

NOTIONES MATCHMAKING

HIGHLIGHT the benefits of your AI based solutions and services, share your requirements and needs for smart and predictive policing, and FIND your partner!



15.09.2023



10:00 AM CET



Host: SYNYO GmbH



Estonian Police and Border Guard Board



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.

Agenda



Time	Topic	Presenter
10:00 - 10:05	Introduction to the webinar and expected results	Alexander Nikolov SYNYO GmbH, Austria
10:05 - 10:10	NOTIONES project	Alexander Nikolov SYNYO GmbH, Austria
10:10 - 10:25	popAI project	
	Project presentation	Dimitrios Kyrizanos Senior Researcher - Head of Integrated Systems Laboratory at DEMOKRITOS, Greece
	Social Sensing on AI & Security	Anastasios Drosou Researcher C' at CERTH, Greece
	PopAI Ethical concerns/findings	Pinelopi Troullinou Senior Researcher at Trilateral Research, UK
10:25 - 10:40	ETAPAS project	
	Project presentation	Leonardo Cherubini Ministry of Economy and Finance, Italy
	Responsible Disruptive Technologies' indicators framework	Sara Manchini Senior Manager at Intellera Consulting, Italy
	Knowledge extraction & misinformation handling application based on AI	Maria Tsourma Research Assistant at CERTH, Greece
10:40 - 10:45	INNOV	Anastasios Pantazidis, John Soldatos INNOV-ACTS Limited, Cyprus
10:45 - 10:50	HELVIA	Stavros Vassos CEO, Greece
10:50 - 10:55	Zetta Cloud	George Bara Founder, Zetta Cloud, Romania

Agenda

Time	Topic	Presenter
10:55 - 11:00	Expert.ai	Gianluca Sensidoni Sales & Bid Manager / Expert.ai, Italy
11:00 - 11:05	Computer Vision and AI	Kostis Konstantoudakis Post-doctoral researcher / CERTH, Greece
11:05 - 11:10	Norsecon	Arne Norlander, PhD CEO - Founder / Norsecon AB, Sweden
11:10 - 11:15	Valencia Local Police	José L. Diego Head of Innovation and Project Management Division, Spain
11:15 - 11:20	Hybrid Core	Hasan Suzen CEO / Hybrid Core; Belgium
11:20 - 11:25	ODYSSEUS project	Graham Kissock Police Service of Northern Ireland (PSNI, LEA within UK)
11:25 - 11:30	Gradiant	Pablo Dago Casas Head of Identity & Forensics / Gradiant, Spain
11:30 - 11:35	IntSen² Project	Pablo Vega iTRAC, Spain
11:35 - 11:40	Data Fusion Platform	Dr. Dirk Kolb CEO/ Traversals Analytics & Intelligence, Germany
11:40 - 11:45	Gerulata	Martin Brezina Senior Analyst, Slovakia
11:45 - 11:50	Ethical AI for Law Enforcement	Joshua Hughes Research Manager –Cluster Lead / Trilateral Research, Ireland
11:50 - 12:00	Final remarks	Alexander Nikolov SYNYO GmbH, Austria

HOUSEKEEPING RULES



The session will be **entirely recorded** and published on the NOTIONES project website.



All participants except speakers and moderators will be **muted by default**.



Feel free to post your questions in the **chat**.



If you would like to **speak, raise your hand** and wait for the moderator to give you the floor.



PROJECT OVERVIEW

Acronym:	NOTIONES
Title:	iNteracting netwOrk of inTelligence and securIty practitiOners with iNdustry and acadEmia actorS
Duration:	01.09.2021 – 31.08.2026
Topic:	SU-GM01-2020
Call:	Pan-European networks of practitioners & other actors in the field of security
Funding:	H2020
Type:	Coordination and Support Action (CSA)
GA Number:	101021853
Coordinator:	Fundacion Tecnalia Research & Innovation
Consortium:	30 Partners
Website:	www.notiones.eu
Cordis:	CORDIS Project Profile

OVERVIEW



CONSORTIUM



Fundacion Tecnalia
Research and Innovation (TECNALIA)

Spain



Agenzia Per La Promozione
Della Ricerca Europea (APRE)

Italy



Masovian Police (KWPR)

Poland



Beyond the Horizon International
Strategic Studies Group (BtH)

Belgium



Ministry Of Internal Affairs (MIA)

Georgia

NOTIONES



Zanasi & Partners (Z&P)

Italy



Teknologian Tutkimuskeskus
Vtt OY (VTT)

Finland



DURZHAVNA AGENTSIYA
NATSIONALNA SIGURNOST (DANS)

Bulgaria



International Security and Emergency
Management Institute (ISEM)

Slovakia



Keeping People Safe

Police Service of Northern Ireland (PSNI)

Ireland



Laura-Ammattikorkeakoulu (LAU)

Finland



Expert System SPA
(EXPSYS)

Italy



Institut Po Otrbana (BDI)

Bulgaria



SAHER (SAHER)

Estonia



Defence Research Institute (DRI)

France



MarketScope

Denmark



Intelligence Culture and Strategic
Analysis (ICSA)

Italy



TECOMS SRL (TECOMS)

Italy



LESO LEONARDO (LL)

Italy



Kharkiv National University of
Internal Affairs (KhNUIA)

Ukraine



HOCHSCHULE FÜR DEN
ÖFFENTLICHEN DIENST IN BAYERN (HföD)

Germany



Bar-Ilan University (BIU)

Israel



SYNYO GmbH

Austria



Financial Intelligence
Unit

Financial Intelligence Unit
Latvia (FIU)

Latvia



Estonian Police and Border Guard Board

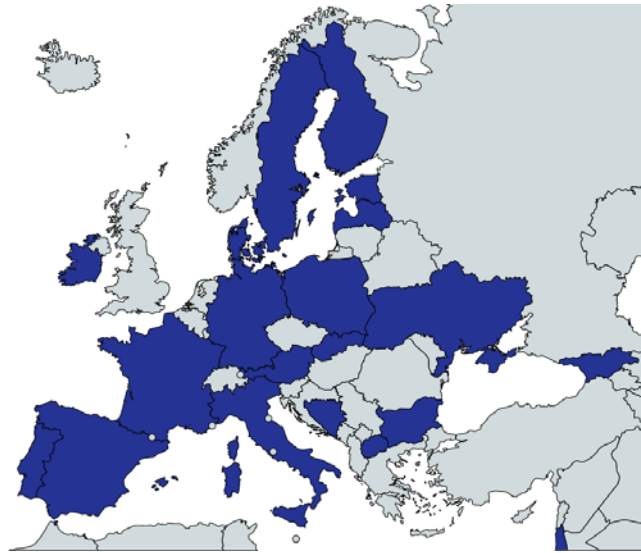
Politsei- ja Piirivalveamet

Estonia



Ertzaintza (ERTZ)

Spain



POLISMYNDIGHETEN
SWEDISH POLICE AUTHORITY (SPA)

Sweden



Ministério da Justiça (PJ)

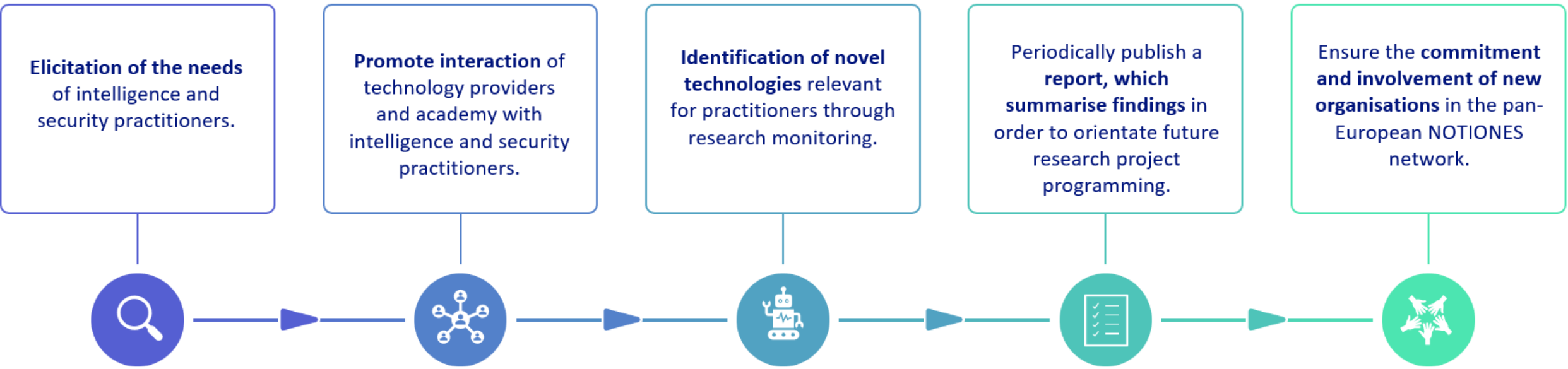
Portugal

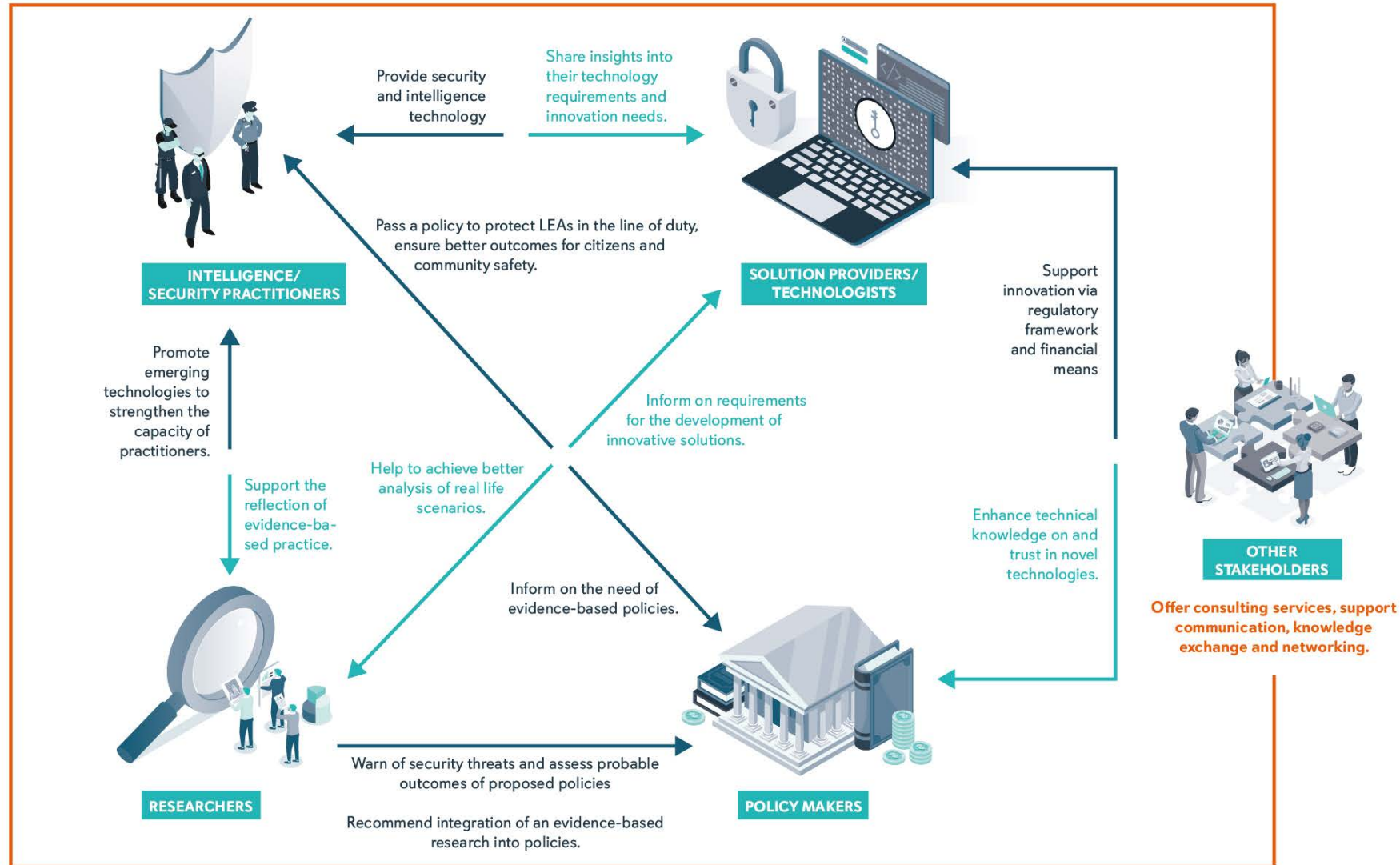


Military Academy Skopje (MAGMA)

North Macedonia

KEY OBJECTIVES





NOTIONES

SUSANNE'S WORK HAS THE FOLLOWING LIMITATION

The language used at online platforms changes fast, which has to be handled by the system somehow.

The quality of the text is very important for language modeling. For example, multilingualism and speech-to-text transformations are currently a challenge.

The "human in the loop" in the development and training of AI systems.

SUSANNE IS LOOKING FOR A SOLUTION WHICH

- creates the possibility to store sensitive or confidential data via Edge AI
- enables security and encryption improvements for existing technologies and solutions
- can collect intel and monitor platforms to combat terrorism

SUSANNE IS USING A SOLUTION

- to secure data sharing and dissemination
- for data storage optimization
- for technological data sanitation

Susanne Huber
43/Female
Germany

Susanne works as an innovation manager at a company, which is specialised in the development of AI-based solutions for social media surveillance. Working in this fast-paced sector, she needs to constantly keep innovating in order to stay ahead of the competition.

She must understand what technology solutions are needed in the security sector and how they can be developed accordingly.

NOTIONES

CARLA HAS THE FOLLOWING LIMITATIONS

As a researcher she has only limited access to the practitioners' requirements and can therefore barely realize new solutions tailored to intelligence and security activities.

She is completely dependent on cooperation with technology developers and practitioners.

CARLA IS LOOKING FOR A SOLUTION WHICH

- can identify threats to national security;
- can identify persons behind the anonymous profiles who participate in or direct darknet activities
- can help her prevent and deter organized crime relating to child pornography

CARLA IS USING A SOLUTION

- to collect information about common strategies for illegal activities taking place on the darknet
- to gain an overview of relevant practitioners involved in the field
- to research the state of the art of Artificial Intelligence algorithms and tools at the service of the Intelligence and Security practitioners

Carla Luterotti
29/Female
Italy

Carla works on security-related projects at her university in Bologna. As a project manager she tries to identify possible capability gaps of LEAs and connect them with technologists who develop solutions for them.

Her primary goal is to enhance organisational understanding of current schemes and directions of research and innovation as well as to establish opportunities for bi-lateral cooperation on security-related topics.

NOTIONES

JOHAN'S WORK HAS THE FOLLOWING LIMITATIONS

While modern imagery offers great possibilities to detect and identify all kinds of targets, specific knowledge is still required to select the appropriate data source, be able to collect and process the data, or even be aware of the technology's capabilities and limitations. However, there exists a lack of awareness and capabilities in these regards.

JOHAN IS LOOKING FOR A SOLUTION WHICH

- allows it to combine new technology for aerial imagery with the military's existing strategic software and
- can find and adapt advanced artificial intelligence-based computation suitable for use in the field

JOHAN IS USING SOLUTIONS WHICH

- collect intelligence and monitor platforms to detect and prevent organized crime.
- secure data sharing and dissemination (internally and externally) and
- applies Image and Signal based intelligence (IMINT and SIGINT).

Johan Smith
36/Male
UK

Johan Smith is a 36-year-old security practitioner at the armed forces in the UK. His unit is responsible for reconnaissance and surveillance. Therefore, he is constantly faced with the challenge of finding and using the latest technologies that give him a strategic advantage in the field.

His main goal is to explore the most important advancements in the technology sector when it comes to aerial imagery possibilities. Especially in connection with AI support, the most modern developments are taking place here, which are of great importance for his field.

NOTIONES

KRISTOFFER HAS THE FOLLOWING LIMITATIONS

Even though a lot of threats are spread through online media, Kristoffer is not able to search the world wide web for potential threats on his own.

More training is required to educate employees on online safety.

Multiple pieces of software are used at once, which often generates certain limitations during the exchange of information.

KRISTOFFER IS LOOKING FOR A SOLUTION TO

- counter potential terrorist threats via social media,
- increase communication with the intelligence services for better identification of potential threats and
- communicate the needs of his government to the security practitioners.

KRISTOFFER IS USING A SOLUTIONS FOR

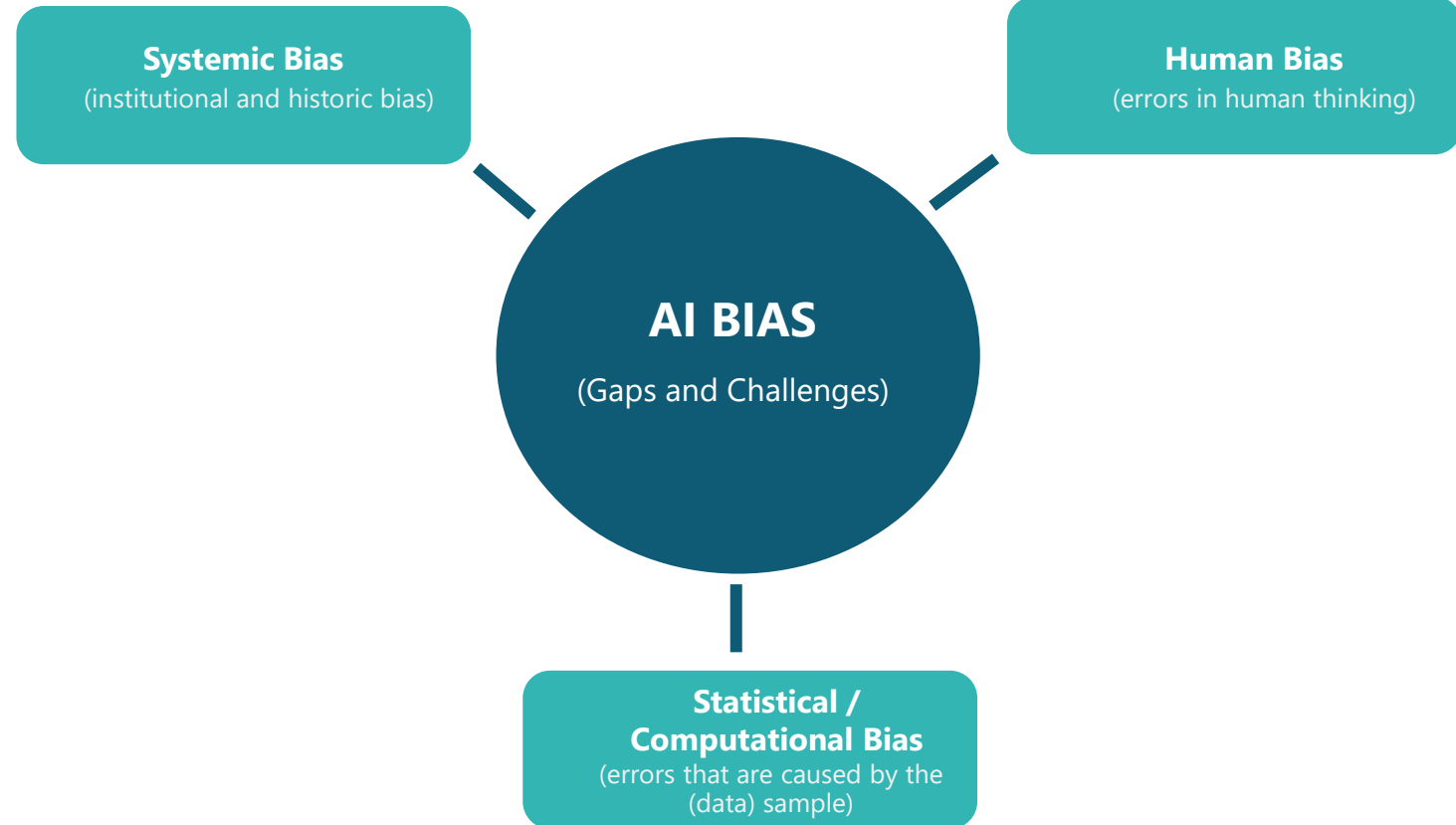
- data enrichment from external databases and
- decision management.

Kristoffer Martin
55/Male
Sweden

Kristoffer is a government official in Stockholm, who is responsible for the analysis, elaboration and preparation of security concepts at the country level.

As a policy maker, it is his job to identify vulnerabilities in national security and support the armed forces with modern solutions.

