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From:	Presidency
To:	Working Party on Information Exchange and Data Protection (DAPIX)
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Subject:	Moving forward the automation of information exchange

1. INTRODUCTION

For the accomplishment of an area of freedom, security and justice, and in particular as regards police cooperation within the Union, Member States' competent authorities rely mainly on the exchange of information across borders. The exchange of personal data between national competent authorities across borders, duly taking into account data protection, is crucial for effective police cooperation. Rationalising the allocation of human, technical and financial resources, and thus streamlining and combining existing workflows, is in the interests of all stakeholders from a business point of view. Member States underline that implementing automation requires a coordinated and strategic approach to the ongoing initiatives at Union level.

Methodological discussions have been on the agenda of DAPIX for a long time, particularly in the framework of implementing the Information Management Strategy (IMS). While the business needs and added value of automation seem self-evident, the Presidency has launched a debate on the subject. The intention is to put the topic into perspective in relation to an ever-growing and complex information exchange landscape, which has seen a political shift towards increased automation, as manifested in recent legislation.

On the assumption that Member States agree on automation as a characteristic of information exchange management, the Presidency focussed the debate on identifying possible stumbling-blocks hampering the implementation of automation, and on issues of interest to be considered. The debate was structured by a Presidency discussion paper with a focus on IMS actions such as EPRIS-ADEP, PIU.net and UMF. It was complemented by a questionnaire mainly aimed at collecting business-oriented thoughts on resources deployed, streamlining access to data available at national level, indexation/automation or single-search solutions, in particular UMF and QUEST, and artificial intelligence.

The Presidency questionnaire showed that the majority of Member States consider automation a solution to relieve, to a greater or lesser extent, the increasing stress on human, financial and technical resources. However, implementing the IT infrastructure needed would in the short term increase workload on the technical side and would decrease workload on the end users' side only in the long term. Member States furthermore recommended that any discussion of automation should take into account not only the ongoing feasibility study on improving Prüm data exchange, possibly leading to rearranging the Prüm architecture, but also the solutions to be developed for the implementation of the interoperability package.[1]

2. STATUS QUO OF THE DISCUSSION ON AUTOMATION

From a business point of view, the advantage of automation is understood as technically reducing manpower on either the search or the supply side when comparing data of interest against a certain data stock. The effect of machine-to-machine comparison can be leveraged by single-search facilities which allow for the simultaneous consultation of several databases. The reply, consisting of a 'hit' / 'no hit' report in a relatively short time, is supplied without human intervention. The fact that each 'hit' must be verified by human intervention and cannot be interpreted as a reason or ground for taking measures with respect to a person imposes a limit on all automation from a legal and operational point of view.

1 5691/19.

2.1 PRÜM DECISIONS

The Prüm automated data-sharing works within the network of national databases in a decentralised environment. Member States grant mutual access rights to certain databases, meaning that Member State A (requesting MS) has online access to certain automated databases (biometric DNA, FP data, demographic VRD) of Member State B (requested MS) for comparing anonymous data profiles and receives an automated reply from B, in the shape of a 'hit' or 'no hit' report (step 1). No human intervention is needed at this stage on the supply side. This speeds up the process of finding out whether another Member State has information of interest (availability check). Furthermore, broadcasting allows for simultaneous searching of the relevant database of each connected Member State. These databases are, however, homogenous as regards content (police records) and purpose. However, human intervention is needed on the search side to carry out the follow-up procedure (step 2), which is considered as traditional police cooperation.

The first workshop in the framework of the Prüm feasibility study took place on 27 March 2019. The aim of the study is to assess where the Prüm framework can be improved with regard to (1) step 1 and (2) step 2, (3) introducing new categories, (4) introducing a new architecture and (5) adding interoperability solutions. On the basis of interviews held with experts in the Member States, the study contractor identified 40 opportunities.

Measured against feasibility and inherent benefits, Member States prioritised these opportunities, among which the implementation of UMF and a default step 2 communication channel, the implementation of a simple messaging router with a harmonised data format ranked the highest. Linking Prüm to central JHA EU information systems and interoperability solutions[2] did not meet with much acceptance.[3] Automation of the follow-up procedure was rejected.

