EUROPEAN UNION OF THE DEAF

A European Non-Governmental Organisation in official liaison with European Parliament, European Commission and the Council of Europe

EUD Policy Recommendations

Artificial Intelligence and Deaf Communities

Implications of the EU AI Act for the European Deaf Communities

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1. Executive Summary

This position paper examines the implications of the EU Artificial Intelligence Act (Regulation (EU) 2024/1689, hereinafter the AI Act) for sign language users in the European Union, and sets out EUD's recommendations for its implementation at the EU and national levels.

Artificial intelligence is already being integrated into the public services, education systems, employment processes and communication infrastructure that deaf people rely upon every day. Sign language AI (SLAI), encompassing sign language machine translation, signing avatars, gesture recognition systems and AI-assisted communication tools, is actively being developed and deployed across the European Union. The promise of these technologies is real; so are the risks.

The AI Act represents a landmark regulatory development. It is the world's first comprehensive binding framework for artificial intelligence, and it contains explicit references to the rights of persons with disabilities, to accessibility obligations, and to the UN Convention on the Rights of Persons with Disabilities (CRPD). However, the provisions of the Act remain limited when it comes to the specific linguistic and cultural realities of deaf communities. Its implementation at the national level, where Member States retain significant discretionary powers, will determine whether these gaps are addressed.

That determination is now being made under less favourable conditions than when the AI Act was adopted. In July 2026, the AI Omnibus (Regulation (EU) 2026/1744) amended the AI Act, postponing most high-risk obligations to December 2027 and August 2028, weakening the AI literacy duty, and restricting the direct access that equality and fundamental rights bodies previously had to documentation on high-risk systems. The European Disability Forum has identified six ways in which these changes reduce protection for persons with disabilities. The window for national advocacy has therefore widened in time but narrowed in substance.

This paper argues that three principles must govern the implementation of the AI Act as it concerns sign language users. First, the question of which reasonable accommodation measure and accessibility solution, whether human or AI, is used in any given context must remain a decision for the sign language user, free from any external pressure or the removal of alternatives. Second, AI sign language tools must function as a complement to professional national sign language interpreters, not as a substitute for them, particularly in high-stakes settings. Third, deaf communities and their representative organisations must be genuine partners in the design and governance of AI systems that affect them, from the outset and throughout the full lifecycle of any initiative, by following the co-creation principles.

The paper builds on EUD's 2025 publication Sign Language in the Era of Artificial Intelligence (Venade de Sousa, 2025) and brings a new dimension to that work: a focus on the specific role of Member States in implementing the AI Act as, despite being a Regulation, it gives room for implementation at

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the national level, on the Council of Europe Framework Convention on AI (the Vilnius Convention), which the European Union ratified on 15 May 2026 but which has not yet entered into force, and on the concrete advocacy levers available to National Associations of the Deaf (NADs).

The present policy recommendations are addressed to five actors: the European Union institutions, Member States, national AI oversight bodies, NADs, and the developers and deployers of AI systems. They concern the governance of SLAI in high-risk contexts, the protection of sign language users from prohibited AI practices, the establishment of inclusive procurement standards, the role of deaf communities in national AI oversight structures, and the ratification of the Vilnius Convention by Member States.

2. Introduction

The European Union of the Deaf (EUD) represents the interests of more than one million deaf sign language users across the 27 EU Member States (EUD, 2024). Sign language users form a distinct linguistic and cultural community. Their national sign languages are full, natural languages, structurally autonomous from the spoken languages of their respective countries, with their own grammar, syntax, spatial organisation and cultural heritage.

As artificial intelligence technologies increasingly shape the conditions under which citizens access public services, education, employment, healthcare and democratic participation among others, the stakes for sign language communities are high. AI tools that affect communication directly bear on the linguistic rights, the legal protections, and the daily lives of deaf people.

The AI Act entered into force on 1 August 2024. As a directly applicable EU Regulation, it does not require transposition into national law in the manner of a Directive. Its provisions apply across all Member States without national legislative transformation. However, the architecture of the AI Act assigns Member States substantial implementation responsibilities that span several years. For the sake of conceptual consistency and clarification, we are defining several concepts used throughout this paper:

- **National competent authorities**. Under Article 70, every Member State must appoint at least one notifying authority and at least one market surveillance authority to supervise and enforce the AI Act, and designate one of them as a single point of contact. These are the bodies that decide, in practice, how the AI Act is applied to AI systems affecting deaf people in their country.
- **AI systems.** An AI system, under Article 3(1), is a machine-based system designed to operate with varying levels of autonomy, that may exhibit adaptiveness after deployment, and that infers from its input how to generate outputs such as predictions, content, recommendations or decisions influencing physical or virtual environments.

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- **High-risk AI System.** A high-risk AI system, under Article 6, falls into one of two categories: systems used as a safety component of, or which are themselves, a product covered by the Union harmonisation legislation listed in Annex I; or stand-alone systems listed in Annex III, which covers biometrics, critical infrastructure, education, employment and worker management, access to essential services, law enforcement, migration, and the administration of justice and democratic processes.
- **High-risk AI obligations**. High-risk AI systems are those the AI Act treats as capable of significantly affecting health, safety or fundamental rights. Providers must meet duties on risk management, data governance, documentation, human oversight, accuracy and cybersecurity, and must pass a conformity assessment before the system reaches the market. Deployers carry their own obligations, including in certain cases a fundamental rights impact assessment. National authorities supervise all of this.
- **Codes of conduct**. Codes of conduct, under Article 95, are voluntary commitments drawn up by providers, deployers or their representative organisations and encouraged by the AI Office and Member States. They extend good practices such as accessibility and stakeholder participation to systems that are not high-risk and therefore otherwise unregulated.
- **AI regulatory sandboxes**. A regulatory sandbox is a controlled environment, supervised by a regulator, in which innovative AI systems can be developed, tested and validated before reaching the market. Sandboxes also come with a risk of being misused or abused, and need the appropriate legal framework to succeed (Madiega & Van Den Pol, 2022). They are examined in Section 5.3.

These national choices will define whether the AI Act works for sign language users or passes them by.

The picture has been complicated by a further development. The AI Omnibus, adopted as Regulation (EU) 2026/1744 and in force since 27 July 2026, amends the AI Act before most of its substantive provisions had taken effect, postponing key deadlines and weakening several safeguards that matter directly to persons with disabilities. Section 3.5 sets out what changed and why it matters for deaf communities.

This paper builds on EUD's 2025 publication Sign Language in the Era of Artificial Intelligence (Venade de Sousa, 2025), which provided the first comprehensive analysis of the legal and ethical framework applicable to AI and sign languages in Europe. The present paper goes beyond this publication to answer the following question: how should the AI Act be implemented at the national level to protect and promote the rights of sign language users? It also incorporates developments that post-date the 2025 publication, including the ratification by the European Union of the Council of Europe Framework Convention on AI, hereafter the Vilnius Convention, and the adoption of the AI Omnibus.

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The paper is addressed primarily to NADs as policy advocates. It is intended to equip them with the legal and institutional knowledge necessary to engage national governments, oversight bodies and procurement authorities on AI governance. It is also addressed to EU institutions, Member States, and the developers and deployers of AI systems, whose decisions on implementation will be scrutinised against the obligations undertaken under the CRPD and the Vilnius Convention.

3. State of Play on Artificial Intelligence: The International, European Union and Council of Europe Policy Frameworks

Any assessment of the AI Act's implications for deaf communities must be situated within the broader normative architecture in which it operates. Three frameworks are of particular relevance, namely the UN Convention on the Rights of Persons with Disabilities (hereafter, the CRPD), the Council of Europe Framework Convention on AI (hereafter, the Vilnius Convention), and the AI Act itself. These three legal instruments are interconnected but have different territorial applications. The CRPD applies to every State Party that has ratified it, which is the case for all European countries, from both the EU and the Council of Europe. The Vilnius Convention applies only to those States that have signed and ratified it. The AI Act, as an EU Regulation, applies only to EU Member States. To summarise: the CRPD applies across the whole European region, the AI Act applies to all 27 EU Member States, and the Vilnius Convention applies to the parties that have ratified it, including the European Union itself.

