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**CONSULTATIVE COUNCIL
OF EUROPEAN PROSECUTORS
(CCPE)**

**Thematic study of the CCPE
on digitalisation in the work of prosecution services
and international co-operation**

Executive Summary

1. According to the CCPE's Terms of Reference for 2022-2025, the CCPE is entrusted with the task of preparing thematic studies covering identified or emerging issues of common interest related to the independence, impartiality, competence, nomination, career, ethics, accountability, evaluation or other aspects of the career of prosecutors or prosecutorial profession.
2. The CCPE accordingly selected the topic of new technologies in the work of prosecution services and international co-operation for the purpose of a thematic study.
3. The impact of digital transformation and the use of new technologies on human rights, democracy and the rule of law is one of the priority areas of focus as outlined in the Council of Europe Strategic Framework which guides the work of the Organisation and its committees. The use of new technologies in the work of prosecution services within the framework of the digitalisation of justice and international co-operation are factors that are connected to each other and to some extent also dependent on each other. Digital technologies have also become an established part of the investigation and prosecution of crimes, including transborder crimes.
4. Recommendation Rec(2000)19 of the Committee of Ministers on the role of public prosecution in the criminal justice system, in its part covering international co-operation, stresses that direct contacts between public prosecutors of different member States should be furthered, within the framework of international agreements where they exist or otherwise on the basis of practical arrangements, despite the role that might belong to other organs in matters pertaining to international judicial co-operation. The Recommendation points out to a range of measures to foster such international co-operation between prosecutors.
5. Recommendation CM/Rec(2012)11 of the Committee of Ministers on the role of public prosecutors outside the criminal justice system also provides that there should be support for international co-operation among public prosecution services with similar responsibilities outside the criminal justice system and mutual practical assistance both within and beyond the framework of relevant international treaties.
6. Almost all 17 Opinions of the CCPE adopted to date emphasise the importance of international co-operation and various international contacts between prosecution services and prosecutors.
7. This thematic study explores the state of digitalisation in the work of prosecution services in member States of the Council of Europe and how it may support their international co-operation efforts. By analysing how these services adapt to a relatively new way of working, the study aims to shed light on the impact of digitalisation on prosecution practices.
8. The study is based on the responses of the CCPE members to an extensive questionnaire regarding the digitalisation process elaborated and forwarded by the CCPE to all member States in May 2023. This questionnaire covers several key areas, including the use of electronic files and proceedings, data tools, videoconference

facilities, innovative technologies used by prosecution services, preservation of prosecutorial independence and international co-operation in the era of digitalisation.

9. Respondents were invited to share their domestic practices, outlining both the advantages and disadvantages of various aspects of the digitalisation process, alongside its potential impact on prosecutorial independence. A total of 24 CCPE members participated, offering their insights into existing digitalisation practices within prosecution services in their respective member States.
10. Notably, respondents reported a growing prevalence of electronic files, videoconferencing facilities and diverse data tools being made available to prosecutors. The collective responses by the CCPE members suggest a strong intent to further amplify the digitalisation process, gradually moving away from conventional paper-based workflows. Additionally, the feedback elucidated the strategies undertaken by different jurisdictions to address specific challenges posed by digitalisation.
11. In nearly all jurisdictions, digitalisation is being implemented in progressive stages, with the ultimate goal of achieving a fully digitalised system. It is noteworthy that the respondents did not express specific concerns about potential negative effects on prosecutorial independence arising from digitalisation.
12. At the same time, the CCPE wishes to signal certain restrictions concerning this thematic study. First of all, it is not meant to assess the situation in member States. It does not contain ratings or rankings of member States' performance and does not constitute a monitoring process or mechanism.
13. Secondly, the thematic study does not claim to be a result of comprehensive and systematic research. For the preparation of the study, given the limited time and resources available, statistically representative surveys or similar exercises could not be conducted. The study is entirely based on the responses of the CCPE members to the above-mentioned questionnaire. Therefore, those member States in respect of which the CCPE members have not responded could not be mentioned in the study.
14. The CCPE wishes to thank the expert appointed by the Council of Europe, Mr Francisco de Borja Jimenez Munoz (Spain) for his significant contribution to preparing the thematic study.

Introduction

15. The CCPE, in its Opinion No. 15 (2020) on the role of prosecutors in emergency situations, in particular when facing a pandemic, noted that the development of new technologies and progressive improvement of videoconferencing in judicial systems across the Council of Europe's member States created new possibilities for ensuring the hearing of witnesses, experts and defendants without the need to compel them to travel to different venues within the member State where the investigation or the trial are being conducted.¹ Obviously, as shown by some examples in Europe,² this approach could be of interest since it avoids or reduces limitations on the functioning of prosecution services and the courts.
16. The European Court of Human Rights (ECtHR), in its case law, also established that physical absence does not necessarily constitute a violation of the right to a fair trial. The ECtHR pointed to several international law instruments that provide for participation in the trial using videoconferencing as a way of respecting Article 6 of the European Convention on Human Rights (ECHR),³ and it has adopted several judgments regarding the use of videoconferencing.⁴
17. The use of new technologies should facilitate the work of prosecutors and help them to respect procedural timetables. They must be implemented in full conformity with the rule of law principles, including equality before the law and non-discrimination, and also in line with the requirements of the ECHR, as well as the case law of the ECtHR. For example, when conducting proceedings on the basis of videoconferencing, due attention should be paid to the interests of all participants, particularly the preservation of the rights of the defence.
18. This thematic study demonstrates that the pursuit of expeditious, cost-effective and simplified mechanisms is accelerating the process of digitalisation. Modern technologies, electronic files, data tools, machine learning and data processing systems are becoming prevalent in the work of prosecution services, as well as of other public sector actors.
19. While the usage of AI-run (artificial intelligence) systems for investigations and in the judiciary is still in its infancy, the rapid prevalence of new technologies indicates that their future deployment in these fields is far from being excluded.
20. Digitalisation offers numerous advantages and reduces the workload of those concerned. However, concerns persist about whether the existing standards and

¹ Except, of course, certain cases where physical presence might be necessary, as in the case of habeas corpus.

