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Subject: Council Conclusions on the Action Plan for the European Forensic Science
Area 2.0

– *Council Conclusions (9 March 2023)*

Delegations will find in the annex the Council Conclusions on the Action Plan for the European Forensic Science Area 2.0, approved by the Council (Justice and Home Affairs) at its 3936th meeting held on 9 March 2023.

**COUNCIL CONCLUSIONS ON THE ACTION PLAN FOR
THE EUROPEAN FORENSIC SCIENCE AREA 2.0****SYNOPSIS**

The European Forensic Science Area (EFSA) 2.0 Action Plan aims to shape the future of the forensic field by 2030. The plan is organized into three pillars, each addressing specific areas and outlining appropriate actions. For each action, responsible stakeholders have been identified. The party highlighted in bold will have coordinating responsibility. That coordinating responsibility may also involve contacts with other relevant entities not designated as responsible actors.

All of the actions are to be implemented in full respect of fundamental rights in accordance with the Treaties and the Charter of Fundamental Rights of the European Union of 7 December 2000, and relevant data protection principles and legislation.

LIST OF ORGANIZATIONAL ACRONYMS

| | |
|---------|-----------------------------------------------------------------------------------------------------------------------------|
| CEPOL | European Union Agency for Law Enforcement Training |
| ECTEG | European Cybercrime Education and Training Group |
| EJTN | European Judicial Training Network |
| ENFSI | European Network of Forensic Science Institutes |
| Europol | European Union Agency for Law Enforcement Cooperation |
| eu-LISA | European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice |

A. MEETING THE FUTURE

Objective: Ensuring continuous development of key forensic science capabilities in order to secure and strengthen its current and future relevance within the judicial system.

Outcome: Forensic science that provides efficient and scientifically based services that utilizes modern technologies and methods. Thus, ensuring that forensic science remains a valuable resource for the judicial system, helping to facilitate fair and accurate decision-making.

Rationale, activities and responsible actors:

Biometrics

Biometrics allows for a person to be identified and authenticated based on a set of recognisable and verifiable data, which have various degrees of distinctiveness. The ability to extract, use and exchange biometric data is one of the cornerstones of forensic science. Securing the current and future use of biometric procedures, including a final human verification of results, within forensic science is essential for the ability to support law enforcement at large.

Action

Responsible

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- | | | |
|----|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 1. | Explore biometrics capabilities and the application of multimodal biometrics for use in criminal investigation. | ENFSI , eu-LISA, Europol, Member States, Academia |
| 2. | Develop and implement an industry and academy engagement plan within the biometrics area. | ENFSI , Commission, Europol |

Artificial Intelligence

Artificial Intelligence (AI) is a tool that can potentially be applied to a number of activities in forensic science processes with the aim to improve their quality, efficiency and availability. AI has already made its entry in numerous forensic science applications. It is expected that the continuous development within this area will impact forensic science for the foreseeable future.

| Action | Responsible |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| 3. Develop and implement AI-based tools targeting the forensic science area. | ENFSI, Academia, Commission, Europol, Industry, Member States |
| 4. Develop a strategic plan for validation and implementation of AI into forensic work, taking into account legislative developments at Union level. | ENFSI, Academia, Commission, ENFSI, Europol, Member States |
| 5. Engage judiciary regarding acceptance of AI as a tool within the legal framework through legislative review and relevant education. | EJTN, ENFSI, Commission, CEPOL, ECTEG, Member States |

Digitalization

The digital transformation impacts a wide area where new technologies and automated processes are implemented to support and improve different phases in the forensic science process, from the crime scene to the courtroom. It is essential that forensic science continues to embrace the digital transformation and adjust its procedures and processes.

| Action | Responsible |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 6. Develop guidelines on how to create procedures on introducing digitalisation and use of technology in forensic science. | ENFSI , Academia, eu-LISA, Member States |
| 7. Adapt the processes and workflow within forensic science to embrace and adapt to the possibilities enabled by the digital transformation. | ENFSI , eu-LISA, Member States |

New tools and emerging technologies

It is necessary to continuously survey and evaluate new tools and emerging technologies, including emerging biological and chemical evidence types ‘-omics’ and nanotechnology, regarding its applicability in forensic science. Adapting existing and future technologies for use within forensic science is essential for forensic science to stay relevant.

| Action | Responsible |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 8. Monitor and horizon scan developments in other scientific areas (including emerging biological and chemical evidence types '-omics' and nanotechnology) for potential application to forensic science. Create an academic and industry engagement plan for emerging technologies that have potential for forensic use. | ENFSI , Academia, Commission, Europol, Industry, Member States |
| 9. Adapt, validate and implement new emerging technologies for forensic science application. | ENFSI , Academia, Europol, Member States |

B. STRENGTHENING THE IMPACT OF FORENSIC RESULTS

Objective: Forensic science is an integral part of the judicial system and forensic results are essential in ensuring that justice is served. To increase the impact of forensic results there is a need to develop the use of scientific evidence throughout the chain of custody, facilitate cooperation between stakeholders, and establish scientifically based ground truth.

