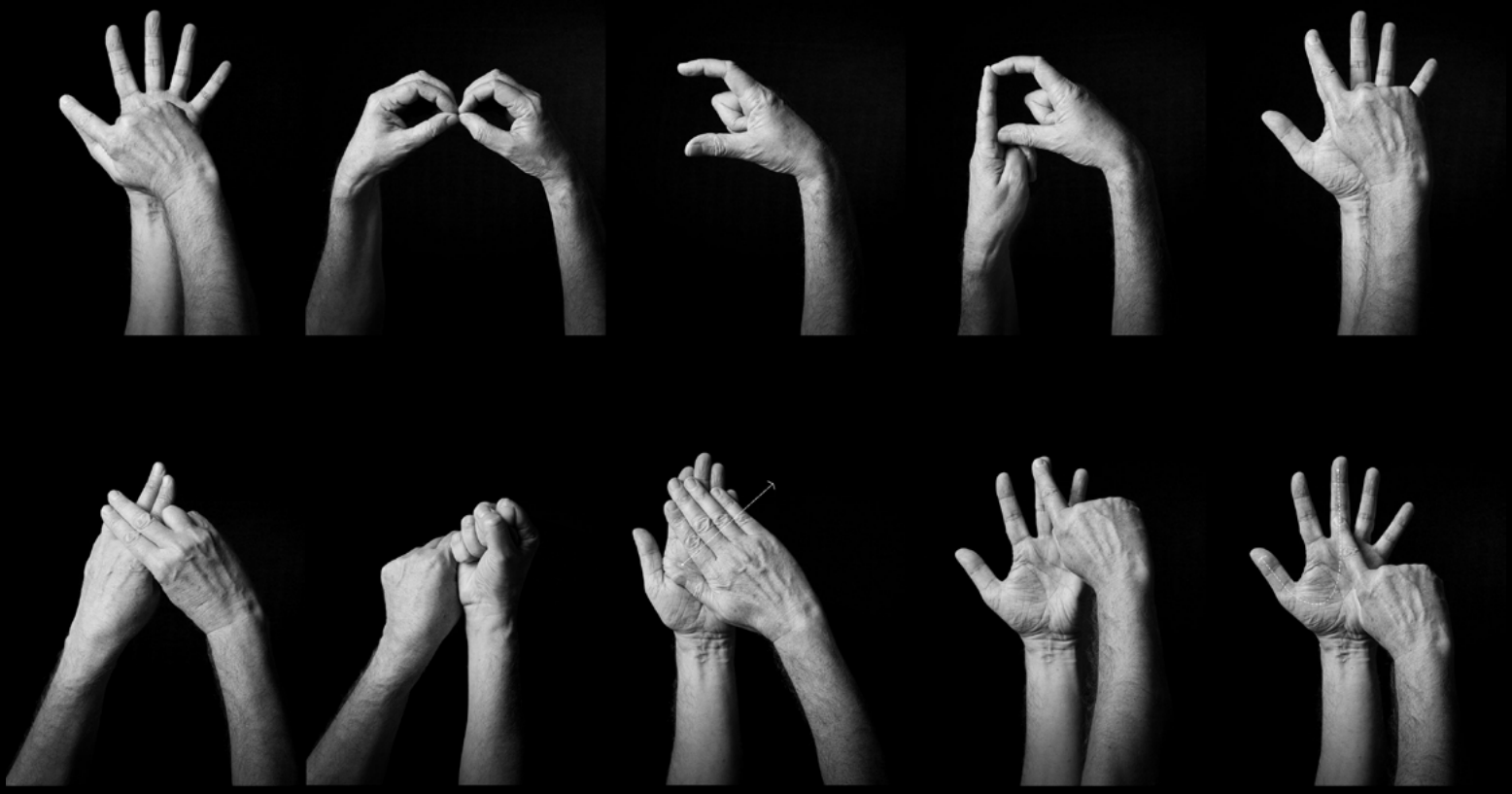

BSL IS NOT FOR SALE:

A DEAF-LED APPROACH TO AI PROCUREMENT

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About the Minderoo Centre for Technology and Democracy

The Minderoo Centre for Technology and Democracy (MCTD) is an independent team of academic researchers at the University of Cambridge who are radically rethinking the power relationships between digital technologies, society, and the planet. We engage a broad set of stakeholders, from policymakers and industry to civil society and the public, and consult directly with decision makers and regulators, helping to get the right voices to the tables where decisions about digital technologies and the future of artificial intelligence (AI) are made.

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FOREWORD

British Sign Language (BSL) is a complete, sophisticated language with its own grammar, syntax, and rich cultural heritage, and has been a part of British life for centuries, giving birth to thriving deaf communities on the local, regional, and national levels. Yet across artificial intelligence development, we witness a systematic failure to recognise this fundamental truth, creating predictable and preventable harm to our communities.

Currently, we see many AI development projects exclude Deaf expertise at every critical juncture. Systems are built on flawed training data that fundamentally misrepresents BSL's linguistic structure, prioritising technical convenience over accuracy. The potential consequences are far-reaching: communication breakdown through inaccurate outputs, linguistic erasure that reduces BSL to simplified English gestures, developmental harm to Deaf children exposed to incorrect language models, workforce displacement of professional interpreters and translators, and a potential breakdown of trust between Deaf communities and public services.

The legal and financial risks of these potential failures cannot be ignored by public bodies. Non-compliance with the Equality Act 2010, failures under BSL Act 2022 reporting requirements, patient safety incidents in healthcare settings, and mounting long-term costs represent institutional risks that are entirely preventable through inclusive procurement practices.

This technological exclusion violates human rights principles outlined in the UN Convention on the Rights of Persons with Disabilities. Article 4.3 demands that governments "closely consult with and actively involve persons with disabilities, including children with disabilities, through their representative organisations." The principle of "Nothing About Us, Without Us" is an obligation requiring authentic participation from project conception through implementation.

Yet we still see superficial engagement in place of meaningful consultation. Deaf people are invited to validate predetermined solutions, provide feedback on nearly completed systems, or serve as token representatives where fundamental decisions have already been made. This approach fails because it treats Deaf expertise as an add on to be considered after the experts have had their say. But Deaf expertise is the essential foundation for successful access projects.

The evidence is clear: every identified harm can be mitigated through governance mechanisms that embed Deaf expertise in procurement decision-making. This requires sustained investment in Deaf-led infrastructure. Our national and local deaf-led community organisations and Deaf expert advisors enable genuine engagement from project inception.

Legal compliance demands this approach. The BSL Act 2022, Equality Act 2010, and Public Sector Equality Duty create binding obligations for meaningful Deaf involvement. Policy effectiveness requires it. Deaf-led procurement is not a subgoal needs to be ticked off at the end of a project; it is a legal and practical necessity for effective public service delivery.

This report presents a comprehensive roadmap: eight core recommendations spanning immediate procurement reforms, strategic policy changes, and robust accountability mechanisms. From BSL-specific procurement standards to independent oversight with majority Deaf governance, each recommendation proposes sustainable systems for authentic inclusion.

The World Federation of the Deaf (WFD) envisions a world where deaf people everywhere can sign anywhere. As an ordinary member of the WFD, the British Deaf Association champions this aspiration throughout the United Kingdom. Achieving this vision requires technology designed with us from the very beginning, not retrofitted around our needs as an afterthought.

As, respectively, the President of the world's leading international NGO of deaf people and Chair of the UK's lead representative organisation of deaf people, we declare true inclusion begins with authentic Deaf leadership. The time is now.

Joseph J. Murray
President, World Federation of the Deaf

Robert Adam
Chair, British Deaf Association


OUR LANGUAGE
OUR
RIGHT

EXECUTIVE SUMMARY

The Challenge

British Sign Language (BSL) AI systems are being procured across UK public services without adequate Deaf community involvement, creating institutional risks. Current procurement approaches treat BSL as a technical accessibility challenge rather than recognising it as a complete language with legal standing under the BSL Act 2022. This generates predictable failures that undermine linguistic rights, compromise service effectiveness, and create serious legal compliance risks.

Key Findings

Exclusion Creates Predictable Harm: Current development excludes Deaf expertise, relies on flawed training data that misrepresents BSL's linguistic structure, and prioritises technical convenience over accuracy.

Five Categories of Institutional Risk: Communication breakdown through inaccurate outputs; linguistic erasure that misrepresents BSL as simplified English; developmental harm to Deaf children; workforce displacement; and trust breakdown with communities.

Legal and Financial Consequences: These create cascading risks including Equality Act non-compliance, BSL Act reporting failures, patient safety incidents, and long-term costs, all of which are preventable through inclusive procurement.

The Solution

Each harm can be mitigated through governance mechanisms that embed Deaf expertise in procurement decision-making. This requires sustained investment in Deaf-led infrastructure — community organisations, interpreters, translators, and other communication specialists, as well as expert advisors enabling meaningful engagement.

