FCT SESSION - MODERATORS

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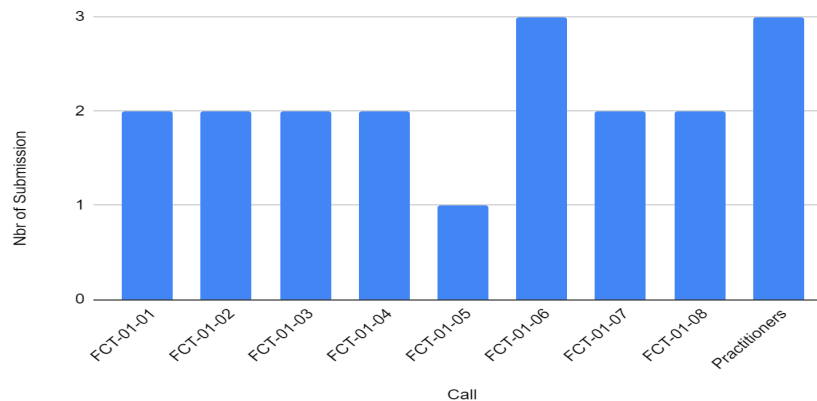
guillaume.brumter@eos-eu.com

Cristina PICUS

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Anna Pomortseva | Katharina Fritz | Anna Pomortseva | Marta Kollarova I Vincent Perez de

Leon-Huet I Kristian Reeson

DRS SESSION - PRESENTATIONS

FCT-01-01	Avgerinos, Nikos	nikos.Avgerinos@performance.gr
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	Lt. Col. Stulikova, Anika	anika.stulikova@pcr.cz

FCT SESSION

FCT-01-01

Mitigating new threats and adapting investigation strategies in the era of Internet of Things

Presenters:

FCT-01-01	Avgerinos, Nikos	nikos.Avgerinos@performance.gr
	Marani, Alessandro	alessandro.marani@defenceresearchinstitute.eu

AI & ML enhanced IoT forensic **SMI2G** activities

- *Dr. Nikos AVGERINOS*
- *n.avgerinos@performance.gr*
- Performance Technologies
- Role: *Coordinator (TBD), S/T provider*

- Topic to be addressed: **HORIZON-CL3-2024-FCT-01-01**: *Mitigating new threats and adapting investigation strategies in the era of Internet of Things*

Proposal idea/content

Current challenges in IoT forensics: Diversity of IoT environment Complexity of IoT architecture, Big IoT data, Multi-jurisdiction, Privacy concerns, Chain of custody and data integrity, Security, Evidence found through IoT forensics

Innovation in IoT Forensics: Machine Learning and Artificial Intelligence - analyze large datasets from IoT devices, identifying patterns and anomalies that may indicate malicious activity.

Relevance to the call Expected Outcomes (EO) & Scope:
EO1: Increased understanding of Police Authorities regarding the emerging threats of the fast-developing environment of Internet of Things;

EO2: Modern tools to tackle new and emerging forms of crime;

Possibilities of coordination with related activities in the Digital Europe Programme.

Proposal idea/content

We bring experience/tools from **TRACY** (ongoing) [DIGITAL-2022-DEPLOY-02-LAW-SECURITY-AI: Security (law enforcement) AI-based pilot].

TRACY is an **e-Evidence open-source platform**. Main objective is the uptake of the AI-based system from LEAs, by running large scale pilots on their premises, using **telecommunication metadata** in a **fully operational environment**.

Offer our own simulator to generate synthetic realistic data (link with LAGO project).
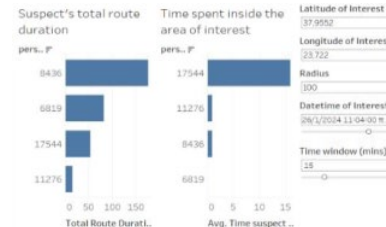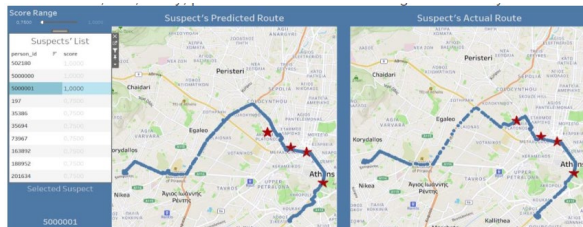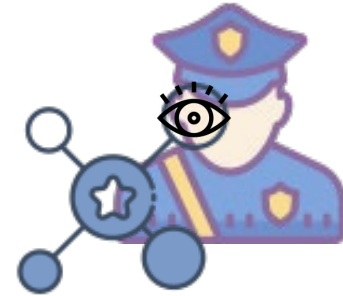
Project participants

- Existing consortium (Under construction):
  - Proposed coordinator: *TBD*
  - Partners / Other participants: SME, RTO
  - Legal expert

- Looking for partners with the following expertise/ technology/ application field:
  - *LEAs*
  - Forensic institutes
  - *IoT providers (device level, network level, and cloud level)*
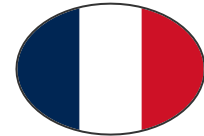
I P A
Iot-preparedness for Police Authorities

Alessandro MARANI

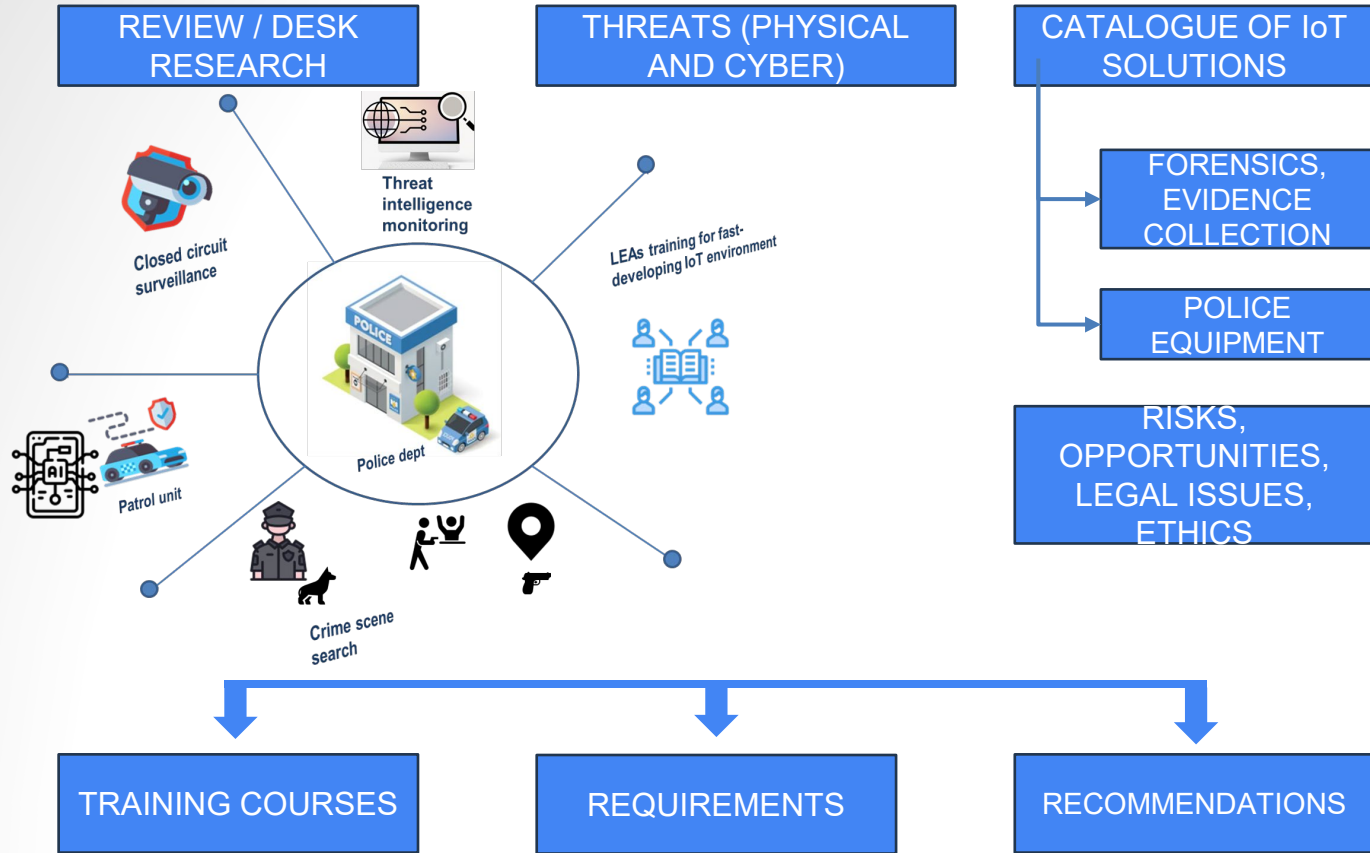(alessandro.marani@defenceresearchinstitute.eu)

Role: *Proposal coordinator* / *Scientific Coordinator*

Proposal activity: *HORIZON-CL3-2024-FCT-01-01*

Project idea of IPA

➤ Design a **catalogue of new IoT solutions** for Police Authorities**,** such as**:**

