Digitalisation of Justice: Turning Challenges into Opportunities

EVENT REPORT

eu-LISA Industry Roundtable,
23–24 November, Madrid, Spain
Digitalisation of Justice:
Turning Challenges into Opportunities

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

Day 1

Opening Speeches
Setting the scene: Recent policy developments
Digitalisation of justice – Policy outlook
eu-LISA’s role in the digitalisation of justice in the EU
Presentations of Member State initiatives in the area of digitalisation of justice
Towards data-driven justice, supported by Artificial Intelligence and closer to society
The context of digitalisation in the future of LEA
Courts Service of Ireland – Digital Transformation
Panel Discussion. Digitalisation of justice: Turning challenges into opportunities

Day 2

Solutions for document processing and exchange between the judiciary and law enforcement bodies
Introductory presentation – eEDES: the e-Evidence Digital Exchange System
Extended ECM Enterprise Content Management Solution
A New era for digital justice, data-driven Justice
Digitising postmortem documentation management
Solutions for Secure Digital Presence
Co-creation of a secure, citizen-centric digital immediacy service
Arconte Suite – Enabling the digital transformation of judicial proceedings
Enabling secure and trusted video communication
From Secure identity verification to privacy-preserving authentication for a better user-experience
Solution for remote verification of identity documents
Artificial Intelligence and other innovative solutions
Beyond automatic transcription: A better source of information on which to apply NLP with success
Regulatory intelligence solutions for the judiciary
Dynizer Data Management Platform
Demystifying the justice system with GenAI
Closing of the event
On 23-24 November 2023, eu-LISA, the European Union Agency for the operational management of large-scale IT systems in the area of freedom, security and justice, hosted an industry roundtable entitled ‘Digitalisation of Justice – Turning Challenges into Opportunities’ in Madrid, Spain, and online.

The roundtable served as a forum to explore the challenges and opportunities at the intersection of technology and justice. It focused in particular on digital technologies that improve access to justice, including tools such as secure videoconferencing, platforms for the exchange of digital evidence, and technologies for data management and sharing. Discussions also focused on the emerging role of artificial intelligence (AI) in justice — a topic that has recently attracted considerable attention and debate. The roundtable stressed the importance of promoting digitalisation in cross-border judicial cooperation. This is of particular importance in the context of the European Union, where seamless judicial cooperation between Member States is essential for maintaining and promoting the efficiency and effectiveness of justice.

The event brought together a diverse group of stakeholders, including experts from eu-LISA, European Commission officials, judicial and law enforcement authorities from the Member States and industry leaders. This confluence of perspectives provided a comprehensive view of the current state of digital justice, the challenges it faces, and the potential ways to harness technological advancement to improve justice. In essence, the eu-LISA Industry Roundtable was a testament to the collective commitment to transform the challenges of digitalising justice into tangible opportunities. It highlighted the need for continued innovation, cooperation and strategic thinking in navigating the future of justice in an increasingly digital world.

Opening Speeches

Agnès Diallo, Executive Director of eu-LISA, opened the event with welcoming remarks that focused on the importance of fostering relationships and building networks that are critical to addressing the challenges of digital justice. She outlined eu-LISA’s mission as a key driver in harnessing digital technology to serve the European Union and its citizens.
Ms Diallo underlined the far-reaching impact of eu-LISA's systems, which affect around one-seventh of the world's population. The impact, which is particularly evident in Schengen border management, underlines the Agency's quiet but crucial role in the EU. eu-LISA's success, she noted, comes from working closely with a range of stakeholders, including EU institutions, Member States, and industry partners. eu-LISA serves as a leverage organisation, bringing together diverse groups to solve major challenges. Reflecting on the history of the Agency since its creation in 2011, Ms Diallo discussed its evolution and the challenges it has faced, most recently in implementing the interoperability architecture. eu-LISA's strategy to overcome these challenges includes the remobilisation of providers, a focus on resolution by providing valuable solutions to stakeholders, and internal renewal to foster collaboration and agile practices.

Ms Diallo recognised the digitalisation of justice as a key political priority for Europe, integral to the Union's roadmap for the digital age. This topic is particularly relevant for eu-LISA, given its mandate in the field of justice and home affairs. Ms Diallo also underlined the complexity of the digitalisation of justice, presenting it as a challenge that requires joint efforts for effective solutions. eu-LISA has been at the forefront of digitalisation projects supporting cross-border judicial cooperation, such as the European Criminal Records Information System for Third Country Nationals (ECRIS-TCN) and the Joint Investigation Teams (JITs) Collaboration Platform (CP). These projects demonstrate eu-LISA's commitment and focus on developing user-friendly technologies that effectively serve people.

In conclusion, Agnès Diallo summed up the roundtable's theme of turning challenges into opportunities. She encouraged innovative thinking to identify gaps and create solutions for digital justice. Emphasising the importance of networking and building connections, Diallo concluded that the event provides a platform to foster collaboration to effectively address the challenges of digitalising justice.

