SignUnity

Inter-Continental Collaboration in Sign Language Interpreter VET Education

D2.3. Research report on current interpreting services in Europe and Sub-Saharan Africa: Perspectives of users and interpreters

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Authors and Contributors	***Youth Power*** *1) Franjo Brkan* *2) Daniel C.M. Almeida* *3) Tim Brückmann* ***Kua Zone Innovation College LTD*** *1) Sammy Kariuki* *2) Salome P. Eyang'an* ***University of Education, Winneba*** *1) Bright Ankudze* *2) Richard Osei Agjei* *3) Mavis Amo-Mensah* *4) Gifty Rockson* ***Learning Library*** *1) Amar Hamzic* *2) Nedim Micijevic* ***SGINGZ*** *1) Katarina Jurilj* *2) Lina Beusan* *3) Josip Brozović* ***Debre Markos City Administration (Nigus Tekile Haymanot Advanced Secondary School)*** *1) Dr. Sunday Adewale Olaleye* *2) Dr. Gubay Aniley Getie*

	Ghana National Association of the Deaf 1) *Dani Fobi* 2) *Juventus Duorinaah*
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Abstract

This report presents the findings of a study examining the current state of sign language interpreting services in Europe and Sub-Saharan Africa, with particular emphasis on service quality, challenges in practice, and opportunities for further development. The research was conducted in six countries (Croatia, Germany, Estonia, Ghana, Ethiopia, and Kenya) and involved two key stakeholder groups: service users (deaf and hard-of-hearing individuals) and service providers (sign language interpreters). By incorporating both perspectives, the study sought to provide a comprehensive understanding of the existing interpreting landscape, exploring the quality and accessibility of interpreting services from the viewpoint of those who rely on them, as well as the experiences, professional challenges, and needs of those who deliver and organise these services.

Based on the collected data, this report offers a concise, primarily descriptive overview of the research findings, highlighting and comparing the perspectives of both stakeholder groups. The document is structured around six national reports, which together provide a comprehensive overview of the current state of sign language interpreting services across the partner countries while identifying common challenges, existing gaps, and opportunities for strengthening both service provision and sign language interpreter education.

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1. Introduction and Analytical Rationale

Sign language interpreting services occupy a central position in the relationship between linguistic rights, disability rights, educational access and social participation. For Deaf and hard-of-hearing people who use sign language, interpreting is not merely a technical act of converting one language into another. It is a condition that enables access to healthcare, education, employment, legal protection, public information, political participation and everyday interpersonal communication. The quality of interpreting services therefore has direct implications for equality and autonomy. A service system that is formally recognised but unreliable in practice can reproduce exclusion, while a service system that is available but ethically weak can undermine trust and agency.

This report is prepared under SignUnity Task T2.3, which focuses on the perspectives of two groups whose experiences must be analysed together if interpreting services are to be understood as a social, educational and rights-based system: Deaf and hard-of-hearing service users, and sign language interpreters. It draws on national survey data, interview and focus-group material, country-level service reports, policy-alignment evidence and education-mapping findings submitted for Croatia, Germany, Ethiopia, Ghana, Kenya and Estonia. The report is written as a narrative research document rather than a simple administrative template. While it follows the structure required by Appendix 2g, the analysis goes beyond listing findings. It interprets how access, quality, ethics, professional preparation and digital interpreting are shaped by wider national systems.

The central assumption is that interpreting services cannot be assessed only by asking whether interpreters exist. A meaningful assessment must ask whether Deaf and hard-of-hearing people can access interpreters when needed, whether interpretation is accurate and culturally appropriate, whether institutions understand the interpreter's role, whether interpreters are trained and supported, and whether service systems are sufficiently coordinated, affordable and accountable.

The SignUnity project addresses this issue through a comparative and practice-oriented approach. Task T2.3 examines current interpreting services in Europe and Sub-Saharan Africa from the perspectives of service users and interpreters. This dual perspective is methodologically and ethically important. Deaf and hard-of-hearing service users are best positioned to describe whether interpretation actually enables understanding, participation

and self-determination. Interpreters are best positioned to describe the professional conditions under which interpreting is delivered, including training pathways, preparation, ethical pressures, working conditions, coordination problems and continuing professional development needs. When these perspectives are analysed together, the result is a fuller understanding of interpreting services as a system rather than as isolated individual encounters.

The countries included in this report present diverse institutional profiles. Germany represents a European context with formal university-level interpreter education and a developed professional infrastructure, yet persistent gaps in access, specialisation and service coordination remain. Croatia has legal recognition of Croatian Sign Language and a regulated communication-mediation framework, but interpreter education remains largely non-formal and insufficiently standardised. Estonia has strong legal recognition of Estonian Sign Language and a national professional qualification standard, yet faces a critical shortage of trained interpreters and the absence of a clearly active full education pathway for new professionals. Ethiopia represents a context where the need for interpreting is evident and education-sector services have developed, but professionalisation and formal training remain fragile and concentrated in a narrow range of contexts. Ghana has meaningful educational foundations – including university and diploma programmes in Ghanaian Sign Language – and an inclusive education policy framework, but lacks fully harmonised national certification, quality assurance and specialised service delivery. Kenya has constitutional recognition of Kenyan Sign Language and a broad KSL learning ecosystem, including at least one clearly interpreter-specific diploma pathway, but requires stronger national standardisation, certification and service coordination. These differences make the comparative analysis valuable because they show that the same outcome, insufficient access to high-quality interpreting, can arise from very different system-level causes.

Across the countries, the findings show that legal recognition of sign languages, interpreter education and actual service accessibility do not automatically develop at the same pace. Germany has a comparatively advanced formal interpreter education landscape and stronger professional infrastructure, but users and interpreters still report shortages, uneven access, weak institutional understanding and specialist gaps in legal, healthcare and emergency contexts. Croatia has formal legal recognition and a legally regulated service framework, yet interpreter education remains largely non-formal and insufficiently standardised. Estonia has

strong legal recognition and professional standards, but faces a major structural gap because a clearly active pathway for training new interpreters is not currently visible. Ethiopia shows a much earlier stage of professionalisation, where interpreting need is visible but institutional systems for dedicated interpreter education, accreditation and cross-sector access remain underdeveloped. Ghana and Kenya both demonstrate important educational and policy foundations, but still lack fully harmonised national systems for certification, quality assurance and specialised service delivery.

A cross-cutting conclusion is that the most serious service gaps are concentrated in high-stakes contexts: healthcare, legal and judicial settings, emergency communication, employment, higher education and complex public-service interactions. These are the settings where communication errors can directly affect health, liberty, dignity, education, employment and civic participation. Service users across all six countries repeatedly emphasise that interpreter availability alone is not enough. They need interpreters who are fluent in the national sign language, able to interpret accurately and completely, sensitive to Deaf culture, respectful of Deaf autonomy, and competent in specialised terminology. Interpreters, in turn, report that quality is shaped by preparation time, clear booking systems, access to materials, fair working conditions, team interpreting, mentoring, supervision and continuing professional development.

Ethics emerges as one of the strongest themes across the research in every national context. Ethical practice is not a theoretical addition to interpreter education; it is part of the everyday structure of access. Users across all six countries reported experiences such as interpreters summarising too much, taking over conversations, speaking for Deaf people, failing to maintain neutrality, or creating discomfort in sensitive contexts. Interpreters reported role-boundary pressures, confidentiality concerns, institutional misunderstandings, conflicts of interest and requests to intervene beyond the interpreting role. These findings indicate that ethics must be taught as applied professional reasoning, not merely as a code to be memorised. Future VET curricula must include ethical case analysis, role boundaries, confidentiality, impartiality, Deaf autonomy, decision-making under pressure and mechanisms for accountability.

Digital and remote interpreting constitutes another cross-country priority. Remote interpreting is increasingly used or expected across all six national contexts. Estonia already operates a publicly funded national remote interpretation service, which represents an important good practice, while other countries show growing awareness of and demand for online delivery.

However, remote interpreting is not yet adequately reflected in many training programmes or professional standards across the countries studied. The research shows recurring problems with connectivity, camera visibility, small screens, fatigue, privacy, confidentiality and reduced interaction quality. These issues demonstrate that digital interpreting requires explicit training in platform use, visual framing, turn-taking, team interpreting online, data protection, emergency backup and ethical conduct in remote environments.

The implications for SignUnity's VET curriculum are direct. The curriculum should not be designed as a general sign language course. It must be a professional interpreter education pathway that transforms language competence into interpreting competence. This requires structured progression from national sign language proficiency and Deaf culture knowledge to bilingual transfer, interpreting techniques, professional ethics, supervised practice, domain specialisation, digital interpreting and competency-based assessment. It also requires Deaf-led participation in curriculum design, teaching, mentoring and assessment. Across all countries, Deaf community involvement is essential not only for legitimacy, but for the accuracy, cultural grounding and accountability of interpreter education.

The final framing of this report treats interpreting services as a rights-based public communication infrastructure. Interpreting is not an optional support service; it is one of the conditions through which Deaf and hard-of-hearing people exercise rights in education, healthcare, justice, employment, public administration and community life. The most urgent priorities identified across the six countries are therefore the establishment of stronger national interpreter education pathways, harmonised certification and accreditation systems, funded access mechanisms, professional ethical standards, quality assurance and complaint procedures, specialised training for high-stakes domains and remote interpreting standards. These reforms would strengthen both service quality and the future SignUnity VET curriculum.

The analytical position of this report is that interpreter service quality cannot be separated from interpreter education. Where training is short, fragmented or focused mainly on sign vocabulary, interpreters may enter practice without sufficient preparation for ethical decision-making, voicing, specialised terminology, remote interpreting, team work or high-stakes settings. Conversely, where strong professional standards exist but training pathways are weak or inaccessible, the system may define good interpreting without producing enough interpreters able to meet those expectations. This tension is visible in different forms across all six countries: in Germany, where formal university programmes exist but specialist gaps and

coordination problems persist; in Croatia, where legal access exists but training is not sufficiently standardised or comprehensive; in Estonia, where legal recognition and professional standards are strong but current training capacity appears critically limited; in Ghana and Kenya, where educational initiatives are growing but do not yet form fully coherent national pathways to certified professional practice; and in Ethiopia, where a dedicated professional pipeline is still being built from the ground up.

The report therefore treats service assessment and curriculum development as connected tasks. The purpose is not only to document what service users and interpreters currently experience, but also to identify what these experiences imply for the design of a future VET curriculum. A curriculum that responds to the evidence must be competency-based, practice-oriented, Deaf-centred and ethically explicit. It must include specialised domains such as healthcare, legal interpreting, education, employment, public services, media and emergencies. It must also include digital and remote interpreting, because remote access is no longer a marginal issue but an increasingly important mode of service delivery in all six national contexts.

A final rationale concerns the importance of writing style and analytical depth. The national evidence is not treated as a collection of disconnected statistics. Instead, it is interpreted as evidence of institutional arrangements, professional cultures, user experiences and structural barriers. Quantitative indicators are used to show patterns, but qualitative evidence gives meaning to those patterns. For example, a survey may show that interpreters are only sometimes available, while focus-group evidence explains that availability depends on personal networks, cost, institutional budgets, short-notice requests and the absence of a coordinated booking system. This relationship between pattern and explanation is central to the methodology of the report and to its usefulness for curriculum development.

1.1 Conceptual understanding of interpreting-service quality

In this report, quality is understood as a multidimensional concept. It includes linguistic accuracy, completeness of message transfer, clarity, cultural appropriateness, ethical conduct, confidentiality, impartiality, preparation, role boundaries and the ability to respond to context-specific demands. Quality is also relational: it depends on the interpreter, the Deaf user, the hearing interlocutor, the institution, the physical or digital environment and the booking

conditions. An interpreter may be individually competent but unable to provide high-quality interpretation if the institution refuses to share materials, books one interpreter for a long technical session, provides poor lighting, or expects the interpreter to act as an advocate or assistant.

This broader understanding is essential for VET curriculum development. If training focuses only on language fluency, it will fail to address many of the issues raised by participants across all six countries. The evidence shows that users are concerned with whether they can understand and be understood, whether interpreters respect their autonomy, whether privacy is protected, and whether interpretation is appropriate to the setting. Interpreters are concerned with preparation, fair working conditions, support, competence limits, ethical pressure and specialisation. A high-quality curriculum must therefore prepare interpreters to work within complex institutional systems and not only to produce correct signs.

1.2 Comparative logic of the report

The report does not rank countries in a simplistic way. Instead, it uses comparative analysis to identify patterns of convergence and divergence across six distinct national contexts. Some countries have stronger legal recognition; others have more visible education pathways; others show active but informal service ecosystems. The question is not which country is best, but what each case reveals about the conditions needed for accessible, ethical and sustainable interpreting services.