AI BIAS IN LEAs DECISION MAKING



Thank you for your attention!
Contact us, get involved, stay updated:



office@notiones.eu



www.notiones.eu

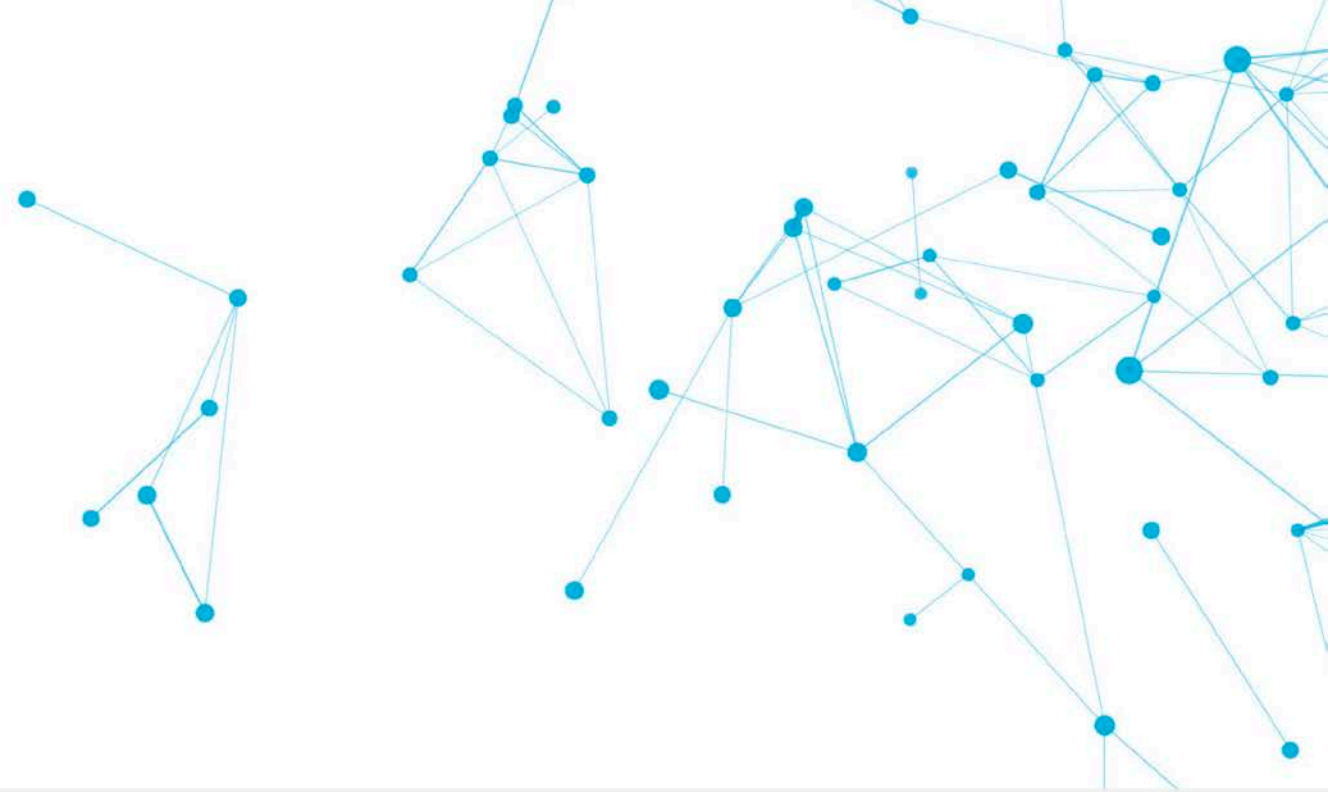
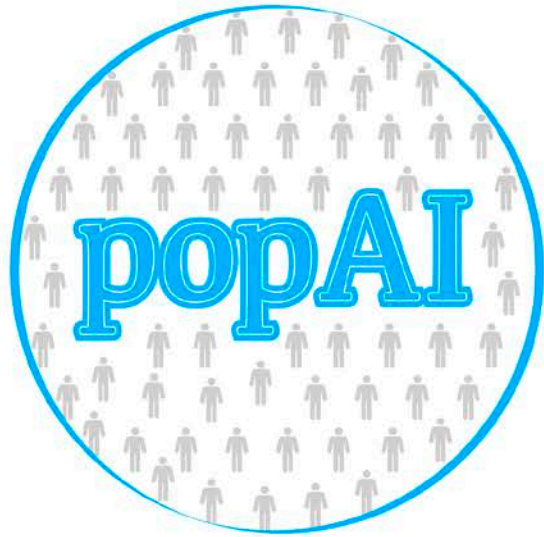


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[NOTIONES](https://www.linkedin.com/company/notiones)





popAI: A European Positive Sum Approach towards AI tools in support of Law Enforcement and safeguarding privacy and fundamental rights

Overview presentation



DEMOKRITOS

Dimitris Kyriazanos, popAI Project Coordinator

Senior Researcher - Head of Integrated Systems Laboratory

Institute of Informatics & Telecommunications

National Centre for Scientific Research "Demokritos" (Greece)

dkyri@iit.demokritos.gr

popAI in a nutshell

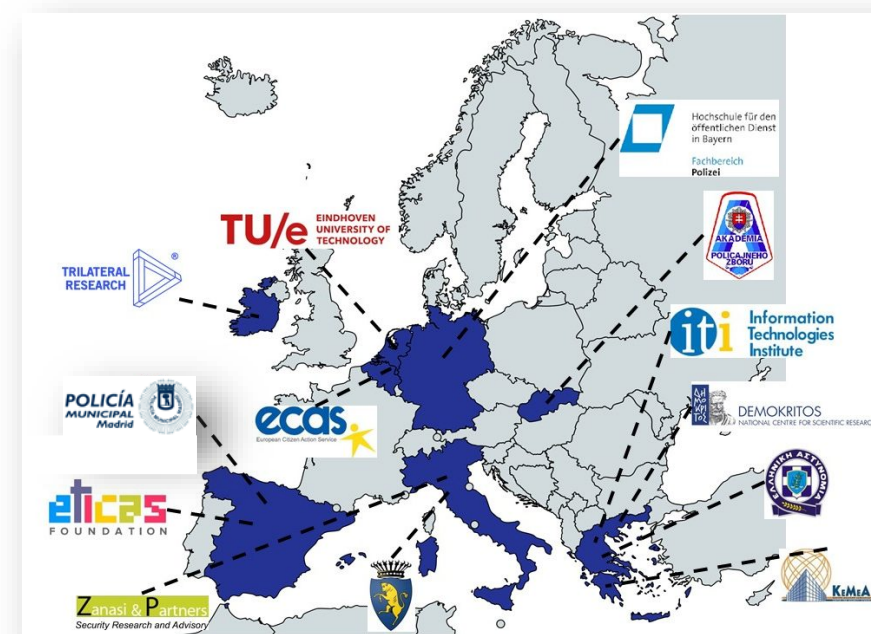
Start date: 1 October 2021

End date: 30 September 2023

Total cost = EU Contribution:
€ 1 599 617,50



Main objective	Main results
<p>popAI is a 24 month Coordination and Support Action, bringing together security practitioners, AI scientists, ethics and privacy researchers, civil society organisations as well as social Sciences and humanities experts</p> <p>..aiming to boost trust in AI by increasing awareness and current social engagement, consolidating distinct spheres of knowledge, and delivering a unified European view and recommendations, creating an ecosystem and the structural basis for a sustainable and inclusive European AI hub for LEA</p> <p>SU-AI Cluster</p>	<p>popAI Methodology: Analysis of theoretical legal, ethical, social and technical framework related to the use of AI tools in the security domain</p> <p>Empirical Research on the AI tools in the security domain, raising awareness, societal acceptance and ethics engaging an inclusive EU AI ecosystem</p> <p>Leading to results: Pandect of recommendations and Roadmap for the ethical use of AI for Law Enforcement Authorities (LEAs)</p> <p>A practical ethics toolbox for assessing use of AI in Civil Security and holistic AI taxonomy including functionalities, controversies and social acceptance, organisational and legal aspects</p>



<https://www.pop-ai.eu/>



popAI is funded by the Horizon 2020 Framework Programme of the European Union for Research and Innovation. GA number: 101022001

popAI methodology overview (i)



HUMAN-CENTRED, SOCIALLY-DRIVEN, ETHICAL & SECURE-BY DESIGN AI SYSTEMS IN THE SECURITY DOMAIN

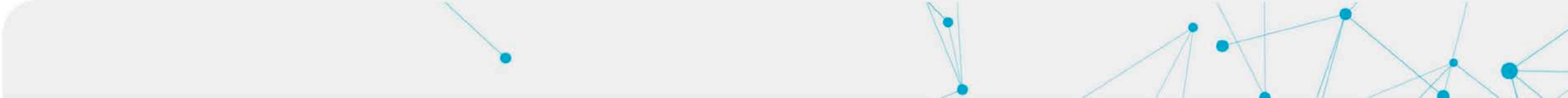
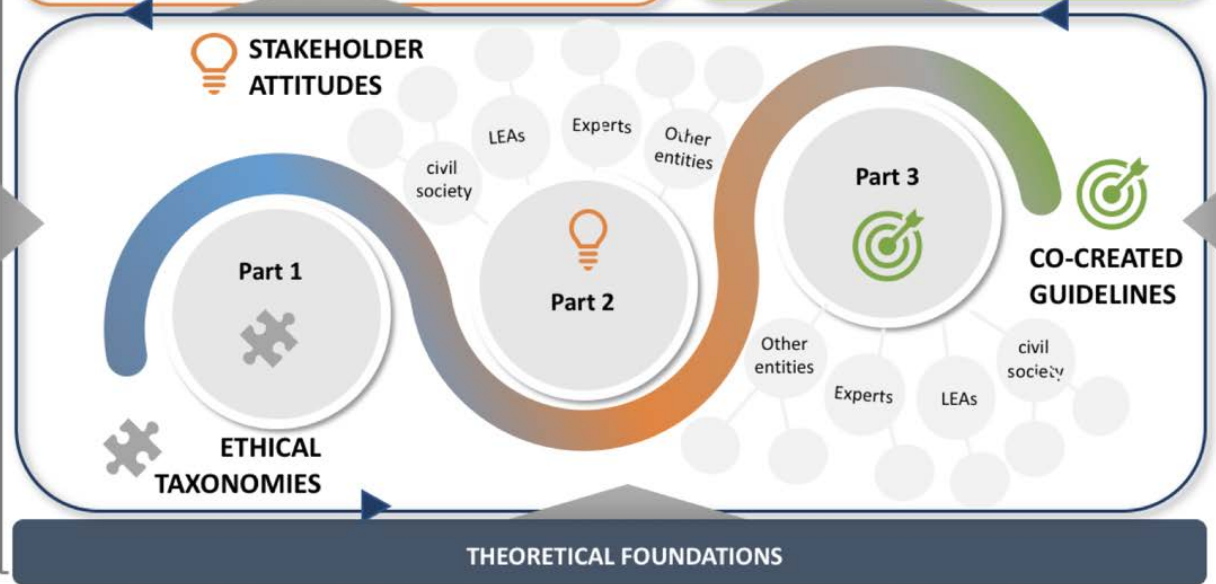
- (a) Recommendations and approaches for a range of diverse stakeholder segments (LEAs, policy makers, civil society, etc.) to:
 - overcome concerns in AI usage in support of Law Enforcement,
 - stimulate trust and acceptance of AI by civil society & Law Enforcement
- (b) Clustering activities, cross-disciplinary networking via the pop AI ecosystem and platform

- (a) Co-created Guidelines
- (b) Compliance and certification guidelines for the implementation of ethical-and legal-by-design AI
- (c) Roadmap 2040
- (d) Policy Briefs
- (e) Compliance and certification Roadmap
- (f) A European AI Hub for the security domain

TRANSDISCIPLINARY RESEARCH
 Hybrid sphere of knowledge (Science & Practice)

- Ethical
- Legal
- Societal
- Socio-Economic
- Gender-related
- Organisational
- Cultural

- SECURITY DOMAIN**
- Cybersecurity
 - Fight against crime
 - Cybercrime
 - Terrorism



popAI methodology overview (ii)



Mode of Engagement

Type of Stakeholder

	PASSIVE	ACTIVE	PRO-ACTIVE
Civil Society			
General Public	Controversy Identification Social Listening & Social Media Analysis	Crowdsourcing Phase 1	Crowdsourcing Phase 2
Vulnerable Groups	Social Listening & Social Media Analysis	Interviews with Experts in Vulnerable groups	
New Citizens	Social Listening & Social Media Analysis	Student Photo and Caption Competition	Foresight Scenarios
Experts		Policy Labs	Foresight Scenarios
LEAs		Policy Labs	Foresight Scenarios

Key popAI results & road ahead



THE ETHICS TOOLBOX

A set of tools (technology briefs, interactive taxonomies, educational videos) to help LEAs, researchers, policymakers and citizens interested in AI ethics and Law enforcement to:

- navigate the field of AI ethics;
- raise awareness on AI ethics in law enforcement;
- take decisions on policies, organisational strategies, research priorities and training.



THE PANDECT OF RECOMMENDATIONS

- A collection of AI policy recommendations and multi-disciplinary best practices
- Taking into account and targeting AI Act developments
- Group-specific recommendations (policy-makers and LEAs; civil society; AI technology developers)



THE EUROPEAN AI HUB

The blueprint for an EU AI Hub for LEAs supporting the ethical use of AI in policing, including:

- An inclusive network of stakeholders involved in AI in civil security
- An innovative suite of tools and functions to support responsible use of AI
- Aim: raise awareness, capability building and enhance trust and citizens' perception of AI in civil security

Thank You!

Project Coordinator
Dr Dimitris Kyriazanos

dkyri@iit.demokritos.gr

National Centre for Scientific Research "Demokritos" (Greece)





Questions & Answers

Social Sensing on AI & Security

Presenter: Anastasios Drosou

Researcher Grade C', CERTH-ITI, Greece

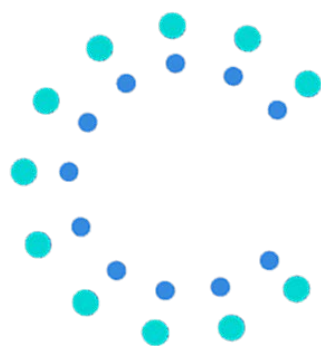
drosou@iti.gr



Estonian Police and Border Guard Board



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



Center for Research & Technology Hellas (CERTH)



- **Founded in 2000** and is one of the leading R&D centers in Greece
- Includes five (5) institutes:
 - Chemical Process & Energy Resources Institute (CPERI)
 - **Information Technologies Institute (ITI)**
 - Hellenic Institute of Transport (HIT)
 - Institute of Applied Bioscience (INAB)
 - Institute of Bio-Economy and Agri-Technology (IBO)

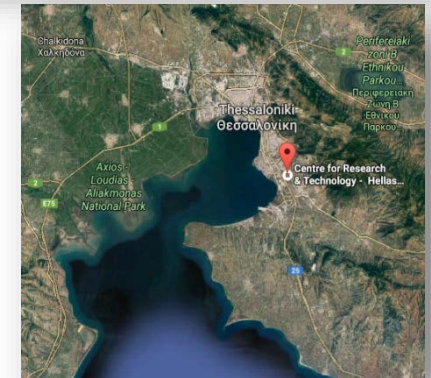
>800 employees

>1500 research projects

>1500 international partners

Annual financing ~ € 30M:

- 30% industrial research contracts
- 60% research projects
- 10% government institutional funding



Listed among **TOP-20 E.U. institutions** with the highest participation in competitive research grants

Information Technologies Institute (ITI)



- Founded in 1998 as a non-profit organisation
- Part of CERTH since 2000 , **~400 employees**
 - **11 Senior Researchers, 80 Post docs, 80 MSc, 230 Assoc. Researchers** (mainly Electrical and Computer Engineers and Computer Scientists)
- Leading Institution of Greece in the fields of Informatics, Telematics and Telecommunications, etc.
- Project record (> 500):
 - **>200 Horizon2020** EC co-funded Research Projects
 - **>100 Research/Innovate** National R&D Projects
 - > 120 Consulting subcontracts with the Private Sector (Industry)
 - Around 10 M€ funding per year during the last 3 years
- Publication record (2013-2019):
 - >250 journals; >650 conferences; >60 books and book chapters; **>14.000 citations**



1st in Greece for **the last 7 consecutive years** in the participation in competitive research grants (FP7, H2020)

Introduction

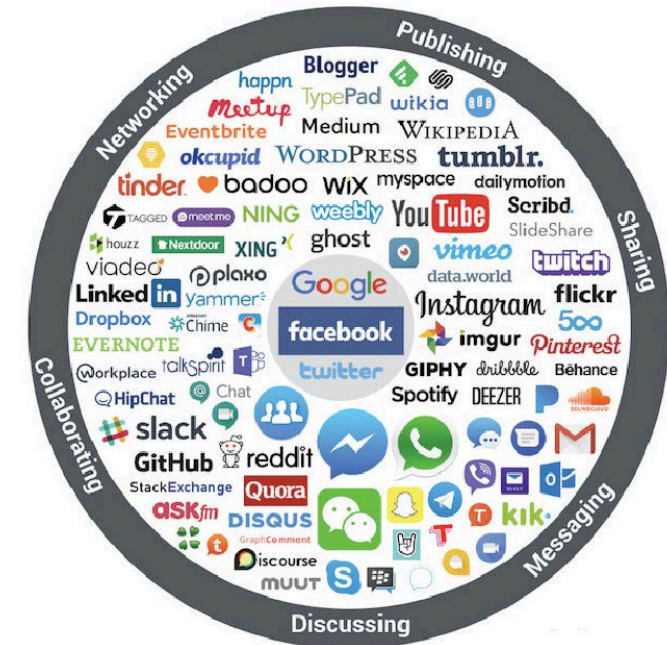
- Social media are used daily by users, posting information not only about their preferences, but also about their concerns on technological topics such as Artificial Intelligence (AI)

Rationale:

- Investigate the perspectives of European citizens toward **understanding the challenges of building trust in AI**
- **Promote trust in AI** by raising awareness & engaging with society

Challenges:

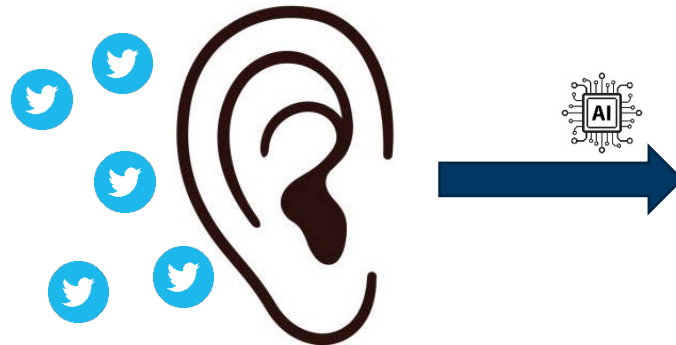
- **Understand European citizens' opinions, behavior & emotions towards the use of AI tools in law enforcement** and privacy protection
- **Identify the core issues and develop targeted solutions** that support the idea of trusting AI tools in Law Enforcement, while also safeguarding privacy & fundamental rights
- **Consolidate diverse knowledge domains, & create a unified European perspective and recommendations**



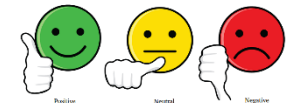
Social media landscape

Approach

- **Scope:** Perform Passive **Social Listening** through Location-Based analysis to:
 - **uncover the areas in Europe that are mostly engaged/active on posting AI** related information in social media platforms
 - sense public opinion, in order to **identify the European areas that are reluctant to adopt AI technologies**
- **Data sources:** social media platforms (i.e., Twitter)
- **Data collection method:** keyword-based search related to AI tools in Law Enforcement and the protection of privacy and fundamental rights



- Extraction of the **public sense** on the collected information
- Extraction of **location-based information & analysis of the engagement** of each region into the topic

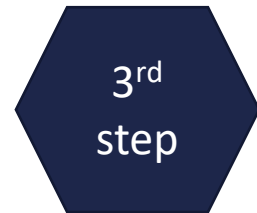




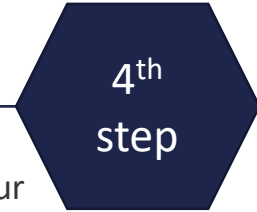
Data Collection
Data collection from social media platforms (e.g. Twitter) using a set of keywords focusing on the use of AI tools in law enforcement



NLP-Based Data Pre-Processing
Data pre-processing using natural language processing techniques incl. Named Entity Recognition for the identification of entities of interest



Machine Learning (ML) approaches for information extraction
ML techniques was performed for understanding the sentiment towards the use of AI tools, as well as the level of awareness of EU citizens on the issue

