

# AI Standards Hub

Pilot Evaluation

---



July 3, 2023

## About Oxford Information Labs (OXIL)

Oxford Information Labs is a Cyber Intelligence consultancy specialising in Internet Governance, Policy Development and Research. Supported by a highly innovative technical team, our work is informed by our own longitudinal studies, academic research, database design, data visualisation and development of internet services that are 'secure by design'. We apply extensive industry knowledge to our consultancy services, working with government and major internet players in regulatory, security, standards and educational domains.

## Authors

Emily Taylor, Chief Executive Officer

Carolina Caeiro, Senior Internet Specialist

Anna Pagnacco, Internet Policy Analyst

## Contents

<b>1. Executive Summary</b>	<b>3</b>
<b>2. Introduction</b>	<b>7</b>
2.1. Evaluation methodology	9
<b>3. Impact Evaluation: the Hub’s contribution to the AI Ecosystem</b>	<b>14</b>
3.1. Impact summary: what worked well	14
3.2. Stakeholder awareness of AI standards	15
3.3. Stakeholder engagement and community development	18
3.4. Training and information-sharing	21
3.5. International influence on AI standards	22
3.6. Domestic influence on AI policy-making	24
<b>4. Process Evaluation: the pilot and structure of the Hub</b>	<b>27</b>
3.1. Implementation process summary: what worked well	27
4.2. Pilot implementation: governance, coordination & roles	28
4.3. Stakeholder outreach by Hub Partners	32
4.4. Monitoring processes	33
<b>5. Recommendations</b>	<b>35</b>
<b>6. Conclusion</b>	<b>37</b>
<b>7. Appendices</b>	<b>38</b>
7.1. Appendix 1. Survey	38
7.2. Appendix 2. In-depth interviews	40
7.3. Appendix 3. Partners’ questionnaire	41

# 1. Executive Summary

The UK's **AI Standards Hub** (the Hub) seeks to advance trustworthy and responsible AI with a focus on the role of technical standards. The Hub aims to grow the UK's influence on AI standards by ensuring that: (a) the UK AI community is well informed about AI standards; (b) the UK AI community is able to effectively influence and engage in standardisation of AI; (c) the UK's voice in AI standards is internationally recognised; and (d) standards support AI governance and innovation.

The Hub has recently completed a six month pilot phase between October 2022 and March 2023. This independent review commissioned by DSIT and prepared by Oxford Information Labs **evaluates (i) the impact and (ii) the implementation process** of the pilot period.

The evaluation is based on a combination of **qualitative and quantitative data sources** as follows:

- Survey and interviews of Hub Participants<sup>1</sup>
- Questionnaire filled out by Hub Partners<sup>2</sup> and by the Department for Science, Innovation and Technology (DSIT)
- Monitoring reports submitted to DSIT, among other materials, provided by Hub Partners

The **evaluation methodology** consisted of assessing the Hub's impact and implementation process across eight dimensions aligned with the Hub's Theory of Change. Whenever possible, the report uses multiple datasets available to assess each assessment dimension and mitigate limitations in datasets, such as low response rates to specific questions or potential participant bias. The report documents suggestions on **opportunities going forward** and concludes with **recommendations** by OXIL.

## **Impact Evaluation**

In only six months, the pilot phase has enabled the Hub to take strong, initial steps towards achieving its long term goals. These accomplishments lay the foundations for the Hub to achieve real-world impact in the medium and long term. Milestones to date include:

### **Increased awareness of AI standards**

The Hub was found to have successfully contributed to **increasing stakeholder awareness about AI standards** in the UK. Participants reported that the Hub has begun to address the existing knowledge gap with nearly 70% of survey Respondents agreeing that the Hub is already supporting the UK AI community in influencing and engaging on standards. Interviews described the Hub as a **trusted one-stop-shop** on AI standards. Through the pilot, the Hub has managed to consolidate as a **signposting and learning tool**, and has facilitated the assessment and use of AI standards for users of the Hub.

---

<sup>1</sup> The term 'Hub Participants' refers to stakeholders who participated in the activities of the Hub.

<sup>2</sup> 'Hub Partners' refers to the Alan Turing Institute, BSI and NPL.