2.2 EPRIS ADEP

A pilot project[4] on automation of data exchange processes (EPRIS ADEP) has been carried out[5] in the framework of the Information Management Strategy (IMS). The business-driven objective was to locate, by automated means and on the basis of pseudonymised[6] demographic data, in which Member State(s) a person of interest would be known by police authorities and in which not (availability check). The ADEP technology provides for the cross-checking of national index databases. Step 1 searches would result in immediate hit/no-hit replies, step 2 would support a targeted bilateral or multilateral exchange of follow-up information.

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2 The interoperability package provides for data processing aimed at identifying persons concerned (identity check). To that end, the centralised EU information systems for security, border and migration management, i.e. SIS, VIS and Eurodac, as well as EES and ETIAS, are interoperable. The main technical features are:

- a European search portal – to allow systems to be searched simultaneously;
- a shared biometric matching service – to facilitate searches across different information systems on biometric data, possibly with hit/no-hit flags indicating connection with related biometric data found in another system;
- a common identity repository – based on alphanumeric identity data (e.g. dates of birth, passport numbers) to detect whether a person is registered under multiple identities in different databases.

3 The Commission stated that it was not bound by the outcome of the workshop or the final study report.

4 DE,FR, FI, IE, ES, as well as Europol, participated in the pilot project, while BE, HU and AT participated as observers.

5 6459/19, 7886/19.

6 EPRIS ADEP works on the basis of pseudonymised and indexed data, meaning that the data subject concerned is not immediately retrievable. In opposition to pseudonymised data, data which has been anonymised cannot subsequently be linked to a data subject. Both terms were introduced by Directive (EU) 2016/680. Prüm data exchange works on 'reference data', which in the Prüm terminology means 'anonymous' data. From the data protection perspective, 'pseudonymised data' and 'reference data' actually mean the same with regard to biometric data.

The use case of searching police records has been successfully piloted between the project participants. The success of the technology was shown in system integration and performance tests as well as in business acceptance tests. All pilot partners, including Europol, declared their commitment to continuing the work in a dedicated follow-up project (ADEP 2) aimed at consolidating achievements so far. The overall strategic objectives of ADEP 2 were outlined in the conclusions of the evaluation report and the project drivers invited Member States to participate in ADEP 2.

EPRIS ADEP is based on a decentralised architecture and a UMF-compliant interface, makes it possible to broadcast, requires access rights to national (index) databases across borders and respects the principle that Member States remain owners of their data. The system uses existing Europol infrastructure, in particular the Europol Operations Network (EON). One of the pilot objectives, the availability check of Europol data, was dropped due to the fact that the QUEST interface had been implemented in the course of the UMF project.

The EPRIS ADEP methodology was understood by the pilot partners as a way of technically making existing data available. The project was carried out on the understanding that the Swedish Initiative[7] served as a sufficient legal basis. That legal basis has, however, been questioned by some Member States since the beginning of the ADEP project. Accordingly, resolving legal issues may currently be considered a top priority.

Underlining the positive result of the EPRIS ADEP pilot, at the DAPIX meeting of 21 February 2019 the Commission expressed its intention to carry out a follow-up feasibility study, based on the results of the ADEP project, to assess the establishment of a European Police Record Index System (EPRIS), and, if appropriate, to consider suggesting a legislative proposal on EPRIS.[8]

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7 Council Framework Decision 2006/960/JHA, OJ L386/89, 29.12.2006.

8 In line with the Stockholm Programme, the European Commission carried out a study on possible ways to enhance efficiency in the exchange of police records between the Member States by setting up a European Police Records Index System (EPRIS). Its main objective was to investigate the need for and possible approaches to identifying whether police-record-related information is available in one or several Member States. The outcome, presented in 2012, showed that stakeholders had different views on the potential added value of EPRIS. However, Member States opted for a decentralised system. The study concluded that even if no central data storage was envisaged, legislation would be necessary for establishing national extraction databases.

The feasibility study on Prüm suggested making Prüm searches possible on the basis of alphanumeric demographic data in line with the EPRIS ADEP approach, as one of the improvement opportunities. Experts in the workshop saw the benefits but questioned the feasibility.