Legal foundation: meaningful Deaf involvement is required under the BSL Act 2022, Equality Act 2010, and Public Sector Equality Duty. Policy imperative: Deaf-led procurement is a legal and practical necessity for effective public service delivery.

Core Recommendations

Immediate Actions for Procurement Teams

1. Establish BSL-Specific Procurement Standards: Require Deaf linguist involvement in design, testing, and evaluation; mandate cultural appropriateness criteria; require supplier disclosure of training data.

2. Mandate Deaf-Led Impact Assessment: Require Algorithmic Impact Assessments co-designed with Deaf expertise, including evaluation of AI appropriateness and harm assessment.

3. Embed Social Value Measurement: Establish linguistic equity metrics; evaluate suppliers on community engagement; include user satisfaction alongside technical measures.

Strategic Policy Changes

4. Update Procurement Policy Guidance: Cabinet Office must issue updated Policy Notes for BSL AI commissioning, including legal obligations and community engagement standards.

5. Establish National BSL Expertise Network: Fund a coordinated national network of Deaf expertise for procurement oversight through joint government and NHS funding.

6. Integrate Expertise into Digital Transformation: Government Digital Service must establish permanent Deaf advisory groups with decision-making authority and mandatory co-design protocols.

Accountability and Oversight

7. Establish Independent Oversight: Majority Deaf governance to monitor compliance, evaluate systems, and handle complaints.

8. Mandate Public Reporting: All bodies deploying BSL AI must publish annual performance reports accessible in BSL and subject to community review.

Note on Language

This report uses Deaf (capitalised) to refer to individuals who identify as part of a distinct linguistic and cultural minority, with British Sign Language (BSL) as their primary language.

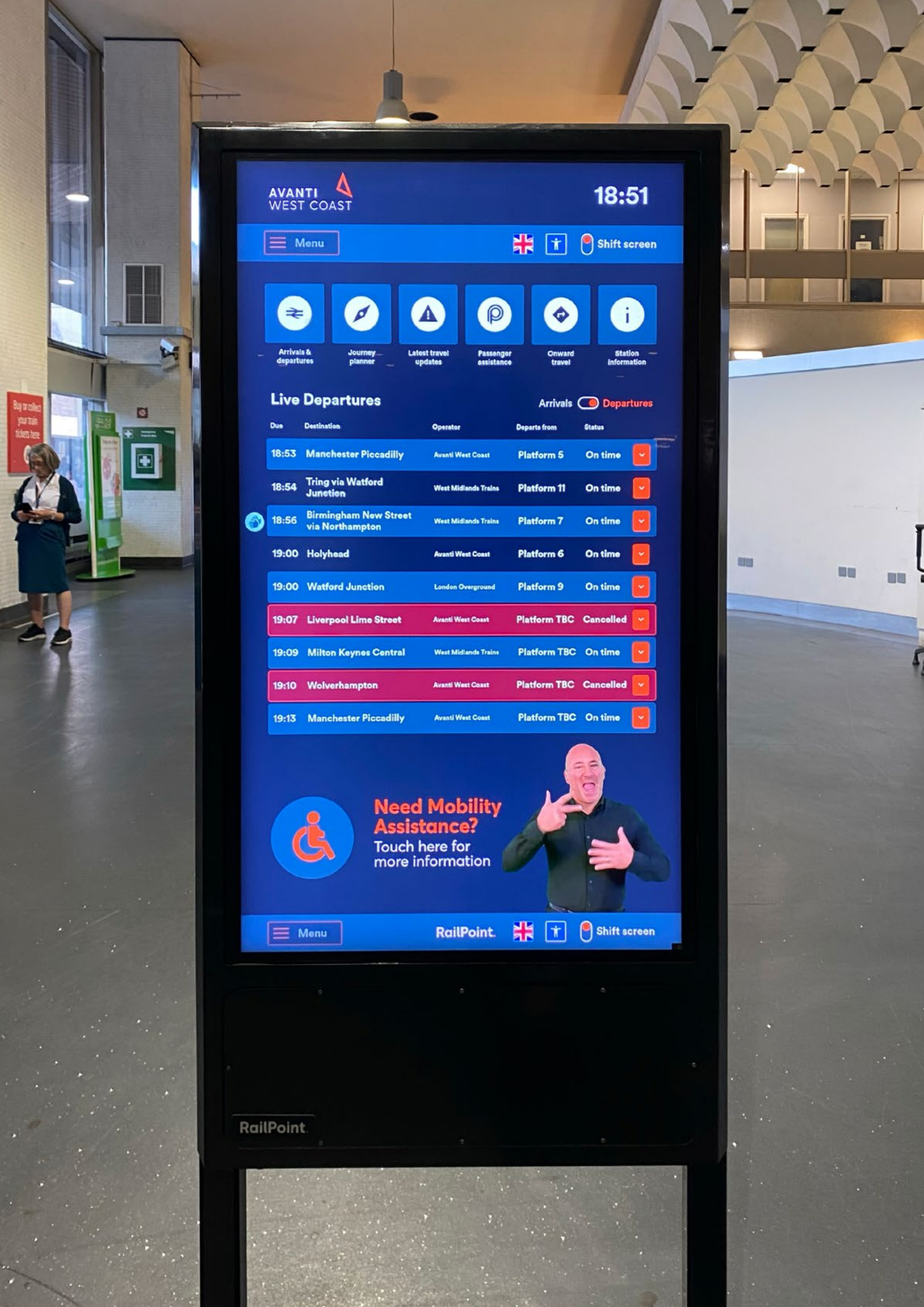
The term deaf (lowercase) is used more broadly to include people with hearing loss, including those who use hearing aids, cochlear implants, or captioning — often overlapping with the hard of hearing community.

Throughout the report, we use the term 'communication specialists' to refer to the range of human professionals who provide language services, including BSL/English interpreters and translators, lipspeakers, notetakers, speech-to-text reporters, and interpreters for Deafblind people.[1]

1. This terminology follows the categorisation used by the National Registers of Communication Professionals working with Deaf and Deafblind People (NRCPD), the UK's regulatory body for communication professionals in this sector. See NRCPD [website], https://www.nrcpd.org.uk [accessed 8 July 2025]

List of Abbreviations

AI	Artificial Intelligence
AIA	Algorithmic Impact Assessment
ATRS	Algorithmic Transparency Recording Standard
AtW	Access to Work
BDA	British Deaf Association
BSL	British Sign Language
DPIA	Data Protection Impact Assessment
DSIT	Department of Science, Innovation & Technology
EHRC	Equality and Human Rights Commission
EIA	Equality Impact Assessment
ESRC	Economic and Social Research Council
GDPR	General Data Protection Regulation
NDX	National Digital Exchange
NRCPD	National Registers of Communication Professionals working with Deaf and Deafblind People
NUBSLI	National Union of British Sign Language Interpreters
OECD	Organization for Economic Co-operation and Development
PAI	Partnership on AI
PPN	Procurement Policy Notes
PSED	Public Sector Equality Duty
RNID	Royal National Institute for Deaf people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19:00 Holyhead Avanti West Coast Platform 6 On time
19:00 Watford Junction London Overground Platform 9 On time
19:07 Liverpool Lime Street Avanti West Coast Platform TBC Cancelled
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INTRODUCTION

Section Summary:

- Current AI governance frameworks routinely exclude BSL expertise, creating predictable institutional risks.
- Procurement decisions determine whether AI deployment strengthens or undermines BSL access and community trust.
- Legal frameworks (BSL Act, Equality Act, PSED) already require meaningful community involvement in technology commissioning affecting BSL users.

The rapid deployment of Artificial Intelligence (AI) across UK public services presents both opportunities and significant risks for equality and inclusion.

This tension is particularly acute in the emerging field of Sign Language AI. Technologies designed to support British Sign Language (BSL) are increasingly being procured and deployed with inadequate community oversight and linguistic expertise.

Procurement, as defined here, encompasses the full lifecycle of commissioning BSL AI systems in public services. This spans initial needs assessment and specification development through to supplier selection, contract management, and ongoing monitoring. Beyond the technical acquisition of systems, procurement includes the governance frameworks and community engagement processes that shape how AI tools are designed, evaluated, and deployed.

Crucially, procurement is not a neutral process. Buying AI is a novel and complex undertaking that requires rethinking how such technologies shape the lives of end-users.

It demands a more engaged approach — one that considers who is involved in decision-making, whose expertise is valued, and how communities are either supported or harmed.

This report examines a critical gap in current AI governance: the routine exclusion of Deaf expertise from procurement decisions affecting BSL signers. Through detailed analysis of emerging harms and institutional risks, it demonstrates that current approaches to BSL AI commissioning generate predictable failures that undermine linguistic rights, compromise service effectiveness, and create legal compliance challenges for public bodies.

