



E-ViVi

*Enhancing Videorecorded
Interviews and Virtual Hearings
in Europe*

Background paper on the use of remote hearings and recorded pretrial investigations as evidence in court

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Introduction

This background paper was written as part of the E-ViVi project, an EU co-funded project aiming to improve the ways in which parties are heard digitally in criminal proceedings. While criminal justice systems all over the world are increasingly integrating technology into daily practices, many questions remain about the impact on communication and the experience of parties. The E-ViVi project focuses on two aspects of digitalisation that are particularly relevant in this respect: remote hearings (hearings using video links) and audio-visually recorded (AVR) interviews.

Specifically, the project aims to:

- Establish concrete best practice recommendations based on assessments of existing efforts in the EU, by collecting the experiences of practitioners and summarizing research on the use of video-recorded interviews of parties (including victims, witnesses, and suspects; children and adults) and remote hearings in court;
- Strengthen the capacity of key criminal justice professionals to make the best use of video-recorded and online evidence, while ensuring respect for the rights of victims and the procedural rights of suspects (both children and adults);
- Increase international exchange of best practices through dissemination activities.

The COVID-19 pandemic resulted in a substantial expansion in the use of remote hearings within criminal proceedings around the world. Also, technological advancements have facilitated the use of video-recorded evidence in many jurisdictions in recent years. While these forms of digitalisation have many potential benefits, concerns have been raised about how they might affect the (perceived) fairness of the criminal justice process. The E-ViVi project aims to enhance the understanding of this dimension of both types of digitalization.

This background paper presents the results of the first part of the E-ViVi project: the desk research. Its purpose is to lay the (theoretical) groundwork and provide relevant context for the empirical part of the project, consisting of a survey and in-depth interviews with key professionals and court observations. The desk research is based on a comprehensive review of both legal scholarship and empirical research on remote hearings and the use of AVR. This review draws on a broad range of sources, including academic literature, national reports, practical studies, and guidance from the European Union bodies, NGOs, professional associations, and other relevant institutions. Particular attention has been given to identify best practices within the three partner countries and beyond. In addition, this desk research also includes an analysis of a recent Dutch pilot study on using audiovisual recordings of suspect interviews as evidence in court, carried out in the context of the new Dutch Code of Criminal Procedure. These findings will serve as the background paper for drafting the best practice recommendations.

Key concepts

Digitalization of the courtroom (and more specifically of in-court communication) can take different forms. The most used format is when some of the trial participants – for example defendants or witnesses – participate remotely via video conferencing platforms. In some jurisdictions, the entire proceedings are conducted online with all participants appearing remotely (also known as an online hearing or virtual hearing, video court or remote court). In the context of this background paper the term ‘remote proceedings’ is used to refer to the situation where at least one of the participants to the trial appear remotely: thus, including both partly and fully online proceedings. It is important to note that these two are quite different in set-up and may thus be experienced differently. Most of the existing literature refers to the so-called hybrid proceedings (with the court and other professional participants still residing in the courtroom) and not to fully online proceedings (which were more or less non-existent before the

pandemic). The term AVR refers to audio visually recorded interviews (of both defendants and witnesses) that are conducted before trial¹.

In the context of the desk research and the E-ViVi project in general, ‘best practice’ or ‘effective practice’ refers to optimal ways to address, instruct and interact with remote parties in court and to promote good communication as well as how to make the best use of videorecorded pretrial interviews as evidence.

Methodology and scope

The main objective of the desk research was to review the existing data – mostly legal and empirical literature – on how the increasing digitalization of criminal proceedings affects the encounters and hearings of parties, and how the capacity of criminal justice actors can be strengthened in this context. The focus was predominantly on whether and how the use of technology – either through remote hearings or AVR – affects how in-court communication is experienced. The project covers experiences of all parties to the proceedings: both professional (judge, public prosecutor, defence lawyer) as well as nonprofessional (defendant and witness). By including both legal and empirical sources, the desk research aims to combine legal analyses with insights from social sciences (such as criminology, (legal) psychology, sociology), providing information on how the use of technology potentially affects courtroom experiences and interactions.

Regarding the geographic scope of the desk research, the primary focus has been on the three partner countries: Finland, Sweden, and the Netherlands. In addition, key publications and other relevant sources—such as pilot projects and empirical studies—from jurisdictions with a well-established history of courtroom technology use (for instance, Australia, Canada, the United Kingdom and the United States) have been considered. As for temporal limitations, the review has concentrated primarily on literature published during and after the COVID-19 pandemic (i.e. from 2020 onwards) with only select pre-pandemic publications included where particularly relevant. To retain our focus on how remote hearings and audiovisual recorded interviews affect communication and the experience of participants, the literature review has deliberately excluded studies on credibility assessment and evidence evaluation, as well as discussions on the technological aspects of using remote technologies or AVR (such as camera positioning).

As for methodology, sources were selected using legal databases (e.g., Legal Intelligence, Lexis, WestLaw, HeinOnline, EUR-Lex) and peer-reviewed journals in the social sciences. Guidelines and reports from NGOs and court administration bodies that were available online were also included. We also made use of the existing bibliographies from our project partners. Zotero was chosen as the software for storing the source material and a common folder was created for the desk review, to which all authors had access. The authors (project staff from HEUNI and Tilburg University) established common guidelines for using Zotero and organised regular online meetings to update progress and ensure consistency. The background literature was organised in Zotero according to a clear folder structure and hierarchy by key themes (e.g. legal sources from partner countries, common law countries and the European Union/NGOs, and sociology, criminology and psychology). Additionally, a separate tagging system was used to identify certain sources as ‘key publications.’ Notes were also used to summarise the key findings of certain publications and update project staff on progress and remaining tasks. The collection of items started on 5 February 2025 and as of 21 July 2025, the Zotero folder contained a total of 398 items.

¹ Please refer to the Annex VI “Glossary of Key Terms” for an extensive list of key terms with explanations. These were compiled at the onset of the desk review to ensure consistency in terminology and to enable the project team to work with a shared conceptual framework throughout the project.

Cross jurisdictional findings: general observations and key themes

General observations

In terms of general observations, the desk review illustrated that most of the existing research focusing on remote hearings and AVR centres around their potential impact on credibility assessments and evidence evaluations more than on its effect on interaction and experience. And whether and how this form of digitalization might potentially impact outcome than on whether and how it (potentially) changes how proceedings are conducted and perceived. Several studies, for example, examine whether and how witness testimonies delivered via video link affect assessments of credibility (e.g., Landström et al., 2005; Landström et al. 2019; Given-Wilson et al. 2022). Furthermore, there are at present far more studies available focusing on remote hearings than on the use of AVR (pre-recorded video testimonies) in criminal proceedings. This discrepancy likely reflects the more widespread and longer-standing use of remote hearings, especially during and after the COVID-19 pandemic, whereas AVR remains a relatively less commonly implemented innovation in many jurisdictions (with the exception of the some countries such as the UK and Norway, and the use of videorecording of children's testimony in the Nordic countries, which has longstanding traditions, see for instance Johansson et al., 2017). Moreover, the use of AVR typically affects only specific aspects of the trial - such as the way in which testimony is presented - while remote hearings can alter the structure, dynamics and experience of the entire criminal proceeding.

Although the pandemic significantly accelerated the adoption and normalization of remote proceedings, it is important to note that such practices already existed decades before. As early as the 1970s (an early form of) video links were used in bail hearings in the US (Flower, 2025, p. 23). Also, in other common law countries such as the UK and Australia, the use of remote technologies in the courtroom was widespread well before COVID-19, particularly for preliminary hearings, witness testimonies and procedural matters. These were often driven by concerns around efficiency, security, and accessibility.

Before the pandemic, there were generally four well-established precedents for using audio visual links: (1) for vulnerable witnesses, such as children, (2) for other witnesses, such as those in a foreign jurisdiction, to testify from a location outside the courtroom for cost-saving or convenience, (3) to link prisoners in detention facilities to courtrooms to conduct pre-trial detention (and other pre-trial) hearings or bail applications and (4) to provide other services such as language interpreting or expert reports (Legg and Song, 2021). Videoconferencing was also already in use in cross-border cases within the EU and cases handled in the ICC (Allegrezza and Bernardini 2025). Despite the wide-spread use of video links before the pandemic, little research was available on how appearing remotely might influence (the experience of) in-court communication and interaction. Also (domestic) case law did (and still does) not provide clear guidance on the implications of remote appearances for the fairness or quality of courtroom communication. As mentioned by Turner: "The [USA] Supreme Court has not determined whether the use of videoconferencing might thwart *"a fair and just hearing"* or *whether the benefits of physical presence are too hypothetical or marginal to trigger due process protection*" (Turner 2021, p. 204).

While using video links has been more common in some common law systems, this was not the case for many other – mostly civil law – countries. In the Netherlands for example, using remote technology was legally and practically possible already years prior to the pandemic (with the necessary practical facilities available in virtually all detention facilities), but they were not used in practice (De Korte, 2020). This is true also for Sweden, where legal changes in 1999 initiated a trial of using remote hearings through videolink in certain situations (Lag 1999). Also in Finland, the use of remote technologies had been steadily increased since 2003 but their use was more restricted and primarily applied in limited evidentiary contexts (Ervo and Autio 2022). The pandemic rapidly changed this situation and expanded the use of remote communication technologies in criminal courtrooms around the world (for an overview of developments in various European jurisdictions see Sanders 2020). In a nutshell, this transition meant

that many legal systems were forced to turn to (partly or wholly) online proceedings overnight. After the pandemic, many jurisdictions have kept video links as a central part of their criminal proceedings (Flower 2025) although the degree to which this is done, varies².

Video links have thus rapidly become a 'new normal' in criminal courtrooms, with their usage in specific trials often being up to the discretion of the judge to decide whether online participation is appropriate in a given case (Flower 2025).

Summing up, the pandemic 'forced' jurisdictions to take part in a large-scale experiment with using remote technologies in criminal justice settings – without the benefit of prior research, clear legal frameworks or thorough preparation. This sudden shift raised fundamental questions about the impact of online participation on procedural fairness, implying the need for new research to urgently address not only the legal and technical dimensions of remote hearings, but also their effects on the more subjective dimensions like how parties experience communication, perceive their treatment and experience fairness overall. Given the magnitude and complexity of these questions it is not surprising that research is still catching up – leaving many important aspects of remote justice, including its longer-term implications for interaction and experience yet to be fully understood. The discussion in the (mostly legal) literature is often primarily based on a comparison (or weighing) pros and cons of remote justice. For example, it is frequently highlighted that remote proceedings can improve safety in the transportation of detained defendants to the courtroom by “removing the harm or disturbances that inmates may pose to other defendants, court staff, law enforcement personnel, or civilians” (Turner 2021, p. 213, De Vocht 2022).

Remote justice is often promoted for reasons of efficiency, such as reducing travel time and associated costs for participants, including defendants, lawyers and witnesses. It can also help courts handle cases more quickly by streamlining scheduling and minimizing logistical delays – a goal that is particularly relevant considering growing backlogs of cases and the increasing workload faced by many courts worldwide. However, the benefits are not limited to the authorities alone. Some studies indicate that prisoners appreciate not having to travel long distances, endure strip searches, or (in some contexts) appear in court in handcuffs, the absence of which likely increased their sense of having been treated respectfully (Sternlight and Robbennolt 2022). A recurring critique is that the shift to remote justice serves institutional efficiency but does so at the expense of defendants' rights and procedural integrity (Bellone 2024). It is, however, difficult to draw definitive conclusions about these impacts due to the limited empirical data and the complexity of measuring experiential and communicative factors in remote settings. Empirical studies on experiential aspects and the (quality of) in-court interaction and communication remain scarce.

Key studies

One focal study was conducted by McKay (2022) who explores how remote appearances affect defendants' ability to participate meaningfully in their own hearings, the perception of their credibility, and their sense of dignity and presence in the courtroom. McKay's study underscores the risk that remote participation may unintentionally diminish a defendant's visibility – both literally and symbolically, thereby affecting how they are perceived and how connected they feel to the proceedings. The *Gateways to Justice Project* by Rowden et al. (2013) focused on how to improve the quality of participation in court processes using remote technologies. The report introduces a set of guidelines providing detailed recommendations about how to use remote witness facilities more effectively in court processes. A summary of these guidelines can be found in the Annex V 'Summary guidelines and recommendations'.

² For an overview of the global situation, see: remote courts worldwide: [Remote Courts](#).

Another relevant study (Kashyap et al. 2018) aimed to develop strategies to improve the experience of all participants involved in video link appearances between court and correctional facilities in juvenile and adult jurisdictions in Sydney. The project *inter alia* created a range of orientation resources aiming to enable participants find their way through the AVL (audio video link) process. These resources provide a body of support materials such as AVL Guide Cards, a Book of Legal Words and a Pre-connection Video. The aim of the materials is to support the provision of a fair and just AVL experience and to enable defendants to be engaged through the judicial process (ibid.).

Caselaw of the European Court of Human Rights

As for international and European perspectives on remote hearings and AVR, reference should be made to the caselaw of the European Court of Human Rights (ECtHR). In general, the ECtHR accepts the use of video links in criminal proceedings, provided it does not compromise the fairness of the trial as guaranteed by Article 6 ECHR. In its case law, the Court mainly focuses on whether the accused was able to participate effectively, communicate confidentially with their lawyer and properly follow the proceedings. The Court has stressed that videoconferencing is not inherently unfair, especially in pre-trial or procedural hearings, but may raise concerns in trials particularly when credibility assessments are central. See - *inter alia* - *Viola v. Italy (No. 2), 2019* and *Bivolaru v Romania (no. 2), 2018*. The perspective of the ECtHR seems to be that of remote participation as a curtailment of procedural rights instead of an equivalent alternative for ensuring (effective) participation (Allegrezza and Bernardini 2025, p. 27).

As for AVR, the ECtHR views audio visually recorded interviews as a valuable safeguard in criminal proceedings, helping to protect fair trial rights and prevent ill-treatment during police questioning. While the Court does not impose a strict obligation to record interviews, it encourages their use as good practice, especially in cases involving vulnerable suspects or contested confessions. Recordings contribute to transparency and accountability by ensuring statements are made voluntarily and accurately, which supports the effective protection of rights under Articles 3 and 6 of the Convention. Although the absence of such recordings does not automatically amount to a violation, it may weigh against the state when combined with other procedural shortcomings that undermine the fairness of the trial, see - *inter alia* - *Doyle v. Ireland (2019)*.

From an international human rights perspective, the use of AVR in police interviews is regarded as a best practice. For example, the United Nations Committee against Torture (UNCAT) has repeatedly recommended AVR as an effective method of prevention of torture and other forms of ill-treatment (United Nations Committee Against Torture [UNCAT], 2008). In 2016, the UN Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment found that the “*recording of interviews is a fundamental safeguard against torture, ill-treatment and coercion and ought to apply in the criminal justice system and in connection to any form of detention. Every reasonable effort must be made to record interviews, by audio or video, in their entirety*” (SRT (Mendez) A/71/298, § 84). Furthermore, the new international Principles on Effective Interviewing for Investigations and Information Gathering (the “Mendez Principles”), released in May 2021 recommend the use of AVR for the entire interview (Méndez 2021).

In addition to the case law and human rights regulations mentioned above, there are several international/European as well as national guidelines and recommendations on using video links and AVR in criminal proceedings. See for example [Guidelines on videoconferencing in judicial proceedings](#) by the European Commission for the Efficiency of Justice (CEPEJ) and [the Statement of Principles on the use of Video-Conferencing in Criminal Cases in a Post-Covid 19 World](#) by the European Criminal Bar Association (ECBA) (Ramos et al. 2021). The focus of these guidelines and recommendations is primarily on protecting procedural rights - such as the consent of the accused, confidential access to a lawyer and the overall fairness of the trial - rather than on the overall experience or interaction during remote hearings. It seems that ensuring these (legal) safeguards takes priority over concerns about how the

proceedings feel or are perceived. See Annex V for a summary of relevant guidelines and recommendations with a focus on specific rules related to interaction and communication.

Key themes

The following key themes have been identified in the desk review:

Remote proceedings: Necessary preparations, infrastructure and skills needed

Studies evaluating remote hearings during the COVID-19 pandemic highlight mixed experiences regarding training and guidance. In many (if not most) jurisdictions, trial participants were not prepared for the sudden increase in the use of technology in the courtroom. For example, in the US at the time of the pandemic, most practitioners had not received any guidance or training on legal, ethical, or practical issues that can arise in such proceedings. Turner (2021, p.236) assessed that in Texas judges, at 61%, were the most likely to have received training or guidance, followed by prosecutors (45%), and defence lawyers (40%). Defence lawyers were the least likely to have received training. In some jurisdictions, especially those who have longer and more elaborate experience with remote hearings in criminal procedure, the situation is slightly different.