3.1 The United Nations: CRPD and the Human Rights-Based Approach to AI

The CRPD constitutes the primary international human rights framework for deaf communities. The EU ratified the CRPD on 23 December 2010, becoming the first regional integration organisation to do so. This ratification creates direct legal obligations for the EU and, through the principle of consistent interpretation, shapes how EU legislation, including the AI Act, must be read and applied. It is important to note that Member States are also bound by the CRPD in their own right: each of the 27 Member States has ratified the Convention separately, so the obligations described below apply to national governments regardless of the scope of EU competence.

Several CRPD provisions are of direct relevance to AI governance. Article 2 clarifies that the definition of 'language' encompasses sign languages, thereby granting them full linguistic status under international human rights law. Article 9 requires States Parties to take appropriate measures to ensure that persons with disabilities have access, on an equal basis with others, to information and communications, including information and communications technologies and systems, and to identify and eliminate obstacles to that access. This obligation applies at an early stage of design, which is precisely the stage at which AI systems are currently being built without deaf involvement. Article 21 protects freedom of expression and opinion in sign languages by obliging States Parties to accept and facilitate the use of sign languages in official interactions, and to recognise and promote

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their use. Finally, Article 30(4) recognises the rights of deaf people to their specific cultural and linguistic identity, including sign languages and deaf culture.

Article 24 on inclusive education deserves specific mention. States Parties must facilitate the learning of sign language, promote the linguistic identity of the deaf community, and ensure that education is delivered in the most appropriate languages and modes of communication for the individual. As AI tools enter classrooms, some States may present AI-generated sign language content as a means of discharging these obligations. Deploying an AI tool does not, in itself, satisfy Article 24. Inclusive education in sign language means teachers competent in the national sign language, supported where necessary by professional sign language interpreters, in an environment where deaf learners can use their language with peers.

Of particular institutional significance is Article 4(3) CRPD, further elaborated by the CRPD Committee's General Comment No. 7 (2018) on participation, which requires States Parties to closely consult with and actively involve persons with disabilities through their representative organisations in the development and implementation of legislation and policies relevant to them. General Comment No. 7 is explicit that consultation must be meaningful rather than symbolic: it must begin at the earliest stages of a process, allow sufficient time, be accessible, and give the views of representative organisations due weight in the outcome. When Member States make decisions about national AI governance frameworks that will affect deaf communities, they are bound by this requirement, since they have ratified the CRPD. Its implications for national AI implementation are developed further in Section 7.

The CRPD's monitoring mechanisms add further weight to these obligations. In its Concluding Observations on the combined second and third periodic reports of the European Union, adopted at its 32nd session in March 2025 (CRPD/C/EU/CO/2-3), the CRPD Committee raised concerns about the discriminatory use of artificial intelligence in education, about the limited scope of the European Accessibility Act, and about gaps in the Web Accessibility Directive and the voluntary nature of accessibility provisions in relevant digital legislation.

The UN Special Rapporteur on the Rights of Persons with Disabilities has similarly highlighted, in a 2021 report, that AI-powered systems can 'short-circuit the obligation of reasonable accommodation' for persons with disabilities, a risk that is particularly acute in employment and access to essential services (A/HRC/49/52, para. 34).

3.2 The Council of Europe: the Framework Convention on AI (the Vilnius Convention)

On 5 September 2024, the Council of Europe opened for signature the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (CETS No. 225), signed in Vilnius, Lithuania. The Council of Europe is an international organisation of 46 member States

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dedicated to human rights, democracy and the rule of law. It is distinct from the European Union, which is an economic and political integration union of 27 Member States with its own legislative powers. The two organisations have different memberships, different instruments and different enforcement mechanisms, although all EU Member States are also members of the Council of Europe.

The Vilnius Convention is the first legally binding international treaty specifically focused on AI. It has not yet entered into force as it requires the ratification of at least five States. To date, 15 States and the European Union have signed it, and the European Union ratified it on 15 May 2026. To acquire full force, the Convention must receive five ratifications, which include at least three Council of Europe member States.

The Convention takes a human rights-based approach to AI across the full lifecycle of AI systems, from design and development through deployment and decommissioning. Its core commitment, set out in Article 1, is that activities throughout the lifecycle of AI systems must be fully consistent with human rights, democracy and the rule of law. The Convention's preamble makes explicit reference to the CRPD as one of the instruments to which parties must give effect.

It should be noted that the Vilnius Convention does not refer to deaf people or to sign languages as such. Its protections operate through the broader category of persons in vulnerable situations and through its reference to the CRPD. Deaf people are covered, but they are covered by inference rather than by name. NAD should ensure that, when relevant, the implementation of the Convention does not overlooking the specific rights of deaf communities.

The Convention requires parties to conduct risk and impact assessments to identify and mitigate potential harms from AI systems, including harms affecting groups in vulnerable situations, such as persons with disabilities and therefore deaf people (Art. 16). It establishes procedural safeguards, including the right of individuals to challenge decisions made by AI systems that significantly affect their rights. It mandates the establishment of effective oversight mechanisms and requires parties to ensure that multistakeholder consultations are conducted on how AI should be used.

On monitoring, the Convention establishes a Conference of the Parties as its follow-up mechanism, bringing together the parties to consider implementation, exchange good practice and make recommendations, with parties required to report on the activities they undertake to give effect to it. The Council of Europe's Steering Committee on New and Emerging Technologies (CDNET), operating since 1 January 2026, acts as custodian of the Convention and promotes further signatures and ratifications. For NADs these are concrete entry points: reporting cycles and multistakeholder consultation requirements are opportunities to place the situation of sign language users on the record.

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Key implication for NADs

The Vilnius Convention has not yet entered into force, despite the European Union ratifying it on 15 May 2026. It will enter into force once five States, including at least three Council of Europe member States, have ratified it. NADs can advocate for their governments to follow the step taken by the European Union and proceed to ratification, and can insist that national ratification processes include meaningful consultation with representative organisations of persons with disabilities and of deaf people, as required by Article 4(3) CRPD.

The Convention provides an additional legally binding layer of protection against harmful AI deployment for deaf people, together with reporting obligations and oversight mechanisms that NADs can use.

The compatibility between the Vilnius Convention and the AI Act is explicitly recognised by the European Commission, which has stated that the Convention is fully compatible with the AI Act, and that it incorporates a number of key concepts of the AI Act, including a focus on human-centric AI consistent with human rights, democracy and the rule of law (European Commission, 2024c). The two instruments are designed to be mutually reinforcing. The Convention establishes the human rights baseline, while the AI Act operationalises compliance obligations at the EU level. For deaf communities, this complementarity means that harms not fully addressed by the AI Act may nonetheless fall within the scope of the Vilnius Convention's obligations.

3.3 The European Union: Regulation (EU) 2024/1689 establishing the AI Act

The AI Act is a directly applicable EU Regulation. Unlike a Directive, it does not require Member States to transpose it into national law; it takes effect across the Union in its own right (Article 288 TFEU). However, its implementation is not automatic or uniform: the Act establishes a framework of obligations within which Member States, national authorities, providers, and deployers must each make consequential decisions. The Regulation entered into force on 1 August 2024, with different provisions applying progressively between 2024 and 2028, as set out in Section 3.5.

