio Costanza, Research & Innovation Coordinator for Global SOC*
- *Dr. Elisa Chiapponi, cybersecurity researcher specialized in Automated Threat and Functional Abuse Detection*

- *Amadeus entities potentially involved: France - Turkey – Germany - Portugal*



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AMADEUS

Conclusion and Key Take Aways Messages

- *Amadeus is a global leader in travel technology*
- *19000 people, 6 bn turnover, 190 countries*
- *R&D workforce mainly based in Europe*
- *Strong competences in cybersecurity*
- *SOC counts more than 200 engineers and researchers*
- *1000 000 000 000 security events per year*
- *Dedicated team for EU projects / funding applications*
- *As a partner, Amadeus can bring real data sets, real industrial use cases, security operations expertise*



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European Union

R&D Capabilities of the Construction Technology Center (CTCON)



Jorge Martínez Montesinos
Business Development Manager
CTCON



ctcon

Centro Tecnológico de la
Construcción



Driving Innovation in Sustainable Construction

Type of company/organisation: Research Institution

Contact Details

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Telephone/Mobile: +34 650554569

Country: Spain

Experience

Resilient Infrastructures, Digital Construction & AI



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European Union



ctcon
Centro Tecnológico de la
Construcción



Role in the Proposal: Partner

We can Help/bring to the consortia:

-Innovation in Digital Construction: BIM, digital twins, AI integration and predictive tools.

-Consortium Building: CTCON can actively support the identification and mobilisation of construction companies to join European consortia.

-Demo Sites: Experimental building for pilot installations, data collection and validation.

- Sustainability & Resilience Expertise: Strategies for disaster preparedness.*



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ctcon
Centro Tecnológico de la
Construcción



List the Destination/s and topic/s that are of your interest:

-HORIZON-CL3-2025-01-INFRA-01: Open topic for improved preparedness for, response to and recovery from large-scale disruptions of critical infrastructures



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ctcon
Centro Tecnológico de la
Construcción



Demolition Environments.

-CTCON have Techs for:

-Digital Technologies for Damage Assessment and Reconstruction

-3D Digitization of infrastructures for Reconstruction and Conservation



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Company/Organisation Logo

Tag Line of Company/Organisation

Experience in some EU R&I projects:

- *SNUG (Horizon Europe): CTCON is technical coordinator of this IA developing circular and AI-based solutions for energy-efficient buildings.*
- *RECONSTRUCT (Horizon Europe): Contribution to prefabrication and low-carbon construction with recycled materials.*
- *CARDIMED (Horizon Europe): Validation of climate adaptation strategies and NBS in Mediterranean pilot areas.*
- *LIFE HEATLAND (LIFE Programme): Reflective asphalt to reduce urban heat island effects.*
- *INARTRANS 4.0 (CDTI): Smart AI-based solutions for digital transition of transport infrastructure.*



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SEREN5 Pitch Presentation



Resilience Assessment and Validation for
Environmental and Nuclear threats



Ross Villanti
Researcher/Consultant

Zanasi & Partners
Security Research and Advisory

Topic: HORIZON-CL3-2025-DRS-01-02



- **Z&P** is a key player in **research and advisory** in the field of **security and defence** with proven expertise in **EC-funded CBRN-E** resilience projects.
 - President Ing. Zanasi is a **nuclear engineer** with 30+ security projects .
 - On-field experience throughout **Europe, Central Asia, Africa, Brazil:**
 - **CBRN-E critical infrastructure protection** in Europe and Central Asia
 - **Biological risk** and Zoonosis in Africa
 - **Ecological and oil risk assessment** in Europe, Africa and Brazil

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Email: alexandre.lazarou@zanasi-alessandro.eu

Country: Italy



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European Union



Z&P's Role: Technical and Scientific Coordinator

Current Consortium:

- UNICRI – United Nations Interregional Crime and Research Institute – **Italy**
- Anti-Phishing Working Group European Foundation (APWG.EU) – **Spain**
- LAC – Latin America/African & Central Asia Countries
 - Universidade Federal do Rio de Janeiro – **Brazil**
 - University of Abuja – **Nigeria**
 - CBRN SSA – **Tajikistan**
 - Government agency – **Uzbekistan & Kazakhstan**
- Ambulance and Emergency Physicians Association – **Turkey**
- Pompiers de l'Urgence Internationale (PUI) – **France**
- SSH Dept. UNIMORE – **Italy**
- Schlumberger – **Curaçao**

Looking for: Coordinator



unicri
United Nations
Interregional Crime and Justice
Research Institute



UFRJ
UNIVERSIDADE FEDERAL
DO RIO DE JANEIRO



UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA



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European Union

Ross Villanti

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Crucial role of policy makers in planning and responding

Planning often follow a major event, leading to short-term fixes rather than systemic change

Tendency to focus on more operational aspects instead of strategic ones

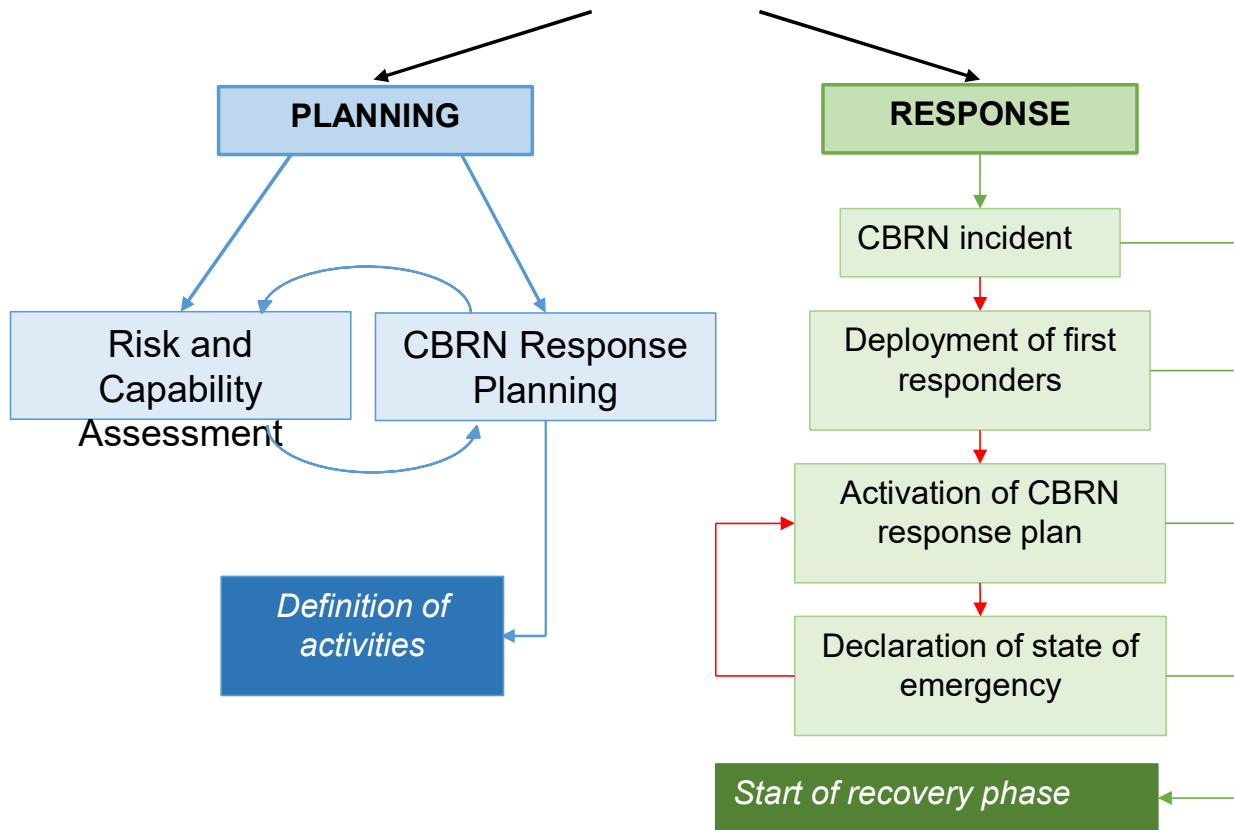
Building a Toolkit for an effective CBRN planning and response for policymakers and CBRN



