

Towards Child-Centred and Effective Online Child Sexual Abuse Investigations: Key Findings from the SALVUS Project D2.1 Report



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ABOUT SALVUS



SALVUS (Ensuring Safer Justice Outcomes in Online and Undercover Child Sexual Abuse Investigations) is a **Horizon Europe project** (2025-2028) that aims to develop research-based recommendations, best practice guidance and training on online and undercover child sexual abuse (CSA) investigations from a child centred and human rights perspective.



Building on empirical research and interdisciplinary expertise, SALVUS seeks to support European and international policymakers, law enforcement, regulators and civil society in designing democratic safeguards and practical tools for safer justice outcomes, especially for child victims.



This policy brief draws on a SALVUS report (Deliverable 2.1) which analyses online and undercover investigations into CSA with a focus on fundamental rights, socio ethical issues and organisational realities across Europe. It is based on desk research, a multi stakeholder focus group and 22 follow up interviews with experts from child protection, hotlines, victim support, digital rights, technology, and law enforcement related practice.



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HIGHLIGHTS



Online CSA investigations are not just a law enforcement concern as they depend on coordinated action between platforms, hotlines and helplines, schools, victim and family support services, prosecutors, lawyers, courts, regulators, policymakers and families. Fragmented responsibilities, limited feedback, funding and organisational overload can undermine investigative effectiveness, despite strong individual efforts.



Technology and artificial intelligence (AI) tools can support, but cannot replace human judgement, especially regarding contextual understanding of cases and child sensitive communication. Over-reliance on technological tools such as scanning of communication or hash-based matching of images may lead to bias, mistakes and the false belief that technology alone can solve the problem.



Child-centred and trauma-informed practice must guide the entire investigatory process in practice, from reporting to evidence handling and court proceedings. SALVUS findings show that debates in the EU often centre on encryption, scanning and technical feasibility of detection, while **children's lived experiences of reporting, evidence handling and support receive less attention**. Decisions on how cases are detected, prioritised, investigated, documented and prosecuted affect children's dignity, privacy, trust in institutions and their recovery process, making investigations a crucial child rights issue.



Current online platform practices, including unfriendly, complicated and unclear reporting tools for (child) users, as well as inconsistent cooperation with hotlines and law enforcement authorities, can create significant barriers to timely interventions. **Platform responsibility must go beyond scanning and (automated) reporting**. Safer platform design, usable and child-friendly reporting in private and encrypted spaces, meaningful cooperation with hotlines and law enforcement, and stronger transparency measures are essential.



Prevention, awareness-raising, education, training and multidisciplinary coordination between different actors involved are as important as new technological tools. Investment in practitioner training, child friendly reporting, family support, and cross border cooperation is crucial for safer justice outcomes in the EU and beyond.



THE MAIN CHALLENGES



Online CSA investigations are **rights sensitive socio-technical practices**. Practical decisions taken during investigations directly affect children's dignity, privacy, safety, and recovery. Difficulties at different stages of investigation (relating to, for example, reporting, platform response, evidence handling, or support) can negatively impact children's rights and protection, as well as broader justice outcomes. **Effective responses depend on funding and training of different stakeholders involved**, as well as the ways in which technologies, laws, institutions, practitioners and everyday investigative routines interact in practice.



A child centred, trauma informed approach implies that investigative choices should minimise system caused harm, avoid re-traumatisation, and recognise that **there is no "standard child or victim"**. Children's experiences and vulnerabilities vary by age, gender, disability, migration status, socio economic situation, race, language, family context and other circumstances. These aspects are relevant to interviews with children, reporting channels, evidence preservation, communication with families, individual support and court practices.



Despite increasing policy attention to the fight against CSA, **current debates often narrowly focus on technical challenges and solutions** such as scanning, encryption, or hash-matching. This focus risks overlooking how investigations unfold in everyday practice, including how cases are reported, how evidence is handled by different investigative units, and how children and their support networks experience the process.



KEY FINDINGS



1. Reporting challenges and difficulties associated with disclosure

Reporting routes currently combine direct reports from children, families, schools and significant adults, reports via hotlines and helplines, proactive law enforcement work, and large volumes of notifications from online service providers. Hotlines and helplines offer relatively low threshold routes to support and are often perceived as more approachable than the police. However, in some jurisdictions they are legally required to refer certain cases to law enforcement, which can limit anonymity and create tensions between child autonomy, protection and investigative needs.

The early stages of a case are crucial. Under-reporting remains a major problem, with shame, fear, self-blame, institutional victim-blaming and concerns about

criminalisation or family disruption deterring children and families from seeking help. When cases surface through platforms or third parties rather than a child's own decision to disclose, children may experience "forced disclosure", feeling that processes are imposed on them rather than chosen, which can intensify distrust and distress. At the same time, barriers to disclosure remain, and reporting mechanisms are often difficult to access or understand for children and their support networks.

A child-centred approach requires improving trust, accessibility, and clarity in reporting options (and the consequences thereof), as well as ensuring that children and concerned adults know where and how to seek help.



2. Platform practices and structural challenges

Large platforms play a central role in detecting and reporting CSA material. However, automated scanning can generate high volumes of incomplete or low-quality reports that overwhelm law enforcement and hotlines. Unreliable age estimation, weak contextual understanding and the difficulties in distinguishing exploitation from consensual adolescent exchanges can lead to false positives and missed high-risk cases. Victims frequently report inaccessibility of reporting portals which are followed by slow, opaque platform responses.