Manuel Olmedo

Manuel Olmedo opened his speech by expressing his gratitude for the opportunity to participate in the eu-LISA Industry Roundtable. His speech highlighted Spain's commitment, under its Presidency of the Council of the European Union, to fostering a just, supportive and resilient Europe. Mr Olmedo further underlined Spain's commitment to improving the lives of EU citizens in line with the political priorities set out by Spanish Prime Minister Pedro Sanchez. Spain's efforts to digitalise its justice system reflect the country's ambition to modernise and adapt to the technological context. This transformation is in line with eu-LISA's agenda and strengthens Spain's participation in the event. The Spanish Ministry of Justice echoed this commitment to the technological revolution in justice, which aims to bring justice closer to citizens and adapt it to the administrative culture and judicial system of each Member State. The draft Strategic Plan for European Digital Justice (2024-2028) under the Spanish presidency was highlighted, signalling the collective effort of Member States in this transformative journey. Secretary General Olmedo stressed that digitalisation is central to advancing cross-border judicial cooperation and improving procedures.

Recognising the importance of data, Mr Olmedo spoke about data-driven justice, which improves efficiency, decentralisation and immediacy, but also poses challenges to the rule of law. He mentioned the Next Generation funds as instrumental in driving European leadership in digitalisation and ecological transition, while deepening the rule of law and reducing inequalities. Mr Olmedo emphasised the pillars of collaboration, innovation and inclusion. Spain's 'Justice 2030' plan symbolises a strategy to transform public justice service delivery, adapting it to a changing social context. Public-private cooperation was highlighted as a key to the successful modernisation of the justice system. In conclusion, Manuel Olmedo reiterated the importance of this event in shaping a collective approach to digital justice in the EU. He emphasised the role of diverse voices and perspectives in achieving progress and urged participants to embrace collaboration, innovation and inclusion for the advancement of digital justice.
Ana Gallego opened her speech by thanking eu-LISA and the Spanish Ministry of Justice for organising the roundtable. She highlighted the transformative impact of digitalisation and artificial intelligence on justice systems, outlining their potential to increase efficiency, improve access and enhance the quality of justice. Director-General Gallego highlighted the significant efficiency gains that digitalisation has brought to the justice sector, particularly in the communication and transmission of documents between actors in the justice systems. She noted that electronic methods drastically reduce time and costs compared to traditional methods. The pandemic underscored the importance of digital tools in maintaining access to legal remedies, as digitalisation proved crucial when courts were not physically accessible.

Ms Gallego’s speech also emphasised the quality improvements in the quality of judicial processes due to digital tools. By automating administrative tasks, judges and other professionals can focus more on their core judicial functions. Ms Gallego highlighted the strong interest of Member States in adopting videoconferencing and incorporating AI tools into their judicial systems. This is reflected in the forthcoming e-Justice strategy, which emphasises the role of technology in modernising justice. Turning to the Artificial Intelligence Act, Ms Gallego described it as a groundbreaking legal framework that sets global standards for the application of AI in a number of areas, including justice. The focus, she said, would be on non-high-risk AI applications to reduce administrative burdens while avoiding embedded biases that could affect the quality of justice administration.

Director-General Gallego acknowledged the significant scale of digitalisation efforts and reiterated the European Commission’s willingness to support Member States with financial assistance, guidance, and legislative measures. She called for an exchange of ideas on how the Commission can best support different national contexts in their digitalisation journey. In conclusion, Ana Gallego underlined the need for modern, efficient and accessible justice systems in the EU. She was optimistic about the progress made and called for continued ambition in modernising justice systems through joint efforts. The speech underlined the essential role of digital tools in meeting citizens’ expectations for a modern justice system.
Dr Dirk Staudenmayer highlighted the Commission’s commitment to the digital transformation of justice, a priority reflected in its recent organisational restructuring. Dr Staudenmayer divided the digitalisation in justice in two key areas. First, the adaptation of substantive law to emerging technologies and the evolving data economy. This involves crafting legislation around new digital phenomena, such as AI contracting and the use of data in contracts, exemplified by ongoing legislative processes such as the AI liability proposal.

The second focus area, and the crux of his speech, was the digitalisation of national justice systems. This includes the transformation of traditional legal procedures through digital technologies. Dr Staudenmayer highlighted the efficiency, improved access and enhanced quality that digitalisation brings to justice systems. The recently adopted Digitalisation Regulation, which will formalise digital communication and videoconferencing between EU courts. This Regulation, which is to be formally adopted, marks the beginning of a five-year implementation phase with 24 implementing acts. This phase, which represents a significant investment in human and financial resources, also offers significant opportunities for the industry. Dr Staudenmayer also highlighted the role of the European Commission in supporting the EU Member States in their digitalisation efforts, including facilitating access to EU funding. He also touched on the transformative potential of AI in the justice sector, comparing its impact to that of major revolutions in history.

Citing concrete examples, Dr Staudenmayer spoke about initiatives, such as the promotion of digital courtrooms and real-time interpretation in EU courts. The application of AI, he explained, could range from legal analysis and case allocation to process automation and anonymisation of court judgments. Another important goal is to create links between court management systems and digital case files, ensuring seamless data exchange and enabling online case initiation and management. Dr Staudenmayer concluded by highlighting the potential and growing priority of digitalising justice systems. He expressed keen interest in industry solutions and future plans in this area, and invited further discussion and ideas. His speech reflected an openness to collaboration and innovation in transforming the justice sector through digitalisation.
eu-LISA’s role in the digitalisation of justice in the EU

Zsombor Nagy, representing eu-LISA, provided an insightful overview of the Agency’s involvement in the digitalisation of justice in the EU. He began his presentation with an analogy to Marie Kondo’s principles of tidying and organising, suggesting that many existing justice procedures are outdated and need to be modernised through digitalisation. Mr Nagy highlighted eu-LISA’s justice portfolio, which includes ECRIS Reference Implementation (RI), ECRIS-TCN, e-CODEX, and JITs CP. He gave a detailed overview of each system:

- **ECRIS RI:** A decentralised and secure criminal records information system, operational since April 2012. It exchanges information on convictions between Member States and helps to keep track of the criminal history of EU citizens.

