

Digitalisation of Justice: Turning Challenges into Opportunities

EXECUTIVE SUMMARY

eu-LISA Industry Roundtable,
23–24 November, Madrid, Spain



EXECUTIVE SUMMARY: DAY 1

Opening speeches at the conference on the digitalisation of justice

Agnès Diallo, Executive Director of eu-LISA, opened the roundtable with introductory remarks, highlighting the critical role of eu-LISA in the EU digital landscape, cybersecurity and Schengen border management. Highlighting the organisation's impact on a significant part of the global population, Diallo emphasised the importance of collaborative efforts with different stakeholders, including EU institutions, Member States and the industry. She applauded the Spanish presidency's initiatives in the area of justice digitalisation and shared insights into eu-LISA's journey since 2009, its challenges in interoperability architecture and its focus on resolution strategies. Ms Diallo highlighted eu-LISA's current projects in the area of justice, such as ECRIS-TCN and the JITs (Joint Investigation Teams) collaboration platform, and underlined the need to learn from past experiences and to focus on serving people with practical technologies.



Agnès Diallo



Manuel Olmedo

Representing the Spanish Presidency of the EU Council, Manuel Olmedo, Secretary-General of the General Secretariat for Innovation and Quality of the Public Justice Service of the Spanish Ministry of Justice, underlined the country's dedication to shaping a just, supportive and resilient Europe, in line with the priorities of the government led by Prime Minister Pedro Sanchez. Mr Olmedo discussed Spain's progress in digitalising its justice system in line with eu-LISA's agenda, expressing his gratitude for the collaborative efforts in organising the event. He highlighted the joint efforts of all EU Member States in this transformation and referred in particular to the draft Strategic Plan for European Digital Justice 2024-2028. Mr Olmedo also emphasised the principles of collaboration, innovation and inclusion in transforming the justice system, as reflected by Spain's Justice 2030 strategic plan. He concluded by stressing the need for public-private cooperation and the importance of inclusive digitalisation that addresses social disparities and promotes equality.

The Director-General for Justice and Consumers at the European Commission, Ana Gallego, commenced her speech by acknowledging the introductory remarks of her colleagues. She emphasised the importance of cooperation between EU Member States, EU institutions and the industry in discussing digitalisation in the context of national justice systems. Ms Gallego identified three key benefits of digitalisation: increasing efficiency, improving access and enhancing the quality of justice. She highlighted the effectiveness

of electronic communication, the central role of digital tools during the pandemic and their potential to assist judges by minimising administrative tasks. Gallego also mentioned the growing interest in videoconferencing and AI integration in justice systems. She cautioned against the potential bias in AI systems and emphasised the need to maintain public trust in technology and justice systems. Concluding her speech, Ms Gallego reiterated the Commission's readiness to support Member States through various means, including financial assistance, guidance, and legislative measures, and called for collaborative efforts to develop practical solutions for modernising justice systems.

Session I Setting the scene: Recent policy developments

Session I of the Digitalisation of Justice Conference focused on recent policy developments in the sector of digital transformation of justice in the EU. The session featured insights from Dirk Staudenmayer, Head of the Digital Transition and Judicial Training Unit at the Directorate-General Justice and Consumers of the European Commission, and Zsombor Nagy, Senior Policy Officer and Chair of the ECRIS-TCN Advisory Group at eu-LISA.

Dr Dirk Staudenmayer explained the European Commission's commitment to digital transition in the justice sector, emphasising its importance for organisational restructuring. He outlined two key dimensions of this transformation: the adaptation of substantive law to a digital economy and the digitalisation of national justice systems. Dr Staudenmayer discussed the need to adapt legislation to facilitate digital communication and videoconferencing in cross-border judicial proceedings. He referred to the forthcoming adoption of a Regulation on digitalisation and a comprehensive plan for its implementation with 24 implementing acts, signalling significant opportunities for industry involvement in this area. He emphasised the transformative potential of AI in the justice sector by automating routine processes, increasing efficiency and assisting in legal analysis, case allocation and anonymisation of court judgments. He also highlighted the importance of digitalising traditional proceedings, such as creating interoperable links between court management systems and digital case files to enable online case initiation and management across EU Member States.