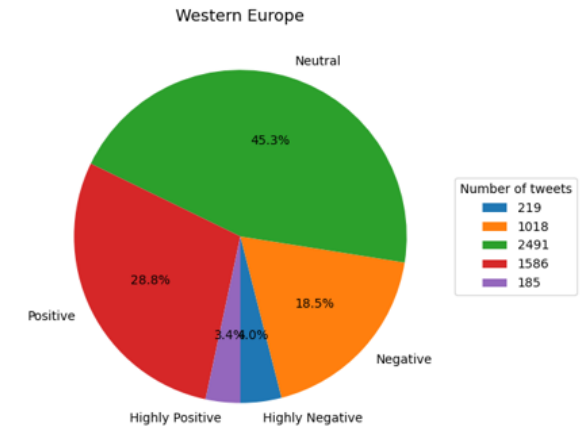
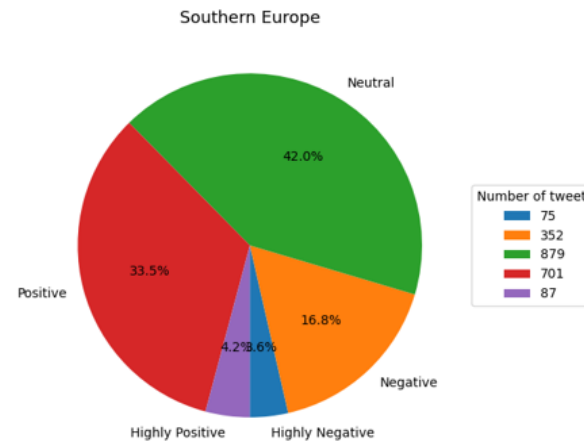
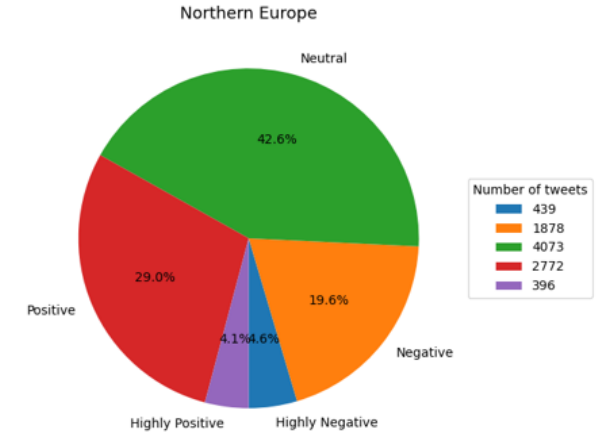
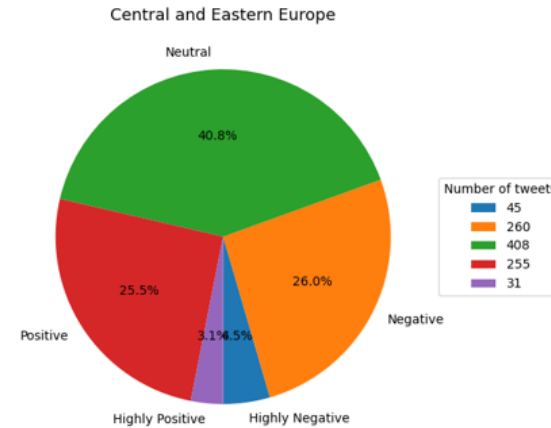


Geographical analysis of sentiment & awareness
Extraction of the origin of each tweet based on the identified Geopolitical entities & allocation of the filtered information into four distinct European regions

Social sensing analysis - Results



- **43.3%** of the total population presented a **mixed impression (neutral)** of the role of AI in security
- **Central-Eastern & Southern Europe** are having a low number of tweets posted in total, & high percentage of neutral sentiment, **indicating a need for education on the topic**
- **Southern Europe** has a **greater percentage** of positive impression towards the use of AI in law enforcements and security
- **Northern Europe** has a significant number of tweets posted from the other regions & **presented relatively smaller differences between the sentiments expressed**
 - indicating that **controversies on the topic were highly amplified in that region**
- **Western Europe seems to be a slow adopter of AI**, according to the numbers of tweets posted & on the high neutral sentiment extracted



Outcomes & lessons learnt

- The most considerable portion of people had a neutral opinion of AI in security systems emphasized the **need of increasing the interest of people on the subject**
- Additional **focus on the benefits of AI tools** to illustrate their effectiveness should be provided
- The opinions on AI tools vary across **different European regions**, & are likely **influenced by differences in area's technological literacy**.
- The slow adoption of AI in Western Europe may impact its future competitiveness, despite the stimulus provided to AI adoption during the COVID-19 pandemic
- As a recommendation, **targeted education and awareness campaigns are suggested** to increase understanding and promote the benefits of AI tools in regions with low engagement and lower technological literacy



Questions & Answers



popAI: mapping controversy ecosystems of AI tools in the security domain to identify, analyse, and address ethical, societal, and legal concerns



Pinelopi Troullinou, PhD
Senior Research Analyst | Trilateral Research, IE
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Estonian Police and Border Guard Board



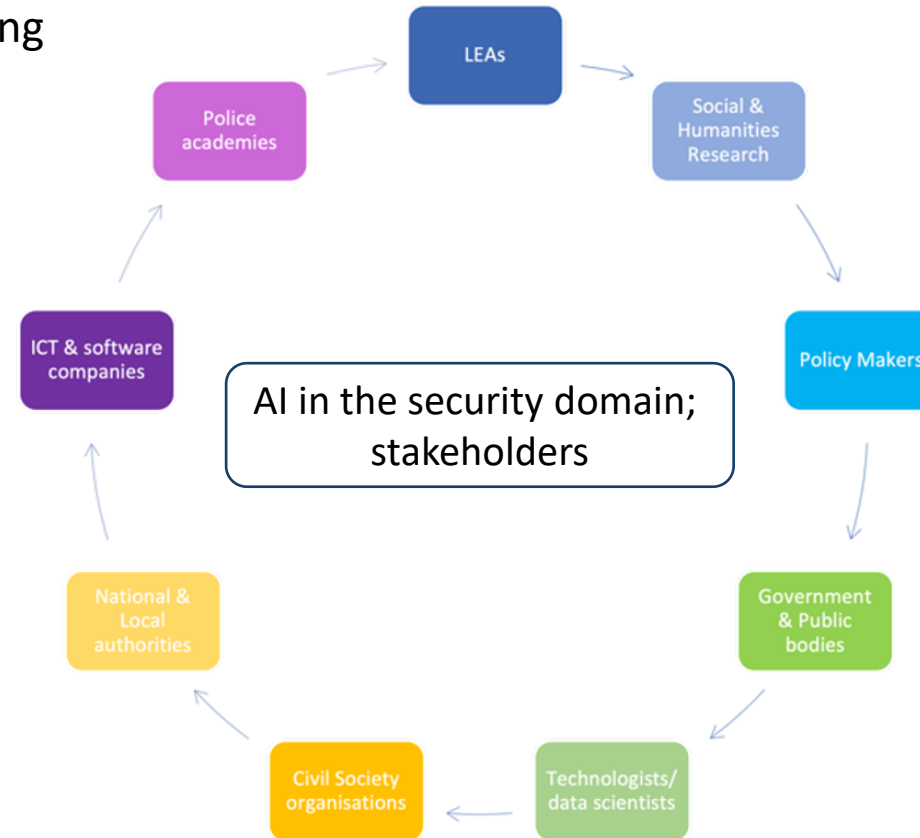
Polisen
Swedish Police



Map of AI in policing innovation ecosystem and stakeholders

Mapping around the controversial AI systems: identification of the related potentials, concerns, and the involved stakeholders

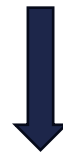
- Identification of controversies in diverse policing contexts such as crime prevention, crime investigation, etc.
- Mapping of stakeholders
 - *Underrepresentation* of stakeholders (categories and geographical) in EU funded research on AI in the security context
- Regulation frameworks and policy documents including directives, reports, and plans charting



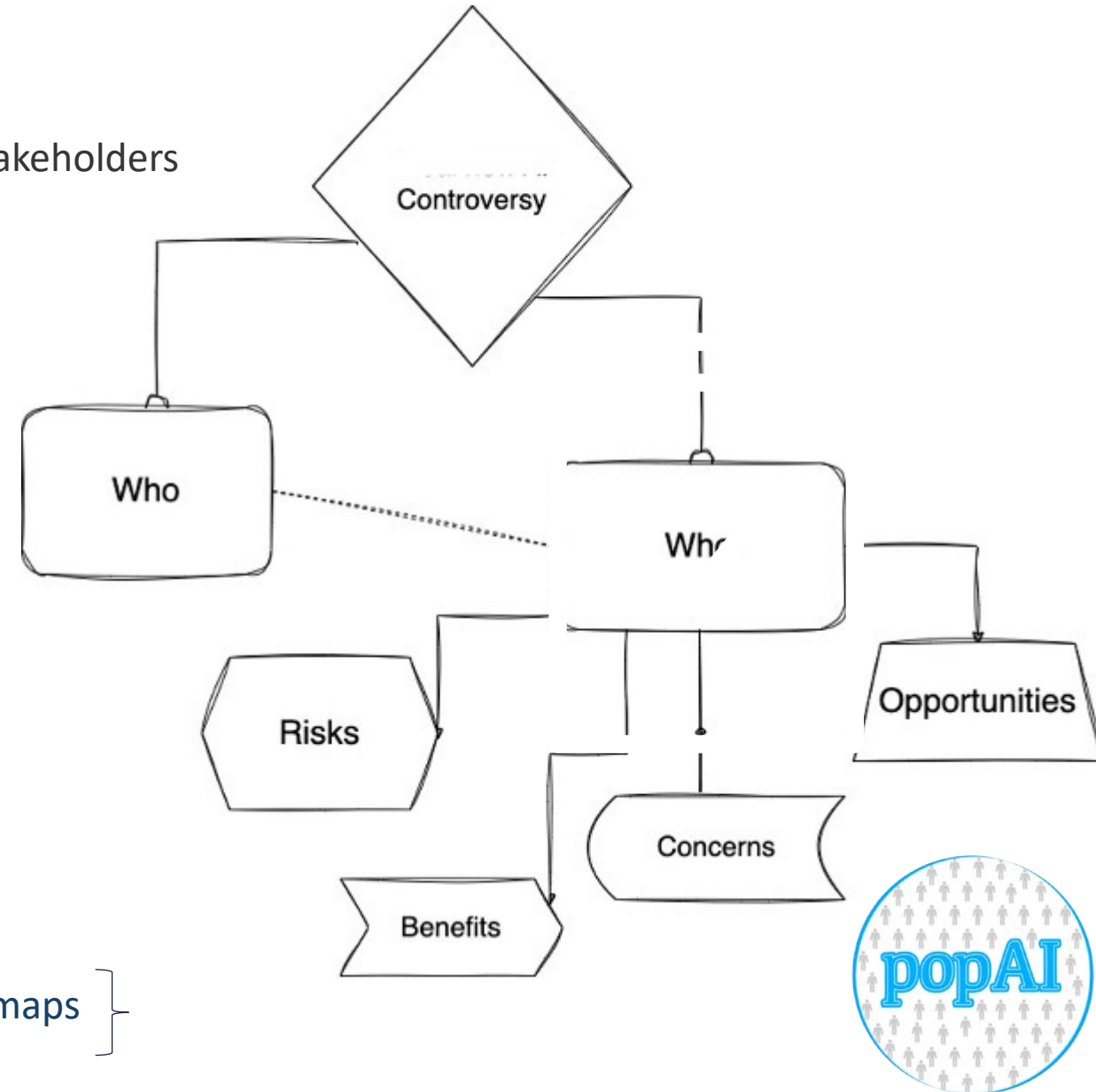
Deconstruction

Unpackng the controversy

- Design of methods to include and understand diverse stakeholders (i.e., computational methods, policy labs)
- Key controversial technologies
- Main concerns (ethical, societal, legal)
- Needs which technologies aim/is expected to address
- Benefits/opportunities
- Legal framework



{ Foresight scenarios to inform popAI roadmaps }



Foresight scenarios to inform popAI roadmaps

Imagining the future

Title	Focal issue	Envisaged Technology	Drivers	Importance	Uncertainties
Past will always define future.	Use of diverse databases and AI-powered technology for predictive policing	AI algorithms, combined datasets, AI-powered surveillance systems, drones, sensors, social scoring	Advanced AI systems, interoperability, LEAs' desire for effective prediction, AI Act, mass surveillance	Predictive policing assisted by AI-powered technology, increasingly advanced technology, mass surveillance	Maturity of technological development in the next 5 years, AI Act
AI investigator. Case closed.	Use of diverse databases and AI-powered technology for crime investigation	body-worn cameras, digitalization of evidence, AI algorithms to analyse and compare evidence with other relevant databases, local, national, and European, identify patterns and compare with similar cases, AI-powered ranking of suspects, emotional detection	Advanced AI systems, interoperability, LEAs' need for AI assistance in crime investigation, AI Act	Crime investigation assisted by AI-powered technology, advanced technology to enable comparison between diverse archives of past crimes	Maturity of technological development in the next 5 years
Don't shoot the artist.	Use of AI systems crawling the web for cyber operations and specifically child pornography and exploitation	AI enabled crawling, automated processing, assessment, and prioritisation of CSAM, identification and scoring of CSAM users	Human operators experiencing post-traumatic disorder and other mental health issues, Advanced AI systems, potential biased technology, AI Act, Human Rights such as privacy and freedom of expression	Assistance of human operators' work, effective identification of CSAM and criminals, discrimination	Human rights and AI Act, technological advancement to crawl and analyse data on dark web
Crossing the invisible borders.	Use of AI-powered technologies to enable border control with minimal human interference	AI-based intelligent video surveillance system, facial recognition, biometric templates, CCTV cameras, AI assisted risk assessment.	LEAs desire for AI assisted border control using less human resources, AI act, interoperability of diverse databases	Border control with less human interference, AI Act	AI Act, advancement of technology to enable such levels of interoperability
Guilty till proven innocent.	Use of algorithmic tools to assist court decision-making process	AI algorithms for risk assessment, interoperability between different databases	AI tools to support criminal justice system due to large volume of cases, advanced algorithmic technology, AI Act	Assistance of criminal justice system in. regards to primary assessment of cases to reach the court, assistance on decision making regarding sentences.	AI Act, human rights, biased technology

Thank you!

Pinelopi Troullinou, PhD

Senior Research Analyst, Trilateral Research TRI IE

pinelopi.troullinou@trilateralresearch.com





Questions & Answers



Leonardo Cherubini,
*ETAPAS Project Coordination team,
Ministry of Economy and Finance, Italy*

NOTIONES Matchmaking Event

ETAPAS

Ethical Technology Adoption
in Public Administration
Services

The ETAPAS Project



Ensure a trustworthy adoption of DTs by managing ethical, social, and legal risks and impacts

From shaping the idea to implementing it...





Questions & Answers



Sara Mancini,
*Senior Manager at Intellera Consulting,
Italy*

NOTIONES Matchmaking Event

The ETAPAS solution:

enabling trustworthy
technology adoption in the
Public Sector

ETAPAS – Ethical Technology Adoption in Public Administration Services

Identify, monitor and manage the risks of disruptive technologies in the Public Sector with a unique and integrated approach that will enable you to easily keep up with European regulatory developments and systematically involve all stakeholders



Tailorable to all technologies and sectors

The problem



AI, robotics and big data promise radical service improvements but might imply huge ethical, social and legal risks and impacts, especially in the Public Sector



Regulations are lagging behind innovation



Digital ethics skills are not widespread in the working environment



Public organisations are left vulnerable to adoption of disruptive technologies (DTs) at early stage



If DT risks and impacts are not properly managed, citizens might face unreliable public services, impacting their trust in public institutions

The solution



Public Administrations need to:

- Identify the relevant legal requirements themselves
- Identify and monitor ethical and social risks and impacts
- Apply them dynamically by hand from the beginning of the design phase till deployment and running of the solution
- Involve and consult relevant stakeholders throughout the process



A one-stop
Governance Model to guide the assessment and monitoring process since the design phase

An easy-to-use
Governance Platform to perform it and monitor results through time

Guided tailoring and stakeholder engagement processes for any public sector organisation and technology

Co-design and testing with Public Administrations and lesson learned from real-life solutions

The Responsible Disruptive Technology (RDT) framework

- Tailored to the Public Sector
- Covers AI, Robotics and Big & Open Data
- Includes a tailoring methodology and process with stakeholder engagement



The ETAPAS Code of Conduct for Disruptive Technologies in the Public Sector

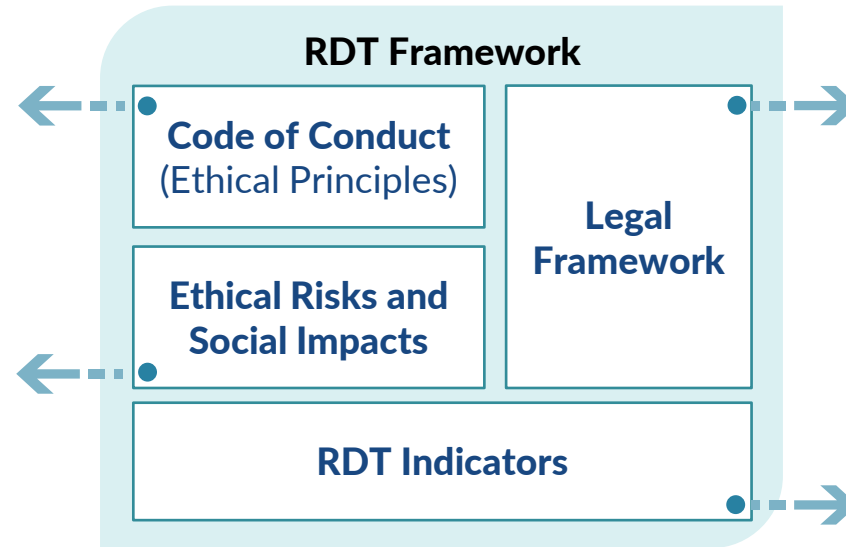
10 Ethical principles



The ETAPAS Risk Framework of Disruptive Technologies in Public Administration

8 Risk categories

34 Risks



The European Legal Framework



Analysis of EU legal framework, including identification of gaps and potential regulatory solutions.

The ETAPAS Responsible DT Indicators Framework



20 Computational indicators

25 Risk indicators

115 Mitigation indicators

The ETAPAS governance platform

🕒 **RDT viewer**, to explore risk, principles and indicators

🕒 **Assessment questionnaire**, to assess compliance

🕒 **Results by risk category & recommended mitigation actions**

🕒 **Results throughout time**, to assess improvements

ETAPAS use cases

Very satisfied 



**Ethical Responsible
Big & Open Data**
(MEF/CEA)

 **Deployed and running**

- Big open data
- Human resources platform **NOiPA**
- Improved **privacy, fairness and transparency**

Very satisfied 



**Robot-mediated
rehabilitation**
(IIT/FDG)

 **Experimental conditions**

- **Robotics**
- Robot for **patients' rehabilitation**
- Reduced ethical, social and legal challenges raised by **human-machine interaction**

Very satisfied 



**Municipality chatbot
Kari**
(SINTEF/PROKOM)

 **Deployed and running**

- AI Chatbot
- Used by more than **80 Norwegian municipalities**

Very satisfied 



**PA Multi-factor
Misinformation Handling**
(CERTH/MUKA)

 **Design & development**

- AI for **fake news detection**
- Prioritisation of emerging issues in the municipality of Katerini

Call to action



Put yourself in contact with us!



etapas@etapasproject.eu



[etapas@etapasproject.eu](https://www.linkedin.com/company/etapasproject)



www.etapasproject.eu

Call to action!

Are you a Public Administration, a Public Service provider or a Govtech company?

Are you interested into the ETAPAS approach?

Would you like to adopt the ETAPAS methodology?



Ethical Technology Adoption in Public Administration Services

Thank you for your attention!

Funded by the Horizon 2020 Framework Programme of the European Union





Questions & Answers



Maria Tsourma
*Research assistant at CERTH,
Greece*

NOTIONES Matchmaking Event

Knowledge extraction & misinformation handling application based on AI

Big Data in municipalities

The problem

- Municipality of Katerini uses a vast amount of information for decision making

Problem:

- **Detection of really significant topics** concerning the municipality
 - **Big amount of streaming data**
 - Different specialized formats of information
 - **Increased dispersion of misinformation** on digital media

Consequences:

- Suboptimal prioritization
 - **Biased decision making**
 - **Lack of transparency & fairness** within the municipality
 - **Declining trust** in local government
 - **Threaten of social cohesion**
 - **Increase of legal, ethical & societal issues**, especially for sensitive topics e.g. migration



SELF-MANAGEMENT

D. Katerinis: Fake news that schools will be closed tomorrow - They will operate normally



10/03/2022 22:35 THESTIVAL TEAM

The municipality of Katerinis has issued a notice with which it informs that it is being falsely circulated that the schools in the area will be closed tomorrow.

ECONOMY July 11, 2020, 4:35 p.m.

Fake News about coronavirus in Platamonas



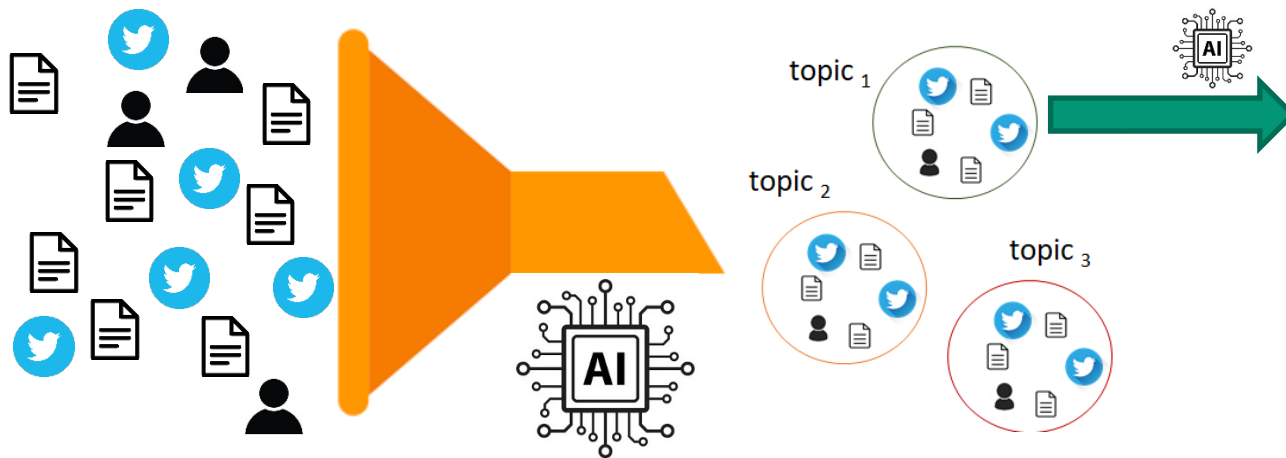
A press release was issued by SICAEI-Association of Owned Leisure and Catering Stores of N. Larissa regarding a false news related to Platamonas. In particular, he states that "In the last few hours, there has been a fake news (Fake News) about multiple cases in a colleague's store in the area of Platamonas, The Board of Directors of S.I.K.A.E.L. was immediately contacted by phone with the affected businessman who confirmed to us that there is no trace of truth in these rumors and that it is a malicious and unethical targeting of his business as well as his area Platamon in general.