1. **Gunshot Detection System** (IoT-enabled acoustic sensors to detect and locate gunfire in urban areas);
2. **Body-worn Camera System** (IoT-enabled body cameras to record audio and video during interactions with the public and automatically upload data to cloud storage for evidence collection);
3. **Smart K9 Unit** (IoT-enabled collars or vests equipped with biometric sensors that will monitor health, location etc).
4. **…**

➤ Evaluate opportunities and **risks** concerning ethics, data protection and legal issues related to IoT devices

➤ Develop **training courses** on IoT technologies for police officers

➤ Provide **recommendations** & **requirements** for the development of new IoT solutions, devices, forensic tools and procedures

Alessandro MARANI (alessandro.marani@defenceresearchinstitute.eu)

REVIEW / DESK RESEARCH

THREATS (PHYSICAL AND CYBER)

CATALOGUE OF IoT SOLUTIONS

FORENSICS, EVIDENCE COLLECTION

POLICE EQUIPMENT

RISKS, OPPORTUNITIES, LEGAL ISSUES, ETHICS

Threat intelligence monitoring

Closed circuit surveillance

LEAs training for fast-developing IoT environment

Patrol unit

Police dept

Crime scene search

TRAINING COURSES

REQUIREMENTS

RECOMMENDATIONS

Alessandro MARANI (alessandro.marani@defenceresearchinstitute.eu)

Status of consortium

DRI 🇫🇷 SME) – *Proposal Coordinator / Scientific Coordinator*

- **Other members:**
  - *2 Police Authorities (FR, IT) - TBC*
  - *Tecoms (IT)*
  - *Zanasi & Partners (IT)*

- **Looking for:**
  - *Administrative coordinator*
  - *IoT producers*
  - *Other Police Authorities*
  - *Experts in digital identity*
  - *Cloud and data-storage providers*

- **DRI is also interested in:**
  - *HORIZON-CL3-2024*
    - *FCT-01-01*
    - *FCT-01-04*
    - *BM-01-02*
    - *BM-01-04*
  - **EDF-2024**
    - *DA-CYBER-NGCR-STEP*
    - *LS-RA-DIS-QUANT-STEP*
    - *LS-RA-CHALLENGE-SENS-RADNP*
  - *Digital Europe calls*

Alessandro MARANI (alessandro.marani@defenceresearchinstitute.eu)

FCT-01-02

Open Topic

Presenters:

| FCT-01-02 | Dago, Pablo | pdago@gradiant.org |
| | Nauendorf, Paul | Paul.Nauendorf@polizei.berlin.de |

AI-TRACE

- Pablo Dago
- pdago@gradiant.org

- Galician Research Center in Advanced Telecommunications (*GRADIANT*)

- Destination of interest: CL3-2024-FCT
- CL3-2024-FCT-01-02

Needs and interests

- **Proposal idea/content**

- Objective: Fingerprinting for media forensics in the new (AI) era
    - Computational photography (portraits, HDR, AI-based zoom, …).
    - AI-based image edition.
    - Synthetic content.
    - Social networks.
    - AI-based camera sensors.
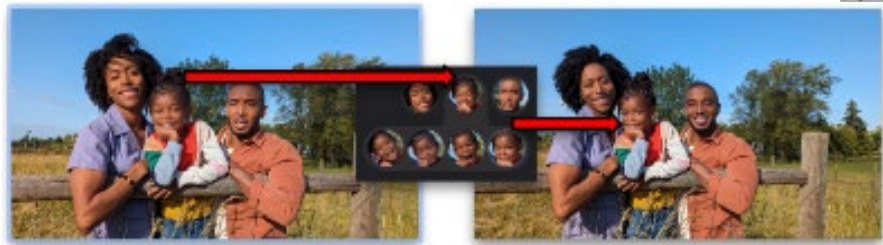
Intriguing properties of synthetic images:
from generative adversarial networks to diffusion models

Riccardo Corvi[1]   Davide Cozzolino[1]   Giovanni Poggi[1]   Koki Nagano[2]   Luisa Verdoliva[1]
[1]University Federico II of Naples   [2] NVIDIA
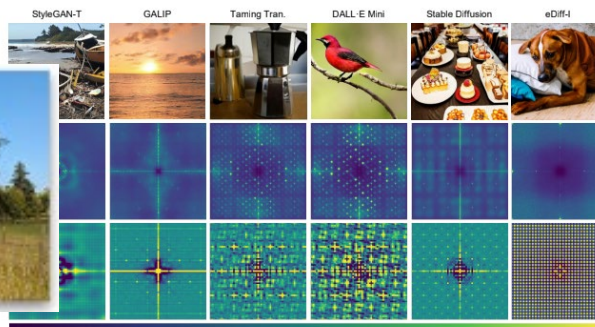
Needs and interests

- **Existing Consortium - profile of known partners**

No	Partner Name	Type	Country	Role in the Project
01	Gradiant	RTO	Spain	Coordinator
02	Universidade de Vigo	University	Spain	Partner
03	Amped	SME	Italy	Partner
04	CNIT	University	Italy	Partner
05	ZITiS	Forensic Institute	Germany	FI
06	BKA	LEA	Germany	End user
07	NICC	LEA	Belgium	End user

Needs and interests

- **Consortium – required partners**

No	Expertise	Type	Role in the project
01	SW development & deployment	SME	Platform development, integration
02	Ethics & Legal	SME	Ethics and legal monitoring and expert (AI Act, etc.)
03	Forensic Institute/LEA		End user
04	Communication/dissemination & Exploitation	SME	Impact & exploitation leader
05			
06			

Contribution

Gradiant's expertise:

- ICT technologies focused on three main topics:
  - Communications.
  - Security.
  - Intelligence.
- Gradiant has taken part in more than 35 European projects, including image forensics, communications for unmanned vehicles, data analytics and security measures.

Relevant projects

- MAVEN: Verify integrity and authenticity in object detected in digital images.
- PRACTICIES : Analysis of social media images for radicalization detection.
- UNCOVER: Image forensics for operational steganalysis.
- CICERO: Image analysis tools for detection of manipulations and deepfakes.

PoSiDrone

Drone-mounted modular sensor package for evidence collection in rural and forested areas

Dr. Paul Nauendorf
Center for Innovation and Research Management
Criminal Investigation Department Berlin
paul.nauendorf@polizei.berlin.de

Destination of interest:

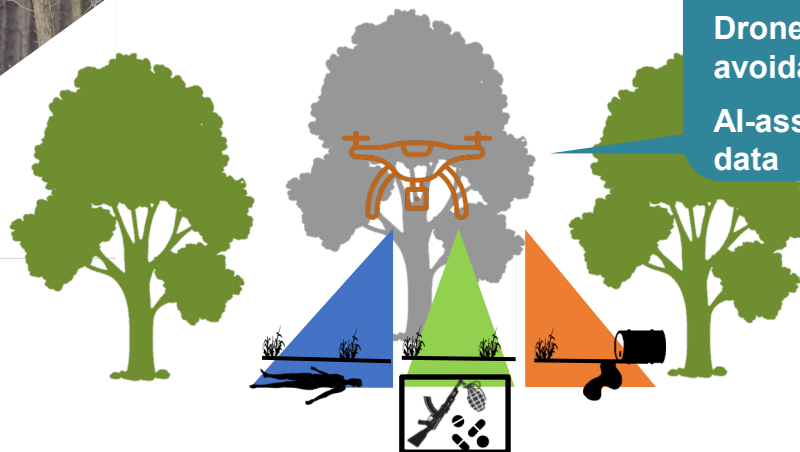HORIZON-CL3-2024-FCT-01-02: Open Topic

Background

Problem: Significant deficit regarding efficient and reliable methods for searching large forested areas
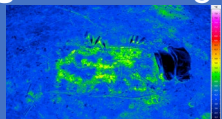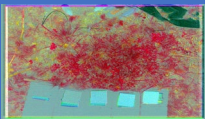

Solution:

Drone with modular sensor package

> **Modular sensor package**
>
> **Drone with obstacle avoidance**
>
> **AI-assisted analysis of visual data**

