Industry & Research Days

Summary Report

Security Delta (HSD), The Hague Netherlands

6 – 8 September 2022

HSD securitydelta.nl

EUROPOL INNOVATION LAB

ENLETS

EUROPEAN CLEARING BOARD

i-LEAD is funded by the European Union's Horizon 2020 - Research and Innovation Framework Programme, under grant agreement no 740685

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Summary

The i-LEAD Industry and Research Days in The Hague were the initiative's second physical edition, with two interim sessions hosted online during the COVID pandemic. This event was larger than previous versions, with 24 presenters delivering three presentations in each dedicated slot.

The event was organised by the i-LEAD project, with the **Central Unit of the National Police of the Netherlands (NPN)** as coordinator, the Polish Platform for Homeland Security leading organisational matters, in collaboration with ENLETS, **EUROPOL's** Innovation Lab, and the **European Clearing Board**. The event was held at the campus of The Security Delta in the heart of The Hague, a city of peace and justice, a fitting setting for a collaborative initiative with ambitions to help drive peace and security across Europe.

Jannine van den Berg - Deputy Chief Commissionair, Netherlands Police

"There is a big impact of technologies on security work, now and in the future. No better place to meet than here in The Hague, a city with a strong profile on security. And at the HSD Campus, where triple helix cooperation on security happens."

Overview

The i-LEAD project is funded by the European Union's Horizon2020 programme; a research fund that, until Horizon Europe, was the EU's flagship initiative. It is the first H2020 project led by a law enforcement agency, the Central Unit of the Netherlands Police.

The project brings together a diverse group of partners from law enforcement, industry, and academia to promote innovation through dialogue and ongoing discussions. The discussions take place primarily through a series of practitioner workshops led by the UK Home Office. The meetings provide a forum for practitioners to discuss gaps, needs, and requirements in five distinct crime groups: **Frontline Policing, Cybercrime, Cross-Border crime, Crime and Intelligence, and Forensics**.

The outcomes of these workshops enable a group of partners to search the market for appealing solutions and innovations produced by industry and research to meet the needs identified. The industry and research event is one of the actions that helps to present these solutions to practitioners and provide a space for providers to receive feedback.

Over 100 people attended a fruitful and intense meeting between the 6th and 8th of September, where representatives from 15 countries interacted and participated actively. Practitioners from 44 LEAs were among those in attendance.

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This was the **Agenda** of the meeting officially opened by Jannine van den Berg, the Deputy Police Commissionair from the National Police of the Netherlands - and an appropriate close on the 1st day by the Deputy Mayor of the Hague - Saskia Bruines.

Jannine van den Berg
Netherlands Police Deputy
Chief Commissionair

Saskia Bruines
Deputy Mayor
of The Hague

After gathering feedback from those who attended, we can highlight the meeting's positive aspects as follows:

1. There was a good variety of presentations that were both interesting and valuable.
2. Excellent networking opportunity.
3. Ideal location with excellent facilities within the HSD premises.
4. The hope that such an event be held periodically hosting cutting-edge technology.

As with all actions, we should never shy from scrutiny and criticism – as this is what really drives improvement and learning. Therefore, we proudly share some of the constructive points. Hopefully, i-LEAD and other actions can heed these points and learn for future activities:

1. The presentation time frame – longer time slots would have been helpful.
2. The transition between presentations was not as smooth as it could have been; breaks in between could have helped.
3. It was impossible to see all of the presentations in each session.
4. A shorter event of 1.5 to 2 days would be preferable.

i-LEAD plans one final event during the remainder of the project, and all comments provide useful feedback in preparation for the final action.

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Below we provide a summary of each presenter, however, you can access a dedicated web page listing all the companies with a link to the respective resources provided by companies and research organisations. Because this page is only for LEAs, we recommend that you do not share access with anyone else.

Keynote Speakers

Stephan Corvers
Founder & CEO, Corvers Commercial & Legal Affairs
s.corvers@corvers.com

Dr Ana Isabel Peiró Baquedano
Legal Procurement Consultant, Covers Commercial & Legal Affairs
a.baquedano@corvers.com

Mr Corvers and Dr Peiró Baquedano delivered a comprehensive presentation on the state of public procurement in the EU, as well as the national and EU-funded PCP initiative.