² See [Guidelines](#) of the Committee of Ministers of the Council of Europe on electronic evidence in civil and administrative proceedings (adopted by the Committee of Ministers on 30 January 2019 and explanatory memorandum); see also CEELI/ODIHR joint webinars series on access to justice during and after the pandemic, including [videoconferencing in support of remote access to courts](#).

³ See ECtHR *Marcello Viola v. Italy*, 5 October 2006.

⁴ See ECtHR *Marcello Viola v. Italy*, 5 October 2006; *Sakhnovskiy v. Russia*, Grand Chamber, 2 November 2010; *Repashkin v. Russia* (No. 2), 16 December 2010; *Vladimir Vasilyev v. Russia*, 10 January 2012; *Yevdokimov and Others v. Russia*, 16 February 2016; *Gorbunov and Gorbachev v. Russia*, 1 March 2016; *Sakhnovskiy v. Russia*, 27 November 2018.

principles are sufficient for future challenges and effective in accommodating the transition to a digitalised world while safeguarding human rights.

21. In response to these developments, the Council of Europe closely monitors digital transformation and provides legal guidance in the relevant areas. This thematic study on digitalisation in the work of prosecution services and international co-operation is part of this global effort of the Council of Europe. The study aims to provide an overview of the current digitalisation landscape in member States, considering the existing international standards in this area. Additionally, it explores the potential impact of digitalisation on the independence, impartiality and effectiveness of prosecutors.

Analysis of the responses provided by the CCPE members

I. Use of electronic files and procedures

A. General observations

Table 1. Use of electronic files/proceedings in prosecution services (regardless its level of implementation)

Yes	In progress
Andorra, Austria, Azerbaijan, Bosnia and Herzegovina, Czech Republic, Estonia, Finland, France, Georgia, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, North Macedonia, Poland, Portugal, Slovenia, Switzerland, ⁵ Türkiye, Ukraine	Germany, ⁶ Republic of Moldova

22. To assess the extent of use of electronic files and proceedings, respondents were queried about existence of such systems within their respective prosecution systems. The feedback gathered indicated a near-universal prevalence of electronic systems for storing prosecutorial decisions and working documents across jurisdictions. While the nomenclature and operational features of these systems differ, their primary role involves storing documents and decisions in electronic formats. Several CCPE members report their intentions to improve the existing systems or to introduce new ones.
23. In most member States, the coexistence of both paper and electronic formats is noted, with paper occasionally dominating. However, the CCPE members uniformly express their intention to reduce paper-based workflows in the near future in their respective member States, and the prosecution offices are rolling out digitalisation with varying scope and speed. In this sense, the CCPE members emphasise that digitalisation has clear, extensive advantages, while also mentioning some related challenges.⁷

⁵ Responses are at the federal level for the whole questionnaire.

⁶ Responses are at the federal level for the whole questionnaire.

⁷ Please see a summary of advantages, challenges and problems related to the digitalisation at the end of the present sub-Chapter A (General Observations) of the Chapter I.

24. A noteworthy illustration emerges from France, where ambitious steps towards digitalisation are evident. The “Digital Criminal Procedure” programme, one of the priorities of the Ministry of Justice, underpins the endeavour to introduce fully digitalised procedures. France aims to achieve a “paperless objective” by 2027, with the collaboration of the Ministries of Justice and the Interior, emphasising a concerted move away from traditional paper-based practices.
25. There are also reports of intentions to gradually give up paper-based practices in other member States. For instance, Azerbaijan indicates that the transition process is set to conclude by the end of 2023. Meanwhile, Malta outlines a Digital Strategy spanning from 2022 to 2027, encompassing four strategic goals across a five-year period.
26. Finland, on the other hand, highlights that the investigation protocols are predominantly electronic. While cases are electronically transferred from the prosecution service to the court, the materials are transferred separately. Notably, a new system is in development, aiming to enable the unified electronic transfer of both cases and associated materials from the prosecution service to courts.
27. Estonia stresses a pivotal step taken in its legal framework for criminal proceedings. The Code of Criminal Procedure now accommodates electronic criminal files as an alternative to traditional paper-based files, effective as of 1 May 2023. This strategic shift aims to modernise documentation practices and enhance efficiency. However, it is noteworthy that both paper-based and electronic files maintain a parallel existence, with equal legal standing.
28. Germany mentions its intention to implement electronic filing in criminal matters by 1 January 2026. Currently functioning as auxiliary tools, electronic files are expected to play a more central role in legal processes in the future. Notably, paper-based files remain the primary medium for conducting proceedings.
29. Luxembourg emphasises its commitment to achieving full digitalisation within the upcoming five years. The country underscores ongoing technical and organisational preparations to facilitate this transition, while specific timelines are not yet defined.
30. As already mentioned, most CCPE members indicate a simultaneous use of electronic and paper-based files, both having equal legal validity. The primary distinction between these formats emerges at the procedural level.
31. Sometimes, the rationale for co-existing formats hinges on access restrictions.
32. Poland has a central IT system called PROK-SYS with the functionality of sharing digitalised criminal files via internet to websites, proxies, defenders and experts. In addition, prosecutors can access the system from any location in the country with internet access via a VPN connection using for this purpose official laptops and official ID containing an electronic signature certificate.
33. In certain jurisdictions, electronic files are accessible solely to prosecutorial authorities, while third parties involved in investigations are not provided with such access. In Georgia, prosecutors and investigators can access electronic criminal investigation