In research by Clark (2021) in the UK, around six in ten judicial respondents (62%) and HMCTS staff (57%) recalled receiving training and guidance on remote hearings compared to two in five legal representative respondents (42%). Judicial respondents (71%) and legal representatives (68%) were more satisfied with the training than HMCTS staff (54%) (ibid.) information on interpreters, sign language interpreters, and intermediaries in remote hearings was frequently identified as an area not included in the training and guidance. Furthermore, most public users attending a remote hearing (80%) recalled receiving guidance on how to participate in the hearing which they generally found easy to follow (87% of those receiving guidance).

Remote proceedings: Cognitive aspects

Numerous studies suggest that communicating via video links requires greater concentration and can increase self-awareness—due to constantly seeing one's own image – which in turn may increase stress or pressure (see Legg and Song 2021). In the context of remote criminal justice, using video links for communication may significantly affect the health and wellbeing of judicial staff and legal representatives, with fatigue, stress, increased workload and fewer breaks commonly reported. In a study conducted in the UK, more than half of judicial respondents felt that remote hearings impacted their health and wellbeing negatively. Increased fatigue was the most reported issue followed by increased stress, increased workload and fewer breaks (Clark 2021, p. 17). The cognitive demands of remote hearings (e.g., the effect commonly known as ‘Zoom fatigue’) impair the ability of participants to maintain focus, track speakers, and engage effectively. Sustaining focus during remote hearings is more demanding than during in-person meetings due to physical immobility, video lag adjustments, feeling constantly watched, and self-awareness on screen (Bandes and Feigenson 2021). Furthermore, the increased cognitive demands of attending extended online proceedings may reduce people's ability to pay attention to others on the screen- and sometimes even to follow who is speaking to whom (Feigenson 2023).

A study by Rowden and Wallace (2018) indeed shows that judges experience a higher cognitive load when using video links during hearings. The same authors note in a later study on expert witnesses appearing via video link that experts may indeed also experience a higher cognitive load, as they are more

aware of how they – and the evidence they present – are perceived by their audience (Rowden and Wallace 2019).

Remote proceedings: Interaction and communication

As previously indicated, the rise of remote proceedings has raised important questions about how courtroom interaction and communication may be affected. In this context, Ervo (2016) argues that the right to be heard, one of the fundamental principles of the court proceedings, in modern trials refers to an active and factual participation of court parties, placing communication and interaction between professionals and parties in a central position when considering a fair hearing.

Only few studies focus on how remote proceedings may affect courtroom interaction. A key publication in this respect is the work of Feigenson (2023) who identifies five ways in which human interaction in (partly) online courts might be different from interaction in in-person trials. First, individuals may express themselves differently in a virtual setting, exhibiting behavioural cues and demeanours that diverge from those typically observed in face-to-face interactions. Second, perceptions of others are also altered in virtual environments; the way people see and hear one another online differs meaningfully from in-person encounters. Third, the phenomenon commonly referred to as “Zoom fatigue” shapes participants’ experiences of virtual court, potentially influencing how they perceive and evaluate others. Fourth, the fragmented and two-dimensional nature of virtual interaction may feel artificial or unsatisfying, undermining participants’ capacity to remain fully engaged in the proceedings. Finally, participants’ attention is often divided between their immediate physical surroundings and the digital courtroom, which can foster a sense of disconnection from both other participants to the proceedings and the judicial process itself.

The concepts of ‘presence’ and ‘co-presence’ are often used when discussing the possibility of effective interaction and communication in online proceedings. Along the same lines, it has previously been claimed that physical co-presence is a fundamental part of successful interaction (Collins 2004). Much more recently, however, some authors have challenged the idea that physical co-presence is indispensable in this respect and argued that a new form of (virtual) co-presence – called mediated co-presence – is possible in video link interactions (see Flower, 2025, p. 47 and sources mentioned there).

Feigenson (2023) identifies the difficulty of sustaining normal eye contact in virtual courtrooms as potentially the most important complicating factor because it impedes everyone’s reading of other participants’ emotional and other mental states. Also, Bellone (2024, p. 17) identified in this respect that: *“Lack of eye contact, in western culture, is considered a sign of deception, leading to feelings of mistrust. Humans are highly skilled at perceiving eye contact, and the negative effects of failing to maintain eye contact while speaking impacts the promotion and maintenance of trust”*. This finding is confirmed in other studies, see for example Bailey Vavonese et al 2020; Bandes and Feigenson 2021). According to some authors the difficulty to make eye contact over video link can lead to a loss of interpersonal connection (Van Wingerden & Vanderveen, 2022; Bandes and Feigenson 2021).

In addition to eye contact, body movements are also mentioned as a relevant factor. In remote hearings, often only the heads and upper bodies of other participants are visible, depriving viewers of access to postures or bodily movements of other parties, cues on which viewers rely in their everyday lives to draw inferences about others’ demeanours (Feigenson, 2023; Bailey Vavonese et al. 2020). This has been argued to interfere with participants’ ability to exercise ‘interactional competence’: the ability to recognize and adapt to subtle cues in body language and facial expression, which observers understand as a sign of participants’ social (and, in the case of judges, lawyers, and expert witnesses, professional) skills. In the context of body language, it has been suggested that this is an important component of building trust and empathy between participants, which can affect how one is perceived by others. (Bandes and Feigenson 2021).

Similarly to eye contact, facial expressions play a crucial role in communication by gesturing attentiveness and engagement, indicating disagreement, or expressing a wish to contribute without the need for verbal interruption (Bailey Vavonese et al. 2020). Technological issues have the potential to seriously impact whether and how body language is translated: even minor technical issues like a slight lag time between a person moving and the replication of those movements (which are often communicated very quickly and last less than a second) over video might compromise the effective use of non-verbal cues (ibid.).

In general, it is highlighted in literature that remote hearings may hinder natural conversational flow and trust-building through distorted turn-taking cues and reduced nonverbal signals, affecting communication quality between all court participants (Bellone 2024). The impact of this communication hindrance is likely to vary across different trial participants.

In an evaluation study from the UK, some lay users mentioned having difficulties communicating with judges during their hearing because of a lack of non-verbal cues which meant that some public users felt unsure when it was appropriate for them to speak and if they were getting their point across (Clark 2021). Judges (more specifically: magistrates) also emphasized the challenges they have experienced working with limited or no visual cues and also not being able to use body language themselves. This made it harder to read emotional responses and to manage challenging situations. They also considered that in hybrid cases, it was hard not to give precedent to the parties that were physically present in the courtroom. Furthermore, a situation where one party joins a hearing by video and another by phone was experienced as disadvantageous for the phone participant (Clark 2021). Another study indicates that, appearing over video, judges were less confident in their ability (and the perception of their ability) to maintain control over the courtroom, expressing concern about witness intimidation and other factors that may influence a witness's truthfulness (Bailey Vavonese et al. 2020).

In remote hearings, it is also more difficult to observe minor interactions in the courtroom. For example, in face-to-face hearings, the judge can see if a legal representative has been passed a note whereas in remote hearings, the judge is not likely to be aware of this type of communication (Clark 2021). Some legal representatives in the UK said that they found it harder to interject during remote hearings and they also found it is harder to persuade (ibid). It can also be more difficult to keep what is called 'conversational flow' in remote hearings, as it can be more complicated to determine when each participant has finished speaking, making interrupting each other's sentences more common (Sternlight and Robbenolt 2022).

Most of the existing studies focusing on courtroom communication and interaction stem from common law countries (mostly US, UK and Australia) that – due to their focus on orality and cross examinations during trials – are more concerned with whether and how technology affects verbal exchanges and the dynamics of examinations during trial. This (potential) impact is most likely of a lesser concern in civil law countries with (more) inquisitorial traditions that place a stronger focus on written statements and less on conversational dynamics. In contrast to the studies mentioned above, there is also research claiming that some aspects of trial participation might actually be improved in the online format. For example, in a study conducted by Denault et al. (2025) some judges mentioned that witness credibility assessments can be improved in virtual trials: they allow judges to see the witnesses and their face more closely, as if they were present in person, sometimes even better than if they were in person, to hear them better, and to give greater proximity to both witnesses and lawyers. It should be reminded that these potential benefits will likely increase as the quality of technology improves, enhancing audio-visual clarity, reducing technical disruptions and enabling more natural interaction – thereby further bridging the gap between virtual and in-person trial experiences.

Remote proceedings: Effective participation

Remote proceedings give rise to several concerns in the context of effective participation. One key theme in the existing literature are the challenges that arise in the area of lawyer-client communication. It is often claimed that remote proceedings may hinder rapport-building and informal exchanges during the proceedings, making it harder to resolve matters outside of formal hearings (Clark 2021). Furthermore, confidential communication is often complicated by logistical barriers, such as the need for separate video rooms, lack of real-time interaction and limited possibilities to consult pre- and post-hearing (Gibbs 2017; Bannon 2021; Bellone 2024). Although most (modern) online communication platforms offer partial solutions such as breakout rooms, many legal professionals report that these accommodations remain inadequate or disruptive (Bellone 2024). It is also stressed that supporting clients in remote hearings makes it harder to offer reassurances and human connection as well as to adjust defence strategies (Clark 2021). For example, defence lawyers in the US reported that they had very limited ability to speak with their clients during remote proceedings, making it more difficult to adjust their defence strategy based on what the opposing parties had said (Bannon 2021).

In the context of effective participation, concerns also emerge about the effects remote hearings may have on defendants' dignity. The ability to mute participants, reduced comprehension and a diminished feeling of courtroom presence can foster a sense of dehumanization *as discussed by Gibbs (2017, p. 18): "That defendants' voices can be, and are, muted speaks volumes about how using a virtual court can facilitate the dehumanization of defendants and undermine the right to participation"*. This is based on the assumption that greater physical distance also creates greater social and psychological distance—an assumption supported by some existing research. Studies suggest it is harder to build trust when communicating via video, as trust in face-to-face interaction often relies on mirroring posture and the unconscious imitation of non-verbal behavior—both of which can be significantly hindered or even made impossible in a video setting (Ebner & Thompson 2014; Diana et al. 2023). The dehumanizing effect is also mentioned in the research by McKay (2018, p. 73, 111 and 141) where interviewed prisoners made the following statements on appearing via video link:

'I did not really feel like I was really much a part of it' (FO7); 'Makes you feel like, umm, how can I say it, I don't really know how to say it, like you're not actually there' (MO2), 'I suppose you're a bit withdrawn from the whole process really, it's all going on there without yah and, umm you're just a face on a screen really' (M11) 'You're only just a bunch of pixels on a screen' (MO4).

Survey data show that a large majority of legal professionals believe remote hearings reduce the dignity of proceedings, impair understanding and have a disorienting effect on defendants (Bellone, 2024, p. 36). At the same time, it is noted that remote hearings may offer practical benefits – especially for detained defendants – by increasing convenience and reducing safety risks tied to transport (Gibbs, 2017; Turner, 2021). Yet, these benefits must be weighed against the digital 'digital divide' which refers to the gap between people who have access to modern digital technologies and the internet, and those who do not. In the context of effective participation, 'digital literacy' or 'digital vulnerability' are relevant concerns (see on how the digital divide could be softened: Mulcahy and Tsalapatani, 2022). For example, if access to court proceedings is provided only through video links, some members of the public may lack the appropriate technology or technological skills to access the proceeding or may fear that what they are seeing or reading has been altered (Sternlight and Robbennolt 2022).

Some authors claim that the 'the other side' of the remote court experience is that it has generated substantial hurdles for individuals '*on the wrong side of the digital divide*' (Bannon 2021). It is also raised that many trial participants lack the technological access or skills needed to join remote hearings effectively, raising concerns about unequal access to justice (Sternlight and Robbennolt 2022; Bannon 2021). Even among criminal justice professionals with access to technology, digital literacy remains a barrier; a survey of Finnish judges found that many had experienced difficulties specifically with video conferencing software (Ala-Kortesmaa and Välikoski 2023), highlighting how digital vulnerability – or a lack of well-functioning equipment – can affect effective participation regardless of access.

It has also been mentioned that online trials can be detrimental to vulnerable individuals. *“For certain individuals, just connecting to a hyperlink and setting up a background that is not irritating can be challenging. All of this can lengthen court proceedings and cause additional difficulties and responsibilities for judges. And for unrepresented parties, and lawyers, the use of technology can be more of a challenge, more so if there’s insufficient technical support”* (Denault et al. 2025). Therefore, the authors suggest that – when considering online participation – judges should consider *“the vulnerability of individuals, including those who are more comfortable testifying at a distance rather than in person because of the disputed events (e.g., victims of psychological harassment), mental health issues (e.g., individuals suffering from paranoia and fearing technology) and security concerns”*. In this context, it should be noted that ‘individuals in vulnerable contexts’ do not form a uniform group, but rather encompass a wide range of diverse characteristics. As a result, while remote justice may pose challenges for certain individuals, it could better accommodate the needs and preferences of others within this diverse group.

In the aforementioned study by Mulcahy and Tsalapatanis (2022), a frequently cited group considered unsuitable for online hearings were people with learning difficulties, neurodiversity, hearing impairments, or mental health conditions. Concerns included the reliance on non-verbal cues, the limitations of 2D video for sign language, difficulties with lip-reading on crowded screens, and increased confusion or paranoia related to technology. As Mulcahy and Tsalapatanis emphasize, treating all vulnerable participants as a single group and assuming that video links offer a suitable solution for everyone is likely misguided; a more appropriate approach may be to consider *‘who should be excluded in the interests of inclusion’*.

Another key theme in the existing literature is the impact of preparation and courtroom rituals on participants’ experiences. Rituals are essential for reinforcing societal norms and maintaining public trust in the legal system (Flower 2025). Small gestures and modifications to the court ritual, such as introducing those present in the courtroom, acknowledgements, explaining the process clearly and breaks, can help orientate participants, promote effective participation and improve the experience (Hagsgård, 2014; Rossner and Tait 2023). Similarly, a succession of steps before ‘entering’ the virtual court can allow a participant to be fully informed about their role and help prepare them participate effectively (Rossner and Tait 2023).

Remote proceedings: authority of the judge and the solemnity of the trial

Remote hearings may alter the court experience for trial participants and impact the authority of the judge. It is often highlighted that remote settings may complicate the ability of the judge to assert control, convey presence and command respect, which are traditionally reinforced by physical courtroom settings and in-person interactions. The use of remote proceedings significantly alters how judges typically present themselves to court participants and how they are culturally perceived. This shift in the judge’s image has important consequences for two key aspects of their role: managing the courtroom and embodying and projecting the court’s authority (Rowden and Wallace 2018). It can also be more difficult for a judge to see if a defendant needs a break or is having difficulty in understanding what is discussed when the defendant is participating via video link (Hynes 2024).

Special attention is also given to the difference between entering a court online versus entering a physical court. Courthouses and the roads leading up to them are usually built in a way that portrays certain values, such as open justice, transparency and authority (See on the particular functions of the materiality of the courthouse and the courtroom the work of Mulcahy: Mulcahy, 2008 and Mulcahy, 2011). This means that walking (in)to a court(room) serves a purpose in itself: it prepares you for the important event you are about to participate in. In this context, Flower (2025) refers to the courts ‘waiting room’ which not only serves as a place to wait, but as a place to prepare and to transition:

“It is a liminal space, enabling participants, both legal actors and lay participations, to prepare and shift to a front stage performance, one which requires a different range of emotional displays,

experiences, and expectations (Goffman 1959). When participation switches to online, enabling one to participate from a mundane space such as one's living room or kitchen, there is no clear transition – no liminal space for moving from one context into the next, beyond the click on a link which risks blurring emotional spaces, no clear switch of one set of rules and expectations to another” (Flower, 2025, p. 32).

Another aspect of the physical courtroom is that it may provide participants with spatial cues on who is who – cues that might get lost in an online setting. As highlighted by Flower, joining online might complicate understanding the different roles in the proceedings. In this context, Flower refers to so-called ‘tie-signs’ – such as the defence lawyer and the defendant sitting next to each other - that indicate team membership and can help participants to understand and interpret the interaction order. These cues can be very relevant in physical settings and (potentially) get lost in an online environment (Flower 2025):

‘reading the emotional room’ is “an essential way to ensure that the rules of interaction are followed, a skill that becomes, in many ways redundant in a virtual setting when the judge is no longer able to assess the mood, the prosecutor cannot get a clear understanding of how uncomfortable a defendant is in a certain line of questioning, or a defence lawyer cannot gauge a witness’ uncertainty, It can thus change how legal professionals are able to perform their roles professionally” (Flower 2025, p. 37).