- **ECRIS-TCN:** Designed to record convictions of third country nationals in the EU, it is a centralised system that complements the ECRIS RI. Scheduled to be operational in the first half of 2025, ECRIS-TCN will include biometric data as a mandatory element and will be integrated into the EU’s interoperability architecture.

- **e-CODEX:** Provides an interoperable solution for cross-border exchange of judicial data. Until it was taken over by eu-LISA in 2023, it was maintained by a consortium, including the European Commission, Member States authorities and private organisations. The system is flexible, decentralised and uses open standards.

- **JITs Collaboration Platform:** A platform to facilitate the work of joint investigation teams in criminal investigations with cross-border aspects. This digital platform, currently under development, and expected to be operational in 2026, will provide a range of services including instant messaging, video conferencing, exchange of large files and traceability of evidence.

Mr Nagy emphasised that these systems are secure, respect data protection principles, and are designed to meet the specific needs of their users. He noted that eu-LISA’s role in these systems is primarily as a data processor, ensuring high data quality standards and implementing standardised business processes.

He concluded by reiterating eu-LISA’s commitment to the digitalisation of justice in the EU, following the principles of organisation and efficiency similar to Marie Kondo’s methods.
Presentations of Member State initiatives in the area of digitalisation of justice

The second session was moderated by Aitor Cubo, the Director-General for Digital Transformation of Justice Administration at the Spanish Ministry of Justice. This session aimed to provide an insight into the practical application of digitalisation in the justice systems across the EU, with three presentations from the Spanish Ministry of Justice, the Portuguese Judiciary Police and the Courts Service of Ireland.

Towards data-driven justice, supported by Artificial Intelligence and closer to society

Mr Ortigosa opened the presentation by emphasising the need for a data strategy in the justice sector. He explained that a data-driven approach is crucial to answering complex questions, enabling better decision-making, and improving public policies. This approach involves a shift from traditional methods to a more data-centric process, which is essential for advanced data analysis and forecasting. The Spanish Ministry of Justice has taken significant steps to achieve data-driven justice, including the creation of a dedicated unit within the ministry staffed by IT and legal professionals. This team is responsible for integrating data-driven methodologies into all projects. As a result of these projects, a significant amount of data has been collected and made available to the public through a web portal (www.datos.justicia.es). His presentation also touched on the role of artificial intelligence (AI) in justice. AI is used for various purposes, including legal forensic dictation, document analysis, and automatic anonymisation of documents. Some examples of use-case include the use of AI to translate judicial documents into clear and simple language, making justice more accessible and human-centred, text extraction from hearing recordings, and automated anonymisation of documents.
Mr Palomo outlined three projects that exemplify the Ministry’s data-centric approach. The first is an electronic survey for micro-enterprises, which facilitates the standardisation and efficient handling of forms. The second is a liquidation platform for asset management, which streamlines the process of liquidating assets in insolvency cases. Finally, Mr Palomo presented the Carpeta Justicia (Justice Folder), a comprehensive platform designed as a one-stop-shop for individuals, companies and justice professionals, providing access to the judicial powers of all Spanish regions and cities, whereas previously their portals were separate. Citizens have access to court cases, relevant documents and records. In addition, the Carpeta Justicia platform allows individuals to view document summaries and quickly navigate through relevant files.

The context of digitalisation in the future of LEA

Mr Simão from Portugal’s Policia Judiciaria (PJ) discussed the organisation’s efforts to digitally transform law enforcement, with a focus on criminal investigations and the fight against serious crime. He outlined the structure of the PJ, including its specialised units such as terrorism, anti-corruption, drugs and cybercrime, and highlighted their global connections. A key challenge for the PJ is the transition from paper-based investigations to digital processes. This change is necessary to keep up with evolving legal frameworks and to improve the efficiency and speed of criminal investigations. Mr Simão emphasised that digitalisation is not just about modernising processes but also about ensuring justice and security.

Innovation at the PJ is geared towards doing things differently and better, particularly through the use of artificial intelligence (AI). AI is seen not only as a tool to automate repetitive tasks but also as a means to analyse large amounts of data to ensure the quality and accuracy of investigations. The concept of sustainable justice was also discussed, focusing on economic, environmental, and social factors. The goal is to find solutions that not only improve investigative processes but also align with broader sustainability goals. Cybersecurity was highlighted as a critical aspect that is often overlooked in discussions about digitalisation and AI. The speaker stressed the importance of ensuring robust cyber protection and resilience to safeguard data and processes.

The PJ’s key efforts in developing new internal methodologies are aimed at reducing risk. This approach involves rethinking traditional methods and adopting new, more efficient ways of conducting investigations. A key part of the organisation’s transformation strategy is to foster a culture of increased collaboration and information sharing among investigators. In addition, the PJ places a strong emphasis on promoting interoperability within its systems. This facet of their strategy is exemplified by the implementation of e-CODEX, a clear indication of their commitment to creating a more connected and seamless operational
environment. Finally, the PJ is keen to leverage existing channels to improve operational efficiency. By optimising and leveraging already established processes and systems, Policia Judiciaria aims to improve the speed and effectiveness of its law enforcement efforts, in line with the wider aim of modernising and streamlining the delivery of justice in the digital age.