## Community creation

The pilot has enabled the **creation of a distinct community around the Hub**. By April 2023, the Hub reached 869 user signups. Extensive engagement in Hub-organised events, and social media –with 18,525 post impressions on LinkedIn and 252,753 on Twitter by April 2023 – are also evidence of the growing community established by the Hub. Hub activities that enabled community creation and collaboration were ranked as the most appreciated by survey Respondents. The Hub was found to **enhance multi stakeholder** participation in AI standards across the UK, and Interviewees reported that it has served as an enabler for participation for those less familiar with standards. Opportunities to interact with other stakeholders and the Hub’s subject matter expertise were the leading factors drawing participants to the space, with **82.4% of survey Respondents viewing the Hub as a good place to collaborate** with other stakeholders and share knowledge on AI standards.

## Effective training and knowledge sharing

The **training** offered during the pilot was **found to be a specially valuable feature** of the Hub, and survey Respondents from the private sector identified them as the Hub’s activities that interest them the most. Interviewees reported that training and knowledge-sharing resources offered by the Hub enabled users to **navigate the international standards landscape**–which was perceived as complex and, at times, excessively political–and thereby, engage more effectively with standards.

## Growing international impact

The pilot has laid the ground for the Hub to contribute to the UK’s international influence in AI standards. Participants recognised that the Hub aspires to position the UK as an international leader in AI standards, with 67% of Respondents agreeing the AI Standards Hub is already helping the UK have an internationally recognised voice that informs the development of AI-related standards. Interviewees described the Hub as the **leading coalition in the UK facilitating international conversations** around AI standards. For Hub Participants in general, resources such as the AI Standards Observatory contributed to contextualising standards work within the wider international context. The Hub is beginning to show signs of international impact. DSIT in particular reported **significant interest in the Hub by international partners**. While Hub Partners and DSIT agreed on the international impact of the Hub to date, Participants appeared to be less familiar with concrete actions and accomplishments of the Hub at the international level.

## Recognition in domestic policy and traction with UK regulators

The Hub also intends to help inform **domestic policy-making**, with strong evidence of impact in spite of the short timeframe of the pilot phase. DSIT reported that the Hub has gained **significant traction within the UK government**, being viewed as an exemplary initiative reflective of the UK’s approach to broader AI policy and regulatory development. The Hub was explicitly **referenced in the UK’s AI White Paper and the UK Science and Technology Framework**, and has already succeeded in establishing **strong ties with policymakers**, who showed an understanding and appreciation for the Hub and tools like the AI Standards Observatory. Participants viewed

the interaction with policy-makers as positive, and found the Hub to be uniquely positioned to influence the broader AI ecosystem on the issue of standards.

## Opportunities going forward

While recognising that resources are limited, and that any increased scope of the Hub may have cost or other resource implications, this report documents several suggestions for enhancing the activities of the Hub:

- **Interest in new resources.** Participants appreciated the tools offered by the Hub and offered suggestions for the development of additional resources, including: (a) generating more materials for non-specialised audiences; (b) developing subject- and domain-specific content tailored to specific stakeholders and industry verticals, such as transport, healthcare, or start-up environments; (c) offering practical recommendations on the implementation of AI standards; and (d) providing guidance for engaging in standards development processes.
- **Continued community development and collaboration.** Hub Participants suggested that the Hub's community should continue to grow, and called for additional opportunities for Hub Participants to collaborate more actively with one another.
- **Strengthening International collaboration.** Participants suggested strengthening collaboration with international governments and organisations and the development of tools such as a global AI standards taxonomy that could be adopted beyond UK borders. Hub Partners see opportunities for the Hub to play a leading role in coordinating international activities with global partners.
- **Reinforcing ties with domestic policy makers.** Participants suggested deepening ties with policy-makers and advancing with the implementation of proposed initiatives in the UK's AI White Paper. Partners see an opportunity for the Hub to accelerate the adoption of trustworthy and responsible AI in the UK, and to inform policy-making through insights from the UK's AI sector.