Understanding BSL as a Living Language

British Sign Language is a natural language with its own grammar, syntax, and rich cultural heritage. Recognised in law through the British Sign Language Act 2022, BSL carries the same linguistic legitimacy as any other minority language used in the UK.[2]

The British Deaf Association (BDA) estimates that 87,000 people use BSL as their first language, representing a diverse community that includes native BSL signers, deafened or late-deafened adults, hard of hearing people, and Children of Deaf Adults (CODAs).[3]

2. British Sign Language Act 2022, https://www.legislation.gov.uk/ukpga/2022/34/contents [accessed 28 July 2025].
3. British Deaf Association (BDA), 'British Sign Language (BSL) Statistics' (13 May 2016) https://bda.org.uk/bsl-statistics/ [accessed 12 June 2026].

As a visual-spatial language, BSL operates fundamentally differently from spoken English.[4] It uses three-dimensional space for grammatical structure, employs facial expressions and body movements as essential linguistic features, and includes regional variations that reflect local Deaf communities across Britain. These characteristics make BSL a complete, expressive language capable of discussing any topic with the same nuance and complexity as spoken languages.

Yet current approaches to Sign Language AI development consistently fail to reflect this linguistic complexity. This leads to what we term *systemic misalignment*: the structural gap between how BSL functions as a living language and how it is operationalised in AI systems.

What This Report Provides

This report synthesises and presents evidence from linguistics research, Deaf and disability studies, responsible AI research, and public administration practice to provide a comprehensive analysis of both problems and solutions.

It offers three core contributions to current policy discussions:

Evidence Base: Detailed analysis of how current procurement practices generate five interconnected harms for BSL users, which creates institutional risks including legal non-compliance, service failures, and community trust breakdown.

Governance Framework: A model for embedding Deaf expertise throughout procurement lifecycles, with specific mechanisms for community involvement, performance evaluation, and ongoing oversight.

Implementation Pathway: Practical recommendations for procurement teams, policy leaders, and oversight bodies, with resource requirements and alignment to existing legal obligations.

The analysis demonstrates that inclusive BSL AI procurement is both legally required and practically achievable. The barriers are not technical or financial but procedural — i.e., rooted in commissioning frameworks that exclude community expertise and misread BSL's linguistic complexity.

The Policy Context

The procurement of BSL AI occurs within a complex legal and policy landscape that creates both opportunities and obligations for inclusive technology deployment.

The British Sign Language Act 2022 establishes BSL as 'a language of England, Wales and Scotland', requiring government departments to report on how they promote and facilitate BSL use in public services.

The Equality Act 2010 places ongoing duties on public bodies to make reasonable adjustments and consider equality impacts in service design and delivery.[5]

The Public Sector Equality Duty (PSED) requires active consideration of how policies and services affect different groups, with particular attention to eliminating discrimination and advancing equality of opportunity.[6]

4. Rachel Sutton-Spence and Bencie Woll, *The Linguistics of British Sign Language: An Introduction* (Cambridge: Cambridge University Press, 1999).

5. Equality Act 2010, https://www.legislation.gov.uk/ukpga/2010/15/contents [accessed 28 July 2025].

6. Equality and Human Rights Commission (EHRC), 'The Essential Guide to the Public Sector Equality Duty England (and Non-Devolved Public Authorities in Scotland and Wales)', *equalityhumanrights.com* (15 November 2023), https://www.equalityhumanrights.com/essential-guide-public-sector-equality-duty [accessed 28 July 2025].

The Social Value Act 2012 provides additional leverage, requiring public bodies to consider social and economic benefits in procurement decisions.[7]

These legal frameworks create clear accountability for how BSL access is delivered through digital channels. However, existing procurement guidance provides limited direction on how linguistic equity and community capacity building should be evaluated and prioritised in technology commissioning.

As a result, current procurement practices often treat BSL AI as a technical solution to accessibility challenges rather than recognising the linguistic, cultural, and legal complexities involved in commissioning systems that affect a recognised minority language community.

The Scale and Urgency of the Challenge

Sign Language AI encompasses systems that use artificial intelligence to interpret, translate, or generate sign language through automated signing avatars, gesture recognition, or real-time interpreting tools.

These technologies are no longer experimental — they are being planned, piloted, and deployed across a range of services including healthcare, education, employment, and digital government platforms.

Early deployments span sectors such as transportation and public services, including BSL translations for rail disruption information and websites for educational and NHS settings.[8]

In procurement contexts, it is essential to distinguish between translation and interpreting. Translation involves content that can be reviewed and corrected before release — such as pre-recorded materials, documents, or planned communications. Interpreting occurs in real-time during live interactions, where errors cannot easily be corrected and immediate accuracy is critical for effective communication.

The distinction between translation and interpreting is significant for procurement and safety frameworks: translation can be deployed more safely within robust review processes, while interpreting requires more cautious evaluation given the immediate risks of miscommunication in live settings.

Currently, AI systems are primarily being piloted for translation applications, as the technology is not yet capable of providing reliable real-time interpreting.[9] However, interpreting AI may become available in the future.

The rapid expansion of Sign Language AI occurs against a backdrop of persistent inequalities in BSL access. Inefficiencies in communication specialist deployment and booking systems, shortages of qualified interpreters and translators,

7. Crown Commercial Service, 'What is social value?', *crowncommercial.gov.uk* (n.d.), https://www.crowncommercial.gov.uk/social-value/what-is-social-value [accessed 22 May 2025].

8. See Signapse, 'How Rail Delivery Group & Network Rail Made Travel More Accessible with BSL Translations For Disruption Maps' [case study] (12 May 2025) https://www.signapse.ai/case-studies/how-rail-delivery-group-made-travel-more-accessible-with-bsl-translations-for-disruption-maps [accessed 7 July 2025]; Victoria Oakes, 'News', Signly [website], https://signly.co/news/ [accessed 7 July 2025] - Although it is important to note the difference between Signly's 'HI' technology intended to augment, rather than replace, translators' activity, and AI technologies more broadly.

9. British Deaf Association (BDA), 'Artificial Intelligence, British Sign Language and the British Deaf Association v. 1.4', BDA discussion paper (April 2025), 13 pp. (pdf) https://bda.org.uk/wp-content/uploads/2025/04/Artificial-Intelligence-BSL-and-the-BDA.pdf [accessed 28 July 2025].

geographical inequalities, and funding constraints mean that many Deaf people cannot access the communication support they need for full participation in public services.[10]

Technology companies and public bodies often position Sign Language AI as a solution to these access barriers. However, without adequate governance frameworks, AI deployment risks compounding rather than addressing existing inequalities.[11]

Poor quality AI systems can undermine trust in public services, compromise communication effectiveness, and erode the professional infrastructure that BSL signers depend on. The following sections of this report examine these risks in detail and provide a framework for mitigating them through inclusive procurement practices.

Why Procurement Matters

Public procurement represents a critical intervention point in AI governance.[12] Procurement contracts create legally binding commitments and enable prevention rather than remediation — in other words, establishing safeguards before systems are deployed rather than addressing harms after they occur.

Crucially, procurement decisions should begin with fundamental questions about whether AI systems are appropriate for specific communication needs, or whether human-led services, hybrid models, or non-technological solutions better serve users and legal obligations.

For Sign Language AI, procurement frameworks determine how linguistic expertise and technical capabilities are balanced. This means the difference between whether BSL is recognised as a complete language requiring ongoing community oversight alongside technical development, or treated primarily as an engineering challenge amenable to automated solutions.

Current procurement approaches often exclude the very expertise needed to evaluate these systems effectively.[13] Deaf linguists, third sector organisations, and BSL users themselves are frequently consulted only as end-users testing pre-built systems rather than as co-designers shaping requirements from the earliest stages of problem definition and project inception.

This exclusion is not merely a matter of fairness, in addition it undermines the technical quality, cultural appropriateness, and legal compliance of commissioned AI systems.

10. National Union of British Sign Language Interpreters (NUBSLI), *National Frameworks of Agreements: A Dossier of Disgrace* (July 2018), 31 pp. (pdf), https://www.nubsli.com/wp-content/uploads/2018/07/dossier-of-digrace-cropped.pdf [accessed 09 July 2025].

11. Daron Acemoglu, 'Harms of AI', in *The Oxford Handbook of AI Governance, ed.* by Justin B. Bullock et al. (Oxford: Oxford University Press, 2024), pp. 660–706, doi: 10.1093/oxfordhb/9780197579329.013.65.

12. Studman, Anna, Hannah Claus, Mavis Machirori, and Imogen Parker, *Buying AI - Is the public sector equipped to procure technology in the public interest?*, Ada Lovelace Institute discussion paper (September 2024).

13. For example, the Department for Science Innovation and Technology's AI procurement guidelines highlight the importance of interdisciplinary teams, but fall short of recommending specific community-based expertise. See Gov.uk, 'Guidelines for AI Procurement', *gov.uk* (8 June 2020), https://www.gov.uk/government/publications/guidelines-for-ai-procurement/guidelines-for-ai-procurement [accessed 28 July 2025].