In his presentation, Mark Dunne provided an insightful overview of the ongoing digital transformation of Ireland’s justice sector. He began by outlining the structure of the Courts Service, highlighting its scope, which includes managing more than one million court appearances in different areas of law and operating from 106 buildings across the country. Mr Dunne provided a snapshot of where the organisation was in 2020, marking the start of its digital journey. At this point, the Court Service faced challenges due to under-investment in ICT, resulting in outdated and fragmented digital solutions, a plethora of legacy technologies, and predominantly paper-based processes. This situation set the stage for a much-needed overhaul.

To address these challenges, the Court Service embarked on an ambitious ICT strategy, underpinned by a digital-first pillar in its corporate strategy. This involved a complete reorganisation of its ICT team and the introduction of new roles and structures to facilitate its transformation. The aim is to move away from the traditional view of ICT as a mere support function to a more central role in service design and delivery. The foundations of this digital transformation included upgrading ICT infrastructure with modern solutions such
Microsoft 365, improving service delivery, and introducing concepts such as hyper-care support. This foundational work was critical in setting the stage for more advanced digital initiatives.

One of the most significant steps in their journey was the development of a unified case management system, which replaced over 140 disparate systems. This system, together with an online portal, forms the core of the digital offering, enabling e-filing, case tracking and other functions. Built on the Microsoft Power Platform, this system is designed to be user-centric, agile and responsive to the needs of staff, the judiciary and the public. In parallel, the Courts Service has been actively working on data governance, conducting a data maturity assessment, introducing a data dictionary, and standardising terminology and reporting mechanisms. This focus on data governance is critical to ensuring the quality and security of the organisation’s digital transformation efforts. In addition, the Courts Service has embraced shared services and implemented several digital solutions to streamline operations. These initiatives demonstrate their commitment to modernising the justice system and providing efficient, accessible services to the public.

In summary, Mark Dunne’s presentation provided a comprehensive overview of the digital transformation journey of Ireland’s Courts Service. It highlighted the challenges faced at the outset, the strategic approach taken to overcome these challenges, and the significant progress made in modernising digital infrastructure and services. This transformation is not only drive operational efficiencies but also significantly improving access to justice for citizens and practitioners alike.

Panel Discussion. Digitalisation of justice: Turning challenges into opportunities
The panel discussion focused on the digitalisation of justice and how to turn this challenge into opportunities. The panellists, including Mark Dunne (Courts Service of Ireland), Cristian Nicolau (Directorate General for Justice and Consumers, European Commission), Gösta Petri (Digital Transition and Judicial Training Unit, DG Justice and Consumers), Óscar Palomo (Spanish Ministry of Justice) and Zsombor Nagy (eu-LISA), shared insights into the current state of digitalisation in the justice sector and discussed the potential and challenges of implementing systems such as e-CODEX and ECRIS.

Mark Dunne emphasised the importance of stakeholder engagement in Ireland’s digitalisation journey. He emphasised the role of working groups, including legal practitioners and members of the judiciary, in shaping the digital transformation. The focus was on making public-facing systems user-friendly and investing in understanding the needs of different user groups.

Cristian Nicolau discussed the significant growth potential of e-CODEX, predicting an exponential increase in its use in cross-border judicial cooperation. He highlighted its evolution from a limited pilot programme to a fundamental tool in the judicial system, anticipating a wide application in different judicial procedures.

Zsombor Nagy from eu-LISA echoed these sentiments, emphasising the importance of integrating all EU Member States into the e-CODEX system to increase efficiency. He also noted the potential improvements in ECRIS-RI, in particular the upcoming integration of ECRIS-TCN, which would enhance the exchange of information.

Gösta Petri addressed the promising role of AI in justice, such as automating routine tasks and supporting legal analysis. He stressed the need for regulation, such as the AI Act, to ensure the responsible use of AI in justice systems.

João Simão highlighted the need for standardisation in legal definitions and processes to facilitate better data sharing and cooperation between countries. He emphasised the importance of ensuring that AI-generated evidence is consistent with legal standards and requirements.

Óscar Palomo discussed the role of e-CODEX in facilitating cross-border judicial cooperation and mentioned other key initiatives such as European electronic access points, highlighting the need for clear communication and standardisation in these systems.

The panellists agreed that cooperation between the public and private sectors is crucial to advance the digital transformation of justice. They emphasised the need for clear communication and education about AI to demystify its role and potential in the justice sector. Overall, the discussion highlighted the significant progress and future potential in digitalising justice, while also acknowledging the challenges that lie ahead, particularly around standardisation, data quality and the ethical use of AI.
Cristian Nicolau’s presentation gave an overview of the e-Evidence Digital Exchange System (eEDES), a key part of digital transformation in the justice sector. The e-CODEX network is a cornerstone of this system, facilitating the secure cross-border exchange of documents over the internet. Mr Nicolau gave an overview of the technical infrastructure of e-CODEX, which includes a gateway provided by DG DIGIT and a connector maintained by a consortium of EU Member States, soon to be managed by eu-LISA. The architecture of the network ensures secure communication between Member States, each of which requires at least one access point. These points, consisting of the e-CODEX gateway and a connector, are crucial for participation in the network, as they require specific configuration files controlled by eu-LISA. Mr Nicolau emphasised the crucial role of eu-LISA in enrolling Member States into the network. A key aspect of the system is the Reference Implementation, designed as a user-friendly interface supporting basic workflows for the exchange of judicial documents. This implementation is crucial for Member States that do not have the capacity to adapt their national systems to European procedures, providing a practical solution to ensure no one is left behind in the process of digitalisation.