The comparative reading also helps avoid a misleading assumption that Europe automatically represents more developed systems and Sub-Saharan Africa less developed ones. The evidence is more nuanced. Germany has formal university programmes but still faces access gaps and institutional misunderstanding. Estonia has legal recognition and professional standards but lacks a clearly visible current training pipeline. Ghana and Kenya have important educational initiatives and growing professional communities, but need stronger national certification, quality assurance and specialised preparation. Ethiopia, though at an earlier stage of professionalisation, demonstrates the value of building interpreter awareness through inclusive education structures. The comparison therefore shows that professionalisation is not a single achievement but a continuous process involving law, education, service funding,

professional standards and Deaf community participation – and that all six countries are engaged in this process at different points and with different strengths.

2. Methodology

The study adopts a mixed-methods research design that combines quantitative survey evidence with qualitative interview and focus-group material. This design was selected because the accessibility and quality of sign language interpreting services cannot be adequately understood through numerical indicators alone. Survey data can identify measurable patterns – such as how often users access interpreters, which contexts are most common, how interpreters rate service quality, and which training gaps appear most frequently. Qualitative data, by contrast, explain how these patterns are experienced in practice. They reveal why healthcare is perceived as particularly difficult, why legal interpreting requires special competence, how ethical dilemmas arise, and how institutional behaviour affects the autonomy of Deaf and hard-of-hearing people.

The methodological design is therefore both descriptive and interpretive. It is descriptive because it documents participant profiles, service contexts, availability, quality ratings, training backgrounds and experiences with remote interpreting. It is interpretive because it analyses what those findings mean for service systems and interpreter education. The report does not treat individual responses as isolated opinions. Instead, it reads them as evidence of broader structural conditions, such as the presence or absence of booking systems, funding mechanisms, formal training pathways, professional standards, ethics frameworks and institutional awareness.

Two participant groups are central to the research: Deaf and hard-of-hearing service users and sign language interpreters. This dual-perspective design is one of the strengths of the study. Service users provide evidence about lived accessibility, comprehension, trust, dignity, unmet needs and ethical concerns. Interpreters provide evidence about training, preparation, confidence, working conditions, role pressures and professional support. The analysis intentionally brings these perspectives into dialogue. Where both groups identify the same issue, such as a shortage of qualified interpreters or a lack of specialised legal and healthcare competence, the finding becomes especially significant. Where their perspectives differ, the

difference itself becomes analytically useful because it shows how quality can be perceived differently depending on one's position in the interpreted interaction.

The research instruments used across the national contexts were standardised survey and interview/focus-group tools prepared for the SignUnity project. The purpose of standardisation was to support comparability across countries while allowing national partners to capture context-specific evidence. At the same time, the qualitative components allowed participants to explain issues in their own words and to introduce examples that may not be visible through closed survey items.

The sampling strategy was purposive and practice-oriented rather than statistically representative of entire national populations. Participants were recruited because they had relevant experience as service users or interpreters. This is appropriate for exploratory and applied research on professional service systems, especially where national registers of Deaf users, hard-of-hearing users or interpreters may be incomplete or unavailable. The purpose was not to produce population-level prevalence estimates, but to generate credible evidence about service access, quality, ethics and training needs across diverse national contexts.

The evidence base varies across countries in both size and composition, reflecting different national contexts and data-collection conditions. In Croatia, the evidence includes 21 survey responses from service users, 18 from interpreters, 7 in-person user interviews and 10 interpreter interviews. In Germany, the evidence includes survey responses from 44 interpreters and 15 service users, alongside focus groups conducted in Berlin involving 15 interpreters and 15 Deaf and hard-of-hearing participants. In Ethiopia, the evidence is based on 30 survey participants – 15 service users and 15 interpreters – and 20 interviews divided equally between the two groups. In Ghana, the evidence combines national survey and qualitative findings from service users and interpreters, alongside educational programme mapping and policy-alignment analysis. In Kenya, the evidence includes survey responses from 18 interpreters, rich open-ended user survey feedback, and focus groups involving 10 Deaf service users and 10 interpreters. In Estonia, the evidence includes survey responses from 19 Deaf and hard-of-hearing service users and 7 interpreters, alongside semi-structured interviews with 10 users and 3 interpreters; supporting videos in a visual format were also prepared to reduce communication barriers for Deaf respondents. These national samples are not identical in size or format, but each is sufficient for applied qualitative analysis oriented toward training, ethics

and service improvement. The findings from each country are interpreted in relation to the wider national education-mapping and policy-alignment materials produced within SignUnity.

Data analysis followed a process of triangulation. Quantitative findings were used to identify recurring patterns, while qualitative material was used to interpret and deepen those patterns. The qualitative analysis was thematic, with responses read for recurring categories such as access and organisation, service quality, interpreter competence, ethics, remote interpreting, specialised contexts, institutional awareness, working conditions and training needs. The report does not simply list these themes; it explains how they relate to one another. For instance, insufficient preparation is connected to late booking; late booking is connected to weak institutional coordination; weak coordination affects quality; and quality is connected to both user trust and interpreter working conditions.

The methodology also includes a document-analysis component. National education-mapping reports and policy-alignment documents were used to contextualise survey and focus-group findings. This was necessary because service experiences are shaped by the broader legal and educational environment. Where a country has legal recognition but limited training capacity, service gaps must be interpreted differently than in a country with no recognition and no formal pathway. The report therefore connects empirical user and interpreter evidence with T2.2 education-mapping and national policy-alignment materials.

2.1 Ethical and epistemological considerations

Research on sign language interpreting services must take seriously the epistemic position of Deaf and hard-of-hearing service users. Accessibility research can easily reproduce institutional perspectives if it focuses only on formal policy provisions or service providers. This study instead treats Deaf and hard-of-hearing participants as knowledge holders whose experiences reveal whether rights are meaningful in practice. Their accounts of misunderstanding, privacy concerns, lack of interpreter availability and ethical discomfort are not anecdotal in a weak sense; they are evidence of how service systems operate at the point of use.

The study also treats interpreters as professional knowledge holders. Interpreters are able to describe dimensions of service quality that users may not always see, such as preparation time, rate negotiation, lack of materials, fatigue, team interpreting, ethical dilemmas and the absence of supervision. Their perspectives do not replace user perspectives, but they help explain why

some service failures occur. The methodological value lies precisely in analysing both sides of the interpreted encounter while maintaining Deaf autonomy as a central ethical principle.

Confidentiality and anonymisation are particularly important because Deaf communities and interpreter communities may be small, as is especially evident in the Estonian and Croatian contexts. Reports therefore aggregate participant views and avoid identifying individuals. This is especially relevant when discussing ethical problems, institutional failures or sensitive contexts such as healthcare, legal proceedings and employment. The purpose is not to expose individuals, but to identify systemic issues that can guide training and policy reform across all six partner countries.

3. Croatia

Croatia represents a system in which legal recognition and service rights have advanced more quickly than fully standardised interpreter education. Croatian Sign Language is legally recognised, and communication intermediary services are part of the legal and service framework. However, the training pathway remains largely non-formal and relatively short, and the evidence points to gaps in standardisation, ethics, mentoring, specialised-domain preparation and quality assurance.

3.1 Country context and sign language situation

The Croatian case is particularly important because it illustrates the difference between recognising access rights and building a sustainable professional infrastructure. The country has a formal legal framework around Croatian Sign Language and communication systems, and Deaf and hard-of-hearing people can access communication intermediary services in several contexts. At the same time, service availability is not uniform, and the quality of interpreting depends heavily on training, experience, context, institutional understanding and availability of qualified professionals.

Croatia's education system for interpreters or communication intermediaries is centred mainly on a non-formal adult education programme connected to personal assistance and communication mediation. This programme provides an important entry point, but it is limited in duration and scope when compared with the complex demands of professional interpreting. The evidence repeatedly shows that interpreters and users both identify a need for stronger formal education, more practice, mentorship and domain-specific preparation.

Geographical access is another important issue. Services appear more available in larger urban centres, particularly where Deaf associations or service providers are active, while smaller towns and rural areas face greater barriers. This creates a system in which legal rights may formally exist but practical access depends on location, timing, coordination and interpreter availability.

3.2 Methodological scope and evidence base

The Croatian national assessment combined survey data and qualitative interview evidence from both service users and interpreters. The evidence base included 21 online survey responses from Deaf and hard-of-hearing service users and 18 online survey responses from interpreters. It also included seven in-person interviews with service users and ten in-person

interviews with interpreters. This combination allowed the analysis to compare measurable patterns with richer narrative accounts of access, quality and professional practice.

The service-user sample provided evidence about frequency of interpreter use, contexts in which interpreting is needed, satisfaction with quality, ethical concerns, remote interpreting and unmet needs. The interpreter sample provided evidence about working contexts, training background, preparedness, ethical dilemmas, remote interpreting experience, working conditions and system-level priorities. The use of both perspectives is essential because Croatia's service model is shaped by both user demand and interpreter supply.

3.3 Interpreters' perspectives

Interpreters in Croatia reported working across a wide range of contexts, with particularly high involvement in social welfare, public services, healthcare, employment, education and legal settings. The breadth of contexts shows that interpreters are expected to respond to diverse communicative environments. However, this breadth also creates pressure because the available training does not appear to provide sufficient specialisation for every domain. Healthcare, legal, employment and education interpreting require different terminology, ethical judgement and interactional skills, yet respondents pointed to limited specialised preparation.

Service availability was described as partial rather than fully reliable. A significant proportion of interpreters stated that services are available, but many also reported that availability is sometimes limited. The main reasons included shortage of interpreters, geographical distribution, funding, coordination and late requests. This suggests that access depends on the organisation of services as much as on the existence of individual interpreters. A user may have a formal right to support, but still experience delays or rescheduling if no interpreter is available at the required time and place.

Training emerged as a central concern. Although many interpreters had completed some form of training, the reported routes were often informal, non-formal or inconsistent. Some interpreters felt reasonably prepared, while others considered the training insufficient for real-world demands. The most frequently identified gaps included specialised contexts, cross-modal techniques, practical placement, mentoring, direct work with Deaf and hard-of-hearing clients, ethical standards and online interpreting. These findings indicate that the current

training model does not consistently transform sign-language competence into fully developed interpreting competence.

Ethical dilemmas were common. Interpreters reported challenges related to role boundaries, institutional and client pressure, impartiality, confidentiality and conflicts of interest. These dilemmas are not incidental; they are structurally connected to the way institutions understand or misunderstand the interpreter's role. When institutions treat interpreters as helpers, advocates, administrative assistants or representatives of the Deaf person, interpreters are placed in ethically complex situations. This reinforces the need for both interpreter ethics training and institutional education.

Remote interpreting was used by many interpreters, but it was not regarded as equivalent to face-to-face interpreting in all contexts. Technical difficulties, communication constraints, poor audio or video quality, uncertainty about user understanding and fatigue were reported as major challenges. These findings point to a curriculum gap: online interpreting should not be treated merely as a practical convenience, but as a distinct professional mode requiring training, standards and ethical guidance.

3.4 Service users' perspectives

Service users in Croatia reported relatively high satisfaction with individual interpreters where services were available. Many described interpretation as clear, respectful and helpful for participation. However, the generally positive satisfaction indicators should not be read as evidence that the system is complete. Users also reported that access depends on availability, planning and context. They identified healthcare, legal, social welfare, community and workplace contexts as particularly challenging because of specialised terminology, emotional weight, urgency and the need for accuracy.

Users emphasised that understanding depends on more than the presence of an interpreter. It depends on the interpreter's language proficiency, ability to adapt to the user's communication preferences, knowledge of Deaf culture, confidentiality, neutrality and familiarity with the domain. Some users reported experiences of inappropriate conduct, including altered information, imposed opinions or breaches of confidentiality. Even when these were not the dominant experiences, they demonstrate the need for a stronger quality assurance and complaint system.

Remote interpreting was not widely used by all Croatian users. Those who had experience with video interpreting expressed mixed views. Technical problems, privacy concerns and reduced interaction quality were important issues. Users generally preferred in-person interpreting for complex, sensitive or high-stakes situations. This finding is consistent with interpreter perspectives and supports the need for clear criteria about when remote interpreting is appropriate and how it should be delivered.

3.5 Cross-cutting issues and gaps

The Croatian evidence points to several connected gaps. First, there is a shortage of interpreters and uneven geographical access. Second, the non-formal training pathway is too limited for the diversity of professional contexts in which interpreters work. Third, there is insufficient mentoring, supervised practice and continuing professional development. Fourth, ethical regulation and quality assurance remain fragmented. Fifth, remote interpreting is present but not sufficiently supported by training and standards.