2.3 Universal Message Format (UMF) / QUEST

Both UMF and QUEST[9] are unanimously supported by the Member States, some of which are already at the stage of implementing them in their national systems in the framework of the UMF 3 project. Member States show much interest in UMF. UMF is a common standard specification facilitating cross-border exchange of information between national law enforcement authorities and is expected to contribute significantly to streamlining intra-EU information exchange. Developing UMF in the framework of IMS was carried out in three steps. Europol supported the UMF3 IMS action, particularly in the pilot project[10], by developing the QUEST web service with which Member States can make real time queries of operational databases. The pilot Member States were also going to develop software to query national databases and the Europol database (EIS) simultaneously without duplicating query submissions.

The interoperabilty package established the UMF standard. The standard will be used in the development of the EES, ETIAS, the ESP, the CIR, the MID and, if appropriate, in the development, by eu-LISA or any other Union agency, of new information exchange models and information systems in the JHA area. The UMF standard may be considered in the VIS, the SIS and in any existing or new cross-border information exchange models and information systems in the JHA area, developed by Member States.

9 QUEST (QUerying Europol SysTems) is an interface to search and retrieve Europol data.
10 Europol, EE, ES, FI, GR and PL were implied in implementing the pilot.

3. OUTCOME OF THE QUESTIONNAIRE ON AUTOMATION.[11]

A. Indexation / Automation

The Presidency had asked Member States which of the databases available in the legal framework of the 'Swedish Initiative' would be made available in an indexed/automated form. As a matter of principle, databases available for law enforcement purposes are either managed by law-enforcement authorities or by other authorities/private entities. Consequently, access to these databases is either direct or not, and access to some databases additionally requires judicial authorisation.

Member States generally underlined that indexation/automation would facilitate the availability of data and that it would bring added operational value at national and cross-border levels. Most of the Member States had made up their minds and expressed their openness to indexing police records, but refused or hesitated to do so in the case of other databases. Despite the positive technical assessment, internal political discussion processes on automation would have to be launched in some Member States. Which databases would be made available for indexation/automation should be decided whilst taking into account the data provided. Furthermore, in some Member States implementing indexation/automation would have to be preceded by a comprehensive feasibility study.

However, the point was raised that indexation as a technical precondition for automation would not solve the main policy problem: whether or not to give foreign authorities direct access to these indexed national databases.

B. Single-search facilities

Single-search facilities are generally welcomed by Member States as being a logical way of dealing with increasing volumes of information. A number of Member States have already implemented single-search facilities with which they can consult a considerable number of national databases simultaneously. These databases are mostly law enforcement databases. In some Member States, the single-search facilities are already or will be linked to EU centralised systems.

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11 BE, CZ, DK, DE, ES, FR, GR, HR, IE, CY, LU, LV, HU, MT, NL, PT, SI, FI, SE had replied to the questionnaire by 22 March 2019. With regard to indexation/automation, the 15 questions were on the planning of human, technical and financial resources (1-2), law enforcement databases susceptible to indexation/automation (3-4), on the idea of a single-search query (5-8), national legislation as to indexation (9), artificial intelligence supporting data processing (10-11), the scope of data that could be covered (12), the implementation of the Universal Message Format (UMF) (13), the need for human intervention in the process of automated information exchange (14), and the implementation of QUEST (15).

Streamlining access to EU databases through the European Search Portal was considered appropriate by one Member State as long as the single-search facility is provided not only as an application but also as an interface allowing it to be integrated into national systems.

Implementing a single-search facility beyond what is provided for by the interoperability package was welcomed by several Member States, whereas others were hesitant because of the lack of experience or because of their opinion that the interoperability package would already cover the search of all relevant databases. At this stage, however, going beyond the interoperability package was considered premature. It was recommended instead to focus national efforts on implementing the envisaged interoperability package, which would require most of the resources available over the next few years.

C. Universal Message Format (UMF) / QUEST

Standards such as UMF would definitely and substantially increase the quality of data exchange, by supporting seamless information flow and avoiding media incompatibility, multiple registrations of the same data, data mismatching and data misinterpretation.

Although the implementation of the UMF is a separate issue from indexation, standardisation (unifying concepts and data structure) is considered to contribute substantially to increasing the efficiency of information exchange. The UMF framework is a facilitator of and catalyst for interoperability and automation, and Member States consider that they should be implemented simultaneously.

