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DIRECTORATE-GENERAL JUSTICE, FREEDOM AND SECURITY
Directorate F: Security
Unit F3: Police Cooperation and Access to Information

The Challenge of Interoperability: Perspectives from the Internal Security Field

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Interoperability in internal security:

- This is how the internal security field's "Information Management Strategy" defines **interoperability**:
 - ∅ Interoperability concerns multiple levels, [including] legal, semantic, business and technical levels. Interoperability is both a prerequisite for and a facilitator of efficient information exchange.
 - ∅ IT solutions and their components should comply with commonly agreed standards and principles. [This] ... will provide greater coherence [and support] interoperability and co-ordination between systems. ... By applying commonly agreed standards, information exchange can be supported by several suppliers. In the long run it will also decrease the cost of adaptation in Member States.
- The Information Management Strategy recommends the **following steps** to be taken:
 - ∅ An "information map" should include a comparative overview of EU and national legal situations in the area of information exchange;
 - ∅ The recommendations of the European Interoperability Strategy should be considered;
 - ∅ Data protection and security measures should be coordinated between the EU and national levels.





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Core instruments of law enforcement information exchange:

Prüm Decision (Council Decision 2008/615/JHA):

- This instrument commits Member States to setting up an IT infrastructure by **26 August 2011** that enables the automatic exchange and comparison of DNA profiles, fingerprints and vehicle registration data within the EU (now EEA);

The following Member States are currently **operational**:

- Ø AT, BG, ES, DE, FI, FR, LU, NL, RO, SI (10/27 MS) have been authorised to exchange DNA;
- Ø AT, DE, ES, LU, SI (5/27 MS) have been authorised to exchange fingerprints;
- Ø AT, BE, ES, DE, FR, LU, NL (7/27 MS) have been authorised to exchange vehicle registration data.

Swedish Framework Decision (Council FWD 2006/960/JHA):

- The Swedish Framework Decision requires MS to transmit criminal information and intelligence within **eight hours** in urgent cases and two weeks in non-urgent ones.





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IT challenges of interoperability in Prüm/Swedish framework:

Prüm:

- The exchange of **Vehicle Registration Data** is the least problematic: all MS are required to use a version of the EUCARIS software, developed by the eponymous company. As MS use four different versions of this software, those using an older version cannot fully exchange data with those using the latest one;
- **DNA exchange** works by interconnecting the national databases of the EU-27. Some MS use the FBI-developed Combined DNA Index System (CODIS); others use nationally-developed databases – some use SAGEM; others use Motorola, COGENT and NEC. As several MS use CODIS, they have set up a CODIS Interoperability Working Group to achieve interoperability with non-CODIS users.
- **Fingerprint** exchange is the most problematic. MS use different types of nationally-developed Automated Fingerprint Identification Systems (AFIS), and the conversion of fingerprints into digital formats is hugely complicated. The physical size of a single fingerprint image (1-2 MB) also limits MS' daily throughput. Sometimes, two different versions of the same software cannot communicate with each other.

Swedish FWD:

- DE has proposed a **writable PDF format** to standardise the form in which intelligence is requested.





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Workflow challenges of interoperability in Prüm framework:

- **Workflow integration:** The exchange of DNA, fingerprint and vehicle registration data is conducted through National Contact Points (NCP). NCPs transmit the incoming information to the appropriate authority (police, criminal justice, border guards, customs, immigration or intelligence services). Integrating the workflows of all these authorities is a considerable challenge for MS.
- **Criminal intelligence models:** Some MS have developed criminal intelligence models to provide an overview of who does what in terms of law enforcement. In the absence of such a model, it is difficult to find out who collects the information, where it is stored, and who processes it.
 - ∅ Europol has developed a European Criminal Intelligence Model for the analysis of criminal information and intelligence with cross-border implications;
 - ∅ The US Department of Homeland Security has developed so-called 'Fusion Centres' in the wake of the 11 September 2001 terrorist attacks to structure information flows in law enforcement.





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European Information Exchange Model:

- The interoperability of IT systems is only the first step to achieving the true integration of law enforcement services. One needs an **overview** of the relevant legislation, communication channels, information flows and technology to understand how EU law enforcement information exchange operates and could be improved.
- This is what the Commission will do in 2010-2011 by developing its **European Information Exchange Model**. In the context of this exercise, the Commission will chart the following four information maps:
 - ∅ A map of EU and national legislation relevant for cross-border information exchange;
 - ∅ A map of the communication channels used to exchange data;
 - ∅ A map of information flows to provide an overview of why information does or does not get through;
 - ∅ A map of databases and IT solutions used to explain the technological aspects of interoperability.
- This mapping exercise will feed into an evaluation of the Swedish Framework Decision and Prüm Decision, with the Commission potentially recommending **further steps** to improve cross-border law enforcement information exchange between 2010 and 2014.





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Thank you for your attention!

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