These gaps reinforce one another. Shortage increases pressure on existing interpreters; pressure reduces preparation time; lack of preparation affects quality; weak training makes domain-specific interpreting more difficult; and weak quality assurance leaves both users and interpreters without clear mechanisms for accountability. For Croatia, the key reform is not only to increase numbers, but to professionalise the entire pathway from training to practice, supervision, certification and continuing development.

3.6 Implications for training and VET curriculum

For the SignUnity VET curriculum, Croatia demonstrates the need for a structured programme that goes beyond basic communication mediation. The curriculum should include Croatian Sign Language linguistics, interpreting theory, role boundaries, ethics, cross-modal interpreting, supervised practicum, Deaf culture, specialised domains and remote interpreting. It should also prepare learners to work with institutions that may not understand the interpreter's role.

A Croatian-oriented VET pathway should be modular and competency-based. It should define what interpreters must be able to do in education, healthcare, legal settings, employment, public services and community contexts. It should also include assessment through observed interpreting performance, ethical case analysis and feedback from Deaf users. Such a

curriculum would help close the gap between legal access and actual professional service quality.

3.7 Country-specific priority recommendations

For Croatia, the first priority is to strengthen the relationship between service rights and actual service delivery. This requires a system that does not depend only on individual goodwill, informal networks or ad hoc arrangements, but provides predictable access to qualified interpreters in education, healthcare, public services, employment, legal contexts and emergencies.

The second priority is to improve interpreter preparation through competency-based training. The curriculum should make explicit the difference between sign-language knowledge and professional interpreting competence. It should include language proficiency, Deaf culture, interpreting techniques, ethics, domain-specific preparation, remote interpreting and supervised practice.

The third priority is to develop quality assurance and accountability mechanisms. Users need safe ways to give feedback or raise concerns, while interpreters need supervision, mentoring and continuing professional development. A sustainable system protects both service users and professionals by making expectations clear and enforceable.

4. Germany

Germany represents a comparatively advanced but not fully coherent interpreter-service context. It has formal university education pathways, legal recognition of German Sign Language and a visible professional infrastructure. Nevertheless, empirical evidence shows that formal development does not eliminate shortages, uneven access, institutional misunderstanding, ethical pressure or gaps in specialist domains.

4.1 Country context and sign language situation

Germany has one of the strongest formal educational landscapes among the countries reviewed. Several university-level bachelor and master programmes provide pathways into sign language interpreting. These programmes support German Sign Language competence, interpreting studies, Deaf-related knowledge and practical learning. This gives Germany a strong institutional foundation compared with countries where interpreter education remains non-formal, short-term or mainly informal.

At the same time, Germany's federal structure and sector-specific implementation create complexity. Rights and service arrangements may differ by context and location. Formal recognition of German Sign Language does not automatically ensure that every Deaf person can access an interpreter in healthcare, employment, education, public administration or legal settings at the exact time needed. The empirical evidence therefore shows a developed system with persistent access and coordination problems.

Germany also illustrates a key lesson for SignUnity: formal higher education is necessary but not sufficient. Even in a system with universities and professional associations, users and interpreters identify gaps in legal interpreting, institutional understanding, preparation time, remote interpreting and complaints or feedback mechanisms. Professionalisation must therefore include service organisation and institutional education, not only interpreter training.

4.2 Methodological scope and evidence base

The German evidence base includes survey responses from sign language interpreters, survey responses from Deaf and hard-of-hearing service users, and focus-group reports from both groups. The interpreter survey included 44 responses, while the user survey included 15 responses. In addition, focus groups in Berlin provided qualitative evidence from 15 interpreters and 15 Deaf and hard-of-hearing service users. This mixed-methods evidence provides both

breadth and depth, allowing the report to interpret quantitative patterns alongside detailed accounts of lived experience.

The German focus groups are especially valuable because they explain the mechanisms behind the survey findings. They show how access depends on booking systems, funding, preparation materials, role expectations and institutional behaviour. They also show that service users and interpreters often identify the same structural issues from different angles: users experience barriers as exclusion or reduced autonomy, while interpreters experience them as professional pressure, inadequate preparation or ethical risk.

4.3 Interpreters' perspectives

German interpreters in the survey were predominantly experienced and highly involved in freelance work. The strong freelance profile is significant because it shapes service organisation, availability and working conditions. Freelance interpreters may provide flexibility, but a heavily freelance system can also create coordination challenges, uneven access and dependence on individual networks. Several interpreters noted that freelance status is not always a fully free professional choice, but part of how the market is organised.

The most common contexts of work included education and training, healthcare and employment. Legal and judicial interpreting appeared far less frequent, and many interpreters expressed caution around legal assignments because of the high consequences of errors, specialised vocabulary and professional risk. This suggests a specialist gap in the German system despite the existence of formal education pathways. Legal interpreting requires more than general interpreting competence; it requires domain knowledge, procedural understanding, ethical control and confidence in high-stakes communication.

Interpreter perceptions of service availability were mixed. A minority considered services reliably available in their region, while a larger group described availability as only partial. The main reasons included lack of interpreters at short notice, geographic limitations, funding and coordination problems. These findings demonstrate that even in a comparatively developed system, supply does not consistently meet demand. The problem is not necessarily the absence of interpreters in general, but the mismatch between demand, timing, specialisation, geography and coordination.

Quality was generally rated as adequate to good by interpreters, but they identified several factors that reduce quality. These included insufficient preparation time, institutions misunderstanding the interpreter's role, poor working conditions, inadequate qualification in some cases, lack of institutional support and lack of support from colleagues or supervisors. The focus group further showed that preparation is essential: interpreters need topics, agendas, vocabulary, materials and clarity about participants. When assignments are booked vaguely or late, quality is compromised before the interaction even begins.

Ethical dilemmas were a major theme. Interpreters reported role-boundary issues, pressure to intervene, institutional expectations that they explain or advocate, and the difficulty of remaining neutral while witnessing discrimination or exclusion. They also discussed confidentiality challenges in small communities and long-term interpreting relationships. These findings indicate that ethical competence must be taught as practical judgement in context. German interpreters do not simply need to know ethical principles; they need spaces for supervision, case discussion and professional reflection.

Remote interpreting in Germany was viewed as useful but limited. Interpreters noted technical problems, visual constraints, fatigue, confidentiality questions and reduced communication quality. The focus group indicated that remote interpreting should be included as mandatory training because it is now part of professional reality. This is an important curriculum implication for SignUnity because remote interpreting cannot be treated as an emergency adaptation only; it must be a planned competence area.

4.4 Service users' perspectives

German service users reported frequent need for interpreters in employment, healthcare, public services, education, legal contexts and public events. Their experiences show that service access is not only a matter of legal entitlement, but also of practical reliability. Many users described services as available only sometimes or not available when needed. This uncertainty affects autonomy because Deaf users may need to postpone appointments, accept less suitable interpreters, rely on written communication, or avoid certain services altogether.

Users were more critical of service quality than interpreters. This difference is analytically important. Interpreters may evaluate quality from the standpoint of professional effort and system constraints, while users evaluate quality from the standpoint of whether they actually

understood, participated and felt respected. Some users described interpreters as hearing-influenced, unclear, overly summarising or insufficiently adapted to their signing style. These concerns demonstrate that quality assurance must include user feedback rather than relying only on interpreter self-assessment or institutional approval.

Healthcare, legal contexts and emergencies were especially challenging. Healthcare requires accurate communication about symptoms, diagnosis, treatment and consent. Legal contexts require exactness, procedural understanding and protection of rights. Emergencies require immediate access, which is difficult in systems based on advance booking. The German evidence therefore supports specialised training and service planning for high-stakes contexts, even in a country with advanced interpreter education.

Ethical concerns from users included message alteration, interpreters speaking for Deaf people, taking sides, disrespectful behaviour or insufficient confidentiality. Users also noted the difficulty of making complaints because complaining may affect future access in a small professional field. This indicates a need for safe, transparent and accessible complaint mechanisms. A professional system cannot rely only on informal reputation or personal networks if users are to trust it.

4.5 Cross-cutting issues and gaps

Germany's cross-cutting gaps concern service coordination, specialist availability, institutional awareness, ethical support and remote interpreting. The country has formal education pathways, but those pathways do not automatically solve the everyday realities of booking, funding, preparation and institutional behaviour. The German case therefore demonstrates that a mature system must coordinate education, professional regulation, service funding and public-sector responsibility.

A key gap is the legal and judicial field. Both users and interpreters identified legal settings as difficult, rare or high risk. This is particularly serious because legal access is tied to rights, due process and protection from discrimination. The same applies to healthcare and emergencies. In these contexts, insufficient interpreting is not merely inconvenient; it can have direct consequences for health, liberty and safety.

4.6 Implications for training and VET curriculum

For the SignUnity VET curriculum, Germany confirms the need for advanced modules even in countries with formal higher education. These modules should include legal interpreting, medical interpreting, mental health and therapy contexts, child protection and education, remote interpreting, ethics, team interpreting, Deafblind communication, self-care and supervision. The curriculum should also emphasise institutional communication: interpreters need to know how to negotiate preparation materials, role boundaries, working conditions and team arrangements.

The German case also supports the inclusion of user-feedback mechanisms in assessment. Interpreter competence should not be evaluated only by teachers or hearing institutions. Deaf and hard-of-hearing users should participate in simulations, feedback sessions and quality discussions. This would help ensure that training responds to actual user experience.

4.7 Country-specific priority recommendations

For Germany, the first priority is to strengthen the relationship between service rights and actual service delivery. This requires a system that does not depend only on individual goodwill, informal networks or ad hoc arrangements, but provides predictable access to qualified interpreters in education, healthcare, public services, employment, legal contexts and emergencies.

The second priority is to improve interpreter preparation through competency-based training. The curriculum should make explicit the difference between sign-language knowledge and professional interpreting competence. It should include language proficiency, Deaf culture, interpreting techniques, ethics, domain-specific preparation, remote interpreting and supervised practice.

The third priority is to develop quality assurance and accountability mechanisms. Users need safe ways to give feedback or raise concerns, while interpreters need supervision, mentoring and continuing professional development. A sustainable system protects both service users and professionals by making expectations clear and enforceable.

5. Ethiopia

Ethiopia represents a context in which the need for sign language interpreting is evident, but professionalisation remains at an early stage. Existing educational structures are mainly inclusion-oriented rather than interpreter-specific, and services depend heavily on limited institutional arrangements, personal commitment and informal or semi-formal practices.

5.1 Country context and sign language situation

The Ethiopian case is marked by a significant gap between communication need and professional interpreting infrastructure. Deaf and hard-of-hearing people require access to education, healthcare, public services, employment and civic participation, but the system for preparing and deploying interpreters is not yet strongly institutionalised. Existing education programmes related to disability or inclusive education include some sign language elements, but they do not constitute a comprehensive interpreter education pathway.

The country evidence suggests that interpreter services are most visible in education-related contexts. This is understandable because inclusive education has been one of the main channels through which sign language awareness and support services have developed. However, a system centred primarily on education cannot meet the full range of interpreting needs across adult life. Healthcare, legal services, employment, public administration and emergencies require specialised preparation that is not sufficiently visible in the current training landscape.

Ethiopia's position is therefore different from Germany, Croatia, Ghana or Kenya. The central challenge is not only standardising existing interpreter education, but establishing a dedicated professional pathway in the first place. This pathway must distinguish clearly between inclusive education support, general sign language communication and professional interpreting.

5.2 Methodological scope and evidence base

The Ethiopian national assessment used a mixed-methods approach based on survey and interview evidence from users and interpreters. The data included 30 survey participants, divided between 15 service users and 15 interpreters, as well as 20 interviews, including 10 with service users and 10 with interpreters. This structure allowed the national report to capture both service demand and interpreter-side professional experiences.

Given the emerging character of the Ethiopian interpreting system, qualitative evidence is especially important. In contexts where formal service statistics may be limited, interviews help reveal how access actually works, which institutions provide support, where gaps are experienced, and how interpreters understand their own preparation and professional identity. The Ethiopian methodology therefore provides an important basis for understanding a system that is still developing.

5.3 Interpreters' perspectives

Interpreters in Ethiopia appear to be concentrated mainly in education contexts. A very high proportion reported providing services in education, while healthcare, legal, employment and public-service interpreting were much less developed. This distribution indicates that the profession is not yet broadly embedded across public life. It also suggests that many interpreters may develop skills through educational practice rather than through a comprehensive curriculum covering multiple domains.

