Horizon Europe | *Civil Security for Society*

1. Destination – Better protect the EU and its citizens against Crime and Terrorism

Call – Fighting Crime and Terrorism 2023

Session Chairs:

- *Guillaume Brumter (EOS)*
- *Santtu Lehtinen (VTT)*
- *Nizar Touleimat (CEA)*

1

#	Organisation	Presenter
CL3-2023-FCT-01-01: Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection		
1	LAUREA	Johanna Karvonen
2	Gradiant	Lilian Adkinson
3	Thales	Edward-Benedict Brodie
4	TREE Technology	Dr Javier Gutiérrez Meana
5	Zanasi & Partners	Graziano GIORGI
CL3-2023-FCT-01-02: A harmonized European forensics approach on drugs analysis		
5	University of Valencia	José Antonio Sáez
6	CEA	Emmanuel Scorsone
7	Military Institute of Chemistry and Radiometry	Tomasz SIKORA
8	Police Presidium of the Czech Republic	Lt. Col. Martin Kutra

#	Organisation	Presenter
CL3-2023-FCT-01-05: Crime as a service		
10	LAUREA	Tuomas Tammilehto
CL3-2023-FCT-01-06: Enhancing tools and capabilities to fight advanced forms of cyber threats and cyber-dependent crimes		
11	Université de Lorraine	Paul Labic
12	Diadikasia Business Consulting	Nikos Avgerinos
13	Brno University of Technology	Jan Pluskal
Multiple Calls interest by end-users		
14	Brussels - Antwerp Police	Pierre Vanbeveren & Doris Verreyken
15	Valencia Local Police	José L. Diego

3

FCT -01-01

Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection

#	Organisation	Presenter
1	LAUREA	Johanna Karvonen

4

THB-CISE

USING SOCIAL-RELATED DATA AND COMMON INFORMATION SHARING (CISE) IN THE FIGHT AGAINST TRAFFICKING IN HUMAN BEINGS (THB) IN THE WESTERN BALKANS FOR AN IMPROVED EUROPEAN COOPERATION

Johanna Karvonen
Johanna.Karvonen@laurea.fi
Laurea University of Applied Sciences, Finland
Role: *Proposal Coordinator*

Proposal activity: *HORIZON-CL3-2023-FCT-01-01*
(Processing of large, complex, and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection)
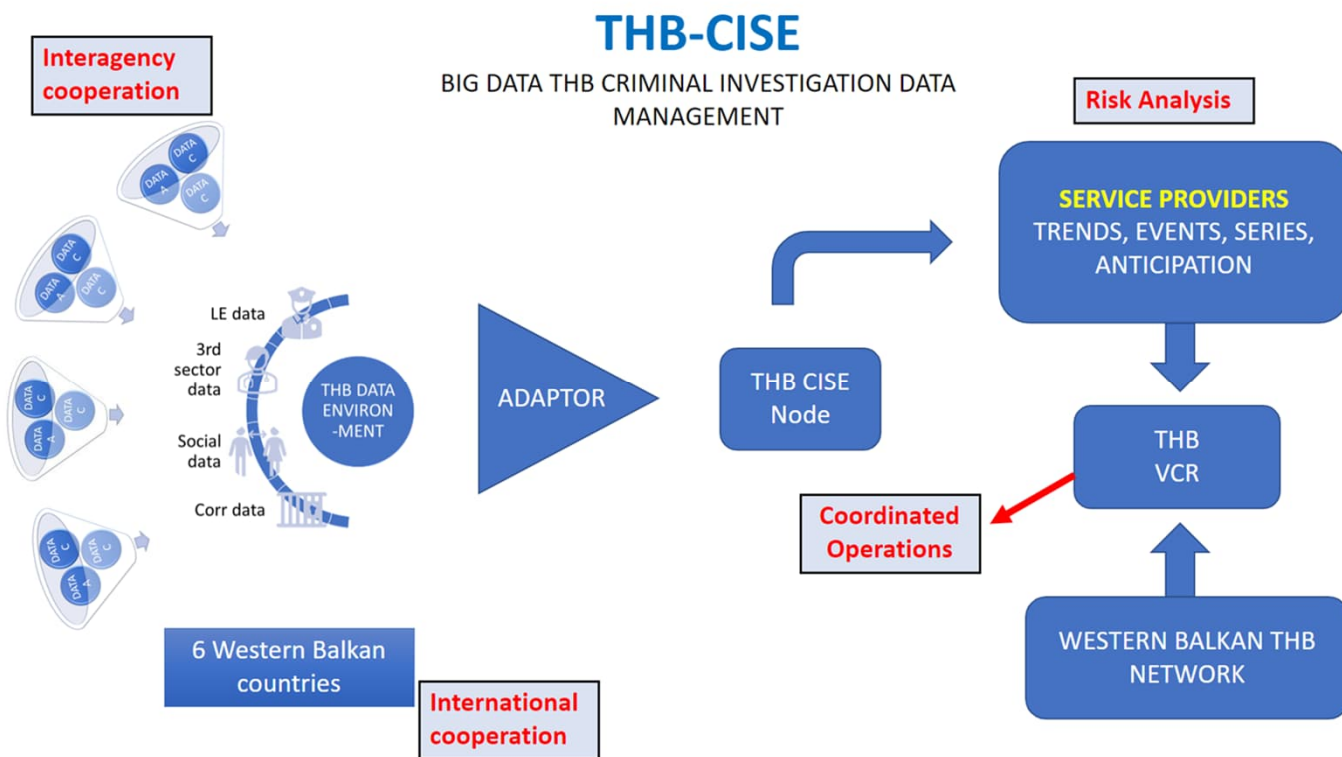
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This project aims to:

Challenge:

The Western Balkans is one of the most significant areas of departure for irregular migration and human trafficking to the EU. (https://prd.frontex.europa.eu/document/risk-analysis-for-2022-2023/)

Objectives:

➢ Improve the cooperation and information sharing between European and Western Balkan (Police) Authorities focusing on illegal trafficking and its embodiment in societies

➢ Within the framework of the project, export European values and good practices to the countries of the Western Balkans. (Establishing an EU mechanism on democracy, the rule of law, and fundamental rights)

➢ By integrating existing (Big) data platforms and their services, the project will provide an enhanced awareness picture to support decision making

➢ Explore ways how to tackle THB, taking advantage of existing (BIG) data (social media, 3rd sector, open-source intelligence (OSINT), and how to involve different social, 3rd sector stakeholder's data

➢ Develop a cross-sectoral training curriculum LEA, social and 3rd sector

6

Our Concept: THB-CISE

Keywords: New data sets for THB analysis, Information sharing between different actors, (CISE principle), existing data services (industry), awareness picture (Virtual Control Room VCR), building the path towards better cooperation between EU and the Western Balkan countries

Johanna Karvonen - johanna.karvonen@laurea.fi

Project participants

Existing consortium:
- Proposed coordinator: *Laurea University of Applied Sciences*
- LEA Partners from the Western Balkans already confirmed

