SignUnity

Inter-Continental Collaboration in Sign Language Interpreter VET Education

D2.4. Report on the comparative analysis of educational practices for sign language interpreters and interpreting services in Europe and Sub-Saharan Africa

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Abstract

Report D2.4 presents a comparative analysis of sign language interpreter education programmes and interpreting services across three European countries (Germany, Estonia, and Croatia) and three African countries (Kenya, Ghana, and Ethiopia), all partners in the SignUnity project. The report builds on the findings of Reports D2.2 and D2.3. The results reveal considerable variation in the legal recognition of national sign languages, the regulation of sign language interpreting services, and the development of interpreter education programmes across the six countries. The study on the quality of sign language interpreting services involved 202 interpreters and 166 Deaf and hard of hearing service users from all six partner countries. Despite differences in the maturity of national systems, the research identified a number of shared challenges, including a shortage of interpreters, inconsistent availability of interpreting services, limited understanding of the interpreter's professional role, the absence of formal codes of ethics, and shortcomings in existing education programmes, which do not provide adequate preparation for professional practice. Based on these common findings, Report D2.4 provides recommendations for the development of a unified VET curriculum for the education and training of sign language interpreters, accompanied by a handbook on ethical practice. Together, the VET curriculum and the handbook represent the central and flagship outcomes of the SignUnity project, while also providing a foundation for the standardization of the profession and the regulation of sign language interpreting services in both the European and African regions.

TABLE OF CONTENTS

1. INTRODUCTION **5**

2. METHODOLOGY OF THE COMPARATIVE ANALYSIS **9**

3.1 Legal Status of the National Sign Language and the Statutory Regulation of Sign Language Interpreting Services 11

3.2 Overview of Educational Programs for Sign Language Interpreters 17

3.3 Comparative Synthesis of Educational Programs for Sign Language Interpreters According to Key Characteristics 21

4. COMPARATIVE ANALYSIS OF RESEARCH FINDINGS ON THE QUALITY OF INTERPRETING SERVICES IN EUROPE AND SUB-SAHARAN AFRICA **23**

4.1 Sign Language Interpreters' Perspective 24

4.2 Deaf and Hard-of-Hearing Service Users' Perspective 29

5. RECOMMENDATIONS FOR A VET CURRICULUM AND A HANDBOOK ON ETHICAL CONDUCT IN PRACTICE **34**

5.1 VET Curriculum for the Education and Training of Sign Language Interpreters 34

5.2 Handbook on Professional Ethics in Practice 38

6. CONCLUSION **40**

7. REFERENCES **41**

1. INTRODUCTION

The project "Inter-Continental Collaboration in Sign Language Interpreter VET Education" (**SignUnity**) is a unique initiative that brings together two continents – Europe and Africa – through the partnership of three European countries (**Croatia, Germany**, and **Estonia**) and three African countries (**Ghana, Kenya**, and **Ethiopia**). The project addresses the systemic challenges faced by sign language interpreters in these countries, most notably the critically low number of qualified and available interpreters, limited public understanding of the interpreter's professional role, and the absence or inadequacy of education and training programmes designed to equip individuals with the competencies required for the profession. The lack, absence, or insufficient structure of such programmes directly contributes to the shortage of qualified and professionally trained sign language interpreters in the labour market. This, in turn, has significant and far-reaching consequences for deaf and hard of hearing people who rely on sign language interpreting services, increasing their risk of marginalisation and social exclusion. Restricted or absent access to information, difficulties in understanding information, and the limited availability or insufficient quality of sign language interpreting services constitute major barriers to the equal participation of this group of persons with disabilities in social life, education, healthcare, and the justice system. Recognising these challenges, the primary objective of the SignUnity project is to develop a comprehensive, unified, and structured VET curriculum for both current and future sign language interpreters, with the aim of strengthening professional competence, improving service quality, and promoting ethical standards within the profession. Such a curriculum is expected to make a direct contribution to enhancing the overall quality of the profession, increasing the number of qualified and available interpreters, and improving the position of Deaf and hard of hearing people in society by ensuring timely and accurate access to information and enabling their equal participation in all areas of social life.

The project is founded on the assumption that the development of a meaningful and sustainable solution – a shared VET curriculum – must be preceded by a methodologically robust analysis of the current state of the profession. This need is further reinforced by the fact that, despite pursuing a common objective, the partner countries operate within markedly different contexts. They differ not only geographically but also in their levels of economic,

social, and legal development, which is reflected in the legislative regulation of the sign language interpreting profession and in the degree of professionalisation of interpreter education. It is precisely this diversity that has shaped the activities and objectives of **Work Package 2**, which has two primary purposes:

1. To examine the formal and non-formal education and training programmes for sign language interpreters currently available in the partner countries, including their methodological design in terms of curriculum content, learning outcomes, teaching approaches, and instructional methods, as well as to analyse how the profession of sign language interpreting and the provision of sign language interpreting services are regulated within the relevant legislative and institutional frameworks.
2. To assess the quality of current sign language interpreting services by integrating both key perspectives: the perspective of service users (deaf and hard of hearing people as recipients of interpreting services) and the perspective of sign language interpreters as service providers.

Accordingly, two complementary studies were conducted. The first focused on a comprehensive analysis of existing sign language interpreter education and training programmes across all six partner countries. Each participating country carried out a mapping exercise using a standardised methodological framework, thereby ensuring the comparability of the data collected. Every country examined educational provision within at least three different education systems, and a comparative matrix was subsequently developed to highlight similarities and differences among the programmes. As part of this study, an analysis was also undertaken of the legislative and regulatory frameworks governing the sign language interpreting profession, examining the extent to which the profession is regulated through national legislation and related statutory instruments in each country.

The second study explored the perspectives of the two principal stakeholder groups: service users (deaf and hard of hearing people), and sign language interpreters themselves. To this end, semi-structured interviews, focus groups, and questionnaire surveys were conducted with both target groups in all participating countries. The research examined the availability and quality of interpreting services, the contexts in which these services are most frequently provided, and the levels of professional competence, ethical conduct, and accountability demonstrated by interpreters. The collected data were analysed using both quantitative and

qualitative methods in order to provide a comprehensive understanding of the current state of sign language interpreting services and to identify the key challenges and priority areas for improving interpreter education and training.

This dual methodological approach, integrating the perspectives of both service users and service providers, is of considerable methodological and ethical significance for understanding sign language interpreting as a social, educational, and human rights-based service system. Deaf and hard of hearing people are best placed to assess whether interpreting services genuinely facilitate understanding and enable equal participation, while sign language interpreters are uniquely positioned to describe the professional conditions under which they provide their services, including their educational pathways, preparation for practice, ethical challenges, working conditions, coordination issues, and continuing professional development needs. Examining these two perspectives together provides a more comprehensive understanding of interpreting services as an integrated system rather than as a series of isolated communication events. It also establishes a foundation for evaluating service quality that extends beyond the mere availability of interpreters by addressing broader questions: whether Deaf and hard of hearing people can access an interpreter in a timely manner whenever one is needed; whether interpreting is accurate and culturally appropriate; whether institutions understand the professional role of sign language interpreters; whether interpreters possess the necessary competencies; and whether service delivery systems are sufficiently coordinated, accessible, and financially sustainable.

These two studies resulted in the following research reports:

- *D2.2. Research report on mapping existing educational practices for sign language interpreters in Europe and Sub-Saharan Africa*
- *D2.3. Research report on current interpreting services in Europe and Sub-Saharan Africa: Perspectives of users and interpreters.*[1]

Building on the findings of these two reports, a third, integrative report was developed – **D2.4. Report on the comparative analysis of educational practices for sign language interpreters and interpreting services in Europe and Sub-Saharan Africa,** which is the

[1] Both reports (D2.2 and D2.3) are publicly available on the project website, the websites of the partner organizations, and in the national languages of all participating countries.

subject of this document. The report provides a comparative analysis of the six participating countries across three interconnected dimensions:

- the existing educational practices for sign language interpreters;
- the quality of sign language interpreting services;
- the extent to which the profession and the provision of interpreting services are aligned with the relevant institutional and legislative frameworks.

The report draws upon data obtained through the standardised templates used to map sign language interpreter education programmes, as well as the standardised questionnaires and semi-structured interviews conducted in all participating countries. Report D2.4 consolidates, synthesises, and compares these findings in order to present a comprehensive and evidence-based overview of the current situation across both the European and African regions.