The Act's foundational architecture is a risk-based approach: AI systems are classified according to the level of risk they present, and regulatory obligations are calibrated accordingly. This approach is described in detail in Section 5.1. Here it is sufficient to note that the Act's risk classifications carry direct implications for sign language AI systems, and that applying them to those systems requires careful interpretation. At the time of writing, no national competent authority in the EU has published guidance specifically addressing how the AI Act applies to sign language AI. That absence is not surprising, since the designation of national competent authorities has itself been slow across the Union and the Commission's own guidelines on high-risk classification are still being finalised.

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The AI Act contains explicit references to disability. Recital 80 establishes that, as signatories to the CRPD, the Union and the Member States are legally obliged to protect persons with disabilities from discrimination and to promote their equality, including in the design and deployment of AI. It requires providers of AI systems to ensure full compliance with accessibility requirements, taking full account of the inherent dignity and diversity of users. Recital 165 goes further and encourages providers of all AI systems, whether or not they are classified as high-risk, to voluntarily adopt inclusive design principles and to involve organisations representing persons with disabilities in development processes. This is not a binding obligation, but it is the normative anchor for the voluntary commitments discussed in Section 5.1 and in the recommendations addressed to developers and deployers in Section 7.5.

Article 16(l) makes the accessibility obligation directly binding on providers of high-risk AI systems, by requiring them to ensure that those systems comply with the accessibility requirements of the European Accessibility Act (Directive (EU) 2019/882) and the Web Accessibility Directive (Directive (EU) 2016/2102). What that means in practice is explained in Section 3.4.

The Act also provides several mechanisms that are directly relevant to deaf communities: Article 4 concerns AI literacy; Article 5 prohibits certain AI practices; Article 27 requires certain deployers of high-risk AI systems to carry out a fundamental rights impact assessment; Article 50 establishes transparency obligations for AI systems that interact with people and for AI-generated content; Article 57 creates the framework for AI regulatory sandboxes; Article 77 gives national authorities protecting fundamental rights specific powers in relation to high-risk AI systems; and Article 95 provides for voluntary codes of conduct. Some of these provisions is examined in Section 5.

3.4 The AI Act and the European accessibility framework: the EAA and the WAD

Article 16(l) imports the accessibility obligations of two other EU instruments, namely the European Accessibility Act (EAA) and the Web Accessibility Directive (WAD).

The European Accessibility Act (Directive (EU) 2019/882), applicable since 28 June 2025, sets common accessibility requirements for products and services placed on the EU market, including computers and operating systems, self-service terminals, consumer banking, e-commerce, e-books, and elements of electronic communications and audiovisual media services. Its requirements are functional: information must be available through more than one sensory channel and in formats users can perceive. For deaf users the most relevant consequences are text alternatives to audio content, real-time text in electronic communications, and accessible emergency communications.

The Web Accessibility Directive (Directive (EU) 2016/2102) requires public sector websites and mobile applications to be perceivable, operable, understandable and robust, in line with the harmonised standard EN 301 549. Public bodies must publish an accessibility statement and provide a feedback mechanism through which users can report failures and request content in an accessible form.

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Read together with Article 16(l), these instruments mean a provider of a high-risk AI system cannot treat accessibility as optional. Any AI-driven service must satisfy the EAA and the WAD in addition to the AI Act itself. Where the system generates or mediates communication, that obligation must be read alongside Article 21 CRPD on the acceptance and facilitation of sign languages in official interactions. Accessibility compliance for a system used by sign language users cannot be reduced to captions.

Both instruments have documented weaknesses, as highlighted in the 2025 EUD report on the implementation of the EAA. Furthermore, the CRPD Committee, in its 2025 Concluding Observations on the EU, criticised the limited scope of the EAA, delays in its transposition, gaps in the WAD, and the voluntary nature of accessibility provisions in EU digital legislation.

3.5 The AI Omnibus

On 19 November 2025 the European Commission published the Digital Omnibus, a simplification package amending several digital instruments including the AI Act. Its AI component, the AI Omnibus, was agreed by the Parliament and the Council in May 2026, adopted as Regulation (EU) 2026/1744, and entered into force on 27 July 2026.

It was presented as a response to implementation challenges at the national level, such as the slow designation of national competent authorities and the fact that the harmonised standards needed for high-risk compliance were not ready. Its substantive effect, however, extends well beyond deadlines. The European Disability Forum has set out six changes of particular concern for persons with disabilities (EDF, 2026).

1) Expanded use of sensitive data. Developers and deployers may now process sensitive personal data, including data on health and disability, without individual consent in order to detect and correct bias. This applies not only to high-risk systems but, under certain conditions, to all AI systems. For deaf people, whose sign language data is visual and includes facial and bodily features that may be processed as biometric data, this significantly broadens the circumstances in which such data may be processed without consent.
2) Reduced powers for fundamental rights authorities. Under the original Article 77, equality bodies and other fundamental rights authorities could request documentation on high-risk systems directly from providers and deployers. The Omnibus removes that direct access and routes requests through market surveillance authorities, weakening their ability to investigate discrimination.
3) Delayed protections for high-risk AI. Obligations for stand-alone high-risk systems listed in Annex III, which include education, employment and access to essential services, now apply only from 2 December 2027 rather than 2 August 2026. For high-risk systems embedded in products already regulated under other EU law, the date moves to 2 August 2028.

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4) New prohibitions on harmful content. The Omnibus prohibits AI systems used to generate non-consensual intimate content and child sexual abuse material, applicable from 2 December 2026. The prohibition is welcome.
5) Weakened AI literacy requirements. The original Article 4 required organisations to ensure a sufficient level of AI literacy among those operating and overseeing AI systems. The Omnibus lowers this to a duty to support it. Because users tend to over-rely on outputs that appear objective, this erodes the human oversight safeguard, and with it the quality of the human review on which sign language users depend when a system produces an inaccurate output.
6) Less transparency for exempted high-risk systems. Providers claiming that a system within an Annex III category is nonetheless not high-risk must still register that claim in the EU database, but with less detail than originally required. A weakened but still meaningful layer of transparency survives.

For deaf communities the combined effect is twofold. The postponement of high-risk obligations means AI systems in education, employment and essential services will continue to be deployed without the safeguards the AI Act was designed to impose. At the same time, weaker AI literacy duties and reduced powers for fundamental rights bodies lower the capacity to detect and correct harm when it occurs. The delay does create a window: NADs have time to engage national authorities before the high-risk regime applies.

4. Sign Language AI and the challenges faced by deaf communities

4.1 The meaning of Sign Language AI

Sign language AI (SLAI) refers to AI systems designed to recognise, translate, generate or interpret national sign languages, as well as related systems such as signing avatars, gesture-recognition interfaces and visual or haptic communication tools (Way, Leeson & Shterionov, 2024; Venade de Sousa, 2025). Within the broader landscape of AI language technologies, which also includes large language models, automated captioning and speech-to-text, SLAI occupies a specific and particularly sensitive position.

EUD's 2025 publication defines SLAI as a subset of 'deaf technologies', that is, technological solutions rooted in deaf lived experiences and communicative practices. What distinguishes deaf technologies from conventional assistive technologies is the framework in which they are conceived: rather than framing deafness as a deficit to be mitigated, deaf technologies are based on a deaf-centred, rights-based approach that recognises Deafhood as a linguistic, cultural and social identity. Within this framework, AI tools are understood not as devices that help deaf people compensate for hearing loss,

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but as tools that can support linguistic autonomy, cultural expression and communicative self-determination (Venade de Sousa, 2025, pp. 46-47; Venade de Sousa, 2026).

An AI system that generates sign language output based on hearing-centred assumptions about what deaf communication looks like embeds a deficit-based view of deaf people into its architecture. Such assumptions are commonly described as audist. Audism is the belief, whether held consciously or embedded in institutional practice, that the ability to hear or to behave as a hearing person does makes a person superior, and that deaf ways of communicating are therefore inferior or in need of correction. In AI, it rarely appears as an explicit statement; it appears in design choices, in datasets that treat interpreted signing as the standard, in benchmarks that measure success by how closely output resembles spoken language, and in product framings that present sign language as a problem for technology to solve rather than a language for technology to serve. Policy frameworks that do not distinguish between systems reflecting deaf community values and systems reproducing audist assumptions will fail to protect sign language users from the latter.