Looking for partners with the following expertise/ technology/ application field:
- EU Police Authorities/public authorities explicitly designated for the prevention, detection, and/or investigation of THB or other criminal offenses
- Organisations with experience in crime research and/or Big data analysis
- Technical partners providing Big data service solutions
- Stakeholders from both Western Balkans and EU member states targeted by THB (3rd sector, social, correctional services)
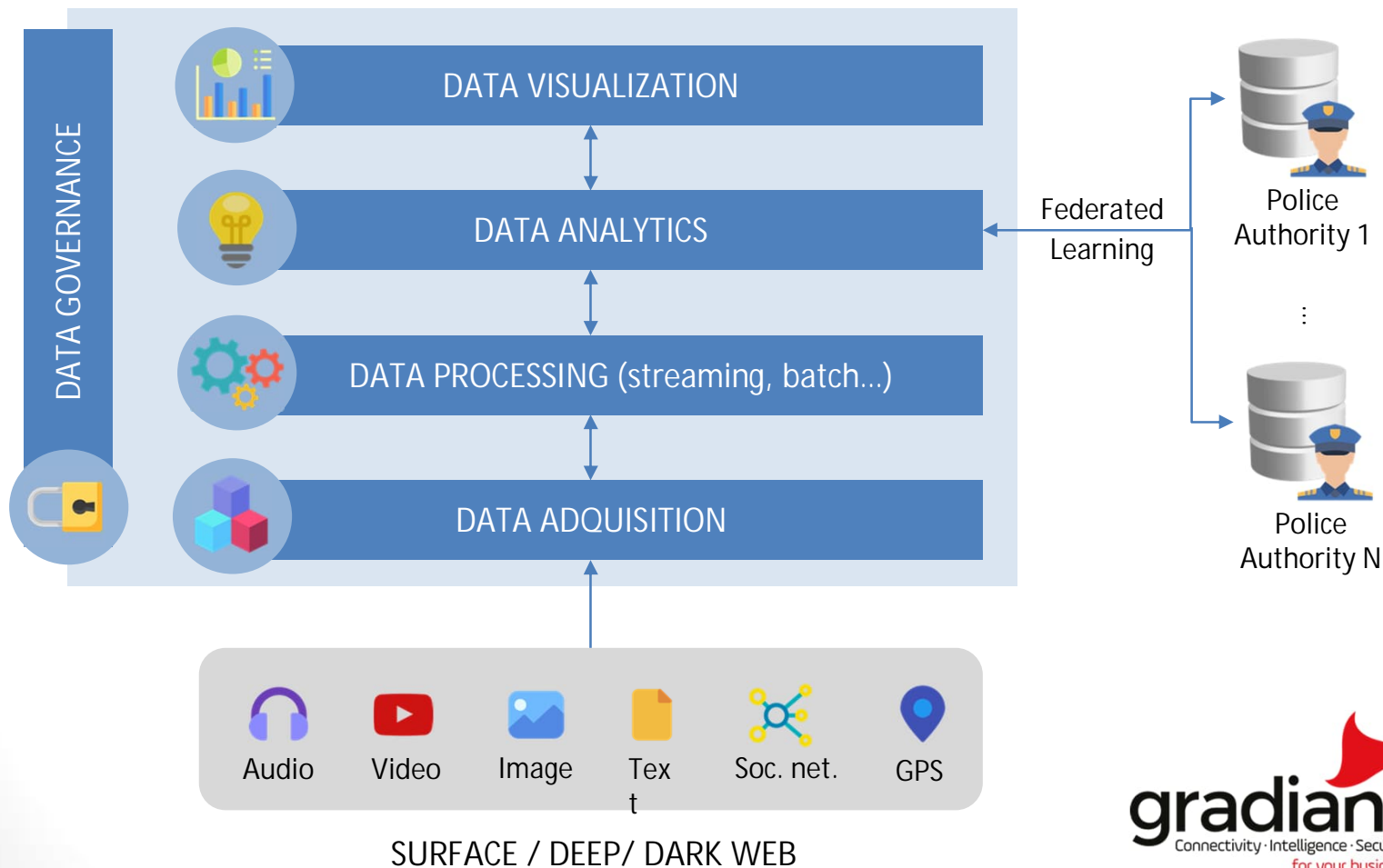
8

FCT -01-01

Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection

#	Organisation	Presenter
2	Gradiant	Lilian Adkinson

PRESERVE: Privacy preserving Big Data platform for criminal investigations

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

- Proposal activity: *HORIZON-CL3-2023-FCT-01-01 Processing of large, complex and unstructured datasets resulting from online activities, while reconciling big data analysis and data protection*

Proposal idea/content

Lilian Adkinson / ladkinson@gradiant.org

Proposal idea/content

- *Development of an IMS platform for European Police Authorities with advanced AI capabilities for detecting and countering emerging threats.*
- *The Big Data platform will allow to handle large, complex and unstructured datasets, including audio, video, image, text and social network data.*
- *The platform will include the use of:*
  - *Social network analysis (SNA) and UEBA techniques to identify communities and determine suspicious behaviours.*
  - *Privacy preserving techniques, such as the combination of Federated Learning + differential privacy + multikey homomorphic encryption + TEE, to enable the training of privacy preserving ML models while ensuring the quality of data.*
  - *Secure integration of untrusted IoT in trusted environments (trusted execution environments)*
  - *Specific location privacy algorithms.*
  - *Detection of deep fakes, OCR, speech recognition...*

12

Project participants

- Existing consortium:
  - Proposed coordinator: *TBD*
  - Partners / Other participants:
    - *Gradiant (Spain): data privacy, PETs, UEBA, social network analysis*

- Looking for partners with the following expertise/ technology/ application field:
  - *3 Police Authorities (from different EU Member States)*
  - *Big Data and AI experts*
  - *Deep/dark web data crawling*
  - *PETs experts*
  - *Others*