Search for **clandestine graves** using …
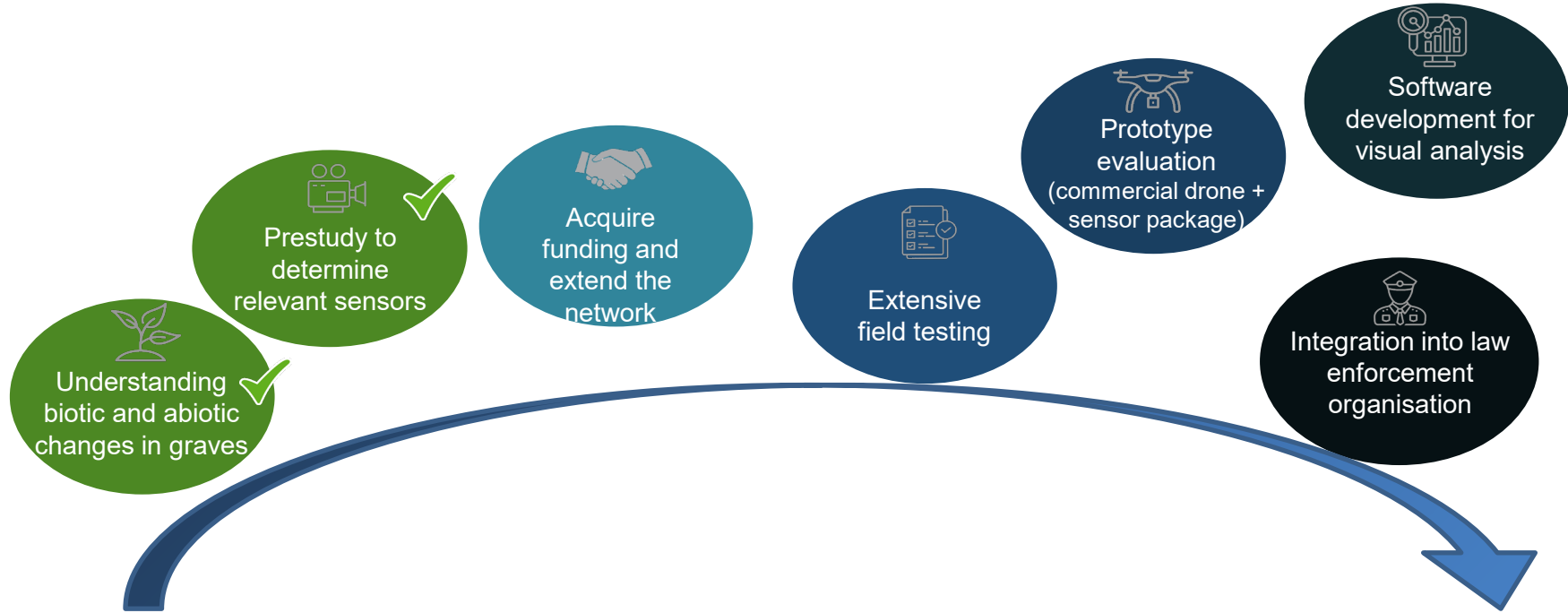
5-channel-multi-spectral

Radio-metric thermal-infrared

Search for **earth depots**

Investigate **environmental** crimes

Exploration of further use cases and sensors

19

Needs and interests

- testing of drone-sensor package in different environmental conditions
- software development with possible AI-implications
- autonomous flight in forested (obstacle-rich) environment

Contribution

Call: FCT02 - Improved forensics and lawful evidence collection - Open Topic (HORIZON-CL3-2024-FCT-01-02)

What do we offer?

- established network of partners with significant expertise in the fields of sensor development and UAVs
- first results from a successful prestudy conducted with land-based sensors in Germany

What are we looking for?

- police authorities with similar demands
- forensic institutes and other institutions with expertise in…
    - sensor technology
    - software development with AI-implications
    - Environmental, soil, biological sciences
    - Ethics/legislation
    - Autonomous drone flight with obstacle avoidance
- potential consortium lead

DLR Deutsches Zentrum für Luft- und Raumfahrt
German Aerospace Center

POLIZEI BERLIN

GFZ Helmholtz Centre POTSDAM

Bundeskriminalamt

You?

Thank you for your attention!

Dr. Paul Nauendorf: paul.nauendorf@polizei.berlin.de, +49 (0)30 4664-909017

Max Hornberger: max.hornberger@polizei.berlin.de, +49 (0)30 4664-909018

Berlin Police, LKA ZIW: lka-ziw@polizei.berlin.de

FCT-01-03

Lawful evidence collection in online child sexual abuse investigations, including undercover

Presenters:

| FCT-01-03 | Gregorio, Lucia | lucia.gregorio@treetk.com |
| | Katrakazas, Panagiotis | katrakazas.p@kmop.org |

UndercoverAI

- *Lucia Gregorio*
- *lucia.gregorio@treetk.com*
- *Tree Technology (SME)*
  - Spanish SME
  - Field of expertise: Big Data, AI, Cybersecurity
  - >30 EU projects. 11 (EU) ongoing +6 national PPI on cybersecurity
  - 10 projects on H2020-SEC. 3 ongoing: TRUSTaWARE, TeamAware and Nightingale.
  - 3 proposals under HE-CL3 recently approved

- *CL3-FCT*
- *HORIZON-CL3-2024-FCT-01-03*

Needs and interests

- *Topic: [HORIZON-CL3-2024-FCT-01-03 - Lawful evidence collection in online child sexual abuse investigations, including undercover](#)*
- *Needs and problems:*
  - *Lack of awareness from children/teenagers of the use of pictures in Internet. Most post pictures without parental consent.*
  - *Pictures are being treated with AI to become more sexually explicit*
  - *Technology to create Photorealistic AI-generated sexual pictures is available*
- *Project idea:*

  *To **provide** public authorities **with a tool** that can potentially **identify sexual images from under-18** and follow **track of the use** and **generate synthetic content to infiltrate in pedophile networks to collect evidence** againts pedophiles.*

  - *Monitor SM to look for sexual images from under-18 and identify posible consumers of the content. Follow the source of the picture. Analyse the level of alteration (if any). Confirm consent for publication and distribution.*
  - *Create an AI-model based on AI-generated photorrealistic sexual images and a chatbot mimicking teenager lengague to infiltrate synthetic content in pedophile networks*
  - *Explore if consumption of AI-generated (or modified) pictures to track pedophiles is legal. Explore legislation on suing pedophiles based on synthetic content – connection with SSH.*

Lucia Gregorio / lucia.gregorio@treetk.com

Contribution

- Looking for partners with the following expertise.
  - Police authorities
  - Forensic Institutes
  - Experts on AI-generated photorealistic content
  - IT developers with a chatbot -tobe trained to mimic the teenagers' language, tone, etc.-
  - Legal experts on paedophilia and sexual abuse

- Which role do you prefer in a consortium?
  - No preference on being leader or partner
  - Tracking use of images (real or synthetic) on web (including Deep Web and DarkWeb). Automatic identification if it's from an under-16. Analysing level of manipulation of the images. Track consent for publication.

ARTEMIS Pitch Presentation

- *Panagiotis Katrakazas, Ph.D.*
- *katrakazas.p@kmop.org*
- *KMOP (SOCIAL ACTION & INNOVATION CENTRE)*
- Role: *Proposal Coordinator*

- Topic to be addressed: *CL3-FCT-01-03*

ARTEMIS: Automated Response Tool for Exploited Minors' Internet Safety

Obj1	**Develop and deploy advanced AI-based tools (KPI1)** to automatically detect AI-generated CSAM with **90% accuracy (KPI2)** across major online platforms and encrypted communication channels by the end of Q4 Y1.
Obj2	Establish a comprehensive legal and operational framework for investigating cases involving AI-generated CSAM, including **clear guidelines for digital evidence collection and analysis (KPI3)**, and **train at least 500 law enforcement officers across the EU (KPI4)** on these procedures by Q2 Y2.
Obj3	**Create a secure, decentralized platform (KPI5)** for real-time information sharing among law enforcement agencies in the EU, enabling the **coordination of at least 50 joint investigations (KPI6)** into AI-generated CSAM cases by the end of Y2, while ensuring strict data protection and privacy standards.
Obj4	Enhance victim identification and support mechanisms to **successfully identify and provide appropriate services to at least 75% of potential victims (KPI7)** featured in AI-generated CSAM **within 72 hours of detection (KPI8)**, by collaborating with child protection organizations and mental health professionals, by Q3 Y2.
Obj5	**Conduct a large-scale, multi-national study (KPI9)** to assess the prevalence, technologies, and societal impact of AI-generated CSAM, **publishing the findings in at least three peer-reviewed journals and presenting at five international conferences (KPI10)** by the end of the project in Y3.
Obj6	Develop and promote **a set of industry standards and best practices for the ethical development and deployment of generative AI systems (KPI11)**, **endorsed by at least 50% of major AI companies (KPI12)** and **integrated into the EU's AI governance framework (KPI13)** by Q4 Y2, to prevent the misuse of these technologies for CSAM production.
Obj7	**Launch a public awareness campaign (KPI14)** to **educate at least 500K EU citizens (KPI15)**, particularly parents, educators, and youth, about the risks of AI-generated CSAM and preventive measures, **achieving a 60% increase in public understanding of the issue based on pre- and post-campaign surveys (KPI16)**, by Q2 Y3.
Obj8	**Establish a multi-stakeholder advisory board (KPI17)**, comprising representatives from law enforcement, child protection agencies, AI industry, academia, and civil society, to guide the project's activities and ensure alignment with legal, ethical, and societal considerations, convening at least quarterly throughout the project duration.
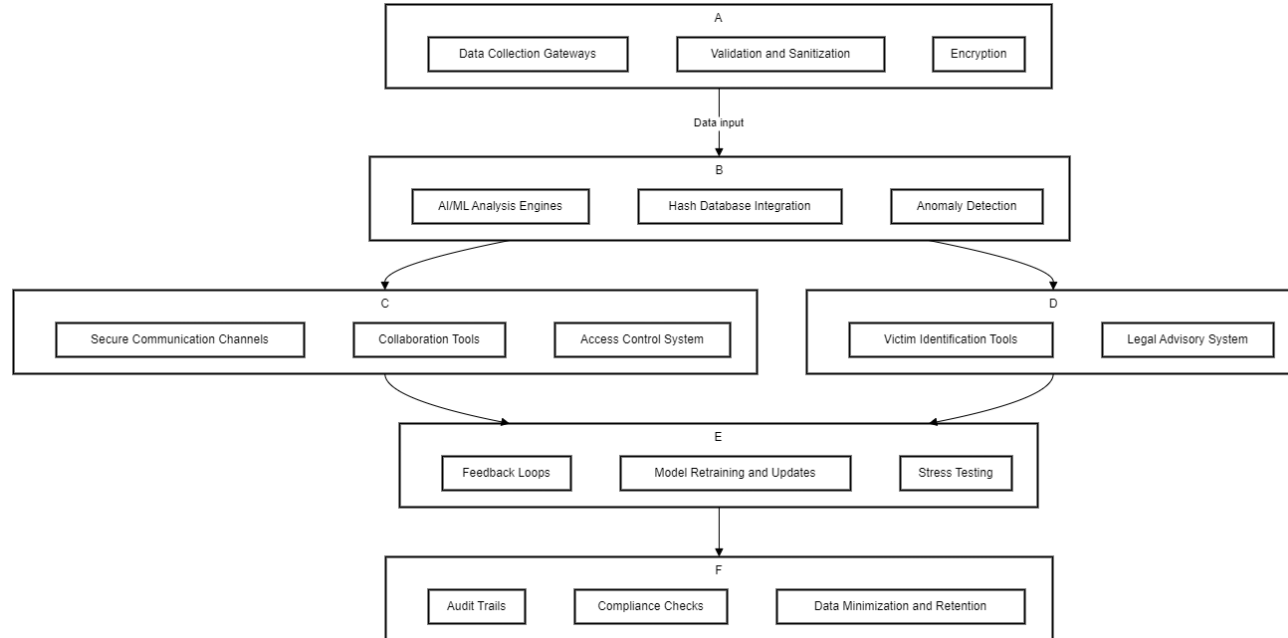
Panagiotis Katrakazas, katrakazas.p@kmop.org