SLAI systems often involve the processing of biometric and behavioural data, including facial expressions, body movements and spatial positioning, that are grammatical features of sign languages. This intersection between linguistic processing and biometric data processing is one of the most legally complex aspects of SLAI, and that is not clearly addressed in the current AI Act framework. Its implications are explored in Section 5.1.

4.2 Technical limitations and structural exclusion

The current state of SLAI development is characterised by a significant gap between the ambitions of developers and the realities of deployment. This gap is caused by the quality of collected data, methodological shortcomings, and structural exclusion.

Sign languages are classified as 'low-resource languages' in AI terms, as they lack the large, high-quality annotated datasets that machine learning systems require to function reliably. Most data that does exist is systematically inadequate. Indeed, most SLAI training datasets have been compiled from recorded sign language interpreters rather than from the natural signing of deaf native signers. This is a fundamental methodological flaw, because interpreters employ a more deliberate, constrained and hearing-oriented signing style that does not reflect the fluid, nuanced and culturally embedded language produced by deaf communities. AI systems trained on interpreted content learn, in effect, a distorted version of the language they are meant to represent (De Meulder, 2021; Hickman, Hagerty & Powell, 2025, pp. 18-19).

These technical limitations lead to structural problems. Sign languages are visually and spatially complex in ways that current AI architectures struggle to handle. Facial expressions in sign languages are not emotional signals, but grammatical features marking questions, relative clauses, negation, verb agreement and prosodic boundaries. Body orientation, movement trajectory and spatial

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positioning all carry syntactic and semantic information. AI systems trained on inadequate data and evaluated against hearing-centred benchmarks produce outputs that may appear acceptable in controlled testing conditions but fail in real-world, high-stakes deployment (Venade de Sousa, 2025, p. 101; Way, Leeson & Shterionov, 2024).

There are also problems of representational diversity. Most SLAI datasets are skewed toward dominant, white, native-signing demographics. Deaf people from minority ethnic backgrounds, deaf women, deaf people with additional disabilities, and users of regional or minority sign language variants are systematically underrepresented. AI systems built on these datasets reproduce and amplify the exclusion their developers often claim to be addressing (Desai et al., 2024; Angelini, Spiel & De Meulder, 2025).

Structural exclusion operates at the level of research leadership, not only data. Deaf people remain underrepresented as researchers, engineers, linguists and project leaders in the field of SLAI. Problem framings in academic and industry research continue to reflect hearing-centric assumptions about what deaf people need and what constitutes adequate communication support. When deaf people are involved in development processes, it is typically at the testing or validation stage. Consequently, systems that may appear functional in laboratory conditions break down in real-life and high-stakes situations involving deaf users (De Meulder, 2025; Angelini, Spiel & De Meulder, 2025).

4.3 The substitution risk and its consequences

The most immediate challenge posed by SLAI is not its current technical inadequacy, but the use to which inadequate systems are already being put. Across Europe, public institutions such as schools, hospitals, courts, public broadcasters and local authorities are increasingly procuring SLAI tools not as a supplement to qualified human communication support, but as a replacement for it. The BSL Is Not For Sale study, which examined how public bodies in the United Kingdom procure sign language AI, documents this pattern in detail and identifies procurement as the decisive point at which the substitution occurs (Hickman, Hagerty & Powell, 2025). The drivers are almost always cost reduction and the shortage of professional sign language interpreters.

This dynamic was identified and analysed in EUD's 2025 publication: AI is being positioned as a cheap solution that allows institutions to meet formal accessibility requirements at minimal expense, without providing the quality of communication that sign language users are entitled to under the CRPD. An AI signing avatar placed on a public authority's website or on a screen next to a reception booth at a police station may satisfy a procurement officer's tick-box accessibility criteria while failing entirely to deliver the contextually appropriate, linguistically accurate and culturally sensitive communication that a qualified national sign language interpreter provides (Venade de Sousa, 2025, pp. 44-45).

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The World Federation of the Deaf and the World Association of Sign Language Interpreters stated clearly in their 2018 joint statement on signing avatars that news broadcasts, public emergency announcements and political announcements are no-go areas for the use of AI avatars, because the information involved is live, complex or of significant importance (WFD & WASLI, 2018). Evidence from applied research confirms that deaf users strongly prefer qualified human interpreters in high-stakes contexts, and that trust in AI communication tools is conditional on transparent labelling and the availability of human alternatives (SignON Project, 2023).

There is an additional structural risk. As De Meulder (2025) has documented, access measures initially resisted by deaf communities because of their limitations become normalised over time. It is important to be precise about where this normalisation happens: it is not that deaf people come to find inferior provision satisfactory. It is that institutions, having adopted a cheaper measure, treat it as the established standard of accessibility, and the burden of argument shifts onto deaf users to justify why anything better should be provided. Video Remote Interpreting illustrates the pattern: opposed by deaf organisations precisely because it offers inferior quality to in-person interpretation, it has become so widespread in some countries that it is now effectively the default, and the case for in-person interpretation has been weakened accordingly. SLAI risks the same trajectory of initial resistance, institutional entrenchment and gradual displacement of better provision. The time to set boundaries is before that entrenchment, not after.

The position of the European Union of the Deaf is not that AI sign language tools should be prohibited in any context. The nuance to be brought here is that the choice of communication modality, whether human, AI, or a combination of both, must remain in the remit of the sign language user. This choice is only meaningful if both options are available and of adequate quality. Where institutions eliminate human interpretation provision on the basis that AI is 'good enough', they remove the conditions for informed choice and for the fulfilment of the linguistic human rights of deaf people.

4.4 Co-creation as the missing piece

The methodological and structural failures described above find their roots in the absence of genuine co-creation. Deaf communities are the intended users, the holders of the linguistic knowledge that SLAI requires, and the bearers of the rights that SLAI implementation can either protect or undermine.

Co-creation, in the sense relevant to SLAI governance, goes beyond the mere approach of 'consulting deaf people'. It means that deaf professionals must be involved from the earliest stages of system design through to deployment, evaluation and ongoing governance. Problem formulations, data collection protocols, performance benchmarks and deployment decisions must all reflect deaf community values and expertise, not simply be checked against them after the fact (De Meulder, Van Landuyt & Omardeen, 2025; Picron, Van Landuyt & Omardeen, 2024).

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Evidence from deaf-led projects, including the EASIER and SignON initiatives funded under Horizon 2020, demonstrates that genuine co-creation is both feasible and productive. The SignON project's white paper on the do's and don'ts of sign language technology sets out, from that project experience, the conditions under which deaf involvement produces better systems: deaf leadership in setting objectives, deaf researchers shaping evaluation criteria, and iterative development driven by community feedback rather than by technical milestones alone (SignON Project, 2022). Where these conditions were met, the quality of AI outputs and the trust of deaf users were substantially higher than in projects where deaf involvement was confined to late-stage testing (De Meulder, Van Landuyt & Omardeen, 2025).

> **The co-creation obligation under Article 4(3) CRPD**
>
> Article 4(3) CRPD, as elaborated by the CRPD Committee's General Comment No. 7 (2018), requires States Parties to closely consult with and actively involve persons with disabilities, through their representative organisations, in the development and implementation of legislation and policies relevant to them. This obligation applies to AI governance.
>
> Where a national government develops AI implementation guidance, designates a national competent authority, establishes procurement standards, or funds SLAI research without meaningful involvement of NADs and the deaf communities they represent, it is in breach of this provision. It is an obligation to involve, that applies from the outset, not at the end of a process when decisions have already been made.