ETAPAS AI based application

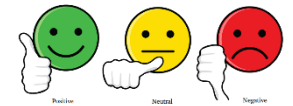
The solution

A knowledge extraction & misinformation handling application based on AI, supporting the:

- Identification & prioritization of the topics of interest discussed within the community
 - concerning social issues (e.g. migration, criminality) & resilience-related events (e.g. environment, traffic)
- Detection of misinformation using graph-based Artificial Intelligence (AI)



- Extraction of the **public sense** by performing sentiment analysis on the collected information



- Estimation of the **significance** of each topic based on the public opinion



- Generation of an **information propagation graph** for misinformation detection



Steps for applying the ETAPAS RDT framework

1 Selection & tailoring of the RDT framework

- ✓ Gathering of a **multidisciplinary team** in order to participate in the RDT framework's tailoring
- ✓ **Prioritization of the ethical principles of the UC**
- ✓ **Identification the important risk categories** for the UC
- ✓ Performance of **legal assessment**

2 Specification's extraction

- ✓ **Introduction of the tailored RDT framework in the ETAPAS prototype platform**
- ✓ Performance of **3 risk assessments**
- ✓ **Collection & applications of the mitigation actions** recommended
- ✓ **Analysis of the legal assessment's outputs**
- ✓ Definition of **computational indicators**

3 Application's implementation & evaluation

- ✓ **Implementation of the Knowledge extraction & misinformation handling application**
- ✓ **Integration** with the ETAPAS prototype platform for
- ✓ **Evaluation** of the platform during pilots
- ✓ **Feedback collection & analysis**



Risks in 7 categories were identified



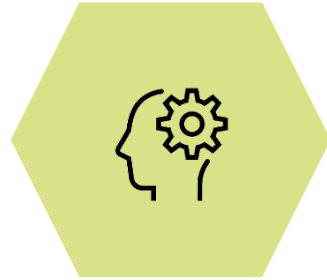
10+ Mitigation actions were performed for the minimization of each risk

Difficulties in adaptation of the ETAPAS approach



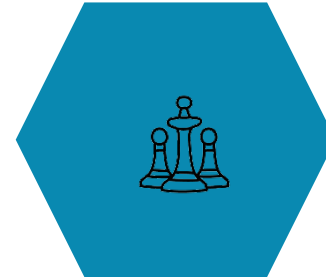
Lack of organizational/ governance structure

- Increased bureaucracy
- **Risk-averse culture of this sector**
- Protection of sensitive data



Lack of knowledge & experience (skills)

- **Feeling of insecurity** from the Municipality's personnel towards new technologies
- Less trained personnel on using new technologies



Lack of resources

- Limited human and IT resources
- Lack of **central management system**



Technical challenges

- Controversial quality of data sources
- Lack of common standards for assessing the use of the AI application
- Different level of interoperability between different IT systems

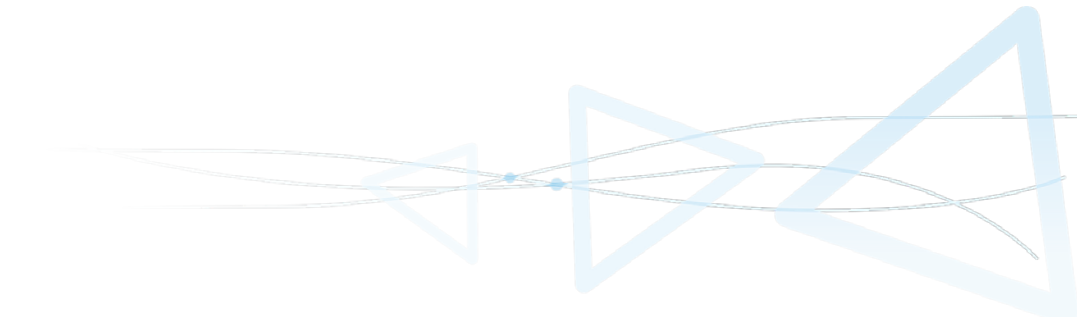
Challenges & Lessons learnt for the Municipality

Lessons learnt:

- Need for **employees' training on the use of the AI application** and on potential **ethical concerns and implications** that may rise by its use (provision of guidelines)
- Need for **upskilling employees' digital competence**
- Need for **measures to enhance the feeling of safety** to the users through stakeholders' training on the use of AI, benefits, explanation about the outcomes and the option of outcomes' human review
- Need for **inclusive design of AI applications** using stakeholders' feedback to guarantee its success
- Need for **assessment methods & a committee** that provide **oversight on the use of Artificial Intelligence within a public organization**

Challenges faced:

- **Improve employees' efficiency through:**
 - Automation in the information collection and analysis process
 - Extraction & prioritization of emerging issues
- **Help inexperienced employees to do their work easily and legally through:**
 - The ethical adoption of the AI based platform
 - Protection of sensitive data
 - The Code of Conduct
- **Enhance trust between the Municipality and the locals through:**
 - Bringing them closer to public affairs and the decision making process
- **Protect the Municipality and the citizens from misinformation**
- **Optimize the decision making process through:**
 - The sense of the public pulse
 - The detection of misinformation




ETAPAS

Ethical Technology Adoption in Public Administration Services

Thank you for your attention!

Funded by the Horizon 2020
Framework Programme of the European Union





Questions & Answers



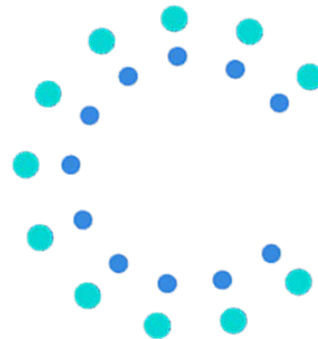
INNOV-ACTS Limited

ARTIFICIAL INTELLIGENCE OFFERINGS IN THE AREA OF SECURITY AND CRITICAL INFRASTRUCTURE PROTECTION

*Anastasios Pantazidis (Project Manager), tpantazidis@innov-acts.com
John Soldatos (Scientific Advisor)*



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



INNOV-ACTS AT A GLANCE

www.innov-acts.com

High Tech Startup Founded in 2016 in Cyprus

Specialises in Consulting and R&D Services leveraging Advanced Digital Technologies (AI/ML, AR/VVs)

Sectors: Security & Critical Infrastructures, Finance, Industry

Combines technical/technological with business/organizational expertise

Relevant EU Projects: H2020 LAW-GAME, H2020 FINSEC, H2020 SecureGas, HEU EU-CIP



Innov-acts

Expertise offers

INNOV-ACTS Offerings

1. Business Consulting on AI Systems for CIP & Cybersecurity

- Identification of Unique Selling Proposition
- Business Plan Development
- Support in Regulatory Compliances and Ethical/Responsible AI Processes

2. Technical Development Services for AI Systems in CIP & Cybersecurity

- AI Programming and Model Development

3. 10X Productivity Using AI

- Enable Security Organizations to Elevate their Productivity with Generative AI tools (ChatGPT, Copy.AI, MidJourney, Leonardo.AI, Perplexity.AI, Bard etc.)
- Training and Support in Process Reengineering

4. AI-Based Virtual Reality Training for LEAs (LAW-GAME IP)

- Terroristic Indicators Identification, Analysis and Prediction
- Safe and Ergonomic Training of LEAs



Innov-acts

Contacts

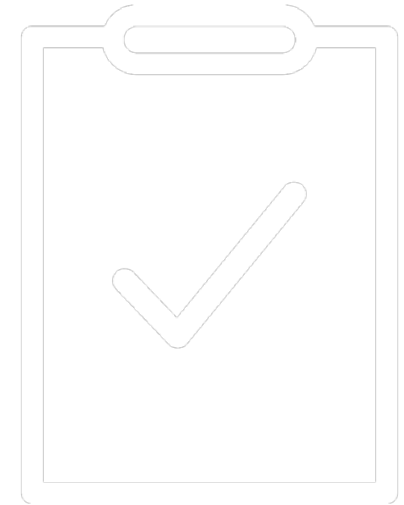
MORE INFORMATION & FOLLOW UP



- Mr. Tassos Panantazidis, Senior Research Engineer & Computer Scientist
- Engineering Team Lead and Architect



- Dr. John Soldatos, Scientific Advisor, IoT & AI Expert
- AI Consulting



Innov-acts



Questions & Answers



Stavros Vassos
CEO
stavros@helvia.io



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021655.



Description of the organisation

- Founded in 2016, bootstrapped, profitable
- **Chatbot** automation & **Language AI** solutions – 10M users
- 35+ employees, offices in GR, NL, IT
- Key accounts in **EU and US** market



- Strong **revenue growth 3x YoY**
- Industry certifications



EU-portal details:

- Name: HELVIA TECHNOLOGIES IKE
- PIC: 901660203
- Type: SME
- Country: EL (Greece)



Products



ChatBricks

- **ChatBricks Core:** Generative AI Assistants, LLM-powered AI pipelines, KBs, RAG with custom data, no-code editor, and more
- **ChatBricks CX:** Core + built-in apps for customer experience
- **ChatBricks EX:** Core + Built-in apps for employee experience



HRwiz

- Standalone Employee Support Portal on Teams and Slack



LiveChat

- Standalone Live-chat solution for web and mobile



SemCache

- Cost-effective use of LLMs with semantic caching



Expertise offer & current research projects

We excel at creating **novel conversational experiences** harnessing the power of **Generative AI** and Large Language Models (**LLMs**)

- **Technology partner:** platform for developing chat and voice assistants with customized LLMs and cutting-edge AI
M4ESTRO: natural language copilot for workers in factories that collects information and creates dynamic reports with explainable AI
- **Research partner:** genuine interest in Language AI, experience in knowledge transfer and applied research toward innovative solutions
LAW-GAME: voice-enabled avatars for VR training employing novel research in free-form storytelling experiences

 M4ESTRO

HORIZON EUROPE,
RIA, 2023-2026

 LAW-GAME

HORIZON 2020,
RIA, 2021-2024



LAW-GAME - Training police officers in the Metaverse

HORIZON 2020, RIA, 2021-2024

Utilizing our expertise in Interactive Storytelling, Language AI, Generative AI, and LLMs

Helvia holds a leading role in:

- Developing **interactive Non-Player Characters** (chatbots) that converse with players in natural language
- Facilitating **immersive conversational** experiences in **gaming VR** environments; our chatbots operate in Unity via text and speech
- Elevating **digital storytelling through** enabling smooth unfolding of branching storylines depending on user input
- Deploying a modular and easily **customizable conversational engine** allowing for dynamic interconnections with the rest LAW-GAME components
- Utilizing **Chatbricks no-code suite** for **dynamic authoring** of new training scenarios



- ❑ Train law enforcement agents (LEAs) through serious games in VR
- ❑ Helvia is leading the police interrogation game where the player interrogates a virtual suspect using a voice interface



M4ESTRO - A hyper-distributed MaaS paradigm for industrial stakeholders

HORIZON EUROPE, RIA, 2023-2026

Helvia will be leading the development of **AI conversational Agents** (chatbots) that will:

- Interact in **natural language** with all human stakeholders, e.g., manufacturing workers, operators and the business management, offering **inclusive and intuitive interfaces**
- Offer **instant access** to structured and unstructured information in manufacturing, e.g., databases, policies, processes, delivery timelines, etc
- Interconnect with the M4ESTRO core components to provide **personalized information**, e.g., tailored on-the-fly reports, summaries, and actionable guidance on dynamic scenarios
- Include **explainable AI** features and business insights such as response explanation and act **proactively** to deliver critical information to interested parties, such as warnings of potential disruptions
- Employ **LLM-powered Generative AI** services and **data efficient training techniques**, such as one-shot and few-shot learning, and retrieval based augmentation (RAG)



- M4ESTRO will create an end-to-end trustworthy and transparent platform for Manufacturing as a Service (MaaS)
- Helvia is leading the development of AI conversational agents (chatbots) that will enable manufacturing workers, operators and business management to converse with the M4ESTRO system and gain access to explainable data and business insights using natural language.



Chatbricks

Next-gen Language AI Platform

Helvia's powerful platform to easily design, create and manage GenAI Assistants with the power of cutting edge Language AI Technology

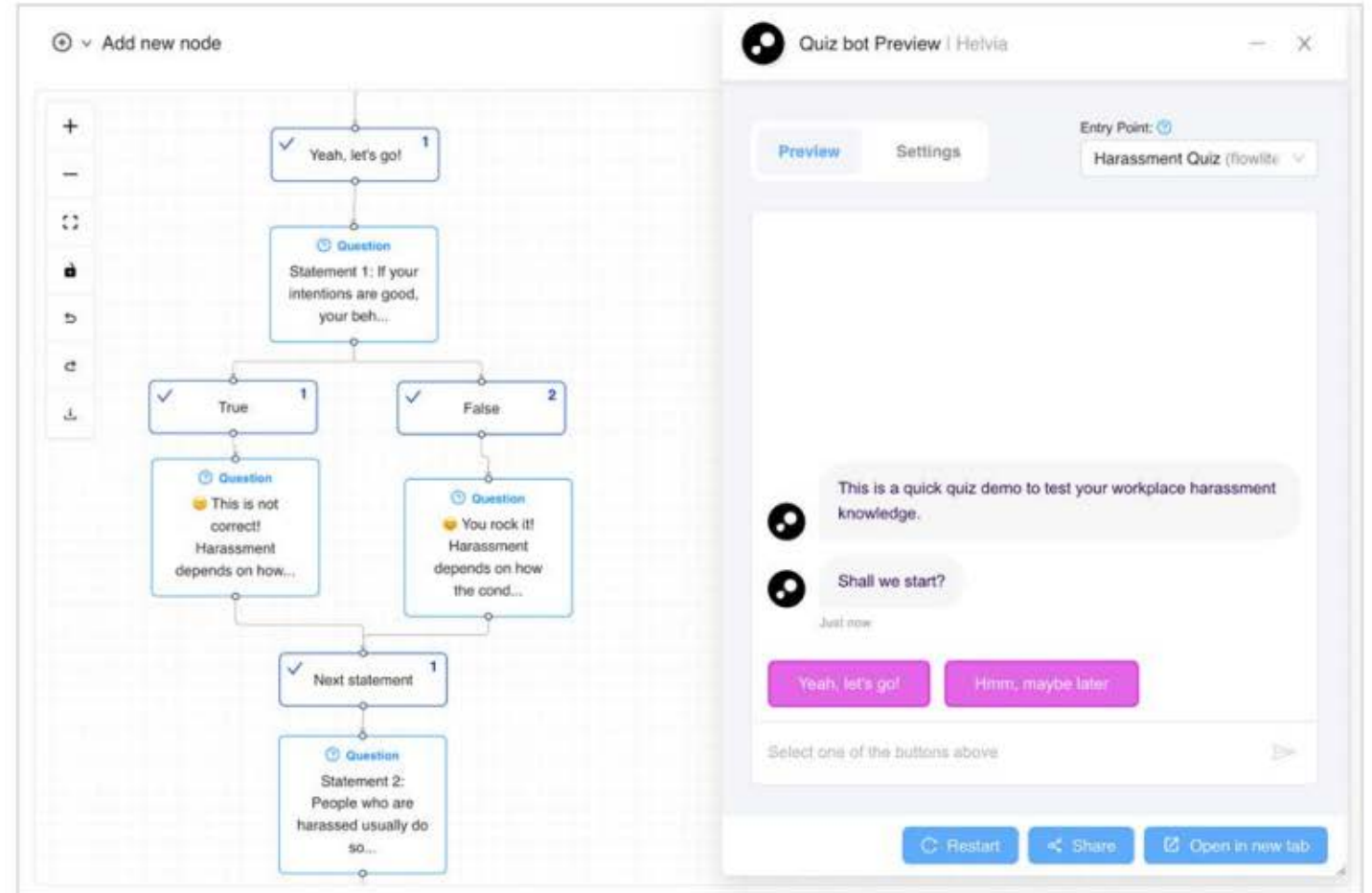


Chatbricks

No-code authoring tools

Design and train GenAI Assistants using a powerful **no-code toolset**:

1. AI pipeline builder
2. LLM Question Answering from KB articles and docs
3. No-code workflow editor
4. NLU model testing
5. Instant previews



The screenshot displays the Chatbricks interface, divided into two main sections: a workflow editor on the left and a chatbot preview on the right.

Workflow Editor: The editor shows a flowchart with the following nodes:

- Start node: "Yeah, let's go!" (1)
- Question node: "Statement 1: If your intentions are good, your beh..."
- Branching nodes: "True" (1) and "False" (2)
- Response nodes: "This is not correct! Harassment depends on how..." (connected to True) and "You rock it! Harassment depends on how the cond..." (connected to False)
- Next node: "Next statement" (1)
- Final Question node: "Statement 2: People who are harassed usually do so..."

Chatbot Preview: The preview window shows a chatbot named "Quiz bot Preview" by Helvia. It features a "Preview" button and a "Settings" button. The "Entry Point" is set to "Harassment Quiz (flowite)". The chat interface shows a user message: "This is a quick quiz demo to test your workplace harassment knowledge." and a bot response: "Shall we start?". Below the chat, there are two buttons: "Yeah, let's go!" and "Hmm, maybe later". At the bottom, there are buttons for "Restart", "Share", and "Open in new tab".

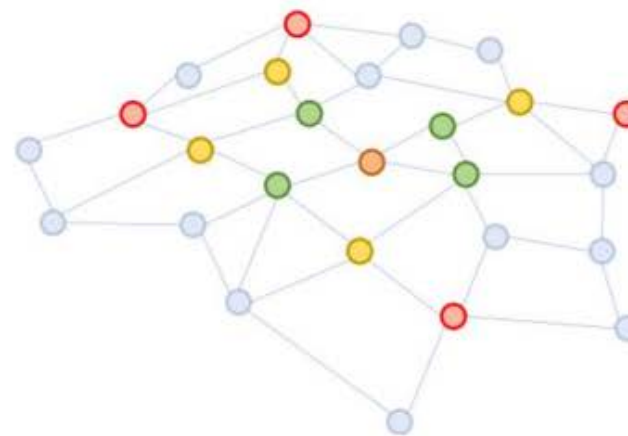


Chatbricks

Premium Language AI

Build GenAI Assistants with the latest Natural Language Processing technology:

- Out of the box use of Large Language Models (LLMs)
- Custom made NLP models
- Integrations with the best out-of-the-box NLP Services:
 - OpenAI LLMs including GPT-3.5 (ChatGPT basis) and GPT-4
 - Cohere LLMs
 - Anthropic LLMs
 - AI21 LLMs
 - Google's Dialogflow
 - Microsoft's LUIS
 - Facebook's WIT
- Built-in multi-model architecture
- Multilingual with language detection



 OpenAI co:here

 ANTHROPIC  AI21labs

 Dialogflow  LUIS  wit.ai



Chatbricks

Delivery in any Messaging Application & Powerful analytics

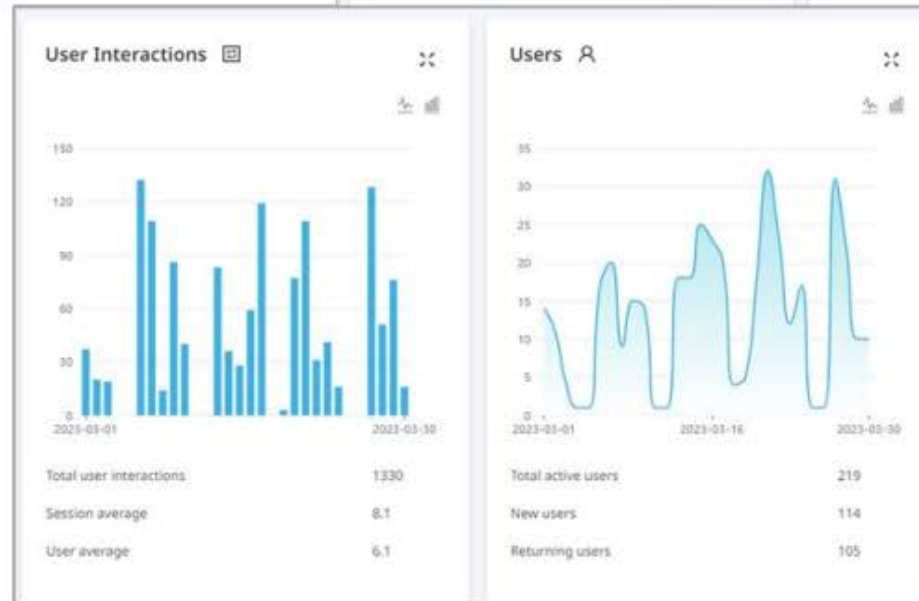
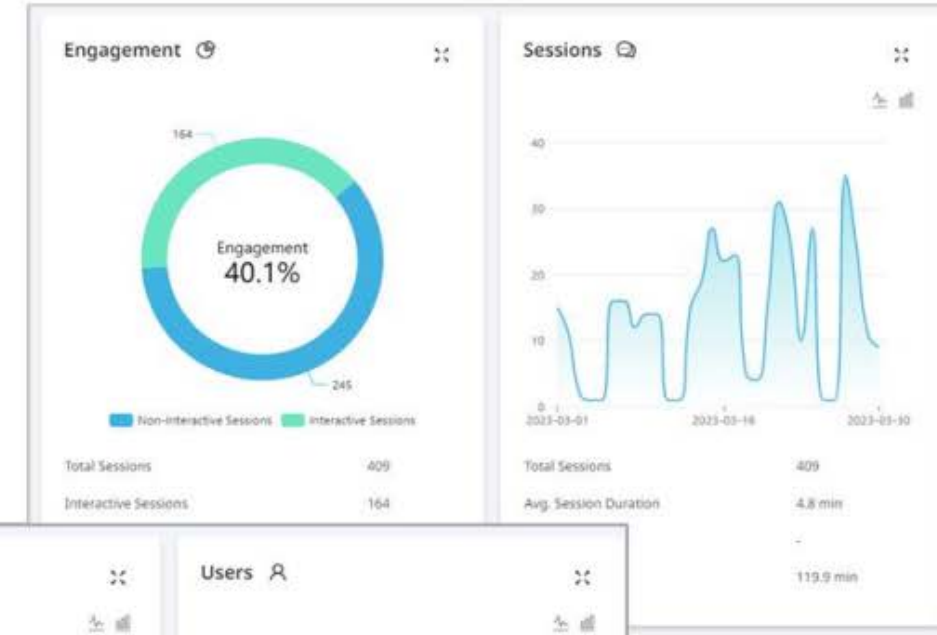
Supporting

- **Embedded** chatbots on mobile apps and websites
- **Bubble** chatbots on websites
- Microsoft **Teams** deep integration
- **Slack** integration
- Consumer **chat platforms** enabled



Intuitive real-time analytics, with meaningful data for actionable insights

- Usage metrics
- Chatbot success rates
- Escalations
- Users' evaluation rate
- LiveChat metrics
- Most asked questions
- Fallback themes
- Sentiment analysis
- and more...