Project participants

- Existing consortium:
  - Proposed coordinator: *KMOP*
  - Partners / Other participants

# of Partners	8
Countries Involved	EL, IT, ES, B, CY
Types	2 LEAs, 3 Technology Partners, 1 Academia, 3 CSOs
Status	6 confirmed, 2 TBC

- Looking for partners with the following expertise/ technology/ application field:
  - *LEA (1) : for training purposes*
  - *Technology Partner (1) : for validation purposes*
  - *Academia (1) : for policy and legal framework know-how*

FCT-01-04

Radicalisation and Gender

Presenters:

FCT-01-04	Diego, José	proyectosplv@valencia.es
	Gerhards, Regine	stephanie.fleischer@polizei.niedersachsen.de

Valencia Local Police (PLV)

SMI2G
Security Mission Information & Innovation Group

Susana Sola Zurriaga

Project Manager - Innovation & Project Management Division

✉ proyectosplv@valencia.es

☎ +3 +34 96 208 5482

Role: *LEA/End-user*

Topic to be addressed: *Radicalisation and gender*

*HORIZON-CL3-2024-*FCT-01-04

proyectosplv@valencia.es

EUROPEAN
PROJECTS

AJUNTAMENT
DE VALÈNCIA

VALENCIA LOCAL POLICE

Partnering for safer communities: PLV's commitment

- PLV brings focused expertise to Horizon Europe's FCT-01-04 topic, leveraging **decades of experience in Community Policing**, combating radicalization, and addressing **GBV and DV** with a **specific taskforce** working exclusively on these issues (GAMA Unit).

- +30 European Projects under different EU funding Programs

EUROPEAN
PROJECTS
AJUNTAMENT
DE VALÈNCIA

Focused Expertise for Radicalisaton and Gender

- **Combating radicalisation:** José L. Diego, is an **Expert Member of the Radicalisation Awareness Network (RAN)**. Participation in related projects like TAKEDOWN and TAHCLE addressing radicalisation and hate crimes.

- **Gender-related Initiatives**: In addition to IMPROVE project, participation in past projects such as HASP, WOMPOWER, PVF!, ICEBERG, and HERA (as project Coordinator).

- **Vast experience in Community Policing** projects such as SELPE, SAFELAND, and INSPEC2T. More recently, KOBAN project in **FCT-01-03**, starting in September 2024. **Keynote Speakers at CERIS Workshop on Community Policing**.
- PLV corporate video for the Horizon programme

EUROPEAN PROJECTS

AJUNTAMENT DE VALÈNCIA

Pitch – LKA Niedersachsen

- Speaker: Regine Gerhards

- Contact: Dr. Anke Schröder
  - anke.schroeder@polizei.niedersachsen.de
  - Landeskriminalamt Niedersachsen

- Role: WP leader

- Topic to be addressed:
  CL3-2024-FCT-01-04: Radicalisation and gender

Our Expertise

- *Broad thematic approach*
  - *strengthening the population's resilience to e.g. extremism, hate crime, fake news*
  - *violence against women*
  - *crime prevention in urban development*

- *Multidisciplinary methodology approach*

- *Field access to the police in Lower Saxony*

- *Practically relevant dissemination of results and implementation*

- *Experience in submitting and implementing EU-funded projects*

Proposal idea/content

- *Processing gender relations in radicalisation processes*
  - *How do extremist ideas and radicalisation processes of women and girls differ from those of men and boys?*
  - *Which ideologies influence women and which influence men?*
  - *Why do girls and women participate in extremist actions?*

- *Enhancing the empirical database regarding the questions:*
  - *What kind of tasks do girls and women undertake?*
  - *What are push and pull factors?*
  - *In how far does the family environment (e.g. the spouse) influence the radicalisation process?*
  - *Do differences between the right-, left- und religious extremism exist?*

- *The mentioned questions should be answered …*
  - *in relation to gender relation*
  - *by analysing police data and prosecutor's documents*

- ***We are looking for***
  - *institutions that are willing to develop a proposal together, or*
  - *an already existing consortium to join and contribute our ideas and expertise*

FCT-01-05

Comùabting hate speech online and offline

Presenters:

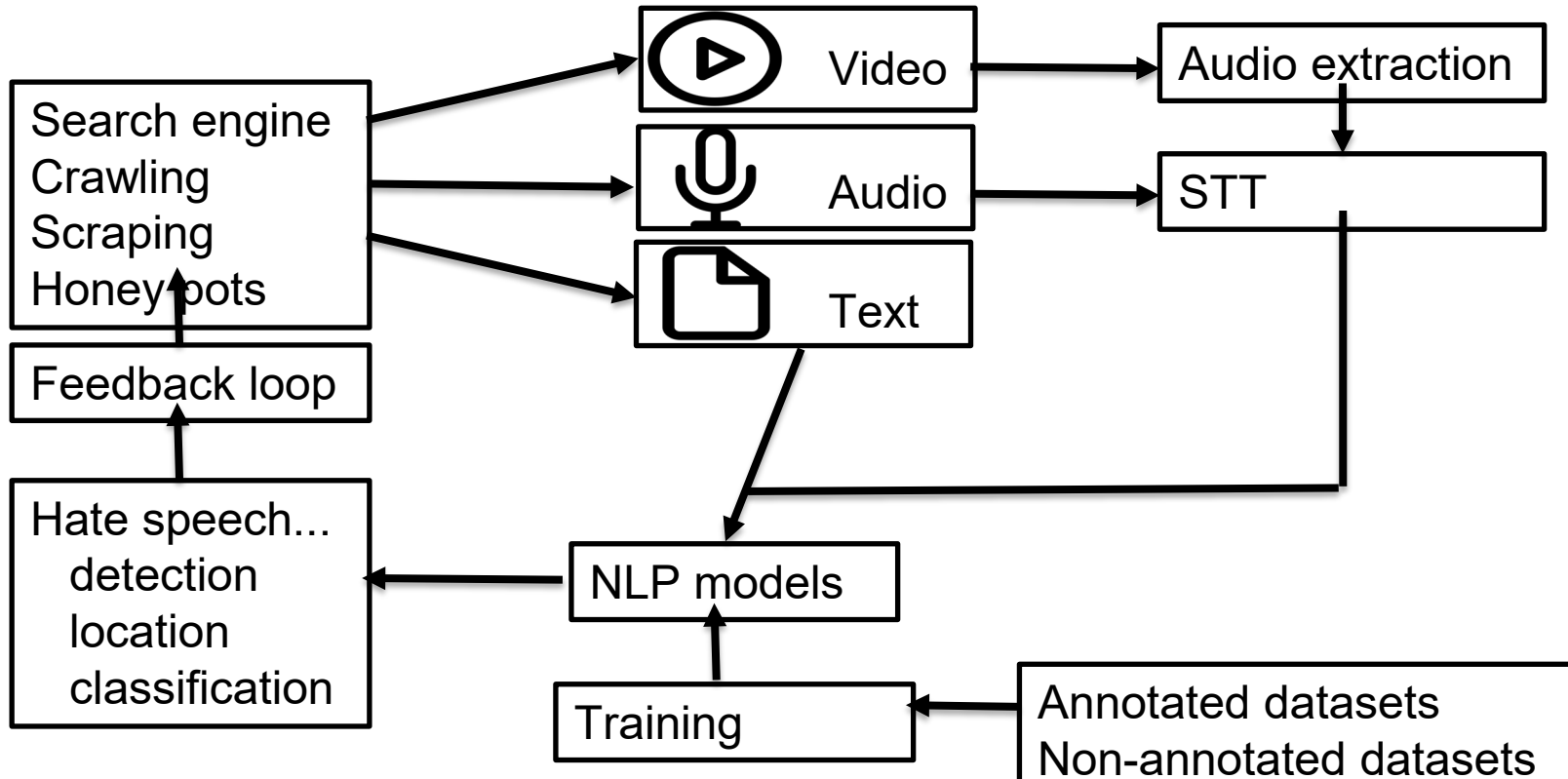| FCT-01-05	Macho González, Santiago	santiago.macho@treetk.com

SHIELD: **S**ystem for **H**ate speech **I**dentification, **E**valuation, and **L**ogical **D**etection

- *Santiago Macho González*
- *santiago.macho@treetk.com*
- *Tree Technology (SME)*
  - Spanish SME
  - Field of expertise: Big Data, AI, Cybersecurity
  - >30 EU projects. 11 (EU) ongoing +6 national PPI on cybersecurity
  - 10 projects on H2020-SEC. 3 ongoing: TRUSTaWARE, TeamAware and Nightingale.
  - 3 proposals under HE-CL3 recently approved

- *CL3-FCT*
- *Topic: HORIZON-CL3-2024-FCT-01-05 - Combating hate speech online and offline*

Needs and interests

- *Within the boundless of* digital interactions, our communities face a spectrum of speech – from the constructive to the offensive.