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ROADMAP



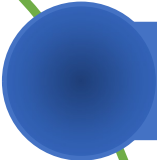

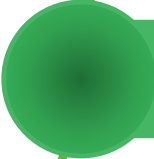

Destinations/Topics Z&P is interested in:

- *HORIZON-CL3-2025-01-DRS-03*
- *HORIZON-CL3-2025-02-ECCC-01*
- *HORIZON-CL3-2025-02-ECCC-02*
- *HORIZON-CL3-2025-02-ECCC-03*
- *HORIZON-CL3-2025-02-ECCC-04*
- *HORIZON-CL3-2025-02-ECCC-05*
- *HORIZON-CL3-2025-02-ECCC-06*





Conclusions

-  We are an SME with over 20 years activity in **R&D security and defence projects**
-  We have strong expertise in physical and cyber-security and in increasing the resilience to CBRN-E threats
-  We aim to build a toolkit for **enhancing CBRN planning and response** for policymakers and CBRN managers
-  We are looking for an **administrative coordinator** and are open to cooperate with partners having **expertise in the CBRN domain**



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SEREN5 Pitch Presentation

VERITAS-PQC - Verification and Resilience testing of implementations of Trusted Algorithms

HORIZON-CL3-2025-02-CS-ECCC-05: Security of implementations of Post-Quantum Cryptography algorithms



Paola
Fratantoni
Zanasi & Partners
Security Research and Advisory



Zanasi & Partners

Security Research and Advisory

Zanasi & Partners is an Italian SME with strong experience in cybersecurity, intelligence and physical security.

Its multidisciplinary team governs the areas of **Cybersecurity**, **Artificial Intelligence and Machine Learning**, and **Critical infrastructure protection**.

The company is also key player in the defence landscape with several projects focusing on **cyber threats** and their implication in the defence sector, including the identification of **attacks and countremeasures**.

The company has been recently awarded an EDF Project on **Post-Quantum Technologies**.

Contact Details

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Country: *Italy*

Experience

Security, Safety, Defence, Research, Cybersecurity, AI, Antiterrorism



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Zanasi & Partners

Security Research and Advisory

Z&P's role: Technical and Scientific Coordinator

Current Consortium:

- Italian multinational
- Portuguese SME
- Polish university
- French SME

Looking for: Administrative Coordinator

We are also interested in:

- *HORIZON-CL3-2025-01-DRS-02*
- *HORIZON-CL3-2025-02-DRS-03*
- *HORIZON-CL3-2025-02-ECCE-01*
- *HORIZON-CL3-2025-02-ECCE-02*
- *HORIZON-CL3-2025-02-ECCE-03*
- *HORIZON-CL3-2025-02-ECCE-04*
- *HORIZON-CL3-2025-02-ECCE-06*



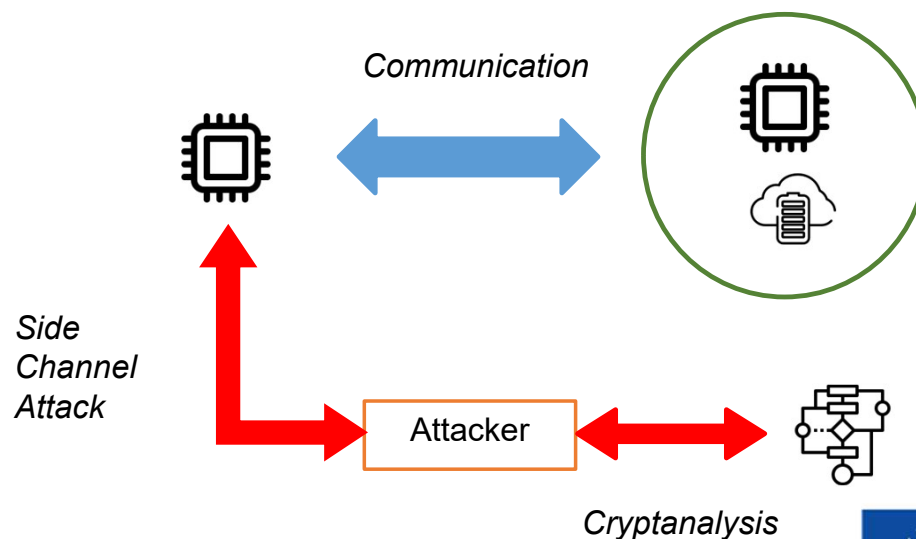
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Security Research and Advisory

Zanasi & Partners launched the Q-ARM (EDF - Europe Defence Fund) project, which aims to be a pioneer project on secure quantum military communications.

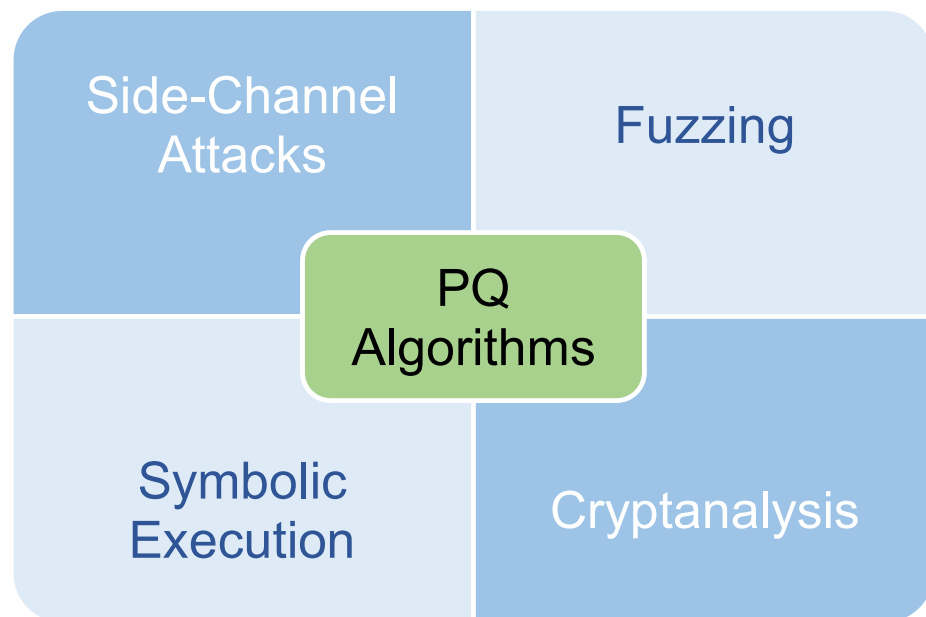
VERITAS wants to be the flagship of **AI vulnerability detection for post-quantum algorithms**, to assure quantum communications are not only mathematically hard to break, but also resilient to other kinds of attack.





Zanasi & Partners

Security Research and Advisory



VERITAS aims to get ahead of the quantum era to come developing a unified, **AI-powered security analysis tool that detects vulnerabilities** in implementations of **post-quantum cryptographic algorithms**.



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Zanasi & Partners

Security Research and Advisory

In a Nutshell...

- We are a SME with multi-year expertise in R&D **security and defence project**
- We have strong expertise in **cybersecurity** (attacks and countermeasures) and have been recently awarded an EDF project on **post-quantum technologies in defence**
- We aim to address the resilience of post-quantum communications, developing an AI-based tool to detect vulnerabilities in post-quantum cryptographic algorithms
- **We are looking for an administrative coordinator** and are open to collaboration with partners having relevant expertise!

Thank you for your attention!



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SEREN5 Pitch Presentation

CAVALIER - deCentrAlised VulnerAbiLity disclosurE fRamework



Alexandre
Lazarou

Zanasi & Partners
Security Research and Advisory

Topic: HORIZON-CL3-2025-ECCC-01-02



Zanasi & Partners

Security Research and Advisory

Zanasi & Partners, with its recognized experience in **operational cybersecurity**, **hybrid and warfare strategy**, can bring a multidisciplinary team governing the areas of Cybersecurity, AI and ML, and Critical Infrastructures Protection. Additionally, Z&P is part of the recently funded **EDF project Q-ARM**, that will focus on post-quantum cryptography for defence purposes.