Training and preparation represent a major concern. Existing programmes related to special needs and inclusive education may expose learners to disability inclusion and some sign language content, but they do not provide sufficient training in interpreting theory, ethics, voicing, bilingual transfer, specialised terminology, remote interpreting or supervised practicum. As a result, people who provide interpreting may be expected to perform complex roles without the depth of preparation required for professional practice.

The lack of national accreditation or certification creates further difficulty. Without a clear standard for who is qualified to interpret, service users and institutions may not be able to distinguish between someone who knows some signs and someone who is professionally competent. This is a recurring issue across several countries, but it is especially significant in Ethiopia because the education pipeline itself is still underdeveloped.

Ethical practice is also under-institutionalised. Professional ethics require confidentiality, impartiality, accuracy, respect for Deaf autonomy and awareness of role boundaries. Where formal training and professional bodies are weak or absent, ethical practice may depend on individual judgement rather than shared standards. This creates risk for both users and interpreters, particularly in sensitive contexts such as healthcare, legal matters and employment.

5.4 Service users' perspectives

Service users in Ethiopia reported limited and inconsistent access to interpreting services. Education appears to be the most common context in which interpretation is available, but access in healthcare, public services, employment and legal settings remains weak. This creates a narrow interpretation of accessibility: support may exist for students or educational settings, while Deaf adults may face communication barriers in other areas of life.

The consequences of limited access are serious. In healthcare, lack of interpretation can affect explanation of symptoms, understanding of diagnoses, consent and treatment instructions. In employment, it can affect interviews, workplace communication and equal opportunity. In public services, it can prevent Deaf citizens from accessing information or administrative procedures. In legal settings, it can compromise rights and procedural fairness. These are not minor service gaps; they are structural barriers to citizenship and dignity.

Users' experiences also point to the need for interpreters who understand Deaf culture and communicate clearly in Ethiopian Sign Language. Where interpretation is provided by people without sufficient training, users may experience misunderstanding or partial access. This reinforces the need for a professional training pathway that is accountable to Deaf users and not only to institutions.

5.5 Cross-cutting issues and gaps

The main gaps in Ethiopia are structural. There is no clearly established standalone interpreter education pathway; legal recognition and professional standards remain limited; certification and accreditation are weak or absent; and service provision is concentrated in a narrow set of contexts. Interpreter availability is therefore not only a supply problem, but a system-development problem.

The distinction between inclusive education and interpreter education is crucial. Inclusive education programmes can prepare teachers or support staff to work with diverse learners, but they do not automatically produce professional interpreters. Ethiopia needs a curriculum that explicitly teaches interpreting as a profession with its own competencies, ethics, techniques and assessment methods.

5.6 Implications for training and VET curriculum

For the SignUnity VET curriculum, Ethiopia demonstrates the need for a foundational professional pathway. Such a curriculum should begin with Ethiopian Sign Language proficiency and Deaf culture, but it must move beyond language acquisition into interpreting theory, consecutive and simultaneous interpreting, voicing, ethics, role boundaries, public-service interpreting and supervised practice.

The curriculum should be designed in a way that can serve both new entrants and current practitioners who have learned through informal or on-the-job routes. Upgrading modules, recognition of prior learning and mentorship would be especially useful. The programme should also include policy advocacy elements, because the development of interpreting services requires institutional recognition and funding.

5.7 Country-specific priority recommendations

For Ethiopia, the first priority is to strengthen the relationship between service rights and actual service delivery. This requires a system that does not depend only on individual goodwill, informal networks or ad hoc arrangements, but provides predictable access to qualified interpreters in education, healthcare, public services, employment, legal contexts and emergencies.

The second priority is to improve interpreter preparation through competency-based training. The curriculum should make explicit the difference between sign-language knowledge and professional interpreting competence. It should include language proficiency, Deaf culture, interpreting techniques, ethics, domain-specific preparation, remote interpreting and supervised practice.

The third priority is to develop quality assurance and accountability mechanisms. Users need safe ways to give feedback or raise concerns, while interpreters need supervision, mentoring and continuing professional development. A sustainable system protects both service users and professionals by making expectations clear and enforceable.

6. Ghana

Ghana represents a promising but structurally incomplete interpreting-service context. It has visible sign language education initiatives, inclusive education policy foundations and interpreter-related training through universities and professional pathways. However, the system still requires stronger legal recognition of Ghanaian Sign Language, national certification, ethical regulation, quality assurance and specialist preparation for high-stakes contexts.

6.1 Country context and sign language situation

Ghana has several important foundations for sign language interpreting and Deaf access. Educational programmes such as the University of Education, Winneba Diploma in Sign Language and the University of Cape Coast Diploma Course in Ghanaian Sign Language show that formal training opportunities exist. The nursing curriculum also includes sign language components relevant to healthcare communication. These examples indicate that Ghana is not starting from the absence of sign language education, but from a landscape that needs stronger coordination and professionalisation.

At the policy level, Ghana's Inclusive Education Policy provides a disability-inclusion framework and recognises the need for support for learners with special educational needs, including those with hearing impairment. However, the policy does not provide explicit legal recognition of Ghanaian Sign Language as a national language, nor does it establish a comprehensive cross-sector right to professional interpreting services. This creates a gap between inclusive education commitments and broader adult access to interpreting in public life.

Ghana's case is therefore important for SignUnity because it shows how education programmes can exist without a fully harmonised professional system. The challenge is to connect programme content, interpreter certification, public-service access, ethics and quality assurance into a coherent national framework.

6.2 Methodological scope and evidence base

The Ghanaian assessment drew on national survey and qualitative evidence from service users and interpreters, alongside educational programme mapping and policy-alignment analysis. The national service report identifies recurring issues in education, public services, healthcare, legal contexts, employment and remote interpreting. This combination makes it possible to analyse the relationship between training provision and actual service experience.

The methodological value of the Ghanaian evidence lies in the fact that it includes both relatively developed educational initiatives and continuing service gaps. This allows the analysis to ask not only whether programmes exist, but whether they are sufficient for the contexts in which interpreters are needed. It also allows the report to examine whether policy frameworks translate into everyday accessibility for Deaf and hard-of-hearing users.

6.3 Interpreters' perspectives

Interpreters in Ghana work across education, community events, public services, healthcare and other contexts, but legal interpreting appears much less common. This pattern is significant because it suggests that interpreting services are more established in educational and public/community settings than in high-stakes legal or specialist environments. The limited presence of legal interpreting indicates the need for domain-specific training and regulatory safeguards.

Many interpreters have some formal training, often at VET or diploma level. This is a strength compared with contexts where training is entirely informal. However, the available evidence also shows gaps in specialist preparation, digital interpreting, practical assessment, licensing and continuing professional development. Training programmes may develop sign language competence and some interpreting skills, but they do not yet form a complete national professional pathway with standardised outcomes and certification.

Service organisation remains an issue. Interpreting may be available in some contexts, but not consistently across sectors or regions. Funding and institutional responsibility are central factors. When institutions recognise the need for interpreting and budget for it, access improves. When users must arrange and pay for services themselves, access becomes unequal and dependent on personal resources.

Ethical and professional issues include confidentiality, impartiality, role boundaries and quality of message transfer. The need for clearer ethical standards is especially important in healthcare, legal and employment contexts, where users may share sensitive information and where errors can have serious consequences. Without a national code linked to certification and complaints, ethics remains too dependent on individual practice.

6.4 Service users' perspectives

Ghanaian service users reported needing interpreters most often in education, public services and healthcare, with additional needs in employment and legal contexts. Access was not fully reliable. A substantial proportion of users reported that interpreters were only sometimes available or not available when needed. This indicates that the presence of interpreters in the country does not yet translate into dependable access for all users.

Users identified quality concerns such as unclear or inaccurate interpretation, lack of subject-specific knowledge, inconsistency, cost and privacy concerns. Healthcare was particularly sensitive because some users were uncomfortable bringing interpreters into private medical discussions, while also recognising that written communication or basic gestures are not sufficient for full access. This points to the need for trained medical interpreters and clear confidentiality safeguards.

Legal contexts were also challenging. Users expressed concern that interpreters may not understand legal terminology or may not interpret accurately enough. In legal settings, even small misunderstandings can affect rights and outcomes. This supports the need for specialised legal interpreting modules and a system for matching interpreters to assignments based on competence.

Users also called for interpreters to be better trained, more available across sectors, and matched to subject matter. This demand is not simply about having more interpreters; it is about having the right interpreter for the right context. The Ghanaian evidence therefore strongly supports competency-based and domain-specific VET curriculum development.

6.5 Cross-cutting issues and gaps

The main Ghanaian gaps concern national legal recognition, professional certification, specialist training, ethics, quality assurance, affordability and cross-sector service access. Ghana has important educational foundations, but they need to be integrated into a clearer professional system. Without this integration, training programmes may produce graduates, but the country may still lack consistent standards for who can interpret in healthcare, law, education, media or public services.

Another gap concerns the relationship between inclusive education and adult service access. Inclusive education policy is important, but Deaf people require interpreting throughout life,

not only in school. Ghana therefore needs a service framework that extends into healthcare, justice, employment, public administration and civic participation.

6.6 Implications for training and VET curriculum

For the SignUnity VET curriculum, Ghana demonstrates the value of building on existing diploma and university initiatives while strengthening standardisation. The curriculum should include Ghanaian Sign Language linguistics, Deaf culture, interpreting theory and techniques, professional ethics, practical placements, medical and legal interpreting, educational interpreting, employment contexts, remote interpreting and portfolio-based assessment.

Ghana also demonstrates the need for linkages between curriculum and professional recognition. A VET programme should not end with attendance alone. It should connect to competency assessment, certification, CPD and ethical accountability. This would help distinguish trained interpreters from people who have only basic sign language knowledge.

6.7 Country-specific priority recommendations

For Ghana, the first priority is to strengthen the relationship between service rights and actual service delivery. This requires a system that does not depend only on individual goodwill, informal networks or ad hoc arrangements, but provides predictable access to qualified interpreters in education, healthcare, public services, employment, legal contexts and emergencies.

The second priority is to improve interpreter preparation through competency-based training. The curriculum should make explicit the difference between sign-language knowledge and professional interpreting competence. It should include language proficiency, Deaf culture, interpreting techniques, ethics, domain-specific preparation, remote interpreting and supervised practice.

The third priority is to develop quality assurance and accountability mechanisms. Users need safe ways to give feedback or raise concerns, while interpreters need supervision, mentoring and continuing professional development. A sustainable system protects both service users and professionals by making expectations clear and enforceable.

7. Kenya

Kenya represents a dynamic but unevenly standardised interpreting-service context. It has strong constitutional recognition of Kenyan Sign Language, a broad KSL learning ecosystem and at least one clearly interpreter-specific diploma pathway. However, implementation remains uneven, and the system lacks a fully operational national ladder from KSL learning to certified professional interpreting practice.

7.1 Country context and sign language situation

Kenya is one of the most distinctive cases in the report because of its strong constitutional foundation. Kenyan Sign Language is recognised in the Constitution, and the State is required to promote its development and use. This creates a powerful rights-based foundation. However, the Kenyan evidence shows that constitutional recognition has not yet fully translated into reliable, funded and quality-assured interpreting services across all sectors.

The educational ecosystem is broad. It includes KICD curriculum pathways, KISE training, university short courses, the University of Nairobi/KSLRP tradition, private providers such as Pioneer Institute of Sign Language, and St. Paul's University Diploma in Kenya Sign Language Interpretation. This breadth is an important strength. At the same time, the mapping shows that many pathways are focused on KSL communication rather than professional interpreting. The key gap is the absence of a standardised, competency-based national progression from language learning to interpreter certification.

Kenya also demonstrates a strong relationship between service demand and professional identity. Interpreters are active in community events, public services, education, media, employment and conferences, but legal, healthcare and emergency contexts remain difficult. Service users and interpreters both emphasise that knowing sign language is not the same as being able to interpret professionally. This distinction is central to the Kenyan chapter.

7.2 Methodological scope and evidence base

The Kenyan assessment includes multiple data sources: survey feedback from Deaf and hard-of-hearing service users, survey responses from sign language interpreters, a focus group with Deaf service users and a focus group with interpreters. The Deaf service-user FGD involved 10 participants, while the interpreter FGD also involved 10 participants. The interpreter survey

included 18 responses, and the user survey feedback provides rich open-ended evidence about challenging contexts, quality concerns and priority improvements.

The Kenyan methodology is valuable because the qualitative data are particularly detailed. Participants discussed not only whether interpreters are available, but how services are booked, who pays, whether institutions understand access, whether interpreters respect user autonomy, and how professional competence varies by context. The interpreter focus group also provided unusually rich evidence about training pathways, practical preparation, booking systems, ethics, mental resilience and working conditions.