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I. HOW CURRENT PROCUREMENT PRACTICES GENERATE PREDICTABLE HARM

Section Summary:

- Five interconnected harms stem directly from procurement decisions that exclude Deaf expertise and treat BSL as an accessibility add-on.
- These harms create serious institutional risks including legal non-compliance, service failures, and community trust breakdown.
- The identified harms are predictable and can be mitigated through inclusive procurement frameworks that embed BSL linguistic expertise.

The Procurement-to-Harm Pipeline

Current procurement frameworks create predictable pathways to harm through failures at each stage:

Procurement decisions → Design exclusions → Technical design choices → Deployed harms → Institutional risk

Understanding this pathway is essential because each stage represents a point at which procurement choices can mitigate risk. The five harms outlined below stem from failures across this entire process, becoming compounded through multiple commissioning decisions.

Harm 1: Communication Breakdown Through Systematic Inaccuracy

Root cause in procurement: Specifications that fail to establish appropriate linguistic standards and data requirements, leading to contracts with suppliers who use inappropriate training data.

To understand why current AI systems fail, it is essential to recognise how the visual-spatial structure of BSL creates specific technical requirements that current training approaches frequently overlook.

Many Sign Language AI systems rely on problematic data sources that create predictable accuracy failures.[14] These include:

Interpreter-generated training data: Interpreters are highly skilled professionals, trained to convey information as accurately and completely as possible. They often produce more deliberate, explicit signing than the fluid, nuanced, and idiomatic style of everyday sign language users.[15] When AI systems train primarily on interpreter videos — which serve as major benchmarks in the field — they learn this constrained signing style rather than the natural signing used by Deaf communities.

14. Aashaka Desai et al., 'Systemic Biases in Sign Language AI Research: A Deaf-Led Call to Reevaluate Research Agendas', *arXiv*:2403.02563v1 [cs.CV] (2024), https://doi.org/10.48550/arXiv.2403.02563 [accessed 9 July 2025].

15. Vicky Crawley, 'Interpreting Between Modes: Navigating Between Signed and Spoken Language', *International Journal of Interpreter Education* 10.1 (2018), 5–17, https://tigerprints.clemson.edu/ijie/vol10/iss1/3 [accessed 28 July 2025]; Franz Pöchhacker, *Introducing Interpreting Studies*, 2nd edn (London: Routledge, 2022).

Annotation methods: Many AI systems use 'glosses' — simplified English word labels meant to represent BSL signs — that reduce BSL's rich spatial grammar to linear word lists.[16] This flattens three-dimensional linguistic structure in ways that fundamentally misrepresent the language.

English-pretrained models: AI systems originally designed for spoken and written language impose linear, sequential structures on a language designed for simultaneous embodied visual expression.[17] When models built for English try to process BSL, they cannot capture this multi-dimensional structure.

Data governance gaps compound these problems. Current procurement often neglects essential oversight including source transparency, informed consent from data contributors, and assessment of whether training data is appropriate for intended uses. Without robust data governance requirements, suppliers default to whatever data is available rather than what linguistic accuracy demands.

The result is AI systems that may appear functional in testing but produce inaccurate, culturally inappropriate outputs in real-world use. In high-stakes settings like healthcare or legal proceedings, these failures create serious safety and compliance risks.[18]

Institutional risk: Safety incidents, legal non-compliance with reasonable adjustment duties, and reputational damage when communication failures become public.

Harm 2: Linguistic Erasure and Cultural Misrepresentation

Root cause in procurement: Failure to include BSL linguistic expertise in specification development, allowing suppliers to accommodate technical constraints by reducing the language's complexity.

The training decisions described in Harm 1 do more than reduce accuracy — they actively diminish the features that make BSL a complete, expressive language. When AI systems simplify BSL's rich spatial grammar, strip away facial expressions and body movements, or standardise regional variation, they present a distorted version of the language to both users and observers.

This linguistic erosion has compounding effects. For hearing people with limited BSL exposure, AI-generated signing may become their primary reference point for understanding what BSL looks like. For Deaf users, seeing their language reduced to simplified gestures undermines its public status and legitimacy.

Over time, this contributes to a process of institutional linguistic erasure — where BSL remains present in name but is progressively hollowed out in practice. This does not work to uphold the BSL Act 2022, which affirms BSL as a language with full linguistic standing.

Institutional risk: Undermining of statutory language promotion obligations, and long-term erosion of public understanding of BSL as a legitimate language.

16. See above, n. 14.

17. Ibid.

18. It can be difficult to define exactly what counts as a 'high-stakes' setting. Ordering food in a café, for example, may carry life-threatening risks for someone with severe allergies, while asking a simple question at a pharmacy can have serious health consequences if misunderstood.

Harm 3: Developmental Harm to Deaf Children

Root cause in procurement: Commissioning AI tools for early years and educational settings without paediatric linguistic oversight or child development expertise.

The linguistic erosion described in Harm 2 becomes particularly concerning when considering the potential for AI systems to be introduced into early years education, paediatric services, and family support settings. If these systems were to provide children's first exposure to BSL — particularly in families without BSL signers — they could risk contributing to language deprivation: the recognised developmental harm that occurs when children lack sufficient linguistic input for healthy language acquisition.

Research consistently demonstrates that early, fluent exposure to BSL supports cognitive development, educational outcomes, and bilingual competence in both BSL and English.[19] However, AI systems trained on the flawed data sources described above cannot provide the rich, interactive language environment that children require.

The consequences extend beyond individual development. If public services deploy inadequate AI tools in place of qualified BSL professionals, they may inadvertently compromise children's fundamental right to language access during critical developmental windows.

Institutional risk: Potential safeguarding concerns, potential breach of duties under the Children Act 1989 and Equality Act 2010, and long-term educational and social care costs resulting from language deprivation.

Harm 4: Workforce Displacement and Service System Breakdown

Root cause in procurement: Cost-reduction specifications that treat AI as a direct substitute for human interpreters rather than evaluating optimal service models.

Qualified communication specialists, including BSL interpreters, provide more than language translation; they offer cultural and social mediation, contextual judgement, and ethical oversight essential for effective communication in sensitive settings. When AI systems are positioned as replacements for human interpreters — rather than as complementary tools — they destabilise the very workforce that public services depend on for lawful BSL access.

AI systems are often procured explicitly to reduce costs, improve efficiency, or address staffing shortages.[20]

19. British Deaf Association (BDA), 'British Deaf Association's Position Statement on the Language Acquisition of Deaf Children' (2024), 12 pp. (pdf) https://bda.org.uk/wp-content/uploads/2024/11/BDA-Early-Years-Position-Full-FINAL.pdf [accessed 9 July 2025]; Qi Cheng et al., 'Restricted Language Access During Childhood Affects Adult Brain Structure in Selective Language Regions', *Proceedings of the National Academy of Sciences* 120.7 (2023), e2215423120, https://www.pnas.org/doi/10.1073/pnas.2215423120 [accessed 10 July 2025].

20. Studman et al., *Buying AI*; Michael Veale and Irina Brass, 'Administration by Algorithm? Public Management Meets Public Sector Machine Learning', in *Algorithmic Regulation*, ed. by Karen Yeung and Martin Lodge (Oxford: Oxford University Press, 2019), pp. 121–49, doi: 10.1093/oso/9780198838494.003.0006.

Cost-reduction specifications often treat AI as inherently cost-effective without systematically evaluating promised savings against remediation costs, while efficiency narratives assume improved responsiveness without clear evidence that these benefits materialise.[21]

The third rationale — addressing staffing shortages — requires careful analysis in the context of BSL interpreting. While genuine capacity constraints exist, particularly in rural areas and specialist domains, interpreters and their professional associations also report under-employment, inefficient booking systems, and coordination failures that do not effectively deploy available expertise where needed.[22]

Policy decisions have created working conditions that drive qualified interpreters away from public service provision, including below-market framework rates and restrictive Access to Work (AtW) rules.

When procurement teams accept shortage narratives without considering these underlying dynamics, they create conditions for AI vendors to position their systems as necessary solutions to capacity problems that may be better addressed through improved workforce planning or professional development. AI investment thus occurs in contexts where enhanced human service delivery may be more effective and legally compliant.

This creates a self-reinforcing cycle that worsens the workforce challenges it claims to address.

As AI systems are deployed to 'solve' interpreter shortages, they reduce demand for human services, driving qualified interpreters away from public sector work. When AI systems fail to meet complex communication needs, the weakened professional infrastructure cannot provide adequate backup, creating service failures that further justify AI expansion. The result: escalating costs to rebuild services and growing legal compliance risks.

Institutional risk: Inability to provide reasonable adjustments as required by law, service delivery failures, and industrial relations challenges as professional roles are displaced without adequate consultation.