The specific objectives of Report D2.4 are to:

1) provide a comparative analysis of the findings relating to sign language interpreter education programmes and the legislative regulation of the profession across the participating countries;

2) provide a comparative analysis of the quality of sign language interpreting services in the participating countries, examined from the perspectives of both service users and service providers;

3) present, in a single integrated report, a comparative overview of the European and African contexts with regard to sign language interpreter education and the quality of sign language interpreting services;

4) use these comparative findings as the basis for developing recommendations for the design of a vocational education and training (VET) curriculum and a code of ethics for the profession.

Based on these analyses, the report offers clear conclusions and practical recommendations that will serve as the foundation for the development of **Work Package 3** – an innovative VET curriculum for sign language interpreters, accompanied by a handbook on ethical guidelines and professional standards of practice. Together, these outputs constitute the central and flagship outcome of the SignUnity project.

2. METHODOLOGY OF THE COMPARATIVE ANALYSIS

The methodological framework of this report derives directly from the specific character of the two studies carried out within Work Package 2, whose findings were consolidated in reports D2.2 and D2.3. Both reports were designed according to the same logic: each represents a compilation of six national reports, produced according to a single, pre-standardized research protocol, whereby each of the six participating countries (Croatia, Germany, Estonia, Ghana, Kenya, Ethiopia) independently conducted research on its own national sample and within its own national context. Although this approach enabled the collection of comparable data through the application of a shared methodology, the content structure of reports D2.2 and D2.3 does not include a cross-country comparison of findings, but only their parallel, descriptive presentation at the national level. In other words, these reports provide extensive and methodologically sound empirical material, but do not offer a synthesized, comparative insight into that material. This methodological gap is precisely the main reason for producing report D2.4, whose core task is to build on the existing findings by carrying out a systematic comparative analysis, thereby bringing the previously separately presented national data into mutual analytical relation.

Methodologically, this report is based on a secondary analysis of the primary data and findings contained in reports D2.2 and D2.3, without conducting any new field data collection. It is a qualitative-quantitative comparative analysis based on a cross-country comparative approach, whereby the six national contexts are treated as six separate analytical units (cases) whose findings are systematically compared with the aim of identifying similarities, differences, and patterns that go beyond the individual national framework. This approach makes it possible to identify the specific features of each country individually, while also recognizing broader regional (European and African) and interregional tendencies, thereby providing an analytical basis appropriate for the development of a joint and unified professional VET curriculum.

This report covers the following:

1. **a comparative analysis of educational programs** (analysis of data consolidated in report D2.2)

2. **a comparative analysis of the legislative and institutional regulation of the profession and the service** (analysis of data consolidated in report D2.2)
3. **a comparative analysis of service quality from the perspective of users and interpreters** (analysis of data consolidated in report D2.3)

When interpreting the findings of this comparative analysis, certain methodological limitations must be taken into account. The participating countries differ in their level of economic, social, legal, and educational development, as well as in the degree of institutionalization of the sign language interpreting profession, which means that a fully uniform, direct comparison of certain indicators is sometimes not possible without taking the specific national context into consideration. Despite these limitations, the comparative approach applied, grounded in a systematic analytical matrix and the triangulation of sources, constitutes a methodologically sound and reliable framework for achieving the objectives set for report D2.4.

3. COMPARATIVE CANALYSIS OF THE LEGISLATIVE FRAMEWORK AND EDUCATIONAL PROGRAMS FOR SIGN LANGUAGE INTERPRETERS IN THE PARTNER COUNTRIES

Building on the methodological framework outlined in the previous chapter, this chapter presents a comparative analysis of the findings contained in report D2.2, conducted across a sample of six countries participating in the SignUnity project – three European (Germany, Estonia, Croatia) and three African (Kenya, Ghana, Ethiopia). The analysis focuses on two fundamental dimensions that directly determine the quality and availability of sign language interpreting services for deaf and hard-of-hearing persons: the legislative framework governing the status of the national sign language and the right to access interpreting services, and the existing educational practices aimed at acquiring the competences required to work in this profession. This analysis focuses exclusively on programs whose purpose is training for the profession of sign language interpreter, while programs aimed solely at learning sign language are not considered here, as they do not constitute a pathway toward acquiring the competences needed to work as a sign language interpreter.

3.1 LEGAL STATUS OF THE NATIONAL SIGN LANGUAGE AND THE STATUTORY REGULATION OF SIGN LANGUAGE INTERPRETING SERVICES

Legal status of the national sign language in the partner countries

The analysis shows that three of the six participating countries – Germany, Estonia, and Croatia – have legal recognition of their national sign language as an independent, autonomous language, although these three legal systems differ from one another in the mechanism through which this recognition was achieved. **Croatia** regulates this matter through a separate, standalone piece of legislation devoted exclusively to sign language – *the Act on Croatian Sign Language and Other Forms of Communication of Deaf and Deafblind Persons in the Republic of Croatia* (2015)[2], which officially recognized Croatian Sign Language as the native language of the deaf and deafblind community. The value of this Act is particularly reflected in the way it recognizes the heterogeneity of communication practices within the community of deaf, hard-of-hearing, and deafblind persons, as it clearly and systematically distinguishes Croatian Sign Language (HZJ), as an authentic and autonomous linguistic system with its own grammatical structure and rules, from other communication systems based on spoken Croatian, such as simultaneous sign-supported speech or other communication systems. The Act guarantees every deaf, hard-of-hearing, and deafblind person the right to freely choose and use the communication system they themselves consider their preferred form of communication. The same Act further stipulates that a communication intermediary is a person possessing the appropriate skills, knowledge, and abilities in the use of Croatian Sign Language and other communication systems. **Estonia**, unlike Croatia, has no separate law devoted exclusively to sign language; rather, Estonian Sign Language gained recognition through amendments to the overarching *Language Act* (2011)[3], effective from 2007. This Act explicitly states that Estonian Sign Language is an independent language, while sign-supported Estonian is defined as a form (modality) of the Estonian language. The Act further stipulates that the state is obliged to promote the use and development of Estonian Sign Language. **Germany** follows a mechanism

[2] Act on the Croatian Sign Language and Other Communication Systems of Deaf and Deafblind Persons in the Republic of Croatia. *Narodne novine* (Official Gazette of the Republic of Croatia), No. 82/2015. Available at: https://narodne-novine.nn.hr/clanci/sluzbeni/2015_07_82_1570.html

[3] Language Act. Riigi Teataja, 2011. (State Gazette of the Republic of Estonia). Available at: https://www.riigiteataja.ee/en/akt/518032025011

similar to Estonia's, in that it likewise has no separate, standalone law devoted exclusively to German Sign Language; instead, its recognition was achieved through *the Federal Act on Equal Opportunities for Persons with Disabilities* (2002)[4], in which German Sign Language is officially recognized as an independent language.

With regard to the statutory regulation of the national sign language, **Kenya's** legislative arrangement places it closer to the European than to the African participating countries. Kenyan Sign Language is already mentioned in *the Constitution of Kenya* (2010)[5], in the context of the state's obligation to promote its development and use as one of the accessible forms of communication for persons with disabilities. This constitutional foundation is further reinforced by *the Kenya Sign Language Bill*[6], which was submitted to the legislative process in 2023. The Bill provides for the formal recognition of Kenyan Sign Language as Kenya's third official language, alongside Swahili and English; the mandatory presence of qualified Kenyan Sign Language interpreters in court proceedings, healthcare institutions, and government bodies; the introduction of Kenyan Sign Language into school curricula, with schools obliged to provide an interpreter for deaf children; the organization of free Kenyan Sign Language courses for deaf children; an obligation on television stations to provide an on-screen interpreter during news and educational programming as well as events of national significance; and the establishment of a Kenyan Sign Language Council responsible for licensing and regulating the work of professional Kenyan Sign Language interpreters. Unlike Kenya, Ghana and Ethiopia still lack explicit legal recognition of their national sign language. **Ghana** currently has no dedicated law formally recognizing and protecting Ghanaian Sign Language. The closest relevant legal document is *the Persons with Disability Act* (2006)[7], which makes general reference to the right to accessible communication and the use of sign language interpreters, but does not explicitly name or define Ghanaian Sign Language. Furthermore, *the National Inclusive Education Policy*

[4] Act on the Equal Opportunities of Persons with Disabilities (Gesetz zur Gleichstellung von Menschen mit Behinderungen – Behindertengleichstellungsgesetz, BGG), 2002. Federal Ministry of Labour and Social Affairs of Germany. Available at: https://www.bmas.de/DE/Service/Gesetze-und-Gesetzesvorhaben/gesetz-zur-gleichstellung-behinderter-menschen.html

