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From:	Europol
To:	Delegations
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Subject:	The EU Innovation Hub and the Innovation Lab of Europol – state of play

Delegations will find attached the state of play of the EU Innovation Hub and the Innovation Lab, as provided by Europol.

Europol Innovation Lab

Update for COSI meeting 19 November 2020

1. Introduction

The Europol Innovation Lab team has been actively working on the implementation of the Justice and Home Affairs (JHA) Council Decision of October 2019, developing concepts for a range of processes, products and services to Europol staff and EU Member States (MS). The Lab has also been coordinating Europol's involvement in Horizon (H) 2020 project proposals and in the implementation of already awarded H2020 projects. Finally, the Lab has produced a series of strategic documents and is supporting a number of technical projects.

This update provides a detailed account of the developments that have taken place since May 2020.

2. Aim

The aim of the Europol Innovation Lab is to help investigators in developing greater insights and to have a higher impact in the digital age.

Technology, such as Artificial Intelligence (AI), has an increasing impact on the development of crime, with criminals quickly adopting and integrating new technologies to plan and perform their criminal acts with adapted modus operandi. At the same time, emerging technologies also present new opportunities for law enforcement to tackle criminal threats.

The Europol Innovation Lab helps investigators to make the most of these opportunities to do their job more efficiently and effectively. For instance, by finding better ways to analyse large amounts of data to find links and new leads in investigations with machine learning tools.

The Lab also is also working to avoid duplication, to create synergies and to pool resources for example by identifying police services in Member States experimenting and developing new innovative tools that could be relevant for the work of other European colleagues in other Member States.

3. Strategic and Operational activities

⇒ *Europol Innovation Lab structure*

The Europol Innovation Lab team continues to develop and refine the internal structures and services that the Lab will provide to its members. Depending on the availability of resources, it will be composed of **four functions** serving both strategic and operational needs and seeking to achieve the four objectives assigned to Europol by the JHA Council.

These four functions are: 1) the Projects, 2) the Observatory, 3) the Network of Innovators and 4) the EU Innovation Hub for Internal Security (a distinct entity from the Lab but hosted at the Lab).

- 1) **Projects:** Projects on innovative technologies are initiated with and by EU Member States to develop tools and provide solutions to serve the operational needs of the EU law enforcement community. The projects are steered in an inclusive manner: EU Member States propose and lead specific innovation projects in the framework of **Core Groups**, composed of volunteering EU Member States (see more detail below). They are supported by all the components of the Innovation Lab and Europol's workforce. If necessary, Europol can take the lead of a Core Group for a specific project. Tools and solutions resulting from such development work will be shared among stakeholders with a view to improve operational results.

The Europol Innovation Lab is currently coordinating and supporting a limited number of EU Member State-led projects, whose aim is to explore the validity and feasibility of specific technologies and tools. In addition, the Lab is also involved in larger EU funded research projects.

- 2) **Observatory**: In close cooperation with the Joint Research Centre (JRC), the Lab is providing assessments on the risks, threats and opportunities of emerging technologies for law enforcement. These assessments and reports are being developed in close partnership with EU MS, Europol's Strategic Analysis Unit and other relevant actors such as the Interpol Innovation Centre.
- 3) **Networks of Innovators**: Networks will be maintained and used by the Europol Innovation Lab to outreach to industry, civil society, international organisations and academia in support of individual projects and to enrich the Observatory function. It will also rely on existing networks of law enforcement practitioners' networks such as ENLETS, but also the European network of forensic science institutes (ENFSI). In October 2020, the Innovation Lab was associated to the Industry Days organised by the I-LEAD network.
- 4) **The EU Innovation Hub for Internal Security**: It will be a distinct entity from the Europol Innovation Lab, which is mostly serving the interest of the law enforcement community. The Hub will act as a joint cross-sectorial EU platform aimed at ensuring coordination and collaboration between all EU and national actors in the wider field of internal security, including border management, criminal justice and the security aspects of migration and customs. Its future functions and governance structure were detailed in document 7829/20 adopted by COSI on 15 May 2020¹.