Eva Škruba
Capability Manager, EACTDA
eva.skruba@eacdtda.eu

Eva Škruba‘s presentation went into detail about EACDTA's mission of facilitating the adoption of technology solutions and how the organisation can help to promote a safer Europe.

Corina Pascu
Cybersecurity Expert, ENISA
corina.pascu@enisa.europa.eu

Corina Pascau spoke about ENISA's role in research and innovation. She emphasised the organisation's contribution to the EU Strategic Research Agenda in cybersecurity, as well as the importance of developing ideal AI policies in cybersecurity.

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Presenting Solutions

Day 1

INSPECTr is a H2020-EU funded project. As part of the INSPECTr project, the Judicial Police of the National Gendarmerie (PJGN) is working on the development of a AI toolkit that groups various service. The project representative will be presenting two solutions on NLP and Stylometry.

U-Query, an Ultinous solution, uses the latest deep learning research results to build a smart index of the videos. The index itself is about 1% of the compressed video yet it contains all relevant information that can be interesting in video analysis.

LOCARD provides LEAs with an innovative platform for easily managing digital evidence continuity, supporting cooperation and information exchange between different jurisdictions, and facilitating criminal investigations while ensuring evidence integrity before the Court.

Together with the Dutch boutique vulnerability research company Midnight Blue, Secura developed the **Automotive Control Platform** solution for modern-day vehicle mitigation aiming to make the technically complicated process of remotely compromising a vehicle accessible to law enforcement operators in the field.

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unival DroneWall | USG Spectrum Guard is a multi-purpose RF based monitoring system that can be flexibly used in a wide-area of facilities that require not only drone defense but also detection of unwanted communication such as Jammers, IMSI Catchers, through cell phones and need a cost- efficient solution that is future proof and can cover the frequency spectrum up to 30 GHz.

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X-Surveillance gives the user more insights into the suspect's whereabouts and can expose an entire criminal network based on detecting smart wearables, phones, trackers and vehicles. Using **X-SENSOR**'s correlation and intelligence profiling, access can still be granted to a criminal's daily whereabouts via the detected devices. All this with a real-time remote intelligent dashboard.

Day 2 - Session 1

The **BLKA** is a pioneer in the digital collection and analysis of images of unknown suspects as the third pillar of the recognition service, aside from fingerprint and DNA-Database, to automatically identify suspects from videos by means of facial recognition, and to build up a photo collection (database) for unidentified suspects, in which retrograde identifications for old cases (cold cases) are possible.

MoNA is an analysis platform developed for the semantic analysis of mobile communication data across communication channels (eg WhatsApp) and modalities (eg audio, image), enabling investigators to comprehensively understand the content of mobile communication, despite its heterogeneity and incompleteness, in order to be able to recognize evidentiary information more quickly in the mass of irrelevant data and to avoid misinterpretations.

Deveryware is an Expert in Technologies and Investigation Services for Homeland Security and presents the solution "Inter-lingual Comprehension independent from the Language / Detection of Imminent Threats: Transformation into Structured Actionable Data".

INspectre provides AI-enabled object detection and language detection to process text, audio and video files. Especially hate crime detection e.g. anti-Semitic language is supported by AI modules. Furthermore, INspectre was validated with law experts to provide high-quality support connecting hate crime and legal aspects to ensure prosecution.

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The Autocrime platform under the ROXANNE project enhances criminal analysis capabilities by using a) Speaker verification technologies for associating voiceprints found in audio or video files with persons, b) natural language processing technologies for identifying topics, key entity etc., c) criminal network analysis for identifying communities , social influence of individuals, and d) an intuitive user interface for interacting with the Auto-crime outputs.

The **AviaTor** system facilitates LEAs to deal with the vast number of NCMEC reports in an efficient and effective way. It combines visual intelligence and targeted online research to improve the intelligence position of the investigator while dealing with these reports. Information from the reports is analysed, cross-matched and enriched, providing a means to prioritize reports and focus on the most important ones first.