systems and corresponding case files only from official premises, whereas defence parties and courts lack digital access, prompting the provision of case materials in paper format.

34. North Macedonia refers to the use of a Case Management System for the electronic distribution of cases. The system not only ensures an electronic record of files but also captures all actions taken by the Public Prosecution Service. While prosecutors can access the system through their computers⁸, electronic files from this system remain inaccessible to parties involved in proceedings.
35. Andorra mentions that AVANTIUS, a computer programme enabling electronic file access, is currently exclusive to prosecutorial authorities. However, there is a proactive agenda in place. Starting in 2024, access to AVANTIUS is planned to expand to encompass other parties engaged in proceedings, such as lawyers.
36. Electronic files and proceedings are typically accessible to all prosecutors, often with mandatory usage. In some jurisdictions, prosecutors can also remotely access these files using Virtual Private Networks (VPNs) on their devices.
37. Türkiye utilises a digital platform created as part the National Judicial Network Project (UYAP). Prosecutors can access the system from any location with internet access via a VPN connection. They can log in using their electronic signatures on laptops, which are defined and renewed every five years by the UYAP system.
38. The CCPE members report on the measures taken to ensure data protection and cybersecurity and raise no particular concerns in this regard.
39. The CCPE members mainly refer to the following advantages, challenges and problems for the digitalisation process:

Advantages:

- saving time and resources, quick and facilitated access to files;
- user-friendliness, ease of searching and consulting files, searchability opportunities, improved data collection, and statistics;
- enhanced communication, coordination, and co-operation with courts and other authorities;
- better oversight over prosecutorial activities, transparency, and accountability;
- establishment of a uniform legal practice and provision of precision;
- faster data processing, improved efficiency and capacity to analyse evidence;
- reinforcing confidence in the prosecution service;
- environmental friendliness thanks to reduced paper consumption.

⁸ This is in fact possible for their own cases, meaning that prosecutors have limited access to the Case Management System. Only the Public Prosecution Office of North Macedonia can access the electronic files of all cases, for the purpose of supervision of the implementation of the electronic records of files.

Challenges:

- possible lack of funding and investment;
- need for legislative amendments to accommodate digitalisation;
- need for enhancing data protection and cybersecurity measures.

Problems:

- technical problems of various nature and compatibility among different systems;
- possible excessive workload due to the need to adapt to the new systems;
- confusions at the early stages of the transition and the necessity to change established working habits, need for a change of mentality.

B. Digital case management systems

Table 2. Digital management systems in prosecution services

Integrated Case Management System (CMS)	Internal CMS	Data storage system	Other
Andorra, Austria, Bosnia and Herzegovina, Finland, Hungary, ⁹ Ireland, Latvia, Lithuania, Luxembourg, ¹⁰ Poland, Ukraine, Türkiye ¹¹	Azerbaijan, Estonia, ¹² France, Georgia, Germany, ¹³ Malta, North Macedonia, Portugal, Slovenia, Switzerland	Czech Republic ¹⁴	Republic of Moldova ¹⁵

40. As regards existing digital management systems in prosecution services, in very broad terms, a distinction may be made between: a) those prosecution services that have an

⁹ According to the replies of the Hungarian prosecution service, integration is mainly foreseen for some civil cases in which the prosecutor's office is a party.

¹⁰ Luxembourg has an electronic file management system to which, with varying rights depending on their functions/missions, both the public prosecutor's office (prosecutors and administrative staff) and courts (investigating judges, council chambers, trial judges including on appeal and even at the level of the Court of Cassation) have access.

¹¹ The prosecution service of Türkiye indicates that each practitioner has a specific portal: citizen's portal, lawyer's portal, judicial staff portal and judge-prosecutor portal depending on the purpose of use and access authorisation. It is not indicated whether they are interconnected but they are under the same system.

¹² Estonia is currently working on conducting electronic proceedings using the prosecutors' information system, as the current system does not provide a convenient solution to work with case file materials as a whole. Necessary developments to the case management system are expected as soon as autumn 2023 to begin phasing out paper-based proceedings from cases.

¹³ German public prosecutors' offices have internal computer-based systems for managing proceedings that go beyond a mere data storage system (e.g. automated inquiries to other authorities; central public prosecutor's case register, data exchange with police authorities via cloud etc.). German Federal Public Prosecutor's Office defines the use of electronic files as an "auxiliary tool".

¹⁴ The Czech prosecution service has access to ETR (criminal proceeding record for police officers).