Lilian Adkinson / ladkinson@gradiant.org

FCT -01-01

Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection

#	Organisation	Presenter
3	Thales	Edward-Benedict Brodie

Forensic natural interaction assistant

- *Edward-Benedict Brodie of Brodie*

- *edward.brodie@thalesgroup.com*

- *THALES SIX France*

- *Proposal coordinator*

- Horizon-CL3-2023-FCT-01-01

Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection
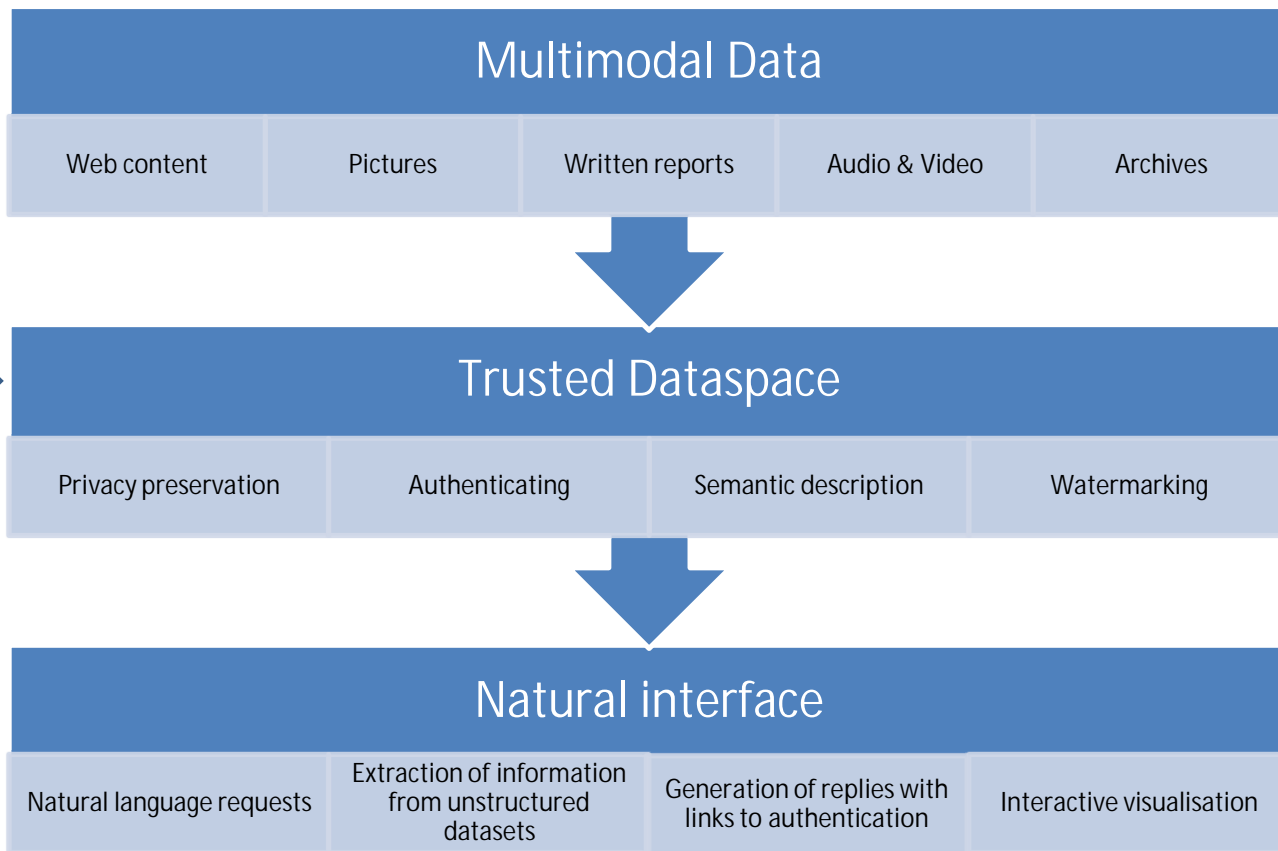
THALES

Building a future we can all trust

15

Proposal idea/content

Multimodal Data

| Web content | Pictures | Written reports | Audio & Video | Archives |

Forensic Database

Trusted Dataspace

| Privacy preservation | Authenticating | Semantic description | Watermarking |

Natural interface

| Natural language requests | Extraction of information from unstructured datasets | Generation of replies with links to authentication | Interactive visualisation |

Ethics and Data protection

16

edward.brodie@thalesgroup.com

Project participants

- Existing consortium:
  - Proposed coordinator: *THALES SIX France*
  - *Expertise in:*
    - *Privacy preservation technologies*
    - *Large Multi-Language Model for NLP*
    - *Deep learning driven Comprehensive Video semantic extraction*
    - *Voice analysis and enhancement*
    - *Cybersecurity workflow platform*

- Looking for partners with the following expertise/ technology/ application field:
  - *Complimentary Biometry*
  - *Interactive data visualisation*
  - *Legal & ethical partner*
  - *LEA*

edward.brodie@thalesgroup.com

FCT -01-01

Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection

#	Organisation	Presenter
4	TREE Technology	Dr Javier Gutiérrez Meana

CRIMINALYS

- *Dr Javier Gutiérrez Meana*
  - *javier.gutierrez@treetk.com*
- *TREE TECHNOLOGY (Spanish SME)*
  - *Participation in > 30 EU projects*
  - *12 on-going H2020/HEUR projects (+2 to start soon)*
    - *4 in SECURITY cluster*
  - *Expertise in Big Data, AI and cybersecurity*

- Role: *WP leader, S/T provider*

- Proposal activity: *CL3-FCT-01-01 "Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection"*

19

Proposal idea/content

Central server (aggregator)

- *Two-fold approach*
  - *Big Data and Federated Learning*
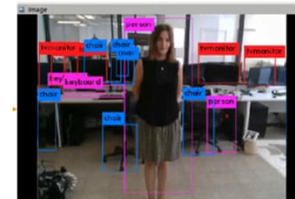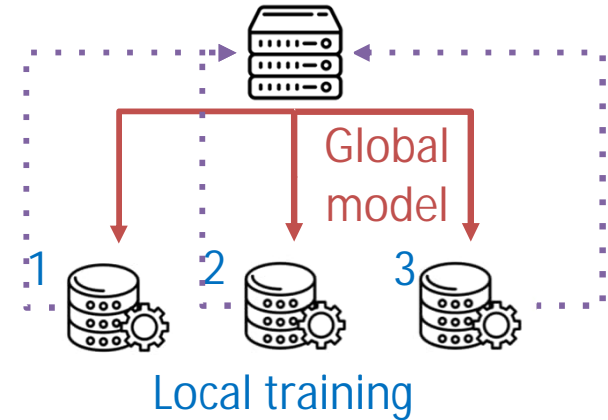   - *Whole data lifecycle*
      - *Heterogeneous data/sources*
      - *Real-time/batch processing*
      - *Storage, access, exploitation, visualisation*
    - *Federated ML to build collaborative models without sharing data*
    - *GDPR-compliant approach*
  - *Computer Vision capabilities*
    - *Deepfake detection – connected with identity management*
    - *Detection of logos, people, entities, relevant objects / environments*
    - *OCR in adverse conditions*
    - *Image and video processing*

Local model

Global model

1   2   3

Local training

20

Project participants

- Existing consortium:
  - Proposed coordinator:
    - *Looking for coordinator*
    - *Support in different areas (administrative, Part B, etc.)*
  - Partners / Other participants:
    - *SME – Data protection*
    - *Centre expert in the field of criminal investigation*
    - *Contacts with other research/industrial partners*
    - *Law enforcement agencies*
- Looking for partners with the following expertise/ technology/ application field:
  - *Audio processing (AI-based) – University, company*
  - *Interoperability – Large company*
  - *End users – Police authorities*

FCT -01-01

Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection

#	Organisation	Presenter
5	Zanasi & Partners	Graziano GIORGI

SHERLOCK

SHared criminal Evidence gatheRing and anaLysis sOlution

Graziano GIORGI

(*graziano.giorgi@zanasi-alessandro.eu*)

Zanasi & Partners
Security Research and Advisory

Role: *Proposal Coordinator / Scientific & Technical Coordinator*

Proposal activity: *HORIZON-CL3-2023-FCT-01-01*

23

SHERLOCK idea

- *OBJECTIVE: detect or anticipate crimes by analysing unstructured, heterogeneous and multi-lingual data.*

- *SOLUTION: develop an AI-based multi-lingual platform, leveraging on partners with a strong expertise in:*

  - *Unstructured Big Data Analysis*

    (IBM researchers and «Gartner Magic Quadrant» organisations),

  - *Security Research*

    (members of ESRAB/ESRIF, 30+ projects in Security/Defen[c], Scientific & Technical Coordinator of NOTIONES),

  - *Law Enforcement*

    (former Carabinieri officers, experts in LEAs involvement),

  - *Advisory on AI and Security*

    (several clients in Europe -EUROPOL, LEAs, ...- and in MENA).

24

SMI2G

Unstructured data
- Text
- Audio
- Image
- Video

Metadata
- Space
- Time
- ...

Web
- Surface
- Deep
- Dark

SHERLOCK Platform

Data acquisition module

GDPR, data minimisation, etc.