Highlights

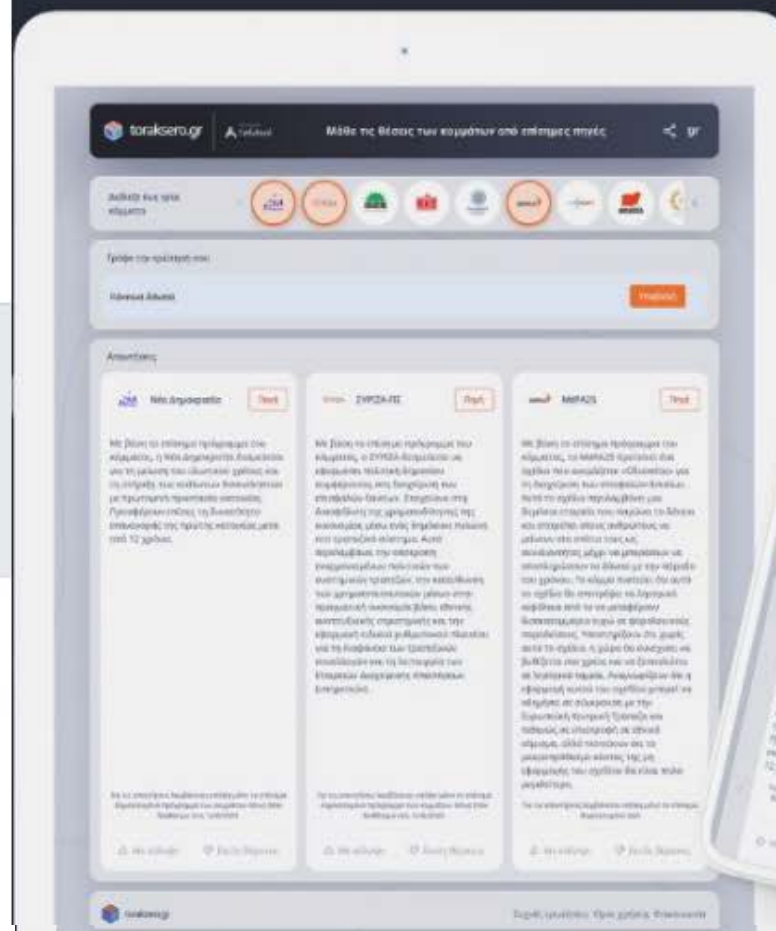
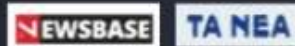


AI for eGov - toraksero.gr

Featured in Greek media:



CyprusNews.eu



CLASSIFIED PATENT
ID: WO2020201609A1

- 1st place in EPO Codefest 2023
- Helvia set up the AI4EPO team that developed novel AI models for classifying green plastics patents



Contacts

Let's talk!



Stavros Vassos
CEO
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Eleni Panopoulou
Technical Project Manager
eleni.panopoulou@helvia.io





Questions & Answers

www.zettacloud.ai



Adaptable and Secure Text Analytics solutions for LEAs and Intelligence

George Bara
Founder / Zetta Cloud
george@zettacloud.ai



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



Description of the organisation

Artificial Intelligence Solutions for Deep Content Understanding

- Software company specialized in Artificial Intelligence – Text Analytics.
- Founded in 2013, based in Cluj-Napoca, Romania.
- Proven track record with LEA, Intelligence, and Public Sector organizations.
- Working mainly in Europe, but also Middle East and US.



- **Own line of AI products: AI Factory <https://zettacloud.ai/ai-factory/>**
 - Extract meaning out of unstructured content.
 - Use-cases: Data Triage, Process Automation, Intelligent Knowledge Management, Online disinformation detection.
 - Secure, on-premises or private-cloud systems.
 - Covering over 15 NLP tasks across 40+ languages.
 - High-speed data processing on commodity hardware.
 - No-code Machine Learning capabilities.



Cooperation idea & Expertise request

www.zettacloud.ai



Cooperation on EU-funded research projects – EDF, Horizon Europe, other – on topics such as: Artificial Intelligence, Defense & Security, and Disinformation Detection.

System integrators specialized in Public Sector/Defense/Security/Intelligence projects that require a strong AI technology partner.

End-user/domain specialist support for developing new AI solutions tailored for the Defense/Security/Intelligence space.



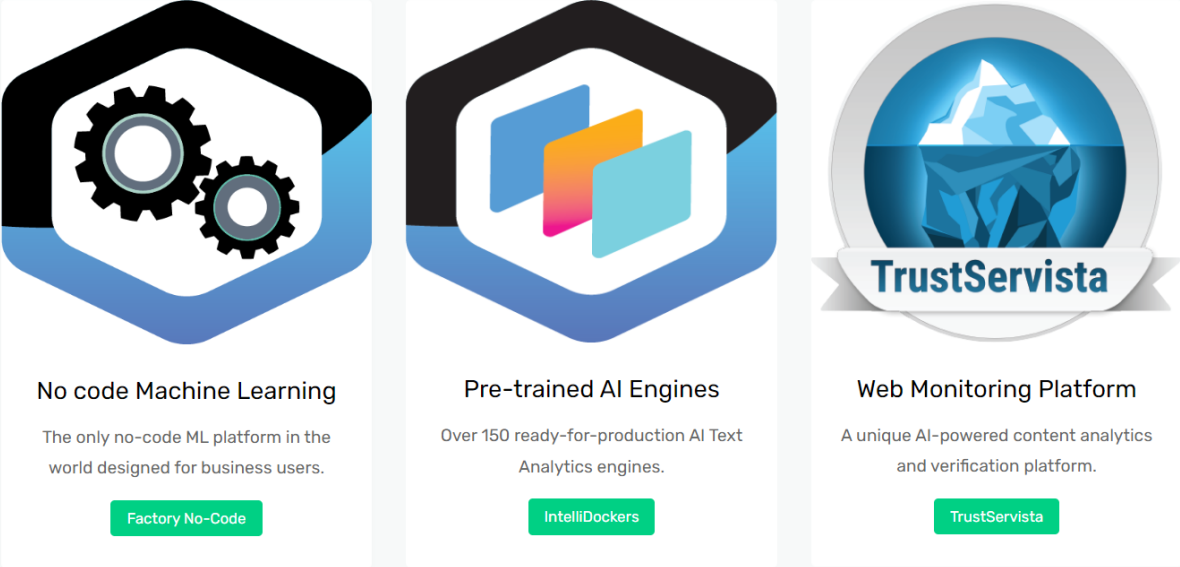
Expertise offer

www.zettacloud.ai

Production-ready AI text analytics solution with proven track record in the Defense/LEA/Intelligence domain.

End-to-End Text Analytics.

AI Factory – Secure & Adaptable Text Analytics platform



The image shows three service cards for the AI Factory platform. Each card has a hexagonal icon at the top, a title, a description, and a green button at the bottom.

- No code Machine Learning**
The only no-code ML platform in the world designed for business users.
Factory No-Code
- Pre-trained AI Engines**
Over 150 ready-for-production AI Text Analytics engines.
IntelliDockers
- Web Monitoring Platform**
A unique AI-powered content analytics and verification platform.
TrustServista

AI SERVICES:

- Development of custom AI solutions.
- Consultancy, guidance and training at exec/leadership level for organization-wide AI adoption.
- Expertise in AI Regulation and best practices (EU AI Act).

- Expert research and prototyping in the areas of:
 - Handwriting recognition
 - Intelligent assistants and chatbots
 - Intelligent Knowledge Management

<https://zettacloud.ai/company/research/>



Contacts

www.zettacloud.ai



Website: www.zettacloud.ai
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Founder/Chief Strategist
George@zettacloud.ai
[+40752200344](tel:+40752200344)





Questions & Answers

Expert.ai

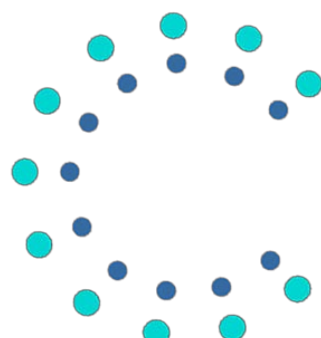
Hybrid Deep Semantic AI/NLU technology to support decision and predictive analytics

Gianluca Sensidoni
Sales & Bid Manager / Expert.ai
gsensidoni@expert.ai
0039 3356595360



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.

INTERNAL & TRUSTED 3rd PARTIES



Description of the organisation

Expert.ai is the premier artificial intelligence platform for language understanding. The company, founded in Modena in 1989 (under the name Expert System) is listed on Euronext Growth Milan since 2014. Its unique hybrid approach to NL combines symbolic human-like comprehension and machine/deep learning to transform language-intensive processes into practical knowledge, providing the insight required to improve decision making throughout organizations.

Public Company (EXSY)

- Largest global company specialized in Natural Language Understanding technology
- Direct branches in US, CAN, UK, FR, DE, ES & IT

Dedicated to Customer Success

- Award winning Patented technology
- 30 years of R&D investments to create expert.ai technology
- Local technical & client teams committed to our customers' business & technology needs

Award Winning



Best Overall
NLP Company



Magic Quadrant
for Insight Engines



AI-based Text
Analytics Platforms



Cooperation idea (if applicable)

- Intelligence and Prediction architecture so to efficiently manage different type of contents such as audio, video, images, unstructured and structured ones coming from different type of sources either off-line or on-line.
- More know-how means more efficient prediction (EX-ANTE analysis)
- Improvement of searching on historical use cases in order to mitigate future similar events (EX-POST analysis)
- The target is to extract and to infer semantic data from different type of contents in order to apply Data Fusioning useful for *Augmented DSS, Simulation & Prediction* environment.
- So, making better decision with better know-how in line with the OODA paradigm.



Expertise request (if applicable)

Other Partners in the group of proposition

- Surface, Deep and Dark Crawling
- STT and Voice-printing algorithms
- Intelligence OCR and algorithms for hand written contents
- Visual analytics experts
- Domain-oriented Analysts and Practitioners
- Data providers for tuning of the AI algorithms
- System integrator & Data Fusion Expert



Expertise offer (if applicable)

Expert.ai

Deep Semantic AI/NLU technology that is Hybrid, Explainable and uses a frugal learning approach in order to

- extract entities and categories based on multilevel and multilanguage taxonomies
- apply reasoning by Relations, SAO and temporal references extractions
- create cluster of similar news with different % of semantic rank
- extract emotion (not only sentiment) and stylometric attributes, so specific verbal groups, slangs, jargons, human factors, ethnicity, :

So, realizing the value of language in order to:

- detect misinformation/disinformation
- discover radicalization and polarization activities
- identify emotion and authorship (style of writing)
- generate new knowledge, so unknown concepts discovering and criminal network reconstruction.

Please take a look at our live demos:



Contacts

Enter subtitle here

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Sales & Bid Manager / Expert.ai

gsensidoni@expert.ai

0039 3356595360



Questions & Answers

CERTH/VCL

Centre for Research and Technology Hellas / Visual Computing Lab

Computer Vision and AI

Kostis Konstantoudakis

Post-doctoral researcher / CERTH

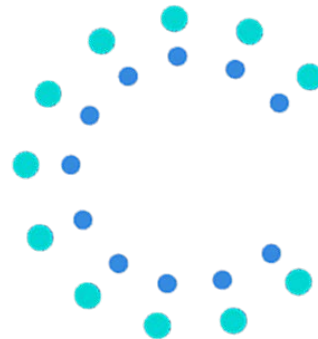
k.konstantoudakis@iti.gr

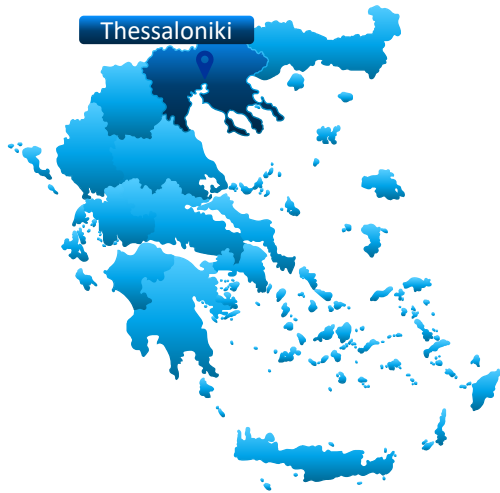


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



Estonian Police and Border Guard Board





- *Leading R&D centre in Greece*
 - *>700 employees*
 - *>1200 research projects*
 - *> 1100 international partners*
- *Within Top-20 EU institutions in participation of competitive research grants*
- *Annual financing: ~€25M*
 - *30% industrial research contracts*
 - *60% research projects*
 - *10% government institutional funding*

VCL – The Visual Computing Lab

- *Since 2005*
- *Aims at conducting high-quality research in Computer Vision*
- *> 250 publications*
- *EU Project participation*
 - *~60 projects*
 - *Coordination/Technical Management in > 12 of them*



Expertise request

- *Technology uptake by LEAs*
 - *Purchase*
 - *As service / licensing*
- *Continuing research / innovation*
 - *Horizon Europe proposals*
 - *Open calls*
 - *Contract research / innovation*
- *Integration of VCL technology into solutions*
 - *Front ends*
 - *Smartphone apps*
 - *Robotics*
 - *Cloud services*
- *TRL increase*



Expertise offer

Computer Vision and more

- *Image analysis*
 - *Scene analysis*
 - *Object recognition*
 - *Action recognition*
 - *Image enhancement*
 - *Super-resolution*
- *Human 3D analysis*
 - *Face modelling*
 - *Face recognition / matching*
 - *Deepfake detection*
 - *Reconstruction*
 - *Motion capture analysis*
- *Scene/object 3D analysis*
 - *3D scene reconstruction*
 - *Object modelling*
 - *Content-based geo-localization*
- *Human-machine interfaces*
 - *eXtended Reality*
 - *Augmented*
 - *Virtual*
 - *Mixed*
 - *Diminished*
 - *Gesture interfaces*
 - *Robot/drone senses*



Contacts

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Dr. Dimitris Zarpalas is a Researcher Grade B, at CERTH/ITI/VCL. He is an Electrical and Computer Engineer with a MSc in computer vision and a PhD in Medical Informatics. His main research interests include real time 3D reconstruction from multiple passive/active sensors, dynamic mesh coding, 3D motion analysis, 3D medical image processing, 3D shape analysis. Contact him at zarpalas@iti.gr



Dr. Kostis Konstantoudakis is an Electrical and Computer Engineer. He holds an MSc in Digital Image Processing and a PhD in image super-resolution. His main research interests include image and video processing, compression and encoding, gesture recognition, drone vision applications, human-machine interfaces, as well as AI-based approaches to the above. Contact him at k.konstantoudakis@iti.gr



Dr. Anastasios Dimou is a Fellow Researcher at CERTH/ITI/VCL. He is an Electrical and Computer Engineer with a PDEng in ICT and a PhD AI for security applications. His main research interests include computer vision, artificial intelligence in the domains of physical security, critical infrastructure protection, and disaster resilience applications. Contact him at dimou@iti.gr





Questions & Answers

NORSECON

Human-Autonomy Command (HAC):

Directing and Coordinating Human and Artificial Cognitive Capabilities in EDGE Operations

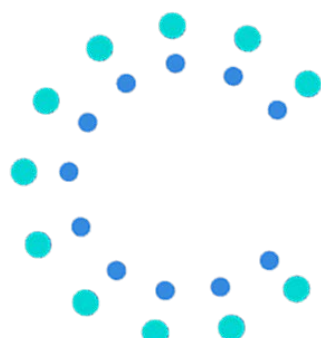
Arne Norlander, PhD

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



NORSECON is an independent science and engineering consulting firm, offering:



Analytics – Research – Innovation

NORSECON offers Expertise and Research in:

- Cognitive Systems Engineering
- Concept and Capability Development
- Complex Dynamic Systems
- Autonomous, Adaptive, Intelligent Agents
- Command and Control
- Cognitive Modeling & Simulation
- Human Systems Engineering
- Human Factors in Defence & Security
- S&T/ Innovation Management
- R&D Proposal Evaluation
- Innovation Leadership
- Hybrid Threats
- Cognitive Warfare



Cooperation idea

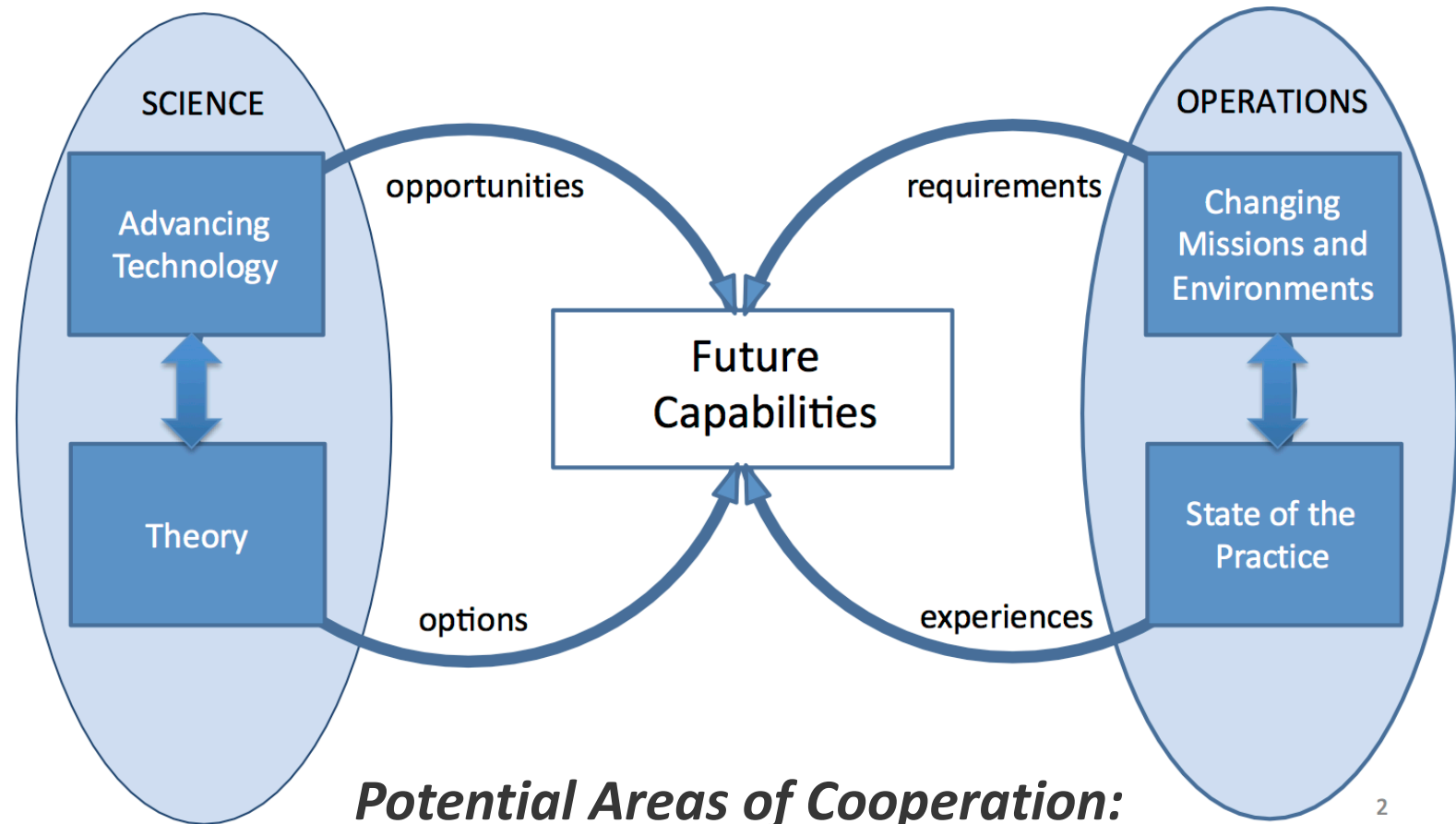
Human-Autonomy Command (HAC) Main Project Activities