D. Legal constraints

In general, Member States see no legal constraints on making available police records other than criminal records in an indexed/automated form as long as the relevant data protection rules are respected. A few Member States mentioned that sensitive data and police records are provided only in a non-automated form, in accordance with restrictions under national legislation.

As to national legislation, the majority of Member States stated that there was no legislation that explicitly prohibited the indexation of databases. Indexing existing databases/data files was looked upon as a way to facilitate the technical availability of data. The processing of data to create the index was not considered an intrusion into fundamental rights requiring special justification. This does not mean there is no need for proper legislation on accessing the indexed data.

A limited number of Member States pointed out the legal constraints deriving from the EU legislation on data protection. In assessing the limitations in this field, one must take into account whether the databases concerned are governed by data protection rules for law enforcement agencies (EU/2016/680) or by the General Data Protection Regulation (EU/2016/679).

E. Artificial intelligence

While most Member States currently do not have experience with machine learning and artificial intelligence, they taken an interest in the potential benefits of unstructured data being structured, indexed and exploited by artificial intelligence from a hypothetical perspective. They would like to explore the idea of AI/machine learning, which could allow valuable information to be found quickly in unstructured data (documents, reports, e-mails, etc.).

One Member State envisaged introducing AI for data to be exchanged by the system of the national SPOC, and another Member State had had experience with so-called search modules (an ongoing automation process is now running on Interpol notices). Even if no AI-based IT solutions are currently operational, half of the responding Member States consider that it is inevitable that machine learning and artificial intelligence will be included in future information management strategies in order to face the ever-increasing volume of data.

F. Scope of data

Most Member States welcome the idea of extending the scope of data susceptible to automation. Technically speaking, certain types of data categories are more easily indexed than others. In this context, Member States mentioned vehicles (the automated exchange could be extended to driving licences, but also to data concerning ownership of motorcycles, vessels and aircraft), weapons, objects and modi operandi.

When discussing this topic, Member States called for account to be taken of the SIS architecture and, in particular, the QUEST search module, which would eventually allow searches in the Europol Information System (EIS) on various types of data (used and non-stolen phones, URLs, bank accounts, companies, criminal groups), and, in particular, ongoing discussions on amending the Prüm Decision. While experts agreed in the workshop on the benefits of including driving licences and facial recognition in Prüm data exchange, they were sceptical as to ballistic information.

4. CONCLUSIONS

Based on the above, the Presidency suggests that DAPIX assess, in the framework of the IMS, the possibilities of and preconditions for enhancing automated information exchange, taking into account the following milestones:

- Member States involved in various automation projects, such as UMF, ADEP or QUEST should keep up momentum and build on results achieved; when these projects are developed further, more Member States should join these projects in order to consolidate results;
- the European Commission should continue financing automation projects, and should be encouraged to launch a feasibility study on EPRIS, based on the results of the EPRIS ADEP pilot;
- Member States should complement decentralised and centralised automation systems by ensuring that the implementation of UMF and QUEST and that of the interoperability package run in parallel;
- Member States should consider automation a strategic objective at national level and, with the assistance of their data protection supervising authorities, assess which of their databases would be eligible for indexation, and express their level of willingness as regards which of these databases they would grant another member States mutual access rights to for law enforcement purposes;
- Member States should examine the current legal framework in order to assess whether the current legal framework is viable for automated information exchange, in close coordination with COM (which could assess the need for a new EU-level legal instrument);

- Europol and eu-LISA should be encouraged to continue their efforts towards the automation of information exchange;
- Member States should explore, as a long-term option, the opportunities offered by machine learning and artificial intelligence.

5. WAY FORWARD

At the upcoming DAPIX meeting of 8 May 2019, the Presidency intends to adopt the present *Paper on moving forward the automation of information exchange of data available at national level*, thus establishing a basis for future presidencies to further develop the concept. The Presidency invites Member States to submit their contributions by 25 April 2019 to dapixinfoexchange@mai.gov.ro and to dapix@consilium.europa.eu . Given the complexity of the topic, additional details can be requested at dapixinfoexchange@mai.gov.ro .