[5] The Constitution of Kenya, 2010. Kenya Law. Available at: https://www.parliament.go.ke/the-national-assembly/Constitution%20of%20Kenya

[6] The Kenyan Sign Language Bill, 2023 (Senate Bill No. 9 of 2023). Parliament of Kenya. Available at: https://www.parliament.go.ke/node/18662

[7] Persons with Disability Act, 2006 (Act 715). Parliament of Ghana. Available at: https://repository.parliament.gh/items/735e7e2b-9e67-4fac-a93e-4ab69b8343d3

(2015)[8] does not recognize Ghanaian Sign Language as an independent national language, but refers to it solely as an auxiliary means of communication within inclusive education. **Ethiopia**, according to the standardized templates used in the mapping process, is the only one of the six countries whose entire legal framework was assessed as "non-compliant" across the board, indicating that Ethiopian legislation contains neither adequate legal recognition nor any subordinate regulation governing the status of Ethiopian Sign Language. *The Constitution of the Federal Democratic Republic of Ethiopia* (1995)[9] recognizes the equality of Ethiopian languages, but Ethiopian Sign Language is not explicitly covered by it or by any other national law. The only document that mentions Ethiopian Sign Language at all is *the Language Policy of the Federal Democratic Republic of Ethiopia*[10], where it is referred to solely as an auxiliary means of communication for the inclusion of persons with disabilities, rather than as a national language with equal standing.

Legal regulation of sign language interpreting services and the right of deaf and hard-of-hearing persons to access the service

With regard to the legal and institutional regulation of access to sign language interpreting services in the participating countries, the situation is as follows. Deaf and hard-of-hearing persons in **Germany** are entitled to free use of a sign language interpreter under *the Ordinance on the Use of Sign Language and Other Communication Aids* (2002)[11], which stipulates that the user has the right to choose the type of communication assistance. The cost of the interpreter is borne by the state, the relevant insurance body, or the institution concerned. However, owing to Germany's federal structure, availability of the service is not uniform. While services in the healthcare and judicial sectors are regulated at the national level, their provision in local government and education is regulated by the individual federal states through their own rules,

[8] Inclusive Education Policy, 2015. Ministry of Education, Ghana. Available at: https://www.unicef.org/ghana/reports/inclusive-education-policy

[9] Constitution of the Federal Democratic Republic of Ethiopia, 1995. Federal Democratic Republic of Ethiopia. Available at: https://www.refworld.org/legal/legislation/natlegbod/1995/en/18206

[10] Language Policy of the Federal Democratic Republic of Ethiopia. Government of the Federal Democratic Republic of Ethiopia.

[11] Ordinance on the Use of German Sign Language and Other Communication Aids in Administrative Proceedings under the Disability Equality Act (Verordnung zur Verwendung von Gebärdensprache und anderen Kommunikationshilfen im Verwaltungsverfahren nach dem Behindertengleichstellungsgesetz – Kommunikationshilfenverordnung, KHV), 2002. Federal Republic of Germany. Available at: https://www.gesetze-im-internet.de/khv/

meaning that the availability of free interpreters varies from state to state. **Estonia** regulates this matter in an equally progressive but differently structured way. *The Language Act* (2011)[12] guarantees deaf and hard-of-hearing persons the right to official communication in Estonian Sign Language and to the use of an interpreter, while the actual provision and funding of interpreters is entrusted, under *the Social Welfare Act* (2015)[13], to local municipalities, which fund a fixed number of interpreting hours per user each month from their own budgets. Actual use of the interpreting service is capped at no more than 36 hours per year per user, which represents a fairly modest allowance given the everyday communication needs of deaf persons. To bridge this gap, Estonia has introduced an online interpreting service funded from the state budget. Through video calls, deaf and hard-of-hearing persons can access an interpreter free of charge in real time for brief administrative and everyday situations. In **Croatia**, use of the service is regulated by *the Personal Assistance Act* (2023)[14]. The key innovation here is that the service no longer depends on the availability of project-based funding but instead becomes a guaranteed statutory right of the user. Depending on the degree of hearing impairment and the assessed functional capacities, as determined by the competent assessment board, deaf and hard-of-hearing persons are allocated a monthly quota of between 10 and 40 hours of service. The user then exercises this right with a service provider of their own choosing.

In the African participating countries, such an operational mechanism is generally absent, with **Kenya** set to become the exception, based on the current state of the legislative process, once the service is regulated under *the Kenya Sign Language Bill* (2023)[15]. The Bill would guarantee deaf and hard-of-hearing persons free use of an interpreter in all public institutions, with the costs of licensed interpreters' work covered entirely by the state. The least favorable situation was found in **Ghana** and **Ethiopia**, where no law or regulation exists to guarantee the right to use the service. In both countries there is no formal procedure whatsoever for exercising this

[12] Language Act. Riigi Teataja, 2011. (State Gazette of the Republic of Estonia). Available at: https://www.riigiteataja.ee/en/akt/518032025011

[13] Social Welfare Act (Sotsiaalhoolekande seadus), 2015. Riigikogu (Parliament of Estonia). Available at: https://www.riigiteataja.ee/en/eli/519062025004/consolide

[14] Personal Assistance Act. *Narodne novine* (Official Gazette of the Republic of Croatia, No. 71/23, 154/25 and 157/25). Croatian Parliament. Available at: https://narodne-novine.nn.hr/clanci/sluzbeni/full/2023_06_71_1175.html

[15] The Kenyan Sign Language Bill, 2023 (Senate Bill No. 9 of 2023). Parliament of Kenya. Available at: https://www.parliament.go.ke/node/18662

right, nor any guaranteed quota of service hours, and the states do not fund interpreting even in sensitive contexts such as court proceedings or the education system. Since no one systematically pays for interpreters' work in Ghana and Ethiopia, deaf and hard-of-hearing persons are ultimately left to fend for themselves – forced either to find and pay for an interpreter privately or to rely on the help of local NGOs and other civil society organizations.

Certification, accreditation, and professional ethics of interpreters

The third relevant dimension of the legislative framework concerns the existence of a formal system of certification, accreditation, and professional ethics specific to the sign language interpreting profession.

Estonia has a dedicated national occupational standard for this profession (*Sign Language Interpreter, Level 6*)[16], which forms part of Estonia's national qualifications system and directly prescribes the competences, as well as the educational and work-experience requirements, needed to practice the profession. **Germany** achieves professional certification through its higher education system – via an undergraduate or graduate university degree obtained from one of five existing programs, which likewise serves as the prerequisite for practicing as a sign language interpreter in Germany. **Croatia** has a non-formal level of education program, which providers may only begin delivering once they have obtained approval and consent from the competent ministry, and upon completion of the program the participant receives a non-formal-level certificate. Obtaining this certificate is a prerequisite for employment as a communication intermediary. As for interpreters' professional ethics, in **Germany** a code of ethics exists, maintained by the Association of German Sign Language Interpreters, but it does not hold the status of a legally binding document at the national level, functioning instead solely as an internal professional instrument of that association. **Estonia** likewise lacks a separate, elaborated national code of ethics for this profession, and the same holds true for **Croatia**, where no unified, nationally established code of ethics for the profession exists either, meaning that each service provider applies its own code of ethics. In **Kenya**, *the Kenya Sign*

[16] Estonian Qualifications Authority. (2023). Occupational Qualification Standard: Sign Language Interpreter, EstQF Level 6 (Viipekeeletõlk, tase 6). Kutseregister – Estonian Register of Occupational Qualifications. Available at: https://www.kutseregister.ee/ctrl/en/Standardid/vaata/11200505

Language Bill (2023)[17] provides for the establishment of a Kenya Sign Language Council responsible for the certification, registration, and licensing of interpreters, which, once the bill is finally enacted, would give the institutional framework for national certification of the profession a statutory basis. **Ghana** and **Ethiopia** have no form of nationally standardized certification, accreditation, or legally grounded code of ethics for sign language interpreters whatsoever.