7.3 Interpreters' perspectives

Kenyan interpreters described a profession with growing demand but uneven structure. Many participants work as freelance or consultant interpreters, and their practice spans community interpreting, conferences, workshops, trainings, public services, health-related work, education and media. This flexibility reflects an active interpreting ecosystem, but it also means that work is often organised through personal networks, referrals and repeat clients rather than a formal national booking system.

Training pathways were diverse. Interpreters entered the field through formal courses, church-based sign language classes, KSLRP, KISE, community exposure, family experience, attachment with Deaf organisations and on-the-job practice. This diversity shows that the profession has developed through multiple routes, but it also creates uneven quality. Several interpreters stated that training often focused more on sign vocabulary or language acquisition than on interpretation as a professional skill. Voicing, real-time interpretation, ethics, preparation techniques and practical exposure were often insufficiently covered.

The interpreter survey shows a relatively young group, with a strong presence of interpreters aged 20 to 30, and a majority of respondents identifying VET/Diploma as their highest level of interpreting-related education. Most were freelance, and common work settings included community events, public services, education, employment and media. Legal/judicial interpreting was much less frequent. This pattern corresponds to the focus-group finding that legal interpreting is viewed as high-risk because of the consequences of inaccurate interpretation.

Interpreters reported that services are not consistently available when requested. The most important barriers were poor coordination or booking systems, lack of funding, geographic limitations and shortage of qualified interpreters. The survey data are striking because poor coordination appears even more prominent than shortage alone. This means that Kenya's access problem is not only about the number of interpreters, but about how services are organised, financed and requested.

Quality was often rated as adequate or good, but interpreters identified major factors affecting service quality. Institutions not understanding the interpreter's role and poor working conditions were especially important. This reflects a broader pattern across countries: interpreter quality is shaped not only by interpreter skill, but by the environment in which interpreting takes place. If institutions book late, provide no materials, expect one interpreter to cover long sessions, fail to pay properly or speak to the interpreter instead of the Deaf participant, quality and ethics are undermined.

Ethical dilemmas included role boundaries, pressure from institutions or clients, impartiality, confidentiality and conflicts of interest. Interpreters described situations where institutions ask them not to interpret information, expect them to respond on behalf of Deaf participants, or treat them as participants rather than language professionals. The focus group also highlighted mental resilience as a missing training area. Interpreters may work in emotionally demanding legal, medical or police contexts without structured training in debriefing, self-care or professional resilience.

Remote interpreting was present but uneven. Interpreters noted that remote work can reduce travel pressure and allow preparation if booked early, but it also depends on network quality, camera setup, lighting, screen size and fatigue management. Some had never done remote interpreting, while others had developed practical strategies. This shows that digital competence is variable and should be formalised in training.

7.4 Service users' perspectives

Kenyan Deaf service users reported that interpreting services are most visible in conferences, trainings, media, public events and some education-related settings. These are often contexts where organisations plan and pay for interpretation in advance. Access is much weaker in healthcare, legal settings, employment, emergencies and higher education. This distinction

shows that Kenyan service access is highly context-dependent. Where there is an institutional budget and organised event, access is more likely. Where the need is personal, urgent or sensitive, access becomes more difficult.

Users emphasised that availability is not enough. They need interpreters who are fluent in Kenyan Sign Language, accurate, respectful, neutral, confidential, culturally competent and able to voice clearly. Quality concerns included over-summarisation, lack of preparation, weak subject knowledge, poor voicing, interpreters taking over conversations, and interpreters failing to respect Deaf autonomy. The repeated concern that hearing people should address the Deaf person directly is especially important. It shows that interpreted interactions can become disempowering when institutions treat interpreters as the main communicative actor.

Healthcare was one of the most challenging contexts. Users described difficulties explaining symptoms, understanding diagnosis and treatment, and maintaining privacy. Some preferred written communication because they were uncomfortable involving interpreters in sensitive medical discussions, but writing is not always sufficient for full understanding. This indicates the need for professional medical interpreters, confidentiality safeguards and basic sign language awareness among healthcare staff.

Legal and court contexts were also difficult. Users reported that legal language is complex and that inaccurate interpretation can produce serious consequences. Some noted that courts or institutions may bring their own interpreters, but the Deaf person may not understand them well. This raises both quality and autonomy issues. Deaf users should not be forced to accept an interpreter whose competence or communication style does not meet their needs.

Employment and education also present access challenges. Users described being the only Deaf person in meetings without interpretation, facing barriers in interviews, and struggling in higher education when interpreters are unavailable or underqualified. These findings show that interpreting is central to equal opportunity, not only to communication convenience.

Remote interpreting was viewed with caution. Users generally preferred face-to-face interpreting because it allows clear visual access, natural interaction and fuller signing space. Remote interpreting was considered possible if the interpreter is qualified and the internet connection stable, but problems such as video freezing, small phone screens, poor visibility, difficulty seeing facial expressions and privacy concerns were common. This supports the need for remote interpreting standards and user guidance.

7.5 Cross-cutting issues and gaps

Kenya's central gaps are coordination, funding, standardisation, certification, domain specialisation, ethics and professional support. The country has strong legal recognition and active KSL education initiatives, but the system has not yet fully translated these foundations into a harmonised national interpreting-service architecture. Access remains too dependent on personal networks, organisational willingness and the ability to pay.

A particularly important gap is the lack of a central or widely used booking platform. Users and interpreters both described reliance on personal contacts, direct requests, organisations and referrals. This may work for conferences or planned events, but it is inadequate for emergencies, healthcare and legal contexts. A rights-based system requires more predictable access mechanisms.

7.6 Implications for training and VET curriculum

For the SignUnity VET curriculum, Kenya provides one of the clearest arguments for distinguishing KSL acquisition from interpreter education. The curriculum should include strong KSL proficiency, but it must also teach processing, memory, reformulation, voicing, English/Kiswahili/KSL transfer, ethical decision-making, role boundaries, preparation, team interpreting, specialisation and remote interpreting.

Kenya also points to the importance of apprenticeship and supervised field practice. Many interpreters reported learning through exposure and community interaction. This experience is valuable, but it should be structured through mentorship, reflective journals, observed practice and feedback from Deaf users. The curriculum should also include mental resilience, debriefing and self-care because interpreters work in emotionally demanding contexts.

7.7 Country-specific priority recommendations

For Kenya, the first priority is to strengthen the relationship between service rights and actual service delivery. This requires a system that does not depend only on individual goodwill, informal networks or ad hoc arrangements, but provides predictable access to qualified interpreters in education, healthcare, public services, employment, legal contexts and emergencies.

The second priority is to improve interpreter preparation through competency-based training. The curriculum should make explicit the difference between sign-language knowledge and professional interpreting competence. It should include language proficiency, Deaf culture, interpreting techniques, ethics, domain-specific preparation, remote interpreting and supervised practice.

The third priority is to develop quality assurance and accountability mechanisms. Users need safe ways to give feedback or raise concerns, while interpreters need supervision, mentoring and continuing professional development. A sustainable system protects both service users and professionals by making expectations clear and enforceable.

8. Estonia

Estonia represents a context in which sign language interpreting is supported by relatively strong legal recognition and professional frameworks, but where service provision is constrained by a small and fragile workforce. Estonian Sign Language is officially recognised, and a national professional standard and remote interpreting service provide a solid institutional foundation for access and professionalisation. However, the absence of a clear, connected and active education pathway for new interpreters leads to a persistent shortage of qualified professionals. Existing training, certification and association structures are fragmented and do not form a coherent system of interpreter education and progression. As a result, services often rely on a small group of experienced interpreters and personal networks, making the system functional but vulnerable in terms of availability and long-term sustainability.

8.1 Country context and sign language situation

Estonia presents a distinctive profile within the comparison: comparatively strong legal and professional foundations coexisting with a fragile service workforce. Estonian Sign Language is recognised as an independent language under the Estonian Language Act, and signed Estonian is recognised as a mode of the Estonian language. This gives Estonia a stronger formal starting point than countries where recognition is incomplete or only indirectly regulated, and it provides a clear basis for language rights, access to public services and the professionalisation of interpreting. Estonian legislation also allows Estonian Sign Language and signed Estonian to be used in the education of deaf learners, creating a basis for bilingual and inclusive approaches.

The professionalisation of the field is supported by the national qualifications system. The professional standard Viipekeeletõlk, tase 6 defines competences and requirements for sign language interpreters and provides a reference point for professional recognition. Estonia also operates a free national remote interpretation service and has a strong digital public-service culture, both of which can improve access in situations where in-person interpreting is difficult to organise.

These strengths, however, do not translate automatically into equal access. The most important structural weakness is the absence of a clearly visible, active and comprehensive training pathway for new Estonian Sign Language interpreters. The historical University of Tartu interpreter programme is no longer a visible admission route, and the existing elements - language courses, research capacity at Tallinn University, the professional certification system and the Estonian Association of Sign Language Interpreters - do not form one connected

education pathway. The result is a persistent shortage of interpreters in a small Deaf and signing community, where provision often depends on a limited group of professionals already known to users and institutions. This small-system reality makes the service flexible and relationship-based, but also vulnerable around availability, neutrality, confidentiality and long-term sustainability.

8.2 Methodological scope and evidence base

The Estonian assessment combined survey data with qualitative evidence and a contextual review of national policy and education-mapping materials. The survey component included responses from 19 Deaf and hard-of-hearing service users and 7 sign language interpreters, while the qualitative component comprised semi-structured interviews/focus groups with 10 users and 3 interpreters. To strengthen accessibility, Learning Library prepared a set of supporting videos for deaf and hard-of-hearing respondents, presenting the survey content in a visual format and reducing communication barriers in a community where written questionnaires may be less accessible.

Given the relatively small Deaf community and interpreter pool in Estonia, the sample should be read as a focused national-level overview rather than a statistically representative study. The interpreter respondents nevertheless represented diverse professional and personal profiles, including Deaf interpreters and highly experienced practitioners working across media, community, healthcare and education contexts. The findings are analysed together with the policy and education mapping, with which they are strongly consistent, particularly on the shortage of interpreters, uneven availability and the need for clearer training pathways.

8.3 Interpreters' perspectives

Interpreters reported working across a wide range of settings, with particularly high involvement in media and community events, healthcare and education, and less frequent work in public administration, employment and legal or court contexts. The prominence of media and cultural settings is a distinctive feature of the Estonian responses: interpreters contribute not only to individual appointments but to public information and community access, which broadens the competence the role requires. In a small system, a single interpreter may be expected to move between a school meeting, a medical appointment, a cultural event and an

online information session, reinforcing the need for broad, domain-aware training rather than language fluency alone.

Preparation practices among respondents were relatively strong, including clarifying the context and purpose of assignments, reviewing background information, preparing terminology and communicating with clients in advance. At the same time, professional formation is fragmented: interpreter competence has been built through a mix of formal education, professional qualification, non-formal learning and practical experience, and most respondents described their initial preparation as insufficient. The gaps they identified were consistent and practical - the absence of a unified curriculum or active training programme, interpreting techniques for different contexts, practical placement and mentorship, digital and remote interpreting, and specialised terminology.

Ethical challenges were described as a regular part of practice. The most common concerned role boundaries, where interpreters are expected to do more than interpret, followed by confidentiality, which is especially sensitive in a small community where interpreters, users and families may know one another, and by neutrality or conflicts of interest. Interpreters rely heavily on peer discussion and, where available, supervision, but formal ethical support is not yet systematic. Remote interpreting was viewed as useful when technology works but constrained by technical reliability, reduced preparation time and confidentiality concerns, with one respondent describing the additional mental workload of technological anxiety. Overall, interpreters judged service quality as good when an interpreter is available and prepared, but described the system itself as fragile, resting on a strong human foundation and a weak structural one.

8.4 Service users' perspectives

Deaf and hard-of-hearing users reported needing interpreting across many areas of life, most frequently in healthcare, followed by public administration and public services, social services, education, employment and cultural participation. For users, interpreting is not a supplementary service but a precondition for equal participation in rights, services, health, work and community life. Requests are made through organisations or coordinators, through public-service channels, or - particularly in smaller communities - by contacting interpreters directly, which is practical but dependent on personal networks.

The clearest user-side message concerns availability rather than interpreter quality. While a majority described the service as at least often available, a substantial share reported that it is only sometimes or rarely accessible, citing the shortage of interpreters, the need to book far in advance and unclear information about how to request support. Advance booking is manageable for planned appointments but becomes a serious barrier in urgent healthcare situations, administrative deadlines and emergencies. By contrast, users' assessment of interpreters themselves was generally positive: most reported being treated with respect, receiving clear and understandable information, and trusting interpreters with confidential information, with many noting that interpreters adapt well to their individual communication needs. The user evidence therefore mirrors the interpreter evidence - a workforce that is competent and trusted, but too small and unevenly available.