Mr Nicolau also discussed the roadmap for the eEDES, which outlines the legislative mandates for digital exchange in various judicial instruments the European Investigation Order, the Service of Documents, and the taking of evidence. The roadmap underlines the ambitious plan to digitalise all cross-border judicial cooperation instruments by 2030, a significant undertaking requiring cooperation and coordination between several Member States. In conclusion, Mr Nicolau likened the e-CODEX network to an ‘Internet of Things’ for the judiciary, connecting national systems, reference implementations, and practitioners in a secure environment. This network will play a crucial role in modernising and streamlining judicial processes across the European Union, making cross-border legal cooperation more efficient and secure.
Štěpán Bouda’s presentation gave an overview of the current state and potential progress in the digitalisation of justice, particularly in the European Union. He began by referring to a new project called Q-star from OpenAI, hinting at breakthrough AI technologies on the horizon. Mr Bouda’s focus then shifted to the disparity in the adoption of digital tools across the EU, as evidenced by the EU Justice Scoreboard. He notes that while some countries are advanced in their use of digital tools including AI, others are lagging behind. Bouda identified two main areas for improvement in digital justice systems: document generation and use of AI. He emphasised the need for more advanced document management systems that go beyond basic templates, advocating for intelligent systems that can adapt and automate documents based on given data.

The presentation highlighted the potential of AI in the justice sector, particularly in managing large databases of documents. Mr Bouda demonstrated OpenText Aviator, an AI tool that can summarise and interact with documents, answering specific questions and providing summaries. This tool can significantly reduce the workload of legal professionals by quickly extracting relevant information from voluminous documents. However, Mr Bouda stressed that AI in its current state is not a replacement for human judgement, especially in critical areas such as the legal system. While AI can assist and increase efficiency, it still requires human oversight due to its statistical nature and the inherent uncertainty in its predictions.
Overall, Mr Bouda’s presentation painted a picture of a justice system on the cusp of a digital revolution, where AI and advanced document management systems can significantly aid legal professionals in their work. However, he cautioned that these technologies should be seen as tools to augment rather than replace human expertise.

In his presentation, Mr Tabernero discussed the concept of data-driven administration and judicial procedures, emphasising the transformative potential of technology in the justice system. He highlighted the current state of digitalisation in the justice system, which is often characterised by unstructured information and low data quality. Despite these challenges, the benefits of data-driven justice are clear, including simplification of work, reduction of errors, increased efficiency and productivity, and the ability to measure the impact of laws and regulations.

The speaker outlined a five-stage process for implementing data-driven administration:

1. Collecting relevant information: This includes collecting both structured and unstructured data, such as video or audio recordings from court hearings.

2. Information extraction: Using AI technologies such as natural language processing to extract valuable data from collected data.
3. Value generation: Combining technology with the expertise of legal professionals to create meaningful use cases that add value to the extracted information.

4. Promoting data use: Encouraging the use of data across all areas of an organisation, focusing on its regulatory and operational impact.

5. Evaluation: Measuring the impact of data use and striving for continuous improvement in regulation and internal operations.

The presentation then moved on to practical applications, highlighting three successful use cases developed within the Ministry of Justice by NTT Data services:

1. Judicial consignment and deposit account application: This automation solution resulted in significant time savings for lawyers.

2. Nationality application process in Spain: Automation has led to the efficient processing of a large number of nationality applications.

3. Order for payment procedures automation: This end-to-end automation solution saves significant amounts of man-hours.

Mr Tabernero also introduced the Clonika data-driven automation platform developed by NTT Data, which integrates various data sources and AI capabilities. He discussed the JUISE service, a project that aims to analyse judicial and non-judicial data to assess the impact of justice on society and inform better policymaking. Finally, Mr Tabernero looked at specific use cases in bankruptcy, legal aid disputes and gender-based violence, demonstrating how data analytics can provide insights into these areas. These examples highlight the importance of data-driven approaches in understanding complex social issues and improving the efficiency and effectiveness of the justice system.
Digitising postmortem documentation management

Claudia del Grosso from Iris Global presented a successful implementation of digital transformation in post-mortem documentation management in the private sector. Her presentation focused on the challenges faced during the COVID-19 pandemic, with a significant increase in deaths, leading to operational issues and a drop in client satisfaction. Before the pandemic, processes were largely manual, involving onsite requests for certificates and physical document handling. This became unsustainable with workload increase in 2020. To address these challenges, Iris Global partnered with Pega, a vendor providing a comprehensive platform for process automation and case management that enabled Iris Global to integrate with multiple insurance companies, automate the validation of case information, and use robotic process automation to request and download documentation. The automation solution significantly reduced the need for manual intervention, resulting in a drastic decrease in pending cases and a significant increase in client satisfaction, as measured by the Net Promoter Score (NPS). One of the key outcomes of this digital transformation was a significant reduction in workload, allowing the company to handle more business without increasing headcount. The project also highlighted the importance of collaboration between the public and private sectors, suggesting the potential for further efficiencies through improved integration methods such as APIs and bulk processing of requests. This case demonstrates the impact of digitalisation on operational efficiency and client experience in a sector dealing with sensitive and complex services. The approach taken by Iris Global provides valuable insights for other organisations considering digital transformation to improve their service delivery.
Juan Miguel Lopez, Marketing Manager of CouncilBox, introduced the company as a Spanish company founded in 2015 and focused on simplifying and securing different procedures and processes between citizens and public administrations. CouncilBox’s software-as-a-service offers comprehensive security features that guarantee the physical, logical and legal validity of remote processes.