Contact Details

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Email: alexandre.lazarou@zanasi-alessandro.eu

Country: *Italy*

Experience

Security, Safety, Defence, Research, Cybersecurity, AI, Antiterrorism



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Zanasi & Partners

Security Research and Advisory

Z&P's role: Scientific Technical Coordinator

Current Consortium:

- Istanbul Technical University, Turkey
- Università degli Studi del Molise, Italy
- Université Paris Dauphine, France
- Defence Research Institute, France

Looking for:

- Administrative Coordinator
- CNA (CVE Numbering Authorities)

We are also interested in:

- *HORIZON-CL3-2025-01-DRS-02*
- *HORIZON-CL3-2025-02-DRS-03*
- *HORIZON-CL3-2025-02-ECCC-01*
- *HORIZON-CL3-2025-02-ECCC-03*
- *HORIZON-CL3-2025-02-ECCC-04*



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Alexandre Lazarou

alexandre.lazarou@zanasi-alessandro.eu

- *HORIZON-CL3-2025-02-ECCC-*



Zanasi & Partners

Security Research and Advisory

The risk of budget cut-off on the MITRE CVE project is a major factor that would leave Europe (among others) uninformed about the existing vulnerabilities.

We want to address the **dependency European systems and security have on other states**, preventing outages and assuring the software supply chain.

Z&P can bring to the table an extense **expertise on cybersecurity policies, procedures, and development.**



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Alexandre Lazarou

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Zanasi & Partners

Security Research and Advisory

PROJECT COORDINATION

ANALYSIS OF
CURRENT CVE
AND EUVD

STATE OF THE ART FOR
BLOCKCHAIN AND OTHER
DISTRIBUTED
TECHNOLOGIES

ARCHITECTURE
DEPLOYMENT AND
DATA TRANSFER

TESTING, ASSESSMENT
AND REFINEMENT

POLICY
RECOMMENDATIONS

COMMUNICATION, DISSEMINATION AND EXPLOITATION

This project will deliver actionable insights, operational tools and policy recommendations to **safeguard EU's digital resilience against future disruptions**



Funded by the
European Union

Alexandre Lazarou

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Zanasi & Partners

Security Research and Advisory

Conclusion

- We are an experienced SME with over 20 years of active involvement in **security and defence R&D projects**
- We bring deep expertise in **operational cybersecurity and hybrid warfare strategy**, supported by a **multidisciplinary team** that bridges technical insights, strategic thinking and domain-specific knowledge
- We aim to develop a **decentralized and resilient vulnerability disclosure framework**, addressing the dependency European systems and security have on other states
- We are **looking for an administrative coordinator and CNA** and we are open to cooperate with partners having relevant expertise



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European Union

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SEREN5

**Madrid police as end user in EU
projects**



Iván García
Madrid Police

POLICÍA
MUNICIPAL MADRID



Madrid Police

(Public authority)

Madrid, Spain

Telf. +34 914801761

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End user, first responder, emergency service, community policing, UAV technologies, artificial intelligence (AI), traffic accidents investigation, domestic and gender-based violence victim support, crowd protection etc.



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POLICÍA
MUNICIPAL MADRID



ROLE IN PROPOSAL: Partner, as end user.

OUR VALUE: Largest local police in Spain, +6000 police officers.

Diverse competences in public safety and citizen coexistence.

Use case/pilot provider



**European Projects specialized unit
+25 granted projects**



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European Union

POLICÍA
MUNICIPAL MADRID



TOPICS OF INTEREST HORIZON EUROPE 2025 CALL

- **FCT - FIGHTING CRIME AND TERRORISM: 01-02-03**
- **INFRA - RESILIENT INFRASTRUCTURE: 01-02**
- **DRS - DISASTER-RESILIENT SOCIETY: 01-02-04**



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POLICÍA
MUNICIPAL MADRID



IMPACT EXPECTED: ENSURING LOCAL POLICE FORCES AS KEY PARTNERS IN SHAPING THE FUTURE OF CITIES, WITH...

- ✓ Proximity & community policing
- ✓ Document analysis & judicial support
- ✓ CBRN-E environmental protection
- ✓ Urban & road analysis
- ✓ Urban heritage protection
- ✓ UAV technologies
- ✓ Artificial intelligence (AI)
- ✓ CCTV technologies
- ✓ Public order
- ✓ Traffic & workplace accidents investigation
- ✓ Hate crimes & diversity management
- ✓ Domestic abuse and gender-based violence



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POLICÍA
MUNICIPAL MADRID



READY FOR INNOVATIVE AND USEFUL PROPOSALS

dri.pm@madrid.es



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European Union

SEREN5 Pitch Presentation

*Speech technologies for enhanced
emergency communications analysis
and intelligence picture*



Lori LAMEL
Chief Research Officer
Vocapia Research



Making audio searchable



Type of company: SME (F)

Contact Details

Email: euprojects@vocapia.com, lamel@vocapia.com

Telephone/Mobile: +33 6 71 01 69 20

Country: France

Experience

Software editor with 25 years of experience developing and commercializing speech and language processing technologies for civil and defence applications



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European Union

HORIZON-CL3-2025-01-DRS-03: Open topic on testing / validating tools, technologies and data used in cross-border prevention, preparedness and responses to climate extreme and geological events and chemical, biological or radiological emergency threats (Option a: Use of artificial intelligence (AI) / machine learning (ML) tools to support first responder's analysis, planning and decision-making)

Project Idea: *Improved situational awareness via automatic processing of audio communications from emergency calls from civilians & communications between first responders in operation. Increase capacities of first responders to exchange information & process large volumes of audio data related to emergencies.*



HORIZON-CL3-2025-01-FCT-03: Open topic on improved intelligence picture and enhanced prevention, detection and deterrence of various forms of organized Crime (also HORIZON-CL3-2025-01-FCT-01: Open topic on modern information and forensic evidence analysis and on frontline policing)

Project Idea: *Intelligence landscape using improved, uniform and validated tools for intelligence gathering in audiovisual data (web, telephone, social networks) to detect and investigate organized crime. The analysis methodology should be incorporated in innovative training curricula for EU Police Authorities who aim at early detection of criminal networks and to identify of emerging trends and threats.*



HORIZON-CL3-2025-01-BM-01: Open topic on efficient border surveillance and maritime security

Project Idea: *Improved situational awareness via automatic analysis of all maritime communications (VHF) to enhance situational pictures and to detect potential illegal activity and security threats*

HORIZON-CL3-2025-01-BM-02: Open topic on secured and facilitated crossing of external borders

Project Idea: *Support for border control exploiting speech translation technology to enable human-human communication between speakers not sharing a common language*



Funded by the
European Union

Role in the Proposal: Partner, but willing to coordinate if our expertise is central to the project

As a partner we bring:

Mature, validated customized language technology tools

Contacts with police, emergency services (fire departments, health) in France and some partners in EU projects



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European Union

Problems we seek to address:

- *Accurately detecting potential threats in audio & video data*
- *Pre- and post-event analysis of all communications to improve future detection and response and support decision making*
- *Improving speech technologies in noisy environments and over HF communication channels*
- *Improved modeling of first responders' phraseology to enhance communication*

Expertise R&D Language Technologies:

Over 25 years experience in speech technologies, master latest AI-based models, e.g., LLMs. Our technology includes speaker diarization, language identification and speech-to-text in many languages.