On the other hand, online trials may facilitate the understanding of participants' roles by displaying names and using gallery-style views. This visual organization can help all parties follow the proceedings more easily and enhance overall engagement. Additionally, physical courtroom designs can even introduce (negative) bias against defendants via, for instance, the use of docks and segregated circulation routes (Flower (2025).

Closely connected to the key theme of judicial authority and control, is the concept of participant behaviour and decorum. It is reported that remote hearings may lead to more disruptive behaviour from defendants, including (undesirable) interruptions, verbal aggression and less discipline, partly due to the lack of immediate control and physical presence. During the pandemic, remote defendants often appeared at criminal proceedings from casual settings such as their beds, bathrooms, fast food restaurants, or the roadside. As pointed out by Flower, using video links for everyday (professional and social) activities makes it hard to grasp the seriousness of participating in a trial online:

“We use video links to regularly take part in work meetings, club meetings, board meetings, an array of meetings. We use video links for catching up with friends and relatives who are far away. We use video links for attending lessons, lectures, and workshops. It is difficult to distinguish between taking part in a trial from participating in one of these other everyday events; to recognise the gravity of participating in a trial when all we must do is turn on our computer and log in” (Flower 2025, p. 27).

Furthermore, social science suggests that video appearance from a cluttered or distracting environment can interfere with observers' ability to interpret the expressions of a virtual participant (Turner 2025). In a UK study, judges (magistrates) reported that remote hearings can lead to a lack of discipline, with experienced defendants sometimes acting out knowing that contempt sanctions are difficult to enforce remotely (Clark 2021). Additionally, some defendants appeared more distracted and behaved inappropriately, including interruptions and verbal aggression, conduct that would typically result in removal from a physical courtroom (ibid.). On the other hand, the familiar setting of home or office might reduce feelings of intimidation and encourage freer speech for some participants (Feigenson, 2023; Sternlight and Robbennolt 2022). Currently, there is too scarce timely research concerning the extent to which remote hearings increase or decrease experiences of stress or intimidation by (certain) parties – and what remedies can be put in place to improve the experiences.

Remote proceedings: Empathy and other emotional aspects

Studying the effect of remote proceedings on the exercise of empathy requires a focus on both its cognitive and affective dimensions (Bandes and Feigenson, 2021). Some studies indicate that the absence of a shared environment may indeed hinder the development of empathy (Bandes and Feigenson 2021; McKay and Macintosh 2024). However, there is no firm evidence to this date that the mode of communication in legal proceedings has an impact on the formation of empathy in judges (Belloni et al 2025). In the study of McKay and Macintosh, their interview data revealed how remote communication technologies risk amplifying the disenfranchisement and marginalization that people-in-prison already experience. The human aspects of criminal procedure were emphasized by many respondents. As one Supreme Court judge indicated:

“I still think people need the human support around them ... if we’re going to keep going down this path of technology, I don’t think it can be used in a sort of cold hearted and technocratic way ... I just don’t think you can replace the human element.” (SCJ4).

Other studies highlight that evaluators may misattribute their own negative feelings resulting from the added strain (zoom fatigue) to the parties and witnesses who are targets of their attention, reducing their inclination to empathize (Feigenson 2023). Empathy develops more easily between people who know each other and over longer interactions, while strangers, especially during shorter remote hearings, are at a disadvantage (Bailey Vavonese et al. 2020). There is – however – also research from outside the legal (criminal justice) context indicating that computer-mediated communication does not necessarily have to be less personal than face to face communication and that conveying emotions in an online environment is indeed possible (see for example: Derks et al. 2008).

A person’s likeability might also be affected by using remote communication technologies. Research shows that individuals are perceived as more likable and intelligent in person and companies generally prefer face-to-face meetings for collaboration and communication (Sternlight and Robbennolt 2022). However, according to Rossner and Tait (2021), there is no difference in how a defendant is perceived when participating via video link versus participation in person (see also Tait and Tay, 2019; Landström et al. 2019).

In addition to potential effects on how someone is perceived, it should be noted that remote hearings lack the “off-stage” presence of family and friends, which may alter the emotional context and reduce empathy cues, such as jurors not seeing a defendant’s support network (Bandes and Feigenson, 2021, p. 35). In-person, defence lawyers may use proximity and physical gestures to humanize clients before juries, techniques unavailable in remote hearings *as outlined by Turner (2025, p. 29)*

“When defendants appear in person, lawyers can use certain tools to help humanize them before the jury. Attorneys sit next to their clients in court, regularly lean over to speak to them, and may even put an arm around their shoulder. In all these ways, they are consciously trying to humanize their clients and to make the jury “like [them], or, at least to feel sympathy for [them]”.

Nonetheless, some participants in difficult or emotional cases might appreciate the privacy and safety of remote hearings, especially when wishing to avoid direct contact with others involved (Clark 2021).

Remote proceedings: Experienced fairness (procedural justice)

There seems to be a variability in the way professional participants experience remote proceedings. These variations might be influenced by different factors such as experience with technology, physical setting and personality trait. For example, a judge in a US study who presided over remote jury trials during the pandemic, was surprised to observe remote jurors to be better able to focus. He claimed that the courtroom *“is a foreign environment for the jurors, and as a result, their minds might be on other things while in*

the courtroom (even pre-pandemic); but at home, they are in a place that they find safe” (Sternlight and Robbennolt 2022, p. 556). Defence lawyers tend to be more sceptical of remote hearings than judges and prosecutors. They are more likely to believe that the online format harms the fairness and accuracy of the proceedings and favours the prosecution (Turner 2021). A study in the UK however, showed no difference between remote and in-person users in their views on effectiveness and fairness (Clark, 2021, p. 68). From the social science perspective, it is highlighted that the physical separation of remote hearings participants, as well as their psychological distance from their own video representations on the screen, may diminish participants' sense of co-presence. This may lead to feelings of separation and dislocation that can undermine participants' sense of having acted together in the official, public activity that courtroom justice has always, at least ideally, been thought to be (Feigenson, 2023).

From the sociological perspective, it is stressed that courtroom interaction is a complex combination of social cues and rituals that can be fundamentally affected by using remote technology. In the words of Flower (2025) – who refers to the sensorial aspects that play a vital role in constructing the ritual of a trial and how this is experienced:

“(…) it is a subtle performance that risks going unseen in a digital setting. This is problematic for several reasons. It risks leading to uncertainty or confusion as to how roles should be performed appropriately and hence may lead to defence lawyers feeling they have not fulfilled their legal obligations properly. It also leads to a risk that defendants feel they have not been suitably defended if the subtle protestations of their defence lawyer go unseen by both the judge and the defendants themselves” (Flower 2025, p. 42).

Explaining the nuances of social interactions in the criminal courtroom, Flower emphasizes the importance of eyework: in courtroom settings, eye contact—referred to as “eyework” - serves as a form of moral communication, helping to portray the defendant in a certain light and allowing lawyers and judges to manage emotional norms. However, these subtle interactions become limited or impossible when participants appear via video link, potentially undermining these important non-verbal cues (Ervo and Autio 2022; Flower 2025). This increases the risk of participants feeling disconnected from the process themselves or appearing distant or disengaged, which both can undermine the perceived legitimacy of the process (Ervo and Autio 2022). In addition to visual aspects of the trial (eyework), Flower also refers to the importance of certain sensorial aspects of proceedings that contribute to the construction of a justice ritual: *“When this switches to online, many of these nuances are lost, the implications of which are currently unclear”* (Flower, 2025, p. 31).

The importance of sound is also highlighted by McKay who in this context refers to the fitting *“soundtrack of incarceration”*. McKay highlights that when using remote technology, background noises from prison - such as loud shouting, slamming doors, and jangling keys - can unintentionally be heard in the courtroom. This may affect the presumption of innocence (since the defendant is presented in a “guilty” setting) and hinder effective participation. Also, a slight delay is almost always present in video conferencing (Ervo and Autio 2022). As with visuals, the right technology and facilities can potentially optimize the auditory experience of a hearing for both the defendant and other participants (McKay 2016; McKay 2020). It has been argued that sound during a court hearing may be even more important than visuals: *“In an oral procedure, such as a criminal trial, the ability to hear what is being said is arguably more important than visibility. Indeed, the quality of sound in a remote interaction may be more critical than the quality of the images, with higher quality and surround sound having a strong impact on a sense of ‘presence’ for remote users”* (Rossner and Tait, 2023, p. 147-149). In contrast, other authors stress that more immersive (virtual) courtrooms might offer an opportunity to address shortcomings of physical courtrooms such as the ability to avoid the use of the dock or boxes in physical courtrooms that may imply guilt and lead to feelings of isolation (Rowden et al. 2013). It is notable that research shows that appearing from a dock, under certain circumstances, is considered more stigmatizing than participating in the hearing via a video screen (Rossner and Tait 2023). These authors also stress that the use of technology can optimize the visual and auditory experience of hearings. More specifically, metaverse courtrooms might be used

to improve sightlines and other ‘spatial’ aspects of the courtroom enhancing the courtroom experience (Rossner and Tait 2025).

Another relevant characteristic of traditional remote hearings is that the remote party (often the defendant) is (usually) alone on a screen, while all other parties are co-located in the courtroom. This might give the sense that everyone in the courtroom is on the same ‘team’ and the remote party is isolated and alone (Rossner 2023). Some studies indicate that while prisoners appreciate the practical and logistical advantages of remote proceedings (no need to travel *et cetera*), many of them experienced the remote proceedings as comparatively disempowering and felt disconnected from the proceedings (Sternlight and Robbennolt 2022). All in all, empirical research on how the fairness of the proceedings is being experienced by those involved remains scarce. Furthermore, most of the research that does touch upon experiences, focuses on professional participants and not – or to a lesser extent – on lay users (defendants, victims/witnesses).

Audio-visual recordings: Focus on evidence integrity

Most of the (limited) research on AVR focuses on its effect on evidence evaluation and decision-making (see for example Lassiter et al. (2010) which aims to offer guidance “*how interrogations should be videotaped to best protect the innocent from the possibility of wrongful conviction*” and states that “*the ultimate success of the videotaping reform will only be as good as fact finders’ decision-making processes*”). More specifically, much of the existing research focuses on how video-recorded evidence is assessed, with attention to related issues such as camera perspective bias (see for example Lassiter et al. 2002 and Elek et al. 2012). These and studies highlight how visual presentation - and even seemingly ‘minor’ choices in setup and technology - can have significant impact on how a person is perceived. For example, the camera angle can affect how large (or small) someone appears and also how dominant they are perceived to be (Kaminski 1984). A close-up (head shot) can magnify facial features, making a stern (harsh) appearance or unattractive expressions more influential in how someone comes across (Short et al. 1976; Poulin 2004). However, existing research is inconclusive as to whether witnesses appearing on video are perceived as less trustworthy compared to witnesses appearing in person. See for a short description of different and conflicting studies in Flower 2025.

As for the impact of AVR on evidence evaluation, it has been argued that recording enables officers to have perfect recall of an interrogation and to key in on nuances and details that they may have missed or forgotten without a recording (see e.g. Sullivan et al. 2008; Kassin 2014; Bang et al. 2018). Recordings can also be used to train future and current law enforcement officers about the use of proper tactics and how to improve interrogation methods (Bang et al. 2018). In summary, according to Sullivan (2008), speaking on the benefits of recording interrogations:

“ (...) making complete recordings of custodial interviews helps convict the guilty, exonerate the innocent, shield police from false claims of misconduct, protects suspects from improper police behaviour, and saves time and expense for all concerned” (p. 1310). (in Bang et al. 2018, p. 6).

Some (legal) authors claim that the additional benefits of videorecording interviews with significant witnesses are that this ensures that the interview process (...) increases the opportunities for monitoring and for the development of interview skills (Jackson 2023). As such the recording of interrogations could help improve interviewing skills and the quality of investigative interviewing as such. In contrast to the body of literature about evidence evaluation and decision making, there is very little literature on how the use of AVR for interviewing may affect the experience of the proceedings. Questions about how pre-recorded statements potentially influence participants’ perceptions of fairness or the ability to interact meaningfully during criminal proceedings remain largely unexplored. This suggests that the current academic focus is directed more toward the evidentiary and procedural benefits of recording than toward its potential implications for procedural justice or the overall (experience of) courtroom dynamics.

Audiovisual recordings Information transfer

In many countries, the use of video recorded interviews as evidence has increased. This has been related partly to a growing recognition that human memory is fallible, and witness statements therefore tend to be most reliable when fresh, but also that parties may be influenced by other people to change their accounts between the pretrial interview and the court hearing for various reasons. As highlighted by some legal authors, it makes sense to try to admit statements made by witnesses about events closer in time than the trial, to enable vulnerable or intimidated witnesses to achieve their best evidence and to conduct trials as effectively and expeditiously as possible (Jackson 2023). In the UK, the recent revised guide for Achieving Best Evidence states that consideration should always be given to video-recording interviews with significant witnesses because it is likely to increase the amount and quality of information gathered from the witness and increase the amount of information reported by the witness being recorded (Jackson, 2023).

In the Netherlands, where the use of AVR in the context of investigative interviewing has recently been receiving increased attention due to legislative changes, it has been debated in literature that a move towards more use of AVR might have certain consequences for the criminal process. One of those concerns was the ‘knowability’ (*kenbaarheid*) of what can be seen on a recording. ‘Knowability’ means that parties to the proceedings know where they stand from the perspective of legal certainty, what they can assume, that it is certain what someone has stated or what happened at the hearing, without having to listen to it again and again, which can lead to differences in interpretation (Kramer 2024). Other – also more legal – questions are raised by Bemelmans who analyses the legal and procedural implications of using audiovisual recordings (AVR) in (Dutch) criminal proceedings, such as the status and evidentiary value of AVR as a procedural document (Bemelmans 2023).

Audiovisual recordings Experienced fairness (procedural justice)

Video recorded pretrial interviews used as evidence in court have been argued to benefit vulnerable victims. Across Europe, many countries struggle with overly long judicial processes, and parties may be heard in person years after the crime has been committed. The long duration before parties gives their witness statements for courts is problematic from the perspective of human memory and the quality of evidence, and highly likely to increase the psychological stress experienced by the parties. According to a study comparing the accounts by rape victims in recorded and transcribed investigative interviews with their accounts almost 2 years later when heard in court, victims lost two thirds of the details of their account (Westera et al.2013). In this context, it is relevant to note that in many countries, as pretrial interviews are often not recorded, the court is depending on the written reports or statements by the court when assessing what parties have said. Several reports, including from the Netherlands (De Keijser, 2012) and Finland (Store 2019) indicate that these reports are not reliable. How videorecords are used is of high topical relevance, as many European countries, including all the project partner countries, are currently undergoing changes to increase the practice of using videorecorded statements of adult parties as evidence in courts. Audiovisual recordings tend to be supported for their potential to enhance transparency and accountability. As such, they can reduce public concern over mistreatment and deter coercive interrogation techniques that risk eliciting false confessions (Gershel, 2010; Kassin 2014; Lassiter et al. 2010 in Bang et al. 2018).

There are, however, also risks from the perspective of experienced fairness. As noticed by Jackson, the orality and confrontation paradigm, which has long been central to fair trial guarantees under Article 6 ECHR, is increasingly challenged by procedural reforms. For example, the use of hearsay statements from unavailable witnesses and the growing reliance on remote testimony may comply with ECtHR

jurisprudence but risk undermining key participatory rights (Jackson, 2023). This development might affect traditional (and fundamental) values of individual autonomy and dignity, which require that defendants be fully able to test evidence and present their own case in person. The inability to confront or cross-examine certain witnesses, especially in the case of hearsay, might impede the adversarial process and limit the defendant's ability to influence the trial outcome (Jackson, 2023). This could also influence the experience of the proceedings.

Conclusions

This desk review reveals several key themes in the ongoing academic discussion on the digitalization of criminal justice, specifically regarding remote hearings and the use of audiovisual recordings. A consistent pattern across the reviewed literature is the tendency to compare remote and digital proceedings with their physical counterparts, with much of the analysis focusing on what is lost or changed when (all or some) parts of the proceedings moving online. While this comparison is important, it often results in a dominant focus on the potential shortcomings of remote formats, rather than on identifying how such formats might be improved or adapted to safeguard procedural rights and enhance the courtroom experience. Additionally, much of the existing research focuses on (the potential effects of technology on) decision-making and the evaluation of evidence – especially with regard to how visual cues influence credibility – whereas less attention has been paid to the broader dynamics of courtroom communication, interaction and participant experience. Furthermore, much of the existing research is relatively old, implying it is from a time when online interaction and video communication was not as a big part of everyday communication as it is today.