AI module

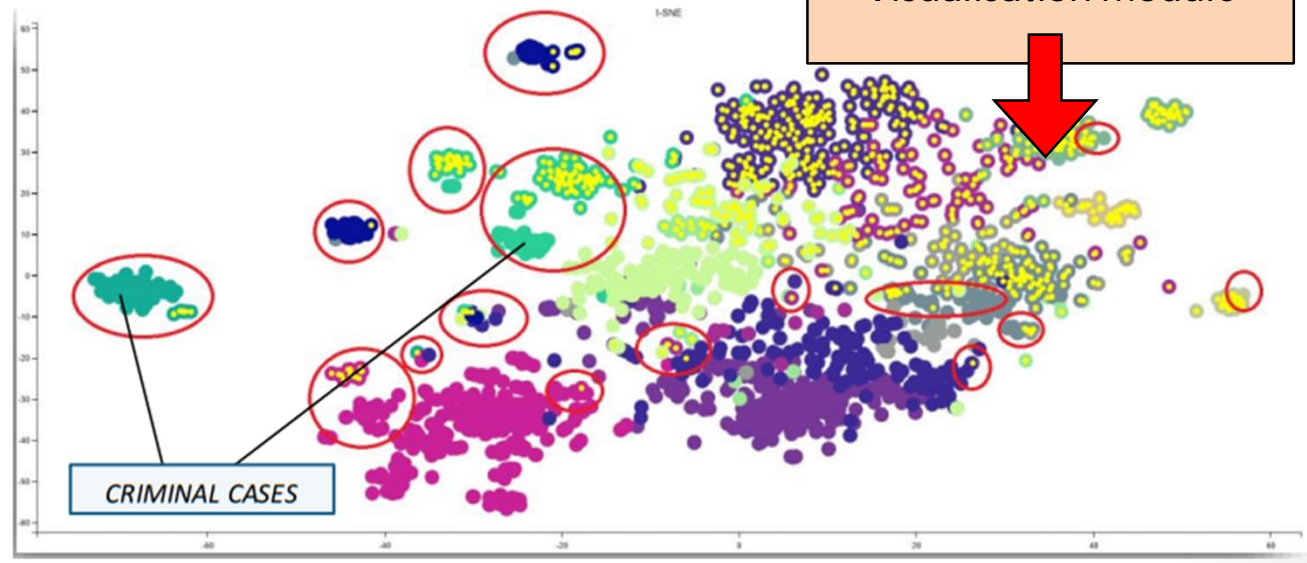DEEP SEMANTIC APPROACH

Ad-hoc multi-lingual crime taxonomies for:
- Hate speech,
- Human Trafficking,
- Terrorism,
- Child sexual exploitation,
- ...

FOUNDATION MODELS APPROACH

Brute-force power of the most recent:
- BERT
- GPT-3 / GPT-4
- ...

Visualisation module

t-SNE

CRIMINAL CASES

25

Graziano GIORGI (graziano.giorgi@zanasi-alessandro.eu)

Project participants

- Proposed Coordinator/
Scientific & Technical Coordinator:

Zanasi & **P**artners
Security Research and Advisory

- Other consortium members:
  - *Deloitte (IT)*
  - *Expert.ai (IT)*
  - *Rinicom (UK)*
  - *Hensoldt (DE)*
  - *Defence Research Institute (FR)*
  - *Tecoms (IT)*
  - *Italian LEA*

- Looking for:
  - *Artificial Intelligence developers*
  - *Forensics and Intelligence experts*
  - *Deep and dark web experts*
  - *System integrators*
  - *Europol Innovation Lab members*
  - *...*

- Z&P is also interested in:
  - *HORIZON-CL3-2023-BM-01-01*
  - *HORIZON-CL3-2023-BM-01-03*
  - *HORIZON-CL3-2023-INFRA-01-02*
  - *HORIZON-CL3-2023-CS-01-02*
  - *HORIZON-CL3-2023-CS-01-03*
  - *...*

26

FCT -01-02

A harmonized European forensics approach on drugs analysis

#	Organisation	Presenter
5	University of Valencia	José Antonio Sáez

Nosum 2

- *José Antonio Sáez*
- *josesaez@uv.es*
- *University of Valencia*
- Role: *Proposal coordinator*

- Proposal activity: HORIZON-CL3-2023-FCT-01-02 ("A Harmonized European forensics approach on drugs analysis"), Option B aimed at finding "a reliable and easy-to-use detection of chemical submission drugs in beverages and urine".

Proposal idea/content

- Based on a previous project called NOSUM that created a GHB detection kit and achieved TRL5.
- A chemical method brings substantial advantages (in terms of reliability, readiness, instrumentation required and cost) when compared to bio-chemical and electro-chemical systems.

Topic requirements	Going beyond these requirements
• Detection on urine; • End-users (forensic institutes, police) to remain at the centre of the process; • Obtaining legally enforceable evidence in chemical submissive crimes.	• Detection on saliva; • Increased usability by making reactivity directly available on solid (instead of a liquid solution; • Insertion in a multidrugs test; • Simple kit ready to be used by citizens (for their personal protection) and by entertainment centers.

José Antonio Sáez / josesaez@uv.es

Project participants

- Existing consortium:
  - Proposed coordinator: University of Valencia (UV)
- Partners / Other participants: The consortium is under construction. We are in negotiations with different police authorities, forensic institutes as well as research centres and companies. At this moment 4 organisations have confirmed their commitment to the proposal.

- Looking for partners with the following profile: forensic institutes, police authorities, European associations.

FCT -01-02

A harmonized European forensics approach on drugs analysis

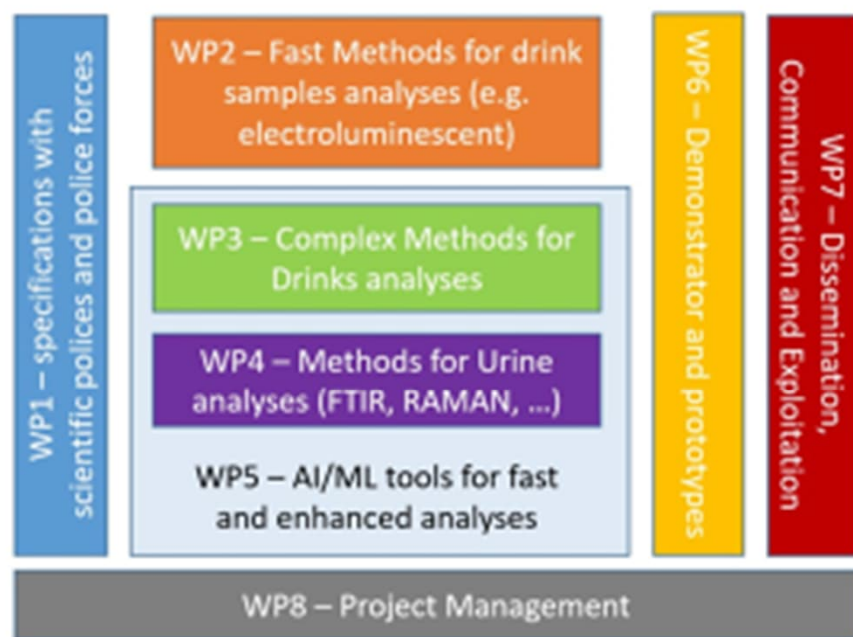| #	Organisation	Presenter
6	CEA	Emmanuel Scorsone

- ADDRICT –

Accurate illicit Drug Detection sensors and methods for fast Reliable, Intelligent and automated Chemical substances Tests

- *Emmanuel.Scorsone@cea.fr, Antonin.Galtier@cea.fr*
- *CEA – Department of Numerical Instrumentation*
- Role: Coordinator

- Proposal activity: HORIZON-CL3-2023-FCT-01-02, a harmonized European forensics approach on drugs analysis
- OPTION B: a reliable and easy-to-use detection of chemical submission drugs in beverages and urine.