## Process Evaluation

### Successful pilot delivery and partner collaboration

The Hub brought together **three leading UK organisations with complementary expertise on AI, standards and metrology** –the Alan Turing Institute, the British Standards Institution (BSI) and National Physical Laboratory (NPL). The Alan Turing Institute served as pilot lead and coordinator between the Hub Partners and DSIT. DSIT supported the Hub through strategic direction and approximately £1.3 million in seed funding. The evaluation found that Hub Partners, under the current governance structure, **collaborated successfully** in completing the pilot. The data indicates strong **alignment on the Hub's overall goals** among the Hub Partners and DSIT by the end of the pilot period. Hub Partners reported that the pilot has enabled them to understand each other's skills and **refine their roles and responsibilities in the partnership**. Established communication mechanisms have worked well, and enabled Hub Partners to **build trust**. The pilot enhanced the Hub Partners' ability to engage at the international level.

## Effective stakeholder engagement

Stakeholder engagement constituted a central element of the implementation of the pilot. The Hub Partners viewed their joint efforts to conduct **stakeholder engagement as widely successful, and Participants shared this view**, showing appreciation for the creation of the Hub and describing it as filling a recognised void.

## Opportunities going forward

- **Greater collaboration on monitoring mechanisms.** Monitoring mechanisms worked well for the pilot period, but Hub Partners indicated the need for simplifying and harmonising instruments going forward.
- **Strategic planning and financial sustainability.** Hub Partners saw opportunities for improving strategic planning going forward. Financial sustainability beyond the pilot phase is also a shared priority area for both Hub Partners and DSIT.

## Overall Assessment and Recommendations

This independent evaluation has found that the AI Standards Hub Pilot has been widely successful, and that Participants and Hub Partners see significant value in this initiative. The existing coordination mechanisms have worked well and allowed a cohesive setup of the Hub and its first activities. In only six months of operation, the Hub has quickly established itself as a valuable actor in the UK's AI ecosystem, offering relevant training and building a multi stakeholder community to advance AI technical standards, including the participation of policy-makers. The pilot has contributed to the Hub's growing international impact, facilitating international conversations on AI standards and strengthening perceptions of UK thought leadership in AI standards.

Based on the evaluation of both the impact of the pilot and the implementation process, OXIL puts forward **five recommendations**: (i) prioritising planning for financial sustainability; (ii) supporting continued community development; (iii) balancing responsiveness to stakeholder needs with strategic prioritisation; (iv) refining the international outreach strategy; and (v) honing the monitoring and evaluation plan to generate actionable inputs for future planning.

## 2. Introduction

The AI Standards Hub is a UK initiative led by the Alan Turing Institute in partnership with the British Standards Institution (BSI) and the National Physical Laboratory (NPL). The Hub was created under the direction and supervision of the UK Department for Digital, Culture, Media and Sport, now the Department for Science, Innovation and Technology (DSIT), and is aligned with the UK's National AI Strategy.

The Hub was launched in October 2022, with the goal of advancing trustworthy and responsible AI in the UK through standards. During an initial six-month pilot period, which ran between October 2022 and March 2023, Hub Partners set up multiple activities –including learning and informational resources– and began the development of a multi stakeholder community. Activities include an AI Standards Observatory, composed of a [standards database](#) and a [policy database](#), a series of [community forums](#), an [e-learning platform](#) with training materials for Hub Participants, as well as a [news and blog](#) section. The Hub also coordinates [public-facing events](#) on areas relevant to AI standardisation and produces [policy research](#) which is promoted through the Hub. Box 2 below summarises growth of the Hub to date.

### Box 1. Terms used in the report

The Alan Turing Institute, BSI and NPL are called 'Hub Partners' throughout the report. Stakeholders who participate in the activities of the Hub are referred to as 'Respondents,' if their insight is derived from the quantitative survey, or 'Interviewees,' for those who participated in the in-depth interviews conducted by DSIT. When an insight was derived from both interviews and the survey responses, they will be referred broadly as 'Participants.' DSIT is referred to by name.

In addition the report uses the term 'standards' as a shorthand for 'technical standards.'

The present report commissioned by DSIT and produced by Oxford Information Labs (OXIL) evaluates the results of the pilot phase of the AI Standards Hub. The assessment has two major components of the Hub: impact and process.

The impact assessment considers the Hub's progress to date<sup>3</sup> towards the agreed long-term goals of the Hub as outlined in its Theory of Change (ToC) –a summary of which is provided in Figure 1 below. Assessment dimensions include stakeholder awareness of AI standards; community creation around the AI Standards Hub; training and information sharing; as well as domestic and international influence of the Hub.