Experience in EU, national and international R&I projects:

- *Led or participated in 18 national projects, 6 EU or international research projects (DARPA, iARPA)*
- *Currently coordinating EDF'21 ALADAN & a national defence project*
- *Partner in EDF'21 KOIOS & Horizon EU Preserve*

Team:

- *Highly qualified research team, mostly PhDs with extensive research experience*
- *CTO extensive experience leading research group and participation in projects*
- *Proven record in technology evaluations*



VOCAPIA *research* Making audio searchable



Conclusion and Key Take Away Messages

- *Speech and language technologies are extremely useful to filter data of interest (avoid drowning in data) and enhance the intelligence picture*
- *Performance of commercially available solutions degrades severely in mismatched conditions → We propose to address this issue by improving speech technologies in noisy environments and over HF communication channels*
- *It is critical for the EU to have sovereign solutions*



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European Union

SEREN5 Pitch Presentation



Interaction with UAV Swarms



Dr Mohammad Soorati
Assistant Professor
University of Southampton, UK

Contact Details

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Telephone/Mobile: +447940285566

Website: SooratiLab.com

Country: UK

Experience

Aerial Swarms, Human-swarm Interaction



SooratiLab.com



LinkedIn



Funded by the
European Union

Role in the Proposal: B) Partner

B) What we can do: Control and Interaction with Aerial Swarms

- *Digital Twin for Interaction with Swarms*
- *Collective Decision Making, resilient against failures (e.g., communication)*
- *Collective Perception*
- *Human operator workload and mental model*
- *Trustworthy Interaction*
- *...*



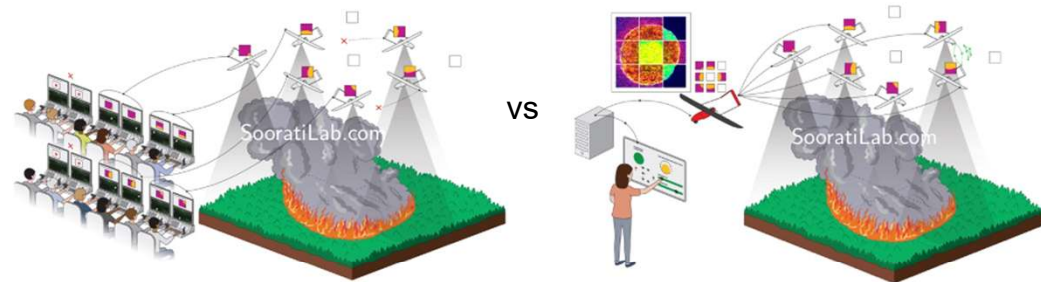
Funded by the
European Union

List the Destination/s and topic/s that are of your interest:

BM: Destination - Effective management of EU external borders (all topics)

DRS: Destination - Disaster-Resilient Society for Europe

- Advancing autonomous systems and robotics for high-risk disaster response, strengthening disaster resilience in conflict afflicted crisis zones*



*Outline your Project Idea:
Applications of aerial swarms*

*What is the research/technology/expertise/skills you own to solve the problem.
We make swarms better, easier and safer to use:*

- **Explainability:** reconstructing, understanding & testing swarms
- **Resilience:** safe operation in contested environments (e.g. communication-limited, low visibility environment)
- **Human-swarm interaction interface:** a digital twin platform for human-in-the-loop control
- Studying human performance & workload in operating swarms

Our aim: We make swarms better, easier and safer to use:

Previous projects:

Project: **Flexible Autonomy in Human-Swarm Teams Using Real-Time Physiological Information**

Funded by: **UK Defence Science and Technology Lab** (2023 - 2025)

Project: **Explainable Human-swarm Systems**

Funded by: **UKRI Trustworthy Autonomous Hub** (2022 - 2023)

Project: **Trustworthy Human-swarm Partnership in Extreme Environments**

Funded by: **UKRI Trustworthy Autonomous Hub** (2021 - 2022)



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SEREN5 Pitch Presentation

KIOS CoE CL3 Interests



Prof. Georgios Ellinas
KIOS Research and Innovation
Center of Excellence - University of
Cyprus

KIOS CoE – Research Center in the University of Cyprus

Contact Details

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Telephone: +35722893450

Country: Cyprus

Experience

Research on Intelligent monitoring, control, risk management and cyber/physical security of critical infrastructure systems

KIOS at a glance



- Established as a Research Unit in **2008** and upgraded to a Center of Excellence (CoE) in **2017 (41M Euro Grant)** – Collaborates strategically with Imperial College, London
- Operates within the University of Cyprus (at the level of Faculty)
 - More than **210** researchers at KIOS CoE
- Develops **research infrastructures** (Testbeds)
 - Test technologies under realistic operating conditions
- Creates **synergies**
 - National and international with industrial and governmental organizations



The name “KIOS” was inspired from the Greek Mythology, where **KIOS** was the titan of “Intelligence”



KIOS Technical Focus & Specialization




Intelligent monitoring, control, risk management and cyber/physical security of complex, large-scale, dynamical systems


Application Areas → Critical Infrastructure Systems



Energy & Power Systems




Smart Water & Environmental Systems



Intelligent Transportation Systems



Telecommunication Systems & Networks



Emergency Management Response



Smart Healthcare Systems

*KIOS provides solutions to real-life problems and brings knowhow and tools that make large-scale infrastructures **smarter, more efficient, secure, and sustainable***





Competitive Research and Innovation Projects

- **78** active multidisciplinary research & innovation projects, funded by EU and national funding agencies
- **400+** collaborators (Cyprus, EU & Internationally)
- Projects are delivered in collaboration with CIS operators/industry and SMEs
- Contribute to global and regional challenges
- **Currently coordinating 3 CL3 HEU projects**





Interested in both Coordination and Partner Roles – Strategic alliances with the Cyprus Police/Coast Guard, the Cyprus Civil Defence and ALL Cyprus Critical Infrastructure Operators (EAC, Cyta, MoT, Water Boards, MoH).

Coordinator Role, we are looking for:

emergency response providers

complimentary expertise on UAV swarms/navigation/coverage

complimentary expertise on machine learning/computer vision

Partner Role, we can provide:

access to CI Digital Twins,

testbeds on Power, Water, Transportation, Emergency Response

access to Cyprus Police, Cyprus Civil Defence, and CI operators



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Automate logistics in high-risk emergency response



List the Destination/s and topic/s that are of your interest:

HORIZON-CL3-2025-01-DRS-04: Advancing autonomous systems and robotics for high-risk disaster response, strengthening disaster resilience in conflict-afflicted crisis zones

Outline your Project Idea:

Use of custom EU-manufactured drones and extend their capabilities to:

- 1. Self-recharge by locating and navigating autonomously to charging depots*
- 2. Charging depots can be mobile autonomous ground vehicles*
- 3. Automate recharging plans to maximize payload delivery*



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European Union

Automate logistics in high-risk emergency response



What is the problem/s you seek to address?

Automate logistics in high-risk emergency response

What is the research/technology/expertise/skills you own to solve the problem.

- *Use of heavy load self-localized UAVs for logistics management in high-risk disasters (EU drone manufacturer already secured)*
- *Increase TRL of **self-localization** technology*
- *Partnership already established with **Polish** and **Ukraine** first responders*



Real-time risk assessment of CIs



List the Destination/s and topic/s that are of your interest:

HORIZON-CL3-2025-01-INFRA-01: Open topic for improved preparedness for, response to and recovery from large-scale disruptions of critical infrastructures

Outline your Project Idea:

Enable digitized infrastructure for cross-sector, cross-country implementation of CER articles for 3 primary Critical Infrastructures: Power, Water, Transport



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European Union

Real-time risk assessment of CIs



What it is the problem/s you seek to address?

Real-time risk-assessment for CIs as required in the implementation of CER

What is the research/technology/expertise/skills you own to solve the problem.

- *Already in consortium with CIs from Cyprus, Greece, Bulgaria, Luxembourg*
- *Define new cross-sector, cross-border use cases*



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UAV swarm coordination for border management



List the Destination/s and topic/s that are of your interest:

HORIZON-CL3-2025-01-BM-01: Open topic on efficient border surveillance and maritime security

Outline your Project Idea:

- *Cyprus is an island with large irregular migration from the Middle East*
- *Aim to automate the patrolling of the large sea environment through coordination of autonomous sea and aerial vehicles.*
- *Provide a 24/7 self-sufficient patrolling system using self-charging, automated patrolling and monitoring system*



UAV swarm coordination for border management



What is the problem/s you seek to address?

Swarm coordination with 50:1 machine to human requirement

What is the research/technology/expertise/skills you own to solve the problem.