1

Focus on fast innovative sensors and reliable equipment for drug detection

- *Alignment on the needs for scientific and operational police forces and forensics validation*

- *Fast methods (e.g. electroluminescent solution for detection in glass, optical measurements and colorimetric strips)*

- *More complex methods for drink and urine analyses*

- *AI/ML tools for fast and enhanced analyses*

- *Demonstrations and sensors*

- *Strategies for dissemination and exploitation*

WP1 – specifications with scientific polices and police forces

WP2 – Fast Methods for drink samples analyses (e.g. electroluminescent)

WP3 – Complex Methods for Drinks analyses

WP4 – Methods for Urine analyses (FTIR, RAMAN, …)

WP5 – AI/ML tools for fast and enhanced analyses

WP6 – Demonstrator and prototypes

WP7 – Dissemination, Communication and Exploitation

WP8 – Project Management

2

antonin.galtier@cea.fr

Project participants

- Existing consortium:
  - Proposed coordinator: *CEA*
  - LEAs:
  - ✓ French LEA
  - ✓ Discussion with other EU LEAs
  - Research partner :
    - CERTH (GR), with innovative fast detection sensor
    - Spanish RTO
  - LUEUR: French SME (for fast drug detection sensor)

- Looking for partners with the following expertise/ technology/ application field:
  - *Partners: technology provider for innovative solutions.*
  - *LEAs: scientific, forensic or operational forces.*

FCT -01-02

A harmonized European forensics approach on drugs analysis

#	Organisation	Presenter
7	Military Institute of Chemistry and Radiometry	Tomasz SIKORA

GHB portable sensor

- *Tomasz SIKORA*
- *t.sikora@wichir.waw.pl*
- *Military Institute of Chemistry and Radiometry*
- Role: *WP leader*

- Proposal activity: *CL3-2023-FCT-01-02, Option B: A reliable and easy-to-use detection of chemical submission drugs in beverages and urine*

Proposal idea

We would like to develop portable sensor that gives easy-to-inetrpret results and can be used in the field by Police Authorities.

- Standarized methodology for optymizing the GHB evidence colection;
- Analytical technologies for in-situ sample screening;
- Communication and positioning modules for localizing the information and transporting it further;
- Transmission of obtained results in real time;
- Generating reports and building a database (possibility of quick communication and reporting).

37

Our experience in development of detection devices:

We developed an instrument allowing for the simultaneous detection of TATP and HMTD. The developed system uses differential ion mobility spectrometry (DMS) in combination with a specially designed gas sample injection system.

- Mobile device for detection of biological threat

- A Mobile Device for Monitoring the Biological Purity of Air and Liquid Samples

Tomasz Sikora t.sikora@wichir.waw.pl

Project participants

- Existing consortium:
  - *Polish Police Authority*
  - *Forensic Laboratory*

- Looking for partners with the following expertise application field:
  - *Forensic experts or Instytutes with experience in determination of GHB and/or analogs*
  - *Police Authority - to determine the procedural requirements that the evidence must comply*
  - *First responders – policeman, on-siteon-site sample security personnel*

FCT -01-02

A harmonized European forensics approach on drugs analysis

#	Organisation	Presenter
8	Police Presidium of the Czech Republic	Lt. Col. Martin Kutra

Unveiling Criminal Networks through Innovative Drug Analysis Methods

- *Name of proposer:* Lt. Col. Martin Kutra
- *E-mail:* martin.kutra@pcr.cz
- *Authority:* Police Presidium of the Czech Republic
- *Role:* WP leader – science and technology provider – NEW drug analysis device
- *Proposal activity:* Fighting Crime and Terrorism 2023 (HORIZON-CL3-2023-FCT-01-02_MARTIN_KUTRA)
  A harmonized European forensic approach on drugs analysis

  Chemical analysis (composition) in drugs

  Option A:
  A harmonised European approach on the study of chemical analysis (composition) in drugs

CONCLUSION

Comparison of chemical composition of drugs is one of the biggest challenges for LEAs worldwide

Available methods for LEAs are insufficient and impractical due to their inaccuracy, complexity, length, and high financial costs, making their efficient use extremely difficult

The application of innovative methods and techniques in LEAs has shown significant potential in combating organized crime globally

PROPOSED SOLUTION

inexpensive
Application of affordable methods, techniques and devices with utmost LEAs use potential worldwide

real-time result
Development of portable and affordable drug analysis kits that can provide on-site results

straightforward
Utilization of AI to simplify the analysis process and ensure accuracy and consistency of results

analytical & field use
Rapidly test the composition of drugs, providing crucial data for both analytical reports and on-the-spot decision-making

excellence guaranteed
Advanced patented techniques to guarantee the highest level of accuracy and efficiency in supporting LEAs activities

MARTIN KUTRA – martin.kutra@pcr.cz (Police of the Czech Republic)

Application of the innovative and pattented method to compare & connect drug seizures

APPLICATION

Application of pattented method with international partners

DEVELOPMENT

Development of portable and affodable device

CREATION

Creation of international data collection with worldwide access

IMPLEMENTATION

Internetional awareness and implemention

DELIVERY

Connecting drug seizures globally

With the objective of identifying and dismantling criminal networks

Project participants

- The Czech Republic Police has extensive experience in project management and cooperation with EUROPOL/INTERPOL. Among our greatest successes is the creation of the global collection of drug seizures called RELIEF Database, which is currently operated by the INTERPOL General Secretariat. The Police of the Czech Republic is continually working to improve the functionalities of the RELIEF Database by adding new software utilities which compare drug seizures not only from toolmark(s) perspective but also from the chemical composition of drug.

- Offered infrastructure: The Police of the Czech Republic and its affiliated laboratory own a state permission to handle addictive substances and preparations.

- Existing consortium:
  - Proposed WP leader: *Police Presidium of the Czech Republic*
  - Partners: *LEA – method testing and data collection (Germany, Italy, Portugal, Spain, Albania, Croatia); Academics and Industry (SW and AI); SME (portable device actual status TRL4 – validated in lab and patented), other partners EUROPOL/INTERPOL (advisory on drug routes)*

- Looking for partners with the following expertise/ technology/ application field:
  - *Project coordinator; LEAs worldwide*

FCT -01-05

Crime as a service

#	Organisation	Presenter
10	LAUREA	Tuomas Tammilehto

NO SERVICE!

- *Tuomas Tammilehto*
- *tuomas.tammilehto@laurea.fi*
- *Laurea University of Applied Sciences, Finland*
- Role: *Proposal coordinator*

- Proposal activity: HORIZON-CL3-2023-FCT-01-05: Crime as a service

Proposal idea/content

- *Who is going & doing online?*
- *Includes all human activity: criminal too!*
- *When services become online:*
  - *Accessibility increases,*
  - *Scalability increases,*
  - *Efficiency improves,*
  - *User experience enhances, e.g., 24/7 availability,*
  - *Data collection improves, e.g., enables personalizing the user experience.*

  Great benefit for organised crime, huge challenge to LEAs!