- Our goal is to support platforms in fostering dialogue that is open yet moderated with respect and dignity for all.

- Through our advanced detection system, we not only identify but also mitigate the spread of hate speech.

- Real-time analysis to detect harmful patterns of speech.

Santiago Macho González (santiago.macho@treetk.com)

Contribution idea

41

Santiago Macho González (santiago.macho@treetk.com)

Project participants

- Existing consortium:
  - Proposed coordinator: *TREE*

- Looking for partners with the following expertise/ technology/ application field:
  - Search engines, crawling and scraping, for publication retrieval
  - Speech-To-Text (STT) technologies
  - Social Network Analysis, especially community detection and sub-network modelling
  - Linguistics
  - End users (E-Commerce Platforms, Police, Government Agencies,…..)

FCT-01-06

Open topic

Presenters:

FCT-01-06	Kritsinelis, Nikos	kritsinelis.n@kmop.org
	Masselot, Marie-Sophie	Marie-sophie.masselot@cea.fr
	Memheld, Pierre	pmemheld@unistra.fr

CHANCE Pitch Presentation

- *Nikos Kritsinelis*
- *kritsinelis.n@kmop.org*
- *KMOP EIH (Education and Innovation Hub)*
- Role: *Proposal Coordinator*

- Topic to be addressed: *CL3-FCT-01-06*

Combating Honor-based Abuse through Cultural Engagement (CHANCE)

1.Research and Analysis: Conduct comprehensive research to map the prevalence of honor crimes across different regions, analyzing cultural, legal, and social factors that contribute to their perpetuation.

1.Community Engagement: Work closely with communities to understand the nuances of honor-related beliefs and practices. This involves workshops, interviews, and focus groups with community leaders, victims, and perpetrators' families.

1.Prevention Strategies: Develop educational programs aimed at changing societal attitudes towards honor and gender. This includes school curriculums, community workshops, and media campaigns.

1.Legal Framework Analysis: Review existing legal frameworks to identify gaps in the protection against honor crimes. Propose legal reforms that ensure stricter penalties and protection measures for potential victims.

1.Intervention Models: Create and test intervention models that law enforcement and social services can use to prevent honor crimes and protect victims. This includes training programs for police, social workers, and legal professionals.

The primary objective of CHANCE is to understand the cultural and societal dynamics that lead to honor crimes, develop comprehensive prevention strategies, and create intervention models that can be implemented across EU member states and associated countries. The project aims to reduce the incidence of honor crimes through education, legal reform, and community engagement

Nikos Kritsinelis, kritsinelis.n@kmop.org
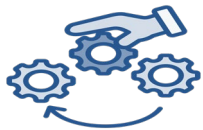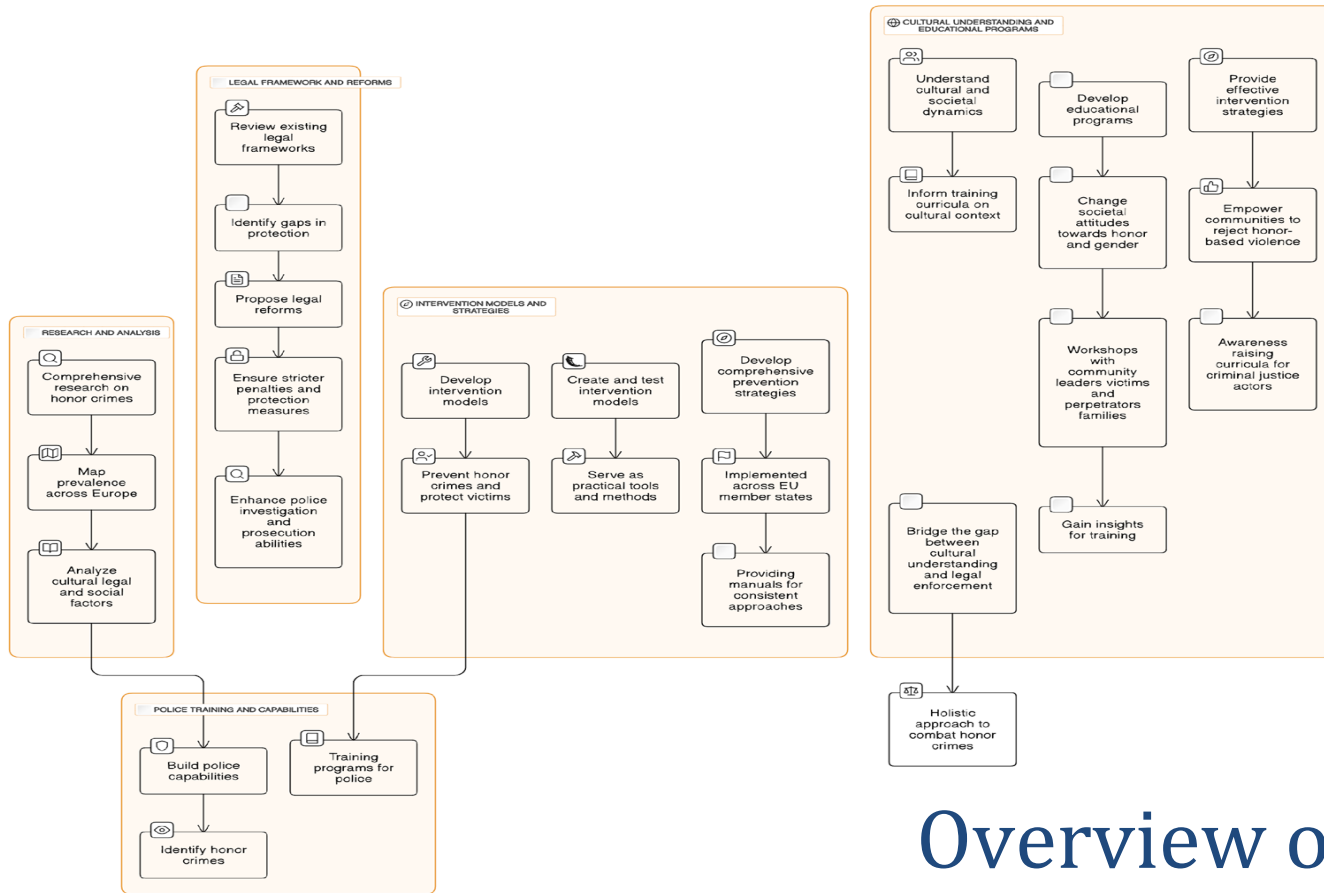
Overview of CHANCE Ecosystem Pathways

Project participants

- Existing consortium:
  - Proposed coordinator: *KMOP*
  - Partners / Other participants