The EU MS law enforcement agencies are invited to liaise first with the Europol Innovation Lab to discuss projects and needs. Should projects have a cross-sectorial nature, they will then be brought to the attention of the Hub to ensure the involvement of EU agencies beyond the law enforcement community.

¹ EU Innovation Hub for Internal Security main principles for establishment, Council Secretariat reference 7829/20

The Europol Innovation Lab team is working together with the European Commission, Frontex, eu-LISA, EMCDDA, Eurojust and other JHA agencies to further advance in the process of operationalising the EU Innovation Hub for Internal Security, notably by collectively exploring avenues to deliver the base tasks identified by COSI to be performed by the Hub in 2020/2021². A series of virtual meetings are starting on 17 November 2020.

As specified in the *Main principles for the establishment of the EU Innovation Hub for Internal Security*, adopted by COSI in May 2020³, the EU JHA agencies and the European Commission are invited to second staff to work in the Hub Team⁴. This is also critical in light of the Declaration of Ministers of Interior and the Council Resolution on the Future of Europol, which calls on the EU Innovation Hub for Internal Security, located at Europol, to immediately begin work and make technologies such as artificial intelligence and encryption a priority.

⇒ ***Structuring the work of the Member States within the Europol Innovation Lab: Core Groups***

One of the objectives of the Europol Innovation Lab is to help EU Member States to work together in developing innovative solutions, to avoid duplication and to create synergies. To do so, the Innovation Lab has proposed the concept of **Core Groups**, composed of volunteering Member States, which will work together on specific topics and key technologies within the framework of the Europol Innovation Lab.

² 1) Mapping of ongoing projects (EU and national), 2) Assessing gaps and needs, 3) Identify domains for research, development and innovation that are of a cross-sectorial nature, and finally 4) map the relevant EU funding sources and opportunities as well as relevant national funding sources.

³ Council Secretariat reference 7829/20

⁴ The Hub Team will coordinate the work on the four base tasks in the inception phase in cooperation with the participating innovation labs. The Hub Team will also support the production and dissemination of products of individual projects, prepare the documentation to be endorsed by the Steering Group, and produce other outputs (e.g. mapping of projects and funding opportunities). The Hub Team will also set-up a common platform, for exchanges and dissemination activities.

The Core Groups are led by one or several EU Member States, which already have a strong background in the technology on which the Core Group will focus. Each Group is led by a dedicated expert from the leading Member State. The expert will be deployed physically or remotely, to the Europol Innovation Lab, ideally in the form of a temporary deployment (cost-free Seconded National Experts) which Member States are encouraged to second to Europol. With the support of the Europol Innovation Lab team, the leader will steer the activities of the Core Group.

Running a Core Group requires the commitment from several countries on a specific topic in support of the Core Group's leading Member State(s). Core Group members should share knowledge and ongoing projects, prioritize and select the most suitable projects to start a co-creation within the Core Group. Core Groups can be established in the 'Projects' function to develop concrete tools and solutions or in the 'Observatory' function to develop foresight products. Europol joins all thematic Core Groups and has experts providing their knowledge and network to the groups, under the umbrella of the Europol Innovation Lab.

As a first project, a dedicated "Core Group on Secure Communication" was established as requested by COSI in cooperation with the German Presidency as a consequence of the COVID-19 pandemic with a view to collect the requirements for secure communications among law enforcement, and to prepare a mapping of existing instruments and gaps (more details below).

Europol's ambition is to be in a position to fund and steer the research and development activities of Core Groups of EU Member States. To do so, Europol will seek to establish a dedicated budget line in order to be able to commission feasibility studies, carry out benchmarking and validation activities in support of the Core Group activities.

⇒ *EU Member States engagement with the Europol Innovation Lab*

Under the leadership of the German BKA and the German Presidency of the EU, the Europol Innovation Lab contributed to developing a concept for an engagement model with the EU Member States: the "EU Clearing Board - Tools, Methods and Innovation in the field of technical support of operations and investigations" (*EuCB*). The concept was presented by the German Presidency at the Europol Heads of National Unit (HENU) meeting on 4 November 2020.