Outcome: Increased use and benefit of forensic evidence within the judicial system. Enhanced cooperation and knowledge sharing between agencies and jurisdictions within the EU and beyond.

Rationale, activities and responsible actors: **Forensic examination and interpretation**
Develop forensic examination and interpretation to strengthen the impact of forensic results and demonstrate their reliability.

| Action | Responsible |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 1. Expand and develop the use of statistics and probabilistic reasoning for forensic science, including use of tools for evaluative reporting. | ENFSI, Academia, EJTN |
| 2. Develop a uniform approach for source and activity level reporting across forensic disciplines. | ENFSI, Academia, Member States |

Forensic data sharing

Forensic data sharing across agencies and jurisdiction to contribute to data quality and support the harmonisation of formats in datasets, including tools to share data, in order to ensure the interoperability of EU large scale information systems, including datasets for development, validation, and evaluation of forensic data science tools.

| Action | Responsible |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 3. Explore the feasibility of implementing a system (or systems) including standardised data formats for efficient and quality assured exchange similar to the Prüm frameworks. The framework should consider the need of data for development and evaluation of forensic data science tools. | Commission, Academia, eu-LISA, ENFSI, Europol, Industry, Member States |
| 4. Determine the impact of LED (Law Enforcement Directive) and GDPR (General Data Protection Regulation) for use of different data referring to individuals. | Commission |
| 5. Develop a common framework (lexicon) for communication of scientific evidence. | Commission, Academia, ENFSI |

Multidisciplinary approaches

Explore multidisciplinary approaches so that forensic results can be beneficial for investigations and intelligence led operations related to serious and organized crime and terrorism as identified in the SOCTA report.

| Action | Responsible |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| 6. Review technology solutions and end user needs for intelligence and multidisciplinary approaches to optimize the use of forensic evidence. | ENFSI, Academia, Commission, Europol, Member States |
| 7. Determine the individual and combined evidential value of forensic evidence types and define pathways for the operational implementation of intelligence and multidisciplinary evidence types. | ENFSI, Academia, Commission, Europol, Member States |

C. DEMONSTRATING RELIABILITY IN FORENSIC RESULTS

Objective: Increase the understanding of the mechanisms within forensic science and ensure that potential consequences are properly managed within the judicial system. Facilitate training and education within forensic science.

Outcome: Secure that forensic science practitioners have the skills and knowledge they need to effectively contribute to the judicial system. Improved processes and procedures to ensure proper risk management and quality standards.

Rationale, activities and responsible actors: **Fundamentals in Forensic Science**

Fundamentals in Forensic Science including a broad scope of possible areas to explore and develop while respecting current methods.

| Action | Responsible |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| 1. Promote research into the set of fundamental principles and empirical evidence for the use of forensic science in the justice system. | ENFSI, Academia, EJTN |
| 2. Develop studies to understand and determine background prevalence, transfer and persistence of forensic evidence types. | ENFSI, Academia, Commission, Member States |
| 3. Develop technologies to optimize the recovery of forensic evidence. | ENFSI, Europol, Academia, Commission, Industry, Member States |

Forensic Human Factors

Understanding of how human interaction impacts on decisions at all levels of a forensic investigative process, from the crime scene to the courtroom.

| Action | Responsible |
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| 4. Conduct research on the effects of bias and context management on decision-making in forensic science, from crime scene analysis to courtroom proceedings. | ENFSI, Academia, CEPOL, EJTN |
| 5. Disseminate the findings of this research in order to increase understanding of these factors and to share solutions available to interrupt and mitigate bias. | ENFSI, CEPOL, EJTN |

Quality and Competence Assurance

Continuous development of quality and competence is essential to implement new technologies and maintain the trust in forensic science.

| Action | Responsible |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 6. Develop training programs for forensic practitioners and identify possibilities for platform development and hosting. | CEPOL, ECTEG, ENFSI, EJTN |
| 7. Facilitate training and disseminate training material for end-users of forensic evidence on how to interpret forensic science results and comprehend the strength of the evidence | EJTN, ENFSI, CEPOL, Member States |
| 8. Strengthen the quality assurance of non-accredited forensic services, existing and forthcoming, to ensure their validity. | ENFSI, Member States |