- *24/7 self-sufficient sea/aerial vehicle system*
- *Partners include Cyprus Marine Police and Greek Police*



SEREN5 Pitch Presentation



TetherLink – *Tethered Surveillance & Communication UAVs*

Tanel Järvet
Managing Director
CAFA Tech



estonian defence tech and robotics company

Type of company/organisation: SME

Contact Details

Email: tanel.jarvet@cafatech.com

Telephone/Mobile: + 372 5691 1732

Country: Estonia

Experience

12+ European Horizon and European Defence Technology Projects since 2018 in the fields of UAVs and sensors and 5G Communication.



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European Union

Role in the Proposal: Partner

Value that CAFA Tech can bring to the consortia:

1. Experience in cooperation with the Estonian Police, Border Guard and Rescue Board since 2017.
2. Participation in Estonian National Guard exercises and international exercises since 1999.
3. Understanding and describing end-user and use case problems as CONOPS
4. Experience in managing field demonstrations and tests.
5. Fast prototyping and technology implementation with end users!



Destinations and project idea



List the Destination/s and topic/s that are of CAFA interest:

HORIZON-CL3-2025-01-BM-01 Open topic on efficient border surveillance and maritime security

HORIZON-CL3-2025-01-INFRA-01 Open topic for improved preparedness for, response to and recovery from large-scale disruptions of critical infrastructures

HORIZON-CL3-2025-01-DRS-02 Open topic on Improving disaster risk management and governance to ensure self-sufficiency and sustainability of operations in support of enhanced resilience

HORIZON-CL3-2025-01-DRS-03 Open topic on Testing / validating tools, technologies and data used in cross-border prevention, preparedness and responses to climate extreme and geological events and CBRN.

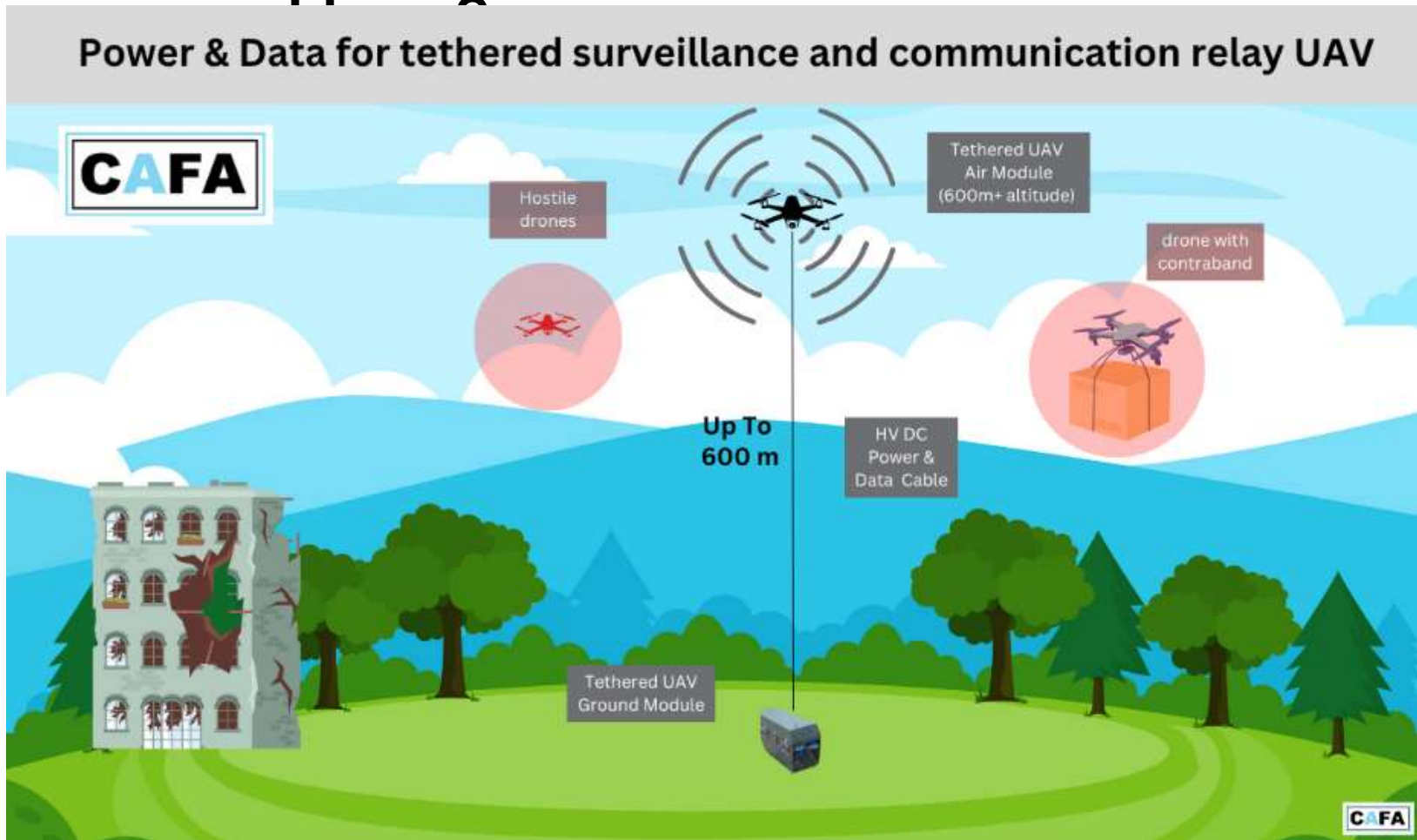
HORIZON-CL3-2025-01-DRS-04 Advancing Autonomous Systems and Robotics for High-Risk Disaster Response, strengthening disaster resilience in conflict-Driven Crisis Zones

Outline your Project Idea:

Tethered surveillance and communication relay UAVs for Borderguard, Police and Disaster Relief



What it is the problem/s CAFA seek to



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CAFA Tech contribution to the European defence projects



REACT-II

Responsive Airborne Electronic Attack 2024-2028.



EISNET

Networked radars (European Interactive Sensor-Based Dynamic Defence Network) 2025-2028



PADIC

Passive Radar Technologies Acquisition by Digital Converge
<https://padic.eu/>



E-NACSOS

Naval collaborative surveillance radars 2025-2028



5G COMPAD

5G Communications for sensors and UAVs
<https://5gcompad.eu/>



EC2

European C2 system (led by Indra)



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Key technical value proposition- TetherLink



ADVANTAGES OF HV DC TETHER FOR UAV SYSTEMS:

- Extended flight time for continuous surveillance operations
- Reliable data transmission in contested electromagnetic environments
- Lightweight design for rapid tactical deployment
- Reduced operational footprint compared to traditional power systems

HV DC POWER TECHNICAL SPECIFICATIONS

- High Voltage DC (500 V) power cable with electricity transfer up to 600m altitude
- Single cable capacity ranges up to 2 kW
- Integrated fiber optic data cable for secure, covert communication
- Ground Module for tethered drones with 2kWh Tactical Battery (stacked up to 10kWh)
- Lightweight Air Module (300gr) for small drones



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SEREN5 Pitch Presentation

*Reliable Information
for Decision Making*



Anna Sumereder (anna.sumereder@boc-group.com,
presenter)

Dr. Robert Woitsch (robert.woitsch@boc-group.com)
BOC Products & Services AG



BOC Products & Services AG BOC Group

Design Your Enterprise

Type of company/organisation: large enterprise

Contact Details

Email: anna.sumereder@boc-group.com and robert.woitsch@boc-group.com (Member of the Board, Head of Research)

Country: Austria

Web: <https://www.boc-group.com>

Experience

30 years of experience in national and international (e.g. EU-funded) research projects as both, partner and