8.5 Cross-cutting issues and gaps

The central cross-cutting issue in Estonia is the gap between strong legal recognition and everyday implementation. Recognition of Estonian Sign Language and a national professional standard have not been matched by guaranteed availability across sectors and regions. The most consequential gap is structural rather than organisational: the shortage of trained interpreters, driven by the absence of an active education pathway, limits the practical value of legal recognition and places sustained pressure on the existing workforce. Better booking systems, clearer information and stronger coordination would help, but they cannot substitute for rebuilding the pipeline into the profession.

Competency and training gaps cut across the findings, with interpreting techniques, specialised terminology, practical placement, mentorship and digital interpreting insufficiently covered. Ethical and professional issues, particularly role boundaries and confidentiality in a small community, recur for both interpreters and users and point to the need for institution and user education alongside interpreter training. Remote interpreting, although a genuine asset in the Estonian context, is not yet supported by systematic preparation, standards or ethical guidance, and risks becoming a partial access solution rather than a fully professional service model.

8.6 Implications for training and VET curriculum

The most important implication of the Estonian findings is the need for an active, structured and competency-based interpreter education pathway that connects the country's existing assets - legal recognition, the professional standard, research capacity and association activity - into one coherent route from language learning to certification and continuing development. For the SignUnity curriculum, Estonia confirms that training must go well beyond language fluency: it should combine high-level Estonian Sign Language and Estonian competence with interpreting theory and techniques across modalities, preparation methods, domain-specific terminology, Deaf culture, professional ethics, remote interpreting and supervised practical placements.

Practice, mentorship and assessment should be core components, since much current competence has been built through experience that is valuable but not a substitute for quality assurance. Ethics should be taught as continuous, practical decision-making integrated across domains rather than as a single theoretical module. Given the national remote service, digital and remote interpreting should be treated as a major curriculum area covering platform use, visual communication, privacy, data protection, managing technical failure and online fatigue. Finally, the findings show that interpreter education alone is not enough: users and institutions also need accessible information about how to request and work with interpreters, and curriculum design should involve Deaf community members and experienced interpreters so that it is rooted in real communication needs.

8.7 Country-specific priority recommendations

For Estonia, the first priority is to develop or reopen an active, structured and competency-based interpreter education pathway aligned with the professional standard, including practical placements and mentoring and offering progression for both beginners and practising interpreters who need advanced development.

The second priority is to increase the number of trained interpreters and improve service availability. Long-term investment in education is necessary to address the shortage, while in parallel service coordination should be strengthened, users should receive clearer information about booking, and availability outside larger urban centres should be mapped and supported.

The third priority is to establish stronger continuing professional development and supervision, giving practising interpreters regular access to training, peer learning and supervision covering ethics, specialised terminology, digital interpreting, role boundaries and self-care. Closely related, digital and remote interpreting should be integrated into both training and service standards, with guidance on technical quality, visual communication, confidentiality and data protection.

The fourth priority is to educate users and institutions about the interpreting process and to involve the Deaf community and experienced interpreters in curriculum design, so that legal recognition of Estonian Sign Language is matched by reliable, high-quality communication access in everyday life.

9. Cross-Country Comparative Analysis

The cross-country analysis shows that sign language interpreting services develop through the interaction of four elements: legal recognition, interpreter education, service organisation and professional accountability. Countries may be strong in one element and weak in another. Germany and Estonia show that legal and professional infrastructure can exist alongside access gaps. Croatia shows that legal rights and regulated service categories do not automatically create a comprehensive interpreter education pathway. Ethiopia shows that without a dedicated professional pathway, interpreting remains fragile and concentrated in limited contexts. Ghana and Kenya show that a visible sign language learning ecosystem can exist without a fully harmonised national certification and service-delivery system.

One of the strongest comparative findings is the repeated mismatch between demand and availability. Users across countries describe situations where interpreters are unavailable, late, too costly, insufficiently specialised or not appropriate for the context. Interpreters describe short-notice requests, lack of preparation materials, poor coordination, unclear booking systems, inadequate pay or working conditions and institutional misunderstanding. These two sides of the evidence point to the same conclusion: access must be organised systemically. A rights-based interpreting system cannot rely primarily on personal contacts or last-minute arrangements.

A second cross-country finding is that high-stakes domains are consistently underdeveloped. Healthcare, legal and judicial settings, emergencies, employment and higher education appear repeatedly as difficult contexts. These settings require specific terminology, ethical judgement and procedural understanding. They also carry serious consequences. A mistranslation in a public event may reduce participation; a mistranslation in healthcare or law may affect health, consent, liberty or rights. The VET curriculum must therefore include compulsory domain-specific training rather than treating all interpreting as a generic skill.

A third finding concerns ethics. Across countries, users and interpreters describe role confusion, confidentiality concerns, message alteration, over-summarisation, pressure from institutions and uncertainty about boundaries. Ethics is not a marginal theme; it is central to the quality and legitimacy of interpreting. The evidence suggests that ethical failures often arise not because interpreters lack good intentions, but because systems fail to define roles, train practitioners, educate institutions and provide supervision or complaint mechanisms.

A fourth finding concerns the difference between language learning and interpreter education. This distinction is especially visible in Ethiopia, Ghana and Kenya, but it is relevant everywhere. A person may know signs and still not be prepared to interpret. Professional interpreting requires processing, memory, reformulation, accuracy, completeness, voicing, turn management, preparation, ethical decision-making and adaptation to context. Future VET design must make this distinction explicit from the beginning.

A fifth finding concerns the role of Deaf communities. Deaf community involvement appears in different forms across countries, but it is not always systematically embedded in curriculum design, interpreter assessment, policy development or quality assurance. This is a serious gap. Interpreter education that is not Deaf-centred risks reproducing hearing institutional assumptions about access. Deaf professionals and organisations should be involved as teachers, mentors, assessors, curriculum designers and evaluators.

Digital and remote interpreting is an emerging cross-country priority. It is already part of service delivery in some contexts and became more visible during and after the COVID-19 period. However, training and standards have not kept pace. Remote interpreting changes the conditions of visibility, interaction, confidentiality, fatigue and technical reliability. It also creates opportunities for access in rural or underserved areas. A balanced curriculum should teach both the potential and the limits of remote interpreting.

9.1 Comparative typology of national systems

System type	Countries illustrating the type	Analytical meaning
Advanced formal education with persistent implementation gaps	Germany	Formal university pathways and professional structures exist, but access, specialisation, institutional awareness and coordination still require improvement.
Legal recognition with limited or fragmented training pathway	Croatia and Estonia	Rights and standards exist, but training capacity or comprehensive interpreter education is not sufficiently visible or standardised.
Emerging professionalisation with high social need	Ethiopia	Need for interpreting is evident, especially in education, but dedicated professional pathways and accreditation remain weak.

Promising educational ecosystem needing national harmonisation	Ghana and Kenya	KSL/GSL education initiatives exist, but certification, standards, specialist preparation and service coordination remain incomplete.

The typology above is analytical rather than evaluative. It does not rank countries by quality or development level, but identifies the specific configuration of strengths and gaps that shapes each national interpreting-service context. Each type implies different reform priorities and different starting points for VET curriculum adaptation.

Germany's position as a system with advanced formal education but persistent implementation gaps means that reform efforts should focus on specialist provision, service coordination and institutional education rather than on building basic training from scratch. The university programmes that exist provide a strong professional foundation, but they do not automatically resolve access in healthcare, legal or emergency contexts, nor do they ensure that institutions understand how to work with interpreters effectively.

Croatia and Estonia share the characteristic of having legal and regulatory frameworks that outpace their current training infrastructure. In Croatia, the communication-mediation legal framework creates a basis for service entitlement, but the education pathway remains largely non-formal and too limited in scope to prepare interpreters fully for the breadth of contexts in which they work. In Estonia, the national professional standard and legal recognition of Estonian Sign Language provide a strong institutional foundation, but the absence of a clearly active full interpreter education pathway creates a persistent workforce shortage that undermines the practical value of those formal structures.

Ethiopia represents a context where professionalisation is still at an early and formative stage. Interpreting services are most visible in education, but the broader professional system – including dedicated training, certification, ethics frameworks and cross-sector access – remains underdeveloped. This does not mean that progress is absent; inclusive education structures have created a foundation of sign language awareness and some interpreting practice. However, the transition from awareness to professional competence requires a dedicated curriculum and institutional investment.

Ghana and Kenya share a promising but incomplete ecosystem. Both countries have visible sign language education initiatives at university and diploma level, constitutional or policy-level recognition, and active Deaf community networks. What remains missing is the national

architecture that connects these elements: standardised certification, quality assurance, specialist preparation for healthcare and legal contexts, and service-delivery coordination. The challenge for both countries is not to build from zero but to harmonise and strengthen what already exists.

9.2 Shared structural barriers

The shared barriers across countries can be understood as an interconnected chain rather than as isolated problems. If training is incomplete, competence becomes uneven. If competence is uneven, institutions and users cannot be sure who is qualified. If certification is weak, quality assurance becomes difficult to implement. If booking systems are poorly organised, even qualified interpreters cannot be deployed efficiently. If funding mechanisms are unclear or absent, users may be excluded by cost. If Deaf users lack safe and accessible complaint mechanisms, poor practice may continue without accountability. This chain shows why reform must be systemic and coordinated rather than limited to one isolated measure in any single country.

This structural chain is visible across all six countries, though in different configurations. In Germany, the chain breaks primarily at the level of coordination and specialist deployment: training exists, but booking, preparation and institutional understanding remain weak. In Croatia, it breaks at the level of training standardisation: legal recognition exists, but the education pathway does not consistently produce interpreters prepared for the full range of professional demands. In Estonia, it breaks at the level of workforce supply: recognition and standards exist, but insufficient numbers of trained interpreters are entering the profession to meet demand. In Ethiopia, the chain is at an earlier stage of formation: both training infrastructure and certification systems are still being developed. In Ghana and Kenya, the break occurs primarily at the level of national harmonisation: programme-level initiatives exist, but they are not yet connected to a coherent national system of certification, quality assurance and service funding.

A second shared structural barrier is the weak recognition of interpreting as professional labour. Across all six countries, interpreters report poor preparation conditions, unclear contractual terms, insufficient payment, lack of team interpreting arrangements and limited institutional support. These working conditions are not separate from user access. When

interpreters work under poor conditions – with no preparation materials, inadequate pay, no team support for long or demanding assignments, and no mechanism for professional feedback – interpretation quality suffers directly. A rights-based service system must therefore include fair working conditions as part of quality assurance, not as a separate professional concern.

A third structural barrier concerns the concentration of services in urban centres and major cities. Across the countries reviewed, access to interpreters is significantly stronger in capital cities and larger urban areas, where training institutions, Deaf organisations, interpreters and service providers are more likely to be located. In Croatia, services are more available in Zagreb and other larger centres. In Germany, access varies significantly by federal state and city. In Ethiopia, Kenya and Ghana, urban-rural disparities are especially pronounced, with rural Deaf communities often having no realistic access to professional interpreting. In Estonia, the small size of the country partially mitigates this problem, but the national remote interpreting service has been developed in part to address geographic access barriers. Future VET delivery should consider blended, regional and remote models to expand access to both training and services across all national contexts.

10. Good Practices Identified

The country evidence does not only document gaps and barriers. It also reveals important good practices across all six national contexts that should be recognised, strengthened and, where appropriate, adapted for use in other countries.

Germany demonstrates the value of formal university-based interpreter education with structured practical components and internships. Even though access and coordination gaps persist, the university programmes provide a strong foundation for professional identity, advanced competence and specialist preparation. The German case shows that higher education for interpreters is achievable and produces professionals with a robust theoretical and practical grounding, even if further system-level reforms are needed to translate that competence into consistent service access.

Croatia demonstrates the value of a legally regulated communication-mediation framework that creates a clear basis for service entitlement. The Croatian legal and regulatory structure means that Deaf and hard-of-hearing people have a formal right to communication support

across a range of contexts, and this provides a foundation on which stronger training and quality-assurance systems can be built. The Croatian case also shows that a non-formal training pathway can function as a starting point, even if it needs to be strengthened and formalised over time.

Ethiopia demonstrates the importance of building interpreter awareness and early service capacity through inclusive education structures. While a fully professionalised pathway is not yet in place, the education-sector work in Ethiopia shows that sign language presence within schools and special education programmes can create a foundation of community knowledge, practitioner experience and institutional awareness that supports future professionalisation. The Ethiopian case is therefore not only a story of gaps but also of foundational work that can be built upon.