Day 2 - Session 2

The German-Austrian cooperation project **AMBOS**, funded by Federal Ministry of Education and Research, was designed to develop a system, dedicated to LEAs to defend against drones in defined security areas. To this end, approaching drones were to be detected, their threat potential analysed and effective defence measures developed.

Myst Works technology is designed to be used during any police car to suspect car interaction. It can be used from speeds of 25kmph up to 120kmph over a distance of 10m. this allows operation of the darts on city roads to highways in most weather conditions (we are working on dart adhesion in wet weather).

eyesCloud3d is a solution by ecaptureDtech, a leading image analysis and processing company whose technology allows users to generate 3D models using all types of cameras, including smartphones, obtain spectral 3D models using hyperspectral cameras, and recognize objects and people in 2D images using AI.

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AIRA is a solution based on LEAP (visit website). It was developed with and for SA Office Cologne, with the specific goal of quickly and automatically detecting OCSE with AI technology. We've developed a Classifier that is trained and constantly re-trained on abstracted data, without real data having to leave the agency. It provides accuracy rates of around 90%, with False Positives around 2-3%. Due to the abstraction, any agency can re-train it.

Tactilon® Agnet is all about secure group collaboration on mobile broadband networks. It brings professional communications to your smart devices and offers you the possibility to bring your radio and smart device users to same groups. It meets the needs of public safety organizations. Staff and data necessary to an operation can be easily and securely reached, even when using different devices and technologies.

M4D@CERTH - The Multimodal Data Fusion and Analytics Group (M4D) of the Multimedia Knowledge & Social Media Analytics Lab (MKLab) of the Information Technologies Institute (ITI) of the Center for Research and Technology Hellas (CERTH) develops cutting-edge algorithms and novel solutions relevant to Multimodal data fusion, Multimedia analysis and retrieval, Computer Vision, and AI-based multimodal analytics in many Security / Cybersecurity application domains.

Day 3

First Alert detects the earliest signals of events globally from over 400,000 publicly available data sources from across 4 main areas; social media, news / blogs, sensors & deep / dark web. The AI lifts from text, audio, images & video aggregating data to identify patterns, clusters & anomalies to generate meaningful alerts. It has English, French & German versions & alerts from 150+ languages. Settings are tailored so your alerts match your mission

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Cyber Agent Technology (CAT) provides a technical tool in the area of online investigations on social media (SOCMINT) like Telegram, Snapchat, WhatsApp, Instagram, etc. It primarily assists practitioners with virtual agents with tasks such as capturing identifiers and communications in online private channels/groups, labelling and annotating, exporting and creating reports.

The Dark Web Monitor is an OSINT repository web application in which over 1.6 million domains are actively monitored for changes in content. The monitor provides insights in trends and allows for in-depth evidence gathering by allowing to go all the way to the source HTML. Our scalable system extracts entities like cryptocurrency addresses, email addresses, etc. to allow for easy filtering and sorting for relevance by the users.

Digital data is becoming increasingly important for investigating suspects and as evidence in criminal cases. With the number of new devices, apps, and channels growing rapidly, the amount of data grows exponentially. Investigators are challenged with quickly finding relevant information. **Hansken** is an open digital forensic platform that can be used to transform the way digital evidence is being stored, processed and investigated.

Vicomtech's technologies can be the backbone of security solutions addressing the following high-level gaps and needs: Speech-to-text transcription software, ANPR software, Tablet devices for use at crime scene, Drones / robotics, Tools for facial recognition and synthetic image generation, Violent content detection, Natural Language Processing, Tracking and monitoring of known offenders using facial Recognition, Tasking and Decision Making with AI.

Stashcat is a GDPR-compliant communication platform for law enforcement that integrates common messenger features with file storage. You don't even need a mobile number to sign in as the platform also works perfectly on the desktop version. Users benefit from a clear separation between different communication channels and the protection of their privacy.