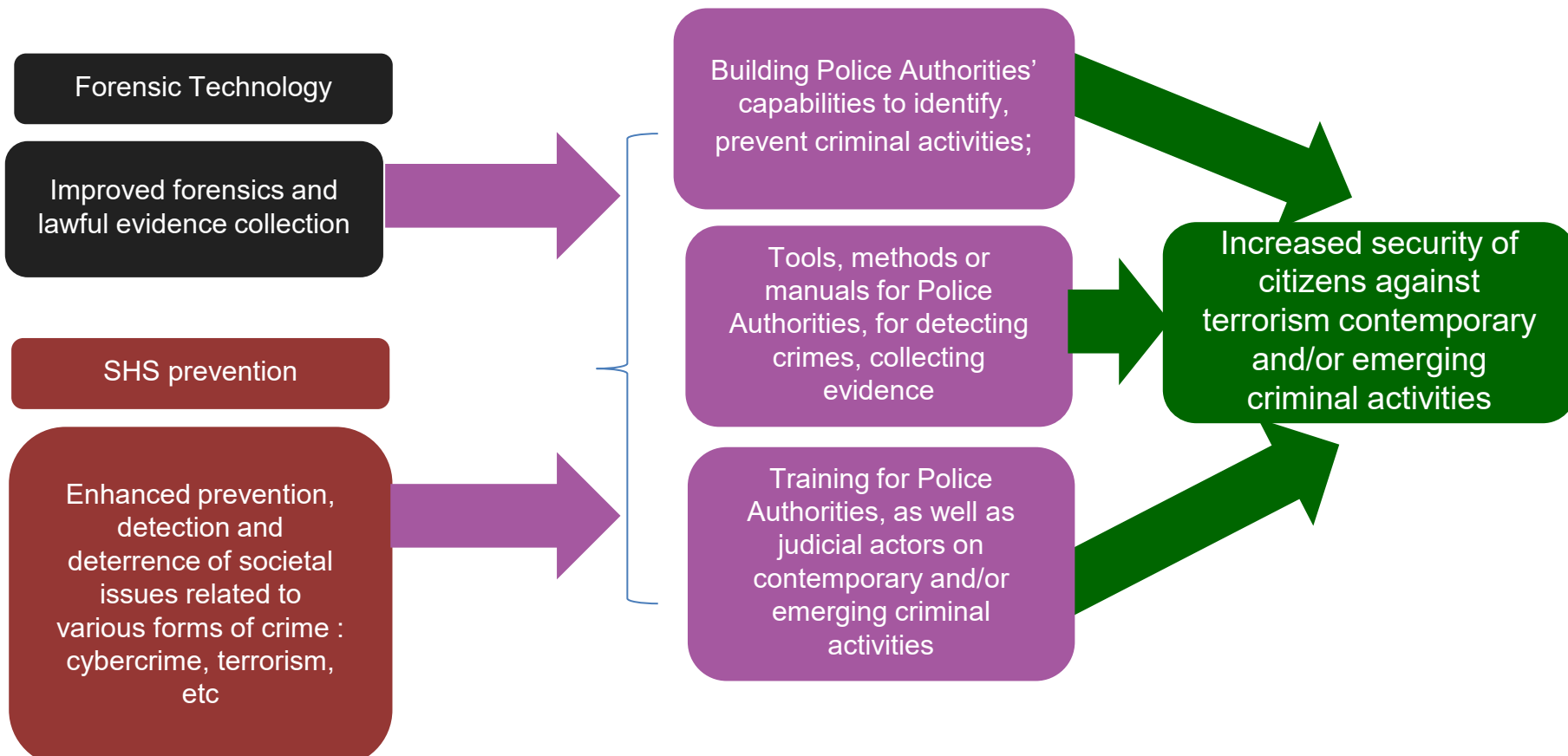| # of Partners	14
Countries Involved	EL, AL, IT, RO, D, TR
Types	3 LEAs, 1 University, 2 Legal Experts, 3 CSOs, 3 Public Authorities, 1 Training Facility
Status	11 confirmed, 3 TBC

- Looking for partners with the following expertise/ technology/ application field:
  - *Technology Partner (1) : for training content development*
  - *Academia (1) : for social-culture know-how*
  - *Public Authority (1): for validation purposes*

Nikos Kritsinelis, kritsinelis.n@kmop.org

SPINOF
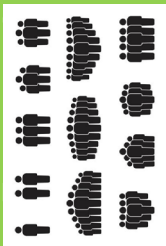# **Smartphone Prevention, Investigation NetwOrk and Forensic**

- *Marie-Sophie Masselot*
- *Marie-sophie.masselot@cea.fr*
- *CEA Leti*
- *Proposal coordinator (Driss Aboulkassimi)*

- Topic to be addressed: *CL3-FCT-01-06*

Contexte

Forensic Technology

Improved forensics and lawful evidence collection

SHS prevention

Enhanced prevention, detection and deterrence of societal issues related to various forms of crime : cybercrime, terrorism, etc

Building Police Authorities' capabilities to identify, prevent criminal activities;

Tools, methods or manuals for Police Authorities, for detecting crimes, collecting evidence

Training for Police Authorities, as well as judicial actors on contemporary and/or emerging criminal activities

Increased security of citizens against terrorism contemporary and/or emerging criminal activities

Marie-Sophie Masselot marie-sophie.masselot@cea.fr | Driss ABOULKASSIMI driss.aboulkassimi@cea.fr

SpinOF frameworks

Marie-Sophie Masselot marie-sophie.masselot@cea.fr | Driss ABOULKASSIMI driss.aboulkassimi@cea.fr

Implementation

Marie-Sophie Masselot marie-sophie.masselot@cea.fr | Driss ABOULKASSIMI driss.aboulkassimi@cea.fr

Composition of the Consortium: Targeted Partners

- **Creating LEAs network** for the project:
  - → Largest network of LEA expert teams in forensics in Europe

- For the prevention and detection framework:
  - → Private and/or public partners specialized in **image processing through AI** and capable of **engaging with SSH** (Social Sciences and Humanities) **for behavioral detection of criminals**.

- High expectations for SSH participation:
  - → **SSH institutes specialized in the crime prevention field** with the aim to create a strong interaction between different frameworks : the legal and the technical one.

Legal partners specialized on media legislation and forensic:
  - → Perform an inventory of the various legal frameworks across different European countries regarding digital evidence management and propose a guide for harmonizing practices to facilitate the collaboration between European entities

Marie-Sophie Masselot marie-sophie.masselot@cea.fr | Driss ABOULKASSIMI driss.aboulkassimi@cea.fr

ANALYST ARCADE

Using AI & serious games to assist and train white-collar crime intelligence analysts.

- **Proposal coordinator**:
- Frédérique SEGOND, PhD
- Defense and Security Lab (*NLP and reasoning*)
- Inria (France)
- Frederique.segond@inria.fr

- **Speaker**:
- Pierre MEMHELD
- BETA Lab – (France)
- pmemheld@unistra.fr

Topic to be addressed:
**HORIZON-CL3-2024-FCT-01-06: Open Topic (Research and Innovative Actions)**

Past related projects:
- **SU-FCT02-2018-2019-2020** — *"Technologies to enhance the fight against crime and terrorism". Countering Radicalisation for a Safer World"* (*CounteR*)
- **HORIZON-CL3-2022-FCT-01-05** (Innovation Actions): *"Effective fight against corruption" (FALCON)*
- **HORIZON-CL3-2023-FCT-01-06** (Research and Innovation Actions): *"Enhancing tools and capabilities to fight advanced forms of cyber threats and cyber-dependent crimes" (ENSEMBLE)*

Proposal idea/content

- ***Serious games as an innovative*** *educational tool for training intelligence analysts.*

- *AI-based approaches to **detect and deal with cognitive biases**, thus improving the analytical precision and impartiality of intelligence analysis.*

- ***Peer analysis to*** *contribute to diverse perspectives and **mitigate individual cognitive biases**.*

- ***Structured analytic techniques to provide a systematic approach*** *to processing and interpreting information.*

Proposal idea/content
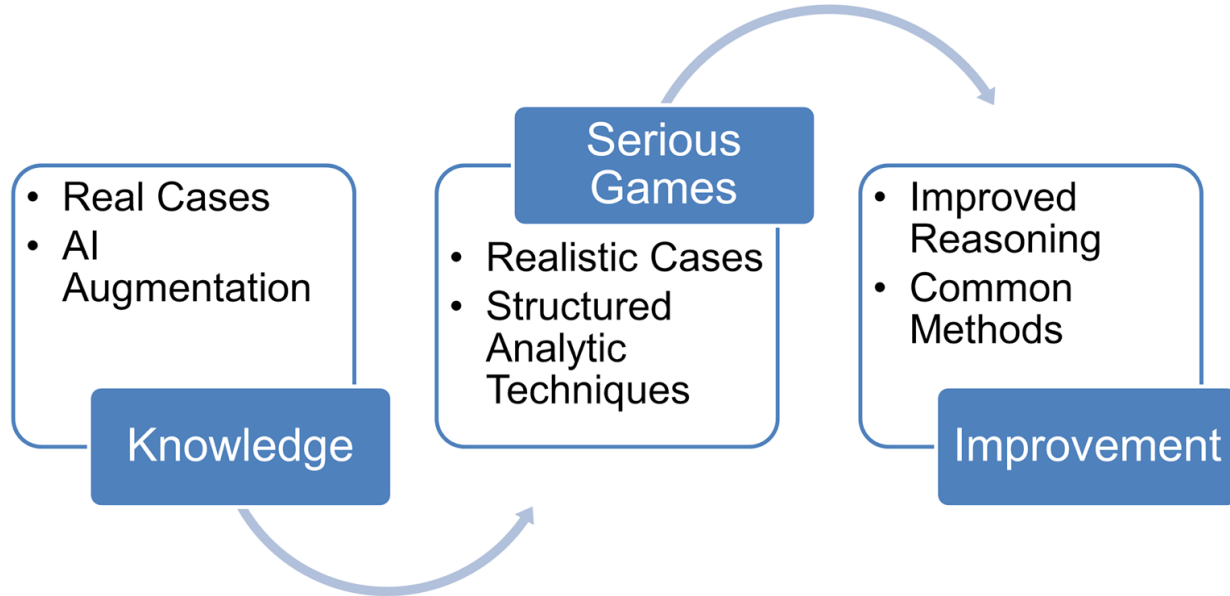
The combination of peer analysis and structured analytic techniques simulations can lead to substantial improvements in analytic reasoning within intelligence reports

Contacts : SEGOND frederique.segond@inria.fr ; MEMHELD pmemheld@unistra.fr

Project participants

- **Existing consortium:**
  - **Proposal coordinator:**
    - *Inria Defense & Security Lab*
    - *NLP and reasoning, France*
  - **Partners / Other participants:**
    - *BETA Lab (applied and theoretical economics): risk mitigation, white collar crime, analysis techniques*
    - *ENSP police research lab : application cases, field feed back, EU police forces networking*
    - *Interagens: italian SME (AI, serious games)*

- **Looking for partners with the following expertise/ technology/ application field:**
  - *Technologicals partners: Hybrid AI R&D, Analysis Techniques, Process Simulation*
  - *End Users: Regulatory Authorities, Anti White Collar Crime Units*

FCT-01-07

CBRN-E detection capacities in small architecture

Presenters:

FCT-01-07	Kioumourtzis, George	gk@ianus-consulting.com

CBRN-E detection capacities in small architecture

- *Dr Georgios Kioumourtzis*
- *gk@ianus-consulting.com*
- *IANUS Consulting*
- *Proposal coordinator*

- Topic: HORIZON-CL3-2024-FCT-01-07

Proposal idea/content

Aim to enhance public safety against terrorist threats by integrating existing sensors, particularly for CBRN-E detection, into urban furniture and small architectures within public spaces. Continuation of work on the protection of public spaces (ISF and Horizon Europe projects).