Summary comparative overview of the legal status of the national sign language and the right to sign language interpreting services

Country	Legal recognition of the national sign language	Statutory regulation of the right to sign language interpreting services	National framework for the education and qualification of sign language interpreters
GERMANY	**Full** (Federal Act on Equal Opportunities for Persons with Disabilities)	The right is regulated at the national level (Federal Act on Equal Opportunities for Persons with Disabilities, Act on Equal Opportunities for Persons with Disabilities, and the Ordinance on Communication Aids), with additional regulation at the level of the federal states.	Formal university education is available through several study programs for sign language interpreters.
ESTONIA	**Full** (Language Act)	Partially regulated by the Language Act, with the availability and scope of the right depending on the field of application (sector).	Although a university study program is not currently active, a national qualification standard for Estonian Sign Language interpreters exists.
CROATIA	**Full** (Act on Croatian Sign Language and Other Forms of Communication of Deaf and Deafblind Persons in the Republic of Croatia)	Regulated at the national level by the Personal Assistance Act, which establishes the right to the services of a communication intermediary throughout the Republic of Croatia.	A national occupational standard and a qualification standard exist within the Croatian Qualifications Framework, and a non-formal level education program is currently active.
KENYA	**Partial** (Kenya Sign Language Bill)	The legislative framework is in the process of being established through the Kenya Sign Language Bill, so its implementation and the development of the system are yet to come.	The Bill provides for the establishment of a system for the registration and qualification assessment of interpreters through a competent authority.

[17] The Kenyan Sign Language Bill, 2023 (Senate Bill No. 9 of 2023). Parliament of Kenya. Available at: https://www.parliament.go.ke/node/18662

GHANA	**None.**	None.	None.
ETHIOPIA	**None.**	None.	None.

3.2 OVERVIEW OF EDUCATIONAL PROGRAMS FOR SIGN LANGUAGE INTERPRETERS

This chapter provides a comparative overview of the existing educational programs for sign language interpreters in the partner countries.

Germany has the most developed system in the sample, situated at the higher education level, with five university programs:

- an undergraduate program at the University of Hamburg, lasting eight semesters;
- a graduate program at the University of Hamburg, lasting four semesters;
- an undergraduate program at Landshut University of Applied Sciences, lasting seven semesters;
- an undergraduate program at Magdeburg-Stendal University of Applied Sciences, lasting eight semesters;
- a graduate program at Humboldt University of Berlin, lasting four semesters.

Estonia currently has no active, formal educational program. The three-year undergraduate program for Estonian Sign Language interpreters, which had been running at the University of Tartu since 2006, has not been offered since 2020, owing to insufficient state funding and the consequently low number of enrolled students. The institutional response to educational needs has been reduced solely to lifelong learning programs, within which periodic, specialized courses in advanced-level (C1) Estonian Sign Language are delivered. These are programs intended to improve the general language competences of persons who work professionally with Estonian Sign Language (teaching staff at schools for the deaf and practicing interpreters) or of individuals seeking to enhance their own language skills. Methodologically speaking, these courses do not cover interpreting strategies or practical interpreting training, and therefore do not constitute a systematic program capable of educating and developing new professional practitioners from an entry level.

Croatia is the participating country with no program at either the secondary or higher education level dedicated to the education of sign language interpreters (communication

intermediaries). The only provision Croatia currently has is a 150-hour non-formal level education program for acquiring the competences needed to work as a communication intermediary, which is still only in the early stages of implementation. In order to be allowed to deliver this program at all, an organization must first obtain the consent of the Ministry of Labour, Pension System, Family and Social Policy. Upon successful completion of the program, participants are issued a non-formal-level education certificate, which constitutes a statutory requirement for employment in this profession. Croatia thus has only partial recognition at the national level – a program that is institutionally recognized and approved, but does not reach the level of formal education.

Turning to the African countries, **Kenya** has one program designed to provide qualifications for Kenyan Sign Language interpreters, delivered as a professional degree program at St. Paul's University. **Ghana** has two programs relevant to education in the field of Ghanaian Sign Language, both organized as degree programs at two different higher education institutions, though they differ substantially in content in terms of the extent to which they are oriented toward developing sign language interpreting competences. The first is a Ghanaian Sign Language program run at the University of Education, Winneba, lasting two years. This, however, is a program primarily oriented toward linguistics and Deaf culture, rather than an interpreter training program. The second is delivered at the University of Cape Coast, in cooperation with the Ghana National Association of the Deaf, and is designed as an intensive sixteen-week program aimed primarily at individuals who already have prior proficiency in Ghanaian Sign Language. Unlike the first program, this one is explicitly oriented toward developing interpreting competences, as it substantially covers translation/interpreting theory and technique. **Ethiopia's** Addis Ababa University offers an undergraduate program in "Ethiopian Sign Language and Deaf Culture," which is likewise primarily oriented toward linguistics and Deaf culture, but also includes several courses covering sign language interpreting techniques. This program, however, is not explicitly designed as a program for acquiring the competences needed to work as an interpreter, but rather as a program in linguistics and Deaf culture studies.

Summary comparative overview of educational programs for sign language interpreters

Country	Program name and provider	Duration	Level of education and qualification obtained	Status	Note
GERMANY	1. University of Hamburg (undergraduate and graduate program) 2. Landshut University of Applied Sciences (undergraduate program) 3. Magdeburg-Stendal University of Applied Sciences (undergraduate program) 4. Humboldt University of Berlin (graduate program)	1. 7 + 4 semesters 2. 7 semesters 3. 8 semesters 4. 4 semesters	1. Formal university level, bachelor's or master's degree 2. Formal university level, bachelor's degree 3. Formal university level, bachelor's degree 4. Formal university level, master's degree	Active	
ESTONIA	University of Tartu	3 years (undergraduate)	Formal university level, bachelor's degree	Not active since 2020.	A C1-level Estonian Sign Language course exists (at the University of Tartu), structured as a course aimed at improving Estonian Sign Language proficiency; it is intended for interpreters, teachers, and other professionals who work with deaf and hard-of-hearing persons. This course does not constitute interpreter training, as it does not include

					content specialized for interpreting work.
CROATIA	Non-formal adult education program – Communication Intermediary	150 hours	Non-formal level	Active, still in the early stages of implementation	
KENYA	St. Paul's University (program for obtaining professional qualifications in Kenyan Sign Language and interpreting)	1–2 years	Formal-level program for obtaining professional qualifications	Active	
GHANA	University of Cape Coast, in cooperation with the Ghana National Association of the Deaf (program for obtaining professional qualifications as a Ghanaian Sign Language interpreter)	16 weeks	Formal-level program for obtaining professional qualifications	Active	The University of Education, Winneba offers a two-year degree program in Ghanaian Sign Language, but it is oriented toward linguistics and Deaf culture and is not explicitly designed as a program for acquiring interpreting competences.
ETHIOPIA	–	–	–		Addis Ababa University offers an undergraduate program in "Ethiopian Sign Language and Deaf Culture," likewise oriented toward linguistics and Deaf culture, which includes a few courses on interpreting techniques, but is not intended for acquiring interpreter competences.

3.3 COMPARATIVE SYNTHESIS OF EDUCATIONAL PROGRAMS FOR SIGN LANGUAGE INTERPRETERS ACCORDING TO KEY CHARACTERISTICS

This chapter provides a synthesized comparison of the aforementioned educational programs for sign language interpreters according to the following key dimensions: curriculum content and learning outcomes, coverage of interpreting theory and technique, the presence of professional ethics, preparedness for work in specialized contexts, and coverage of interpreting in digital environments, alongside the question of the availability and accessibility of education.

Germany, with its five formal higher education programs, represents the most developed educational model in the sample. The curricula of all five programs consistently build bilingual competence in German Sign Language and spoken German, with clearly defined learning outcomes oriented toward independent professional practice. Interpreting theory and technique are systematically covered, with the highest degree of specialization found in Hamburg's graduate program, which focuses on court and conference interpreting. Ethics, however, is the weakest link – none of the programs treats ethical conduct as a separate module; instead, it is addressed only indirectly, through organized professional practicums. Preparation for specialized contexts is uneven: Magdeburg-Stendal explicitly names a broad range of sectors (healthcare, the judiciary, education, public administration), while the other programs merely imply such preparation. The acquisition of knowledge and skills for interpreting in digital environments is almost entirely absent from all five curricula. Accessibility is limited by the geographic concentration of the programs in four cities and by the fact that attendance is exclusively in-person, although financial accessibility remains high thanks to public funding.