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Conclusion

For those interested in future cooperation with experts and partners connected to the i-LEAD project, we want to inform you of the **ENLETS Messenger Service** – a secure and encrypted chat application hosted in the EU. Practitioners are free to join and can engage colleagues across various groups and communities.

Join ENLETS

Likewise, all participants can join the **i-LEAD group** on LinkedIn to receive updates about future actions.

Thank you again to all partners and visitors who actively participated in the event and contributed to its success. We encourage all interested parties to continue collaboration with each other and the technology and research presenters.

Saskia Bruines - Deputy Mayor of the Municipality of The Hague

"Security challenges, old and new, need to be addressed together. Keep discussing the human value of applying technology."

Access the Presentations Here

To receive the access password please contact frontoffice@enlets.eu.

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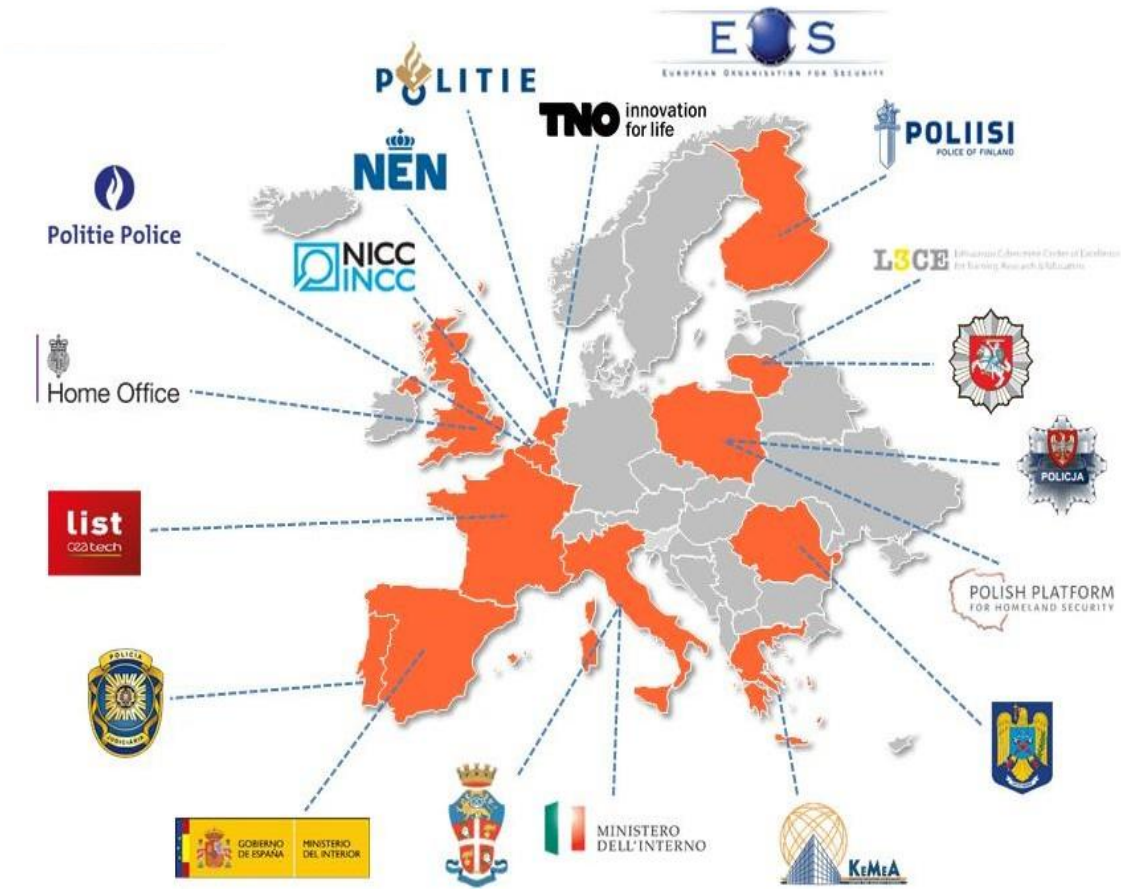
i-LEAD

Innovation - Law Enforcement Agencies' Dialogue



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