---

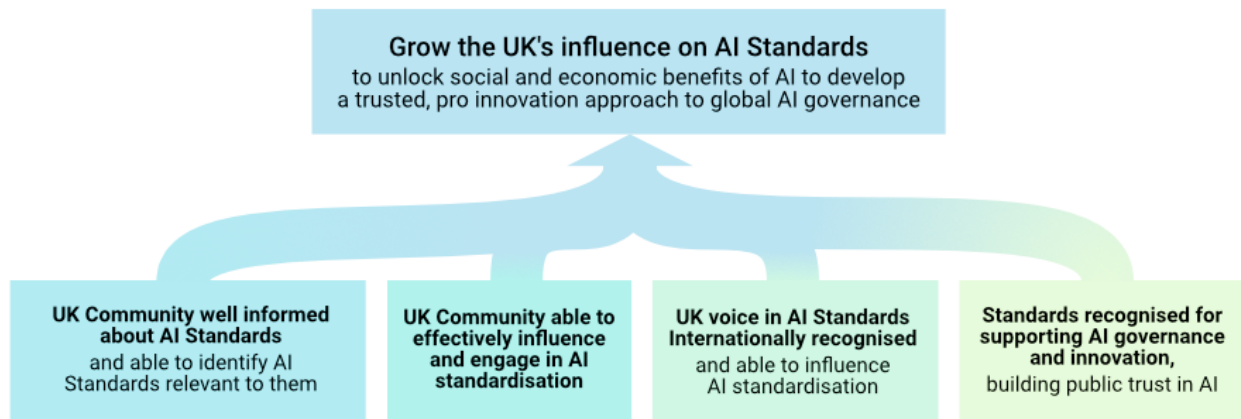
<sup>3</sup> Considering the limited timescale of the pilot, there is no expectation that the Hub will have fully achieved all the proposed outcomes at its present stage of development. The evaluation will reflect any steps taken towards the ToC's goals and outcomes as positive.



The process assessment, on the other hand, evaluates the pilot implementation (governance, coordination and roles); the stakeholder outreach by Hub Partners; and the monitoring mechanisms employed during the pilot to provide insights into the operation of the Hub going forward.

The report includes recommendations in light of stakeholder feedback on the Hub’s pilot phase, and ends with a brief conclusion outlining key takeaways as well as next steps for the Hub.

**Figure 1. Standards Hub Theory of Change - Goal and Outcomes Summary**



## Box 2. Key achievements during the pilot period

During the pilot phase, the Hub has established multiple resources and generated community traction around them. The AI Standards Database, the Hub’s flagship resource, tracks the development of standards in international and national standards bodies. During the pilot period, achievements of the Hub include:

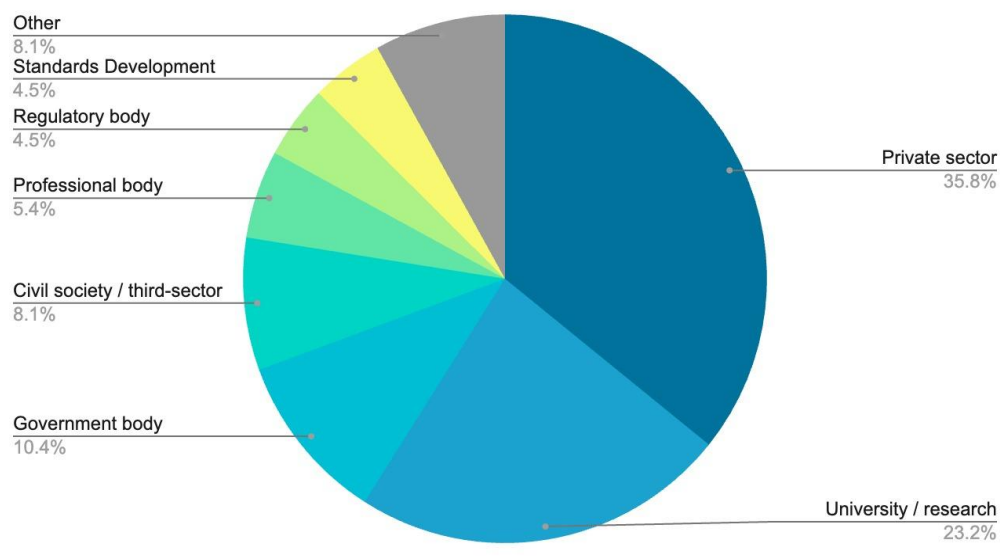
### Observatory

- Contained 346 AI-specific and AI-enabling standards by the end of pilot;
- Directly notified the community of ten standards status changes;
- Recommended stakeholder comments on four standards when open for consultation;
- A total of 793 clicks through to BSI’s website housing the draft standards.

### Other achievements

- 98 AI-related policy documents in the policy database;
- 71 publications within the research database;
- 16 blog posts covering a wide range of topics from conformity assessments to the role of standards in the EU AI Act;
- More than 90,000 page views and 15,100 visitors to the Hub website;

- 869 online user accounts created, from a wide range of stakeholder groups:<sup>4</sup>



At the time of data collection, the Hub reported a total of 1030 subscribers currently receiving its bi-weekly newsletter. Over the six-month period, the Alan Turing Institute reported that the Hub hosted 13 events, which, combined, engaged a total of 801 live attendees. Event recordings attracted over 500 views to date.

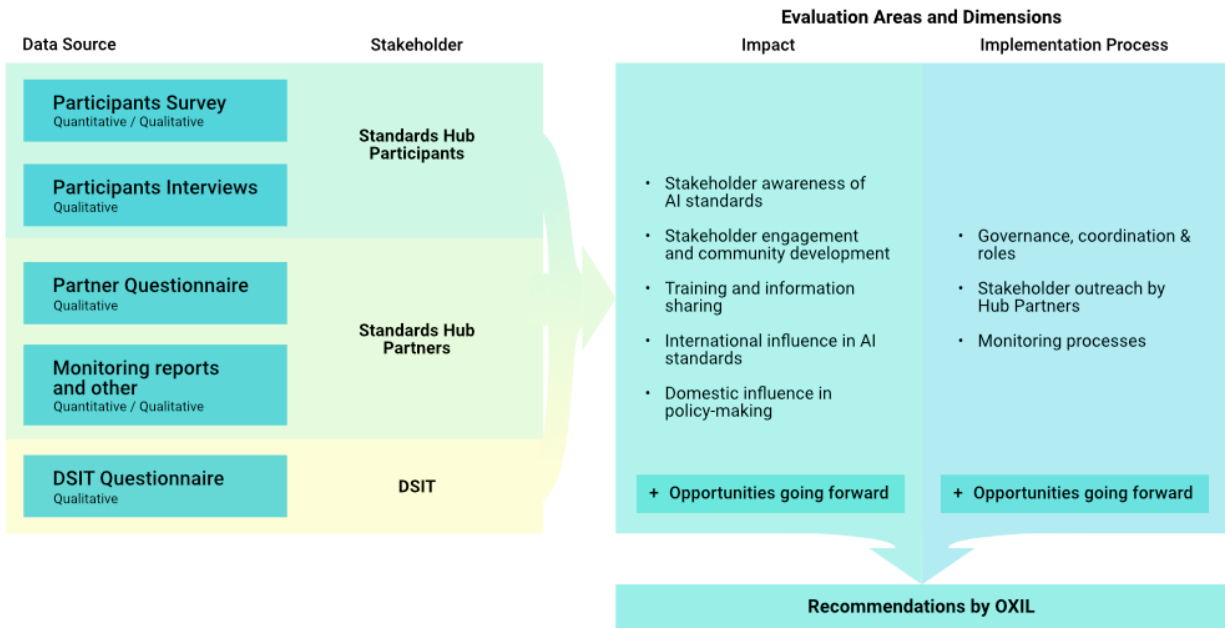
## 2.1. Evaluation methodology

The present report takes into consideration four main data sources:

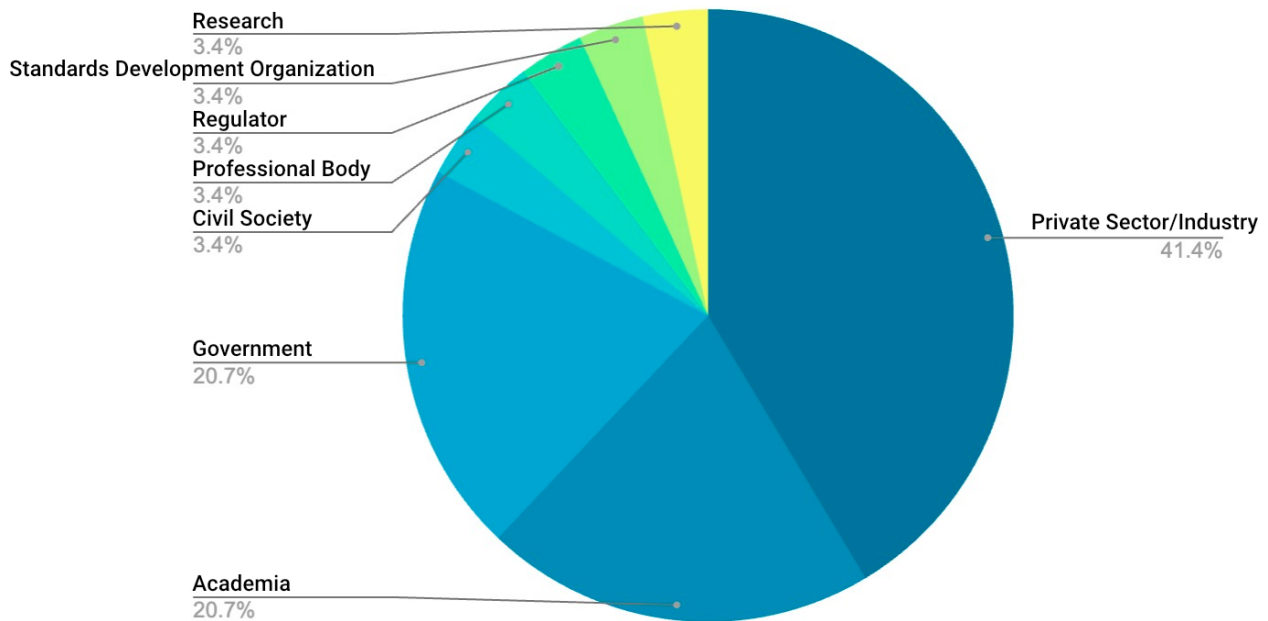
- Survey of Hub Participants, conducted by DSIT;
- In-depth interviews with a sample of Hub Participants, conducted by DSIT;
- Consultation questionnaire of DSIT and Hub Partners, conducted by OXIL; and
- Other materials, including monitoring reports produced for DSIT by the Hub Partners and additional resources provided by the Hub Partners.

<sup>4</sup> "Other" condenses three categories as monitored by the Hub Partners. These include "I do not work for an organisation," "Other" and "no response."