5. Opportunities and challenges of the AI Act for deaf communities

5.1 What each level of risk means for sign language users

The AI Act organises AI systems into four risk categories, each carrying different regulatory obligations. Understanding how these categories apply is essential to engage with national implementation processes.

One distinction should be kept in view throughout this section. The AI systems that affect deaf people are not only sign language AI systems, but also ordinary systems that were not designed with deaf users in mind and that risk negatively impacting them.

LEVEL 1 *Prohibited AI Practices*	Article 5 of the AI Act prohibits certain AI practices outright, irrespective of any safeguards a provider might put in place. These prohibitions have applied since 2 February 2025. Two are of direct relevance to sign language users.

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Article 5(1)(b) prohibits AI that exploits vulnerabilities relating to disability, age or social situation to materially distort behaviour in a way likely to cause significant harm. The Commission's 2025 guidelines on prohibited practices note that persons with disabilities may be more susceptible to certain harms, and that what counts as significant harm in general may be more serious for a person with disabilities. For sign language users who depend on AI-mediated communication where no alternative is available, the risk of exploitation of communicative dependency is real and must be addressed explicitly in national guidance.

Article 5(1)(f) prohibits AI systems that infer emotions in educational and workplace settings, with an exception for medical or safety reasons. Its implications for sign language users have not been sufficiently recognised. Facial expressions in sign languages are grammatical features carrying information about question formation, negation, verb agreement and prosodic structure; they are not emotional signals. An AI exam-monitoring system analysing facial expressions to detect 'suspicious behaviour' will misread a deaf student's grammatical facial signals as potential evidence of misconduct. Research has documented that facial expression recognition systems perform poorly for deaf adults and their children precisely because they cannot distinguish linguistic facial grammar from the affective states they are designed to detect (Shaffer, 2018). National authorities must address this explicitly in guidance on Article 5(1)(f).

A related concern arises under the biometric provisions. Article 3(34) defines biometric data as personal data resulting from specific technical processing relating to the physical, physiological or behavioural characteristics of a person. Applied without care, that definition could encompass the facial and bodily expressions integral to sign language use. AI systems must not conflate the grammatical use of facial expressions and body movement in sign languages with biometric identification or categorisation. Without explicit national guidance, sign language users face two opposite risks: being incorrectly subjected to biometric oversight provisions, or having systems that process their sign language excluded from oversight on the grounds that biometric processing is involved (Venade de Sousa, 2025, pp. 100-101).

From 2 December 2026, Article 5 also prohibits AI systems used to generate non-consensual intimate imagery and child sexual abuse material, a prohibition introduced by the AI Omnibus.

LEVEL 2
High-Risk AI Systems

High-risk AI systems are defined in Article 6 and listed, for the stand-alone category, in Annex III. They carry the AI Act's most demanding obligations, set out in Chapter III: a risk management system (Article 9), data governance including examination for possible biases (Article 10), technical documentation (Article 11), record-keeping (Article 12), transparency towards deployers (Article 13), human oversight (Article 14),

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and accuracy, robustness and cybersecurity (Article 15). Providers must complete a conformity assessment before placing the system on the market, register it in the EU database, and comply with the accessibility requirements referred to in Article 16(l). Deployers have their own obligations under Article 26, and certain deployers must carry out a fundamental rights impact assessment under Article 27.

Following the AI Omnibus, these obligations apply from 2 December 2027 for stand-alone Annex III systems and from 2 August 2028 for high-risk systems embedded in regulated products.

Education (Annex III.3): AI systems that determine admission, evaluate learning outcomes, assess the appropriate level of education for a person, or monitor and detect prohibited behaviour during tests are high-risk. For deaf students, AI assessment tools such as reading comprehension systems, adaptive testing platforms and performance tracking tools carry specific risks, because they are designed around spoken language literacy norms and do not account for the reality that the first language of many deaf students is a national sign language. Such assessments will systematically underestimate the abilities of deaf students, with direct consequences for their educational trajectories. The risk is heightened in summative evaluation, where AI outputs directly influence grades, placement or progression (Rathmann & Romanek, 2025, p. 183; FRA, 2025, p. 38).

Employment (Annex III.4): AI used in recruitment, candidate screening, task allocation, performance evaluation and decisions on promotion or termination is high-risk. Automated interview tools relying on voice-based interaction or AI-processed speech effectively exclude deaf candidates who use a sign language. Systems that evaluate 'productivity' or assess performance against standardised benchmarks risk penalising deaf workers whose communication processes, work methods or accommodation arrangements differ from hearing norms. The UN Special Rapporteur has noted that AI hiring tools can 'short-circuit the obligation of reasonable accommodation' by removing the human judgment and contextual flexibility that reasonable accommodation requires (A/HRC/49/52, para. 34).

Essential services (Annex III.5): AI used to evaluate eligibility for essential public assistance benefits and services including healthcare, to evaluate creditworthiness, or to set risk pricing in insurance is high-risk. Annex III.5 also covers AI used to evaluate and classify emergency calls and to dispatch emergency first response services. EUD's position is that essential services must be interpreted broadly in national guidance, to include emergency communications such as 112, crisis communications, public safety announcements, medical consultations and legal proceedings. AI sign language systems in these contexts carry the highest risk: a translation error in an emergency or medical setting can have life-altering or fatal consequences for a sign language user who cannot easily switch to another communication modality (Venade de Sousa, 2025, pp. 121-122).

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Biometrics (Annex III.1): remote biometric identification systems, biometric categorisation according to sensitive attributes, and emotion recognition systems are high-risk where they are not already prohibited under Article 5.

LEVEL 3
Limited-Risk AI Systems

Limited-risk AI systems are those neither prohibited nor high-risk, but presenting a specific risk of manipulation or deception because people may not realise they are dealing with a machine or with machine-generated content. The AI Act imposes no safety or quality requirements on them, only transparency obligations, set out in Article 50 and applicable from 2 August 2026.

Article 50(1) requires providers to design AI systems intended to interact directly with people so that those people are informed they are interacting with an AI system, unless this is obvious. Article 50(2) requires providers of systems generating synthetic audio, image, video or text to mark that content in a machine-readable format as artificially generated. Article 50(4) requires deployers of systems producing deep fakes to disclose that the content has been artificially generated or manipulated.

It should be stated precisely: Article 50 does not mention sign languages. It establishes a general obligation of transparency about AI interaction and AI-generated content. EUD's position is that this obligation applies to AI-generated sign language, since a signing avatar is an AI system interacting directly with a person and its output is synthetically generated. On that reading, signing avatars and other SLAI systems producing or simulating sign language output must be clearly labelled as AI-generated. No published national guidance currently confirms that reading, which is why Recommendation 9 asks national competent authorities to state it explicitly.

LEVEL 4
Minimal-Risk AI Systems

The large majority of AI systems fall into this category and are subject to no mandatory obligations under the AI Act. Two provisions nonetheless create opportunities for voluntary commitment and civil society advocacy.

Recital 165, introduced in Section 3.3, encourages providers of all AI systems to voluntarily adopt inclusive design principles and to involve organisations representing persons with disabilities in development.

Article 95 provides for voluntary codes of conduct for AI systems that are not high-risk: commitments drawn up by providers, deployers or their representative organisations and encouraged by the AI Office and Member States. They may cover accessibility for persons with disabilities, prevention of negative impacts on vulnerable groups, and stakeholder participation in development.

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5.2 Challenges of implementing the AI Act

Although the AI Act is directly applicable, it leaves Member States with substantial discretionary powers in implementation. The EDF toolkit on AI Act implementation (EDF, 2025) sets out the full range of national obligations and should be used by NADs in undertaking national monitoring.