Tuomas Tammilehto I tuomas.tammilehto@laurea.fi

Innovator

HR

Entrepreneur

Specialist

Buyer

Seller

Market

Banker

Warehouse

Retail

Distributor

Marketing

Industry

Competitor

Technology

Brand

Layer

Financing

All the elements of market economy and business is present in illegal activities.

- We need to study them to understand contemporary criminal operations.

Understanding is the key to prevention:
- Organised Crime,
- Entrepreneurial criminals,
- Dark web,
- Business logic / value chains,
- Money and supply flows,
- And more

Most pivotal: recognise and detect legitimate business from illegal!
And build prevention from that.

48

Project participants

- Existing consortium:
  - Proposed coordinator: *Laurea University of Applied Sciences*
  - Partners*: under negotiations*
- Looking for partners with the following expertise/ technology/ application field:
  - *Expertise on cyber crime*
  - *Expertise on illegal (and legal) online markets*
  - *Data analysts, number crashers*
  - *AI knowhow*
  - *LEAs!*
  - *And those who can asks the right questions!*

Tuomas Tammilehto I tuomas.tammilehto@laurea.fi

FCT -01-06

Enhancing tools and capabilities to fight advanced forms of cyber threats and cyber-dependent crimes

#	Organisation	Presenter
11	Université de Lorraine	Paul Labic

CRY-CIDER

- *Leader : Yamina Tadjeddine-Fourneyron*
-

- *Coord.: Paul Labic*
- *p.labic@unistra.fr*
- *Cell: +33 7 68 25 22 56*

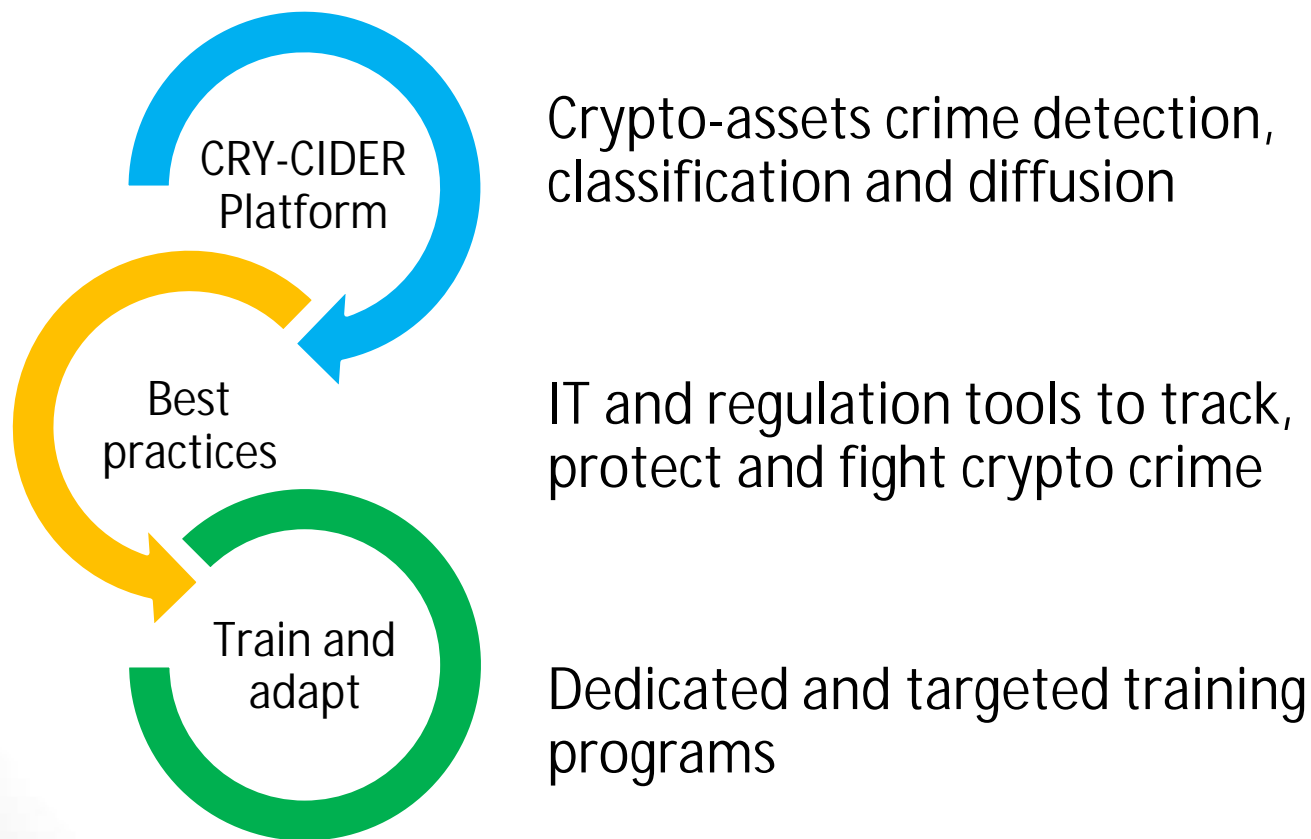- *Université de Loraine: BETA lab (theoretical and applied economics) + LORIA lab (fundamental and applied research in computer sciences)*

Now :
- *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"*

And following :
- *HORIZON-CL3-2024-FCT-01-06 (Innovation Actions) "Tracing of cryptocurrencies transactions related to criminal purposes"*

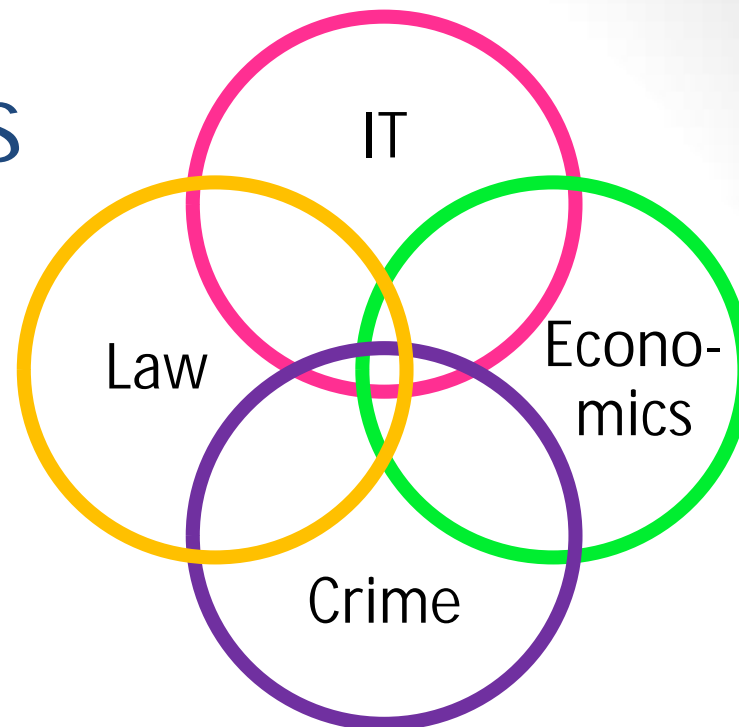# Current consortium CRY-CIDER (CL3-2023-FCT-01-06)

- *A team with a record of awarded programs* (examples):
  - *ENSP, BETA : HORIZON-CL3-2022-FCT-01-05 Effective fight against corruption*
  - *Finance Innovation : INFINITECH-H2020 Big data, artificial intelligence (AI) and Internet-of-Things (IoT)*

- All with confirmed expertise:
  - Proposed coordinator: *BETA lab (crypto-assets, defense and white-collar crime) – applied and theoretical economics, micro/macro)*
  - *LORIA lab : IT, malware and cybersecurity*
  - *ENSP police research lab : application cases, field feed back, EU police forces networking*
  - *IHEMI : Crime economy, victims group networking*
  - *Finance Innovation, France : Fintech and Cyber Crime financial ecosystem*

53

Search for Partners

We are looking for partners with:
- ✓ cross-disciplinary openness
- ✓ Capable of a multi-stakeholders' approach

Search for:

- *End users*
  - *Regulatory authorities*
  - *Anti cyber-crime units*
  - *Financial services, banking sector*

- *Academics*

Expertise (at least 1 needed):
Work package leaders will be a team decision!