**Figure 2. Data Sources and Evaluation Methodology**

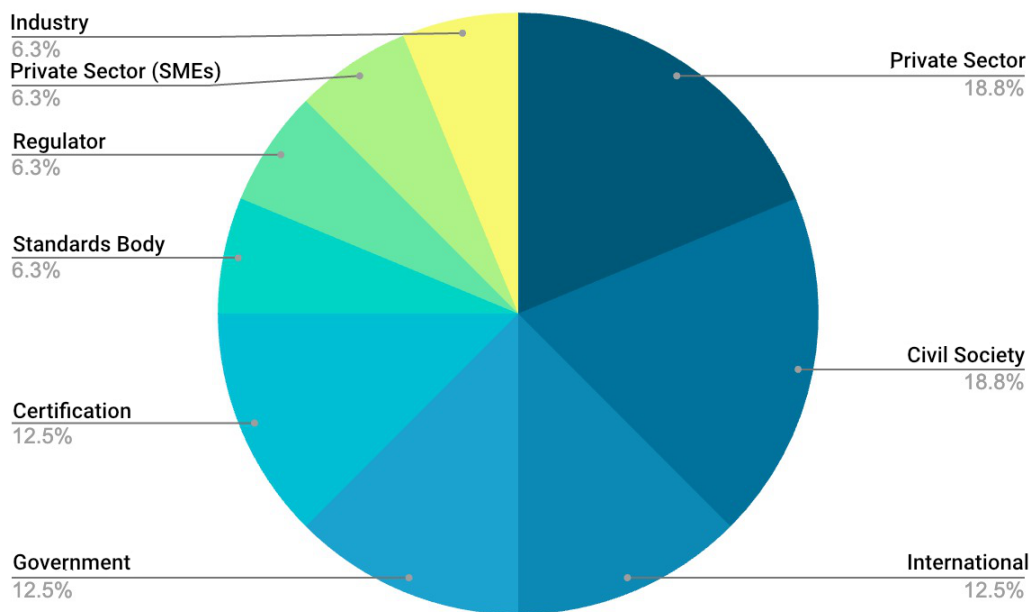


**(i) Participants survey.** DSIT ran a survey for Hub Participants between February 15th and March 15th 2023, with a total of 29 responses. Taking into consideration the total number of user accounts created during the pilot phase (869), survey responses represent 3.34% of Hub platform users. These were distributed across stakeholder groups as shown in the pie chart below. The breakdown of survey Respondents by stakeholder group is similar to the breakdown of online users by stakeholder group.



The survey consisted of a mix of closed and open-ended questions. Questions are available in Appendix 1. The survey was anonymous, but four Respondents (4) volunteered their details and agreed to be contacted for follow-up interviews. While this report includes a quantitative analysis of the survey responses, for example by including statements of the percentage of Participants that answered certain questions, these quantitative measures should be approached with caution. With such a small sample size, small changes in numbers can give rise to large differences in percentage figures. Survey responses may also contain a degree of bias, with disengaged users of the AI Standards Hub being less likely to complete the survey. The report considers survey data alongside other data sources to provide a more representative assessment of the AI Standards Hub.

**(ii) In-depth interviews.** DSIT conducted 16 in-depth, structured interviews with Hub Participants across a range of stakeholder groups. Out of a total of 16 Respondents, 5 requested to remain anonymous. Respondents were asked to present their thoughts on five areas: awareness, adoption, contribution, collaboration and process. The Respondents’ affiliation by stakeholder groups was as follows:



**(iii) Partners’ questionnaire.** OXIL disseminated a questionnaire for DSIT and Hub Partners – Alan Turing Institute, BSI and NPL. The questionnaire focused on: the setup of the Hub and the Hub Partner collaboration; Hub Partners’ engagement with stakeholders; perceptions on the impact of the Hub; and vision for the future of the Hub. The full set of questions is available in Appendix 2. Occasionally, the Hub Partners questionnaire is the only dataset available on certain issues. Whenever possible, Hub Partners’ views expressed on the questionnaire were analysed together with data from Participants and DSIT, as well as evidence of Hub activities, to provide a balanced representation of stakeholder views and support findings with verifiable sources.

**(iv) Other resources.** Analysis has also relied on other data sources provided by the Hub Partners. These comprised **monitoring reports**, produced by the Hub Partners for internal purposes throughout the pilot phase for DSIT. The reports tracked Hub Partners' timelines and activities, and acted as a valuable source of information to understand both coordination mechanisms and the structure in place around monitoring and evaluation processes. The Alan Turing Institute also delivered additional documentation on the activities conducted prior and during the pilot phase. The Alan Turing Institute produced **case studies** and conducted a series of **focus groups with Participants** as part of the Hub operations. These offered valuable insights taken into account in the report and provided a (limited) longitudinal element to the data, as groups were consulted at two points in time during the pilot phase.

## Evaluation methodology and data processing

As illustrated in Figure 2 above, the evaluation of the pilot was structured around the assessment of two specific areas:

- (a) Five dimensions measure the **impact** of the pilot on the Hub's goal and outcomes, as outlined in its theory of change, and
- (b) Three dimensions measure the **implementation process** of the pilot.

The assessment of each dimension considered information available across all data sources. This evaluation was conducted taking into account available quantitative and qualitative inputs from each stakeholder group: Hub Participants, Hub Partners and DSIT. For Hub Participants, the evaluation team considered the survey responses, and interview responses. For Hub Partners, the team considered the monitoring reports and other materials submitted to DSIT, and the partners questionnaire. For **DSIT**, the evaluation team considered its questionnaire response.