Harm 5: Institutional Trust Breakdown and Service Rejection

Root cause in procurement: Exclusion of Deaf expertise throughout procurement lifecycles, leading to systems that signal institutional disregard for community experiences and linguistic rights.

When AI systems produce inaccurate outputs (Harm 1), erase linguistic features (Harm 2), compromise child development (Harm 3), or displace trusted professionals (Harm 4), it signals to Deaf users that their experiences were not prioritised in system procurement.

21. Numerous studies demonstrate that software defects cost dramatically more to fix the later they are discovered in development, with classic industry sources estimating that post-deployment fixes can cost up to 100 times more than those identified during requirements or design stages. Recent research confirms substantial early-detection cost savings, though exact multipliers vary by context. See Barry Boehm, *Software Engineering Economics* (Englewood Cliffs, NJ: Prentice-Hall, 1981); Dennis M. Buede and William D. Miller, *The Engineering Design of Systems: Models and Methods*, 2nd edn (Hoboken, NJ: Wiley, 2024), doi: 10.1002/9780470413791.

22. Rachel Mapson et al., *British Sign Language Interpreting in Scotland: A Landscape Review* (Edinburgh: Queen Margaret University, 2019), 119 pp. (pdf) https://bslscotlandact2015.scot/wp-content/uploads/2020/02/Landscape-Review-2019-Final-with-31-January-revision.pdf [accessed 10 July 2025].

Deaf communities have extensive historical experience of exclusion from public services, making them particularly attuned to systems that repeat these patterns.[23]

When Sign Language AI tools fail to meet linguistic or cultural standards, they reinforce perceptions that public bodies do not understand or value Deaf experiences.

Without community trust, even technically improved AI tools may face low adoption, active resistance, and reputational costs for commissioning bodies.[24] In contexts where trust is essential — such as healthcare, justice, or education — these dynamics directly undermine service effectiveness.

Institutional risk: Poor uptake of digital services, community disengagement from public programmes, and long-term reputational damage affecting broader institutional relationships with Deaf communities.

The Cumulative Cost of Systemic Misalignment

As this analysis reveals, harms do not occur in isolation. The systemic misalignment between BSL as a living language and its treatment in AI systems creates cascading effects and institutional risks that reach far beyond any single AI tool or deployment context.

These impacts unfold across different timescales. Some manifest immediately, such as inaccurate outputs in healthcare or legal settings that create direct consequences.

Others unfold more slowly: developmental harms to Deaf children, destabilisation of the interpreting profession, and community trust erosion become visible only after statutory obligations have been breached.

The five harms presented here do not form an exhaustive list. As Sign Language AI expands into new contexts, additional risks will inevitably emerge. These include threats to Deaf individuals' agency over their data and likeness, as well as accountability gaps where no professional oversight or redress exists for AI-generated service failures. Well-documented harms in other AI systems across autonomy, reputation, economic security, and human rights indicate that similar risks are likely for BSL systems too.

23. Royal National Institute for Deaf people (RNID), 'Deaf BSL users face inequalities due to lack of public awareness' (23 January 2025), https://rnid.org.uk/2025/01/deaf-bsl-users-face-inequalities-due-to-lack-of-public-awareness/ [accessed 02 July 2025].

24. Renee Shelby et al., 'Sociotechnical Harms of Algorithmic Systems: Scoping a Taxonomy for Harm Reduction', *AIES '23: Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society* (2023), 723–41, https://dl.acm.org/doi/10.1145/3600211.3604673 [accessed 8 July 2025].

25. Shelby et al., 'Sociotechnical Harms of Algorithmic Systems'.


OUR EYES
ARE OUR
EARS
OUR HANDS
ARE OUR
MOUTHS

II. DEAF GOVERNANCE ANALYSIS

Section Summary:

- Deaf-led governance throughout procurement lifecycles directly mitigates identified harms.
- Meaningful engagement requires structural changes, including representative networks, clear decision-making authority, and adequate resourcing.
- Legal frameworks already require community involvement, making Deaf governance a compliance necessity rather than an optional enhancement.

This section establishes the case for Deaf-led procurement governance that transforms how public institutions commission BSL AI. The harms outlined in the previous section share a common origin: procurement processes that exclude Deaf expertise from decision-making. Yet this also represents an opportunity: by embedding Deaf governance into standard procurement frameworks, public bodies can mitigate these harms while strengthening legal compliance and service effectiveness.

Examining Legal and Strategic Requirements

Deaf leadership in BSL-related procurement is not just good practice — it is a legal necessity. The Equality and Human Rights Commission emphasises that meaningful engagement with affected communities is implicit in complying with the Public Sector Equality Duty (PSED), and thus the Equality Act 2010.[26]

This obligation is reinforced by the BSL Act 2022, which requires government departments to promote and facilitate BSL use in public services, creating clear accountability for how BSL access is delivered through digital channels.

Beyond legal compliance, BSL infrastructure investment directly supports multiple government priorities.

Digital Transformation:
Community-led oversight ensures inclusive design principles are embedded from inception rather than retrofitted.

Social Value Commitments:
Deaf-led procurement generates measurable social and economic benefits including community capacity building, linguistic preservation, and sustainable professional development pathways that put government in the service of people.

Local Growth and Devolution:
Regional expertise networks create skilled employment opportunities and reduce geographical inequalities in public service access, empowering communities to shape services that meet their needs.

26. EHRC, 'The Essential Guide to the Public Sector Equality Duty'.

Establishing Deaf Governance

Effective Deaf governance operates on clear principles that distinguish genuine partnership from tokenistic consultation.[27] It requires structural changes to how commissioning decisions are made, with Deaf communities holding decision-making authority at critical procurement stages.[28]

Essential Components:
Translating these principles into practice requires specific mechanisms. Public bodies should establish:

Co-designed Engagement Practices
Effective engagement processes themselves require co-design with Deaf communities rather than being imposed by commissioning bodies. This includes collaborative development of consultation methodologies, decision-making protocols, and feedback mechanisms that reflect community communication preferences and cultural practices. Community-led process design ensures engagement mechanisms are accessible, culturally appropriate, and generate the substantive input that effective procurement requires.

Representative Stakeholder Networks
Engagement must reflect the diversity within Deaf communities, including BSL signers from different regions, Deaf professionals across sectors, communication specialists with service delivery experience, and representatives from established Deaf-led organisations such as the BSL Alliance.

It must attend to the diverse forms of marginalisation faced by Deaf people, which often intersect with discrimination based on gender, ethnicity, and age.[29]

It should ensure that Deafblind people and Deaf disabled people are meaningfully included in governance, data stewardship, and service design. Single-point consultation or symbolic involvement is insufficient.

Deaf Infrastructure
Public bodies should engage with trusted Deaf-led organisations, which already play a key role in service monitoring and advocacy.

Many such organisations possess the institutional knowledge and community connections necessary to inform equitable procurement. For example, the BSL Alliance's healthcare working group has conducted national assessments of interpreting provision and produced action-oriented reports that have shaped policy outcomes.[30] Leveraging existing infrastructure is more effective than creating parallel or duplicative consultation mechanisms.

Decision-Making Authority
Before engagement begins, commissioning bodies must document how community stakeholders can exercise meaningful control over procurement decisions, including the explicit right to recommend against AI deployment entirely.

27. Mona Sloane et al., 'Participation is not a Design Fix for Machine Learning', *Proceedings of the 2nd ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization, arXiv*: 2007.02423 [cs.CY] (2020), https://arxiv.org/abs/2007.02423 [accessed 9 July 2025].

28. Partnership on AI (PAI), 'Guidance for Inclusive AI: Practicing Participatory Engagement' (n.d.), https://partnershiponai.org/guidance-for-inclusive-ai/ [accessed 28 July 2025].

29. This has been noted in an Ethical Framework by Professor Filipe Venade, published by the European Union of the Deaf (EUD) (2025). https://eud.eu/new-eud-publications-on-artificial-intelligence-and-sign-language/

30. BSL Alliance, 'For Example [video]', *theBSLalliance* [website] (n.d.), https://bslalliance.org.uk/ [accessed 28 July 2025].

Community involvement is not a mechanism for legitimising predetermined technology choices — it must include genuine authority to halt or redirect procurement where AI tools are deemed inappropriate or harmful.

To ensure this authority is meaningful and actionable, commissioning bodies must document:

- Which procurement decisions community stakeholders can influence or control
- The explicit right of community stakeholders to recommend 'no AI deployment' and the process for acting on such recommendations
- Where final authority lies within the process
- How disagreements will be resolved, both within Deaf stakeholder groups and between communities and public officials
- How recommendations will be implemented or, if rejected, why alternatives were chosen

These agreements mitigate tokenism and ensure accountability throughout the process.