- *IT, blockchain, malware, data and privacy protection*
- *White collar crime models, transaction models (legal and illegals), intermediaries*
- *Cyber crime, fraud, laundering, racketeering, ransom, (field and research)*
- *MiCA, law and regulation, financial regulation, data protection, sovereignty.*

54

Leader yamina.fourneyron@univ-lorraine.fr / Coord. p.labic@unistra.fr

FCT -01-06

Enhancing tools and capabilities to fight advanced forms of cyber threats and cyber-dependent crimes

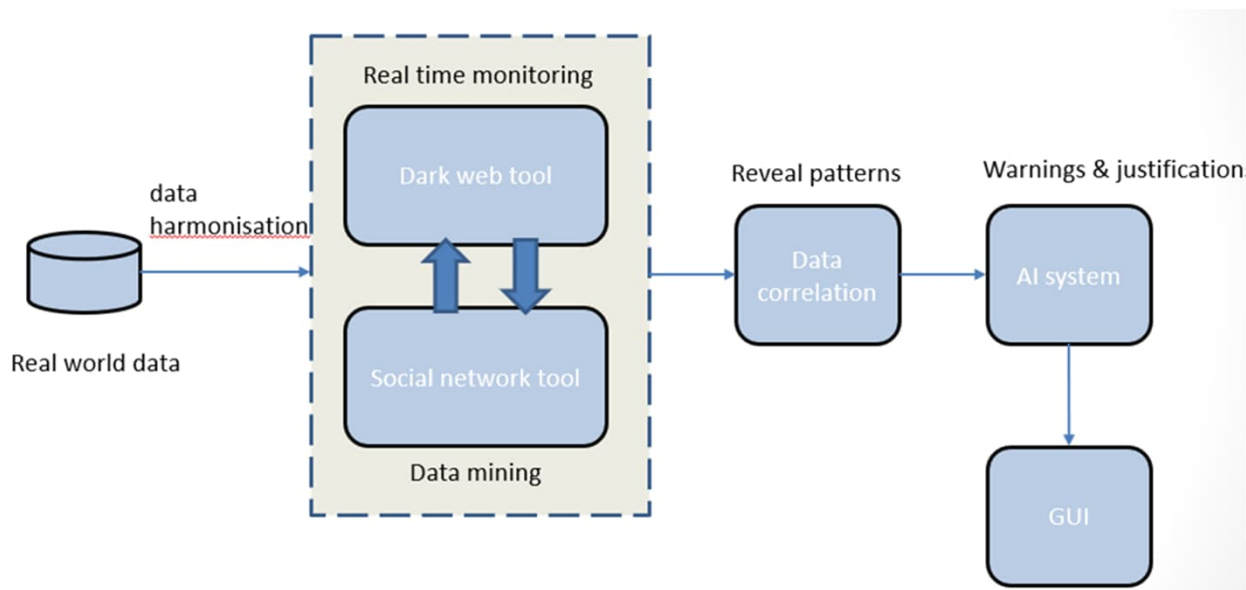| #	Organisation	Presenter
12	Diadikasia Business Consulting	Nikos Avgerinos

55

Enhanced investigation of web-based communication and dark-web related cyber crimes

- Name of proposer/speaker: *Nikos Avgerinos*
- E-mail: *navgerinos@diadikasia.gr*
- Organisation: *Diadikasia Business Consulting - DBC*
- Role: *Proposal coordinator*

- Proposal activity: *CL3-FCT-01-06: Enhancing tools and capabilities to fight advanced forms of cyber threats and cyber-dependent crimes*
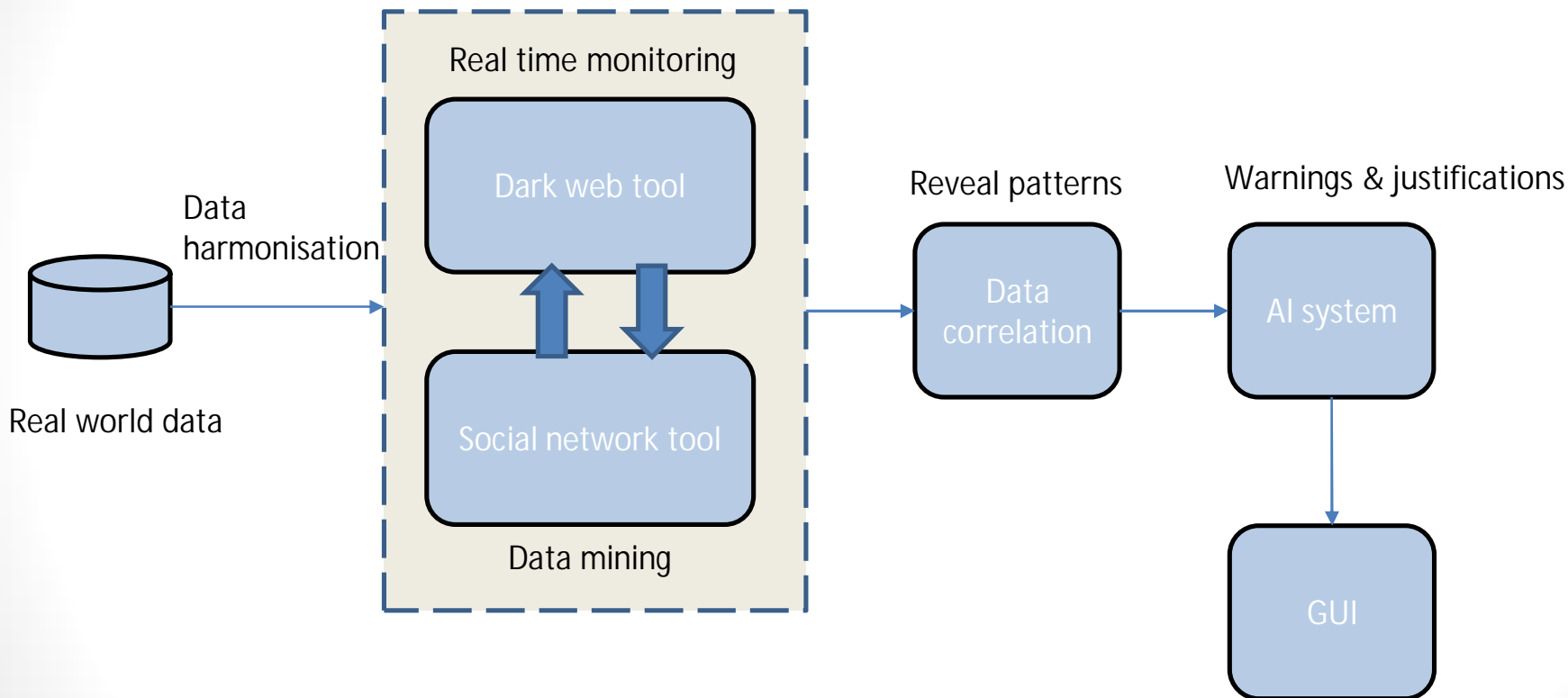
56