¹⁵ The Moldovan Prosecutor's Office indicates that the criminal justice system is paper-based and that the Prosecutor General's Office manages the electronic system for prosecutors.

integrated Case Management System (CMS), which is not only a computer-based system for the procedural management of the prosecution, but also establishes a kind of communication capacity with courts, and even with the parties to proceedings (Lithuania, Poland); b) those that have only an internal CMS, a computer-based system just for the procedural management of the prosecution with different scope and features, depending on the prosecution offices; c) those that contemplate a data storage system.

41. Prosecution offices that do not report digital working systems mention that the e-transition is planned (Germany, Luxembourg). Other digitalised prosecution offices are included in additional modernisation projects (Azerbaijan, Czech Republic, Estonia, Finland, Malta, Portugal, Switzerland, Ukraine).¹⁶

Table 3. Level of implementation of paperless case management in prosecution services

Mainly paper-based	Mainly paperless	Mix/In progress
Estonia, ¹⁷ Germany, Luxembourg, Republic of Moldova	Andorra, Austria, Azerbaijan, Bosnia and Herzegovina, Finland, Georgia, Latvia, Lithuania, ¹⁸ Malta, ¹⁹ Portugal, ²⁰ Switzerland, ²¹ Ukraine, Türkiye	Czech Republic, France, Hungary, Ireland, North Macedonia, Poland, Slovenia

42. As regards paperless case management in prosecution services, the implementation of such systems is very uneven in the prosecution offices of member States. Paper is mainly retained for communications with courts and other authorities, except for those prosecution offices that have an integrated Case Management System (CMS) (Table 2). In addition, there are other reasons for the coexistence of paper files: a) for documentary purposes (Austria, Türkiye); b) mere coexistence, operative reasons or personal decision pending the eventual development of IT systems (Estonia, Finland, Ireland, Luxembourg, North Macedonia, Poland); c) very limited functions (Latvia, Lithuania). Similarly, many CCPE members indicate that they are in the process of becoming paperless (Azerbaijan, France, Luxembourg). On the other hand, there are some prosecutors' offices that make digital work binding for prosecutors (Austria, Azerbaijan, Latvia, Slovenia).
43. The use of digital signature is widely implemented. Many prosecution services (Andorra, Austria, Azerbaijan, Czech Republic, Estonia, France, Georgia, Ireland, Latvia, Lithuania, Luxembourg, Poland, Slovenia, Switzerland, Ukraine, Türkiye) expressly admit its extensive use, regardless of the deployment of their CMS.

¹⁶ Co-operation in digitalisation between the e-Governance Academy of Estonia and the Prosecutor General's Office of Ukraine for the implementation of the Smereka project (creation of modules of investigation, escalation control and analysis management system) is noteworthy.

¹⁷ Paperless implementation expected in Autumn 2023.

¹⁸ Latvia and Lithuania use paper in a very residual manner, and this is why they may be considered as *de facto* paperless systems.

¹⁹ Starting on 28 February 2023, all files are transmitted to the prosecutors' offices by electronic means. Therefore, Malta is considered paperless.

²⁰ Mainly in DCIAP, a department that depends upon the Prosecutor General, and in a mixed way in the rest but with available CMS.

²¹ The Swiss Federal Prosecutor's Office usually works with e-files.

44. As regards remote working using VPN or similar systems, the CCPE members from 18 member States (Andorra, Austria, Bosnia and Herzegovina, Czech Republic, Estonia, Finland, France, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Slovenia, Ukraine, Türkiye) specifically report that prosecutors have the means to work with laptops with a secure connection.
45. In addition, some prosecution services refer to the level of digitalisation of criminal proceedings compared to the other sectors of justice. In the Czech Republic, the most advanced system is called SIR (information system for insolvency proceedings). Estonia underlines how the criminal procedure is the last in the digitalisation process due to its complexity, civil and administrative justice having already been digitalised. In Hungary, the legal framework made mandatory electronic communication in civil cases since 2015/2016. In Latvia, civil proceedings are fully electronic and partially for administrative cases. In Poland, the digitalisation process concerns civil or administrative cases in which the public prosecutor's office is involved and depending on the importance of the document, its digitalisation is prioritised.

C. Funding for digitalisation in prosecution services

Table 4. Funding the digitalisation process (including videoconference systems)

Government-funded	Own resources	Other systems
Azerbaijan, Austria, Bosnia and Herzegovina, Czech Republic, Germany, France, Ireland, Latvia, Lithuania, ²² Luxembourg, ²³ Malta, Poland, Portugal, Slovenia, Türkiye	Switzerland, Georgia, Hungary	Andorra, ²⁴ Finland, Republic of Moldova, North Macedonia, Ukraine ²⁵

46. Most CCPE members simply report on the source of funding for the IT system. In some members States that are also members of the European Union (Portugal, Hungary), a part of the funding comes from the EU. There is no specific mention of problems related to the administration of funds and no precise indications as to how it is handled, with few exceptions.²⁶

²² Videoconferences are financed by the institution which sets them up.

²³ Since Luxembourg refers to it in the videoconferencing section, it is considered state-budget funded.

²⁴ The budget is in turn managed by the Superior Council of Justice.

²⁵ Responses from the prosecution services of Finland, Luxembourg, the Republic of Moldova and Ukraine do not include references to the funding system.

²⁶ E.g. Latvia specifies that the management/coordination is implemented by the court administration of the Ministry of Justice.