Ghana demonstrates the value of university and diploma programmes that begin to institutionalise Ghanaian Sign Language education and interpreter-related training. Programmes at the University of Education, Winneba and the University of Cape Coast show that formal academic engagement with sign language interpreting is possible and productive, even before a fully national certification system is in place. The inclusion of sign language content in nursing curricula also demonstrates that domain-specific language awareness can be built into professional education beyond the interpreter field itself.

Kenya demonstrates the importance of constitutional recognition as a foundation for professional development, combined with a broad and active KSL learning ecosystem. The recognition of Kenyan Sign Language in the Constitution provides a strong rights-based anchor, while the diversity of training routes – including KISE, university programmes, community-based learning and the St. Paul's University Diploma – shows that multiple pathways can coexist and contribute to a growing interpreter community. The Kenyan evidence also highlights the value of Deaf community involvement in interpreter development and the role of strong Deaf organisations in access and advocacy.

Estonia demonstrates the value of a national professional qualification standard and a publicly funded remote interpreting service. The professional standard provides a clear and codified reference point for what interpreters are expected to know and be able to do, which creates a basis for certification, assessment and continuing professional development. The remote interpreting service shows that digital accessibility infrastructure can be integrated into

national public-service delivery, expanding access especially in situations where in-person interpreting is difficult to organise.

A cross-country good practice is the involvement of Deaf associations and Deaf community networks in access, training and advocacy. Across all six countries, where Deaf organisations are active, they often help users learn how to request interpreters, identify appropriate professionals and understand their rights. They also help interpreters develop cultural competence and terminology, and they play an important role in holding service systems accountable to the needs of Deaf and hard-of-hearing people. This role should be formalised and resourced rather than left to informal community effort.

Another good practice identified across multiple countries is the use of mixed training routes that combine formal learning with community exposure. Interpreters in Kenya and Ghana in particular reported learning through sustained interaction with Deaf communities before or alongside formal training, and this immersion was described as foundational for developing real communicative competence and cultural awareness. However, the evidence also shows that immersion alone is not sufficient: it must be connected to structured professional education that adds ethics, interpreting theory, practice assessment and domain specialisation. The value of community-based learning is greatest when it is integrated into a broader professional curriculum rather than treated as a substitute for formal training.

Remote interpreting, especially where publicly supported and carefully implemented, represents a good practice with potential for expansion across all six countries. Estonia's national remote interpretation service illustrates what is possible when digital interpreting is treated as part of the public accessibility infrastructure rather than as an emergency measure or informal workaround. Similar approaches could benefit rural and underserved communities in Croatia, Kenya, Ghana and Ethiopia, where geographic distance is a major barrier to service access. However, as the evidence across countries consistently shows, remote interpreting must be supported by training, technical standards and ethical guidance if it is to function as a high-quality service rather than a lower-tier alternative to face-to-face access.

The emergence of professional standards in several countries is another important positive development. Estonia's national qualification standard, the training standards developing in Germany, and the certification discussions emerging in Kenya and Ghana all demonstrate that countries are actively working to define what professional interpreting competence means and how it should be recognised. The value of these standards increases substantially when they

are connected to accessible training pathways, practical assessment systems, certification processes, continuing professional development and complaints mechanisms. Standards without accessible routes to achieving them risk becoming aspirational documents rather than practical tools for system improvement.

11. Implications for Training and VET Curriculum Development

The most important implication for the SignUnity VET curriculum is that interpreter education must be competency-based rather than content-based alone. A content-based curriculum lists topics to be covered; a competency-based curriculum defines what learners must be able to do. The evidence from all countries shows that users need interpreters who can perform under real conditions, not merely complete classroom units. Competencies should therefore include receptive and expressive sign language proficiency, spoken/written language competence, message analysis, reformulation, memory, lag time, voicing, accuracy, completeness, ethical decision-making, preparation, teamwork and adaptation to context.

The curriculum should begin with a strong language and cultural foundation. National sign language competence is indispensable, but it must be accompanied by Deaf culture, Deaf history, community diversity and rights-based perspectives. Interpreters work not only between languages, but also across cultural and institutional boundaries. Without Deaf culture knowledge, interpreters may reproduce hearing-centred assumptions even when their language skills are technically adequate.

The second curriculum pillar should be interpreting theory and practice. Learners need to understand interpreting as cognitive, linguistic and social work. They should practise consecutive interpreting, simultaneous interpreting, sight translation where relevant, voicing, turn-taking, repair strategies, clarification and team interpreting. These skills cannot be learned only through lectures; they require repeated practice, video analysis, feedback, simulation and supervised performance.

The third pillar should be professional ethics. Ethics must be applied throughout the curriculum, not limited to one introductory session. Learners should analyse realistic cases involving confidentiality, impartiality, role boundaries, institutional pressure, conflict of interest, competence limits, Deaf autonomy, sensitive information, small-community relationships and

remote interpreting. Assessment should include ethical reasoning, not only knowledge of a code.

The fourth pillar should be domain specialisation. The evidence from every country identifies healthcare, legal/judicial settings, education, employment, public services, media and emergencies as contexts requiring specific competence. The curriculum should provide compulsory exposure to each domain and optional advanced specialisation. Domain modules should include terminology, institutional procedures, ethical risks, preparation strategies, user expectations and simulated assignments.

The fifth pillar should be supervised practice. Interpreting is a performance profession, and learners need guided opportunities to develop professional judgement. Practicum should include observation, co-interpreting, mentoring, reflective journals, feedback from Deaf users, supervisor assessment and gradual progression from low-risk to more complex settings. Where full placements are difficult, structured simulations and community-based assignments can provide partial alternatives.

The sixth pillar should be digital and remote interpreting. Remote interpreting requires more than logging into a platform. It requires camera positioning, lighting, signing space, turn-taking management, confidentiality, data protection, fatigue management, troubleshooting, online team interpreting and awareness of when remote interpreting is inappropriate. These topics should be assessed through practical online tasks.

The seventh pillar should be professional sustainability. Interpreters need self-care, mental resilience, debriefing, supervision, peer learning, CPD planning and professional boundaries. The Kenyan evidence in particular shows that mental resilience is often absent from training, despite the emotional demands of legal, medical and sensitive community assignments. A sustainable profession must prepare interpreters not only to perform, but to remain healthy and ethically grounded.

11.1 Proposed VET curriculum architecture

Curriculum strand	Purpose	Examples of learning outcomes
Language proficiency	Build strong national sign language and spoken/written language foundations.	Learners demonstrate receptive and expressive fluency, adapt register and understand linguistic variation.

Deaf culture and rights	Ground interpreting in Deaf community knowledge and rights-based practice.	Learners explain Deaf cultural norms, autonomy, linguistic rights and access barriers.
Interpreting techniques	Develop professional transfer skills.	Learners perform consecutive and simultaneous interpreting with accuracy, completeness and clarity.
Voicing and bilingual transfer	Strengthen work between signed and spoken languages.	Learners voice signed messages accurately and interpret spoken content into sign language with appropriate structure.
Professional ethics	Prepare learners for real dilemmas.	Learners apply confidentiality, impartiality, role boundaries and competence limits in case scenarios.
Specialised domains	Prepare for high-stakes and sector-specific work.	Learners interpret simulated healthcare, legal, education, employment and public-service encounters.
Remote interpreting	Develop digital professional competence.	Learners manage platform setup, privacy, visual framing, turn-taking, fatigue and contingency planning.
Supervised practice	Connect classroom learning to professional performance.	Learners complete observed practice, reflective journals and feedback-based improvement cycles.
Assessment and certification	Ensure competence is measured transparently.	Learners pass practical performance assessments, ethics analysis and portfolio review.

12. Conclusions and Priority Recommendations

The evidence presented across Croatia, Germany, Ethiopia, Ghana, Kenya and Estonia leads to a clear overarching conclusion: sign language interpreting must be understood as a core component of public accessibility, linguistic justice and social participation, rather than as an occasional support measure arranged only when resources, goodwill or personal networks allow. Across the six country cases, Deaf and hard-of-hearing service users describe interpreting as the condition that enables them to understand, decide, participate, challenge, consent, study, work and access essential services. Interpreters, in turn, describe a profession that carries substantial linguistic, ethical, cognitive and emotional responsibility, but that is often insufficiently supported by training systems, service coordination, funding models, professional supervision and institutional understanding.

The comparative analysis demonstrates that the countries are not positioned at the same stage of system development, and that interpreting services across all six contexts are shaped by a persistent gap between recognition and implementation. Germany has a comparatively mature formal education landscape, but still faces access problems, specialist gaps and institutional role misunderstandings. Croatia has legal recognition and regulated communication-mediation structures, but the training pathway remains too short, insufficiently standardised and only partially aligned with the broader responsibilities of professional interpreting. Ethiopia shows a strong need for communication access, especially in education and public life, but still lacks a dedicated and fully professionalised interpreter education system. Ghana and Kenya have promising educational and policy foundations, but need stronger national harmonisation, certification, domain specialisation and quality assurance. Estonia has legal recognition, a professional qualification standard and remote service infrastructure, but the shortage of interpreters and the absence of a clearly visible active full interpreter education pathway create a significant implementation gap. In some countries, sign language is legally recognised but interpreters are not sufficiently available. In others, training exists but is not standardised or practice-intensive enough. In others still, users can access interpreters in planned events but not in emergencies, healthcare or legal contexts. These differences are important, but they point toward a shared conclusion: rights, standards and services only become meaningful when they are connected through sustainable education, professional recognition, funding and accountability.

One of the most important findings is that service availability cannot be separated from interpreter education. Where there are too few trained interpreters, users experience delays, limited choice, cancelled access, dependence on personal networks and unequal participation in high-stakes situations. Where training exists but is not sufficiently practice-oriented, service quality becomes inconsistent and interpreters may feel underprepared for healthcare, legal, educational, employment, emergency, media or remote contexts. Where certification exists without an accessible training pipeline, professional standards may define competence without ensuring that enough people can realistically develop that competence. For this reason, the development of a VET curriculum is not merely an educational activity; it is a structural intervention into the accessibility system itself. Legal rights become meaningful only when there are enough qualified interpreters who can work ethically and competently across real

contexts. Training must therefore be designed with the service system in mind, preparing interpreters not only to know sign language, but to interpret accurately, respect Deaf autonomy, manage ethical pressure, work in specialised domains and use remote technologies professionally.

The findings also show that quality in interpreting cannot be reduced to fluency in a national sign language. Language competence is essential, but it is only one part of professional performance. Users need interpreters who convey messages accurately and fully, adapt to individual communication needs, maintain confidentiality, respect autonomy, remain impartial, understand Deaf culture, prepare for the topic and manage communication without taking control of the interaction. Interpreters need structured opportunities to develop these abilities through guided practice, mentoring, observation, feedback, ethical case analysis, supervised placements and continuing professional development. The distinction between knowing sign language and being able to interpret professionally must therefore be made explicit in all future curriculum design, assessment and certification systems. Furthermore, service quality must be understood systemically. It is not enough to evaluate interpreters as individuals. Quality depends on booking systems, preparation materials, institutional understanding, funding, working conditions, team interpreting, supervision, standards and complaints mechanisms. Reforms should therefore target both interpreter education and the service environment simultaneously.

A further cross-country conclusion concerns the centrality of ethics. Ethical challenges appear in every national context, although they take different forms. Users report experiences of information being changed, summarised or filtered, institutions speaking to interpreters instead of Deaf persons, confidentiality concerns, lack of neutrality and uncertainty about how to complain. Interpreters report pressure from institutions, unclear role expectations, requests to intervene beyond the interpreter role, conflicts of interest, emotional strain and insufficient spaces for supervision or debriefing. Ethics is therefore not a symbolic or theoretical element of professional training. It is a practical competence that must be taught, practised, assessed and supported throughout the interpreter's career. Ethical standards should be linked to certification, supervision, complaints mechanisms and continuing professional development.

The research further confirms that the most serious access gaps occur in high-stakes domains. Healthcare, legal and judicial settings, emergencies, employment, education and public administration repeatedly appear as contexts where interpreting is most needed and where weaknesses have the greatest consequences. In healthcare, communication barriers can affect diagnosis, treatment, consent, privacy and trust. In legal settings, inaccurate or unavailable interpreting can affect rights, evidence, procedural fairness and personal liberty. In education, limited interpreting can restrict learning, academic progression and career opportunities. In employment, lack of access affects recruitment, workplace participation and professional advancement. These domains require more than general interpreting competence; they require specialised terminology, preparation protocols, ethical safeguards, domain knowledge and institutional cooperation.