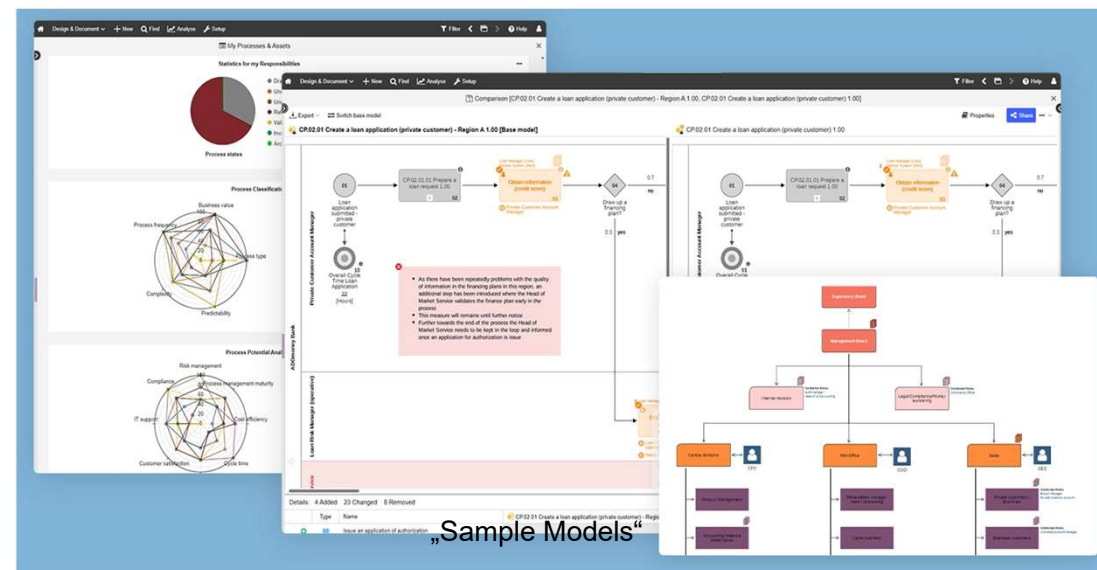
Key Figures

1.900+	customers
275.000+	users worldwide
12.000+	projects
350+	employees
located in	Athens, Berlin, Dublin, Madrid, Paris, Vienna, Warsaw and Winterthur
90+	partners around the globe
considered as	leader by Gartner and Forrester

Email: anna.sumereder@boc-group.com and robert.woitsch@boc-group.com

BOC Products & Services AG

BOC develops Modelling Software for „**Operational Excellence**“ supporting Business Process Management (**ADONIS**), „**Leverage Technology**“ supporting Enterprise Architecture Management (**ADOIT**) and „**Secure Business**“ supporting Governance Risks and Compliance Management (**ADOGRC**). The combination of **Meta-Modelling**, **Connectivity** and **AI** enables holistic and flexible digital twins for real-time decision support. Physical twins are used for experiments in laboratories.



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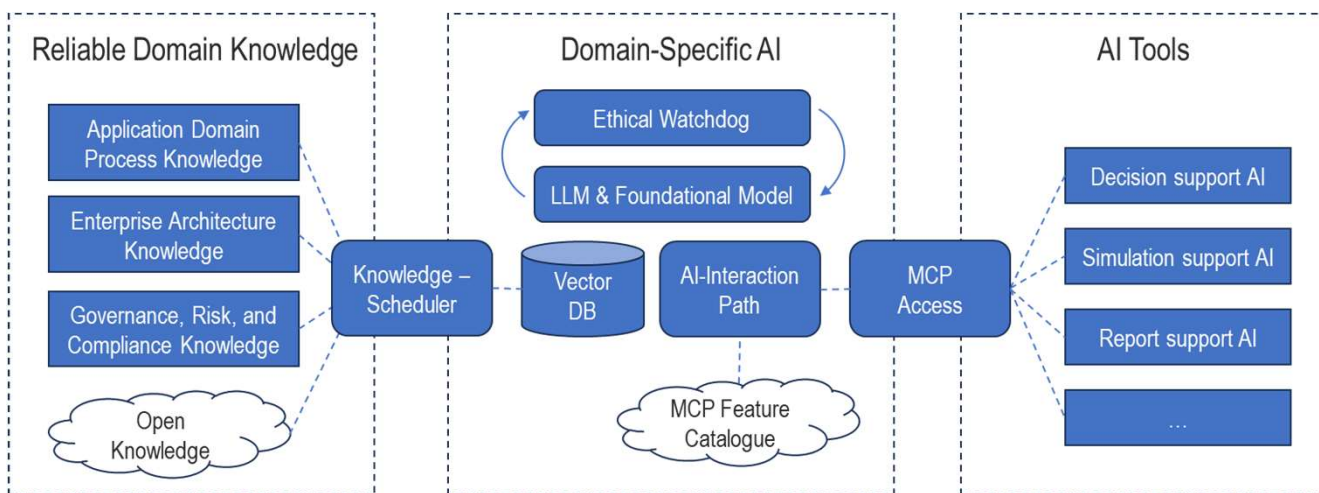
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BOC Products & Services AG

CL3 Interests & Ideas

“Application Scenario of Reliable AI”

“Realisation Concept of Reliable AI”



Research Project Overview <https://www.boc-group.com/en/research-and-innovation/>

CS-02	Apply FAIRWork results in form of „democratic AI“ to enable human interaction for decision makers and machine interaction for decentralised security agents. Hybrid AI uses „reliable EAM and GRC models“ as knowledge graphs (symbolic AI) in combination with security specific foundational models (non-symbolic AI) and optimized “AI-Interaction Paths” (agentic approaches) to provide advanced – digital and physical – twins for Operational CS.
CS-01, CS-03	Provide „reliable“ EAM and GRC models as knowledge graphs in combination with foundational models via “AI-Interaction Paths” to support continuous monitoring, compliance and automated remediation including legal and ethical aspects (FAIRWork , complAI).
DRS-01a	Provide „reliable“ BPM and GRC models as knowledge graphs in combination with foundational models via “AI-Interaction Paths” to support risk management and simulation-based scenario forecasting.
DRS-03	Provide a meta-model based connectivity framework (OLIVE) that is capable of flexibly combining different data points using connectors or workflows that are generated by AI according domain-specific knowledge graphs of those data points.
INFRA-01, INFRA-02	Provide „reliable“ GRC models as knowledge graphs in combination with foundational models via “AI-Interaction Paths” so support digital twinning. Use tabletop exercises and business process management to create, train and evaluate escalation processes.

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SEREN5 Pitch Presentation



***European Emergency Number
Association***

eena

EUROPEAN EMERGENCY NUMBER ASSOCIATION

**Annita Elissaiou
Destinations: DRS, SSRI
European Emergency Number
Association**



EUROPEAN EMERGENCY NUMBER ASSOCIATION



Type of company/organisation: NGO

Contact Details

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Telephone/Mobile: +32 2 5349789

Country: Belgium

Experience

Public Warning, 112 & NG112, Emergency Communications, Public Safety & Resilience, Technology for First Responders & Emergency Services, Artificial Intelligence



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EUROPEAN EMERGENCY NUMBER ASSOCIATION



Role in the Proposal: Partner

- ***EENA has a wide network comprising of emergency services, civil protection authorities, governmental bodies, decision-makers, solution providers & international organisations***
- ***Bridging public organisations with tech companies to develop innovative ideas that ensure effectiveness and operationalisation.***
- ***Vast repository of knowledge and expertise in key topics***



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EUROPEAN EMERGENCY NUMBER ASSOCIATION



Destinations and topics of interest:

- **HORIZON-CL3-2025-01-DRS-01:** Open topic on citizen and regional and/or local authorities' engagement in enhanced disaster risk awareness, including education, and preparedness
- **HORIZON-CL3-2025-01-DRS-02:** Open topic on Improving disaster risk management and governance to ensure self-sufficiency and sustainability of operations in support of enhanced resilience
- **HORIZON-CL3-2025-01-DRS-03:** Open topic on testing / validating tools, technologies and data used in cross-border prevention, preparedness and responses to climate extreme and geological events and chemical, biological or radiological emergency threats
- **HORIZON-CL3-2025-01-SSRI-01:** National Contact Points (NCPs) in the field of security and cybersecurity fostering the links with National Community building for Safe, Secure and Resilient Societies
- **HORIZON-CL3-2025-01-SSRI-02:** Uptake Acceleration Services
- **HORIZON-CL3-2025-01-SSRI-04:** Accelerating uptake through open proposals for advanced SME innovation
- **HORIZON-CL3-2025-01-SSRI-05:** Data repository for security research and innovation.
- **HORIZON-CL3-2025-01-INFRA-01:** Open topic for improved preparedness for, response to and recovery from large-scale disruptions of critical infrastructures
- **HORIZON-CL3-2025-01-INFRA-02:** Open topic for role of the human factor for the resilience of critical infrastructures



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EUROPEAN EMERGENCY NUMBER ASSOCIATION



What it is the problem/s you seek to address?