II. Use of data tools

Table 5. Data related tools at the disposal of prosecution services

In place	In progress
Austria, Bosnia and Herzegovina, Czech Republic, Georgia, Hungary, Ireland, Latvia, Lithuania, Poland, Portugal, Switzerland, Türkiye, Ukraine	Andorra, Azerbaijan, Estonia, Finland, France, Germany, Luxembourg, Malta, Republic of Moldova, North Macedonia, Slovenia

47. The respondents were invited to share their domestic experience regarding data tools available to prosecutors. While few CCPE members mention the unavailability of such tools for prosecutors, extensive reports on diverse data tools used by prosecution services are provided by the respondents. These tools, where implemented, play a supportive role for the work of prosecutors. Consequently, their usage is mainly non-mandatory for prosecutors. As shown in the above table, half of the prosecution offices report that they have data analysis tools. Others indicate that they are in the process of implementing such systems (Estonia, France, Germany).
48. According to the responses of the CCPE members, there is a wide variety of IT data tools, some of which are quite high-tech: most prosecution services indicate that their main function is the search and analysis of data facts for criminal investigation (Austria, Bosnia and Herzegovina, Georgia, Hungary, Ireland, Latvia, Malta, Poland, Portugal, Ukraine), others limit these tools to the collection of data for the purpose of issuing statistics or preparing indictments (Czech Republic, Germany, Switzerland) or have certain tools with similar functionalities (France). None of them indicate that their use is mandatory, except France for some tools. Additional functionalities are reported: some provide data and information workflow between courts and prosecutors' offices (Bosnia and Herzegovina), some can function as a legal basis for prosecutorial decisions (Austria), manage statistics (Czech Republic), function as a common electronic workplace (Georgia), or are data leakage protection tools (Latvia). Programmes for prosecutors are implemented in the central system to improve the work in the field of data analysis, the use of which is not mandatory. They are used to process data obtained in the course of proceedings and search and analysis of data contained in the entire database resource of the central system (Poland).
49. The CCPE members responding to the questionnaire agreed on the advantages of using data tools: improving the speed, accuracy and effectiveness of the prosecutors' work, especially in complex criminal investigations, and saving paper. The weaknesses or areas for improvement are basically the excessive dependence on data (Czech Republic, Ireland, Estonia), the security aspects (Germany), the high cost of the systems (Hungary), the technical specifications, language and training requirements to use them (Hungary, Latvia) and the need to adopt adequate legal framework to prevent the impact of predictive tools (Hungary, Latvia).
50. Türkiye stresses that its prosecution service extensively utilises digital data tools encompassing legislative resources, court case law databases, service archives and

criminal records. Prosecutors are required to employ these data tools, and their usage is considered during inspections and performance evaluations.

51. Austria offers a range of data tools designed to navigate laws and precedents, accessible to all prosecutors. The use of these tools is optional, with the use of electronic files being mandatory. These data tools furnish prosecutors with valuable insights into the legal foundations of prosecutorial decisions and facilitate the preparation of decisions.
52. Georgia mentions the availability of several programmes for prosecutors, with usage being non-mandatory. These programmes serve to enhance prosecutorial work across diverse domains, encompassing data analysis, identifying behavioural patterns, detection of crime threats and visualising data. Additionally, prosecutors are granted access to an array of databases maintained by other state bodies. Georgia emphasises that these tools afford prosecutors swift access to various information sources, facilitating fact-finding and the preparation of prosecutorial decisions.
53. Hungary highlights the availability of investigation and examination-supporting IT applications designed to aid prosecutors in preparing and supporting prosecutorial decisions through data analysis. Notably, IBM I 2 Analyst's Notebook stands out as one of the most frequently employed data analysis applications, although its usage remains non-mandatory for prosecutors.
54. Latvia's prosecution system employs data tools that encompass facts in reports, laws and precedents, along with support for investigations, protection against data leak and analysis of atypical activities. The country cites several advantages of these tools, including acceleration of pre-trial investigation periods, facilitation of large-scale data analyses and ensuring access to case law.
55. Ireland refers to a diverse array of data tools available to prosecutors, with one notable tool being Intella. Intella is an off-the-shelf system currently utilised by the Financial Crimes Unit of the country's prosecution service. It has been employed for the purpose of disclosure in large-scale prosecution cases.

III. Use of videoconference facilities including online platforms

56. The questionnaire prompted respondents to share their domestic experiences regarding the use of videoconferencing, including web-based platforms. Videoconferencing is naturally becoming more prevalent among prosecution services. This relatively novel way of conducting procedural actions was put to the test primarily during the COVID-19 outbreak and reportedly proved to be effective.
57. Videoconferencing finds extensive application among prosecutorial authorities, serving a wide range of purposes including the organisation of internal meetings, interrogations and international co-operation. Videoconferencing is notably employed by prosecution services for both locally conducted and cross-border investigative actions.
58. Videoconferencing is employed locally primarily to safeguard the rights of others, such as in cases of sexual abuse, where it protects witnesses or prevents secondary victimisation. Additionally, it facilitates participation for parties unable to attend the

proceedings in person and offers resource savings, particularly in cases where in-person travel is cost-prohibitive.