Zsombor Nagy suggested a need to modernise existing judicial procedures, maintaining the useful elements and removing limitations. He elaborated on eu-LISA's justice portfolio, which includes ECRIS RI, ECRIS-TCN, e-CODEX and the JITS collaboration platform, outlining the role and functionalities of each system.

Mr Nagy highlighted security, compliance with data protection rules and the user-centric design of these systems, noting that eu-LISA's role is mainly that of a data processor, ensuring high data quality standards. He concluded by reaffirming eu-LISA's commitment to advancing the digitalisation of justice in the EU, in line with principles of efficiency and cooperation.



Zsombor Nagy

Session II Member States' initiatives in justice digitalisation

Session II, moderated by Aitor Cubo, Director-General for Digital Transformation of Justice Administration at the Spanish Ministry of Justice, showcased innovative initiatives of the Member States in the area of digitalisation of justice.

David Ortigos and Óscar Palomo Díaz from **Directorate-General for Digital Transformation of the Ministry of Justice of Spain**, presented their approach to a data-driven justice system and underlined the importance of technology in the modernisation and digitalisation of justice administration. They emphasised the shift from a document-centric to a data-centric approach, with a strong focus on artificial intelligence to improve data processing, pattern search, prediction and automatic data extraction. A key initiative mentioned was *Carpeta Justicia* (Justice Folder) project, a comprehensive platform offering various services to individuals, companies and justice professionals. The project is notable for its use of AI to anonymise and summarise documents, demonstrating Spain's commitment to a user-centred and efficient justice system.

João Simão, Director of the Telecommunications and Informatics Unit at the Portuguese Criminal Police, discussed the digital transformation journey in law enforcement, particularly in dealing with serious crime through specialist units. He highlighted the challenge of moving from paper-based to digital processes and the critical role of AI in analysing data for investigative quality and accuracy. Simão emphasised the need for a sustainable approach to justice that balances economic, environmental and social factors. He also highlighted the importance of cybersecurity and the need for robust cyber protection frameworks, reflecting a comprehensive approach to digital transformation in law enforcement.

Mark Dunne, Head of Digital at the Courts Service of Ireland, presented an overview of Ireland's digital transformation in the justice sector since 2020. Faced with challenges such as chronic underinvestment in ICT and reliance on legacy systems, the Courts Service undertook a strategic ICT overhaul. This included modernising infrastructure, migrating to Microsoft 365 and introducing a unified case management system to streamline judicial proceedings. Dunne highlighted the role of shared services, data governance, policy development and data engineering in supporting this transformation. The initiative also included the development of an open data portal, demonstrating Ireland's commitment to transparency and the modernisation of its justice system.

Panel Discussion: Digitalisation of justice – turning challenges into opportunities

The panel discussion brought together distinguished panellists: Mark Dunne (Courts Service of Ireland), **Cristian Nicolau** (Directorate-General for Justice and Consumers, European Commission), Gösta Petri (Directorate-General for Justice and Consumers, European Commission), João Simão (Portuguese Criminal Police) and Zsombor Nagy (eu-LISA). The discussion focused on the transformative journey of digitalisation in the justice sector and the remaining challenges that can be addressed through the use of technology.

Mark Dunne shared insights from Ireland's experience of digitalisation, emphasising the crucial role of stakeholder engagement. He highlighted the establishment of working groups with legal professionals and members of the judiciary and emphasised the need to make public-facing systems accessible and user-friendly.

Cristian Nicolau and Zsombor Nagy looked at the potential expansion and challenges of e-CODEX as an important tool for cross-border judicial communication. They discussed the platform's potential for exponential growth and the need for standardised solutions, legal harmonisation, and high-quality data to ensure efficient operations.

João Simão contributed to the discussion by emphasising the need for a common language and standardised procedures in cross-border digitalisation efforts. He pointed to the need for legal frameworks that support the use of digital evidence and AI applications in criminal investigations, underlining the importance of these tools in modern law enforcement.

Gösta Petri addressed the significant impact of AI on the efficiency and quality of justice. He noted the limited use of AI in core judicial activities across EU Member States, signalling a huge potential for wider adoption and use of AI technologies in the justice sector.