Training

provide recommendations for safety and security improvements in public spaces

enhance planning capabilities of security practitioners and policy-makers

enhance training of LEAs & FRs to improve preparedness for attacks on public spaces

improve vulnerability assessments for the detection of CBRN-E threats

Georgios Kioumourtzis - gk@ianus-consulting.com

Project participants

- Existing consortium:
  - Proposed coordinator: *IANUS Consulting Ltd (Cyprus)*
  - Technology provider (Greece)
  - Urban municipality (Greece)
  - Technology provider (Italy)
  - Urban municipality (Italy)
  - Technology provider (Netherlands)
  - Technology provider (Spain) – tbc
  - SSH (Italy) - tbc
- Looking for partners with the following expertise/ technology/ application field:
  - AI technology providers
  - Police Authorities
  - Data fusion
  - CBRN sensors

FCT-01-08

Tracing of cryptocurrencies transactions related to criminal purposes

Presenters:

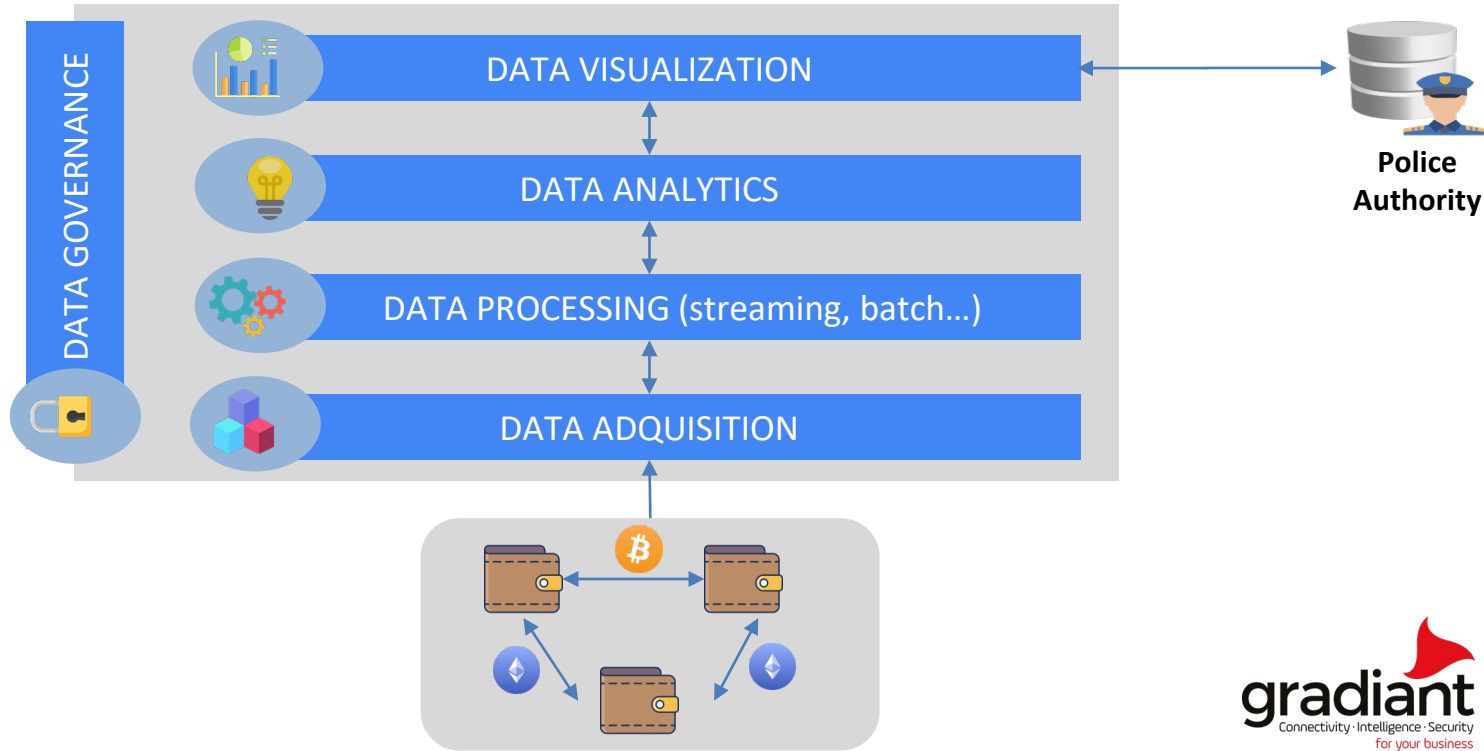| FCT-01-08 | Adkinson, Lilian | ladkinson@gradiant.org |
| | Veselý, Vladimír | veselyv@fit.vut.cz |

EAGLE: cryptocurrEncies trAcinG for the detection of criminaL activitiEs

- *Lilian Adkinson*
- *ladkinson@gradiant.org*
- *Gradiant (RTO, Spain)*
- Role: *WP leader, S/T provider*

- Topic to be addressed: *HORIZON-CL3-2024-FCT-01-08:*
  Tracing of cryptocurrencies transactions related to criminal purposes

Proposal idea/content

DATA GOVERNANCE

DATA VISUALIZATION

DATA ANALYTICS

DATA PROCESSING (streaming, batch…)

DATA ADQUISITION

Police Authority

Lilian Adkinson / ladkinson@gradiant.org

Proposal idea/content

- *Development of a platform for LEAs with **enhanced tracing capabilities of cryptocurrency transactions** related to criminal activities.*

- *The platform will provide the following features:*

    - *Capture data directly from the blockchain, as well as network traffic from peer-to-peer transactions (such as smart contracts)*

    - *Modelling of the transactions with **ML and pattern recognition techniques**, such as neural networks, clustering, or entity analysis, in order to **identify possible criminal activities**.*

    - *Analysis of transactions across mixers, in order to further characterize possible suspicious transactions.*

    - *Dashboard for the visualization and interaction with data, as well as reporting features.*

- *The project will also provide a set of recommendations to improve the regulation around cryptocurrencies, as well as training curricula to help LEAs to extract the most value from the platform*

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Lilian Adkinson / ladkinson@gradiant.org

Project participants

- Existing consortium:
  - Proposed coordinator: *TBD*
  - Partners / Other participants:
    - *Gradiant (Spain): identification of criminal patterns in cryptotransactions*
- Looking for partners with the following expertise/ technology/ application field:
  - *3 Police Authorities*
  - *Technical partners with expertise in:*
    - *Web scraping*
    - *Analysis of cryptotransactions*
    - *Mixers*
    - *Backend and frontend development for the platform*
  - *Training capacity partner*
  - *Legal experts*

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Lilian Adkinson / ladkinson@gradiant.org

TRACTOR
= TRAcing of Cryptocurrencies TransactiOns related to cRiminal purposes

- Ing. **Vladimír Veselý**, Ph.D.
- veselyv@fit.vut.cz
- Faculty of Information Technology
  Brno University of Technology

- Destination of interest: CL3-FCT
- Primary topic: **CL3-2024-FCT-01-08**
- Secondary topics: projects leveraging any form of cryptocurrency forensics (CL3-2024-FCT-01-03, CL3-2024-FCT-01-06)

Needs and Interests

- Ransomware, sextortion, money laundering, avoiding sanctions, scams and thefts, dark markets and fraud shops and other **crimes where cryptocurrencies are used as a tool for value transfer are on the rise**
  - https://www.europol.europa.eu/cms/sites/default/files/documents/Europol%20Spotlight%20-%20Cryptocurrencies%20-%20Tracing%20the%20evolution%20of%20criminal%20finances.pdf
  - https://www.chainalysis.com/blog/2024-crypto-crime-report-introduction/
- **Blockchain analytics is becoming more important**
  - LEAs, financial institutions, retail
  - Markets in Crypto-Assets Regulation (MiCA) and Digital Operational Resilience Act (DORA)
- *Let's make blockchain forensics better together!*