59. Respondents indicate that the use of videoconferencing is generally optional for prosecutors and often contingent on the nature of the prosecution. In specific jurisdictions, prior consent from involved parties or judicial authorisation might be required.
60. Most responses of the CCPE members indicate that videoconferencing is used by prosecutors' offices for the collection of evidence in the investigation phase of criminal proceedings (Azerbaijan, Austria, Estonia, France, Georgia, Germany, Latvia, Lithuania, Luxembourg, Poland, Ukraine), while it is usually under the power of courts during the trial phase (Austria, Georgia, Ukraine), in accordance with the accusatory system.²⁷ It appears that in some countries, videoconferencing is not allowed/used for prosecutors' investigative activities and is only used for internal activities.²⁸ Some CCPE members underline their use and usefulness for the subsequent execution of European Investigation Orders (EIOs) and requests for mutual legal assistance (MLAs) (Austria, Czech Republic, France, Poland, Switzerland, Ukraine). Some respondents also underline that they are often used in cases of proceedings where it is necessary to protect witnesses or vulnerable persons, persons under a certain age (Czech Republic, Estonia, Finland, Hungary, Ukraine), in cases where there is a need to facilitate hearings for different reasons, from the complexity of the cases to the illness of the parties (Finland, Georgia, Ukraine), in other cases such as threat to life (Azerbaijan, Finland) or specific court applications (Ireland).
61. In terms of requirements, a distinction may be made between technical requirements and other specific aspects that are involved in conducting videoconferencing. The majority of respondents emphasise its technical feasibility but there may be some other requirements: a) in some legal systems, it is mandatory to obtain the consent of the person whose testimony is to be recorded (Azerbaijan, France, Latvia, Portugal) as opposed to others where it is not mandatory or the need to obtain consent can be waived with a reasoned decision (Czech Republic, Estonia,²⁹ Georgia, Lithuania, Luxembourg, Malta, Ukraine); b) the need for observance of the procedural rights of the suspect/defendant (Czech Republic, France); c) special observance of victims' rights in the use of videoconferencing (France, Georgia, Hungary); d) rules for exchanging data;³⁰ e) some specific requirements on the use/non-use of videoconferencing in certain cases, mainly related to the suspect/defendant.³¹

²⁷ Countries under the inquisitorial system, such as Andorra, indicate that the use of videoconferencing depends on the decision of the judge.

²⁸ Bosnia and Herzegovina does not allow it and Slovenia does not use it.

²⁹ The consent is mandatory in case of videoconference requested by EIO or MLA request.

³⁰ Slovenia only permits the exchange of data when the servers are in the country and the confidentiality is guaranteed.

³¹ Austria and Azerbaijan, among others, allow suspects to be heard through videoconferencing when in custody. Latvia excludes it for acts to be performed in person and Lithuania when personal or property coercive measures are applied. Portugal, Ireland and Poland do not appear to admit videoconferencing for suspects/defendants. The Polish criminal procedure provides for the possibility of conducting the hearing of witnesses and experts by videoconference, as well as the possibility of refusing to execute the European Investigation Order (EIO) if it concerns interrogation using technical devices enabling this activity to be carried out at distance with simultaneous direct transmission of the image and sound if the accused who is to be interrogated does not consent to it.

62. As to the location of videoconferencing, there is a wide variety of responses: a) mandatory or preference of courts and prosecutors' offices (Andorra, Austria, North Macedonia, Poland, Türkiye); b) distinction between videoconferencing locations for the suspect/defendant and other parties (Azerbaijan, Lithuania); c) authorised locations in the country or abroad (France, Switzerland); d) online platforms/links (Ireland, Latvia, Portugal, Ukraine); e) any location without further specification (Estonia, Georgia, Germany, Hungary, Lithuania). This is closely related to the concern expressed by some prosecution services about the verification of the identity of the person who is going to testify/declare through the videoconferencing. From the responses obtained, doubts arise as to the effectiveness of the videoconferencing when the person is not in an identifiable location, in which case face-to-face statements are preferred (Estonia), unless self-verification systems, platforms or specific solutions are relied upon.³²
63. Georgia acknowledges specific scenarios where in-person participation is recommended, especially for proceedings involving key witnesses. In such cases, face-to-face interactions offer improved communication, trust-building and the ability to observe body language.
64. According to the respondents, the advantages of videoconferencing are diverse and include acceleration of process, convenience for parties, cost reductions, enhanced safety for threatened participants and inclusion of parties unable to attend due to financial, health-related or other constraints.
65. As regards the most relevant aspects for improvement, the CCPE members emphasise: a) the need for adequate resources taking into account that most of the systems are financed through state funds; b) difficulties derived from being a matter shared with courts, as many of them must be carried out during trials or are within the competence of courts (Andorra, Finland, Luxembourg, Malta); c) impact of possible technical or localisation problems on the quality/spontaneity of testimonies (Czech Republic, France, Latvia, Portugal, Poland, Malta); d) interference or secondary communication (France, Hungary); e) incompatibility of domestic systems with those being used abroad (Germany); f) technical issues (Czech Republic, Hungary, Ireland); g) problems related to confidentiality (France, Lithuania).
66. As it was already mentioned, the European Court of Human Rights (ECtHR) has established that physical absence does not necessarily constitute a violation of the right to a fair trial. Consequently, the CCPE members do not express concerns about the admissibility of evidence gathered through videoconferencing in domestic courts.
67. In conclusion, the benefits of using videoconferencing in prosecutorial work are evident, yet caution is advised due to the concerns raised. Its implementation should respect the rights of all parties involved in the proceedings.