The key innovation of CouncilBox is its ability to move traditionally face-to-face processes to remote videoconferencing, without compromising legal validity. The technology differs from standard videoconferencing tools such as Zoom or WhatsApp and offers enhanced security features that are critical for legal proceedings.

CouncilBox cooperates closely with the Ministry of Justice to develop the Digital Mediation tool (eVid). This service allows legal proceedings between justice professionals and citizens to be conducted remotely, while maintaining legal validity. Unlike basic videoconferencing tools, CouncilBox’s solution integrates with the Ministry’s systems, ensuring privacy and secure document exchange, and is accessible via a web browser without additional installations.

A key aspect of the service is its accessibility and legal compliance, facilitated by user-friendly web access in compliance with the Ministry of Justice’s identification methods. The software also integrates blockchain technology for traceability and non-repudiation, ensuring the authenticity and legal validity of all proceedings. CouncilBox’s service emphasises three main aspects: physical and logical data security, legal validity of proceedings and the security and privacy of participants. The service uses encryption, blockchain for evidence management, and pseudonyms for anonymity in sensitive legal proceedings.

The solution is used by a range of organisations under the jurisdiction of the Ministry of Justice, including law enforcement agencies and care centres for vulnerable people. It is continuously developed in collaboration with the Ministry, with ongoing enhancements and new functionalities.

Mr Garcia highlighted the eVid project as a user, emphasising its benefits beyond mere videoconferencing. eVid increases the security and reliability of judicial interactions by providing authenticated identification and cryptographically stamped receipts. It also breaks down social and digital barriers, reducing costs, travel needs, and CO2 emissions. For example, in divorce and separation proceedings, eVid has conducted thousands of online meetings, significantly reducing travel and environmental impact.
Arconte Suite –
Enabling the digital transformation of judicial proceedings

Vincente Delas from Fujitsu Technology Solutions discussed their work in the justice sector, highlighting the significant shift towards digitalisation, especially in light of the challenges posed by the COVID-19 pandemic. Fujitsu has been active in the justice sector since 2000 and created a centre of excellence in 2005. Its portfolio includes solutions for trial recording, legal mediation and other citizen-oriented solutions. The main objective of Fujitsu Technology Solutions is to address the high volume of legal processes and procedures, many of which are still managed using outdated, paper-based methods. When COVID-19 came along, the need for remote trials and videoconferencing became apparent. Fujitsu’s response was to digitally transform these processes, using a trial recording system that meets the mandatory requirements of courtrooms. This system is designed to be a comprehensive solution, not only for recording but also for managing various aspects of legal proceedings, including integration with back-end systems, digital signatures and secure internal portals for citizen participation. One of the key components of Fujitsu’s system is a robust method for identifying citizens, especially when they participate in court proceedings remotely. They propose the use of biometric platforms combined with identity documents for strong user authentication. This is particularly important in scenarios where participants do not have specialised credentials. Fujitsu’s system is both a recording and videoconferencing solution, focusing primarily on the recording aspect. Fujitsu emphasises that while its system works on-premises, it is also capable of cloud-based operation, while being careful to comply with EU regulations on data storage and security, including GDPR.

Looking to the future, Fujitsu envisages the development of a European identity, or self-sovereign identity, as an important step. This concept would allow individuals to access services across the EU with a single, legally valid credential. Fujitsu envisages integrating such credentials into its system to further streamline and secure the remote participation of citizens in legal processes. In conclusion, Fujitsu’s presentation highlighted the evolving landscape of digital justice, emphasising the importance of legal compliance, the potential of facial biometrics for authentication, and the exciting prospects of self-sovereign identity in transforming judicial processes.
Enabling secure and trusted video communication

Joe Palmer from iProov presented the use of an identity verification solution in remote legal proceedings, addressing challenges such as differing digital transformation customs and practices, interoperability issues across borders and architectures, and the specific challenge of remote identity verification in legal proceedings. He highlighted the limitations of manual identity verification processes, which are often slow, operationally inefficient, and can compromise privacy, leading to potential dropouts. Remote verification, on the other hand, can provide greater assurance of identity, reduce manual processing and better protect individual privacy.

Mr Palmer compared human and computer capabilities in identity verification. Humans are costly, slower and inherently biased due to limited exposure to diverse faces, whereas computers, trained on millions of faces and tested at scale, show significantly reduced bias and higher accuracy. He pointed out that trained passport officers have a 10% error rate in facial recognition, whereas face-matching algorithms are far more accurate. He also discussed the challenges of detecting deep fakes, noting that only a quarter of people can reliably identify them. iProov uses a patented flash-mark technology for identity verification, which involves illuminating the face with a sequence of colours and matching it to the image in the passport. This process ensures real-time presence and helps detect deep fakes or other synthetic identities. Mr Palmer emphasised the importance of continuously monitoring and updating biometric verification platforms due to the increasing sophistication of attacks.
He shared that iProov’s technology is being used by governments and financial institutions for secure identity verification, including the UK Home Office, the Australian government and the State of California’s driving licensing programme.