Another important observation from the reviewed literature is that most of the relatively few existing empirical studies focus on the perspectives of professional participants – judges, prosecutors, and defence lawyers – while the voices of lay users, particularly defendants and witnesses, remain underrepresented (with some notable exceptions, such as McKay's (2022) work that explores how remote appearances affect defendants' ability to participate meaningfully in their own hearings). This creates a gap in understanding how digital justice is experienced by those most affected by it. Where their experiences are documented, findings raise concerns about dignity, trust, comprehension meaningful participation. At the same time, remote proceedings are not without their advantages: they can reduce burdens associated with transport, offer greater scheduling flexibility, and, in some cases, increase comfort, security and accessibility – though these benefits are rarely discussed in depth or supported by clear evidence of best practices. Furthermore, while several international and national guidelines now exist, their practical implementation is not always assessed, and they often lack clarity and consistency.

The findings of this desk research suggest an urgent need for concrete, practice-oriented guidance for legal professionals operating in this evolving context. Such guidance should be grounded not only in legal standards but also in insights from other disciplines such as criminology, sociology, psychology and communication science. This would allow a stronger focus to be placed on the interactional aspects of criminal proceedings. This broader perspective will allow addressing both structural and experiential aspects of remote justice. To summarise, the current literature reflects a legal and empirical field still in transition. There is a strong emphasis on identifying risks but insufficient attention is given to identifying, evaluating, and disseminating effective communication strategies and meaningful participation in online criminal proceedings.

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Annex I: Legal framework and desk research summary: Finland

Introduction

The use of remote technologies have been increasingly used since 2003 in Finland but primarily applied in limited evidentiary contexts (Ervo and Autio 2022; HE 63/2024; Hiltunen 2023). A significant shift towards increasing their use has occurred following a legal reform in 2019 that expanded remote participation in criminal cases. The 2019 amendment to the Criminal Procedure Act (ROL) aligned the rules governing criminal trials more closely with those already in place for civil cases, thereby enabling broader procedural flexibility and both pre-trial hearings and main hearings to be conducted via remote connection (ROL 5:10 and 7:14a, and OK 5:15d).

The rapid digitalisation of Finnish courts and the practical implications of the 2019 reform were brought into a test during the COVID-19 pandemic, when the use of remote technologies and remote hearings became not merely optional but essential to the continuity of judicial operations (Ervo and Autio 2022; Lilja and Hiilloskivi 2022). After the first few COVID-years, further modernization of court proceedings was facilitated by legislation adopted on 28 January 2022, which permits the video recording of oral evidence.

The remote hearing of parties, witnesses, and experts is regulated by Section 52, Chapter 17 of the Code of Judicial Procedure (4/1734), which was significantly amended by the recent Act 886/2024. For pre-trial hearings, an audio link suffices, provided all participants can hear each other and the court considers the arrangement appropriate. Main hearings, by contrast, require both audio and video connections and necessitate the participant's consent as well as the court's approval (Autio and Ervo 2022; HE 63/2024).

In addition to deciding on the appropriateness of remote hearing, the court must evaluate whether one or more of the following non-cumulative criteria are met: 1) the reliability of the testimony can be assessed without the person being physically present, 2) the person being heard is unable to attend due to illness or another valid reason 3) physical attendance would cause disproportionate costs or harm relative to the value of the testimony, and 4) the person has already been absent from the main hearing, and their testimony is not likely to be decisive for the outcome of the case. In addition, Paragraph 3 imposes a complete ban on audio-only remote hearings of those who are mentally impaired or under the age of 15. Finally, Paragraph 4 clarifies that an opportunity must be reserved for the parties to ask questions from the person being heard. The relevant Government Proposal mentions this being an obvious fact, but that it was introduced regardless to avoid the risk of misunderstandings. (HE 63/2024.)

Before the recent reforms, judges had been required to be physically present in the courtroom during both main hearings and oral pre-trial proceedings. Currently judges who are not the chairs of multi-member court panels may attend remotely if the chair has viewed it as appropriate based on the nature of the case and potential benefits of remote participation etc.

Parties' consent is not required but they should be given a chance to express their views. A fully remote hearing is allowed in preparatory stages of civil and criminal cases if deemed appropriate and in the main hearings only if there is a justified reason and it is considered appropriate. Courts have also been granted the authority to decide that a party's right to be present at an oral hearing may be fulfilled via remote participation. The requirements for receiving oral evidence through remote connections are also relaxed (HE 63/2024).

In summary, remote participation or remote hearing can be utilized in proceedings and oral hearings in situations permitted by legislation. Preparatory sessions can generally be conducted via remote connection without video. Matters falling under judicial deliberation confidentiality (such as decision deliberations and sessions of administrative and special courts) can also generally be handled using remote connections. Remote hearings are not permitted in confession proceedings. Remote connections may be used in court proceedings, for example:

- in domestic proceedings, such as between different court locations and authorities,
- in situations where the parties to the proceedings do not need to be physically present in the court handling the case, and
- in cross-border proceedings, taking into account the provisions of international agreements.

A proposal to use a remote connection in court proceedings may be made by the court or by a party to the case or their attorney, a witness, or a person to be heard. The possibility of using a remote connection in a given case can be inquired about from the court in question.

Desk research summary: remote hearings in Finland

This summary aims to provide an overview of key themes from a range of legal, governmental, bar association proposals and a few academic publications concerning the use of remote hearings or teleconferencing in Finnish court proceedings, particularly focusing on criminal justice processes. Overall, 40 different sources are covered in the summary.

Summary of key themes in remote hearings in Finnish courts

Theme	Key Insights	Relevant Sources
Legal framework & policy	Remote hearings are permitted in many court procedures, but judges must be physically present unless otherwise stated by law. Legislative efforts seek to streamline remote use.	HE 63/2024; LaVM 7/2024 vp; KKO 2021:91 & 92; Ervo (2020)
Judicial attitudes & practices	Judges are open to remote hearings but emphasize the need for reliable technology and legal clarity. There's demand for training and uniform practices.	Lång (2023); Sartomäki (2023); Immonen (2021)

Technical readiness & infrastructure	Courts face challenges with outdated equipment, insufficient video rooms, and varied practices. Pre-testing improves success.	Hautaniemi (2020); Hiltunen (2023); Elkevaara & Miettinen (2023)
Witness testimony	In general, judges prefer video over phone testimony. Visual cues are often overemphasized despite lacking psychological validity.	Lång (2023); Wilkman et al. (2024); Koskenniemi (2024)
Fairness & access to justice	Remote hearings reduce stress and improve participation, but risk perceptions of inequality. Vulnerable groups benefit from protective remote options.	Alaja (2021); Elkevaara & Miettinen (2023); Directive 2012/29/EU
Civil & criminal Procedure	Remote methods work well in preparatory phases and simpler cases. Criminal cases may need more cautious application.	Finnish Bar Association (2020); Hiltunen (2023)
Mediation & restorative justice	Remote mediation is effective and accessible. Finland is a leader in this area, but national standards are still evolving.	Elkevaara & Miettinen (2023)
Professional and ethical concerns	Concerns exist over participant visibility, digital skills, procedural formality, and security. Courts and legal professionals need continued training.	Finnish Bar Association (2020); Hautaniemi (2020)
Openness, publicity & transparency	Remote hearings must ensure open access to the public, which is sometimes hindered by logistical constraints.	Hautaniemi (2020); Judicial Administration Guidelines (2020)

A few sources provide professional guidelines. In particular, the Finnish Bar Association (2020) emphasizes that court operations must continue even in emergencies and recommends the broad use of remote tools to avoid case backlog and economic harm to legal practice. The Finnish Bar Association further recommends preparing all parties, especially clients, for remote participation through training and standard protocols.

Another reoccurring theme is related to infrastructure and technical conditions. Surveys show judges are generally supportive of remote participation (Lång 2023), though device reliability and audio quality are common issues. During the COVID-19 years it was also reported that courts often lack adequate video conferencing rooms, and technical disruptions can delay or cancel hearings (Hautaniemi 2020). Recommendations for successful. In relation to witness testimony and credibility assessment, remote testimony is viewed as feasible, particularly by video, while phone hearings are seen as less desirable (Lång 2023).

Positive aspects of remote hearings include stress reduction and memory as remote hearings can alleviate stress and cognitive overload, particularly for vulnerable parties (Alaja 2021), potentially improving memory recall and emotional stability during testimony.

A key point of view related to remote hearings is the principle of rule of law. A central element of the modern conception of the rule of law is the perceived fairness of legal proceedings. It is no longer sufficient for a process to be procedurally or normatively fair; participants must also experience the process as fair (Autio and Ervo 2022). The themes of fairness, access to justice, and vulnerable groups was also covered in studies (Sartomäki 2023; Koskenniemi 2024) which emphasize that remote settings must ensure equal participation, clear communication, and the perceived legitimacy of the trial. Judges express concern that biases may arise in remote settings, for example, in how defendants or witnesses are perceived. Fairness here refers to how parties are treated and how they perceive their treatment, i.e., how the court engages with parties, listens to them, and acknowledges their presence. Nonverbal cues, such as eye contact and attentive questioning by the judge, can significantly enhance the sense of being heard and respected. In essence, how the hearing looks, sounds, and feels like to a party plays a key role (Ervo 2024).

Remote mediation practices in Finland are assessed to be well developed. Mediators find them equitable and efficient, and mediation offices are working on a national framework for remote practice (Elkevaara & Miettinen 2023).

Desk research summary: Audio visual recordings in court proceedings in Finland

This summary aims to provide an overview of key themes from a range of legal, governmental, and a few academic publications concerning the use of audiovisual recordings (AVR) in Finnish court proceedings, particularly focusing on criminal justice processes. Overall, 16 different sources are covered in the summary.

Table 1. Summary of key themes: Use of Audio-Visual Recordings in Court Proceedings in Finland

Theme	Description	Key Insights	Notable Sources
Legal Reform & Policy Framework	Legislative amendments to support AVR use in courts, especially appellate courts.	Reforms aim to increase efficiency, reduce redundant hearings, and improve evidentiary consistency. Legal frameworks have been updated (e.g., HE 133/2021).	HE 133/2021, Siro (2019), Eduskunta overview, HE 46/2014
Efficiency and Resource Optimization	AVR is expected to reduce the burden of repeated witness testimonies and court scheduling issues.	Savings are projected but not guaranteed; technical and administrative costs may offset gains.	Savolainen (2019), Rikosprosessin sujuvoittaminen (2024)

Credibility and Assessment of Testimony	Questions around the effectiveness of assessing credibility via video vs. in-person.	While AVR may support consistency, concerns exist about the loss of immediacy and human interaction.	Savolainen (2019), Heikkilä (2021)
Victim and Witness Protection	Use of AVR especially valued in sensitive cases involving children or victims of sexual offences.	Routine recording is seen as critical to uphold victim rights and reduce retraumatisation.	Hannonen (2023), Kylmäniemi & Paloaho (2022)
Digitalisation and Technological Capacity	The move to AVR depends heavily on equipment, software, and user competence.	Successful adoption requires infrastructure investment and training.	Korpi (2023), Ministry of Justice consultations
Fair Trial and Procedural Justice	Impact on perceived fairness, participation rights, and access to justice.	Remote or recorded proceedings raise concerns over equality and procedural clarity, especially for vulnerable groups.	Rikosprosessin sujuvoittaminen (2024), Kylmäniemi & Paloaho (2022)
Indexing and Evidence Management	Indexing of video evidence for courtroom use presents logistical and responsibility challenges.	Lack of clarity on who manages technical and legal compliance could hinder effectiveness.	Heikkilä (2021), Eduskunta documents
Stakeholder Reception	Broad support with caveats regarding workload, clarity, and the need for support systems.	Most actors (judges, prosecutors, police) are open to change if supported with adequate resources.	Ministry of Justice consultations, Heikkilä (2021), Jämsä (2024)

Finland is making strategic reforms to allow appellate courts to rely on pre-recorded evidence. Stakeholders who have given comments on the reform mainly recognise the potential benefits for efficiency, evidence quality, and victim protection. However, they also stress the need for caution in implementation, highlighting risks to fairness, logistical challenges, and the necessity for careful management of human and technical resources.

While AVR is generally accepted in principle, there remains a tension between legal ideals—such as orality and immediacy—and the practical advantages of recorded testimony. This is particularly evident in debates around credibility assessment and procedural transparency.

Government Bill HE 133/2021 and associated reforms (enacted as Law 96/2022) permitted appellate courts to receive oral evidence via audiovisual recordings made in district courts. This marked a structural shift toward streamlining appellate procedures and reducing witness burden. Before COVID-19 occurred, the HE 46/2014 and HE 66/2015 revised evidentiary and investigative laws to accommodate digital formats and strengthen the legal framework for remote procedures. These legislative efforts form part of broader programs such as the Judicial Reform Programme 2013–2025 and reflect a systemic push toward digitalisation of court proceedings.

The implication for police investigations is also discussed in the documents. Audio-only recordings may suffice in some pre-trial contexts but lack visual cues crucial for court evaluation. Korpi (2023) and Kylmäniemi & Paloaho (2022) highlight limited but increasing use of video interviews, particularly in serious crimes and with minors. Video documentation is seen to support prosecutorial work and improve the quality of pre-trial evidence but requires more time and effort. In connection with child victims Hannonen (2023) and the Barnahus model show how recorded interviews enhance protection, reduce retraumatization, and align with EU victim rights. Furthermore, Toskala (2020) and Savolainen (2019) examine how viewing district court recordings at the appellate level reduces duplication and witness fatigue yet raises concerns over credibility assessment.

The key provisions concerning remote hearings

OK stands for Code of Judicial Procedure and ROL stands for Criminal Procedure Act

General courts: participation in hearings

- *Chapter 5, Section 15d of the Code of Judicial Procedure (Oikeudenkäymiskaari, OK):* Concerns preparatory hearings in civil cases, which may be conducted via remote connection where appropriate.
- *OK Chapter 12, Section 8:* Regulates the participation of parties in the oral hearing of a civil case; remote participation is possible if conditions under law are met.
- *Chapter 5, Section 10a of the Criminal Procedure Act (Rikosoikeudenkäyntikaari, ROL):* Addresses preparatory hearings in criminal cases, which may be held using remote technology.
- *ROL Chapter 5, Section 10a and Chapter 7, Section 14a:* Provides for participation in pre-trial preparations conducted by telephone
- *ROL Chapter 8, Section 13:* Provides for participation in the oral hearing of a criminal case, including the possibility of remote attendance (video link) when allowed by law. An exception to this is that participation in a confession procedure (*tunnustamisoikeudenkäynti*) by video link is not permitted (Chapter 8, Section 13, subsection 5 of the *ROL*).
- The use of videoconferencing is also permitted in pre-trial detention matters (Chapter 3, Section 6, subsection 4 of the Coercive Measures Act, *PKL*), in applications for authorization of secret coercive measures (Chapter 10, Section 43, subsection 2 of the *PKL*), and in proceedings concerning the conversion of fines into imprisonment (Section 30 of the Act on the Enforcement of a Fine).

General courts: taking evidence

- *OK Chapter 17, Section 52 and 56 and OK Chapter 26, Section 24a, subsection 2:* These sections govern the hearing of the defendant and the complainant for evidentiary purposes by remote means. Witnesses and other persons may be heard via video connection if it supports the efficiency of the proceedings and does not compromise legal safeguards.
- Under current law, testimonies heard for evidentiary purposes in district and appellate courts must be audio recorded. If recording is not possible, the testimony must be transcribed verbatim in the minutes (Code of Judicial Procedure, *OK 22:6 and 26:27*). Such recordings can only be used later as evidence in specific legal situations, such as when the witness cannot be heard during the main hearing or if the witness contradicts their previous statement.
- Going forward, video and audio recordings will generally be made of witness testimonies taken at the district court. If the case is appealed, the appellate court will rely on these recordings unless there is a specific reason to re-examine the witness (amendments introduced by Act 96/2022 to *OK 22:6 and 26:15a*). In the appellate court, only audio recordings will continue to be made of witness examinations (amended *OK 26:27*). These changes will come into effect through later legislation.
- Currently, remote testimonies can be recorded using equipment available in courtrooms. The aim is to enable video and audio recordings of remote testimonies in the future. However, it remains unclear how such recordings will be made and under what conditions recording outside of courtrooms will be allowed.