Proposal concept

- *Platform that enables investigators to 1) extract, store, process and analyze useful information from unstructured chat sessions and the dark web, 2) receive alerts with regards to crime-related topics and data, 3) find correlations between criminal tools discovered by investigators in different places/countries.*

SMI2G
Security Mission Information & Innovation Group

Real time monitoring

Dark web tool

Data harmonisation

Reveal patterns

Warnings & justifications

Data correlation

AI system

Real world data

Social network tool

Data mining

GUI

58

Project participants

- Existing consortium:
  - Proposed coordinator: *DBC (Greece)*
  - Partners / Other participants: *SMEs / IT companies & LEAs, ethics expert.*
- Looking for partners with the following expertise/ technology/ application field:
  - *Additional LEAs*
  - *Training expert for prosecutors & judicial authorities*
  - *International judicial network*

Nikos Avgerinos, navgerinos@diadikasia.gr

FCT -01-06

Enhancing tools and capabilities to fight advanced forms of cyber threats and cyber-dependent crimes

#	Organisation	Presenter
13	Brno University of Technology	Jan Pluskal

FORSETI

= Fighting Organised cRime using Speech, cryptocurrEncy and darkneT InteIligence

- Ing. Jan Pluskal
- *ipluskal@vut.cz*
- Faculty of Information Technology, Brno University of Technology
- Coordinator, WP-leader, contributor, technical lead

- Mainly interested in:
  - HORIZON-CL3-2023-FCT-01-06: Enhancing tools and capabilities to fight advanced forms of cyber threats and cyber-dependent crimes
- Other interests:
  - HORIZON-CL3-2023-FCT-01-01: Processing of large, complex and unstructured datasets resulting from criminal investigations, while reconciling big data analysis and data protection
  - HORIZON-CL3-2023-FCT-01-02: A harmonized European forensics approach on drugs analysis

61

Proposal idea/content

- Area:

  - Dark Market Places (DM), Social Media, OSINT, Digital Forensic Investigation, Law Enforcement (LEA)

- Idea:

  - Use periodical web scraping of Dark Market Places to gather evidence such as:

    - *products / goods, quantity / sales count, prices, photos, country of Origin, …*

  - Cross corelate *observed purchases* with data available on *public blockchain*.

  - Using standard evidence sources like wiretapping of voice and social networks of suspects to mine metadata with:

    - speaker recognition, background noise artefact extraction, metadata extraction by other voice and image processing.

  - Cross correlate DM, Blockchain, Vision and Voice evidence.

62

Project participants

- Emerging consortium:
  - Proposed coordinator: BRNO
  - Partners / Other participants:
    - Customs Administration of the Czech Republic (CZ)
    - Idiap Research Institute (CH)
    - Center for Security Studies (GR)
    - Trilateral Research (IE)
    - Web-IQ (NL)

- We are <u>searching</u> for:
  - a consortium partners, who are aligned with the project idea,
  - LEA organizations with interest in the project.

- *We want to work on implementation of tools that would help law enforcement agencies to make Europe safer!*

63

Brno University of Technology

- Academia
- Brno (2nd city after Prague), Czech Republic

- Project experience
  - National
    - Ministry of Interior
    - Ministry of Defense
  - EU
    - European Space Agency
    - Horizon Europe

Jan Pluskal, ipluskal@vut.cz

FCT -01

Multiple Interests by End-Users

#	Organisation	Presenter
14	Brussels - Antwerp Police	Pierre Vanbeveren & Doris Verreyken

Belgian Local Police

- *Vanbeveren Pierre - Brussels CAPITAL Police Department*
  Pierre.Vanbeveren@police.belgium.eu
  www.polbru.be

- *Doris Verreyken - Antwerp Police Department*
  Doris.Verreyken@police.belgium.eu
  www.politieantwerpen.be

- *Role : Task leader*
- *Calls of interest :*
  - *FCT-01-02: A harmonized European forensics approach on drugs analysis*
  - *FCT-01-03: New methods and technologies in service of community policing and transferable best practices*
  - *FCT-01-05: Crime as a service*

66

Proposed contribution

- Potential role: *Task leader*
  - *Operational / pilot scenarios definition, capability/functionality specification*
  - *Validation and demonstration in operational scenarios*
  - *Co-innovation and product co-development, etc…*

- *Info: Belgian local police forces have all competences in all areas - Two biggest local police forces in Belgium*

- *Areas: Given our locations, specific infrastructures, mission statements, metropolitan issues, international institutions, numerous mass crowd events*

67

Partner presentation

- *We also have a **large international network** and partnerships with other Law Enforcement Agencies (LEAs) , which guarantees dissemination and promotes further training.*
- *Key words : Innovative safety & security, security by design, protecting public spaces, counter drone measures, new ways of protesting, alternative mobility,... . But also topics such as inclusion, diversity, equal rights, xenophobia, racism (ISF – HORIZON – CERV - ...)*

History:
- SkyFall (ISF – Antwerp coordinator)
- PERICLES (ISF – Antwerp coordinator)
- Protecting Brussels Critical Infrastructures (ISF – Brussels Coordinator)
- CoP without borders (CERV – Project participant)
- STARLIGHT (Horizon –Project participant)
- FORTRESS (ISF – Brussels Coordinator)

68

FCT -01

Multiple Interests by End-Users

#	Organisation	Presenter
15	Valencia Local Police	José L. Diego

València Local Police, Spain

- ***José L. Diego**, Head of Innovation and Project Management & Expert Evaluator for the European Comission*
- *proyectosplv@valencia.es*
- *Valencia Local Police, Spain*
- *Role: End user & partner*
- *Background:*
  - *+30 European Projects since*
  - *Success stories*

PROJECTES EUROPEUS

València Local Police, Spain

Horizon Europe – Work Programme 2023-2024
Civil Security for Society; preferred Topics:

- **DESTINATION: BETTER PROTECT THE EU AND ITS CITIZENS AGAINST CRIME AND TERRORISM**

    CALL – FIGHTING CRIME AND TERRORISM 2023
    - *FCT-01-02 – Forensics on drugs analysis (option B)*
    - *FCT-01-03 – Community Policing*
    - *FCT-01-04 – Security in public spaces*
    - *FCT-01-06 – Tools to fight cyber-threats and cybercrimes*

71

València Local Police, Spain

**Horizon Europe – Work Programme 2023-2024
Civil Security for Society; preferred Topics:**

- **DESTINATION: RESILIENT INFRASTRUCTURE**

> **CALL – RESILIENT INFRASTRUCTURE 2023**
> - **INFRA 01-02 – Resilience of critical infrastructures**

PROJECTES
EUROPEUS

València Local Police, Spain

Horizon Europe – Work Programme 2023-2024 Civil Security for Society; preferred Topics:

- **DESTINATION: DISASTER-RESILIENT SOCIETY FOR EUROPE**

  CALL – DISASTER RESILIENT SOCIETY 2023

  - **DRS 01-04 – Robotics in hazardous environments**

PROJECTES EUROPEUS