³² Portugal distinguishes between locations authorised for witness statements at the investigation and trial stage, Latvia requires that the person is identifiable and located in the territory of Latvia (exceptions for hearing under MLA). Luxembourg appoints a judicial police officer or agent who verifies the identity of the person called to give evidence, to be interviewed, interrogated, or confronted. Georgia relies on its own systems of verification of the person concerned.

IV. Innovative technologies

Table 6. Innovative technologies³³

In place	In progress
Austria, Czech Republic, Estonia, France, Georgia, Germany, Hungary, Ireland, Latvia, Lithuania, Luxembourg, ³⁴ Malta, ³⁵ Poland, Portugal, Switzerland, Türkiye	Andorra, Azerbaijan, Bosnia and Herzegovina, Finland, Hungary, Republic of Moldova, North Macedonia, Slovenia

68. Most prosecution services have innovative technological systems in place or plan to establish or improve existing ones in different areas: a) artificial intelligence (AI), for example, for the anonymisation of sentences (Austria), AI translation, AI audio transcription and scanning tools to recognise metadata (Latvia) and data extraction, search and indexation of court case law precedents (Portugal), AI chatbots and documental prediction tools (Türkiye); b) connection with law enforcement agencies databases (Czech Republic, Georgia, France); c) connection to databases of banks or financial information or other governmental databases, connection to databases of case law, judicial schools etc. (Czech Republic, Estonia, Georgia, Germany,³⁶ Luxembourg, Poland, Portugal, Switzerland, Ukraine, Türkiye), d) Electronic Criminal Case Management System (Georgia); e) human resources tools (Ukraine); f) potential use of drones in crime scenes to collect evidence (Azerbaijan).
69. While the use of innovative technologies for prosecutorial and judicial activities is not yet universally adopted, several CCPE members report the implementation of AI-driven systems and other technological solutions.
70. Austria shares an interesting experience related to the implementation of AI-driven tools. The country has deployed these tools for anonymising court decisions and automatically synchronising electronic files to their corresponding databases.
71. Meanwhile, Azerbaijan introduces an innovative approach to inspecting crime scenes. The country employs drones used by prosecution services to remotely inspect crime scenes and gather evidence from a distance.
72. In Portugal, AI-driven tools for data extraction and indexation are deployed. The country also highlights the use of these tools by its Ministry of Justice to aid in the search and indexing of case law.

³³ Here are included any other kinds of databases, AI technology, robotisation, consultation databases etc. at the disposal of prosecution services, except data analysis tools.

³⁴ Although the Luxembourg's prosecution service defines its tools as "data tools", it may be more accurate to identify them as innovative technology because they are databases. It is therefore included in this column.

³⁵ Idem.

³⁶ Only information provided by the Federal Criminal Register or the Central Prosecutorial Proceeding Register.

73. Türkiye has implemented AI-driven tools to enhance various aspects of its judicial system. These tools include document classification and information retrieval through document type prediction, as well as image content analysis to predict documents or object types in multiple formats. Furthermore, the country has introduced an AI chatbot on the UYAP Citizen Portal and UYAP Institution Portal, offering users answers to a wide range of questions. Additionally, plans are underway to deploy another chatbot for the UYAP lawyer portal after relevant training is completed. Türkiye also highlights one of its AI-based projects, which aims to streamline decision preparation, identify inconsistencies in indictments and classify documents for courts and prosecutors' offices.
74. Furthermore, there are indications that such technologies are to be rolled out in future in several countries. In particular, the Federal Prosecutor's Office of Switzerland is contemplating the creation of a Legal Tech Platform system. The system's aim would be to streamline the gathering and cross-checking of information. Poland reports ongoing work in implementing machine-learning solutions, particularly focusing on natural language processing. This includes tasks such as automatically classifying digitalised documents, generating document summaries, and enabling contextual searches, among other applications.

V. Independence of prosecution services and international co-operation

A. Digitalisation in the context of the independence of prosecution services

Table 7. Do new technologies affect the independence of the prosecution service?

Yes	No	Alternative answer
	Andorra, Austria, Azerbaijan, Czech Republic, Estonia, Finland, France, Hungary, Latvia, Lithuania, Luxembourg, Malta, Slovenia, Türkiye	Bosnia and Herzegovina, Germany, ³⁷ Republic of Moldova, ³⁸ North Macedonia, ³⁹ Ireland, Poland, Ukraine, ⁴⁰ Portugal ⁴¹

75. The majority of responding CCPE members agrees that new technologies do not affect the independence of prosecution services. They report that measures in place to safeguard prosecutorial independence continue to be fully applicable in digitalised

³⁷ Within the framework of the factual independence of the public prosecutor's office based on the principle of legality, no impairment is seen as a result of innovative techniques. Special measures to maintain the independence of prosecutors' offices in relation to digitalisation are not implemented and generally not required.

³⁸ The Moldovan prosecution service indicates that the technological development may entail risks for prosecutors' independence that need to be further analysed.

³⁹ The North Macedonian prosecution service indicates that the digitalisation process is in an early stage and the issue must be further analysed.

⁴⁰ The Irish, Polish, Ukrainian prosecution services refer to their independence as a general issue, not specifically referring to the digitalisation process.

⁴¹ The Portuguese prosecution service underlines that there is no specific legal framework to preserve the independence of the prosecution service in the context of digitalisation.

proceedings. Additionally, there are reports of comprehensive measures in place for data protection and cybersecurity.