- Defining Stakeholders and Objectives: Near-/Mid-/Long-term
- EDGE Operations: A special case of Multi-Domain Operations (MDO)
- Cognitive Capabilities & Components
 - Command Approaches
 - Comprehensive Situational Understanding
 - Cyber-Physical Systems
 - Human, Artificial, and Joint Cognitive Systems
 - Organizational Agility & Stability
 - Cognitive Superiority
 - Emergence
 - Cognitive Execution & CONTROL (CECON)
 - Cognitive Command (C-COM)
- Operationalization
 - A hypothetical Cognitive Capability Architecture
 - NATO Cognitive Warfare, NWCC & U.S. Army Doctrine
 - Utilization of adversarial Human Factors in Cognitive Warfare
 - An Essence of Cognitive Command
- Implementation of Human-Autonomy Command

Cooperation idea

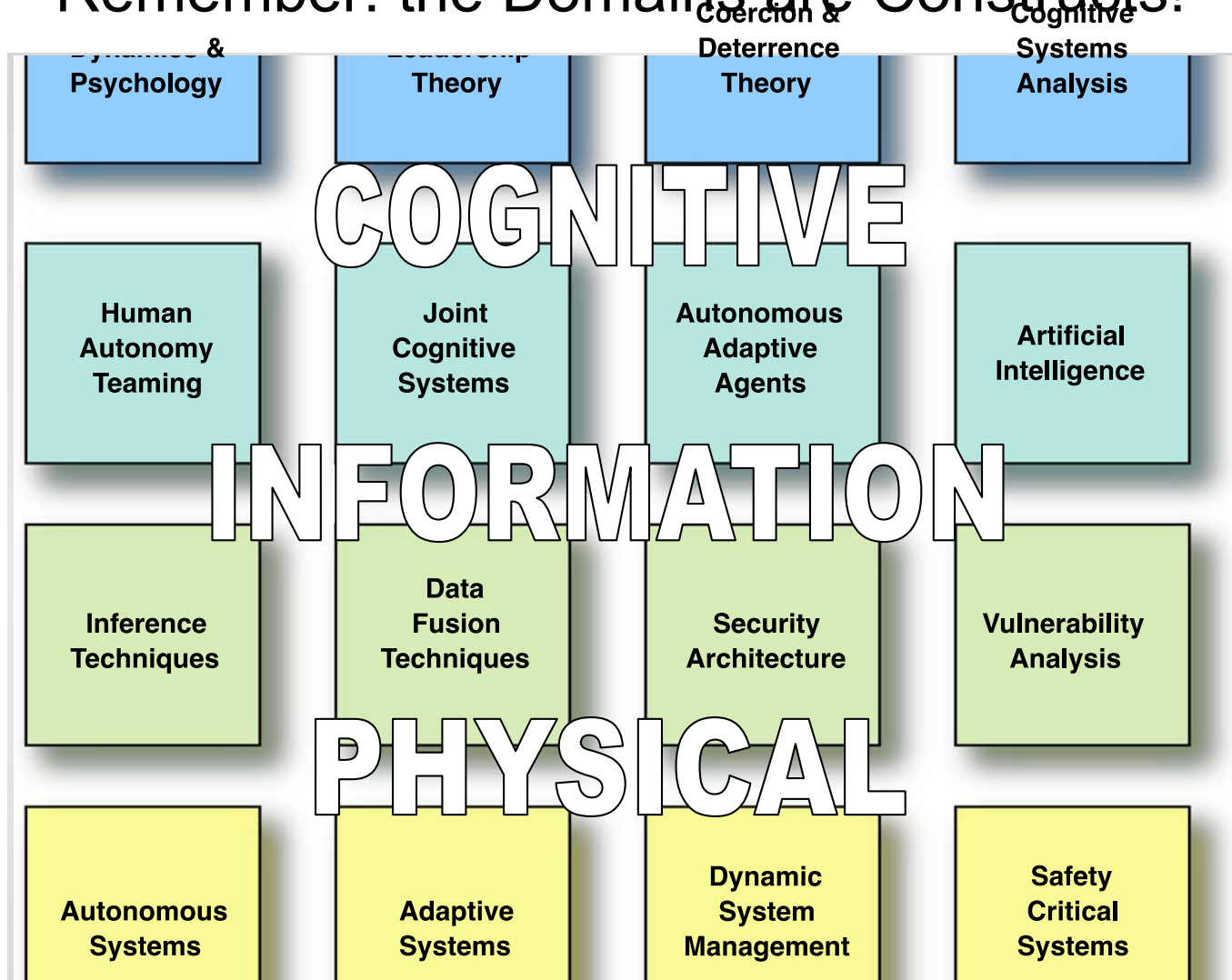
Human-Autonomy Command (HAC) Main Project Activities

- 1) Analysis & Assessment of multi-domain EDGE operations
- 2) Definition & Development of Human-Autonomy Command in Complex Operational Environments
- 3) Driving Evolution of EDGE Operational Command Approaches
- 4) Operationalization of strategic capability elements in a Human-Autonomy Command Architecture



Potential Areas of Cooperation:
*Multi-Domain Operations,
 Defence, Security, Cyber, Hybrid,
 Intelligence, Cognitive Warfare,
 Cognitive Dynamic Systems*

Remember: the Domains are Constructs!



NORSECON experts conduct research in

- Automation/AI
- Human-Autonomy Teaming (HAT)
- Man-Technology-Organization (MTO)
- Neurotechnologies
- S&T/Innovation
- Control theory
- Cybernetics
- Complex Adaptive Systems (CAS)
- Cognitive Systems Engineering (CSE)
- Cognitive Modeling
- Cognitive Warfare
- Influence Operations
- Intelligence
- Sensemaking

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Questions & Answers



Valencia Local Police

An specialised LEA



*José L. Diego
Head of Innovation and Project Management Division
Valencia Local Police
proyectosplv@valencia.es*



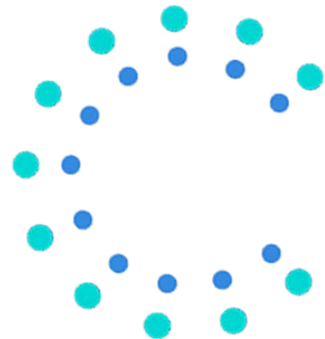
Estonian Police and Border Guard Board



Emerging Project Safe



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



Description of the organisation

- Valencia is the **3rd largest city in Spain** (1.5M inhabitants in the metropolitan area) and a multitude of events and gatherings in public spaces are organised by Valencia Local Police (PLV), composed by **1.6K police officers**.
- PLV has an important background **working in European projects since 2005**, with +30 projects since then and many success stories.
- **Specialised police units:** Community Policing, Gender Based Violence, Public Safety, Cavalry, Traffic Investigation, K-9, Drones, Environmental and so on.
- **Human resources:** aprox.1,6K **police officers**, 400 **firefighters**, **healthcare services**, etc. Many of them will be on normal duty, other addressed specifically to the use case event.
- **Material resources:** **public spaces**, **real scenarios** for the use case, fences, controls, police facilities and vehicles, fire personnel vehicles, traffic & surveillance cameras, police equipment, action and response plans deployment, etc.
- The **deployment of UAVs** in Valencia is also possible, as PLV has a drone police unit for public safety and security purposes.

(For further details please see PLV's corporate video (Eng.): <https://youtu.be/0XUjltU-Eew>)

Cooperation idea

PLV's strategical interests on the November 2023 call (these may vary in the future)

CALL – FIGHTING CRIME AND TERRORISM 2023

- FCT01-02 – Forensics on drugs analysis (option B)
- FCT01-03 – Community Policing
- FCT01-04 – Security in public spaces
- FCT01-06 – Tools to fight cyber-threats and crimes

CALL – RESILIENT INFRASTRUCTURE 2023

- INFRA 01-02 – Resilience of critical infrastructures

CALL – DISASTER RESILIENT SOCIETY 2023

- DRS 01-05 – Robotics in hazardous environments



Expertise offer

PLV's involvement in EU projects

- PLV in an LEA with great experience and the adequate **facilities to implement all field studies and pilot tests**. The Integral Centre for Security and Emergencies (CISE) and the Intelligent System for Police resources Management and Emergencies Response (SIRE) will be the main technological solutions at disposal of project purposes. New developed system capabilities and functionalities can be integrated there.

(For further details of our pilot test capabilities please see: <https://youtu.be/YiOQGNhI0XA>)

- PLV can host the final conference in Valencia. We would invite 150 LEAs, policymakers, SME organisations, CSOs and other stakeholders to present the project's findings and recommendations as well as what other projects, researchers and practitioners are doing in the same or related fields.

(For further details of our event hosting capabilities please see: <https://t.ly/NUNpa>)

Contacts

Jose Luis Diego:

- Head of PLV's Innovation and Project Management Division.
- Expert-evaluator for the European Commission.

Susana Sola: Project Manager. Civil Servant.

Rubén Fernández: Project Manager. Police Officer

Iván Luis Martínez: Project Manager. Police Officer.

Carmen Castro: Project Manager. Police Officer.

 proyectosplv@valencia.es

 [@policialocalvlc](https://twitter.com/policialocalvlc)

 [@policialocalvlc](https://www.instagram.com/policialocalvlc)



Questions & Answers

Hybrid Core

Secure and Integrated Next-Generation Decision, Intelligence, & Operation Management Systems

Hasan Suzen

CEO / Hybrid Core

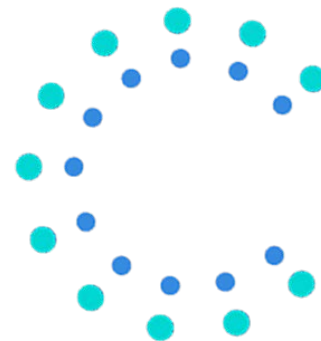
hasan.suzen@hybridcore.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



Estonian Police and Border Guard Board



Hybrid Core Introduction

Secure & Integrated Next-Generation Digital Transformation, Intelligence, & Operation Technologies



Hybrid Core brings together the power of big data, quantum encryption, hybrid AI, AR/VR, dynamic simulation, and cyber security fundamental features in a comprehensive solution platform.

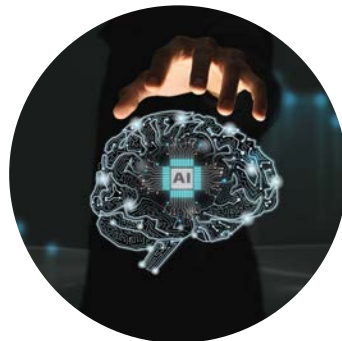


We power secure & integrated digital transformation and ensure private, fast, accurate decisions, intelligence fusion & smart operations to navigate government bodies & companies in complex & data-rich hyper-connected environments.



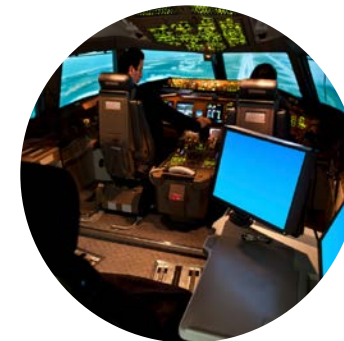
Big Data & Quantum Encryption

Hybrid AI



AR/VR

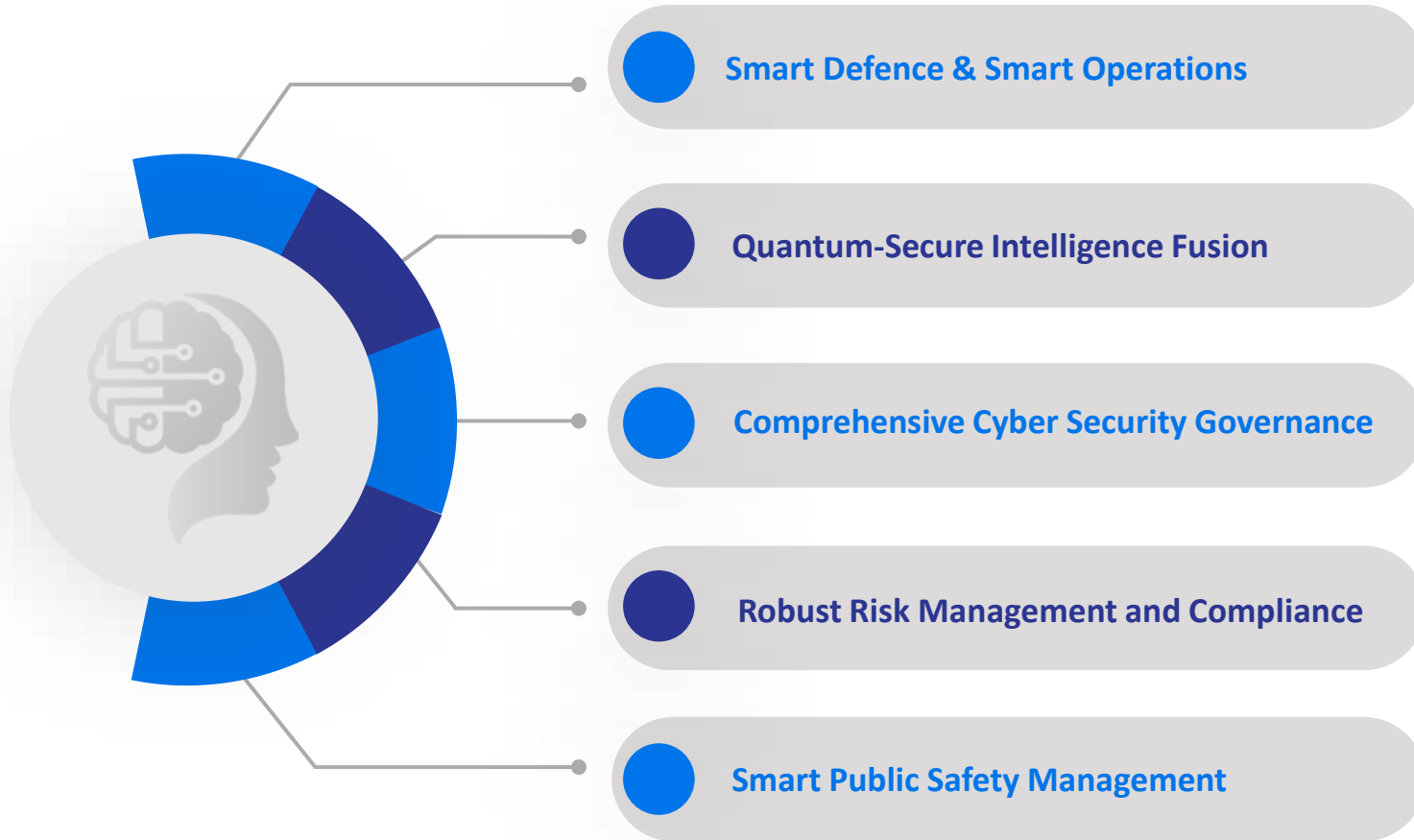
Dynamic Simulation



Cyber Security

Cooperation Areas

Use Case Examples & Potential Users/Partners/Stakeholders



Target Audience

Defence & Security Establishments

- MoDs/Military Forces
- Intelligence Agencies
- Law Enforcement Agencies
- Counterterrorism Units
- Cyber Security Units

Expertise Request – Call to Action

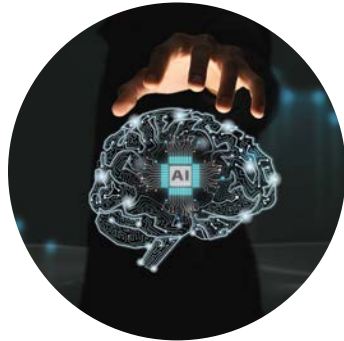
Joint Technology Development, Investment, and Special Purchase Options

We are Open to

- Joint Technology & Solution Development in Post-Quantum Security, Hybrid AI, Dynamic Simulation, and Cyber Security
- Investment Offers
- “Investment + Being a Special Customer” Offers



Post-Quantum Security



Hybrid AI



Dynamic Simulation



Cyber Security



+ Special Customer

Expertise & Solution Offer

Technology, Know-How, Experience Deployment and Establishing/Improving Centres of Excellence



Deploy Novel Technologies and Transfer Know-How, and Experience in Particularly Secure & Smart Systems, Intelligence Fusion, Adaptive Operation Planning & Management, Dynamic Simulation & AR/VR, and Cyber Security

We Can Strength People, Reinvent Processes, and Innovate Systems via Centres of Excellence



Transformation Centre of Excellence

Comprehensive Crisis and Operation Management Centre



National Intelligence Fusion Centre

Exercise, Simulation, and Wargaming Centre of Excellence



National Cyber Security Operation Centre

Contacts

For more information or demo requests contact us



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Erdem KUNDURACI

Co-Founder & CTO

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<https://hybridcore.eu/>



Questions & Answers

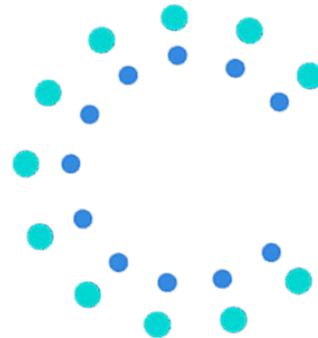
ODYSSEUS – H2020 project (GA no. 101021857)

Presenting the ODYSSEUS project and inviting participants to join the project stakeholder group, inter-project working and for those seeking potential future collaboration with project partners.

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Graham.kissock@psni.police.uk*



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.