Croatia, by contrast, has only a non-formal level program lasting 150 hours. The content of the program is oriented predominantly toward the educational context of working with deaf, hard-of-hearing, and deafblind pupils, while interpreting theory and technique are absent in the sense of treating sign language as an autonomous linguistic system and addressing interpreting techniques between languages of different modalities – the program remains at the level of demonstrating basic communication strategies. Ethics is present, but narrowly contextualized solely within the school setting, without extension to broader professional practice. Specialized interpreting contexts (healthcare, the judiciary, public services, and the

like) are entirely absent from the learning outcomes, as is interpreting in digital environments. In addition, the program displays an internal inconsistency between its declared competences (for instance, fluency in Croatian Sign Language) and the learning outcomes actually operationalized, which do not correspond to that competence. The program is formally available nationwide, as it can be delivered in a hybrid format. One of the enrollment requirements is submission of a certificate of proficiency in Croatian Sign Language, obtained by completing courses that are likewise at the non-formal level, and the knowledge acquired through these courses is unregulated, which further undermines the uniformity of participants' starting competences.

Estonia, meanwhile, represents a unique case. The study program formerly delivered at the University of Tartu is currently inactive. It constituted a comprehensive sign language interpreter education program, providing formal training for the profession. Since the program is currently inactive, information about it is only partially publicly available, which precludes a full assessment of its alignment with the other reference areas. It is known that interpreting theory and technique were systematically covered. What currently exists is an advanced-level (C1) language course, but this is not explicitly an interpreting program; rather, it is intended for anyone wishing to improve their language proficiency. With the loss of the study program, Estonia is left without any means of acquiring sign language interpreting competences, which prolongs the ongoing shortage of interpreters, particularly qualified ones.

The Kenyan Sign Language and Interpreting study program at St. Paul's University is the only program in the **Kenyan** sample through which sign language interpreting competences are acquired. The curriculum covers the grammar and sociolinguistic features of Kenyan Sign Language, as well as interpreting theory and technique, although the depth of this coverage is not publicly available. The program's content acknowledges the interpreter's work across various specialized settings, which partially addresses this domain, though without dedicated modules for each area. Ethics is not covered as a distinct area of instruction, and interpreting in digital environments is entirely absent.

In **Ghana**, there is an interpreter training program delivered at the University of Cape Coast, run in cooperation with the Ghana National Association of the Deaf, and it is the only such program in the Ghanaian sample. It is an intensive sixteen-week program, whose content includes structured interpreting theory, sign language linguistics, Deaf culture, and professional ethics as a separate course. It partially covers interpreting techniques in legal, medical, educational,

religious, and media contexts, as these areas are not developed into separate, dedicated thematic modules. Coverage of interpreting technique in digital environments is almost entirely absent. Particular value is added to the program by the involvement of Deaf lecturers and the practicum placement at the Ghana National Association of the Deaf, which stands out, within the analyzed sample, as an example of good practice. On the other hand, the program's short duration constitutes its key limitation, as it precludes the substantive and continuous training needed for the full acquisition of Ghanaian Sign Language interpreting competences.

In **Ethiopia**, no sign language interpreter training program exists, and the undergraduate program "Ethiopian Sign Language and Deaf Culture" at Addis Ababa University is oriented toward linguistics and Deaf culture, including a few courses on interpreting techniques, but the program is not designed for acquiring interpreter competences. Ethiopia therefore represents the most pronounced case of educational deficit in the entire six-country sample.

4. COMPARATIVE ANALYSIS OF RESEARCH FINDINGS ON THE QUALITY OF INTERPRETING SERVICES IN EUROPE AND SUB-SAHARAN AFRICA

Report D2.3 presents the findings of the research conducted on the quality of the current sign language interpreting service in the six partner countries of this project. While that report offers a detailed analysis and presentation of the results for each individual country, this chapter focuses on a comparative overview of the findings obtained. The research was designed to capture both perspectives that make up this service – that of the users and that of the interpreters, namely the perspective of deaf and hard-of-hearing persons as recipients of the service and the perspective of sign language interpreters as its providers. Bringing these two perspectives together yields a complete picture of the state of the service in the countries under study. All partner countries adhered to the same research methodology, which made it possible to produce this comparative analysis of the findings obtained. The aim of this comparative overview is to identify similarities and differences in the perception of sign language interpreting service quality between the European and sub-Saharan African

countries. Particular emphasis is placed on the degree of convergence or divergence between the views of service users and service providers. The insights gained can serve as a basis for improving sign language interpreting systems in the future, as well as for developing this project's VET curriculum.

4.1 SIGN LANGUAGE INTERPRETERS' PERSPECTIVE

A total of 202 sign language interpreters from the six partner countries took part in the research. An overview of the sample size by country is provided in the table below.

COUNTRY	SURVEY RESPONDENTS	INTERVIEW/FOCUS GROUP PARTICIPANTS
GERMANY	44	15
CROATIA	18	10
ESTONIA	7	3
KENYA	18	10
GHANA	42	10
ETHIOPIA	15	10

Education for sign language interpreters in the European countries reveals a finding that is important for understanding the relationship between formal and non-formal education and actual readiness for professional practice. While Croatian and Estonian interpreters largely acquire their knowledge and skills through non-formal forms of education (training of varying duration and program structure, delivered by different organizations) and through experience gained through hands-on work as interpreters, all of the German interpreters who took part in the research hold formal qualifications obtained through one of the German Sign Language interpreting degree programs. In Croatia, most interpreters have completed the currently active 150-hour non-formal training program for communication intermediaries. In Estonia, only two of the seven interpreters completed formal interpreter training at the University of Tartu, which is no longer active. Regardless of the level of formality of their education, interpreters from all three European countries report a similar sense of insufficient competence and preparedness for the actual demands of the profession, which suggests that professional readiness does not depend solely on the formal status of the educational pathway, but also on its content, the opportunities it offers for practical application, and its connection to real working situations. In

Germany, only 41% of respondents feel highly prepared for professional practice, while 46% consider themselves to have been only partially prepared. In Croatia, the survey and interview findings differ somewhat; while some of the surveyed interpreters rate their own preparedness as high, the interviewed interpreters emphasize that the existing educational programs do not provide sufficient knowledge and skills for performing the work of a sign language interpreter. In Estonia, two-thirds of respondents state that they were either not prepared at all or were insufficiently prepared for professional practice.

A similar pattern can be observed in the African countries, where educational programs likewise differ. Ethiopia and Kenya have educational programs that are oriented more toward the acquisition of sign language itself than toward developing the competences needed for professional interpreting. Nevertheless, in Kenya 88.9% of interpreters have completed this type of training, while in Ethiopia training takes place through non-formal programs run by the association of the deaf or other organizations, which vary in duration and program structure and are held only periodically. Ghana, by contrast, offers formal education through the degree program at the University of Cape Coast. Interpreters in the African countries likewise emphasize the importance of practical experience, stressing in particular that they developed their actual competences primarily through years of work within the Deaf community, rather than primarily through education.

With regard to fields of work, interpreters in all six countries report a wide but uneven range of areas of practice. In the European countries, healthcare and education emerge as the most common shared fields of work, with Croatian interpreters additionally showing a strong presence in social welfare, public services, employment, and the judiciary; German interpreters mainly in education and employment; and Estonian interpreters in media and community events. In the African countries, education stands out as the dominant working environment in all three, with this concentration being particularly pronounced in Ethiopia. Ghanaian interpreters, in addition to education, regularly interpret at community events, in public services, and in healthcare, while Kenyan interpreters extend their work to include media, conferences, and the employment sector as well. A common thread running through all the countries studied is the weak presence of legal and courtroom interpreting, which stands out in all six countries as a particularly demanding and rarely covered field of work. Interpreters

express marked caution toward such assignments because of the high level of professional responsibility involved and the complexity of the terminology.

The availability and organization of the service, as seen from the interpreters' perspective, represent a shared challenge across all six countries. In Germany, only 34% of interpreters consider the service in their region to be always available, while the rest report only occasional or less frequent availability. The picture is more favorable in Croatia, where 72.2% of surveyed interpreters and 60% of interviewed interpreters consider the service to be always available. In Estonia, 57.1% of interpreters report that the service is frequently available. The least favorable findings were recorded in Kenya, where only 11.1% of interpreters consider the service to be always available, and in Ghana, where this share stands at 31.0%. In Ethiopia, the service is available only occasionally. Across all countries, the main reasons cited for irregular availability of the service are a shortage of interpreters, uneven geographic distribution, funding and coordination problems, and late requests for the service from users.