Annex II: Legal framework and desk research summary Sweden

Remote court participation in Sweden

In Sweden, remote participation in court (via telephone or videoconference) is permitted under the Swedish Code of Judicial Procedure (Rättegångsbalken)—specifically Chapter 5, Section 10, which outlines that although the general rule is physical presence, the presiding judge may order participation via audio or video link if there are valid reasons to do so.

The Act (1999:613) on Pilot Projects Using Video Conferencing in Court Proceedings (Lag (1999:613) om försöksverksamhet med videokonferens i rättegång") allowed for video conferencing on a trial basis as outlined by law and was later made permanent. According to the act, a party may participate in a court hearing via video conference if it is appropriate considering the purpose of their appearance and other relevant factors, or if attending in person would cause unreasonable costs or inconvenience compared to the importance of being physically present in court.

When deciding whether this is appropriate, the court should especially consider the cost or inconvenience of requiring in-person attendance, as well as whether the person feels significant fear about being present in court. Participation by phone or video is not allowed if it would be inappropriate considering the purpose of their appearance and other circumstances. A person participating remotely is still considered to have appeared before the court.

The permanent use of video conferencing was introduced as part of the second phase of the EMR (En Modernare Rättegång – A Modern Trial; Proposition 2015/16:39) reform. According to the government's evaluation SOU 2017: 46, the reform had been successful. The assessment argued that the ability to participate using audio-visual technology has made court operations more efficient, that the equipment worked well, and the technical quality was regarded as good. The report led to a subsequent government bill which was codified into law including clearer rules for remote participation based on safety or coercion concerns (Regeringen 2019, proposition 2018 19:81).

In an earlier, more critical examination (Dahlberg 2013) consisting of ethnographic court research, legal document analysis, and interviews, it was noted that using these technologies do affect social interaction, legal procedure, and the symbolic architecture of judicial space. In this study, Dahlberg (2013) argued that media technologies are not neutral tools but actively shape courtroom dynamics, influencing perceptions of truth, fairness, and authority.

An article from a couple of years before (Leven & Wersäll, 2011) also reviewed the outcomes of the first phase of *En modernare rättegång* ("A Modern Trial") reform, implemented in Sweden on November 1, 2008. The reform aimed to modernize court procedures by increasing the use of video recordings, limiting new witness examinations in appellate courts, and raising the threshold for appeals. Initially met with skepticism, the reform ultimately contributed to shorter case processing times and improved efficiency. However, concerns remained—particularly regarding the low rate of granted appeals in civil cases. While largely seen as successful, the reform continued to be evaluated, with potential for further adjustments.

While digital hearings thus took place also in Sweden already from the early 2000's, they increased substantially during the pandemic. according to a report by the Swedish National Council for Crime Prevention (Brottsförebyggande Rådet 2021), the COVID-19 pandemic

significantly affected crime trends and the functioning of the Swedish justice system. Crime reports slightly declined overall, with some types decreasing due to restrictions (like assaults in nightlife settings) and others increasing, such as drug offenses, as police had more time for proactive work. Despite fewer reported crimes, the police, prosecutors, and courts increased their case processing, partly due to cancelled trainings and events. However, the proportion of cases referred to prosecutors remained stable. A key development was the broader use of remote hearings and video technology in courts, which may lead to permanent efficiency improvements.

In addition to increased efficiency, it has been argued that remote hearings may offer other benefits. In some cases, digital participation may be preferable—for example, when it helps a person being questioned feel safer and therefore more able to speak freely about their experiences. Remote participation can also be advantageous for brief hearings involving relatively uncomplicated matters, or when the individual would otherwise have to travel a long distance to attend court (Hällje, 2025).

The Swedish courts provide support for legal actors regarding video conferencing technology in courtrooms (Domstolsverket 2025), outlining the types of equipment available in Swedish courts - such as systems for presentations, audio-visual hearings, assistive listening devices, and digital information panels. It also guides users on what technology they may need to bring along and offers troubleshooting tips if technical issues occur.

Hällje (2025) argues that from a judge's perspective, the most important goal is to obtain the best possible basis for making a legal decision. For individuals involved in a trial, it is crucial that they feel heard, respected, and taken seriously – also when participating digitally. Hällje points out it remains essential to maintain respect for the court and the seriousness of the situation during remote participation.

To ensure a successful digital hearing, proper planning is necessary. Courts must have clear routines in place, and participants joining remotely should be in a quiet, distraction-free environment. Legal professionals are expected to behave just as they would if physically present in court.

Digital participation demands a higher level of attentiveness and professionalism, especially from the presiding judge. The judge should actively work to include remote participants by, for example, introducing everyone present in the courtroom and, if possible, showing the room via camera to provide context. The judge should also make it clear that the same courtroom rules apply to those attending digitally (Hällje 2025).

A study (graduate thesis) by Vetterfalk Strömblad (2021) investigated whether remote court appearances via video or audio impact defendants' credibility and conviction rates – a phenomenon known as the presentation mode effect (PME). Analyzing almost 800 Swedish court cases involving minor drug offenses with not-guilty pleas, the study found no significant difference in conviction rates between remote and in-person defendants. These real-world findings challenge prior (mostly pre-pandemic) experimental research on PME, suggesting that remote attendance may not adversely affect legal outcomes for defendants. Overall, this question has been scarcely researched overall and in the years after the pandemic.

Pre-pandemic studies on remote hearings and videorecorded evidence

A study by Landström et al (2012) examined the attitudes of Swedish legal professionals toward the use of video technology in courtrooms, including both live video testimony and recorded statements. While video was recognized for its efficiency and its ability to reduce stress for

victims, live in-person testimony was still considered more credible and emotionally impactful. Professionals expressed concerns about technical difficulties, limited ability to assess nonverbal cues, and challenges related to fairness in appellate proceedings. Despite the growing use of video, many in the legal field continued to prefer traditional testimony for evaluating witness reliability—highlighting a tension with evolving legal standards and empirical research.

A study from 2010 by Landström and Granhag showed that adults perceived children most positively when they testified live, followed by two-way CCTV, and least positively via video. An even earlier study (Landström et al 2005) investigated how the presentation mode of witness testimony—live vs. video—affects mock jurors' perceptions, veracity judgments, and memory, and found that observers rated live witnesses as more pleasant and honest than video witnesses, despite both groups viewing the same testimonies. However, both groups were equally poor at assessing credibility / detecting deception.

A chapter in *Handbok för rättspsykologi* (the Handbook in Legal Psychology; Granhag & Ask, 2021) reviews the scientific empirical literature on effects of using video and other presentation formats on evidence evaluation in Swedish courts. Research shows that visual formats, such as video and animations, evoke stronger emotional responses and improve memory recall compared to verbal or written descriptions. For example, video or audio recordings of testimonies are judged more positively than written ones. However, the chapter notes that there is some evidence that while video testimonies may make children feel more relaxed, their credibility can be judged less favorably compared to live testimony, possibly then creating an unwanted result for the child parties.

In conclusion, remote participation in Swedish courts – first introduced through pilot legislation and later formalized – has evolved into a well-integrated feature of the judicial system, particularly accelerated by the COVID-19 pandemic. The use of video and audio technology has generally been assessed to having improved efficiency, reduced logistical burdens, and, in some cases, enhanced participant safety and comfort. Yet, despite these practical benefits, concerns remain regarding its impact on courtroom dynamics, perceived credibility, and procedural fairness. While the relatively few existing empirical studies offer mixed results – some suggesting negligible effects on outcomes like conviction rates, others noting potential downsides in perceived trustworthiness – it can be concluded that digital hearings require careful planning, robust technology, and heightened judicial attentiveness to ensure procedural integrity. As Sweden continues to modernize its legal processes, striking a balance between technological efficiency and the traditional values of legal transparency, dignity, and fairness remains a central challenge.

Towards the “tidiga förhör” reform of videorecorded investigative interviews

In the report *SOU 2017:98 Tidiga förhör – nya bevisregler i brottmål*, the Swedish government examined how to modernize evidentiary rules in criminal proceedings, with a particular focus on allowing early investigative interviews (*tidiga förhör*) to be used as formal evidence in court. The report was published by the Ministry of Justice as part of a broader review of procedural law in large and complex criminal cases. It proposed legislative reforms to permit the use of recorded early interviews—often conducted by police shortly after a crime—as admissible evidence, even if the individual interviewed is not present at trial.

The inquiry emphasized that such reforms could strengthen the quality of evidence by capturing statements while memories are still fresh, reduce the risk of witness intimidation, and increase procedural efficiency. At the same time, it highlighted the importance of maintaining legal

safeguards, including defense access to the material and opportunities for supplementary questioning where necessary.

SOU 2017:98 formed the legal and conceptual basis for later legislation, which led to amendments in the Swedish Code of Judicial Procedure. As of January 1, 2022, Sweden introduced the new rules allowing early police interviews to be used as formal evidence in court proceedings. These early interviews—often video- or audio-recorded shortly after a crime occurs—are now admissible even if the person interviewed does not testify again during the main hearing. The purpose of the reform is to strengthen the evidentiary value of witness accounts while their memory is still fresh, reduce the risk of influence or intimidation, and improve both efficiency and legal certainty in criminal proceedings (Åklagarmyndigheten 2022; Advokaten 2022).

The legislative changes (SOU 2017:98) give courts discretion to admit early interviews, while also requiring that the defense be given fair access to the material. In cases where further questioning is needed, the court may still summon the interviewee for supplementary in-court examination. One of the key aims is to minimize the burden on vulnerable witnesses, such as children or victims of violent crime, by reducing the need for repeated or traumatic court appearances (Regeringen Prop. 2018/19:81).

The reform has generated some debate. Defense attorneys and legal scholars have raised concerns that overreliance on early interviews might undermine the principle of oral proceedings and limit the defense’s ability to challenge the credibility of witness statements through cross-examination. There is also ongoing discussion about how to ensure procedural safeguards are maintained when interviews replace live testimony (Advokaten, 2020; 2022).

Overall, the new rules reflect a shift toward more flexible and pragmatic evidentiary standards in the Swedish legal system, with the intention of balancing efficiency, reliability, and fairness in criminal trials.

Key themes summarised

Theme	Description	Key Insights	Notable Sources
Pandemic-era acceleration of remote hearings	COVID-19 catalyzed the increased use of remote technologies in the justice system.	Remote hearings expanded significantly and were seen as potentially beneficial for long-term efficiency.	Brå (2021)
Presentation mode effect (pme) & conviction outcomes	Concerns that video/audio reduces perceived credibility (PME).	Real-world data from minor drug cases found no significant difference in conviction rates between live and remote testimony.	Strömblad (2021)
Perception of child testimony	Mode of delivery affects adults’ perception of child witnesses.	Live testimony rated more credible; video reduces anxiety for children but also reduces perceived trustworthiness.	Landström & Granhag (2010), Landström (2008), Landström et al. (2007, 2005)

Theme	Description	Key Insights	Notable Sources
Legal evaluation of child witnesses	Courts rely on criteria that may disadvantage child testimony.	Expectations for detail and spontaneity may not align with cognitive limits of young children.	Ernberg et al. (2018)
Professional attitudes toward avr	Legal practitioners value video tech but express caution.	Efficiency and victim comfort are praised; concerns remain about credibility, emotional engagement, and fairness.	Landström et al. (2012)
Symbolic and procedural shifts in the courtroom	Video tech changes the dynamics of legal rituals and courtroom authority.	AVR reshapes notions of immediacy, formality, and judicial interaction. Not a neutral medium.	Dahlberg (2013)
Memory, credibility, and observer bias	Live testimony creates stronger memory and more positive perceptions.	Observers overestimate their memory accuracy for live witnesses despite poor deception detection.	Landström (2008), Landström et al. (2005)

Annex III: Legal framework The Netherlands

Remote hearings in the Netherlands:

The Dutch criminal justice system had established legal frameworks for remote participation and AVR long before the COVID-19 pandemic. For example, the legal possibility of hearing suspects via a direct audio-visual connection was introduced in 2007 with the aim of increasing the efficiency of the criminal justice process (Law of July 16, 2005, amending the Criminal Code and the Code of Criminal Procedure and several other laws concerning the use of videoconferencing in criminal law, Official Gazette 2005, 338 (entered into force on January 1, 2007)). However, before 2020, the Netherlands was extremely cautious in using the option of allowing defendants to appear at hearings via video link. The outbreak of the coronavirus forced the Dutch (criminal) justice system to change this approach at an unprecedented pace. During the pandemic judges, public prosecutors, clerks, and usually also defence lawyers were usually present in the courtroom, while defendants (and occasionally other participants) could participate via a video link (a direct audio-visual connection). This practice was given a legal basis through the Temporary COVID-19 Act on Justice and Security and an amendment to the Video Conferencing Decree: Act of 22 April 2020, Official Gazette 2020, 124, which entered into force on 24 April 2020, Official Gazette 2020, 126, and the Decree of 20 March 2020, Official Gazette 2020, 101. The most significant result of the latter amendment was that the consent of the defendant for the use of video conferencing was temporarily no longer required, and remote hearings became possible in more cases than before.

The Netherlands are currently in the process of drafting a new Code of Criminal Procedure which is expected to enter into force in 2029. No major changes are expected in the context of remote justice as part of this reform: the basic principle remains that court hearings take place physically in the courtroom; videoconferencing is only considered acceptable as an exception considering the limitations on fair trial rights (Hirsch Ballin, M., & Castelijn, T. (2024). *The Use of Videoconferencing at Trial and Its Effects on the Rights of the Defense: A Study of the Future Regulation in The Netherlands*. *Tilburg Law Review*, 29(2), p. 49). In accordance with the case law of the European Court of Human Rights, the Dutch Supreme Court has held on numerous occasions that, in general, proceedings must be stayed if a defendant has expressed the wish to exercise the right to be present. Only in exceptional circumstances may the proceedings continue in the defendant's physical absence. In such cases, the court determines that the use of videoconferencing should be considered as a way to compensate for the defendant's inability to attend in person. In short, the legislator has not used the developments during the pandemic as an opportunity to fundamentally reform criminal procedure in this regard or to give online participation to criminal proceedings a more permanent legal foundation. However, at the initiative of the former Minister for Legal Protection, it has now become possible to conduct hearings via video link without the defendant's consent when this is in the interest of transportation security. In short, this amendment means that the exception in Article 2(3) of the Video Conferencing Decree, which previously only applied in cases of special security concerns regarding the hearing itself, has been extended to include the special security concerns of transporting detainees to and from the courtroom (See the Decree of 21 November 2022 amending the Video Conferencing Decree regarding the application of video conferencing in the special interest of transportation security, Official Gazette 2022, 465). The Minister based this approach on the Italian situation, where remote hearings of defendants in high-security prisons have already become a more established practice. At present there is a motion for an amendment of the law to regulate that videoconferencing shall be used – as a rule (unless the judge considers the presence of the defendant necessary for the proper handling of the case – when the

defendant is located in a high-security facility or a high-intensity supervision unit and the transport of the defendant presents a high security risk.

Finally, it is important to address cases involving traffic violations handled by the Central Processing Unit of the Public Prosecution Service (parquet CVOM). In these cases, the standard procedure involves a hearing conducted via a telephone connection (audio-hearing). The public prosecutor initiates the call with the defendant and discusses the case. At the end of the conversation, the prosecutor will state the proposed sanction. The defendant is given the opportunity to respond. Following the call, a written report is prepared and added to the case file. If the defendant agrees with the proposed sanction, a penalty order is issued, thereby concluding the case.

Legal framework AVR:

According to Dutch law, interviews of defendants and witnesses are not routinely recorded. However, there are cases in which making a recording is mandatory. Rules regarding this are set out in the Instruction on the audio and audiovisual recording of interrogations of complainants, victims, witnesses, and suspects. This instruction from 2021 is available at <https://www.om.nl/onderwerpen/beleidsregels/instructies/algemeen/instructie-auditieve-en-audiovisuele-registratie-van-verhoren-van-aangevers-slachtoffers-getuigen-en-verdachten>.

Audiovisual recording of interrogations of suspects is mandatory when

- the interrogation is conducted as part of an investigation by a Major Crime Team (Team Groot-schalige Opsporing, TGO). A TGO investigates intentionally committed serious crimes, often involving fatalities (recording may be omitted in urgent cases, with the consent of the public prosecutor).
- the interrogation involves a suspect whose questioning is supported by a behavioral expert;
- the interrogation involves a vulnerable suspect (e.g., with an intellectual disability or psychiatric disorder)

According to article 488ac of the Code of Criminal Procedure the interrogation of juvenile suspects must be audio visually recorded when the seriousness of the offense or the personality of the suspect warrants it. Regarding AVR, it is generally assumed that recordings do not constitute a procedural document (as part of the case file. This means that not only the defence but also the judge and victims do not receive the recordings. However, the defence does have a right to access the recording when it is relevant to the assessment of the case.