- How to ensure **effective & accessible emergency communications?**
- How to ensure **effective & reliable public warning for all?**
- How to integrate **new technologies to ensure preparedness and resilience?**

Our skills and expertise:

- A deep understanding and technical expertise about **public safety, 112, public warning, emergency communications, disaster and crisis management**
- A vast network of **experts, practitioners & end-users**



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Experience in EU R&I projects:

- **AWARE** – *Extending public warning beyond smartphones*
- **SUNSHINE** – *Mindset for the use of the EU Space Programme services*
- **ENGAGE** – *Citizen & community engagement for resilience*

EENA can:

- Lead **Communication & Dissemination activities** utilising its vast network and established communication channels.
- Involve members from our **community of experts and practitioners** for **stakeholder engagement, co-creation activities, user needs analysis**



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Key Take-Away Messages:

- *Our deep understanding and expertise in **emergency communications, 112, public warning, disaster management***
- *Our experience with **innovative projects driving change forward***
- *Significant contributions to **advocacy, standardization, key policy recommendations, knowledge & expertise exchange***
- *Community of **experts, practitioners, end-users***
- ***Commitment to the safety and security of EU citizens***



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SEREN5 Pitch Presentation



PSIM Architecture for Trustworthy and Reliable Artificial Intelligence

Alberto Carlevaro
Researcher
Aitek S.p.A.



Aitek

 **Aitek S.p.A.**

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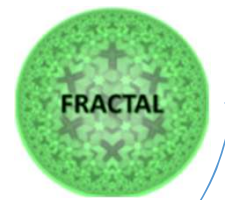
 www.aitek.it



Experience: electronic engineering, artificial intelligence, computer vision, telecommunication engineering, trustworthiness AI



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Role in the Proposal:
PARTNER

Use case leader



- Requirements elicitation WP leader.
- Lead the safety assessment.
- Technology provider to guarantee safe and reliable video analytics.



Fallen-person



Re-identification



Restricted-area



Terroristic attack



Among the expertises we have

- Technology provider to monitor driver behaviour.
- Multispectral cameras for sea security
- Describe the scene through LLMs.
- Correlation with external input for VRUs safety.



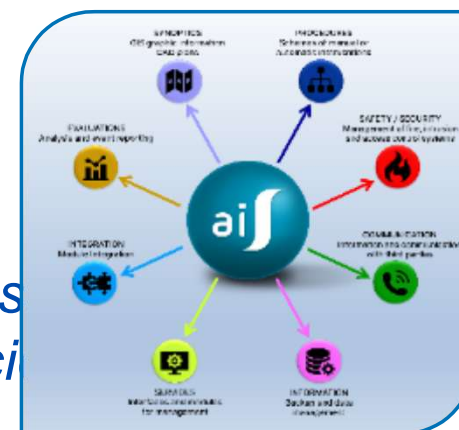
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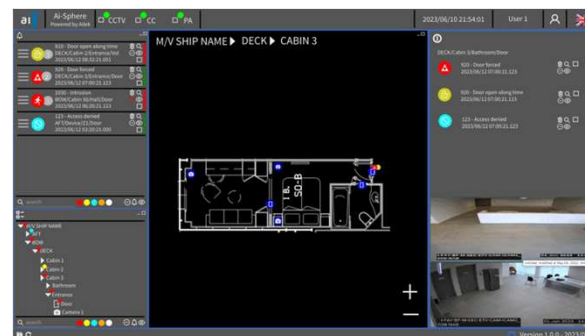
List the Destination/s and topic/s that are of your interest:

- HORIZON-CL3-2025-01-FCT-02: crime and terrorism
- HORIZON-CL3-2025-01-BM-01: external borders
- HORIZON-CL3-2025-01-INFRA-01: resilient infrastructures
- HORIZON-CL3-2025-01-DRS-01: disaster-resilient for soci



Outline your Project Idea:

Fused information center enhanced by AI modules
(AI-Sphere)



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What is the problem/s you seek to address?

Develop an aggregator able to manage and coordinate different and various technological modules ranging from telecommunication to AI systems in a reliable and trustworthy way. On top of such aggregator we will make use of personal algorithms (such as AI-enhanced computer vision) to address safety critical and relevant topics in the proposed calls.

What is the research/technology/expertise/skills you own to solve the problem.



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Thanks !

alberto.carlevaro@aitek.it



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SEREN5 Pitch Presentation



Autonomous Chemical Detection for security and safety applications

George Pallis, PhD FRSC
R&I Director
T4i engineering



T4i engineering



Type of company/organisation: SME

Contact Details

Email: g.pallis@t4ieng.com / EUproposals@t4ieng.com

Telephone: +30 210 9940383

Country: Greece

LinkedIn: www.linkedin.com/in/gpallis

Experience

CBRN, airborne chemical detection/identification/monitoring, UxVs, plume mapping, visualization, miniaturization, chemical hazards, forensics, forest fires



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European Union



Role in the Proposal: Partner

T4i can offer:

- *Advanced, autonomous chemical detection capabilities mounted on airborne or ground unmanned assets*
- *CBRN, toxics detection, identification and monitoring*
- *Automated, in-situ vapour sample collection*
- *Real-time plume mapping & visualization*
- *Seamless alarm and data transfer*
- *Advanced chemical data processing, AI capabilities*



Role: WP and/or task leader on technical and exploitation tasks



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Destinations and topics of interest:

- *HORIZON-CL3-2025-01-FCT-01*
- *HORIZON-CL3-2025-01-FCT-02*
- *HORIZON-CL3-2025-01-BM-02*
- *HORIZON-CL3-2025-01-BM-03*
- *HORIZON-CL3-2025-01-INFRA-01*
- *HORIZON-CL3-2025-01-DRS-01*
- *HORIZON-CL3-2025-01-DRS-02*
- *HORIZON-CL3-2025-01-DRS-03*
- *HORIZON-CL3-2025-01-DRS-04*



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Relevant EU projects



DRS



FCT



BM



INFR
A



EDF



DRS



FET



EDF



FCT



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T4i engineering



Relevant awards

Winner of the DG HOME Security Innovation Award 2023



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European Union

George Pallis, PhD MSc DIC FRSC
g.pallis@t4ieng.com / EUproposals@t4ieng.com



T4i engineering



If you are looking for an award-winning, experienced technology developer on advanced, autonomous chemical detection, identification and monitoring systems for Security, Safety and Defence applications,

please feel free to contact us.



George Pallis, PhD MSc DIC FRSC
g.pallis@t4ieng.com / EUproposals@t4ieng.com

SEREN5 Pitch Presentation



Secure Societies 2025: Horizon Europe Cluster 3 Info-day and Brokerage Event

Lt.Colonel İlker ÇETİN
Türkiye Gendarmerie Genaral
Command



Türkiye Gendarmerie General Command

Type of company/organisation: Public



Contact Details

Email: ilker.cetin@jandarma.gov.tr & abs@jandarma.gov.tr

Telephone/Mobile: +90 312 356 2275 / +90505 351 8190

Country: Türkiye

Experiance

Expertise and Interests



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Türkiye Gendarmerie General Command



The Gendarmerie of the Turkish Republic

- * is an armed general law enforcement organization which
- * maintains safety and public order and executes the duties ascribed to it by other laws and Presidential Decrees.