As for the quality of the service in each country, German (84%) and Croatian interpreters (83.3%) rate the quality of the service as good or very good, and a similar picture emerges in Estonia (71.4%). In Ghana and Kenya, more moderate ratings prevail, while Ethiopian interpreters most often rate the quality of the service as poor or very poor. Regardless of these differences in overall ratings, the factors most detrimental to quality are consistent across all six countries: institutions do not understand the interpreter's actual role and function, often perceiving interpreters as helpers, advocates, or administrative go-betweens, and in some cases officials do not address the user at all during interpreting, speaking only to the interpreter instead, or ask interpreters not to interpret certain information. Another significant problem cited is the lack of information about the interpreting assignment and the unavailability of materials needed for thorough preparation, which means interpreters frequently approach assignments only partially prepared or entirely unprepared. Closely related to this is the problem of the service being booked too late, which further limits preparation time and thereby indirectly affects the quality of interpreting. Finally, the findings indicate that institutional support for interpreters is lacking on multiple levels: in education, in funding, and in the genuine acceptance of their professional role.

Ethical dilemmas are an integral and regular part of interpreters' work in all six countries, as most report encountering such situations occasionally or often. The most common challenge across all six countries concerns the boundaries of the professional role: interpreters describe pressure from institutions and/or users who ask them to act beyond their actual role and remit. A particular challenge lies in the fact that the Deaf community is small and its members know one another, which makes it difficult to maintain professional distance and preserve impartiality. When it comes to support in resolving ethical dilemmas, interpreters in all countries rely most heavily on their colleagues or on self-assessment of their own work. Professional support is available to only a small number of interpreters in the European countries, while it is unavailable to interpreters in the African countries. In line with this, working conditions differ considerably between countries. All interpreters express dissatisfaction with their financial working conditions, and this is most pronounced in Ethiopia, where some interpreters provide their services on a voluntary basis.

Interpreting in online settings is becoming increasingly common. This form of work is currently offered by 61% of German, 77.8% of Kenyan, 64.3% of Ghanaian, 55.6% of Croatian, and 42.9% of Estonian interpreters. In Ethiopia, this form of work is almost non-existent due to limited technological infrastructure. Attitudes toward online interpreting are most consistently articulated in the European countries, where interpreters regard it as useful but constrained by technical difficulties and reduced communication quality – a limitation that is particularly pronounced given that sign language relies on a visuospatial modality – as well as by the increased mental load that such work demands.

Interpreters were asked what would be needed to improve working conditions and the service itself in their country, and the responses revealed a marked diversity of priorities across the six countries studied. German interpreters most often emphasize the importance of supervision for the sake of their own professional wellbeing. Croatia, on the other hand, identifies the introduction of mandatory national certification and a standardized university-level education program as its most pressing priority. Another key priority is educating users and institutions about the interpreter's actual role. Estonia, similarly to Croatia, within the scope of its own circumstances, most strongly emphasizes the need to open, introduce, or expand formal training programs and to increase the number of interpreters. Kenyan interpreters stress the

need for better institutional support through funding, since a lack of funding is cited as one of the leading causes of the service's unavailability. Ghana points to a wide range of priorities: expanding and standardizing interpreter training programs, clear frameworks for certification and regulation of the profession, stronger mechanisms for employment and institutional integration, better working conditions and systems of professional support, and continuous professional development. Ethiopian interpreters particularly stress the need to establish organized platforms for online interpreting – an especially notable point given that online interpreting in Ethiopia is almost entirely undeveloped due to poor internet infrastructure – along with strengthening institutional provision of the interpreting service and improving professional recognition, certification, and sustainable systems of remuneration, the latter being especially important since some interpreters provide the service voluntarily, without any payment at all.

Interpreters were also asked which areas should receive greater emphasis in existing or future sign language interpreter training programs, and the responses revealed both common patterns and national particularities. Croatian interpreters most often cite interpreting techniques in specific contexts (55.6%) as the most significant gap in existing education, followed by interpreting techniques between languages of different modalities (50.0%), practical training and mentorship (44.4%), direct work with deaf and hard-of-hearing users (33.3%), and ethical standards and online interpreting (22.2%). Estonian interpreters most often point to the lack of a unified curriculum or an active education program (85.7%) and to interpreting techniques (85.7%). These are followed by practical training and mentorship (71.4%), online interpreting (71.4%), and specialized terminology (71.4%), while ethical standards and the boundaries of the professional role are cited by 57.1% of respondents. German interpreters rank practical training first, followed by Deaf culture and contact with the Deaf community (27%). Kenyan interpreters most often cite online interpreting (44.4%), interpreting in specific fields such as healthcare, the judiciary, and education (38.9%), ethics and professional standards (33.3%), practical training and mentorship (33.3%), and work with the Deaf community (33.3%) as areas insufficiently covered during their education. Ghanaian interpreters point to the need for expanding training opportunities, a harmonized curriculum, specialized training for education, healthcare, the judiciary, and online interpreting, together with continuous professional development and mentoring support. Ethiopian interpreters most

strongly emphasize the need to expand competency-based training and specialization programs.

Although the six countries studied differ in geographic location, the availability of interpreter training programs, the legislative regulation of the national sign language, and the legal regulation of the service, they share similar, and in many respects overlapping, problems affecting the quality of sign language interpreting services. Particularly notable among these are the shortage of interpreters, the lack of formal education, the need to improve existing interpreter training programs, insufficient institutional support, and limited public awareness of the profession itself.

4.2 DEAF AND HARD-OF-HEARING SERVICE USERS' PERSPECTIVE

A total of 166 deaf and hard-of-hearing service users from the six partner countries took part in the research. An overview of the sample size by country is provided in the table below.

COUNTRY	SURVEY RESPONDENTS	INTERVIEW/FOCUS GROUP PARTICIPANTS
GERMANY	15	15
CROATIA	21	7
ESTONIA	19	10
KENYA	15	10
GHANA	19	10
ETHIOPIA	15	10

Given that various forms of communication exist among deaf and hard-of-hearing persons, users were asked about their preferred mode of communication. The results show that the national sign language is the dominant primary mode of communication in all the countries analyzed. All respondents from Ghana (100%) reported Ghanaian Sign Language as their primary mode of communication; Kenyan Sign Language is used by 93.3% of users from Kenya, German Sign Language by 86.7% of users from Germany, Croatian Sign Language by 76.1% of users from Croatia, and Ethiopian Sign Language by 73.3% of users from Ethiopia. Across all countries, the remaining respondents most often reported sign-supported spoken language or

spoken language with adaptation (lip-reading, written communication) as their primary mode of communication.

Users were asked how often they use interpreting services across different areas of life. The results show that the need to use the service varies between countries, though in most of them education stands out as one of the areas with the greatest need for an interpreter. This is particularly pronounced in Kenya, where 80.0% of users identified education as an area in which they need an interpreter, and in Ghana (63.2%), while the other areas (healthcare, social welfare, the judiciary, public services) are represented to a similar extent. In Ethiopia, education likewise ranks first, ahead of employment and healthcare, while in Germany needs are more evenly distributed across the areas of work and employment, the healthcare system, the public services system, the education system, and the judiciary. Croatia's results differ from those of the other countries, as users most often use interpreting services at public community events, followed by public services systems, and then healthcare and social welfare. In Estonia, the greatest need for an interpreter was recorded in healthcare, followed by public administration, social services, education, and employment.

The frequency of using the service varies among the countries analyzed. Ghana stands out with the highest frequency of use, with as many as 68.4% of users reporting that they use the service very often. In contrast, occasional use of the service predominates in Germany (60% of users). Croatia, Estonia, Kenya, and Ethiopia show a more balanced pattern of use, without pronounced extremes: around a third of users use the service rarely or very rarely, while the share of those who use it often ranges between 13% and 28%.

Service availability represents one of the key concerns for users in all the countries analyzed, standing out as a greater challenge than the quality of interpreters' work itself. The results show that users in most countries face only occasional availability of the service, although the intensity of the problem varies according to the specific national context. The most pronounced challenges were observed in Germany, where only 27% of users report that the service is available when they need it, while 47% rate its availability as occasional, and a further 27% report that the service is not available at all. A similar pattern, though somewhat less pronounced, is present in Kenya and Ghana, where the largest share of users describe the

service as occasionally available (53.3% in Kenya and 47.4% in Ghana). In Ghana, 42.1% of users report that an interpreter is always available, while 10.5% report that the service is not available. In Ethiopia, the results likewise point to limited and uneven access to services, particularly in healthcare and the judiciary, while somewhat better availability was recorded in the field of education. Croatia stands out here as a positive example, with 81% of users reporting that the service is available when requested, and not a single respondent reporting complete unavailability of the service. However, the qualitative findings show that availability challenges in the Croatian context relate more often to the need to adjust appointment scheduling than to an outright denial of the service. Estonia likewise presents a relatively more favorable picture, with most users reporting that the service is frequently available, alongside an emphasis on the need to book appointments in advance.