In response to a question about the purpose of attacks on live video streams, Mr Palmer explained that they are primarily for impersonation and creation of synthetic identities for financial fraud. In the context of justice, he suggested that remote identity verification could be critical for witnesses giving evidence anonymously but securely in a court setting, especially in cases involving organised crime or intimidation.

Eric Guoqiang Li presented a solution for improving electronic ID (E-ID) disclosure in Norway, focusing on the improvement of user experience, security and privacy. He referred to a case involving E-ID fraud, heard by the Norwegian Supreme Court, to highlight the need for secure digital identity verification processes. Mobai’s proposed solution includes a client-backend system where users capture their passport image, read the passport chip via NFC, and take a selfie. These images are then processed using face matching algorithms and various fraud detection modules, including liveness, deep fake, and morphing attack detection. The system is compliant with the European standards (ETSI Technical Standard) and Norwegian requirements, ensuring robust error rate performance and third-party certification for liveness detection.
Eric Guoqiang Li discussed the challenges related to user experience, in particular the difficulties in scanning passports for NFC reading. To improve this process, Mobai suggests storing passport photos in the backend after initial verification. This method would simplify and speed up subsequent verifications, as users would only need to take a selfie.

To address privacy concerns, Mobai uses fully homomorphic encryption to protect face templates. This approach creates multiple encrypted templates for different services, ensuring security even if data from one service is compromised. Evaluations by Mobai have shown that their privacy-preserving measures do not significantly impact matching performance, with only a marginal increase in processing time. This indicates that Mobai’s solution effectively balances accuracy, efficiency, and privacy protection in digital identity verification.

The presentation by Csaba Nagy-Amigo from Adaptive Recognition highlighted the company’s collaboration with Keesing Technologies in the Netherlands to enhance identity verification in notary offices using their document readers. These readers scan various types of identity documents such as passports, using multiple methods including visible light, infrared, ultraviolet, and edge-light imaging. This process helps to identify various security features embedded in these documents that are not visible to the naked eye or detectable by simple means. The document readers are capable of reading data from the memory chips in passports (RFID data) and generate a comprehensive data package. This package
is then sent to Keesing Technologies’ central server application for analysis. Within a short timeframe (2-5 seconds), the system provides feedback on the validity of the document. In case of doubt, Keesing Technologies’ expert document analysts manually review the document and provide a response within 10-15 minutes.

Adaptive Recognition’s solution is designed to effectively combat fraud. For example, in a scenario where 0.01% of 10,000 documents are fraudulent, deploying its scanners in 950 notary offices in the Netherlands, each processing an average of 10 passport verifications per day, can lead to the identification of a significant number of fraudulent cases over an extended period of time. This level of security is crucial, especially for transactions involving large amounts of money or valuable assets. The solution is not limited to notaries, but can also be used in various sectors where high security identity verification is required, such as prison visitor management and government visitor management. The focus of Adaptive Recognition is on providing the highest level of security by processing large volumes of data to verify the authenticity of identity documents.

Session V

Artificial Intelligence and other innovative solutions

Beyond automatic transcription: A better source of information on which to apply NLP with success

Vicent Bosch Campos, Founder and COO, Transkriptorium AI

Vicent Bosch, the COO of Transkriptorium, presented their innovative approach to digitalising documents and improving the accessibility of text in scanned documents. The company’s
mission is to bridge the gap between native digital documents and scanned digitalised ones. Mr Bosch discussed the challenges associated with accessing the textual content in different document formats, including the inefficiency of manual processing and the limitations of automated transcription. Transkriptorium’s solution uses probabilistic indexes that go beyond simple transcription by providing multiple hypotheses for areas of text within a document. This approach significantly improves the accuracy of search and information retrieval, even in documents written in different European languages and dating back centuries. The technology can recognise and make searchable all text within a document, including words that are partially obscured or truncated. In addition, the models can recognise and merge fragmented words, normalise dates and provide alternative transcriptions for manual reviewers. This process is not only more efficient but also reduces the cost and effort of extracting metadata for infrequently used records.

In addition, Transkriptorium’s system can semantically tag data, enabling the anonymisation of certain words based on the context of the document. This feature is particularly useful for maintaining the privacy and confidentiality of sensitive documents. Mr Bosch concluded by highlighting the advantages of their probabilistic indexes over a single automatic transcription. These indexes provide a more accurate and reliable source of information for big data analysis.

Deloitte’s representatives presented an AI-enabled toolset designed to support lawmakers and regulators. Developed in partnership with Deloitte, the tools aim to improve legal analysis and regulatory operations using AI, or more specifically, augmented intelligence. Mr Gracie emphasised the importance of viewing AI as a tool to augment, rather than replace, human expertise. This approach ensures that AI supports decision-making and policy judgments, while allowing human experts to focus on areas requiring critical analysis and interpretation.