Adequate Resourcing
Meaningful engagement requires funding for interpreting and translation, accessible materials, community expert compensation (aligned with public sector professional rates), and the time needed for thorough evaluation and co-design processes.

Avoiding Ineffective Approaches

While the components above provide a framework for genuine engagement, it is equally important to recognise approaches that appear inclusive but actually undermine effective governance.

These approaches create compliance risks and undermine procurement effectiveness:

- Token consultation where community input has minimal influence on final decisions
- Late-stage involvement after fundamental choices have been made
- Engagement frameworks that structure participation around endorsing supplier goals, limiting critical feedback, or safeguarding commercial interests rather than prioritising community needs
- Employment or advisory board representation alone as substitutes for meaningful community involvement
- Financial relationships between suppliers and community organisations that compromise independence
- Inadequate compensation that fails to recognise community expertise as professional knowledge requiring appropriate payment

Recognising effective approaches is essential to meaningful governance and maintaining legal compliance and institutional trust. Embedding Deaf governance requires the structural changes outlined in this section, implemented through specific operational mechanisms.

How Deaf-Led Governance Mitigates Harm

The governance mechanisms outlined above directly address the five harms identified in Section I. When properly implemented, Deaf-led procurement provides specific mitigation strategies for each identified risk:

- **Mitigating communication breakdown (Harm #1):** Deaf linguists and data scientists can evaluate whether AI training data reflects natural BSL use and whether outputs meet real-world communication requirements
- **Maintaining linguistic integrity (Harm #2):** Community oversight ensures AI systems support rather than undermine BSL's status as a recognised language
- **Protecting child development (Harm #3):** Deaf professionals with educational expertise can assess whether tools are appropriate for early years and school settings
- **Sustaining professional services (Harm #4):** Deaf-led evaluation can determine optimal models that combine AI capabilities with human communication specialist expertise
- **Building institutional trust (Harm #5):** Meaningful involvement from project inception demonstrates commitment to community needs and cultural legitimacy

Case Study: Learning from Implementation Gaps

A technology company recently demonstrated Sign Language AI at a government roundtable attended by ministers and representatives from major Deaf organisations. While positioned as showcasing AI's potential to reduce barriers, the demonstration revealed significant shortcomings.

The outputs did not meet basic communication standards, highlighting how systems can appear functional to non-BSL users while failing in practical use.

This underscores the need for Deaf-led linguistic validation and cultural appropriateness reviews as mandatory features of procurement.[31] Deaf expertise must be embedded throughout development, not tacked on after technical decisions are finalised.

31. The importance of maintaining Deaf culture through the use of AI technologies has also been highlighted in an Ethical Framework by Professor Filipe Venade, published by the European Union of the Deaf (EUD) (2025). https://eud.eu/new-eud-publications-on-artificial-intelligence-and-sign-language/


National Rail
Way out
Taxis
All trains
National tickets and platforms
Départs Departures
Way out
Midland Road and King's Cross
Départs Departures
National Rail
Way out

III. IMPLEMENTATION ANALYSIS

Section Summary:

- Algorithmic Impact Assessments co-designed with Deaf expertise provide essential tools for operationalising inclusive procurement.
- These assessments must be technology-neutral, risk-differentiated, and initiated early to ensure legal compliance and mitigate predictable harm.

The governance frameworks outlined in Section II establish the core mechanisms for community involvement. This section introduces the Algorithmic Impact Assessment — a comprehensive evaluation framework that enables procurement teams to assess technical functionality, social impact, legal compliance, and community acceptance before deployment decisions are finalised.

Algorithmic Impact Assessments: A Core Governance Tool

Algorithmic Impact Assessments (AIAs) are structured reviews that evaluate both the technical risks and the social impacts of an AI system. AIAs are increasingly recognised by regulators, standards bodies, and procurement policymakers as robust tools for assessing the complex, context-specific risks posed by AI systems and enabling safeguards for real-world contexts.[32]

Existing assessments such as Data Protection Impact Assessments (DPIAs) and Equality Impact Assessments (EIAs) remain necessary and are legally required.[33] However, their scope is limited: DPIAs focus primarily on privacy and data handling, while EIAs address discrimination and equality obligations. AIAs, when used alongside these other impact assessments, provide a broader and more granular assessment of impacts including algorithmic bias, linguistic exclusion, cultural harm, and community trust. They also address data provenance, minimisation, and consent as applied to BSL AI.

Deaf-led AIAs serve multiple critical functions:

- **Risk identification:** Detecting bias and exclusion before deployment
- **Alternative assessment:** Evaluating whether AI tools are appropriate or whether human-led services better meet legal and user requirements
- **Ongoing oversight:** Providing mechanisms for community monitoring and responsive adaptation
- **Accessibility:** Evaluating systems with additional access requirements
- **Legal compliance:** Demonstrating alignment with obligations under the BSL Act and Equality Act

32. For example, Canada mandates AIAs for federal automated decision-making systems; the EU AI Act requires Fundamental Rights Impact Assessments for certain high-risk AI systems; and the OECD AI Principles promote risk and impact assessments as part of trustworthy AI governance. Moreover, the Local Government Association has recommended local authorities integrate AIA elements into their AI procurement processes.

33. Information Commissioner's Office (ICO), 'Data Protection Impact Assessments', *ICO* (n.d.), https://ico.org.uk/for-organisations/law-enforcement/guide-to-le-processing/accountability-and-governance/data-protection-impact-assessments/#ib1 [accessed 25 June 2025]; Cabinet Office, 'Equality impact assessment: government grants minimum standards', *gov.uk* (17 July 2025), https://www.gov.uk/government/publications/grants-standards/equality-impact-assessment-government-grants-minimum-standards-html [accessed 9 July 2025].

For BSL AI, effective AIAs must incorporate the Deaf-led governance principles outlined in Section II while addressing specific assessment requirements. They must be technology-neutral from inception to evaluate whether AI deployment is appropriate compared to alternatives, risk-differentiated by application type to address distinct error tolerances between translation and interpreting contexts, initiated early in scoping stages, and publicly reported with findings directly linked to procurement decisions.

Embedding AIAs in BSL AI commissioning directly supports the UK Public Services (Social Value) Act 2012, which requires public bodies to consider wider social, economic, and community benefits in procurement.[34] These requirements mean that commissioning bodies — including central government departments, NHS trusts, and local authorities — must mandate and fund AIAs as an integral part of procurement planning. Findings must directly inform go/no-go decisions, final tender evaluations, and contract terms to ensure legal compliance and avoid predictable harm.

Case Study: Transforming Avatar Development Through Community Co-Design

A recent example illustrates both the problems with current approaches and the potential of Deaf-led alternatives. A technology supplier developing Sign Language AI invited Deaf users to evaluate their signing avatar, asking participants to separate assessment of the avatar's appearance from understanding of the signs produced.[35] This request revealed fundamental misreadings of BSL as an embodied, visual language where form and meaning are inseparable.

Under a Deaf-led procurement framework, this evaluation would have been structured differently:

- **Specification stage:** Deaf linguists would have ensured technical requirements recognised BSL as a three-dimensional language requiring integrated assessment of handshape, movement, facial expression, and spatial positioning
- **Testing protocols:** Community experts would have designed evaluation criteria reflecting how BSL signers actually process visual-linguistic information
- **Feedback mechanisms:** Results would have been analysed by Deaf researchers capable of distinguishing between technical functionality and cultural appropriateness

The result would be more accurate data, more useful AI development, and stronger community trust in both the technology and the commissioning process.

34. It would also enable more concrete alignment with current public sector guidelines, for example the need for 'Fairness' under the NHS Transformation Directorate's AI procurement guidelines. See NHS Transformation Directorate, 'Artificial Intelligence', *NHS England* (30 April 2025) https://transform.england.nhs.uk/information-governance/guidance/artificial-intelligence/ [accessed 28 July 2025].

35. Maartje De Meulder, 'Is "good enough" good enough? Ethical and responsible development of sign language technologies', in *Proceedings of the 1st International Workshop on Automatic Translation for Signed and Spoken Languages (AT4SSL)* (Association for Machine Translation in the Americas, 2021), pp. 12–22, https://aclanthology.org/2021.mtsummit-at4ssl.2/ [accessed 28 July 2025]; SignON, 'Bridging the communication gap between the deaf and the hearing [Horizon2020 grant recipient]', *CORDIS* (2021–2023), doi: 10.3030/101017255.


Community
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IV. INFRASTRUCTURE REQUIREMENTS ANALYSIS

Section Summary:

- Effective governance requires sustained investment in Deaf-led infrastructure as essential compliance infrastructure.
- A National BSL Expertise Network provides the coordinated capacity needed for meaningful procurement oversight.
- Strategic investment aligns with existing policy priorities while meeting statutory obligations under BSL Act and Equality Act.

This section outlines how public bodies can meet their strategic obligations by treating Deaf ecosystem development as a form of essential compliance infrastructure, equivalent to legal services or data protection functions.