The panel unanimously agreed on the critical role of collaboration between the public and private sectors, as well as academia, to drive digitalisation in justice systems. They emphasised the need for industry and academic expertise in driving innovation and address the complex challenges of digital transformation. In addition, there was a consensus on the importance of demystifying AI and its practical applications in the justice system for the public.



Panel Discussion day 1

EXECUTIVE SUMMARY: DAY 2

Session III Solutions for document processing and exchange between the judiciary and law enforcement bodies*

The day opened with a presentation of e-EDES, the electronic evidence digital exchange system, and its integration into the wider e-CODEX network, presented by **Cristian Nicolau**, Head of the IT, Document and Knowledge Management Unit of the Directorate General for Justice and Consumers of the European Commission (**DG JUST**). He focused on the system's crucial role in the secure transmission of judicial documents throughout the EU. The e-CODEX network, soon to be overseen by eu-LISA, is a collaborative effort with a gateway provided by DG DIGIT and a connector managed by a consortium of Member States. Nicolau stressed that each Member State should set up at least one access point to facilitate secure cross-border communication. He highlighted the successful use of the system in cases like the European Investigation Order, which is operational between 11 Member States. The presentation ended with Mr Nicolau outlining the roadmap for eEDES.

The rest of the day was dedicated to industry presentations that addressed challenges faced by judicial authorities with technological solutions. **Štěpán Bouda from Aricoma** presented the Extended Enterprise Content Management solution. He highlighted the diversity in the implementation of digital tools across European justice systems and identified disparities in their digital maturity. Mr Bouda recognised the burden of paperwork on judges and proposed document automation as a viable solution to alleviate this challenge. Highlighting two critical areas, document generation and AI, Mr Bouda described advanced document management systems capable of automated document creation and data integration. He emphasised the role of AI in document management, illustrating how AI technologies can summarise complex documents and facilitate information retrieval.

Carlos Tabernero from NTT Data focused on data-driven judicial administration. He acknowledged the enabling environment for digital justice and highlighted the challenges posed by unstructured information and low data quality. Mr Tabernero proposed a five-step process for judicial authorities to embrace data-driven administration, covering information collection, extraction, technology integration, data use and impact assessment. He shared practical use cases developed with the Ministry of Justice, such as automating tasks using high-quality data, and introduced Clonika – NTT Data's data-driven automation platform. Mr Tabernero concluded by highlighting the platform's comprehensive reporting capabilities, touching on various aspects including economic impact and environmental sustainability.

Claudia del Grosso from IRIS Global shared the company's journey in digitalising post-mortem documentation management, highlighting the importance of the project during the pandemic. The transformation depended on partnering with Pega, which provided process management capabilities, omnichannel communication capabilities, workflow automation, and AI and robotics capabilities. The digitalisation project involved five key steps, from case creation to digital delivery to families, resulting in significant improvements in efficiency and customer satisfaction. Ms Del Grosso identified key takeaways, such as the positive impact of digitalisation on client experience, the importance of public-private collaboration, and the potential for further enhancements such as API integration.

Session IV Solutions for secure digital presence

Session IV, which focused on solutions for secure digital presence, opened with a presentation of the Spanish experience in implementing a solution for digital immediacy, jointly developed by **CouncilBox and the Spanish Ministry of Justice**. The service is designed to facilitate and secure various processes between citizens and public administrations, ensuring both physical, logical and legal validity. A key feature of the service is the ability to conduct legal proceedings remotely, while maintaining their legal validity. Integration with the Ministry of Justice systems, including appointment and identity verification systems, streamlines various legal processes. Unlike standard videoconferencing tools, the CouncilBox service provides functionalities tailored to the legal proceedings, and ensures data security and privacy through encryption.

and certification. The service is used in a wide range of judicial proceedings, reducing travel, time, costs and CO2 emissions. The continuous development and improvement of the service reflect a commitment to meeting the evolving needs of the legal community.

Vicente Delas from Fujitsu Technology Solutions presented the Arconte Suite, a digital solution with the potential to transform judicial proceedings. This suite addresses the transition from traditional, paper-centric methods to digital solutions, particularly in response to the challenges of the COVID-19 pandemic and the shift to remote operations. The Arconte Suite is a digital case management and recording system, which replaces paper records with digital ones, ensuring accurate filing and storage of proceedings. It features certified record-keeping, live streaming, secure content management and integration with back-end systems. Its user interface facilitates recording management, real-time monitoring and video conferencing control. The suite enables remote authentication of participants, integrates recording and videoconferencing, and is fully compliant with EU data regulations.