The presentation also included a demonstration of Deloitte’s Regulatory Explorer (Reg Explorer), a sophisticated tool that consolidates regulatory data from over 60 jurisdictions, including EU data and information from multiple Member States in different languages. The tool enables the analysis of regulations, identifying links and impacts across different
jurisdictions, providing a consistent approach to data analysis across jurisdictions. A key feature of Reg Explorer is its ability to create regulatory ecosystems, mapping out the upstream and downstream connections of regulations. This feature allows users to quickly understand the broader impact of specific regulations. The tool also includes a generative AI chatbot, which summarises data and assists in the exploration of regulations within the application.

In summary, Deloitte’s presentation highlighted the potential of AI to augment the work of legal and regulatory professionals. The focus on augmented intelligence and the emphasis on supporting rather than replacing human decision making aligns with current needs and challenges in the legal and regulatory space.

The tools presented demonstrate how AI can improve the efficiency, accessibility and transparency of legal processes while ensuring trustworthiness and reliability in their application.

Michael Brands’ presentation focused on Consono’s technology for managing and analysing unstructured data primarily found in documents. Mr Brands emphasised that while a significant amount of data in complex environments, such as legal systems, is unstructured, most analytics tools focus only on structured data. Consono’s solution bridges this gap by converting unstructured text into analysable data. The process starts by extracting text from
documents, then breaking it down into sentences and categorising each component of the sentence into one of four categories: who, what, where and when. This categorisation is based on the philosophy that all information can be classified into these categories, thus simplifying data analysis. Consono uses AI, specifically a combination of symbolic rules and networks, rather than relying solely on large language models such as GPT. This approach requires less data to train the network while maintaining efficiency, making it suitable for environments, where collecting large amounts of data can be challenging. Consono’s technology serves as an intermediate layer in an information architecture that can be integrated with existing databases and document management systems. It acts as an intelligent index, connecting the data from databases with the content of documents to feed into various consumption layers such as business intelligence, AI, customer relationship management and content management systems.

Lastly, Mr Brands demonstrated the product’s integration with Oracle’s WebCenter, showing how their system automatically extracts and indexes metadata from documents. The system can automatically generate summaries, highlight key concepts, and identify sentiment or emotive categories. In addition, it can also find related documents and present all this information in an interactive dashboard. In summary, the technology offers a way to make unstructured text in documents as accessible and analysable as structured data in databases, increasing the efficiency and depth of data analysis in environments with complex data needs, such as legal systems.

Demystifying the justice system with GenAI

James Slessor and his colleague Eladio Alcázar discussed Accenture’s work in providing advanced technology solutions for public safety agencies, focusing on its work with the Spanish Ministry of Justice. They emphasised the potential transformative impact of AI and Generative AI on justice systems. Mr Slessor highlighted Accenture’s commitment to using AI to improve justice systems around the world, as evidenced by its dedicated AI lab in Brussels. He mentioned a study showing that AI could automate over 60% of language tasks, suggesting significant potential for efficiency gains in public sector operations, including justice.
The presentation identified four key opportunities for AI in justice:

1. Improving citizen services: AI can simplify interactions with citizens, using chatbots to explain legal jargon and support contact centres in real time.
2. Enabling the workforce: AI ‘co-pilots’ can guide justice professionals, automating tasks such as document redaction.
3. Operational efficiency: AI can streamline court operations, assisting with document transfer and system coding.
4. Core mission support: AI can be used responsibly to ensure transparency and fairness by monitoring for potential bias in case handling.

The main focus was on Delfos, a platform developed with the Spanish Ministry of Justice to simplify judicial processes. Delfos acts as a co-pilot for the justice system, assisting users with tasks and queries. It ensures secure and confidential handling of information, supports multiple languages, and performs sophisticated data extraction and semantic analysis. The platform aims to speed up processes and provide a single user interface. Mr Alcázar went on to explain Delfos’ capabilities, highlighting its cognitive search engine that allows users to ask questions in natural language without legal jargon. Delfos can analyse digital case files, summarise documents and suggest relevant follow-up questions. This feature significantly reduces the time and effort required to navigate through voluminous documentation.

In conclusion, Delfos is an example of how AI can revolutionise the justice system by making access to information more efficient and user-friendly. This approach fits with the broader theme of AI’s potential to transform public sector operations, especially in the complex area of justice.
Closing of the event

The closing remarks were delivered by Luca Tagliaretti, the Deputy Executive Director of eu-LISA. Mr. Tagliaretti highlighted the high level of participation in the event, with more than 100 participants in person and more than 200 online. This high turnout reflected the strong interest in the topic. The unique format of the roundtable, involving cooperation between EU institutions, Member States and industry, was praised for its effectiveness in promoting discussions on practical solutions to shared challenges. The event also focused on learning from different challenges, noting similarities between those faced by law enforcement, border guards and the justice community, such as managing large volumes of documents and multilingual content. Unique challenges in the justice community, such as the sheer number of documents and their multilingual nature, were also recognised. Three main elements were identified as barriers to the digitalisation of justice: the legal framework, organisational culture and technology capabilities. The legal framework can sometimes act as a barrier to innovation, and the distinct organisational culture of the judiciary can lead to slow adoption of technology. The importance of driving change from within the organisation was emphasised, and the need for leadership development was highlighted. The forum highlighted the role of eu-LISA and the Commission in supporting cross-border cooperation, underlining their readiness to help with reliable IT solutions. The power of networking in the fight against organised crime was emphasised, showing that a network of like-minded individuals and organisations is essential for progress in this area.