Türkiye Gendarmerie General Command

FCT-01: Open topic on modern information and forensic evidence analysis and on frontline policing'



- Evidences collected from the crime scenes are examined and analyzed at the forensic laboratories which have been established in order to enlighten forensic events by means of scientific methods.
- The Gendarmerie General Command has been a member of the “European Network of Forensic Science Institutes” since 1998.
- **Proposal:** Contribution can be made to the projects through competent forensic laboratories, expert personnel,
- Participation in EU funded Project activities on the subject has been ensured.
- **Role:** Project partner, End user.
- **Interested Calls:** FCT-01

Türkiye Gendarmerie General Command

FCT-02: Open topic on prevention, detection and deterrence of various forms of crime and terrorism through an enhanced understanding of the related societal issues



- In order to take part in anti-terrorist operations and significant public order incidents, Gendarmerie Commando and Gendarmerie Commando Special Operations Units consisting of Professional personnel entirely have been established
- **Proposal:** Contribution can be made to the projects through special purpose teams, units and expert personnel.
- Participation in EU funded Project activities on the subject has been ensured
- **Role:** Project partner, End user.
- **Interested Calls:** FCT-02



Türkiye Gendarmerie General Command

FCT-03: FCT-03: Open topic on improved intelligence picture and enhanced prevention, detection and deterrence of various forms of organised crime



- Department of Counter-Smuggling and Organized Crimes of the Gendarmerie General Command continues to fight against smuggling, financial crimes, narcotic crimes and money laundering.
- The latest developments regarding information systems, technical/optical /electronical devices and equipments are followed.
- More than (2.000) expert personnel are on duty.
- Proposal: Contribution can be made to the projects through high capacity for crime investigation and detection, specialized units, expert personnel.
- Participation in EU funded Project activities on the subject has been ensured
- **Role:** Project partner, End user.
- **Interested Calls:** FCT-03



Türkiye Gendarmerie General Command

Other Interested Calls:

CS-01

DRS-02

INFRA-01

CS-02

DRS-03

INFRA-02

CS-03

Thank you for your attention...



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SEREN5 Pitch Presentation



Offensive AI Security

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Cybercampus Sweden KTH Royal Institute of Technology



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Royal Hacking Lab

Search

Publications

Discovered vulnerabilities

Resources

Resource application

Supervised theses

75. L. Bergström and L. Linusson-Hahn, [Exploiting Vulnerabilities to Remotely Hijack Children's Smartwatches](#), 2024.
74. M. Siklosi and R. Kihlberg, [Security Analysis of Nedis SmartLife Video Doorbell](#), 2024.
73. F. Zuber, [Hacking the airport X-ray machine](#), 2024.
72. E. Wadell Ledin, [Security Evaluation of a High-assurance USB sanitation system](#), 2024.
71. F. Sannervik, [Beyond the Dashboard: Vulnerability analysis of the MG Marvel R In-Vehicle Infotainment System](#), 2024.
70. J. Öberg, [How safe is safe: Ethical hacking of Verisure's home alarm system](#), 2024.

Experience

LLM security, Vulnerability research, Cyber Threat Intelligence, Digital forensics, IoT, Open-source, CTF



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Cybercampus Sweden KTH Royal Institute of Technology



Role: Partner

Existing Collaborators:

- Research Institutions:
- Joint Research Groups:
- Swedish Cybersecurity Companies:

Our Contribution:

- Royal Hacking Lab (IoT Devices, GPU access, Fine-Tuned LLMs, 15+ Thesis Students)



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CYBERCAMPUS
SVERIGE



Cybercampus Sweden KTH Royal Institute of Technology



List the Destination/s and topic/s that are of your interest:

- HORIZON-CL3-2025-02-CS-ECCC-01: Generative AI for Cybersecurity applications
- HORIZON-CL3-2025-02-CS-ECCC-02: New advanced tools and processes for Operational Cybersecurity
- Open to FCT and INFRA

Outline your Project Idea:

- AI-powered Vulnerability Research
- AI-powered Cyber Threat Intelligence



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CYBERCAMPUS
SVERIGE



Cybercampus Sweden KTH Royal Institute of Technology



What it is the problem/s you seek to address?

Large-scale **AI-based** vulnerability discovery and exploitation are on the rise.

At the same time, identifying **intelligent attacks** is becoming increasingly difficult.

Current intelligence collection technologies are **easily fingerprinted**, which discourages attackers from interacting with them—leaving us blind to many threats.

What is the research/technology/expertise/skills you own to solve the problem.

Fine-tuning general-purpose models and developing agents for



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Outline any experience in EU R&I projects or other.

EnergyShield – where we discovered over 30 high-severity vulnerabilities, including several **zero-days**, and developed a vulnerability research methodology called **PatIoT** tailored for IoT devices.

Discuss the Team, any key player that will be working on the project

2 PhD students and a PI.



SEREN5 Pitch Presentation



Enhancing Border Security and Disaster Awareness through AI and XR Solutions

Selay Yüksel
International Projects Team Lead
MIA Teknoloji



Type of company/organisation: Private

Contact Details

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Telephone/Mobile: +90 535 387 43 42

Country: Türkiye

Experience

Artificial Intelligence, Extended Reality, Disaster Risk Management, Border Surveillance, Anomaly Detection, Decision Support Systems, Geospatial Intelligence.



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Role in the Proposal: B) Partner

B) In the case of Partner, MIA Teknoloji offers expertise in AI, XR, and GIS-based solutions for disaster preparedness, border surveillance, and first responder support. We bring strong capabilities in anomaly detection, decision support systems, and immersive XR training modules.

Our tools enhance situational awareness, citizen engagement, and interoperable crisis response platforms. With experience in EU projects and collaborations with public authorities, we add value in bridging technology with operational needs in security and civil protection.





List the Destination/s and topic/s that are of your interest:

HORIZON-CL3-2025-01-BM-01 and HORIZON-CL3-2025-01-DRS-01

Outline your Project Idea:

We aim to develop AI-driven decision-support systems and XR-based immersive tools to enhance situational awareness, preparedness, and real-time response in two critical areas:

- *Border surveillance across land, maritime, and aerial domains, using interoperable and mobile solutions*
- *Community-focused disaster preparedness, leveraging 3D digital twins, citizen engagement platforms, and predictive analytics*





What it is the problem/s you seek to address?

*For **BM-01**: Fragmented surveillance ecosystems, limited real-time decision-making capabilities, and lack of interoperable systems across border and coast guard agencies. For **DRS-01**: Low risk awareness at citizen level, inadequate digital preparedness tools for regional/local authorities, and insufficient dialogue between citizens, researchers, and decision-makers.*

What is the research/technology/expertise/skills you own to solve the problem.

AI-based Anomaly Detection and Predictive Modeling for surveillance and risk forecasting, XR-based Training and Simulation Environments for border agents and civil protection staff, Mobile Decision-Support Systems and geospatial interfaces for first responders.





Outline any experience in EU R&I projects or other.

TUCSAP (2025, World Bank) – System analysis and integration for agriculture digital platforms, NATO NCIA SSSB (2024) – Technology provider for Link 22 communications in air/sea defense, AISECTRANS (2024, ADB) – AI for transport security and behavior analysis, IWISH (2022, ITEA) – AI for clinical workflows and user experience, ASSURE-ID (2017, Eurostars) – AI-based identity verification and biometrics

Discuss the Team, any key player that will be working on the project

SIMAVI, IDENER, Romanian/ Turkish/ Spanish/ Finnish Coast Guards, Portuguese/ Romanian/ Austrian Civil Protection Agencies.



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Conclusion and Key Take Aways Messages, if any...

MIA Teknoloji is positioned as a dual-use deep-tech partner, offering scalable, secure, and user-centric solutions that respond to EU civil security priorities.

We aim to bridge the gap between operational needs and technology innovation, while promoting societal resilience and cross-border collaboration. We are looking to build and join a consortia that value impactful, interoperable, and field-tested technologies.

Insert any KEYWORDS in relation to your Activities and Expertise

Artificial Intelligence, Extended Reality, Disaster Preparedness, Border Surveillance, Anomaly Detection, Decision Support Systems, Geospatial Intelligence, First Responder Technologies, Citizen Engagement, Digital Twins, Cybersecurity