The rest of the session focused on identity verification solutions. **Joe Palmer from iProov** highlighted the critical role of facial verification in the digitalisation of justice systems. Mr Palmer contrasted manual identity verification with remote methods, highlighting the operational efficiency and privacy preservation of the latter. The iProov technology features biometric verification via a mobile app, passport scanning, verifying identity data and using flash mark technology to ensure real-time presence. He emphasised the importance of continuous monitoring and adaptation in biometric security, as identity verification becomes increasingly complex with advances in AI.

Erik Guoqiang Li from Mobai focused on improving user experience, security and privacy in e-ID systems. Mobai's solution integrates facial recognition and deep counterfeit detection technologies to strengthen the security of e-ID systems. The process includes passport scanning, NFC data reading, and selfie-based identity verification. Emphasising privacy concerns, it proposes fully homomorphic encryption to protect face templates, which allows for the creation of multiple encrypted templates, enhancing both security and privacy without significantly affecting accuracy or efficiency.

Finally, **Csaba Nagy-Amigo from Adaptive Recognition** presented the company's technology for remote verification of identity documents. The document reader captures images of passports under different lighting conditions, reads data from the passport's chip and sends a comprehensive data package to a remote server for analysis. This technology ensures the authenticity and security of documents, which is essential for confidence in legal proceedings.



Session V Artificial Intelligence and other innovative solutions

The final session focused on artificial intelligence solutions for judicial authorities. **Vicent Bosch of Transkriptorium AI** presented their approach to bridging the gap between native digital documents and scanned digitalised documents. Transkriptorium AI's solution focuses on probabilistic indexing rather than automatic transcription alone, generating multiple hypotheses for text areas to improve information retrieval. This innovative approach has been successfully tested across multiple languages and historical documents, enabling more efficient searches and understanding of context to assign probabilities. Applications of the company's technology include text recognition in complex documents, date normalisation, and semantic tagging of content for anonymisation and classification.

François Nicaise and Matthew Gracie from Deloitte presented AI-powered tools for legal and regulatory analysis. They discussed the management of large volumes of legal documents and data, emphasising the need for transparency and proper transposition of EU directives. Matthew Gracie presented Reg Explorer, a comprehensive tool that includes data from 60 jurisdictions in multiple languages, helping users understand regulatory ecosystems and enabling efficient analysis. Practical applications in real-world scenarios, such as examining the transposition of EU legislation and national law, were also highlighted, demonstrating the potential of AI-enabled tools to transform regulatory intelligence and legal operations.

Michael Brands from Consono presented the Dynizer data management platform, which focuses on optimising information processing in unstructured data-rich environments. Dynizer categorises all information into four categories: who, what, where and when, enabling efficient data integration and analysis. Brands highlighted the platform's abilities to extract metadata from documents, generate dynamic summaries and provide a dashboard view of extracted information, making it a comprehensive tool for legal services.

Finally, **James Slessor and Eladio Alcázar from Accenture** discussed the impact of AI on the justice system using the Delfos platform, developed jointly with the Spanish Ministry of Justice. They outlined the potential of AI to improve citizen services, support the workforce of the justice system, increase operational efficiency and enhance the core mission of justice. The platform allows users to interact with AI in natural language to access case files and information and is adaptable to different languages and formats.

Closing remarks

The event in Madrid concluded with reflection on the meaningful discussions on justice digitalisation. It was marked by a remarkable turnout of more than 100 participants attending in person and more than 200 online, indicating a strong interest in the topic. It brought together a diverse community from EU institutions, Member States and industry leaders. This collaboration was crucial in addressing the specific challenges of the justice sector, in particular those that differ from other sectors such as law enforcement. The discussions underlined the importance of continued cooperation and knowledge sharing, both within the EU and globally. The event served as an important platform for networking, fostering discussions and exploring potential collaborations for future initiatives. eu-LISA and the European Commission reaffirmed their commitment to support these efforts, in particular in cross-border cooperation, by providing their expertise in IT solutions. A strong emphasis was placed on the need for robust networking, which is essential to effectively combat organised crime and other challenges in the area of justice.

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