National competent authorities

Under Article 70, each Member State must designate at least one notifying authority and at least one market surveillance authority, the latter acting as the single point of contact. The notifying authority assesses and monitors the conformity assessment bodies that verify whether high-risk systems meet the Act's requirements. The market surveillance authority investigates non-compliance, can require corrective action or withdrawal, and handles complaints. Article 70 also requires adequate technical, financial and human resources, and staff expertise covering AI technologies, data protection, cybersecurity and fundamental rights.

Beyond that, composition, mandate and working methods are left to Member State discretion. There is no EU-level requirement that these authorities include disability or deaf representation if they develop sector-specific guidance on the AI Act and SLAI, or that their enforcement procedures be accessible to sign language users.

Authorities protecting fundamental rights (Article 77)

Article 77 requires each Member State to identify, and publish a list of, the national bodies that supervise or enforce obligations under Union law protecting fundamental rights, including non-discrimination, in relation to high-risk Annex III systems. Typically this includes equality bodies, national human rights institutions, data protection authorities and, in some countries, ombudsman offices.

These bodies can request and access documentation created under the AI Act where necessary to fulfil their mandates. The AI Omnibus has weakened this by routing requests through market surveillance authorities rather than allowing direct access, but the underlying power remains. The practical significance for a NAD is that where an AI system produces discriminatory outcomes for deaf people, the national equality body or human rights institution listed under Article 77 is an ally with statutory information-gathering powers and is likely to be receptive to a well-documented complaint.

AI literacy

As amended by the AI Omnibus, Article 4 foresees that providers and deployers must now support rather than ensure a sufficient level of AI literacy, with a corresponding responsibility on the Commission and Member States to encourage literacy initiatives. Neither formulation carries accessibility requirements. If national programmes are delivered without accessibility in the national

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sign language, deaf communities will be doubly penalised: they will be excluded from the training, and served by professionals that are not aware of the discrimination made towards deaf people.

Complaints, redress and penalties

Article 85 gives any person the right to complain to a market surveillance authority where they have grounds to consider that the AI Act has been infringed. Article 86 gives affected persons the right to an explanation of individual decision-making where a deployer takes a decision on the basis of the output of a high-risk Annex III system that produces legal effects or similarly significantly affects them. Article 99 requires Member States to lay down rules on penalties.

Member States decide how these mechanisms operate in practice: which body receives complaints, in what form, and through which channels. Nothing in the Act requires those channels to be accessible in a national sign language. This is a concrete demand NADs can make of their national authorities.

5.3 AI Regulatory Sandboxes

Article 57 of the AI Act requires each Member State to establish, or participate in, at least one AI regulatory sandbox. Following the AI Omnibus, that sandbox must be operational by 2 August 2027.

A sandbox is a controlled environment established by a national competent authority in which AI systems can be developed, trained, tested and validated under regulatory supervision before reaching the market (EPRS, 2026).

For SLAI, sandboxes therefore represent a significant opportunity. They provide a supervised environment in which deaf-led organisations and research teams can develop, test and refine sign language AI with direct regulatory oversight. Sandbox governance also provides a point of entry for NADs: where they participate in the governance of sandboxes hosting SLAI projects, they can influence the technical standards applied.

EUD recommends that national sandboxes include provisions specifically addressing SLAI, and that deaf-led organisations have a formal role in governing SLAI sandbox projects. The EASIER and SignON projects provide a model for what deaf-inclusive sandbox governance can look like.

6. Conclusion

The EUD welcomes the AI Act as a landmark regulatory development acknowledging the rights of persons with disabilities. The Act serves as a foundation on which the linguistic human rights of deaf communities in the era of artificial intelligence can be protected. We also recognise the potential of AI technologies for sign language communities. SLAI, when adequately developed through the co-creation principles, has the potential to contribute to the full inclusion of deaf people in their societies.

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We are, however, concerned that the AI Omnibus has weakened several of those protections before they had taken effect. National implementation must now compensate for what has been compromised at the EU level.

Therefore, our position rests on three principles underlying the implementation of the AI Act as it affects sign language users.

First, the principle of informed choice. The decision as to which communication tool is used in any given context, whether a qualified national sign language interpreter, an AI tool, or a combination of both, must rest with the sign language user. Where institutions remove human interpretation on cost grounds or present AI as the default, they eliminate the conditions for informed choice. EUD considers that any AI policy framework which, in effect, restricts sign language users to AI-mediated communication in high-stakes settings is incompatible with the right to freedom of expression in sign languages outlined by the CRPD.

Second, the principle of complementarity. In high-stake meetings, such as legal proceedings, medical appointment and emergency services, among others, professional national sign language interpreters remain indispensable. AI tools may complement human provision in these settings but may not replace it. This position is consistent with the joint WFD/WASLI statement on signing avatars (2018), with the Declaration of Ethical Principles in EUD's 2025 publication, and with the evidence base on the current capabilities and limitations of SLAI.

Third, the principle of co-creation. Deaf communities, through their representative organisations, must be genuine partners in the development, governance and evaluation of AI systems that affect them. This is a legal obligation under Article 4(3) CRPD, further elaborated by the CRPD Committee's General Comment No. 7. Co-creation means involvement from the outset, in problem formulation, data governance, design decisions, performance benchmarking and deployment oversight, not consultation on a near-finished system.

In light of these principles, EUD calls on the European Union institutions, Member States, national AI oversight bodies and the developers and deployers of AI systems to ensure that the implementation of the AI Act adequately addresses the specific realities of deaf communities and sign language users.

7. Recommendations

The following recommendations are organised by actor. This structure reflects the distribution of implementation responsibilities under the AI Act and under the CRPD, and is intended to equip each actor, namely EU institutions, Member States, national oversight bodies, NADs, and the developers and deployers of AI systems, with a clear and actionable set of priorities.

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7.1 Recommendations for the European Union

Recommendation 1 — European Commission: Prepare the High-Risk Regime for Sign Language Users

- → The application of high-risk obligations to stand-alone Annex III systems has been postponed to 2 December 2027. The Commission should use that period to ensure that the guidance, standards and compliance tools developed before that date address the situation of sign language users explicitly.
- → This includes: guidance on the classification of sign language machine translation and signing avatars used in education, employment and essential services; clarification that facial and bodily expressions that are grammatical features of national sign languages must not be treated as biometric data for identification, categorisation or emotion inference purposes; and guidance on how the accessibility requirements imported by Article 16(l) from the European Accessibility Act and the Web Accessibility Directive apply to AI systems used by or affecting sign language users.
- → The harmonised standards being developed to support high-risk compliance should be scrutinised for their treatment of accessibility and linguistic diversity, and organisations of persons with disabilities should be involved in their development.

Recommendation 2 — European Commission: Codes of Conduct under Article 95

- → The European Commission should ensure that voluntary codes of conduct developed under Article 95 include specific provisions on accessible and inclusive design for sign language users, and on the involvement of NADs and deaf-led organisations in the governance of SLAI development processes.
- → Codes of conduct are the principal instrument through which good practice can be extended to SLAI products that fall below the high-risk threshold, which is where a large proportion of consumer-facing sign language AI currently sits.

7.2 Recommendations for Member States

Recommendation 3 — Representation of deaf communities in national AI governance

- → Member States must ensure that the national deaf community, through the relevant NAD or an equivalent representative body, is formally involved in the work of the national competent authority for AI wherever that authority addresses AI systems relevant to deaf communities.
- → Involvement must follow co-creation principles.

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→ This obligation flows from Article 4(3) CRPD and General Comment No. 7, which bind Member States in their own right as parties to the Convention.

Recommendation 4 — National guidance on sign language and biometric AI

→ Member States must issue specific national guidance, clarifying that the facial expressions, body movements and spatial features that constitute grammatical elements of national sign languages must not be treated as biometric data for identification, categorisation or emotion inference purposes under the AI Act.

→ This guidance should apply to all AI systems operating in education, employment and public services that process visual input in contexts where sign language users may be present, and should be issued before the high-risk regime becomes applicable on 2 December 2027.