76. Some CCPE members indicate that these measures are the sole responsibility of the administration which is legally responsible for financing technological development (Germany, Malta, Portugal) or it depends on each agency (Ireland), while others either do not expressly indicate who manages preventive measures or say that the Prosecutor General's Office is responsible for monitoring and managing the IT systems (Azerbaijan, Hungary, Luxembourg, Poland,⁴² Slovenia, Switzerland, Ukraine). Other CCPE members point out that they are involved in the development of legislation or strategic plans in this area (Estonia, Malta), which contribute to the adoption of measures for the preservation of independence. Finally, some prosecution services specify that they have specific self-managed security systems, as mentioned below.
77. Specific measures for the preservation of the independence of prosecutors include cybersecurity systems in Georgia and Poland, prevention plans and risk assessment of IT systems in Latvia, independent Case Management System in Slovenia,⁴³ the use of specific software in Ukraine and Check Point information security systems for the State Prosecutor's Office, the possibility of criminal/disciplinary action in case of misuse or abuse (Austria, Lithuania), the use of e-signature and further authorisation to access to files (Türkiye).
78. In relation to the regulation of confidentiality or data protection in the context of digitalisation, some measures taken are outlined: VPN channels (Austria⁴⁴), access restrictions (Austria, France, Lithuania, Türkiye), legal framework in place (e-file) (Estonia, Germany, Latvia, Luxembourg, Malta, Portugal).
79. Finally, a number of challenges further related to the independence are highlighted: a) problems of security and cyber-attacks (Azerbaijan, Austria, Latvia, Lithuania, Luxembourg, Ukraine) despite existing measures to prevent them; b) the need for legal framework for adequate data protection (Czech Republic, Luxembourg, Portugal); c) economic dependence on the public authorities which could affect independence insofar as many prosecution offices do not have their own budget for technological development;⁴⁵ d) the outsourcing of the development and maintenance of the technological infrastructure which may place private companies in a central role in the design of the IT systems of the prosecutor's offices with the possible risks of security and access to information.

⁴² The Polish legal framework has strengthened the powers of the First Deputy Prosecutor General - the Prosecutor General, by giving him/her the exclusive power to appoint and dismiss the director and deputy director of a department or unit of the Prosecutor General's Office and the head of the Internal Affairs Department.

⁴³ It is understood that other Case Management Systems that are independent and of limited access may be part of these features, even if not expressly mentioned.

⁴⁴ This is indicated by the Austrian prosecutor's office, but it is understood that all prosecutors' offices that have VPN access for remote working have the same technology: Andorra, Austria, Bosnia and Herzegovina, Czech Republic, Estonia, Finland, France, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Slovenia, Ukraine.

⁴⁵ This is suggested by prosecution services that manage their own resources, such as in Switzerland, and by others that do not, such as in the Czech Republic.

B. Digitalisation in the context of international co-operation

Table 8. Innovative tools applicable in international co-operation

Use of e-signature	Azerbaijan, Luxembourg
Videoconference	Austria, Czech Republic, France, Germany, Ireland, Latvia, Luxembourg, Malta, North Macedonia, Poland, Switzerland, Slovenia, Ukraine, Türkiye
Use of electronic files in MLA requests	Austria, Luxembourg, North Macedonia, Switzerland
e-Edes (EU member States)	Czech Republic, Estonia, Finland, France, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Poland, Portugal, Slovenia
Networks	Bosnia and Herzegovina, France, Luxembourg
Own Case Management System for international co-operation	Georgia
Use of other software	Switzerland ⁴⁶

80. The responses of the CCPE members paint a picture of increasing use of electronic files and digitalised proceedings for international co-operation, particularly in the realm of mutual legal assistance. However, paper-based international co-operation processes still persist and occasionally dominate over digitalised methods. Moreover, the CCPE members emphasise the growing adoption of videoconferencing, citing several advantages that it provides.
81. Furthermore, respondents highlight the significant contribution of networks like the Eurojust and the European Judicial Network in facilitating international co-operation during the digitalised era.
82. The above table addresses the issue of the implementation of technological measures in international co-operation. In this regard, various technological tools are described which facilitate co-operation and which seek to overcome the reliance on paper-based communication. It should be noted how the use of videoconferencing facilitates international co-operation, since most prosecution offices use it for the issuance/execution of MLA requests. In addition, some prosecution services refer to the importance of their membership in networks by underlining how helpful the electronic tools on their website are in facilitating the issuance and execution of MLA requests.
83. Specific mention should be made of the e-Edes⁴⁷ interface which aims at fully issuing and executing European Investigation Orders (EIOs) and other MLA/mutual recognition tools electronically among the EU member States, as it ensures a digital secure transmission of files and facilitates swift execution. Some, such as the prosecution service of the Czech Republic, even propose an upgrade of e-Edes to become not only a transmitter but also a generator of EIOs, or even to make it mandatory (Latvia). In each

⁴⁶ NUIX software.

⁴⁷ E-Edes is a platform made available by the European Commission for member States of the European Union for the secure digital transmission of EIOs, mutual recognition tools and MLAs. It is part of the EXEC, EXCELL and E-Codex projects.

case, a common approach emerges from the responses of the CCPE members: outside the cases of direct communication between judicial authorities (which are fully operative among the EU countries and very extended thanks to the Council of Europe treaties), the role of the central authority (when the treaties or the declarations maintain it as the receiving/sending body of the MLA) may prevent the direct transmission of requests and place it as a crucial institution in each country whose level of digitalisation is unknown.