Embedding Deaf governance in procurement processes is vital, but requires systemic support. Every stage of the frameworks outlined in this report — from community co-design to ongoing monitoring — depends on the availability of trained communication specialists, qualified Deaf professionals, and sustainable third sector organisations. Without strategic investment in this infrastructure, even well-designed governance processes will fail because the expertise they require will not be available.

Understanding the Deaf Ecosystem as Essential Compliance Infrastructure

Safe and effective BSL AI procurement fundamentally depends on robust Deaf infrastructure, that is, the distributed network of individuals, organisations, and services that enable both BSL access and the specialist oversight that AI governance requires.

This ecosystem encompasses the following elements: direct service providers (including professional communication specialists and BSL specialists) across sectors; third sector organisations such as Deaf-led social enterprises and advocacy groups; knowledge infrastructure (including researchers and policy experts with lived experience of Deaf culture); and training systems that sustain both communication specialist supply and community capacity for technical oversight.

Despite legal recognition of BSL and growing awareness of digital inclusion requirements, capacity constraints persist across professional services, community organisations, and regional expertise distribution.[36] These gaps create the institutional risks identified throughout this report: when commissioning bodies lack access to appropriate expertise, they default to supplier-led processes that exclude community knowledge and generate predictable failures.

36. NUBSLI, *National Frameworks of Agreements: A Dossier of Disgrace.*

A National BSL Expertise Network: Scaling Governance Through Coordinated Capacity

Addressing these infrastructure gaps requires a National BSL Expertise Network — a coordinated system that leverages existing Deaf infrastructure while creating new capacity specifically for AI governance functions.

This network requires sustainable funding to ensure community expertise is appropriately compensated, creating effective long-term partnerships that strengthen both government decision-making and community capacity.

Rather than each commissioning body attempting to build individual relationships with community experts, a national network enables economies of scale for specialist expertise, consistent quality standards, and sustainable career pathways for Deaf professionals with technical governance skills. The network would operate through local and regional nodes, leveraging existing infrastructure including BSL Alliance members, professional associations, established third sector organisations, and Deaf schools as centres of linguistic and educational expertise.

Most importantly, the network would create community oversight capacity to match the geographical scope of service delivery. When public bodies coordinate their approach to BSL AI procurement through shared expertise networks, they can pool resources for sophisticated community engagement while ensuring consistent standards across services.

Implementation requires partnership between central government, regional authorities, and Deaf-led organisations, with core funding accessed through a combination of central government, regional authorities, and NHS partnerships. Additional project-specific resourcing for major procurement exercises is also vital, as it must be sufficient to ensure independence from individual procurement decisions, and to provide sustainable professional compensation for community expertise.

Strategic Investment as Compliance Infrastructure

This investment should be understood as essential compliance infrastructure rather than optional community engagement. Public bodies need access to Deaf expertise to meet their statutory obligations under the BSL Act 2022 and Equality Act 2010, just as they need legal teams for contract compliance or data protection officers for GDPR adherence. The National BSL Expertise Network will provide this essential operational capacity while generating quantifiable social value via community capacity building and sustainable professional development pathways.

The investment model recognises that effective governance requires compensating community expertise at professional rates, strengthening organisational capacity within the Deaf ecosystem, and creating sustainable career pathways that benefit the broader community infrastructure. This approach ensures that government consultation processes enhance rather than extract from community resources, while providing the sustained expertise that effective AI governance requires.

Spotlight: Deaf Clubs — A Precedent for Community-Led Infrastructure

For much of the 20th century, Deaf Clubs served as vital spaces for cultural life, mutual support, and the everyday use of British Sign Language (BSL). These clubs were more than social venues — they functioned as informal linguistic institutions, preserving regional variation, enabling peer-to-peer language transmission, and fostering Deaf identity across generations.

Today, Deaf Clubs are largely in decline. Funding cuts, venue closures, and the shift to digital communication have reduced their reach. Yet they offer a vital precedent: community-controlled spaces for cultural transmission, mutual support, and collective decision-making about issues affecting BSL signers.

In the context of AI governance, they represent the kind of community infrastructure needed for effective oversight — spaces where technical decisions can be evaluated through cultural and linguistic expertise, where community knowledge can inform policy development, and where collective responses to emerging technologies can be developed.

Policy implication: The proposed National BSL Expertise Network should build on this legacy of community-controlled decision-making spaces, creating modern capacity that serves the same functions Deaf Clubs have provided: autonomous spaces for collective deliberation about technologies affecting BSL signers, but designed specifically for the technical governance functions that contemporary AI procurement requires.

Case Study: BSL Data Governance — From Research to Community Control

The BSL Corpus Project, hosted by University College London, contains over 240,000 annotated video clips representing one of the world's largest sign language datasets.[37] Created through public funding for academic research, this resource offers significant potential for AI development, but it was designed for linguistic research, not commercial or automated applications.

Many current AI tools draw on this corpus without addressing fundamental governance questions, such as: do original contributors consent to AI training use? How is interpreter involvement disclosed? What mechanisms exist for community oversight of derivative applications? How are biometric data protections managed given that Sign Language inherently involves identifiable facial features and body movement patterns?

Unlike text-based datasets, BSL data features identifiable individuals using an embodied, cultural language. This raises complex issues about consent, cultural ownership, biometric data safeguards, and ethical reuse that cannot be resolved through standard data protection measures alone.

Infrastructure investment would enable:

- Community data stewardship with Deaf-led oversight of how public datasets are accessed and used
- Transparent consent mechanisms that distinguish between research participation and commercial AI training
- Biometric data protections addressing the inherent identifiability of embodied sign language data
- Cultural authenticity standards to ensure AI development respects linguistic and cultural integrity
- Ongoing governance capacity that enables community control over emerging uses of publicly funded resources

This example illustrates why procurement teams need more than technical expertise — they need access to community infrastructure capable of addressing the cultural, ethical, and legal complexities specific to BSL AI development.

37. *British Sign Language Corpus Project* [website] (2022), https://bslcorpusproject.org/ [accessed 8 July 2025].

Spotlight: Deaf Governance Across the Procurement Lifecycle

The table below shows how each of the **Essential Components of Deaf Governance,** together with mandatory **Algorithmic Impact Assessments and the National BSL Expertise Network,** can be embedded throughout the procurement lifecycle to mitigate predictable harms and ensure legal compliance:

Procurement Stage	Required from Process/ Suppliers	Fund for Community Participation	Harm Mitigation Impact
Needs Assessment & Scoping	• Deaf-led service audits and needs analysis delivered via the **National BSL Expertise Network** • Community mapping of *Existing Deaf Infrastructure* • Legal review of BSL Act and Equality Act obligations • Establishment of clear, shared *Decision-Making Authority* for community input	• Interpreting and translation for all *Co-Design Engagement Practices* • Compensation for *Representative Stakeholder Networks* at professional rates • Core funding for coordination by the National BSL Expertise Network	**Mitigates Harm 5 (Institutional Trust Breakdown)** — ensures community priorities shape project scope from the start
Specification Development	• Co-designed technical specifications with Deaf linguists and *Representative Stakeholders* through the **National BSL Expertise Network** • Dataset transparency and provenance requirements • Mandatory **Algorithmic Impact Assessments (AIAs)** co-designed with community experts • Cultural authenticity and regional variation criteria • Legal frameworks for community intellectual property • Document the *Decision-Making Authority* structure to approve or reject specifications	• Co-design sessions and accessible materials *(Co-Design Engagement Practices)* • Expert review time for *Representative Stakeholders* • Community participation in AIAs	**Mitigates Harms 1 & 2 (Systematic Inaccuracy; Linguistic Erasure)** — ensures BSL expertise shapes core technical requirements

Procurement Stage	Required from Process/ Suppliers	Fund for Community Participation	Harm Mitigation Impact
Market Engagement	• Evidence of supplier partnerships with *Representative Stakeholder Networks* or **National BSL Expertise Network** • Demonstrated track record of *Co-Design Engagement Practices* • Bias mitigation strategies specific to BSL context	• Capacity building for regional Deaf-led organisations *(Pre-existing Deaf Infrastructure)* • Training for procurement teams on inclusive engagement • Funding for outreach activities led by the National BSL Expertise Network	**Mitigates Harm 4 (Workforce Displacement)** — ensures suppliers strengthen Deaf capacity rather than undermine it
Tender Evaluation	• Mixed evaluation panels including *Representative Stakeholders* through the **National BSL Expertise Network**, with equal weighting to technical assessors • Live demonstrations using real-world BSL scenarios, co-developed through *Co-Design Engagement Practices* • **Algorithmic Impact Assessments (AIAs)** reviewed by independent Deaf experts	• Compensation for community evaluators *(Adequate Resourcing)* • Training for mixed evaluation teams • Independent review capacity managed by the National BSL Expertise Network	**Mitigates Harms 1, 2 & 3 (Inaccuracy; Linguistic Erasure; Developmental Harm to Deaf Children)** — ensures rigorous community-led quality assessment
Contract Management	• Ongoing *Representative Stakeholder Networks* with formalised contractual status and explicit *Decision-Making Authority* • Performance indicators co-designed with communities • Transparent reporting on service outcomes and community feedback	• Sustained advisory group operation through the National BSL Expertise Network (*Adequate Resourcing*) • Public engagement activities • Funding for communication specialist roles to maintain *Pre-existing Deaf Infrastructure*	**Mitigates All Five Harms** — sustained oversight, adaptive improvement, and community trust
Service Monitoring	• Independent evaluation led by Deaf researchers via the **National BSL Expertise Network** • Community feedback mechanisms with guaranteed response • Mechanisms to revisit *Algorithmic Impact Assessments (AIAs)* post-deployment	• Ongoing research capacity *(Adequate Resourcing)* • Safeguards for honest feedback without penalty • Resources for continuous community oversight	**Enables continuous improvement and early harm identification** — prevents systemic misalignment from recurring