Digital and remote interpreting emerges as both a promising practice and a significant training challenge across all six countries. Remote interpreting can improve access, especially where geography, short appointments or limited local availability make face-to-face provision difficult. Estonia's publicly funded national remote interpretation service illustrates the potential of digital accessibility infrastructure, while growing expectations around online interpreting are visible in Croatia, Germany, Ghana, Kenya and Ethiopia as well. However, remote interpreting also introduces risks related to image quality, turn-taking, confidentiality, screen size, fatigue, platform reliability, privacy and reduced interactional feedback. The report therefore concludes that remote interpreting should not be treated as a technical add-on or a lower-tier substitute for face-to-face access. It must be integrated into curriculum design, service standards, ethical guidance and user education across all national contexts.

The role of Deaf communities is another decisive conclusion. Interpreting services exist for Deaf and hard-of-hearing people's access, autonomy and participation. Therefore, Deaf organisations, Deaf professionals, Deaf interpreters and Deaf service users must be involved in curriculum design, teaching, assessment, policy development, quality assurance and service evaluation across all six partner countries. Participation should not be limited to consultation after programmes have already been designed. It should be embedded from the beginning as a principle of legitimacy, cultural accuracy and rights-based practice. A curriculum that is not shaped by Deaf perspectives risks producing interpreters who may know signs but do not fully understand the social, cultural and political meaning of communication access.

Overall, the SignUnity evidence base supports the development of a VET curriculum that is modular, competency-based, practice-intensive, ethically grounded, Deaf-centred and adaptable to different national contexts. Such a curriculum should include national sign language competence, spoken and written language competence, Deaf culture and rights, interpreting theory, consecutive and simultaneous interpreting, voicing, specialist domains, remote interpreting, professional ethics, supervised practice, reflection, mentorship, assessment and continuing professional development. It should also support countries at different stages of development: those with no dedicated pathway, those with non-formal or fragmented provision, those with formal education but remaining specialist gaps, and those with standards but limited training capacity.

The final conclusion is that improving interpreting services requires coordinated action across education, policy, professional regulation and service delivery. No single intervention will be sufficient. More interpreters are needed, but they must be well trained. Training is needed, but it must be connected to certification and practice. Certification is needed, but it must be supported by accessible education and renewal mechanisms. Ethical codes are needed, but they must be teachable and enforceable. Remote interpreting is needed, but it must be accompanied by standards and training. Legal recognition is needed, but it must be translated into funded, organised and quality-assured access. The SignUnity project is therefore positioned to contribute not only to curriculum development, but to a broader professionalisation agenda that links interpreter education with the real communication rights of Deaf and hard-of-hearing people across Europe and Sub-Saharan Africa. Sign language interpreting is not a peripheral service. It is part of the infrastructure of equality. When interpreting is unavailable, underfunded, poorly coordinated or insufficiently professionalised, Deaf and hard-of-hearing people are not only inconvenienced – their access to education, health, justice, employment, public information and civic life is materially restricted. When interpreting is reliable, ethical, competent and user-centred, it becomes a practical mechanism through which rights become real. This is the central message emerging from all six country cases and the guiding principle for the next phase of SignUnity's work.

12.1 Priority recommendations

Develop or strengthen national interpreter education pathways

Each country should ensure that interpreter education is structured, competency-based and connected to professional standards. Where programmes exist, as in Germany, Croatia, Ghana and Kenya, they should be strengthened through practicum, ethics, domain specialisation and remote interpreting. Where programmes are absent or fragmented, as in Ethiopia and partly in Estonia – new VET pathways should be established or existing structures actively reopened and resourced.

Create harmonised certification, accreditation and licensing systems

Professional recognition should not depend only on informal reputation or personal networks. National systems across all six countries should define who is qualified to interpret, how competence is assessed, how certification is renewed and how continuing professional development is linked to ongoing practice. Estonia's existing professional qualification standard provides a useful model that other countries could adapt.

Guarantee funded access in high-stakes public services

Healthcare, legal and judicial settings, emergency services, education, employment and public administration should have clear obligations, dedicated budgets and standardised booking protocols for interpreting access in all six countries. Deaf users should not be forced to personally finance access to essential rights-based services, nor should access depend on the goodwill of individual institutions or the availability of personal interpreter contacts.

Make professional ethics enforceable and teachable

Ethical standards should be embedded in training, certification, supervision and complaints mechanisms across all national contexts. Ethics education should cover confidentiality, impartiality, role boundaries, competence limits, preparation, Deaf autonomy, conflicts of interest and remote interpreting – and should be taught as applied professional reasoning through case analysis, simulation and supervised reflection, not only as a theoretical code.

Institutionalise Deaf community participation

Deaf organisations, Deaf professionals and Deaf service users should be formally involved in curriculum design, teaching, assessment, policy development, quality assurance and service evaluation in all six countries. This participation should be embedded from the outset as a structural principle, not treated as optional consultation after decisions have already been made.

Develop remote interpreting standards

Digital interpreting should be supported through dedicated training and policy standards in all national contexts, covering platform use, visual quality, privacy, data protection, fatigue management, emergency backup protocols, team interpreting online and clear criteria for determining when remote interpreting is and is not appropriate. Estonia's national remote service provides an example of what publicly funded digital accessibility infrastructure can look like, and lessons from its implementation should inform standards development across all partner countries.

Annex 1: Consolidated Country Evidence Matrix

Country	Main strengths	Main gaps	Report status
Croatia	Legal recognition of Croatian Sign Language; regulated communication mediation; empirical user and interpreter data.	Non-formal and short training pathway; limited standardisation; shortage; ethics and remote gaps.	Full empirical chapter included.
Germany	Formal university programmes; professional infrastructure; strong empirical evidence.	Access uncertainty; legal and healthcare specialist gaps; institutional role misunderstanding; remote and ethics needs.	Full empirical chapter included.
Ethiopia	Visible need; education-sector interpreting; mixed-methods national evidence.	No dedicated professional pathway; weak certification; services concentrated in education.	Full empirical chapter included.
Ghana	University/diploma programmes; inclusive education policy; active service use.	No fully harmonised certification; legal recognition gap; specialist and ethical regulation needs.	Full empirical chapter included.
Kenya	Constitutional recognition of KSL; broad KSL ecosystem; rich FGD evidence.	Weak booking systems; uneven training; no full national ladder to certified practice; high-stakes gaps.	Full empirical chapter included.
Estonia	Legal recognition; national professional standard; remote interpreting services.	No T2.3 empirical data yet; limited visible active full interpreter education pathway; shortage.	Full empirical chapter included.

Annex 2: VET Curriculum Translation Matrix

Croatia

The Croatian case should inform modules on transforming non-formal communication mediation into a more comprehensive interpreter education pathway. Particular attention should be given to practical placements, mentorship, ethics and specialist domains.

A Croatia-responsive curriculum should also include remote interpreting and professional role clarification, because institutional misunderstanding and online delivery challenges are visible in the evidence.

Germany

The German case should inform advanced modules on legal, healthcare, employment and remote interpreting. Since formal education already exists, the curriculum should focus on gaps that remain after formal training: specialist competence, supervision, institutional negotiation and user-centred quality.

Germany also demonstrates the need for CPD, because experienced interpreters continue to face new ethical and digital challenges.

Ethiopia

The Ethiopian case should inform foundational curriculum design. The priority is a pathway that distinguishes professional interpreting from inclusive education support and general sign language communication.

The curriculum should support both new learners and current practitioners through modular upgrading, recognition of prior learning and supervised practice.

Ghana

The Ghanaian case should inform the integration of existing diploma and university programmes into stronger national standards. The curriculum should deepen specialist training and link education to certification.

Healthcare, legal and public-service modules are especially important because users identify these as contexts with high risk and uneven access.

Kenya

The Kenyan case should inform curriculum strands on KSL-to-English/Kiswahili transfer, voicing, apprenticeship, ethics, mental resilience and booking-system awareness.

Kenya strongly demonstrates that knowing sign language is not the same as professional interpreting; this distinction should be made explicit in learning outcomes and assessment.

Estonia

The Estonian case should inform the translation of professional standards into teachable modules. Since standards exist but current training capacity appears limited, the VET curriculum could bridge certification expectations and education provision.

Digital and remote interpreting should be central because Estonia already uses remote interpreting services, but training documentation does not clearly show comprehensive digital competence preparation.

Annex 3: Methodological Interpretation Notes by Country

This annex expands the methodological reasoning behind the national chapters. It is included because the available evidence differs across countries and because a rigorous comparative report must not treat all national datasets as if they were identical. The purpose of this annex is to clarify how the evidence should be interpreted in the final report and how the findings can responsibly inform the SignUnity VET curriculum.

Croatia

Croatia provides a relatively balanced empirical base because both interpreters and users are represented through survey and interview evidence. The Croatian evidence is particularly suitable for analysing the relationship between formal service rights and the practical limitations of a non-formal training pathway. The sample allows for interpretation of access, quality, ethics and remote interpreting, but the findings should still be treated as applied qualitative evidence rather than as population statistics. The Croatian case is methodologically useful because it demonstrates a system in transition: there is enough structure to evaluate, but also enough fragmentation to identify curriculum needs clearly.

Germany

Germany provides the strongest evidence for analysing a mature system that still has significant gaps. The presence of formal university programmes and professional structures makes it possible to examine residual problems that persist after basic professionalisation has already occurred. The German evidence should not be interpreted as indicating system failure; rather, it shows the limits of formal education when service coordination, specialist availability, institutional awareness and ethical support remain uneven. Methodologically, Germany is important because it prevents the report from assuming that the existence of university programmes automatically resolves service access.

Ethiopia

Ethiopia must be interpreted as an emerging professionalisation context. The available survey and interview evidence is important, but the surrounding institutional structures are less developed than in several other countries. This means that the analysis should focus on foundational needs: the establishment of interpreter education, certification, ethics and cross-sector service recognition. The Ethiopian case should not be judged by the same expectations as countries with long-established professional pathways. Instead, it should be used to identify what a first-generation VET curriculum must contain when a profession is still being built.

Ghana

Ghana provides evidence of a system with meaningful educational initiatives and policy commitments, but without full national harmonisation. The methodological value of the Ghanaian case lies in the

tension between existing programme-level strengths and continuing gaps in legal recognition, certification, ethics and service availability. This means that the Ghana chapter should analyse how promising educational provision can be connected to a more coherent national professional framework. The findings are especially relevant for designing curriculum modules that connect training with public-service access and certification.

Kenya

Kenya provides especially rich qualitative evidence through detailed focus-group material from both service users and interpreters. The Kenyan case is methodologically strong for analysing professional identity, booking systems, ethics, domain readiness and the difference between KSL learning and interpreting competence. The legal foundation is strong, but implementation is uneven. This makes Kenya a key case for showing how constitutional recognition must be supported by service financing, coordination, training standards and professional accountability.

Estonia

Estonia is methodologically distinctive because its empirical sample is smaller than in some other national cases and because the interpreter community itself is relatively small. Nevertheless, the available survey and interview data now allow the report to analyse user and interpreter perspectives directly. The findings confirm the earlier structural analysis: Estonia has strong legal and professional foundations, but availability, training capacity, remote interpreting preparation and service coordination remain key challenges.

Analytical dimension	Analytical questions addressed	Reason for inclusion
Access and availability	Who can access interpreters, in which contexts, under what conditions, and with what delays or costs?	Access is the primary indicator of whether legal and policy commitments become meaningful in everyday life.
Service organisation	How are interpreters requested, booked, funded and coordinated?	Service organisation explains why formal rights may fail in practice.
Quality and comprehension	Do users understand interpreted communication and feel able to participate fully?	User comprehension and participation are central to service quality.
Interpreter preparation	What training, experience, mentoring and preparation do interpreters receive?	Interpreter preparation links the service evidence directly to VET curriculum design.
Ethics and autonomy	How are confidentiality, impartiality, role boundaries and Deaf autonomy protected?	Ethics is central to trust and professional legitimacy.
Specialised domains	How well do services function in healthcare, legal, education, employment, public services, media and emergencies?	High-stakes contexts require domain-specific competence and institutional planning.
Remote interpreting	How is remote interpreting used, and what technical, ethical and quality issues arise?	Remote interpreting is increasingly important and must be included in training and policy.
Good practices	Which existing practices should be strengthened or scaled?	The report should identify assets as well as gaps.
VET implications	What curriculum content, learning outcomes and assessment methods follow from the findings?	The research must directly inform SignUnity curriculum development.

Annex 4: National Research Reports

The full national research reports prepared by each partner using the common Appendix 2 reporting template are not reproduced in this integrated report. They are available as separate accompanying documents, one per country, and provide the complete survey data, interview/focus-group findings and detailed analysis that underpin the country syntheses presented in Sections 4–9.