Recommendation 5 — Protection of professional sign language interpretation in high-stakes settings

→ Member States must ensure that AI sign language tools are not deployed as the sole means of accessibility in high-stake situations including access to emergency numbers, crisis communications, medical consultations, legal proceedings and educational instruction. Qualified national sign language interpretation must remain available to those who choose it.

→ AI solutions provided in these services should be classified as high-risk AI systems under Annex III and subjected to the corresponding obligations.

Recommendation 6 — Public procurement standards that are inclusive of deaf people

→ Member States must establish procurement standards for public institutions procuring AI systems that affect national sign language users. These standards must require the involvement of NADs or deaf-led organisations in needs assessment and specification drafting, prior to the preparation of tender documents.

→ The guidance published by the British Deaf Association and the Minderoo Centre for Technology and Democracy in BSL Is Not For Sale (https://bda.org.uk/bsl-is-not-for-sale/) provides a detailed, deaf-led model for AI procurement that Member States and public bodies can adapt to their national context.

→ Procurement decisions taken without these safeguards risk breaching both Article 4(3) CRPD and high-risk obligations of the AI Act.

Recommendation 7 — Accessible AI literacy across all categories of AI system

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- → AI literacy initiatives encouraged under Article 4 of the AI Act must be accessible to deaf people by being delivered in national sign languages and co-designed with NADs.
- → AI literacy must not be confined to high-risk systems, but should also encompass limited-risk systems, minimal-risk systems and general-purpose AI models that affect deaf people.
- → Professionals who deploy AI systems in contexts involving deaf users must receive specific training on the risks and limitations of SLAI systems and on the obligations attaching to AI deployment affecting persons with disabilities.
- → Because the AI Omnibus has reduced the Article 4 duty on providers and deployers from ensuring to supporting AI literacy, Member States should compensate through national measures.

Recommendation 8 — Ratification of the Vilnius Convention

- → Member States that have not yet ratified the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (CETS No. 225) should proceed to ratification, following the steps taken by the European Union, which ratified the Convention on 15 May 2026.
- → National ratification and implementation processes should include meaningful consultation with representative organisations of persons with disabilities and of deaf people, in accordance with Article 4(3) CRPD.
- → Because the Convention does not refer to deaf people or sign languages by name, national implementing measures should state explicitly that its protections extend to sign language users.

7.3 Recommendations for National AI Oversight Bodies

Recommendation 9 — Guidance on the application of the AI Act to SLAI

- → National competent authorities must develop specific interpretive guidance on the application of the AI Act to sign language AI systems, addressing at minimum: the classification of SLAI systems under the high-risk categories, the correct interpretation of the biometric and emotion recognition provisions in sign language contexts; and the accessibility obligations applicable to high-risk AI systems under Article 16(l).
- → This guidance must be developed through active collaboration with NADs, following the co-creation principles set out in Section 4.4.

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Recommendation 10 — AI regulatory sandboxes co-created with deaf communities

→ In establishing the national AI regulatory sandbox required by 2 August 2027, national competent authorities must ensure that SLAI projects can access the sandbox and that deaf-led organisations have a formal governance role in projects affecting sign language users.

→ Sandboxes provide a supervised testing environment that is particularly valuable for SLAI, given the current inadequacy of available datasets and the high stakes of real-world deployment.

Recommendation 11 — Accessible complaints and redress mechanisms in national sign languages

→ The complaint mechanism under Article 85 and the right to an explanation of individual decision-making under Article 86 must be exercisable by sign language users on an equal basis with others. This requires complaint channels available in national sign languages and staffed or supported by personnel able to receive a complaint in sign language.

→ National oversight bodies should audit their complaint procedures against the accessibility requirements of the European Accessibility Act and the Web Accessibility Directive, and report publicly on the accessibility of these mechanisms.

→ Authorities designated under Article 77 as fundamental rights protection bodies should be identified publicly and made reachable in national sign languages, since these are the bodies best placed to investigate discriminatory outcomes affecting deaf people.

7.4 Recommendations for National Associations of the Deaf

Recommendation 12 — Map and engage with your national AI governance structure

→ NADs should map the national AI governance landscape in their country by identifying the designated national competent authority and single point of contact.

→ Where no deaf representation exists, NADs should submit a formal written request for inclusion, citing Article 4(3) CRPD and General Comment No. 7. The request should be addressed to the competent authority and, where relevant, to the ministry responsible for AI policy. EUD can support NADs with template letters and background documentation.

→ The period between now and 2 December 2027, when the high-risk regime becomes applicable, is when national supervisory arrangements are being designed. Engagement during this period will have more effect than engagement after national practice has settled.

Recommendation 13 — Refuse tokenism and demand co-creation

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- → When approached for consultation by government bodies or AI developers, NADs should apply four tests: At what stage is the consultation taking place? Have core design or policy decisions already been made? Is the NAD's input genuinely shaping the process, or merely validating it? Will the NAD be involved through to implementation and ongoing review?
- → Where these tests reveal that consultation is being conducted on a near-complete product or policy, NADs are entitled to refuse that framing and to request genuine co-creation from an earlier stage. Co-creation means shared ownership over the process from the outset, not a seat at a table where decisions have already been made.
- → The Ethical Framework and the Declaration of Ethical Principles published by EUD (Venade de Sousa, 2025, pp. 12-27) alongside the SignON project's white paper on the do's and don'ts of sign language technology (SignON Project, 2022) set out the minimum conditions for meaningful SLAI co-creation.

7.5 Recommendations for Developers and Deployers of AI Systems

Recommendation 14 — Build with deaf communities

- → Involve deaf professionals, including developers, linguists, researchers and community representatives, from the definition of the problem onwards. Late-stage user testing is not co-creation and does not correct decisions already embedded in a system's architecture.
- → Collect sign language data from deaf native signers rather than from recorded interpretation, and ensure that datasets represent the diversity of the community, including regional variants, minority ethnic signers, deaf women, and deaf people with additional disabilities.
- → Obtain informed, specific and revocable consent for the use of sign language data, secure fresh consent for any reuse beyond the original purpose, do not alter recordings in ways that distort meaning or cultural expression, and remunerate signers fairly in proportion to the scale and duration of the use made of their data. EUD's model contract for the use of sign language data provides a workable basis.

Recommendation 15 — Do not market SLAI as a substitute for professional sign language interpreters

- → Do not present sign language AI products as equivalent to, or a substitute for, qualified national sign language interpretation.
- → Label AI-generated sign language content clearly as AI-generated, in the content itself and in the accompanying documentation, in line with the transparency obligations in Article 50 and irrespective of whether national guidance has yet confirmed their application to sign language output.

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→ State plainly contexts in which the product should not be used, including live emergency communications, medical consultations and legal proceedings, consistent with the WFD/WASLI statement on signing avatars.