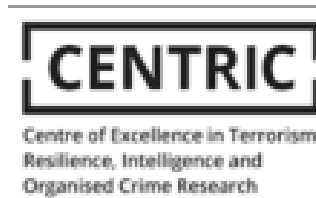
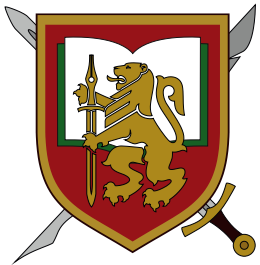
ODYSSEUS

PREVENTING, COUNTERING, AND INVESTIGATING TERRORIST ATTACKS THROUGH PROGNOSTIC, DETECTION, AND FORENSIC MECHANISMS FOR EXPLOSIVE PRECURSORS

ODYSSEUS

**PREVENTING, COUNTERING, AND INVESTIGATING TERRORIST
ATTACKS THROUGH PROGNOSTIC, DETECTION, AND FORENSIC
MECHANISMS FOR EXPLOSIVE PRECURSORS**

Consortium

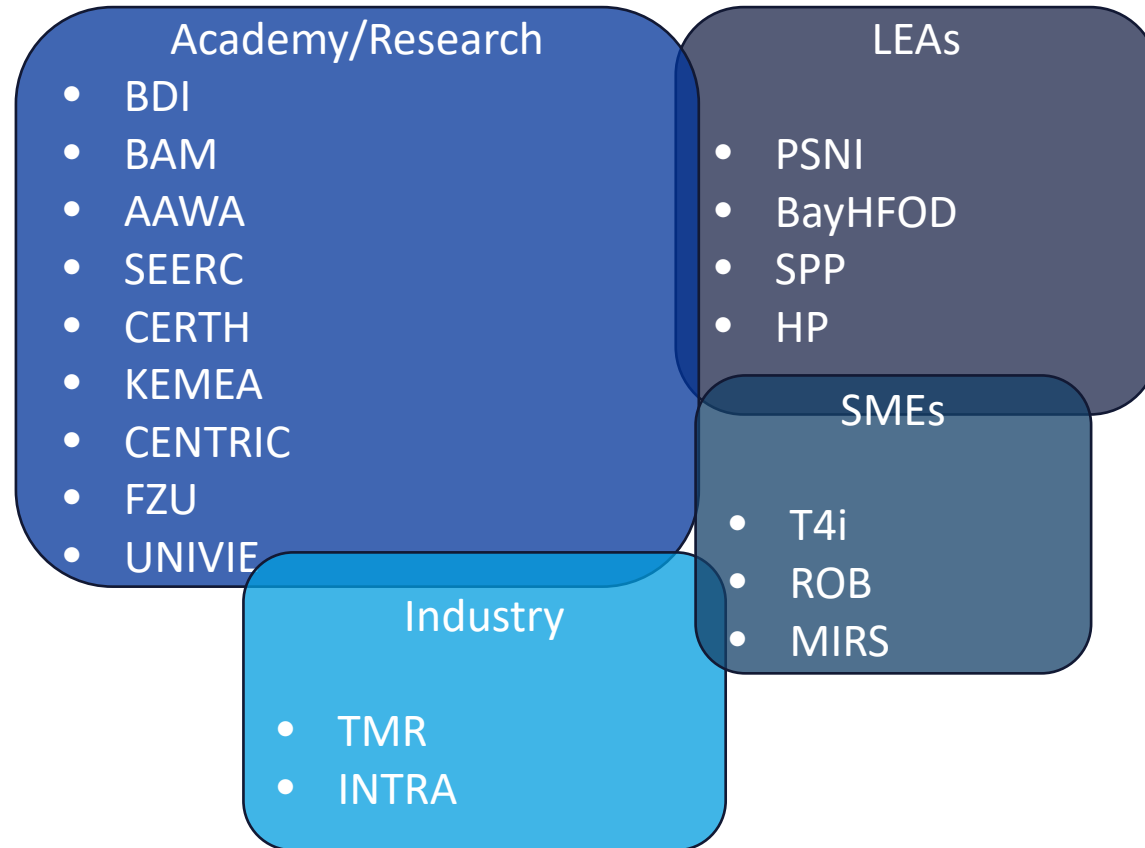


netcompany

intrasoft



Consortium



Partner	Country
BDI	BG
BAM	DE
KEMEA	GR
CERTH	GR
AAWA	IT
SEERC	GR
CENTRIC	GB
FZU	CZ
UNIVIE	AT
T4i	GR
TMR	IL
ROB	ES
INTRA	LU
MIRS	FR
PSNI	GB
BayHFOD	DE
SPP	RO
HP	GR

Objectives (Innovation – IO)

IO1 Online HMEs recipes collection and information extraction

Developed Web and social media crawlers for discovering online HME recipes

Developed textual analysis tools for extracting relevant entities of interest

Developed machine translation tools (Arabic to English)

Developed visual object/concept detection and recognition tools

Developed multimodal analytics tools

- Classification: data categorisation
- Clustering: grouping data into clusters of similar topics
- Social network analysis: community detection & key actor identification

Objectives (Innovation – IO)

IO3 Chemical supply chain ecosystem analysis for irregularity detection

Developed transactional data generation model

Developed blockchain for transaction validation and traceability

Developing AI methods for suspicious transactions detection in chemical marketplaces

Developing AI methods for identifying irregularities across the chemical marketplaces ecosystem

Developing AI methods for pattern recognition and predictive analytics towards trend detection & forecasting

Objectives (Innovation – IO)

IO4 Sensor development for the detection of explosive precursors

Designed a pre-concentrator unit and its electro-mechanical interface to T4i DOVER

- Front-end of a GC-PID drone payload for gas detection

Started assembling the pre-concentrator unit

Designed spectroscopic sensor for substance detection in water & entered fabrication phase

Started Multisense OEM customisation

Developed a field-deployable carrying case

Developing a broadly tunable low power QCL source

Developed AI methods for distinguishing multiple targets in the photoacoustic detection signal

Objectives (Innovation – IO)

IO5 Robotised tools for improved mobile detection and in-situ forensic support

Designed & prototyping the custom mounting brackets for the UAV/DOVER framework (air monitoring)

Redesigning Robotnik's RISING UGV for mobile detection in sewerage networks

Developed robot control station GUI

Developed autonomous object grasping application (SW level)

Developed assisted teleoperation application (SW level)

IO6 Threat detection, localisation, and assessment

Configured the atmospheric and dispersion models for airborne threat detection & localisation

Setting up the chemical module on AAWA hydraulic model for non-airborne threat detection & localisation

Developing threat assessment based on probabilistic methods

Science to solution – Expected outcome

(Short term)

Improved knowledge of dangerous chemicals and of their combinations;

Improved effectiveness of the supporting methods and techniques as well as of combinations of technologies used to prevent their use and to detect them before they are used;

Improved mitigation methods, including designing strategies and forensic tools.

(Medium/Long term)

Contribution to improving public security;

Factual scientific contribution to policy-makers in order to allow them to make an informed decision;

Stronger involvement of practitioners in the field of counter-terrorist activities in making, assessing and selecting new tools and technologies through reliable management plans.

Improving the training of law enforcement officers in this field and the cooperation at local, national and international level.



Questions & Answers

Gradiant

Forensic expertise

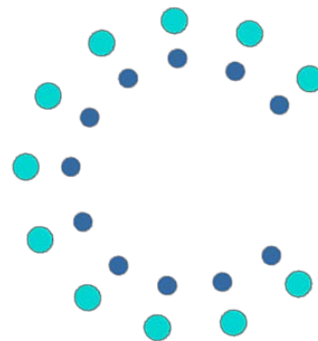
Pablo Dago Casas

Head of Identity & Forensics / Gradiant

pdago@gradiant.org



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



Description of the organisation

Gradiant is a non-profit private Spanish RTO founded in 2008. Its main activities are ICT technologies focused in three main pillars: COMMUNICATION, SECURITY and INTELLIGENCE with a strong background in AI/ML applied to image analysis. Gradiant has participated in over 36 EU-funded projects since the FP7 programme.

+150
people

8,5M€
year






*68% turnover with companies
32% competitive public funding*

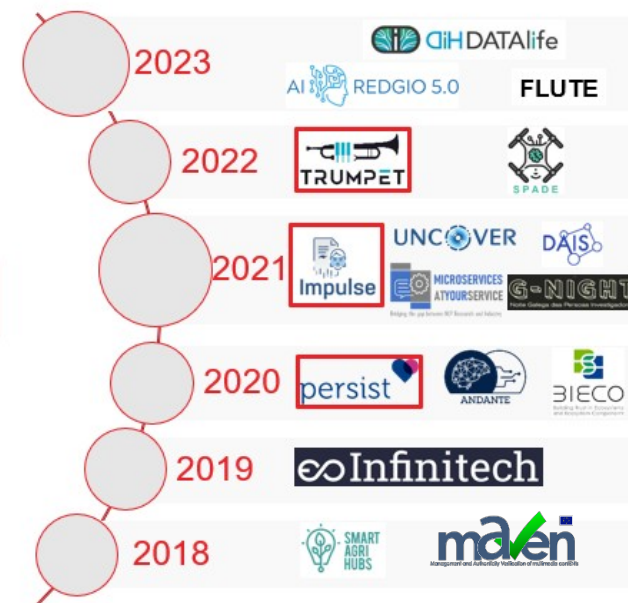
36
European
Projects

2
networks
cervera
excellence

+340
developed
projects

+300
clients
*90% SMEs
10% large companies*

	Trustworthy Multi-Site Privacy Enhancing Technologies Coordinador - 2022-25 / 800 k€ Privacy through PETs methods, Federated learning, Cancer
	Multi-purpose physical-cyber agri-forest drones ecosystem for governance and environmental observation 2022-26 / 320 k€ UAVs applications to primary sector / Digital Twin
	Federate Learning and Multi-Party Computation Techniques for Prostate Cancer 2023-26 / 545 k€ federated learning, Privacy, Prostate cancer
	Regions and (E)DIHs alliance for AI-at-the-Edge adoption by European Industry 5.0 Manufacturing SMEs 2023-26 / 209 k€ Industry 5.0 for SMEs. Impulse of Innolact (Quescrem)
	DATAlife European Digital Innovation Hub (EDIH) 2023-26 / 259 k€ EU funding + 259 k€ national funds Test Before Invest service development for SMEs



Expertise offer

Image forensics

AI-based image forensic pre-processing to aid steganalysis:

- Identification of the processing operations performed on images to provide forensic information to the steganalysis stage.
- Robust image retrieval for stego-cover pair identification.
- Participation in the UNCOVER Project (Development of an efficient steganalysis framework for uncovering hidden data in digital media; Horizon Europe, GA 101021687) as coordinator of the forensic preprocessing WP.

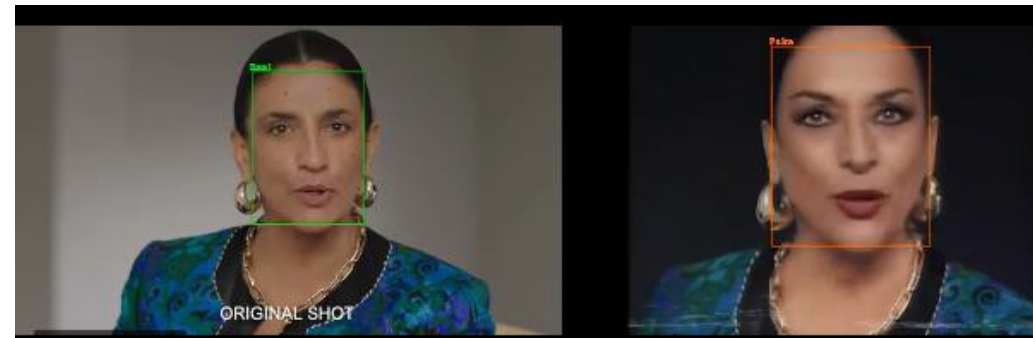


Expertise offer

AI-based fraud prevention

Document forgery detection for fraud prevention:

- Detect modifications of an existing document in the digital domain (e.g. Photoshop).
- Detection of document liveness and presentation attacks: Screen recaptures and prints.
- Agnostic to the type of document: ID documents, bills, payslips, etc.
- Does not require connection to external databases (e.g. ID document databases) to detect modifications.
- Deep-fake detection



More info and demo in <https://www.validabygradient.com>

Expertise offer

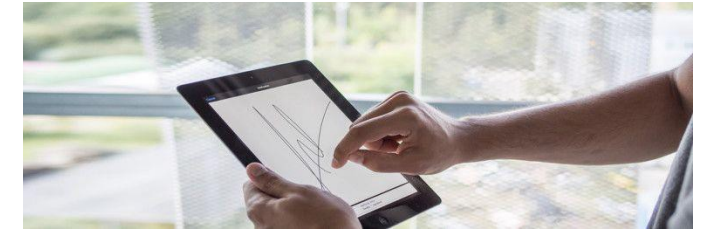
Biometrics

Handwritten signature verification

- **Dynamic signature verification** uses motion information to improve performance and security.
- Captured using normal smartphones or tablets.
- **Static signature verification** uses signatures stamped on paper for both enrollment and verification.
- Signature detection and location on scanned documents or photos.

Speaker recognition

- Compatible with high quality and telephone audio.
- Phrase-dependent and independent setups.
- Antispoofing detection for synthetic and deep-fake voices.



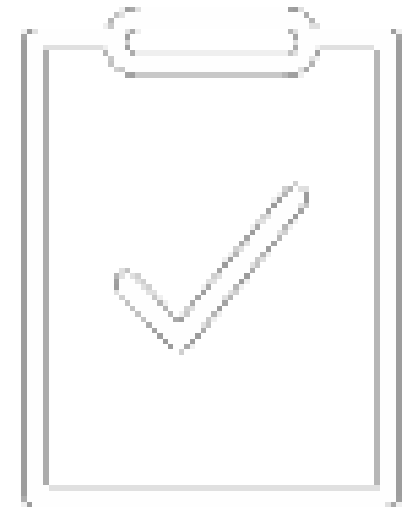
Expertise offer

Other AI-related expertise and interests

- Face processing (e.g. facial expression analysis).
- Speech: keyword detection, sentiment analysis.
- Document analysis: Signed (and stamped) document detection, logo identification, etc.

General AI topics:

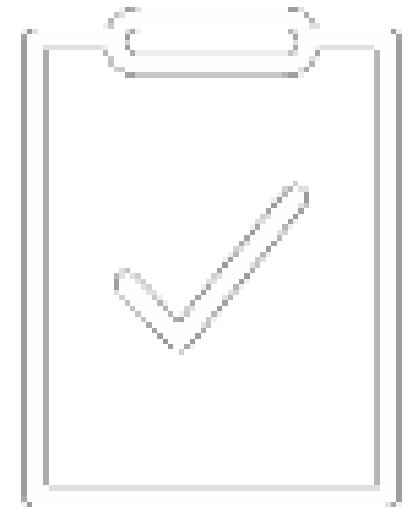
- Trustworthiness of AI & explainability.
- Federated, online and active learning.
- Data valuation/cleaning and Out of distribution (OOD).
- GANs and data generation.



Cooperation idea (if applicable)

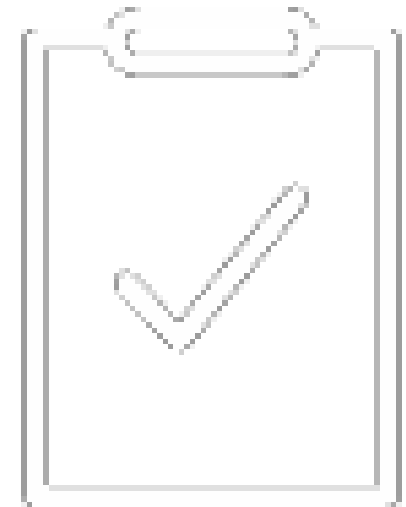
Topics of interest

- FCT 01 01: Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection
- FCT 01 05: Crime as a service
- BM 01 03: Beyond the state-of-the-art “biometrics on the move” for border checks
- CS 01 02: Privacy-preserving and identity management technologies



Contacts

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- Pablo Dago Casas pdago@gradient.org





Questions & Answers

INTSEN²

Proactive Automatic Imagery Intelligence powered by Artificial Intelligence Exploiting European Space Assets

Pablo Vega

Tracasa Instrumental (iTrac) / Spain

Intsen2communication@itracasa.es



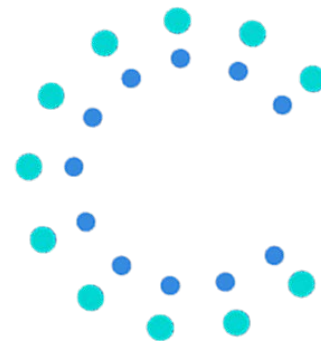
Estonian Police and Border Guard Board



Polisen Swedish Police



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.





Strengthen the European Union's operational autonomy in defence and security matters

IntSen² is an innovative project funded by the European Commission under the European Defence Fund, formed by 11 partners from 7 different countries.

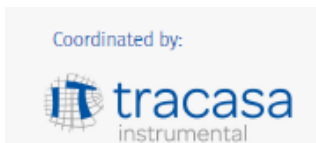
Our aim is to create disruptive change by using cutting-edge technology (AI) to develop an application concept for a **Proactive IMINT** service to support EU operational autonomy, and to **convert IMINT into a generator of intelligence to serve as input for other sources of intelligence.**



Figure 2 KABUL INTL AIRPORT. AUG 2021. 10M. RESOLUTION (S2 IMAGE)



Figure 3 KABUL INTL AIRPORT. AUG 2021. 2.5M. RESOLUTION (S2 SUPER-RESOLVED)





Are you working on IMINT, GEOINT or other technology in the field of intelligence?

We are actively **seeking sisters projects and potential partners** to collaborate with in the field of intelligence for the defense community, specifically focusing on IMINT (Imagery Intelligence) and GEOINT (Geospatial Intelligence).

We are seeking opportunities **to launch pre-operational pilots** in which we can demonstrate the advantage and practical utility of IMINT in the defense field through the utilization of exclusively European capabilities and assets.



INTSEN²





A Step Forward

Investment and Pre-Operational Pilots

A common objective: promoting the competitiveness of the European defence.

We are interested in **sponsors for establishing pre-operational pilots** or **development investment in ancillary topics** such as on-board processing.

By partnering with us, sponsors will not only have the opportunity to support EU operational autonomy but also benefit from being at the forefront of technology and research.

We believe that collaboration is the key to success in today's rapidly evolving landscape.



INTSEN²





Expertise offer: Proactive IMINT

Convert IMINT into a generator of intelligence to serve as input for other sources of intelligence.

IntSen² improves resolution of Sentinel images to enable their use in the security field. Use of European assets in an automatic workflow: from image acquisition (freely available, worldwide cover, 2-3 days frequency). As a result of the resolution improvement of images, we can automate object identification and processing, exploiting this capacity for defence purposes.

1 Extracting value from sentinel images



Figure 4 C17-GLOBEMASTER (S2 IMAGE)



2 Monitoring any area and setting alarms when an event occurs.

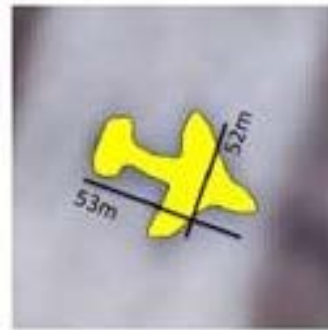


Figure 5 GLOBEMASTER DÉTECTION



3 Operational information. Unfeasible to manage by humans, we use IA.



Figure 6 C17-GLOBEMASTER

IntSen² will be creating a dataset of different forces and we will test the algorithms on real scenarios. This will work as a validation scenario, a use case to validate our technology. Since we know the outcome, we can prove whether we can use Sentinel + AI to create meaningful strategic Intel.





Contacts

If you are interested in exploring sponsorship opportunities or discussing potential collaborations, please do not hesitate to reach out to us.

You can contact us at:

Intsen2communication@itracasa.es

INTSEN²





INTSEN²





Questions & Answers

Traversals Analytics & Intelligence GmbH

AI/ML supported Open Source Intelligence and Data Fusion Platform

Dr. Dirk Kolb

CEO/ Traversals Analytics & Intelligence

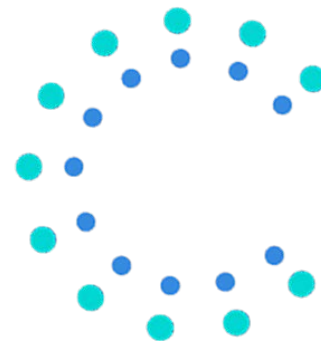
dirk.kolb@traversals.com



Estonian Police and Border Guard Board



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



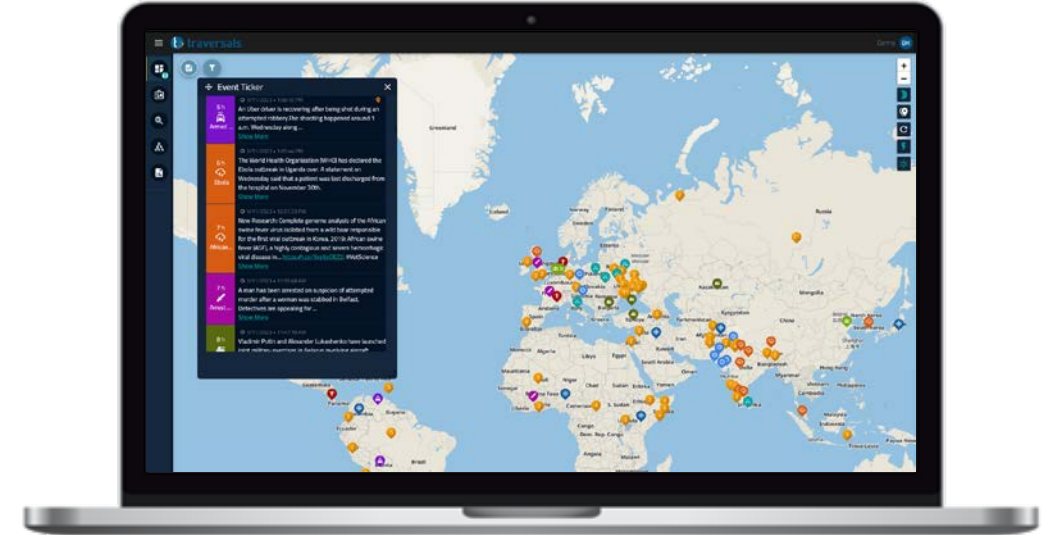
Description of the organisation

About Traversals

Traversals Analytics and Intelligence is a German technology company concentrating on scalable information collection solutions for **armed forces, intelligence agencies and security enterprises.**

At its core stands the highly customizable Software-as-a-Service (SaaS) Data Fusion Platform, which enables customers to GDPR compliant collect, analyze and disseminate information in **multiple languages and in near real-time** from various sources to provide actionable **intelligence at machine speed.**

Its open architecture allows the platform to integrate any third-party services to **create superior intelligence-gathering capabilities** for your needs.



Cooperation idea

AI/ML supported Open Source Intelligence and Data Fusion Platform

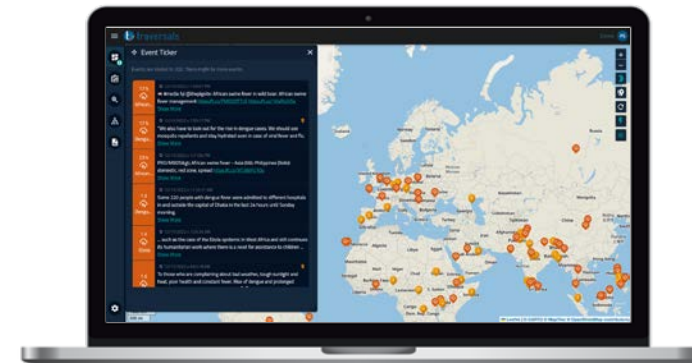
Intelligence: Be the first to know about political instability all around the world.