The findings indicate that service availability remains one of the most significant challenges in all the countries analyzed, although the obstacles differ depending on the national context. An insufficient number of interpreters is a shared challenge across all countries, while certain countries additionally highlight challenges related to the organization, planning, and timely provision of the service (Croatia, Estonia, Ghana, and Ethiopia), the cost of the service (Kenya), geographic constraints (Kenya and Ethiopia), and insufficient availability of the service in certain areas (Kenya and Croatia).

The quality of the interpreting service, as seen from the users' perspective, shows varying patterns across the countries analyzed, though the shared finding is that users generally rate it positively. The most positive assessments were recorded in Croatia, where 95.3% of users rate the quality of the service as excellent or very good, compared with 52.6% of users in Estonia who selected the same categories. In Germany, 53% of users rate the quality as good or very good. The largest share of users rating the quality as satisfactory was found in Kenya (40.0%), Ghana (57.9%), and Ethiopia (40.0%).

As for what users consider to be indicators of a quality service, the results from all six countries show that quality is not viewed solely in terms of the accuracy and clarity of interpreting. Although these two components are consistently identified as the foundation of quality interpreting, users attach equal importance to the interpreter's professional competences. These include a high level of proficiency in both the sign language and the spoken language,

familiarity with specialized terminology and the cultural characteristics of the Deaf community, professional ethics, neutrality, respect for confidentiality, and the ability to understand and adapt to users' individual communication needs. This understanding of quality shows that users do not view the interpreter's role merely as conveying information between two languages, but as that of a professional who enables equal participation in communication and access to information across various life situations.

However, when users assessed the extent to which these principles of professional and ethical conduct are actually realized in practice, most users in all six countries analyzed felt that interpreters respect their communication needs, treat them professionally and with respect, and strive to build a relationship of trust, although a smaller number of users report several forms of unethical conduct. The most frequently mentioned is the alteration, condensing, or omission of parts of the message being conveyed, which undermines the fidelity of the information transmitted. Users also frequently point to breaches of neutrality, through interpreters taking sides or assuming a more active role in the communication than is proper to the interpreter's function. Users further describe situations in which interpreters answer on the user's behalf, which users associate with a loss of autonomy and equal participation in communication. In addition to these challenges, users also report breaches of confidentiality, instances of disrespect, and a failure to adapt to users' communication needs.

Users also assessed which fields of interpreting work are the most demanding, with healthcare, emergency situations, and the judiciary standing out in all the countries analyzed as particularly sensitive contexts, owing to the complexity of communication, specialized terminology, and the potential consequences of inaccurate transmission of information. Although the ranking of the most demanding fields varies between countries, emergency situations stand out in particular in Kenya (80.0%) and Germany, while users in Ghana identify healthcare as the greatest challenge (57.9%). Croatian users identify the legal system as the most demanding context (76.2%), while in Ethiopia the field of employment stands out in particular (53.3%), alongside additionally emphasized challenges in healthcare and emergency situations.

Although countries differ considerably in how often their users make use of remote interpreting, the problems associated with it are almost identical across all six countries. In

Kenya, for instance, this form of service is very widespread, used by 93.3% of users, of whom 53.3% rate it as satisfactory. Germany follows in terms of frequency of use, with as many as 80% of users having experience with remote interpreting, 75% of whom likewise rate the service as satisfactory. In Estonia and Ethiopia, around 40% of users make use of this service. In Croatia and Ghana, the situation is the reverse: 61.9% of Croatian users and 57.9% of Ghanaian users have never used remote interpreting. The findings from all six countries point to identical problems in using this form of service, namely technical difficulties and poor internet connectivity, which prevent or hinder communication and comprehension. Most users nevertheless prefer to use the service in person, especially in more demanding and sensitive situations.

Users were asked about the main priorities for improving the service in their country. Despite geographic, economic, and other differences, the research reveals largely identical responses, namely the need for a greater number of interpreters, as well as the enhancement of their professional competences. Beyond these shared findings, the research also pointed to a number of country-specific priorities. For instance, users in Germany express a wish for greater autonomy in choosing their interpreter, as well as the establishment of a formal mechanism for lodging complaints. Users in Ghana, Kenya, and Estonia propose better coordination of the service-booking system. Users in Croatia emphasize the need to regulate interpreters' workload.

The findings of the research conducted among deaf and hard-of-hearing service users show that, despite differences between national contexts, users in all six countries face similar challenges, above all in the areas of service availability, the number of interpreters, and the need for further development of interpreters' professional competences. These findings point to the need for a systematic improvement of interpreting services through strengthening availability, developing professional standards, and continuous investment in interpreters' competences, with future activities needing to take into account both the shared challenges faced by users and the specific characteristics of individual national contexts.

5. RECOMMENDATIONS FOR A VET CURRICULUM AND A HANDBOOK ON ETHICAL CONDUCT IN PRACTICE

Building on the comprehensive research and the comparative analysis carried out, this section sets out guidelines to help develop a unified VET curriculum for the education and training of sign language interpreters, one that will encompass the national contexts in a way that is consistent and applicable to both regions, European and African. The comparative overview of the legal regulation of the status of the national sign language, the legal regulation of the sign language interpreting service, existing interpreter education programs, and the perspectives of both interpreters and service users across all six partner countries has shown that, despite differences in legal regulation, the level of development of educational programs, and institutional foundations, the challenges facing the profession largely coincide. This degree of convergence indicates that it is possible to develop a shared, competency-based curriculum that addresses the universal shortcomings identified in the research, while allowing for adaptation to specific national circumstances such as available resources and infrastructure. The curriculum must therefore not be conceived as a list of isolated subjects, but as an interconnected, modular system that guides participants from a foundational understanding of hearing impairment and of sign language as an autonomous linguistic system, through the acquisition of interpreting techniques in various contexts, to professional and ethical conduct in practice.

5.1 VET CURRICULUM FOR THE EDUCATION AND TRAINING OF SIGN LANGUAGE INTERPRETERS

Building on all the findings gathered, the following section presents the proposed VET curriculum, conceived as an interconnected, modular system that guides participants from a foundational understanding of hearing impairment and sign language, through the acquisition of interpreting techniques and practice in various professional contexts, to the development of ethical and professional responsibility.

The VET curriculum should include the following modules:

- **HEARING IMPAIRMENT**

The curriculum must include a thorough module on hearing impairment, covering both its medical and social aspects. Participants should learn the classification of hearing impairment by degree and time of onset, as well as an understanding of its implications for education, social life, and employment. Particular emphasis should be placed on the impact of hearing impairment on speech and language development, including the consequences of delayed language access for a child's cognitive and socio-emotional development, especially in families with hearing parents. The module should further cover the types of hearing aids and assistive technology and their application in the interpreter's work. The aim is for participants to gain a comprehensive picture of hearing impairment and its impact on the everyday life of deaf and hard-of-hearing persons, with particular emphasis on the heterogeneity within the deaf and hard-of-hearing population – an understanding that is a prerequisite for all subsequent modules, as it enables the interpreter to approach each user as an individual rather than as a member of a single, uniform group.

- **FORMS OF COMMUNICATION USED BY DEAF AND HARD-OF-HEARING PERSONS**

  This module should cover the various forms of communication used by deaf and hard-of-hearing persons, with an emphasis on the underlying cause-and-effect relationship that explains why a given individual chooses and uses a particular form as their primary mode of communication. Participants should learn to recognize, name, distinguish, and apply these forms in practical work. Particular emphasis is placed on taking an individual approach to each user, since the choice of a primary communication form arises from a range of interrelated factors. Understanding this interplay enables the interpreter to approach communication not according to a preconceived pattern, but by recognizing and respecting the actual needs of each person they work with.

- **SIGN LANGUAGE LINGUISTICS**

  This module covers all the linguistic features of the national sign language as a language of the visuospatial modality, including its phonology, morphology, syntax, and pragmatics. Participants gain an understanding of the structural characteristics of sign language in relation to spoken language, laying the foundation for the modules devoted to interpreting techniques. Without a solid grasp of the linguistic structures of sign language, it is not possible to develop or understand the processes of interpreting between languages of different modalities; this module therefore represents the starting point of the entire professional component of the curriculum.

- **INTERPRETING THEORY**

  This module covers the theoretical aspects of interpreting, with an emphasis on the underlying cognitive processes – how information is received, how it is linguistically processed, and how it is converted into another linguistic form. Participants learn about models of the interpreting process, the understanding and translation of meaning as opposed to a literal rendering of the message, as well as the emotional and cognitive demands that interpreting, as a mental activity, entails, including working memory load, divided attention, and the need to make rapid linguistic and interpretive decisions during interpreting.