Project Idea

- We want to <u>focus on developing novel analysis methods</u> for challenges in cryptocurrency tracking. This may include:
  - application of AI for matching tokenized inputs and outputs of coinjoining wallets (Wasabi, Samourai)
  - tracking of on-chain and off-chain activities related to the second layers (e.g., Lightning Network) and decentralized exchanges (e.g., Uniswap, Curve)
  - detection of cryptocurrency-related events in network traffic by conducting deep packet inspection (e.g., cryptocurrency mining by malware, identification of hardware/software wallets)
- We are capable of <u>implementing reusable tools</u> to enhance blockchain forensics
  - OpenAPI standard for smooth integration with other tools/platforms

Contribution

- **BRNO** (potential coordinator)
  - developed tools for dark marketplace analysis
    and cryptocurrency correlation heuristics
  - participated in numerous cryptocurrency-oriented projects
    (e.g., BAZAR, MIXER, TENACITy, STARK, DEFRAUDify)

- mini-consortium of preliminary interested organizations
  - **Czech Police (CZ, LEA)**, Daniel Feranc: experience in scams and extortions
  - **Czech Customs (CZ, LEA)**, Ondřej Kalivoda: experience in dark marketplace procurements
  - **Masaryk University (CZ, academia)**, Petr Švenda: experience in deobfuscating coin-joining
  - **Slovak University of Technology (SK, academia)**, Kristián Košťál: experience in financial crimes and money-laundering
  - **TNO (NL, research institute)**, Ruggero Montalto: experience in lightning network analysis

FCT-Capability presentations by end-users

Presenters:

| FCT-01	Camara, Daniel	danielcamara@gmail.com
	De La Torre, Pilar	delatorre@efus.eu
	Gerhards, Regina	Regine.Gerhards@thw.de
	Lt. Col. Stulikova, Anika	anika.stulikova@pcr.cz
	Madrid Police	dri.pm@madrid.es

- *Daniel Camara*
- *daniel.camara@gendarmerie.interieur.gouv.fr*
- *French Gendarmerie – Law Enforcement Agency*
- *Center for Forensics Artificial Intelligence*

- Destination of interest: *CL3-FCT, CL3-CS, CL3-SSRI, CL3-DRS*
- HORIZON-CL3-2024-FCT-XX, HORIZON-CL3-2024-CS-01-02, *HORIZON-CL3-2024-DRS-01-04, HORIZON-CL3-2024-CS-01-01, HORIZON-CL3-2024-SSRI-01-02*

- *We are available to discuss our participation on any project, as far as we can help and we manage to find our place*

Needs and interests

- *Creation of solutions for data analysis for public security*

- *Tools for forensic and intelligence analysis*

- *Big Data Treatment*

- *Natural Language Processing*

- *Time Series Analysis*

- *Criminality Forecasting*

- *Multimedia Data Treatment*

- **Creation of useful solutions**
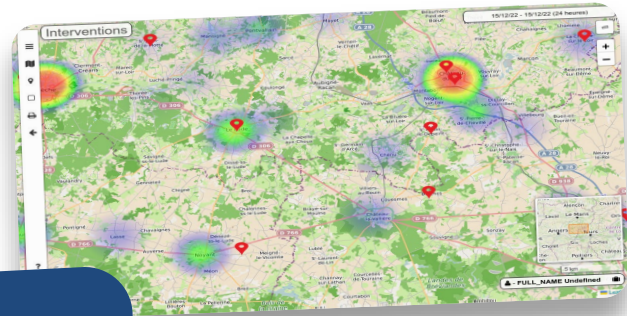
"Before, It was hard to find clues; today is hard to discriminate what is important and what is not! Too much data is available!!!"

Contribution

- Access to end users
- AI Based development (technical partner)
- WP leader (possible)

European Forum for Urban Security- Local authority representative

- *Pilar De La Torre, Project Development Manger*
- *Delatorre@efus.eu*
- **The European Forum for Urban Security** *(Efus) brings together nearly 250 cities and regions from 17 European countries.*

Destination of interest: Fighting Crime and Terrorism

- *HORIZON-CL3-2024-FCT-01-04 Radicalisation and gender*
- *HORIZON-CL3-2024-FCT-01-05 Combating hate speech online and offline*

- **Role:** *WP Leader, Task Leader*

European Forum for Urban Security- Local authority representative

Destination of interest: Fighting Crime and Terrorism

- *HORIZON-CL3-2024-FCT-01-04 Radicalisation and gender*

  ### *Needs and interests*

  ❖ *Gender-Driven Research: Deepen understanding of processes of radicalisation and local dynamics, especially gender.*

  ❖ *Empowering local Stakeholders: Strengthening the capacities of local P/CVE practitioners and community leaders to identify and address early signs of radicalisation, particularly through gender-sensitive and participatory approaches.*

  ❖ *Towards Inclusive Governance: foster local inclusive governance structures that promote participation and empowerment of local communities tackling the root causes of radicalisation leading to violent extremism.*

Pilar De La Torre, Project Development Manger delatorre@efus.eu

Destination of interest: Fighting Crime and Terrorism

- *HORIZON-CL3-2024-FCT-01-05 Combating hate speech online and offline*
  Needs and interests

❖ ***Data Collection and Analysis:*** *Reliable data on the prevalence and nature of hate speech in their communities to inform urban security strategies and targeted interventions.*

❖ ***Capacity Building:*** *Training to effectively identify, report, and address instances of hate speech. This may include specialised training on online monitoring tools.*

❖ ***Understanding the Nexus between Online and Offline Hate Speech:*** *recognising and understanding the interconnectedness between hate speech propagated online and its real-life consequences.*

Pilar De La Torre, Project Development Manger delatorre@efus.eu

Efus Contribution

- Identify end-users (local and regional authorities) and ensure that the proposals respond to their needs.
- Building bridges between research and practice.
- Identify and analyse promising practices.
- Contribute to practical research processes (diagnostics, interviews, facilitating/hosting/organising working groups...).
- Manage partner cities participating in the projects (identifying needs, contributing to the concept of an adapted solution and leading pilot phases ('schemes' au lieu de 'phases'?) with cities).
- Enhance the dissemination of the projects (social networks, online and offline events, podcasts, videos, factsheets...). Facilitate transferability.
- Mobilisation of elected officials at local levels.

Roles:

- Project leaders
- Work Packages leaders (pilots and needs assessments)
- Activity leaders

Experiences: IcARUS (Coordinator), RiskPACC (WP Leader), INDEED and TRANSCEND (Task Leader)
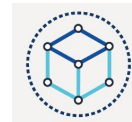
ForAn – German **Practitioner Netw**SMI2G
for Civil Security Research

- Speaker: *Regine Gerhards*
- Contacts:
  - Regine Gerhards
  - Alexander Rösner
  - Kerstin Grözinger

  projekt.foran@thw.de

- Destinations of interest are especially *Fighting Crime and Terrorism (FCT); Disaster-Resilient Society for Europe (DRS)*

What is ForAn?

- ForAn is a civil security practitioner network, led by the German Federal Agency for Technical Relief (THW)
- ForAn consists of **~50 organisations** from the fields emergency response, law enforcement and critical infrastructure; e.g.:
  - *Police organisations*
  - *Civil protection organisations*
  - *Specialised research institutions*
  - *Critical infrastructure operators*
- ForAn Goals
  - ***Empowering*** *German practitioner organisations to participate in European research projects.*
  - ***Brokerage*** *between German civil security end-users and international research consortia.*
  - ***Strengthen*** *the role of practitioners in civil security research.*

Get connected to practitioners with ForAn!

- We can establish contacts to a broad variety of German practitioner organisations.
- ForAn members have different levels of experience from newcomer up to Horizon Europe project coordinators.
- ForAn offers and funds proposal writing bootcamps for Horizon Europe consortia with ForAn member participation.
- If you are interested in launching a research or innovation project with German practitioners, ForAn will find you a fitting partner. Please feel free to contact us.
- ForAn itself is not participating in projects as organisation.

🌐 www.projekt-foran.de
🐦 @ForAnNetwork
✉ projekt.foran@thw.de

Police Presidium of the Czech republic

- Lt. Col. Anika Stulikova, MA
- anika.stulikova@pcr.cz
- Police Presidium of the Czech republic (LEA)

- Destinations of interest:
  - FCT
  - CS
  - INFRA
  - DRS

Contribution

- Which role do you prefer in a consortium? – **PARTNER**
- What can you as practitioner organisation offer to a consortium?
    - Increasing cybersecurity (SW + HW security) – **CS**
    - Hate-speech + prevention – **FCT**
    - New investigative techniques – **FCT**
    - Cryptocurrencies – **FCT**
    - Security in urban areas – **IFRA**
    - CBRN + crisis management – **DRS**
    - Possible use of XR/VR
    - Collaboration in edu

- *MADRID POLICE*
- *dri.pm@madrid.es*
- *End user-practitioner*

Interests 2024 Call:

- **FCT 02-04-05-06-07**
- **INFRA 01-02-03**
- **DRS 02-04**

1

Needs and interests

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

2

MADRID POLICE   dri.pm@madrid.es

Contribution

✓ Largest local police in Spain, +6000 police officers distributed in district and specialized units.

✓ Madrid, capital Spain (+ 3.000.000 inhabitants)

✓ International Relations Section: European Projects management specialized unit

+15 years working in EU projects

+25 EU granted projects

3