The rules regarding the audiovisual recording of interviews have not been changed by the Innovation Act on Criminal Procedure. However, the rules regarding the documentation of an AVR have been amended. A new provision in the Innovation Act on Criminal Procedure allows an investigative officer, under the responsibility of the Public Prosecution Service, to decide to 'postpone' the preparation of a fully detailed official report and instead prepare a shortened official report (Article 560 of the Code of Criminal Procedure).

Several pilots have been executed to test the effects of new (possible) legal provisions concerning the digitalization of courts. One of them is the (Sub)pilot AVR suspect interrogations. This AVR-pilot was set up to investigate whether a combination of camera footage and audiovisual or auditory recordings of suspect interrogations or hearings, together with an abbreviated official report, can be a fully-fledged alternative to attaching a full official report to the procedural documents. This pilot also examines whether the method followed is efficient and whether the AVR files can serve as independent evidence. Most of the results of this subpilot

were focused on the efficiency of the procedures, with a specific fixation on the ‘time consuming’ task of watching/reviewing the AVR, and the difficulties preparing an abbreviated PoR during the interrogation. The recordings often had to be rewatched when there was information missing in these abbreviated RoR, like specific questions to specific answers. If the recordings are not rewatched, important information might be left out of the proceedings entirely. Recommendations are focused on technical amendments, like speech-to-text software (verbatim) and sticking to elaborative PoRs (instead of abbreviated ones), due to the processing system used by the police.

The criticism heard within Dutch academic literature (which is quite limited in the context of AVR) seems to centre on the lack of elaboration on the effects of the regulation on in-court-communication within the evaluation of legislative changes via (mostly) pilots. The main focus in the recommendations and reflections within the reports seems to be on efficiency and costs of the proceedings and possible information disadvantages (truth seeking-perspective). This is an entirely practical approach. It misses a more ‘human-centred’ perspective, with interdisciplinary research (e.g. sociology, psychology). Other countries, especially common law jurisdictions, seem to be miles ahead in this regard.

Another pilot study, ‘Final evaluation of the pilot virtual hearing with the detention council chamber’, was performed in 2017. The report of this pilot contained some statements that physical presence is generally preferable, that videoconferencing can be regarded as a valuable addition if it is not immediately possible for the suspect or another participant in the proceedings to be physically present, and that videoconferencing can be of added value in criminal cases such as those involving serious crimes or in which there is a suspicion that the suspect is unable to participate in the trial against him due to a disability or illness without compensatory measures. For prisoners with a psychiatric disorder, it may be desirable for their interrogation, for example with a view to (extending) their detention, to take place by video conference.

All these results seem to centre around credibility, convenience or security. The specific effects on in-court-communication lack entirely from these results. What is missing is research on a more fundamental level, concerning the desirability of virtual hearings. Interdisciplinary research (eg. sociology, psychology) is also (almost) entirely absent within the Dutch context. The focus is solely on the legal aspects, including some practical considerations. This is also reflected in the (current) exceptions formulated in art. 2(3) of the Videoconferencing Decree, which only focus on the security and efficiency of the hearing.

Key Provisions

Audiovisual registration: current legal framework

Art. 344(1) CCP: Report in which AVR is described can be used as evidence.

Art. 340 CCP: AVR can be used as evidence via de the means of evidence ‘the judge’s own observation’ (must have been observed at the trial)

Case law: if an AVR is part of the procedural documents, it can also be used as evidence as the judge’s own observation without the AVR having been played back at the hearing, but only under some cumulative conditions:

- The recording was discussed during the hearing because the judge gave a brief indication or summary of the content of the recording (only if the defense was surprised by the content of the AVR should it be discussed in more detail);
- The defense and the public prosecutor were able to take note of the recording prior to the hearing;
- At the hearing, the suspect, his lawyer or the public prosecutor did not object to the recording not being played at the hearing.

Art. 560 CCP (Innovation Act on Criminal Procedure): an investigating officer, under the responsibility of the Public Prosecution Service, can decide to draw up an abbreviated report (this will, in principle, suffice as evidence).

Art. 567 CCP (Innovation Act on Criminal Procedure): recordings of images and/or sound are listed as independent evidence in the list of lawful evidence. In order to use such a recording as evidence, its summary must have been discussed at the hearing (art. 565(1) jo. art. 301 CCP).

The Instruction on Auditory and Audiovisual Registration of Interrogations of Reporters, Victims, Witnesses and Suspects: Audiovisual recording of interrogations of suspects is mandatory when:

- the interrogation is part of an investigation by a Large-Scale Investigation Team (TGO). A TGO investigates serious crimes that have been committed deliberately, often with fatalities as a result. Regarding these interrogations, the recording process may be omitted in the event of an emergency, so long as the Public Prosecutor agrees with this;
- there is an interrogation of a suspect in which the interrogator is supported by a behavioral scientist;
- there is an interrogation of a vulnerable suspect, while it would be mandatory based on the above to record the interrogation audiovisually. Regarding minor suspects, Article 488ac CCP stipulates that the interrogation is recorded audiovisually if the seriousness of the crime or the personality of the suspect gives reason to do so.

Virtual hearings: Current legal framework (and upcoming amendments)

Art. 131a CCP/art. 78a CC + Videoconferencing Decree -> Possibility of organizing virtual hearings

Art. 131a(2) CCP/art. 78a(2) CC: The judge, examining magistrate or interrogating officer who decides on the use of a videoconference must take the interest of the investigation into account when making his decision.

Art. 1 Videoconferencing Decree (scope): the decision applies to the hearing, interrogation or questioning of persons in criminal cases via a direct image and sound connection.

Art. 2(1) Videoconferencing Decree: if it concerns the interrogation of the suspect pre-custody or the interrogation of the suspect during the substantive deliberation of the case, the use of videoconference is only permitted if the suspect or his counsel gives their consent.

Art. 2(2) Videoconferencing Decree: videoconferencing shall not be used if the person to be heard has such an auditory or visual disability that it can reasonably be assumed that

videoconferencing would undermine his or her contribution or position in the criminal proceedings, or the rights of other participants in the proceedings.

Art. 2(3) Videoconferencing Decree: formulates an exception to the previous paragraphs. An exception, for example, is that videoconferencing is necessary in the special interest of the security of the hearing.

Later adaptation: the exception in art. 2(3) of the Videoconferencing Decree – which was previously limited to the special interest of securing the hearing – is being expanded to include the special interest of transport to and from the hearing from a penitentiary institution.

Art. 3 Videoconferencing Decree:

The person who will be heard by videoconference can, in writing and including the grounds on which the request is based, communicate that he does not agree to the use of videoconference. The presiding judge of the trial chamber, investigating judge or official leading the hearing must decide on this notification.

New Code of Criminal Procedure:

The general rule remains that court hearings take place physically in the courtroom.

In **the new art. 131a(1) CCP** the term “attend” has been added to the list of situations in which videoconferencing can be used. In deviation from current law, the requirement for consent in **art. 2(1) Videoconferencing Decree** does not only apply if the case is heard by a multi-member chamber, but the consent of the suspect is also required if the case is heard by a single judge.

On the basis of Article 1.11.4 section 1 new DCCP, the consent of the suspect is required for: 1) his interrogation in the hearing before the examining magistrate of an order to take the suspect in pre-trial detention (*vordering tot bewaring*); and 2) for his trial.

An exception to the requirement of the consent of the suspect may be made when the use of videoconferencing is strictly necessary for the purpose of the security of the trial or the transport to or from the court (Article 1.11.4(3)).

Article 1.11.4(2) exempts persons with an auditory or visual disability from the use of videoconferencing.

Based on Article 1.11.3(3) new DCCP, it is the task of the judge to take note of and weigh all the interests involved before deciding to use videoconferencing. (This is more stringent than art. 3 of the current videoconferencing Decree, because there the judge is only required to decide on the basis of a motivated notification of the defendant that he does not agree with the use of videoconferencing.)

Annex IV: Dutch Pilot Audiovisual Recording

On 1st October 2022, the Criminal Procedure Innovation Act (Dutch: *Innovatiewet Strafvordering*) entered into force. This law, which introduced Articles 556 to 570 into the Code of Criminal Procedure (Dutch: *Wetboek van Strafvordering*), was designed to facilitate the practical exploration of new powers and procedural methods anticipated for inclusion in the forthcoming Criminal Procedure Code which is expected to enter into force in 2029. The Innovation Act has given rise to five pilot projects, which have been subject to evaluation commissioned by the WODC (Dutch Scientific Research and Documentation Centre). One of these pilot projects concerns the Pilot Audiovisual Recording (Dutch: *audiovisuele registratie AVR*).

The AVR pilot consists of three subpilots:

Subpilot AVR Camera Images: Examines adding camera footage to the case file.

Subpilot AVR Suspect Interrogations: Examines the recording of suspect interviews and the use of an abbreviated record.

Subpilot AVR at trial: Examines the auditory recording of hearings and the use of an abbreviated record.

Within the scope of the E-ViVi project, only the second sub-pilot concerning Suspect Interrogations is relevant and will therefore be discussed in more detail. The following description is largely based on the evaluation report commissioned by WODC and written by De Wilde, Boiten, Hanswijk, Stone and Van der Vorst (Evaluation Criminal Procedure Innovation Act Pilots Data after Seizure (GNB), Audiovisual Registration (AVR), Assistant Public Prosecutor (hOv)), WODC, 2024: available at: [Evaluatie Innovatiewet Strafvordering](#).

The Audiovisual Recording (AVR) pilot was set up to investigate whether a combination of camera footage and audiovisual or auditory recordings of suspect interrogations or hearings, together with an abbreviated official report (PoR), could be a fully-fledged alternative to attaching a full police report to the procedural documents. The pilot also examined whether the method followed is efficient and whether the AVR files can serve as independent evidence. The main objective of the pilot is to establish in which cases a combination of recordings with an accompanying abbreviated record can be an adequate alternative to a full record and – as a result enhance procedural efficiency. In the Netherlands, suspect interrogations are not recorded by default, but in certain cases they are (depending on a decision tree based on the ‘Instruction on auditory and audiovisual recording of interrogations’). In cases of robberies, for example, interrogations are often recorded. In most cases, the recordings are not attached to the case file unless the content of the police report is contested. In many cases, the official record is prepared during the interrogation, sometimes with interruptions. With two interrogators, one is in charge of the interrogation, while the other takes care of the recording. The method of verbalisation varies: the record may be written down in question-answer form, in summary form or sometimes verbatim. There are no prescriptive rules on the form of verbalisation, giving flexibility to reporting officers in this regard. When an interrogation is recorded, reporters do not have to take continuous notes, which might improve the quality of the conversation. In the Netherlands, prosecutors and judges generally have great confidence in the reliability of police reports.

Content and methodology of the pilot:

The AVR pilot was planned to start on 1 October 2022 with a duration of two years. The Camera Images and Suspect Interrogations subpilots started on 1 November 2022 (North Holland) and 1 January 2023 (East Netherlands) respectively, with a delay in East Netherlands due to longer preparations. The sub-pilot AVR Suspect Interrogations tested a procedure whereby suspect interrogations are audio visually recorded and subsequently summarized in a police report. Both the summarized report and the audiovisual recording are incorporated into the case file. This approach was predominantly implemented in cases that also participated in the sub-pilot involving video footage. In pilot cases, suspect interrogations were audio visually recorded using existing interrogating room equipment - one camera in East Netherlands and three combined views in North Holland. Afterward, a shortened police report summarizing key statements, often with time stamps, was prepared. This report could not be made during the interrogation, as real-time summarizing was impractical, and it was therefore not signed by the suspect afterwards. An initial experiment to create the report by reviewing the recordings proved too time-consuming; instead, notes taken during interrogation were later expanded. Both the recordings (with investigators' faces and screens blurred) and the shortened reports were included in the case files.

Judges and public prosecutors (OvJs) occasionally listened to entire recordings, but more often only selected segments were reviewed, guided by time stamps in the shortened report. Non-substantive parts of interrogations, such as preliminary small talk, were generally disregarded. Some judges chose not to review the recordings, citing irrelevance and time constraints. Recordings were typically consulted when the shortened report lacked sufficient detail or when judges felt compelled to thoroughly examine all case materials. The recordings were never played during hearings nor admitted as evidence; instead, suspect statements were addressed through other means, such as confrontation or repetition in court. Lawyers generally did not review recordings, having been present during the interrogations.

Assessing the results of the pilot:

Reviewing the recording offers the advantage of accessing the exact questions and answers, as well as observing the suspect's body language. In cases where the accuracy of the police report is contested, the recording allows verification without necessitating its formal inclusion in the case file. Nevertheless, these (potential) benefits are generally considered limited, as judges and public prosecutors in the Netherlands typically assume that police officers accurately document all pertinent information.

The workload increases substantially when the pilot methodology is applied and recordings are reviewed. This impact extends beyond the Public Prosecution Service and judiciary to the police as well. Under standard practice, the police report is drafted during the interrogation; preparing it afterward is more time-consuming, as it requires assessing which segments are relevant and summarizing them concisely. Moreover, in the absence of a full report, any subsequent interrogators must review the recording.

Furthermore, there is a risk that relevant investigative information may be overlooked if recordings are not reviewed. The police intelligence service is also negatively affected, since only written records can be processed. During interrogations, investigators face difficulties referring back to previous suspect statements if these were not noted. A notable advantage of this methodology is the potential improvement in interrogation quality, as investigators can engage in conversation without interruption for note-taking.

Improvement of quality of criminal procedure?

A key question in the pilot evaluation was whether the new working method would enhance the quality of criminal procedure. The researchers concluded that it did not. The pilot methodology—where suspect interrogations are audio visually recorded and accompanied by summarized police reports included in the case files—did not lead to an improvement in criminal procedure. The summarized reports often lacked sufficient detail, necessitating review of the recordings, which imposed a significant time burden on the police, Public Prosecution Service (OM) and judiciary, without generally yielding more information than a full traditional report. A recurring concern during interviews was whether the methodology addressed any existing substantive problem (‘what problem are we trying to solve?’). Given its considerable impact on stakeholders across the criminal justice system, the pilot ultimately discontinued the practice of producing summarized police reports for suspect interrogations, while maintaining audiovisual recordings as part of the case files.

Recommendations:

The authors of the evaluation report made the following recommendations in the context of the sub-pilot AVR of Suspect Interrogations:

To investigate whether it is desirable to record suspect interrogations more frequently than currently indicated in the Instruction on the Auditory and Audiovisual Recording of Interrogations of Complainants, Victims, Witnesses, and Suspects. When a suspect interrogation is recorded, it is possible to review the course of the interrogation, if necessary, it can encourage interrogators to conduct the interrogation carefully, and it allows for not having to take notes during the interrogation, which can improve the quality of the interrogation. Recording suspect interrogations more frequently would also align with the non-binding but highly authoritative United Nations' Principles on Effective Interviewing for Investigations and Information Gathering (Mendez Principles).

When suspect interrogations are recorded, it could be efficient to convert them into written text using speech-to-text software. Currently, the Generic Service for Automatic Speech Processing (GDAS) is being developed within the police. It is expected to be ready for testing in an operational environment in the near future. We recommend, within the context of the AVR pilot, investigating in a limited number of cases whether GDAS can be helpful in producing usable and reliable police reports.

In the context of the AVR Video Footage sub-pilot, it was recommended that source files on which police reports are based should be considered case files. In line with this, it is recommended that recordings of suspect interrogations should also be routinely included in the case files. This does not imply that judges should routinely listen to the recordings. This should only occur when it is deemed relevant. Furthermore, it is advisable to investigate whether it is desirable to record suspect interrogations conducted by examining judges (RCs) and other investigative services apart from the police, and include these recordings in the case files.

Annex V: Summary Guidelines and Recommendations

This annex presents a comprehensive summary of existing guidelines and recommendations concerning the implementation of remote hearings and audio-visual recordings (AVR) within criminal proceedings. The guidelines and recommendations originate from a diverse range of sources, encompassing both international frameworks and domestic regulations. The overview provided here specifically emphasizes those provisions that pertain directly or indirectly to communication and interaction dynamics within the courtroom setting.