V. RECOMMENDATIONS

Section Summary:

Eight recommendations provide immediate actions for procurement teams and strategic changes for policy leadership

Implementation requires coordinated action across government

Independent oversight, public reporting, and accountability mechanisms ensure sustained compliance and continuous improvement

This section provides specific, actionable recommendations for implementing Deaf-led procurement frameworks across UK public institutions, designed to be adopted within existing procedures while strengthening legal compliance and service effectiveness.

Immediate Actions for Procurement Teams

Recommendation 1: Establish BSL-Specific Procurement Standards

Action Required: Procurement teams must develop specialised standards for BSL AI commissioning that treat sign language as a distinct linguistic domain requiring expert oversight.

Implementation Steps:

- **Legal compliance review:** All BSL-related procurement must include explicit assessment of BSL Act 2022 and Equality Act 2010 obligations
- **Linguistic expertise requirements:** Specifications must mandate Deaf linguist involvement in system design, testing, and evaluation
- **Cultural appropriateness criteria:** Tender evaluation must include community-led assessment of cultural legitimacy and regional suitability
- **Application-specific standards:** Distinguish between translation and interpreting use cases, with appropriate safety frameworks and accuracy thresholds
- **Transparency obligations:** Suppliers must disclose training data sources, annotation methods, and community engagement practices

Resources Required: Training for procurement teams on BSL linguistics, legal review of existing frameworks, and establishment of Deaf expert panels for ongoing consultation.

Recommendation 2: Mandate Deaf-Led Impact Assessment

Action Required: All BSL AI procurement must include Algorithmic Impact Assessments (AIAs) co-designed and conducted with Deaf expertise.

Implementation Steps:

- **Needs-first assessment:** Community-led evaluation of whether the identified communication need requires an AI solution, human services, hybrid approach, or alternative intervention and assessment of appropriateness
- **Risk identification protocols:** Assessment of potential harms to communication accuracy, translation and interpreting quality, linguistic integrity, child development, workforce sustainability, and community trust, with distinct evaluation criteria for translation versus interpreting applications
- **Ongoing monitoring requirements:** Post-deployment evaluation mechanisms with guaranteed community oversight and response protocols

Resources Required: Development of BSL-specific AIA methodologies, and funding for community expert participation.

Recommendation 3: Embed Social Value Measurement for Linguistic Equity

Action Required: Procurement teams must recognise and quantify the social value generated by Deaf-led infrastructure investment and linguistic inclusion.

Implementation Steps:

- **Social value criteria development:** Establish metrics for measuring linguistic equity, community capacity building, and cultural legitimacy
- **Supplier assessment standards:** Evaluate bidders on track record of community engagement, Deaf leadership and employment, and contribution to BSL infrastructure
- **Contract performance indicators:** Include linguistic accuracy, user satisfaction, and community trust measures alongside technical functionality metrics
- **Regional equity requirements:** Prioritise solutions that strengthen BSL access in underserved geographical areas

Resources Required: Development of measurement methodologies, supplier guidance materials, and community feedback mechanisms.

Strategic Actions for Public Sector Leadership

Recommendation 4: Update Procurement Policy Guidance

Action Required: Cabinet Office and Crown Commercial Service must issue updated Procurement Policy Notes (PPNs) providing specific guidance for BSL AI commissioning.

Content Requirements:

- **Legal obligations clarification:** Clear guidance on how BSL Act and Equality Act duties apply to AI procurement decisions
- **Community engagement standards:** Mandatory requirements for meaningful Deaf involvement throughout procurement lifecycles
- **Risk mitigation frameworks:** Standardised approaches for identifying and mitigating BSL-specific harms
- **Infrastructure investment guidance:** Recognition of Deaf ecosystem development as essential procurement infrastructure

Implementation Support: Training programmes for procurement teams, template documents for community engagement, and case study development.

Recommendation 5: Establish National BSL Expertise Network

Action Required: Government must fund a coordinated National BSL Expertise Network capable of supporting procurement oversight across multiple authorities and sectors.

Network Functions:

- **Procurement consultation:** Providing expert input on specifications, evaluation, and monitoring for BSL AI commissioning
- **Quality oversight:** Independent assessment of AI system performance and community impact
- **Capacity building:** Training and development for both Deaf professionals and public sector procurement teams
- **Knowledge transfer:** Sharing learning and best practice between regions and sectors

Funding Model: Core funding through a combination of central government, regional authorities, and NHS partnerships, with additional project-specific resourcing for major procurement exercises.

Recommendation 6: Integrate BSL Expertise into Digital Transformation

Action Required: The Government Digital Service, NHS Digital, and other digital transformation bodies must embed sustained Deaf expertise in service design and technology strategies.

Integration Requirements:

- **Advisory group establishment:** Permanent Deaf advisory groups with decision-making authority over BSL-related digital developments
- **Co-design protocols:** Community involvement in design, testing, and iteration of digital services affecting BSL users
- **Accessibility standards updating:** Revision of digital accessibility guidelines to reflect BSL's status as a distinct language rather than an accessibility accommodation
- **Performance monitoring:** Regular evaluation of digital service effectiveness for BSL signers with community-led feedback mechanisms for programmes of the Department for Science, Innovation and Technology (DSIT), such as the recently launched National Digital Exchange (NDX)

Accountability and Monitoring Framework

Recommendation 7: Establish Independent BSL AI Oversight

Action Required: Create independent oversight mechanisms for monitoring BSL AI deployment across public services.

Oversight Functions:

- **Compliance monitoring:** Regular assessment of whether public bodies meet BSL Act and Equality Act obligations in AI procurement
- **Impact evaluation:** Community-led research on effectiveness and appropriateness of deployed AI systems
- **Complaint handling:** Independent mechanisms for addressing concerns about AI system performance or deployment decisions
- **Policy development:** Ongoing advice to government on emerging issues and regulatory needs

Structure: Independent body with majority Deaf governance, funded through central government but operationally autonomous, with powers to investigate complaints and publish findings.

Recommendation 8: Mandate Public Reporting

Action Required: All public bodies deploying BSL AI must publish regular reports on system performance, community impact, and compliance with inclusion obligations.

Reporting Requirements:

- **Transparency:** Publish information about how and why public sector organisations are using algorithmic tools in keeping with the Algorithmic Transparency Recording Standard (ATRS)[38]
- **Usage statistics:** Data on deployment contexts, user demographics, and service outcomes
- **Community feedback:** Regular surveys and consultation results with Deaf users and third sector organisations
- **Accuracy assessment:** Independent evaluation of AI system linguistic accuracy, translation and interpreting quality standards, and cultural appropriateness
- **Compliance review:** Annual assessment of alignment with BSL Act reporting duties and Equality Act obligations

Publication Standards: Reports must be accessible in BSL, published annually, and subject to community review and response.

38. Government Digital Service (GDS), 'Algorithmic Transparency Recording Standard Hub', *gov.uk* (8 May 2025), https://www.gov.uk/government/collections/algorithmic-transparency-recording-standard-hub [accessed 7 July 2025].

CONCLUSION: THE CHOICE AHEAD

Public institutions now face a fundamental choice in how they approach Sign Language AI procurement. How UK public bodies respond will signal whether digital transformation genuinely advances equality and inclusion or reproduces existing patterns of exclusion through technological means.

The evidence shows that Deaf-led procurement is not an optional enhancement — it is a legal necessity and strategic imperative for effective, trustworthy delivery of public services.

The recommendations in this report provide a clear pathway for implementation within existing frameworks and budgets.

The opportunity is significant: to establish the UK as a global leader in inclusive AI governance while building stronger, more effective public services that genuinely serve all citizens.
The cost of inaction is equally clear: continued institutional failures, legal exposure, and the undermining of linguistic rights that the government is statutorily obliged to protect.


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