Defence: Get near real-time information about troop movements in conflict zones like Ukraine.



Security: Use our Data Fusion Platform for Travel Risk Management, Activism Monitoring, Fraud Detection etc.



Expertise request

Enter the future



Investment

We are looking for trustful partners who want to invest in one of the leading German AI/ML defence companies and share a long-term vision to revolutionise the intelligence cycle.

Purchase

We are looking for customers who want to expand their analytical capabilities in the intelligence area and rely on innovative AI/ML-supported products.



Expertise offer

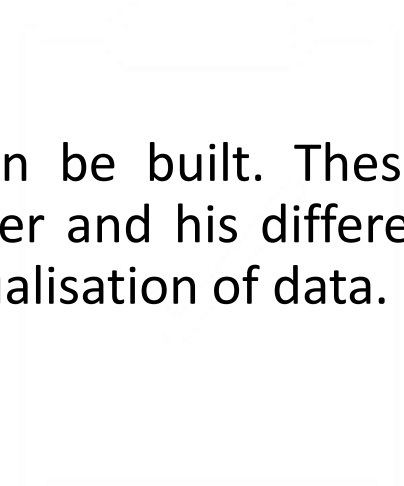
Open Source Intelligence & Data Fusion

AI/ML supported Open Source Intelligence (OSINT)

The platform incorporates AI/ML support such as Named Entity Recognition (NER) and Pattern Recognition to ensure fast and efficient data processing and comprehensive insight on open source information.

Data Fusion Platform & Development Environment

With the help of the development environment, own data pipelines can be built. These data pipelines result in a dynamic ontology that can be adapted to the customer and his different use cases. The platform contains a flexible tool catalogue for the analysis and visualisation of data.



Contacts

Get in contact with us



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Business Development Manager

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+49 151 123 85434



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Questions & Answers

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Pierce through the fog of info war

Martin Brezina

Senior Analyst

martin.brezina@gerulata.com



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



Info war is the great conflict of our generation

Disinformation, online toxicity, polarisation and hostile propaganda have **critical negative influence** on our societies' discourse and decision making.

For our institutions, it is difficult to know and understand, let alone to keep track with the **speed and extent** of the problem.

gerulata

Supporting researchers & practitioners.

Our clients come from **different backgrounds**: democratic institutions, risk management, law enforcement, military, intelligence community, NGOs and academia.

What they all have in common is the need for **timely and accurate data** and reliable analytical tools.

 gerulata

**“Disinformation is cross-platform,
cross-lingual, cross-modal & cross-
border.”**

Prof. Kalina Bontcheva, CEDMO Conference, 2022

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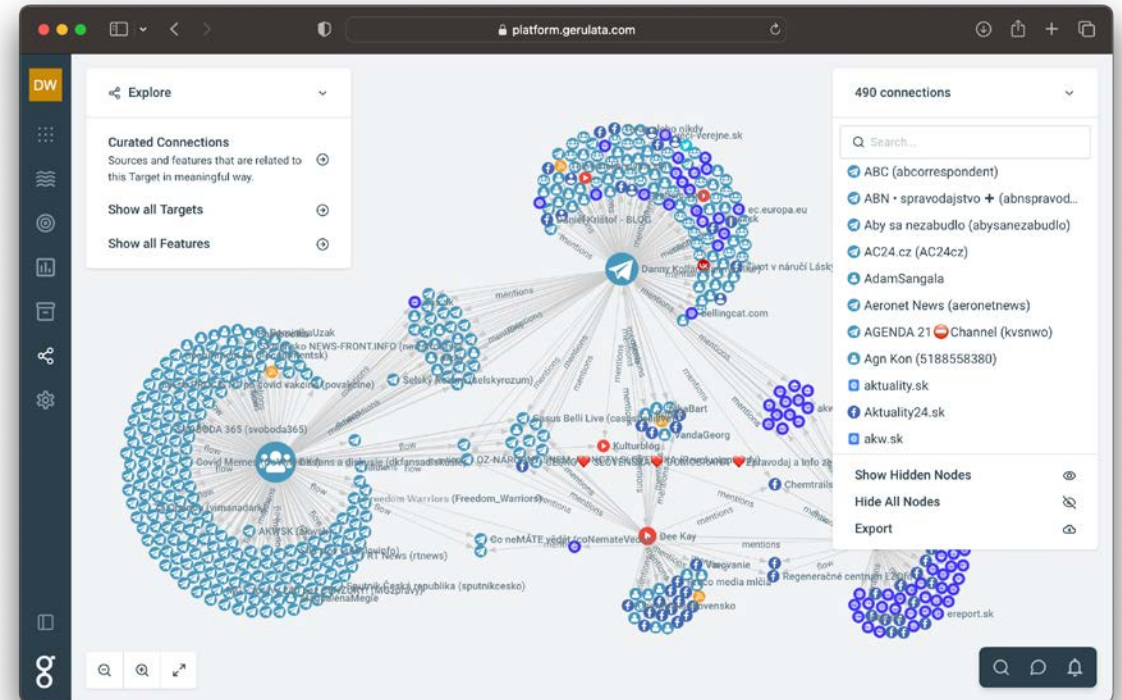
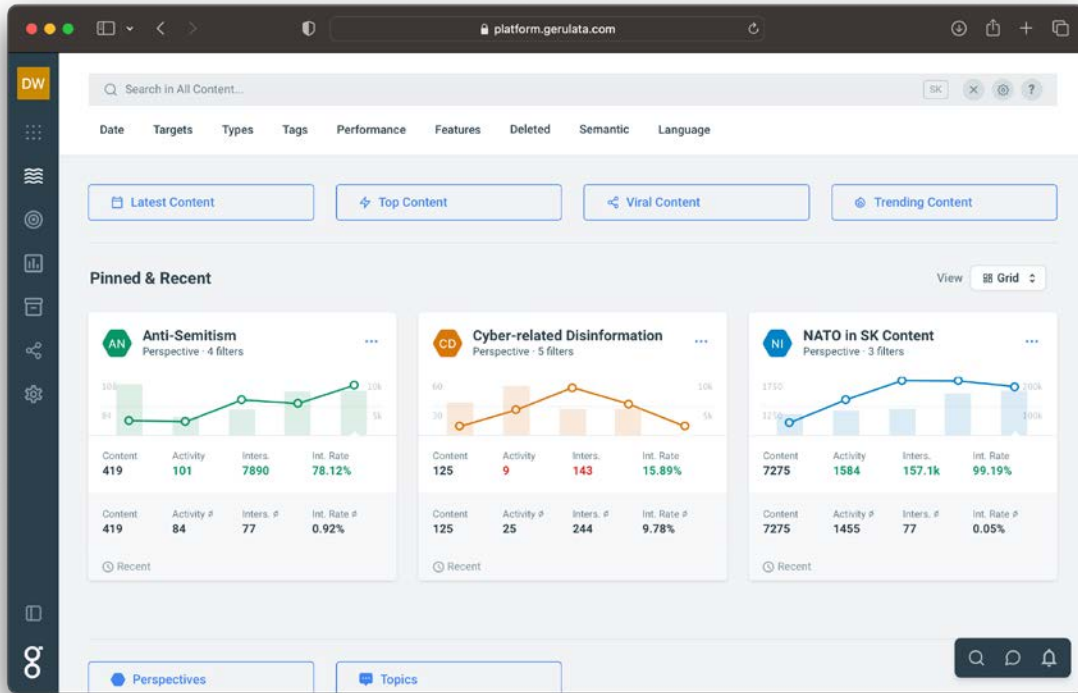
Gerulata Juno

ML-powered **monitoring, research and analysis platform** for information security professionals.

- Identify emerging threats in near-real time
- Recognise trends in online narratives
- Uncover coordination between actors
- Make informed decisions based on data

The logo for Gerulata, featuring the word "gerulata" in a bold, lowercase, sans-serif font. The letter "g" is stylized with a circular dot at its base.

Gerulata Juno



gerulata

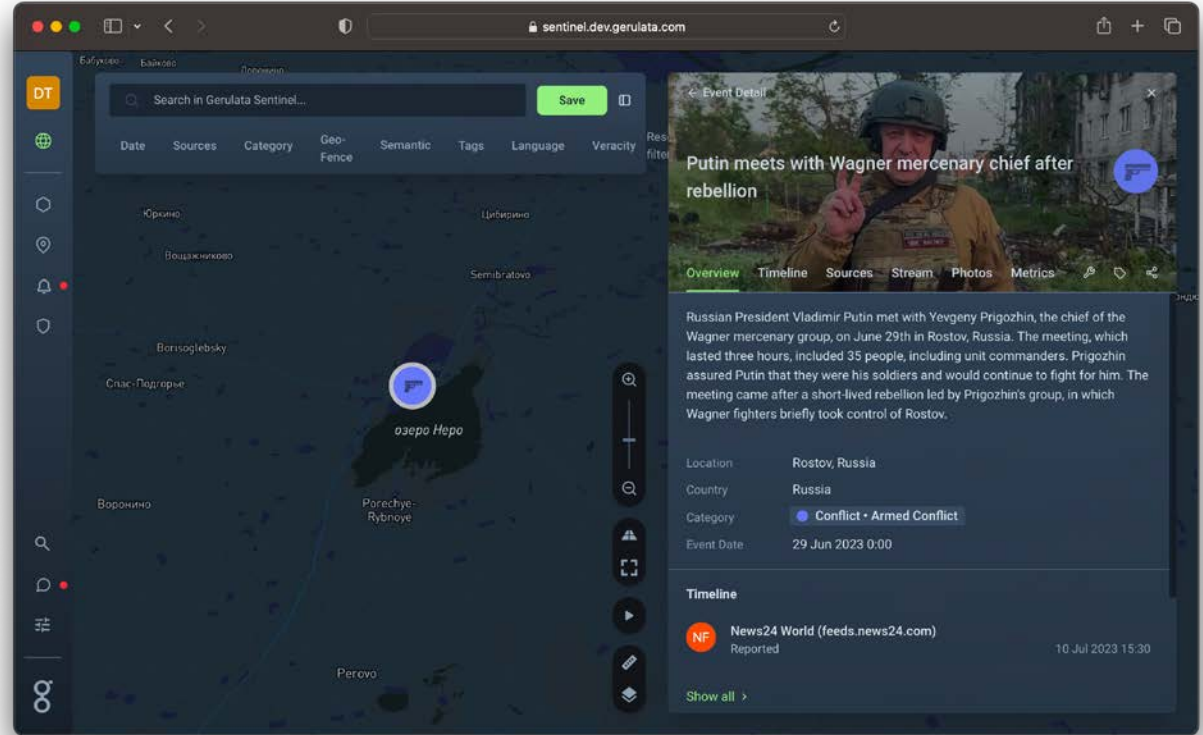
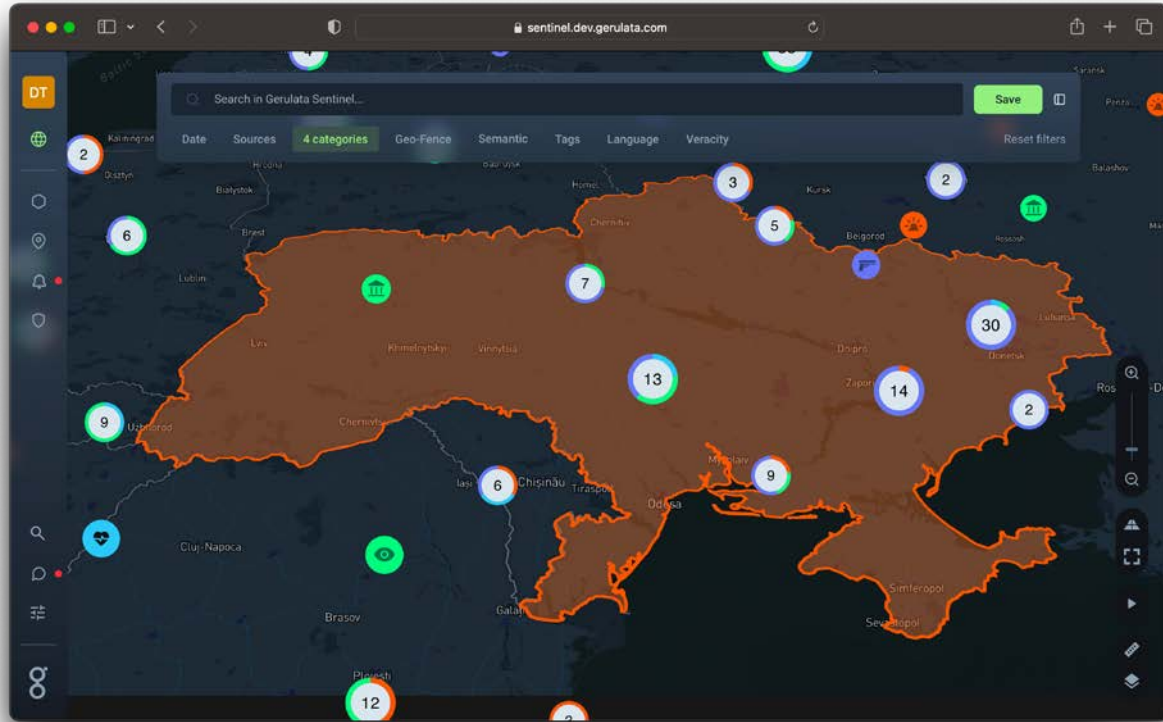
Gerulata Sentinel

AI-powered **situational awareness solution** based on open source data.

- Identify critical events in near-real time in 100+ languages
- Powerful alerting including notifications to mobile app
- Categories, veracity, search and filtering
- Support for data fusion and flexible workflows

The logo for Gerulata, featuring the word "gerulata" in a bold, lowercase, sans-serif font. The letter "g" is stylized with a circular dot at its base.

Gerulata Sentinel



gerulata

gerulata.com

Martin Brezina

Senior Analyst

martin.brezina@gerulata.com

The logo for gerulata, featuring the word "gerulata" in a bold, lowercase, sans-serif font. The letter "g" is stylized with a circular dot at its base.



Questions & Answers

Trilateral Research Ltd

Ethical AI for Law Enforcement

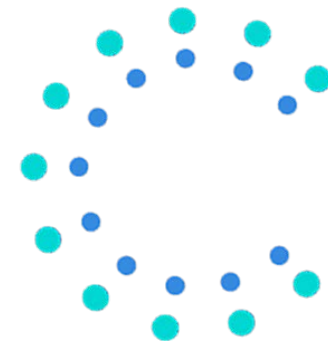
Joshua Hughes

Research Manager –Cluster Lead / Trilateral
Research

Joshua.hughes@trilateralresearch.com



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101021853.



Description of the organisation

Trilateral Research is an ethical AI company.

Our AI products are designed with a socio-tech approach to ensure ethical, legal, and societal issues are considered from ideation, through design, and into deployment and monitoring. Our current products focus on providing insight into child safeguarding reports, and understanding trends in human trafficking.

Our research services engage in EU Horizon and UK national projects working with partners to investigate how solutions to ethical, legal, and societal issues can be integrated into technologies and organizational processes. We cover six clusters: (i) Climate, Environment, & Energy; (ii) Crisis & Security; (iii) cybersecurity Research; (iv) Ethics, Human Rights & Emerging Technologies; (v) Health; (vi) Law Enforcement & Community Safeguarding. Our Data Science research cuts across all clusters.

Our consulting services advise clients on data protection, cyber-security, and responsible AI.

Cooperation idea (if applicable)

AI solutions for you

Our ethical AI product team would like to discuss with LEAs how our products can help you with safeguarding children from exploitation, and with understanding human trafficking trends in your location.

Our algorithms are bespoke to your situation. We engage in co-design with you to tailor our products to your needs, the context you operate in, and the specific challenges you face.

Our CESIUM product analyses risk factors present in child exploitation reports made by public authorities, and enables practitioners to better understand how children are exposed to risk and when they should be considered for safeguarding.

Our Honeycomb Essential product analyses open-source data about human trafficking trends and enables policy and decision-makers to understand the needs of victims in their areas in order to prioritise assistance services for victims.

Expertise offer (if applicable)

Our Law Enforcement and Community Safeguarding cluster would like to collaborate on Horizon projects, now and in the future. Across our whole research team, we are currently engaged in 50+ projects and have lots of experience in analysing ethical, legal, and societal issues.

We would like to work with LEAs on making practical ethics processes for LEAs to enhance their operations, and developing ethical AI for deployment. We are experts in integrating ethical and social science research into improving technology development and design.

We provide privacy and ethics-by-design research knowledge adapted to the law enforcement context. This includes impact assessments, substantive research of criminological phenomena and the issues faced by end-users, co-design with end-users, training.

We also offer subject-matter expertise in child exploitation/safeguarding, human trafficking, data protection, privacy, cybersecurity, amongst other topics.

Contacts



For more information on our ethical AI products, please contact:

Dr. Stephen Anning, Product Manager: Stephen.anning@trilateralresearch.com

For more information on our Law Enforcement and Community Safeguarding research cluster, please contact:

Dr. Joshua Hughes, Research Manager: Joshua.hughes@trilateralresearch.com




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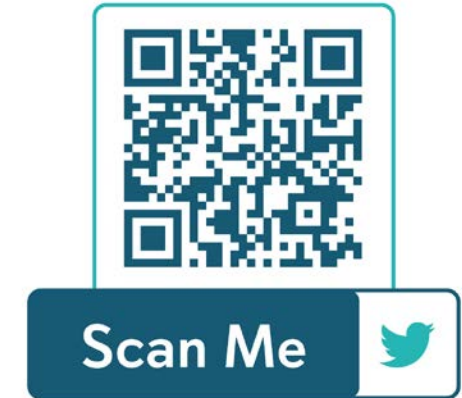
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We are proud to share the [#Agenda](#) of the first [#Workshop](#) in the framework of the [#ShieldProject](#).

Next 1st December in [#Rome](#).

[#Workshops](#) [#SecurityEU](#) [#Safety](#) [#ViolentExtremism](#) [#Interfaiths](#) [#Resilience](#)

Don't hesitate to contact us for your participation



shieldproject.eu
SHIELD: first workshop - SHIELD PROJECT
The 1st workshop of the SHIELD project t will take place on 1st December 2022 in the Conference Room - Aula Magna of the Great ...

 **NOTIONES_EU** @NOTIONES_EU · Nov 23

🔊 Prof. Yanakiev and Col. Dr. Stoianov of the Bulgarian Defense Institute (BDI) partners of [@NOTIONES_EU](#) Project, participated in the Nikosia Risk Forum 2022 and presented the project achievements to around 100 representatives of the EU, USA & Mexico.



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NOTIONES at Nikosia Risk Forum 2022 - NOTIONES
Professor Yantsislav Yanakiev and Col. Dr. Nikolai Stoianov from the Bulgarian Defence Institute (BDI) attended the Nikosia Risk Forum ...

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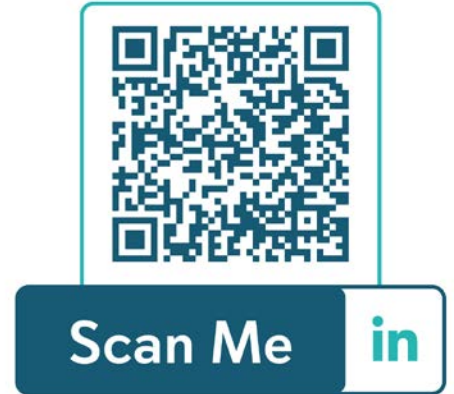
LinkedIn account | <https://www.linkedin.com/in/notiones-project-93aa22224/>

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 Andrew Staniforth, Director of Saher Europe and NOTIONES Project partner, looked at the background of brain fingerprinting technology and its use in law enforcement investigations and deception detection. He presented his ...see more




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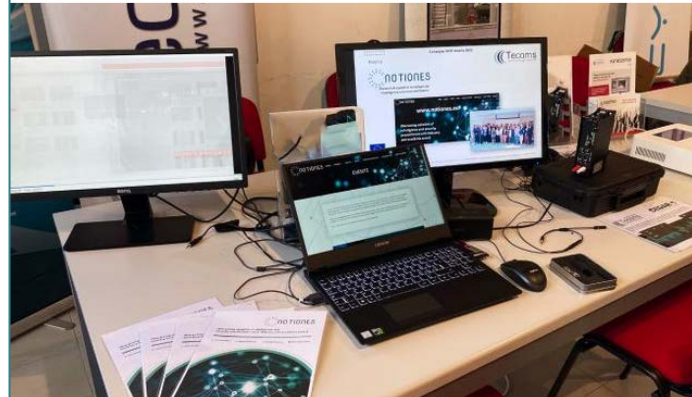
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2d · Edited · 

Tecoms Srl (Guido Villa) partner of the **NOTIONES Project** participated in the ONIF 2022 conference in Italy that spoke about the challenges that law enforcement and intelligence specialists face in analyzing call data recr ...see more



Network projects events

https://www.alliesproject.com/11-10-23_tco-event/



Terrorist Content Online (TCO): how to prevent it?

How terrorist organisations spread TCO and what can be done to stop it



11.10.2023



10:00 – 11:30 AM CEST

Host: SYNNO GmbH – ALLIES LEAD

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