Virtual Hearings: International Perspectives

ECBA Statement of Principles on the use of Video-Conferencing in Criminal Cases in a Post-Covid-19 World:

Cross-border cases:

- If conducted appropriately, hearing by video-link can serve as a better alternative to a temporary transfer, which should be reserved for serious cases in which physical presence is absolutely necessary, or lengthy times pending the decision on surrender or the actual surrender taking place (often while the person is in detention in the executing Member State); (p. 7)
- Providing the opportunity for the accused to participate by videoconference in his or her trial in cross-border cases should (...) be possible, as long as it is done at his or her request; (p. 8)
- (Following the above), the ECBA urges the European Union institutions and Member States' institutions and judicial authorities, as well as the Council of Europe and its Member States, to take practical and, if needed, legislative steps to enhance the use of videoconferencing in cross-border cases, namely:

Consolidating the existing data from previous studies and organizing a comprehensive assessment of the reasons for the under-use of remote video-technology;

Establishing explicitly the right of the accused to participate by video-link, at least in the cases in which this is the most proportionate solution, as referred to above;

Developing appropriate and compatible legal standards for remote participation where that is permitted and appropriate;

Considering the issues relating to the transparency and privacy in the use of remote technology in criminal trials. (p. 9-10)

- In particular, use of videoconferencing should not undermine the fundamental principles of a fair trial, especially with respect to defence rights.

The ECBA considers the following safeguards to be essential:

- a. The right to be present in person at one's trial may only be waived knowingly, freely and unequivocally by the accused. Such a waiver may be withdrawn at any time during the trial;
- b. The use of videoconferencing must always be subject to the suspected or accused person's consent and to the consent of his or her defence lawyers. Consent must be given in a free and informed manner, after having received legal advice in the issuing state, recorded in the case file, and should be confirmed and recorded at the beginning of the video-conferencing hearing or

trial. The form and the validity of the consent should be compatible with the criminal laws of both the requested and the requesting Member States. If the suspect or accused is a vulnerable person, this should be taken into account when evaluating whether the use of videoconferencing is appropriate, and consent must also be sought from the legal representative or a person entrusted with safeguarding the interests of the vulnerable suspect or accused;

c. Care must be taken that the suspect or accused person is able to seek legal advice prior to consenting to the use of videoconferencing in his or her native language, if necessary, with the assistance of an interpreter. Also, legal remedies should be readily available to challenge a decision on using videoconferencing in both jurisdictions;

d. The facilitation of dual defence in cross-border cases is essential. Should the suspect or accused person be interviewed by the authorities of a state other than of his residence, there should be mandatory assistance by defence counsel in both states before and during the interview, in the pre-trial stages, and throughout the proceedings during the trial stage before, during and after the trial hearing. If the suspect or accused person lacks the financial means to hire a lawyer, he or she should be eligible for free legal aid in both jurisdictions. The lawyer in the executing state should be physically present in the same room as the suspect or accused. The lawyer in the issuing State should be physically present in the same room as the authorities conducting the hearing or where the trial is taking place;

e. The suspect or accused should always be heard in the physical presence of a judicial authority of the executing state, or another independent public authority, in order to prevent undue interference with the statements of the accused, and also to guarantee the respect for his or her rights according to the executing state's law, as well as the authenticity of the evidence;

f. Access to the case file should be granted to the suspect or accused and to lawyers in both issuing and executing state and any documents to be examined during the interview or the trial should be made available to the suspect or accused and to his lawyers in both states before and during the interview or trial (see in this regard Recital 30 and Article 7, para. 3, Directive, 2012/13/EU);

g. The right of the suspect or accused person to speak confidentially with his or her defence team (in both issuing and executing states) must be guaranteed at all times (before and during the hearings). Should videoconferencing take place, it is of the utmost importance that all Member States can guarantee the necessary safeguards to protect confidentiality. Any breach of this confidentiality, whether by a third party or agency, should be a criminal offence, and it should not be possible to rely upon any information that arises from such a breach. It is therefore recommended that the necessary safeguarding measures taken by the Member States that will use videoconferencing should be harmonised across all those Member States;

h. The accused should be able to use his or her own clothing and to be free of any restraints during the trial;

i. In cross-border videoconferencing, there may be a need to have an interpreter either at the issuing authority or at the executing authority's premises, if the suspect or accused or one of the participants does not speak the language of the issuing state. Given the complexities of videoconferencing and interpreting in legal settings, it is essential that high-quality interpreting be ensured by employing only certified interpreters. Whenever possible, the interpreter should be present in the same room as the suspect or accused;

j. The right to have materials of the case essential to safeguard the rights of the defence translated into the native language of the suspect or accused should also be mandatory;

k. The consent of the suspect or accused person to undergo videoconferencing examination should entail cancellation of any EAW regarding the order to be brought before the trial court or before other authorities in the issuing State;

l. After the hearing is concluded, the judicial authority of the executing state should draw up minutes of the videoconference hearing. The minutes must indicate the date and place of the hearing, the identity of the person heard, the identities and functions of all other persons participating in the hearing, any oaths taken and the technical conditions under which the hearing took place. The document should be forwarded by the competent authority of the executing or requested state to the competent authority of the issuing state;

m. The hearing should be audio-visually recorded and the recording made available to the parties;

n. The fundamental rights of the suspect or accused applicable in both Member States must be respected.

Domestic cases

- Trial in the physical presence of the accused should remain and always be the rule, especially in domestic cases, and a remote trial should never be conducted without the presence of the accused if he or she did not consent to it; (p. 7)

- (Following the above) the ECBA urges the European Union institutions and Member States' institutions and judicial authorities, as well as the Council of Europe and its Member States, to take practical and, if needed, legislative steps to:

a. Organise a comprehensive assessment of the use of remote video-technology in domestic criminal cases with a view to assessing both technical and legal issues, in particular the degree to which they are available, their quality, the degree of knowledge of users on how to master the systems, and their impact on the right to a fair trial and the rights of the defence;

b. Clearly establish the right of the accused to be physically present at his or her trial and to forbid mandatory participation of an accused in his or her trial by video-links in domestic cases;

c. Develop appropriate legal standards for remote participation where that is permitted and appropriate (see below Chapter C.4);

d. Promote the development of appropriate technical infrastructures and solutions (which allow for true-to-life remote participation, and the exercise of procedural rights in this context – see below Chapter D); and

e. Consider the issues relating to transparency and privacy in the use of remote technology in criminal trials (see below Chapter E).

- Due to the importance of the right to be present, there must be certain safeguards in place in order to allow for such interviews in the pre-trial stages and at trial. In any event, should videoconferencing be conducted, fundamental principles of a fair trial especially with respect to defence rights must be safeguarded. The ECBA's main concerns are as follows:

a. The right to be present in person at one's trial may only be waived knowingly, freely and unequivocally by the accused. Such a waiver may be withdrawn at any time during the trial;

b. The use of videoconferencing must always be subject to the suspected or accused person's consent and to the consent of his or her defence lawyers. Consent must be given in a free and informed manner, after having received legal advice, recorded in the case file, and should be

confirmed and recorded at the beginning of the hearing or trial. The form and the validity of the consent should be compatible with the criminal laws of relevant Member States. If the suspect or accused is a vulnerable person, this should be taken into account when evaluating whether the use of video-conferencing is appropriate, and consent must also be sought from the legal representative or a person entrusted with safeguarding the interests of the vulnerable suspect or accused;

c. Care must be taken that the suspect or accused person is able to seek legal advice prior to consenting to the use of videoconferencing in his or her native language, if necessary with the assistance of an interpreter. Legal remedies should be readily available to challenge a decision on using videoconferencing;

d. The facilitation of multi-lawyer defence teams in domestic cases in which videoconferencing is used is essential. One lawyer should be physically present in the same room as the suspect or accused, while another should be physically present in the same room where the trial is taking place. If the suspect or accused person lacks the financial means to hire more than one lawyer, he or she should be eligible for free legal aid covering the work of both members of the defence team for the trial;

e. The suspect or accused should always be in the physical presence of a judicial authority, or another independent public authority, in order to prevent undue interference with the statements of the suspect or accused, and to guarantee the respect for his or her rights according to the executing state's law, as well as the authenticity of the evidence;

f. Access to the case file should be granted to the suspect or accused and to his or her lawyer and any documents to be examined during the interview or the trial should be made available to the suspect or accused and to his or her lawyers states before and during the interview or the trial (see in this regard Recital 30 and Article 7, para. 3, Directive, 2012/13/EU);

g. The right of the suspect or accused person to speak confidentially with his or her defence team must be guaranteed at all times (before and during the hearings). Should videoconferencing take place, it is of the utmost importance that all Member States can guarantee the necessary safeguards to protect confidentiality. Any breach of this confidentiality, whether by a third party or agency, should be a criminal offence, and it should not be possible to rely upon any information that arises from such a breach. It is therefore recommended that the necessary safeguarding measures taken by the Member States that will use videoconferencing should be harmonised across all those Member States;

h. The accused should be able to use his or her own clothing and to be free of any restraints during the trial;

i. In videoconferencing, there may be a need to have an interpreter, if the suspect or accused or one of the participants does not speak the language of the proceedings. Given the complexities of videoconferencing and interpreting in legal settings, is essential that high-quality interpreting be ensured by employing only certified interpreters. In principle, the interpreter should be present in the same room as the suspect or accused;

j. The right to have materials of the case essential to safeguard the rights of the defence translated into the native language of the suspect or accused should also be mandatory;

k. The hearing should be audio-visually recorded and the recording made available to the parties.

- Special care should be taken in balancing the rights to a public trial and the right not to be presented to the public as guilty (namely in prison clothing, in a cage or glass-box, or subject to physical restraints); (p. 17)
- Regardless of which method of opening the hearing to the public is adopted, it is crucial that all parties to the proceedings fully understand how it has been arranged, and which measures of ensuring the integrity of the proceedings have been applied; (p. 17)
- One particular element of public hearing, which is of particular important to the accused, is the possibility for the accused and his or her relatives and friends to see each other during the trial. When hearings are conducted by way of videoconference, this is difficult, but not impossible, to arrange. This aspect should be taken into account when planning hearings by videoconference as accused persons who are unable to see their relatives and friends may feel more vulnerable during trial and thus less capable of effectively exercising their procedural rights. (p. 17)

Videoconferencing, Courts and Covid-19: Recommendations Based on International Standards – ICJ:

- Even if international law does not confer a right of individuals to be physically present for the type of hearing in question, if such a right is provided for by national law, then the question must also be considered whether the imposition of videoconferencing in the circumstances is permitted under national law and whether it is being applied in a manner that fully respects the right of the individual to confidential communication with their lawyer, as well as rights of non-discrimination and equal access to justice; (p. 5)
- To ensure independence of the judiciary and avoid issues with perceived security of communications with counsel, any decision to implement a system for non-consensual imposition of videoconferencing for judicial proceedings, as well as decisions to use it in particular cases, should be within the exclusive jurisdiction and operational oversight of the judiciary itself and not persons or entities within the executive branch of government; (p. 6)
- Any time that videoconferencing or similar technologies are used as a substitute for physical presence, authorities must ensure that any individual party or accused that is deprived of liberty has access to legal counsel before, during and after the hearings, including a secure and confidential means of communication between the lawyer and client, including by:
 - (i) ensuring that the ability of all persons deprived of liberty to have regular and confidential access to their legal counsel of choice is maintained despite any broader restrictions on visits to places of detention, including those arising from the COVID-19 pandemic;
 - (ii) equipping courts and detention facilities with rooms and means to enable counsel to confidentially communicate with their clients during remote proceedings, whether when they are physically present, or if they choose to communicate by other means; and
 - (iii) ensuring that litigants and others can be confident that authorities will fully respect the confidentiality of all such communications, including ensuring that such systems are not installed and operated by the State in a manner that could reasonably cause a person to doubt their confidentiality; (p. 16)
- Any time that videoconferencing or similar technologies are used as a substitute for physical presence, authorities must also ensure that individual parties / accused are able to effectively

participate in the proceedings and provide confidential instructions to counsel where necessary, including by ensuring:

(i) the individual party or accused can see witnesses providing testimony and can (personally or through their lawyer) cross-examine and otherwise respond to them;

(ii) the accused or his lawyer can inspect and submit evidence during proceedings;

(iii) proceedings are suspended when interruptions in video-communications occur and until they are resolved; and

(iv) technical support is available at the court and detention facilities. (p. 16)

- In the conduct of remote hearings, Courts should also ensure that categories of persons who may require particular consideration or accommodation are provided with additional support where needed, including victims of gender-based violence, children and persons with disabilities. To that end, as part of the overall assessment of whether videoconferencing is appropriate to a particular hearing, Courts should assess individual needs on a case-by-case basis so that any issues that affect such persons' ability to participate effectively can be identified and procedural adjustments put in place. Where such measures cannot be implemented, consideration should be given to postponing proceedings provided the rights of the accused, victims and witnesses can be maintained. (p. 16-17)

Beyond the emergency of the COVID-19 Pandemic: Lessons for Defence Rights in Europe (Fair Trials)

- Remote hearings require an intelligent, informed and unequivocal waiver from the suspect or accused person of their right to be physically present at trial, i.e., with the person's informed and explicit consent. This consent should be given after a consultation with a lawyer so that the suspect or accused person can understand the consequences of such waiver; (p. 20)

- Witnesses should not be questioned remotely except when necessary for the protection of their identity or other valid interests; (p. 21)

- When witnesses appear in a hearing remotely, courts should offer neutral and safe facilities. Before allowing the witness to give evidence remotely, the judge should make sure that no behind-the-camera pressure can be exerted on the witness and that the confidentiality of the proceedings is appropriately ensured; (p. 21)

- Suspects or accused persons in detention should be able to wear clothing of their choice for court hearings that does not prejudice the case against them, for example, they should not be presented in detention uniforms. Suspects or accused persons should be given the opportunity and time to prepare their appearance before the hearing; (p. 21)

- Suspects or accused persons should be presented during video-link hearings against a neutral backdrop, that does not suggest that they have been deprived of their liberty. No handcuffs, restraints or other similar security measures should be used and visible on camera, except in limited circumstances after an individualized assessment of their necessity in a specific case. (p. 21)

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Guidelines on videoconferencing in judicial proceedings - CEPEJ:

- The parties should have the opportunity to consult with the court: i) on whether a remote hearing can or should be held in the case, ii) on the specific arrangements for such a remote hearing, iii) to address any security concerns of the parties, and iv) to request the court to hold a hearing in person, stating their reasons; (p. 11)
- The court should give the participants the opportunity to test the audio and video quality, either prior, for example through self-testing, or at the start of the hearing allowing each participant to familiarise themselves with the features of the videoconferencing platform; (p. 11-12)
- The court should suspend the hearing in case of a technical incident until it has been corrected, depending on its nature. Such a suspension should be registered in the minutes of the remote hearing; (p. 12)
- The court should provide instructions on the procedure the participants need to follow to present documents or any other materials during the remote hearing; (p. 13)
- The court should react to technical incidents reported by the defendant. Prior to the remote hearing, the defendant should be informed of the procedure for reporting technical incidents to the presiding judge (e.g. through designation of a responsible official agent near the defendant or an alert button on the video link interface); (p. 15)
- In case of the defendant's continuous improper conduct, the court should inform the defendant of its power to mute, interrupt or suspend the defendant's video link, before actually making this decision; (p. 15)
- In case the defendant was muted, the court should ensure that the legal representative of the defendant is still able to exercise the right to legal assistance during the remote hearing and the proceedings as a whole; (p. 15)
- The defendant should have effective access to legal representation before and during the remote hearing, including the right to communicate with their lawyer confidentially before the beginning of the hearing; (p. 15)
- The court should adjourn or suspend the remote hearing in the absence of the defendant's legal representative. In such circumstances, the court should take all necessary measures to ensure the right to legal representation of the defendant, including possible appointment of an ex officio defence counsel; (p. 16)
- The defendant should be able to confer with their legal representative and exchange confidential instructions without surveillance. The presence of other persons sharing the same room as the defendant during such exchanges should be excluded; (p. 16)
- The defendant should be able to communicate with their legal representative over a secured system. The defendant should be assured of the confidentiality of such communications. The use of a secured line, different from the video link provided for the remote hearing, should be privileged; (p. 16)
- If possible and required, the court should schedule a test videoconferencing session prior to the remote hearing to allow guidance to be given on how the remote hearing will be conducted, the technology to be used, and any other relevant issues. (p. 18)

Manual on Videoconferencing: Legal and Practical Use in Criminal Cases - UNDOC:

- Attention must be paid that the picture of the person to be heard displays the full upper body, including the hands to convey an adequate impression. (p. 24)

Remote Court: Principles for Virtual Proceedings During the COVID-19 Pandemic and Beyond:

Bannon, A. L., & Keith, Douglas. (2021). Remote court: principles for virtual proceedings during the covid-19 pandemic and beyond. Northwestern University Law Review, 115(6), 1875-1920.

