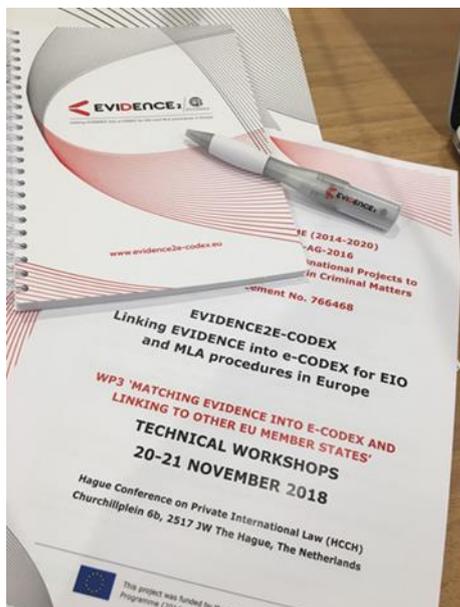


EVIDENCE2e-CODEX

WP3 'MATCHING EVIDENCE INTO E-CODEX AND LINKING TO OTHER EU MEMBER STATES'

Technical Workshops 20-21 November 2018



First validation of the EVIDENCE2e-CODEX solution during

- **'Workshop on the Formal Language for Evidence Exchange Representation'**, dedicated to the formal language for evidence exchange representation, and
- **'Interim Workshop on Evidence Exchange Standard Package Application'**, focused on the Evidence Exchange Standard Package Application development.

Background

EVIDENCE2e-CODEX WP3 'Matching EVIDENCE into e-CODEX and Linking to other EU Member States' is dedicated to the integration of the formal language for representing and supporting the Electronic Evidence Exchange process in an electronic evidence platform based on [e-CODEX architecture](#), and the development of plugin modules for other systems in use by EU institutions (EUROJUST, OLAF, and EUROPOL).

During the activities carried out within the [EVIDENCE project](#) a **standard proposal for the representation of legal and forensic information involved in the electronic evidence exchange process** was presented. One of the most important conclusion related to the evidence exchange was that a set of descriptive metadata for the electronic evidence exchange, expressed by open formal languages, among police or judicial authorities or private parties within the European Union Member States should be put in place. The proposal concerned the evidence exchange between two or more different countries but it also covered evidence exchange cases that may occur within a single State territory.

The studies conducted in the EVIDENCE project concluded that there was no standard for the evidence exchange process and a very little information was available related to already existing running platforms that implement a standard for the information exchange in forensic field. Nevertheless, the EVIDENCE proposal for the representation of the data in the evidence exchange process was developed, having the following **features** in mind:

- The proposal must be represented as an **open standard**;
- The related system/platform for the proposal implementation must be **open to all potential stakeholders**;
- It should be available to police/judicial authorities and private parties;
- It should be an extension/integration of already standard proposal, provided with a **core structure for representing technical and procedural forensic information**;
- It should be a **community-driven solution**, supported by strong forensic specialists in legal and technological fields;



- It should contain reference to **an ontology in the digital forensic domain**, to express the most common subjects and relationships involved in forensic investigation/case; and
- It should be **extensible** in order to adapt its structure to the fast-pace technology development.

EVIDENCE also provided for **a proof of concept application** (PoC) for orchestrating workflows on the exchange and management of forensic and legal information packages related to electronic evidence. The PoC focused on the metadata of the electronic evidence exchange, the description and reproducibility of the analysis and the chain of custody.

The upload of an EVIDENCE file to the e-CODEX connector/gateway is part of a business process, in this case - Mutual Legal Assistance and European Investigation Order procedures. The e-CODEX method also includes the process modelling, an essential step to model the 'carrier'-message for the EVIDENCE that has to be exchanged; where the process modelling encompasses the roles of the different actors and their actions in the process or workflow. With respect to the above, EVIDENCE2e-CODEX designs and adapts its **Evidence Exchange Standard Packages (EESP) application** as an extension of EVIDENCE PoC updating its user interface and the underlying data model on the basis of a new representation language (by upgrading an existing standard such as CASE). This will allow EVIDENCE2e-CODEX to support the pilot use cases in capturing MLA and concepts from the mutual recognition instruments.

EVIDENCE2e-CODEX will integrate the EESP application with the e-CODEX gateway for trusted and secure transmission of packages, providing secure access to EVIDENCE2e-CODEX packages by enabling strong encryption when storing EVIDENCE2e-CODEX objects or packages.

EVIDENCE2e-CODEX Technical Workshops

To achieve WP3 'Matching EVIDENCE into e-CODEX and Linking to other EU Member States' goals, the EVIDENCE2e-CODEX team broke down the **electronic evidence life cycle** in simple phases in order to verify the capacity of the formal language to store the forensic and legal information related to the current status of the evidence. Five different phases can be easily distinguished: initialization of the case, search and seizure, acquisition, analysis taking into consideration the



preservation and the chain of custody. Relying on pseudo-anonymization of real cases, a simulation on how the formalism represents all the involved information was prepared in order to evaluate the strengths and the weakness of the chosen formalism within the EVIDENCE2e-CODEX Project. For each phase the needed amendments will be applied and verified with the main stakeholders involved in the electronic evidence handling.

With respect to the above, EVIDENCE2e-CODEX organized two workshops:

- ['Workshop on the Formal Language for Evidence Exchange Representation'](#) was dedicate to the formal language for evidence exchange representation, while
- ['Interim Workshop on Evidence Exchange Standard Package Application'](#) focused on the Evidence Exchange Standard Package Application development.

Joint in a single two-day event that took place on 20-21 November 2018 in The Hague, the technical workshops represented the first validation of the EVIDENCE2e-CODEX solution.



More than 40 experts from the digital justice and forensics community gathered to discuss and network over presentations from project partners and stakeholders. The event opened with discussions on topics related to the application of the UCO/CASE formal language in judicial cooperation and for evidence exchange, the e-CODEX method for semantic interoperability, the e-Evidence Digital Exchange System project and Reference Implementation Portal (developed by EC), and the digital forensics as a service.

The second day continued with a technical overview and demo of the Evidence Exchange Standard Package application, developed by the EVIDENCE2e-CODEX project, its application in the EIO context, and further development within the project lifetime. Experts from the project consortium presented different aspects of the evidence exchange within the EIO - the workflow, the issue of handling of large-file of evidence, the EESP relationship with e-Evidence project, and the role of the e-CODEX components. Further on, the EESP Application and its implementation architecture were presented by an Evidence Exchange Workflow demo using a close to reality scenario.

The participation of the major stakeholders in the EU arena helps EVIDENCE2e-CODEX to develop and promote a **'true to life' example for electronic evidence exchange**. The event welcomed DG Justice and Consumers and e-CODEX representatives, officials from EUROJUST, EUROPOL, OLAF, International Criminal Court, and the ministries of justice of the Netherlands, Austria, Germany, Portugal, Spain, Estonia and France, as well as experts from digital forensics companies, academia and national/international organizations working in the field of judicial cooperation.

The Hague Conference on Private International Law (HCCH) kindly hosted the event in their premises at Churchillplein 6b, 2517 JW The Hague, Netherlands.



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