The EuCB will be a structure within which a network of national points of contacts (SPoCs) composed of innovation experts and investigators of the EU Member States Law Enforcement Agencies, will regularly meet with the Europol Innovation Lab to channel needs and operational requirements for technical solutions using new technologies directly from practitioners. Member States will share information and exchange ideas on the proposals and eventually decide to create new Core Groups. The EuCB will also be used to disseminate the results of the work of the Europol Innovation Lab and its Core Groups to the EU law enforcement community.

⇒ *Strategic reports*

Within its Observatory Function, the Europol Innovation Lab has produced several strategic documents and position papers which have been provided to policy makers in Brussels. The Innovation Lab prepared a position paper on the recent European Commission study on the creation of EU data spaces and in particular on the initiative to pool operational data for the development and testing of AI. The Lab also prepared a position paper on the European Commission White Paper on Artificial Intelligence. Lastly, the Innovation Lab, in cooperation with relevant Europol units, drafted an intelligence report on contact tracing apps.

⇒ *COSI tasking on secure communication network*

In July 2020, COSI tasked the Europol Innovation Lab to coordinate the analysis of existing solutions and possible gaps and operational requirements related to digital infrastructure for secure communication, especially secure and stable VC solutions. In parallel, the issue was discussed in the framework of the informal Virtual European Police Chiefs Convention co-hosted by the Swiss Federal Police (fedpol) and Europol in June 2020. As a follow up, the German BKA suggested organising a workshop to look into the possibility of developing a secure communication channel for video conferences and instant messaging services for operational purposes among EU competent authorities and Europol, in order to make police co-operation more resilient and future-proof. As a result, the Europol Innovation Lab established a Core Group on secure communication channels to coordinate the two initiatives in collaboration with the German Presidency of the EU and it will report to both COSI and the European Police Chiefs on the development.

⇒ *H2020 projects*

In 2019, Europol participated in four H2020 funding proposals, three of which were successfully granted: AIDA, GRACE and INFINITY. The projects aim at developing AI and machine learning-based tools to enhance the efficiency of Europol's support to Member States. The Europol Innovation Lab team has taken over the coordination of the implementation of these three H2020 projects. Currently, the Europol Innovation Lab is coordinating the recruitment of dedicated contract agents who will work on the projects.

Furthermore, the Innovation Lab has joined three consortia as a Senior Law Enforcement Agency User to submit project proposals to H2020 calls on AI and Security. Together with more than 16 Law Enforcement Agency partners, the Europol Innovation Lab plans to play a driving role in the development of a European research roadmap on AI in support of Law Enforcement⁵.

4. Resources and deployment of SNEs

In January 2020, Europol's Executive Director decided to internally reassign 3 Full-Time Equivalent (FTEs) to work on the implementation of the Europol Innovation Lab concept. The work achieved so far by the team is substantial.

While Europol can recruit dedicated additional staff for a limited period strictly linked to the awarded H2020 projects, in order to consolidate the existing activities described in this report and to launch the second phase of development of both the Europol Innovation Lab and of the European Innovation Hub, Europol estimates that 11 Temporary Agents (TAs) will be needed. This figure includes a number of FTEs to work in the Hub Team and to run the Secretariat of the Steering Group (governance body of the Hub established by COSI).

In parallel, the success of the Europol Innovation Lab and EU Innovation Hub also depend on the active engagement of the Member States. In line with the concept of Core Groups, Member States need to lead the innovation process and use the Europol Innovation Lab as a force multiplier for their projects.

⁵ See <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/su-ai01-2020>

Europol is grateful to Austria and the Netherlands for their support and encourages other Member States to follow suit and identify experts to be deployed as cost-free Seconded National Experts to the Europol Innovation Lab and EU Innovation Hub to lead specific projects and Core Groups.

5. Way forward

The Europol Innovation Lab will continue to regularly inform COSI on the state of play of implementation and on future developments. Questions and requests can be addressed to Innovation-Lab@europol.europa.eu