3. Digital evidence handling

Handling digital evidence in online CSA cases involves different kinds of activities, such as seizure of devices, extraction of data, triage, data analysis, preservation, cross border sharing, retention and deletion. Organisational constraints, including limited specialist capacity (relating to a limited number of specialised officers as well as limited specialist expertise in general), funding and uneven access to forensic tools, mean that triage choices strongly influence which victims are identified, which cases proceed, and which harms persist through ongoing recirculation of material. Clearer rules about the retention, deletion and sharing of evidence, as well as transparent communication with victims and families is needed to balance evidentiary requirements and child-centred, trauma-informed support.

Shared law enforcement databases and industry hash lists can reduce repeated viewing of CSAM and support victim identification, but their effectiveness depends on adequate resourcing, governance, interoperability and clear legal bases. Our research highlights the need for robust documentation, quality assurance, peer review and oversight to mitigate cognitive and institutional biases in interpreting digital traces, especially in adolescent or grooming cases.



4. Technology is not a silver bullet

Technology must support, not replace, human judgement and child-rights sensitive practice. Digital forensic tools, shared hash databases and AI assisted systems are indispensable in handling the volume and complexity of online CSA cases, but SALVUS research emphasises that “technology is not a silver bullet.” Tools such as hashing, image and video analysis, language-based triage or facial recognition can accelerate detection and triage but they also raise serious questions about reliability, explainability, bias, false positives and false negatives.

Recent cryptographic analysis of hashing tools and wider research on AI based detection underline concerns about transparency, vulnerability to manipulation and the difficulty of evaluating tools on real CSA material. This reinforces the need for independent testing, governance and auditability. Automation bias and de-skilling, where human investigators might trust technological outputs without critically assessing them, pose additional risks in high pressure investigative environments with heavy workloads.



5. CSA investigations are not only a law enforcement issue: prevention and support efforts are crucial

Effective responses to CSA depend on multi-actor coordination, including law enforcement, online platforms, hotlines and helplines, courts and prosecutors, victim support services, families and schools. Current fragmentation in responses limits effectiveness and accountability and a more systemic approach would strengthen CSA investigations.

Our findings also highlight that child protection cannot rely solely on criminal law and post-harm intervention. Current important gaps relate to the stigmas associated with victims of CSA, limited awareness among parents and caregivers, insufficient visibility of existing support services, and the lack of accessible, child-friendly guidance. Effective responses to online CSA combine investigation with prevention education and early support..



POLICY RECOMMENDATIONS

Our research led to a set of policy directions for EU institutions, national governments, regulators and practitioners, set out below. They are intended to complement ongoing legislative debates and operational guidance.



Re-focus on children's rights and trauma-informed practice

1.

- Children's dignity, privacy, safety, recovery, and access to age-appropriate information must be protected and ensured
- Investigative communication, evidence handling, and safeguarding measures should minimise re-traumatisation
- Trauma-informed approaches should be integrated across all stages of investigations



Invest in a systemic and multi-stakeholder approach

2.

- Clarify the roles and responsibilities between different actors involved
- Fund and enhance coordination between law enforcement, platforms, and support services, including children's rights and victim support organisations



Build more accessible and child-friendly reporting systems

3.

- Develop accessible, user-friendly reporting mechanisms for children of different ages
- Ensure visibility of existing hotlines, helplines and support services so children and families know which organisations to contact when they need them



Ensure responsible and auditable use of technology and AI tools

4.

- Establish specific safeguards for AI and automated tools used in CSA investigations so that law enforcement institutions can rely on them when making the decision to adopt a certain tool in their work
- Promote continuous transparency, auditability, and human oversight of such tools
- Avoid over-reliance on technical solutions



Balance evidence needs with child protection

5.

- Develop clear standards for evidence retention and deletion and explain them to children
- Minimise re-traumatisation risks when evidence needs to be kept for a long time
- Align investigative practices with children's rights and best interests



Enhance platform responsibility, transparency and cooperation

6.

- Strengthen and clarify obligations for reporting, transparency, and cooperation with law enforcement agencies
- Address reporting gaps in private and encrypted environments
- Reduce over-reporting while improving the quality of reported information



Invest in and fund education, training, wellbeing, prevention and coordination efforts

7.

- Provide ongoing practical guidance and support for parents, schools, and children, as well as mental health support for investigators and practitioners working in the field
- Strengthen professional training and organisational capacity regarding technological possibilities and risks as well as practiced-based training on children's rights and safeguards. These should not only focus on specialised units but also reach general police units who are often first responders in CSA cases.
- Support awareness-raising of emerging risks, including online coercion, developing grooming techniques, AI-generated CSAM and sextortion
- Educate children and teenagers on these risks early on and ensure that they know what to do and who to address if they encounter concerning experiences online



Future Research Recommendations

The SALVUS findings highlight the need to move beyond fragmented and reactive approaches. Online CSA investigations must be child-centred, rights-respecting, trauma-informed, coordinated across systems and stakeholders, and grounded in real-world practice.

When it comes to research and evidence that is still lacking, future work should specifically prioritise research on children's lived experiences and opinions, online platform accountability, improved reporting measures, AI-related risks, and the organisational conditions that enable effective and ethical investigations. Research in these areas should be encouraged and funded.



LEARN MORE →



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