- Courts should prioritize adopting technology that allows for confidential attorney-client communication during court proceedings. Just as important, they should create procedures to facilitate such communication so that it is easy to pause proceedings for a client consult; (p. 1915)
- Courts must take extra steps to ensure that self-represented litigants can navigate the system during remote court, whether by providing additional supports, appointing counsel, publicizing resources, or prioritizing opportunities for in-person services; (p. 1916)
- Court policies should reflect the fact that substantial portions of the populations courts serve, and in particular historically marginalized communities, may not easily transition to remote proceedings or may have more difficulty using resource-intensive technologies like video. (p. 1917)

Accessing Justice in Hybrid Courts:

Norton, Katherine L. W. (2023). Accessing justice in hybrid courts: addressing the needs of low-income litigants in blended in-person and virtual proceedings. Georgetown Journal on Poverty Law and Policy, 30(3), 499-544.

- The systems must be easy to follow, provide guides (procedures to follow), enforceable timelines, and other steps making it an empowering experience for the individuals; (p. 537)
- Carefully craft statutes and rules to assure that they provide enough information to guide how courts and participants proceed through the process. (p. 537)

Exploring the Case of Virtual Jury Trials during the COVID-19 Crisis: An Evaluation of a Pilot Study Conducted by JUSTICE:

- In order to address concerns that video trials encourage a more formal approach to the administration of justice it would be valuable if a coat of arms and an appropriate backdrop could be placed behind the judge. Judges and lawyers should also attend in full court dress; (p. 32)
- Screen strain and the fact that people attend court from their homes means that it might be difficult at times for them to remain focused on proceedings; this might mean a need for more frequent but shorter breaks. (p. 32)

Justice Reimagined: Challenges and Opportunities with Implementing Virtual Courts:

- Small modifications to the court ritual, such as expanded introductions, acknowledgements, and breaks, can help orientate participants and promote effective participation. (p. 105)

RRT Technology ATJ Remote Hearings Guide

- To conduct efficient remote hearings, use the judicial officer's time well, and accommodate the needs and overcome obstacles to equal participation, consider a practice of conducting preliminary calls between a court staff member and parties before their initial remote hearings. The purpose would be to learn about special issues — limited technology, needs for interpretation or technology for persons with disabilities — in advance and to alert the

participants to available information about the technology and the procedures that will apply to the proceeding; (p. 9)

- During the hearing, the judicial officer may need to make reasonable accommodations to make sure all litigants have what they need to be heard while not infringing upon their duty to remain impartial.⁴⁴ In so doing, “a judge may consider the totality of the circumstances, including the type of case, the nature and stage of the proceeding, and the training, skill, knowledge, and experience of the persons involved when making reasonable accommodations.”; (p. 13)

- When hosting hearings, the court should enable the “waiting room” function in Zoom. Use Zoom’s “waiting room” function to allow individuals into the “virtual courtroom”; place disruptive participants into the waiting room if necessary; (p. 16)

- The court should then provide an overview of how the hearing will proceed. Instruct participants to be sure their line is muted when they are not speaking. Lay out the rules and procedures clearly so that all participants are on the same page, such as instructions for how the judicial officer prefers the litigant to interact with other participants over the videoconferencing platform (e.g., whether they will be muted and should use the hand-raising function if they wish to speak.); (p. 16)

- If the platform allows “break-out” rooms (such as on Zoom), these can be utilized for sidebar conversations that others should not hear (such as “bench conferences, attorney-client discussions, or judicial officer interviews of children if traditionally done one-on-one”); the private chat function can also be used for this purpose. Where applicable, attorney-client discussions in “breakout rooms” should be considered private and not be audio- or video-recorded. (p. 17)

Understanding the impact of COVID-19 on tribunals: The experience of tribunal judges

- The pre-hearing checklist should include:

- Checking that the parties have their papers and are able to access them during the hearing;
- Checking that all parties understand how to connect to the hearing;
- Checking that both the equipment and connection is of a suitable standard to facilitate effective participation;
- Identifying vulnerability and whether there is a requirement for reasonable adjustments;
- Checking that parties understand and are capable of following the instructions regarding hearing etiquette;
- Checking that parties understand the purpose of the hearing. **(p. 17-18)**

Gateways to Justice: Design and Operational Guidelines for Remote Participation in Court Proceedings

All vulnerable witnesses should be assisted, as the additional cognitive load caused by the operation of the technology can cause undue stress; (p. 12)

Guidelines concerning preparation for each video linked encounter (e.g. briefing the participant, support, testing links) + day-to-day maintenance of spaces; (p. 54-61)

Guidelines concerning the transition from the outside world to the court space and being “in court” (e.g. remaining a formal atmosphere, conveying a sense of respect/dignity); (p. 63-67)

Guidelines concerning presentation standards; (p. 68-75)

Guidelines post-video link encounter (e.g. post-appearance links with support/lawyer); (p. 76)

Guidelines for feedback and reflection; (p. 77-79)

Proposed best practice changes for the remote witness suite; (p. 81-85)

[Een meer structurele inzet van de videoconferentie in strafzaken? Lessen uit COVID19-pandemie: \(NL\)](#)

- At the very least, all participants should be visible and equally audible, have a recognizable place in the screen layout, and be lit in a comparable manner. Attention should also be given to rituals, such as clothing, a symbolic image behind the representatives of the court, the opening of the meeting, and the welcoming of the participants. (p. 836)

[Effectieve participatie in strafzaken via een beeldscherm: Ervaringen van gedetineerden, advocaten en rechtbankverslaggevers tijdens de lockdown: \(NL\)](#)

- The digital waiting room, the digital entry into the courtroom, the digital seating arrangement, and the camera setups (who sees what) must be arranged in such a way that it is clear the video hearing is a 'space of law,' in which the symbolic importance of the court as an expression of shared values is properly reflected. (p. 441)

[Lawyers in Digitalised Criminal Proceedings and Defendants' Access to Criminal Justice: \(NL\)](#)

- It appears that criminal defence lawyers require further guidance, to be adopted for instance, by the Dutch Bar Association, or by the Dutch Association of Criminal Defence Lawyers (NVSA), to address various ethical and professional dilemmas related to digitalised criminal proceedings. These should include questions on how (based on which factors) lawyers should:

- decide whether or not to assist (detained) clients remotely or in person, for example during the phases of police detention and pre-trial detention;
- advise their clients on whether or not to participate remotely;
- decide whether to challenge decisions to conduct a hearing, or to hear the suspect remotely; and
- decide whether or not to attend a hearing or another criminal procedural action in person or remotely.

Such guidance could also include advice on dealing with issues like breaches of lawyer-client confidentiality during remote contact, late provision of digital access to the case file, or the inability to reach the detained client before a (remote) hearing. (p. 46)

[RECHTSPRAAK TIJDENS CORONA Over kwetsbare rechtzoekenden en hun grondrechten: \(NL\)](#)

Human Rights Checklist for Digital or Written Proceedings:

- Does a digital hearing serve a legitimate aim, and if so, which one? (Consider, for example, the right to a hearing within a reasonable time, access to justice, or protection of witnesses or victims)

- Does the individual have a choice between a virtual hearing and an in-person hearing (possibly at a later stage)? Is that choice completely voluntary?
- Is a proportionality assessment carried out before deciding on a virtual hearing? Are decisions about virtual hearings tailored to the individual, taking into account, for example, the person's vulnerability?
- Can the individual effectively participate in the virtual hearing with sufficient attention to any inequality between parties and appropriate compensation for that inequality?
- Does the individual speak Dutch, and if not, how can the use of an interpreter during the virtual hearing ensure effective participation?
- Does the individual have sufficient digital skills and appropriate digital equipment? If not, how can effective participation be guaranteed?
- What are the effects of the digital hearing on the concentration and mental alertness of the individual (considering their vulnerability)?
- Does the individual have legal assistance, and can this assistance be adequately provided via a virtual hearing?
- If the individual does not have legal assistance, is effective participation feasible? If not, can legal assistance still be arranged?
- In the case of hearings involving minors, the principle is that without additional measures such as legal assistance or a support person, there can be no effective participation in a virtual hearing.
- Is it important for fact-finding to see and speak to the individual in person, considering the inequality between parties?
- Is/are only the foreign national, suspect, minor, or parent(s) present digitally (and not the other parties to the proceedings)? If so, does that affect respect for the principles of equality of arms and adversarial hearing?
- Does the digital hearing affect (confidential) communication with the lawyer?
- What is the importance of public access to the hearing in this case, and how should this be weighed against the interest in holding a virtual hearing?
- For criminal law: In the case of a (repeated) review of the lawfulness of detention, the principle is that the individual should be heard in person.
- For administrative law: Was the individual heard in person by the administrative authority during the administrative phase?

AVR:

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Re-thinking the Orality Confrontation Paradigm:

In order to facilitate greater pre-recorded cross-examination before trial, procedures would have to be adjusted to enable it to be conducted before a judge. It has been argued that it is fundamental to "adversarial argument" that such a confrontation takes place in an adversarial environment supervised by an independent judge in which the accused is assisted by counsel.

ProCam International Desk Report: Audiovisual Recordings during interrogations:

[T]he European Commission issued a Recommendation of 27 November 2013 on procedural safeguards for vulnerable suspected or accused persons in criminal proceedings (C(2013) 8178 final) (the "Recommendation"), according to which: "vulnerable persons are not always able to understand the content of police interviews to which they are subject. To avoid any contestation

of the content of an interview and thereby undue repetition of questioning, these interviews should be audiovisually recorded". (p. 9)

De videoreconstructie in het strafproces: van verbeelding naar juridische werkelijkheid: (NL)

- Acknowledge and designate the video reconstruction as a special investigative method, and establish guidelines for its preparation, execution, and audiovisual recording, to ensure the lawfulness and reliability of the outcome of the video reconstruction and to make it more easily verifiable; (p.182)

- Strengthen the position of the defence during the video reconstruction and involve them fully from the preparation stage onward in the development, execution, and composition of the media file that may be used during the trial. Furthermore, promote direct access for the defence to an expert or team of experts if they wish to carry out a video reconstruction on their own initiative; (p. 184)

- Promote the possibility for individuals other than police officers to be entrusted with the preparation, execution, and audiovisual recording of video reconstructions on an equal footing. (p. 187)

Evaluatie Innovatiewet Strafvordering: (NL)

- Make it clear that camera footage (and other types of source files) must be designated as official case documents; (p. 192)
- Promote the establishment and adherence to working agreements between the police, the Public Prosecution Service, and the Judiciary regarding the creation of compilations, the documentation of camera footage, and the file formats in which camera footage is submitted; (p. 192)
- Make it clear that recordings of suspect interrogations must be designated as official case documents; (p. 193)
- If the working method of the AVR pilot is implemented at trial, ensure that it is possible to issue an instruction to elaborate only certain aspects of a summary official report, and that this instruction can also be given by the court after the hearing of the case has been adjourned; (p. 195)
- Develop a procedure for making AVR files available so that these files no longer need to be exchanged between partners in the criminal justice chain. (p. 196)

Annex VI: Glossary of Key Terms

This glossary contains key terms essential for understanding and analysing modern courtroom practices, both in traditional and remote contexts. The aims of the glossary are to ensure consistent use of terminology and to enable the project team to work with a common conceptual framework throughout the project. Please note that the following definitions will be upheld (only) in the context of our research project. We acknowledge that some of the terms will have a different meaning in another context.

1. **Audio-visual recordings (AVR):** Recorded materials that combine both sound and image, used to document or present evidence (such as interviews) or proceedings (such as the trial).
2. **Best practice:** A standard, procedure or set of guidelines compliant with legal and ethical standards and known to produce good outcomes if followed.
3. **Body language:** Non-verbal cues such as facial expressions, posture, gestures and eye contact, that may add context to verbal statements and that may be interpreted differently when using communication technology in criminal proceedings.
4. **Camera footage:** Video recordings (captured by for example security cameras) that register events or actions relevant and that can be used as evidence in criminal proceedings.
5. **Children:** Individuals who are below the age of 18.
6. **Co-presence:** An experience in which two or more people are able to perceive, interpret and respond to each other: this has traditionally demanded that individuals are physically present.
7. **Communication technology:** The tools, systems, and platforms used to facilitate the exchange of information among participants in the criminal proceedings (e.g. audio-visual links used for real-time communication).
8. **Courtroom dynamics:** The interplay of behavior and (both verbal and non-verbal) interactions between judges, public prosecutors, defence lawyers, defendants and other trial participants.
9. **Credibility:** The assessment of a statement as believable or correct.
10. **Cultural nuances:** Variations in communication styles, gestures, and expressions based on cultural background, which can impact interpretation in international or diverse courtroom settings.
11. **Demeanor:** The outward behavior and presentation of a person, including tone and attitude, which may influence perceptions such as honesty or reliability.
12. **Due process:** Legal principle ensuring fair treatment through the criminal process, including the right to a fair trial.
13. **Digital divide:** The gap between individuals or groups with access to and knowledge of modern information and communication technology and those without.

14. **Digital vulnerability:** The risks of harm or inequality for participants to the proceedings from reliance on technology.
15. **Effective participation:** The ability of a participant to the proceedings to meaningfully engage with and understand the proceedings in which they are involved.
16. **Eye contact:** A key element of in-person communication in many cultures that may build connection but which may be challenging to replicate when using communication technology.
17. **Evidence (in a legal context):** A material object or piece of information intended to prove or disprove an alleged fact.
18. **Evidence-based:** Based on scientific evidence, for instance indicating a certain procedure resulting in better outcome according to scientific studies (e.g. a certain interviewing method leading to more reliable information from witnesses)
19. **Fair trial:** A trial conducted in accordance with established legal procedures and fundamental rights.
20. **Impartiality:** The legal obligation of decisionmakers in the criminal process to remain unbiased and neutral.
21. **Interruptions:** Disruptions in speech, either intentional or unintentional, which may be more frequent or harder to manage when using communication technology.
22. **Interview:** The hearing of parties involved in criminal proceedings (such as suspects, witnesses or victims) by criminal justice authorities
23. **Key criminal justice professionals:** Professionals that – in various roles and functions – play an essential role in criminal proceedings, most importantly: judges, public prosecutors, defense lawyers and police officers.
24. **Non-trial proceedings: Hearings or other formal proceedings during the criminal process** that do not include the final determination of guilt (such as hearings dealing with pre-trial detention or managing procedural matters).
25. **Non-verbal communication:** Communication through body language, gestures, and facial expressions.
26. **Participant (or 'Zoom') fatigue:** A state of reduced focus and productivity caused by prolonged engagement when using communication technology.
27. **Perceived fairness:** The extent to which trial participants and the public 'feel' the criminal proceedings and its outcome are consistent with the core principles of procedural justice: respectful treatment, feeling heard, trustworthiness and neutral decision-making.
28. **Presumption of innocence:** The legal principle that a defendant should be considered innocent until proven guilty.
29. **Procedural justice:** The perceived fairness of the (criminal) process emphasizing the importance of feeling heard, respectful treatment, impartiality of decisionmakers and trustworthiness.

30. **Remote statements:** The provision of evidence or statements by a defendant, witness or expert through the use of communication technology.
31. **Technological glitches:** Instances where meaning is lost due to technical issues such as poor audio-visual quality and connectivity issues.
32. **Transparency:** The quality of being open and clear about processes and decisions, fostering trust in remote court systems.
33. **Trial proceedings:** The judicial process through which a court examines whether a person accused of committing a criminal offense is guilty and determines the appropriate punishment or acquittal.
34. **Turn-taking:** The structured alternation of speaking roles in courtroom discourse, requiring coordination to avoid overlaps in remote hearings.
35. **Virtual Reality (VR):** Simulated environments that can be used for immersive court pilots/training or reconstructions.
36. **Virtual proceedings:** (Parts of) criminal proceedings conducted partially or entirely online, using digital platforms for hearings, evidence presentation and/or participation of parties.
37. **Virtual trials:** Criminal proceeding in which a court examines evidence and determines the outcome of the case and that are conducted partially or entirely online, using digital platforms for hearings, evidence presentation and/or participation of parties.
38. **Video conferencing:** Technology enabling real-time communication between participants to the criminal proceedings who find themselves in different locations.
39. **Written records:** A formal document containing a written account of events, statements or proceedings (such as police reports and transcripts of court proceedings).



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