- **INTERPRETING TECHNIQUES**

  This module covers interpreting between languages of different modalities – spoken and sign language – including interpreting from spoken into sign language, from sign into spoken language, as well as simultaneous and consecutive interpreting. Participants acquire concrete interpreting strategies and techniques suited to the demands of each of these forms of interpreting, with intensive practical exercises in controlled conditions before moving on to real-life situations.

- **INTERPRETING IN VARIOUS CONTEXTS**

  This is the most extensive module of the curriculum, branching out into several distinct interpreting contexts, including education, healthcare, employment, and the judiciary, so that every participant becomes familiar with all of these forms of interpreting. Each of these contexts requires specific specialized terminology, knowledge of institutional procedures, and the ability to recognize the specific ethical risks inherent to that particular field. This module should therefore include simulations of real-life situations from each context, with the involvement of experts from the relevant fields, so that participants are trained to work in each of them.

- **REMOTE INTERPRETING**

  This module should cover the technical setup of the workspace, management of the camera, lighting, and working space, the protection of privacy and confidentiality in remote settings, and the recognition and management of the increased mental load that remote work entails.

- **THE DEAFBLIND COMMUNITY**

This module introduces participants to the deafblind community, whose members have a unique and specific combined hearing and vision impairment, occurring in varying degrees and combinations. It is therefore an extremely heterogeneous community that requires an individual approach. The module is extensive, as it covers an introduction to deafblindness, its classification, and its implications for the everyday life of a deafblind person. Participants learn how to guide a deafblind person in various conditions, how to describe their surroundings to them, and how to interpret for them. Participants also become familiar with the adaptations of sign language and other forms of communication used by deafblind persons, as well as with the assistive technology designed for them.

- **THE ROLE AND FUNCTION OF THE SIGN LANGUAGE INTERPRETER**

  Through this module, participants gain a clear understanding of the interpreter's actual role and function as a neutral linguistic intermediary. Participants learn how to advocate for the needs and opportunities of deaf and hard-of-hearing persons in the broader, civic sense, without compromising professional neutrality during interpreting, as well as how to cooperate with institutions, experts from other fields, and fellow professionals. The module also includes developing the ability to self-assess one's own work and understanding the specific features of the profession's regulation, including the limits of professional responsibility and the conditions under which an interpreter is required to limit or decline an assignment. The research showed that a lack of understanding of this role is one of the most common sources of professional and ethical pressure on interpreters in all six countries; a clear definition of the role is therefore a prerequisite for any further professional development.

- **ETHICAL CONDUCT**

  This module is based on the analysis of real case studies, through which participants learn how to act professionally and ethically toward deaf and hard-of-hearing persons, as well as toward other participants in a given communicative situation. Instruction includes developing the ability to self-assess one's own work, as well as a structured discussion of the professional code of ethics, its application, and its limits.

- **PRACTICAL TRAINING**

  Practical training represents a cross-cutting component of the curriculum that is not delivered as a separate, time-bound module, but runs throughout the entire educational process, from the very first day of the training program. This training takes place under the

guidance of an experienced mentor and includes participants working across all the areas of practice covered by the curriculum, together with direct social contact and interaction with deaf and deafblind persons, so that participants become closely acquainted with the community they will be working with professionally. This approach, in which theoretical knowledge is interwoven with practical experience from the very outset, addresses one of the most consistently identified shortcomings found in the research, namely the lack of sufficient practical training and supervision in existing training programs.

5.2 HANDBOOK ON PROFESSIONAL ETHICS IN PRACTICE

An integral part of the VET curriculum should be a handbook on ethical conduct in practice, which represents a key tool for embedding professional standards in the work of sign language interpreters, serving as a complement to the theoretical module on ethics by providing a concrete, applicable framework for everyday practice. While the ethical conduct module within the curriculum introduces participants to ethical reasoning through the analysis of case studies during their education, the handbook is conceived as a lasting reference document that an interpreter can return to throughout their entire professional career, regardless of how much experience they have gained.

The handbook should clearly define the roles, responsibilities, and boundaries of action of the interpreter as the service provider and of deaf and hard-of-hearing persons as service users. In particular, it should include guidance on how both the interpreter and the user should prepare for an interpreting assignment, how they should conduct themselves during the provision of the service, and what their respective obligations are once the assignment has ended. In addition, the handbook should offer clear and concrete guidance for resolving ethical dilemmas in various interpreting situations, drawn from real practice examples, so that interpreters can consistently apply professional and ethical principles regardless of their field of work or the circumstances in which they provide the service. The handbook should be structured according to the phases of an interpreting assignment, containing separate guidance for the periods before, during, and after the provision of the service. For each of these phases, the handbook aims to offer concrete and applicable guidance on conduct, clarifying the roles, obligations, and responsibilities of both the interpreter and the user at each stage, so

that both parties know what is expected of them and how they can contribute to the quality and professionalism of the service itself.

In addition, the handbook should provide clear guidance for self-reflection on one's own work, encouraging the interpreter to review their professional decisions after each assignment, identify any shortcomings, and consider how they might act differently or better in a similar situation in the future. Furthermore, the handbook should offer concrete guidance regarding ethical dilemmas that may arise for the interpreter during the provision of the service, including advice on whom to turn to for support, how to discuss a challenging situation with a mentor or colleagues, and how to turn such an experience into an opportunity for further professional development, rather than allowing it to remain a source of unresolved uncertainty or stress.

Finally, the handbook should proceed from the recognition that the interpreting process involves not only the interpreter but also the service user, since the two together constitute the interpreting process and, through joint, coordinated action, can contribute to its quality. For this very reason, the handbook should be intended for both parties, so that interpreters and users alike gain a clear understanding of their own role as well as the role of the other party in the interpreting process, thereby creating a shared foundation of understanding and cooperation necessary for a quality, professional sign language interpreting service.

In conclusion, the VET curriculum and the handbook on ethical conduct in practice constitute two interconnected components of the professionalization of sign language interpreting services. While the curriculum ensures the acquisition of the professional competences needed to perform the work of a sign language interpreter to a high standard, the handbook on ethical conduct establishes shared professional standards, clearly defines the roles and responsibilities of all participants in the interpreting process, and contributes to the consistent and ethical provision of the service. Together, they form the foundation for improving the quality, availability, and professionalism of sign language interpreting services.

6. CONCLUSION

The comparative analysis conducted of educational programs, legislative frameworks, and the quality of sign language interpreting services in the six partner countries (three European and three African) unequivocally confirms the founding premise of the SignUnity project – that despite pronounced differences in the level of economic, legal, and institutional development, the fundamental challenges facing the sign language interpreting profession largely coincide across both regions. The thread running through all the contexts analyzed is a critical shortage of professionally trained interpreters, caused either by the complete absence of formal educational programs (Ethiopia), by the non-formal and short-term nature of existing programs (Croatia, Ghana), or by the discontinuation of once-existing programs due to a lack of funding (Estonia). Even in the country with the most developed system of higher education (Germany), interpreters report insufficient preparedness for the actual demands of the profession, suggesting that the problem does not lie solely in the formal status of the education, but in its content, its practical applicability, and its connection to real working contexts.

The analysis of the legislative framework reveals a similar pattern of fragmentation: while the European countries have legal recognition of their national sign language and a guaranteed right to interpreting services, the African countries, with the notable exception of Kenya, face an almost complete absence of institutional regulation, meaning that the service is neither guaranteed nor systematically available to deaf and hard-of-hearing persons. This situation directly affects their fundamental human rights to access information, education, healthcare, and justice.

An equally important finding emerges from the comparison of the perspectives of users and interpreters, which reveals a high degree of convergence in the perceived key shortcomings of the service: a lack of understanding of the sign language interpreter's actual role and function, and a lack of support. This convergence between two independent perspectives further confirms the robustness of the findings obtained and indicates that improving the service requires simultaneous action at multiple levels – educational, institutional, and legislative.

On the basis of all the findings presented, report D2.4 provides the foundation for developing a unified, competency-based VET curriculum, accompanied by a handbook on ethical conduct, as the crowning achievement of the SignUnity project. The proposed modular approach directly addresses the shortcomings identified across all six contexts analysed and creates the preconditions for raising the level of professionalism and availability of sign language interpreting services, and consequently for improving the position of deaf and hard-of-hearing persons in society.

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