8. Bibliography

International and European legal instruments

- Council of Europe. (2024). Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (CETS No. 225). Opened for signature 5 September 2024, Vilnius/ Available at: https://rm.coe.int/1680afae3c
- Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of the websites and mobile applications of public sector bodies (Web Accessibility Directive). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016L2102
- Directive (EU) 2019/882 of the European Parliament and of the Council of 17 April 2019 on the accessibility requirements for products and services (European Accessibility Act). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019L0882
- Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32024R1689
- Regulation (EU) 2026/1744 amending Regulation (EU) 2024/1689 as regards the simplification of rules on artificial intelligence (AI Omnibus). Published in the Official Journal on 24 July 2026; entered into force 27 July 2026.
- United Nations. (2006). Convention on the Rights of Persons with Disabilities. Available at: https://social.desa.un.org/issues/disability/crpd/convention-on-the-rights-of-persons-with-disabilities-crpd

United Nations sources

- UN Committee on the Rights of Persons with Disabilities. (2018). General Comment No. 7 (2018) on the participation of persons with disabilities, including children with disabilities, through their representative organizations, in the implementation and monitoring of the Convention (CRPD/C/GC/7). Geneva: UN.
- UN Committee on the Rights of Persons with Disabilities. (2025). Concluding Observations on the combined second and third periodic reports of the European Union (CRPD/C/EU/CO/2-3), adopted at the 32nd session, March 2025. Geneva: UN. Available at: https://docs.un.org/en/CRPD/C/EU/CO/2-3
- UN Special Rapporteur on the Rights of Persons with Disabilities. (2021). Report on artificial intelligence and the rights of persons with disabilities (A/HRC/49/52). Geneva: OHCHR. Available at: https://www.ohchr.org/en/calls-for-input/2021/report-special-rapporteur-rights-persons-disabilities-artificial-intelligence

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European Union sources

- European Commission. (2024). Commission signed the Council of Europe Framework Convention on Artificial Intelligence and human rights, democracy and the rule of law. Available at: https://digital-strategy.ec.europa.eu/en/news/commission-signed-council-europe-framework-convention-artificial-intelligence-and-human-rights
- European Commission. (2025a). Guidelines on prohibited AI practices under the AI Act. Available at: https://digital-strategy.ec.europa.eu/en/library/commission-publishes-guidelines-prohibited-artificial-intelligence-ai-practices-defined-ai-act
- European Commission. (2025b). Guidelines on the AI system definition of the AI Act. Available at: https://digital-strategy.ec.europa.eu/en/library/commission-publishes-guidelines-ai-system-definition-facilitate-first-ai-acts-rules-application
- European Commission. Fundamental rights protection authorities under the AI Act. Available at: https://digital-strategy.ec.europa.eu/en/policies/fundamental-rights-protection-authorities-ai-act
- European Commission. Timeline for the implementation of the EU AI Act. AI Act Service Desk. Available at: https://ai-act-service-desk.ec.europa.eu/en/ai-act/timeline/timeline-implementation-eu-ai-act
- European Parliamentary Research Service (EPRS). (2026). AI regulatory sandboxes: State of play and implementation challenges (PE 785.673). Brussels: European Parliament.
- European Union Agency for Fundamental Rights (FRA). (2025). Assessing high-risk artificial intelligence: Fundamental rights risks. Luxembourg: Publications Office of the EU. Available at: https://fra.europa.eu/sites/default/files/fra_uploads/fra-2025-assessing-high-risk-ai-fundamental-rights-risks_en.pdf
- Madiega. T., & Van Den Pol, A.L. (2022). Artificial intelligence act and regulatory sandboxes. European Parliamentary Research Service. Available at: https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/733544/EPRS_BRI(2022)733544_EN.pdf

Disability and deaf organisations

- European Disability Forum (EDF). (2025). A disability-inclusive AI Act: Updated guide to monitor implementation in your country. Available at: https://www.edf-feph.org/publications/a-disability-inclusive-artificial-intelligence-act-updated-guide-to-monitor-implementation-in-your-country/
- European Disability Forum (EDF). (2026). 6 ways the AI Omnibus weakens protections for persons with disabilities, and the accompanying briefing on the AI Omnibus for organisations of persons with disabilities. Available at: https://www.edf-feph.org/6-ways-the-ai-omnibus-weakens-protections-for-persons-with-disabilities/
- European Union of the Deaf. (2024). Position paper: National Sign Languages as EU Official Languages. Available at: https://eud.eu/the-publication-of-our-latest-position-paper-titled-national-sign-languages-as-eu-official-languages/
- European Union of the Deaf. (2025). Report on the implmenetation of the European Accessibility Act. Available at: https://eud.eu/eud-publishes-new-report-on-the-implementation-of-the-european-accessibility-act/
- Hickman, L., Hagerty, A., & Powell, R. (2025). BSL is not for sale: A deaf-led approach to AI procurement. Minderoo Centre for Technology and Democracy & British Deaf Association. Available at: https://bda.org.uk/bsl-is-not-for-sale/

All the publications from 2026 – 2028 are co-funded by and produced under the European Commission's Citizens, Equality, Rights and Values (CERV) Programme.

Funded by the European Union

- World Federation of the Deaf & World Association of Sign Language Interpreters. (2018). Statement on use of signing avatars. Available at: https://wasli.org/wp-content/uploads/2023/07/WFD-and-WASLI-Statement-on-Avatar-FINAL-14032018-Updated-14042018-1.pdf

Academic and project literature

- Angelini, R., Spiel, K., & De Meulder, M. (2025). Deaf-centred futures in AI: Participatory research perspectives. In F. Venade de Sousa, Sign language in the era of artificial intelligence. Brussels: European Union of the Deaf.
- De Meulder, M. (2021). Is 'good enough' good enough? Ethical and responsible development of sign language technologies. Proceedings of the 1st International Workshop on Automatic Translation for Signed and Spoken Languages, MT Summit 2021. Available at: https://aclanthology.org/2021.mtsummit-at4ssl.2.pdf
- De Meulder, M. (2025). Deaf in AI: AI language technologies and the erosion of linguistic rights. arXiv preprint arXiv:2505.02519. Available at: https://doi.org/10.48550/arXiv.2505.02519
- De Meulder, M., Van Landuyt, D., & Omardeen, R. (2025). Lessons in co-creation: The inconvenient truths of inclusive sign language technology development. arXiv. Available at: https://doi.org/10.48550/arXiv.2408.13171
- Desai, A., et al. (2024). Systemic biases in sign language AI research: A deaf-led call to reevaluate research agendas. Proceedings of the LREC-COLING 2024 Workshop on the Representation and Processing of Sign Languages.
- Picron, F., Van Landuyt, D., & Omardeen, R. (2024). (Towards) Sign language machine translation in practice. In A. Way, L. Leeson & D. Shterionov (Eds.), Sign language machine translation (pp. 341-367). Cham: Springer. https://doi.org/10.1007/978-3-031-47362-3_14
- Rathmann, C., & Romanek, P. Z. (2025). AI-generated sign languages (AI-SL): Opportunities, challenges, recommendations and legal frameworks. In F. Venade de Sousa, Sign language in the era of artificial intelligence. Brussels: European Union of the Deaf.
- Shaffer, I. R. (2018). Exploring the performance of facial expression recognition technologies on deaf adults and their children. Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '18). New York: ACM. https://doi.org/10.1145/3234695.3240986
- SignON Project. (2022). Sign language technology: Do's and don'ts. White Paper. Available at: https://signon-project.eu/wp-content/uploads/2023/12/White-Paper-Sign-Language-Technology-FINAL.pdf
- SignON Project. (2023). Deliverable 1.2: Use cases and usage domains and stakeholders' acceptance. Available at: https://signon-project.eu/wp-content/uploads/2023/12/D1.2-Submitted.pdf
- Venade de Sousa, F. (2025). Sign language in the era of artificial intelligence. Brussels: European Union of the Deaf. Available at: https://eud.eu/wp-content/uploads/2025/09/Book-Sign-Language-in-the-Era-of-Artificial-Intelligence-1.pdf
- Venade de Sousa, F. (2026). Enmarcando un constitucionalismo digital inclusivo: los derechos de las personas con discapacidad en la era de la inteligencia artificial [Framing Inclusive Digital Constitutionalism: Rights of people with disabilities in the age of Artificial Intelligence]. Unión Europea Aranzadi, no. 8–9, p. 7 ff. Thomson Reuters Aranzadi. ISSN 1579-0452.

All the publications from 2026 – 2028 are co-funded by and produced under the European Commission's Citizens, Equality, Rights and Values (CERV) Programme.

Funded by the European Union

- Way, A., Leeson, L., & Shterionov, D. (Eds.). (2024). Sign language machine translation. Machine Translation: Technologies and Applications, vol. 5. Cham: Springer. https://doi.org/10.1007/978-3-031-47362-3

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