For qualitative data, the analysis process involved the synthesis and clustering of responses to both the partner questionnaire and the in-depth participant interviews. Responses were mapped over the report's eight assessment dimensions, taking into account the overall context and picture emerging from the data. Insights derived from qualitative data analysis do not intend to draw statistically valid conclusions, but rather to identify ideas and feedback on the pilot. Where relevant, the report highlights whether a particular view was widely shared or a minority viewpoint.

Data from quantitative sources, namely the participant survey responses and the monitoring reports, was integrated into this framework and used as a baseline to comment on impact and process, as applicable.

It must be noted that for the process section, the report relies mostly on monitoring reports and the Hub Partners' self-reported considerations. Whenever possible, insights are drawn from sources reflecting participant views. However, the evaluation team found that the participant survey and interviews did not cover issues pertaining to the implementation process in sufficient depth to significantly inform this segment of the report.

The evaluation process identified several opportunities for further development of the Hub. Many of these opportunities would have financial and other resource implications which are beyond the remit of this study. The authors return to this point in the recommendations.

### 3. Impact Evaluation: the Hub’s contribution to the AI Ecosystem

This section assesses the impact of the AI Standards Hub pilot across the national AI ecosystem, and the international AI standardisation landscape. The Hub’s long-term goal and outcomes, as summarised in the Theory of Change (see figure 1 above), have informed the activities of the Hub during the pilot phase together with stakeholder consultations and scoping activities conducted prior to the launch of the Hub.

This section evaluates the Hub’s impact across the five dimensions:

- Stakeholder awareness of AI standards;
- Stakeholder engagement and community development;
- Training and information sharing;
- International influence in AI standards; and
- Domestic influence in policy-making.

Achieving long term goals of the Hub will require sustained effort over the medium to long term. Given the limited timeframe of the pilot phase, this section will focus on reporting progress to date towards those five areas. Findings indicate that the Hub has taken strong, initial steps towards its intended goals that will lay the basis for effectively achieving real-world impact in the medium and long run. This section also documents opportunities for the Hub going forward, summarising suggestions from Participants, Hub Partners and DSIT.

#### 3.1. Impact summary: what worked well

What worked	Assessment dimension
<p><b>Consolidation of the Hub as a signposting and learning tool for AI standards.</b> Participants reported that the Hub has contributed to raising awareness about AI standards in the UK, and is beginning to fill a concrete knowledge gap.</p>	<p><b>Stakeholder awareness of AI standards</b></p>
<p><b>Successful creation of a community of Participants around the AI Standards Hub.</b> Stakeholder engagement during the pilot has been successful in beginning to develop a diverse, multi stakeholder community around the Hub. Participants described the Hub as enabling the integration of those who are new, or are less familiar with the standards development landscape. Stakeholder feedback appreciated subject-matter expertise of those involved in the Hub and opportunities for interaction with other relevant stakeholders from the AI and standards ecosystem.</p>	<p><b>Stakeholder engagement and community development</b></p>

<p><b>Delivery of useful training to navigate AI standards landscape.</b> Participants characterised the training provided by the Hub as “useful,” and as a source of clear information in the face of “noise and distraction.” Some reported that the Hub enabled more informed standards engagement.</p>	<p><b>Training and information sharing</b></p>
<p><b>Strong interest in the Hub by international governments and international organisations.</b> DSIT reported that the initiative has raised interest from international governments and the Hub has collaborated with a range of international organisations. Some Participants appreciated efforts to expose domestic stakeholders to international dynamics, describing the Hub as the leading coalition in the UK facilitating international conversations around AI standards.</p>	<p><b>International influence in AI standards</b></p>
<p><b>Significant traction gained with policymakers.</b> The Hub was explicitly mentioned in the UK’s AI Regulation White Paper and the UK Science and Technology Framework. Interviewees reported that the Hub was acknowledged by policy makers with some expressing special appreciation for the AI Standards Observatory. Participants viewed exchanges with policymakers as positive, and described the Hub as uniquely positioned to serve as a platform between policymakers and the broader AI ecosystem.</p>	<p><b>Domestic influence in policy-making</b></p>

### 3.2. Stakeholder awareness of AI standards

*“Helpful, excellent work”  
Interviewee, Civil Society*

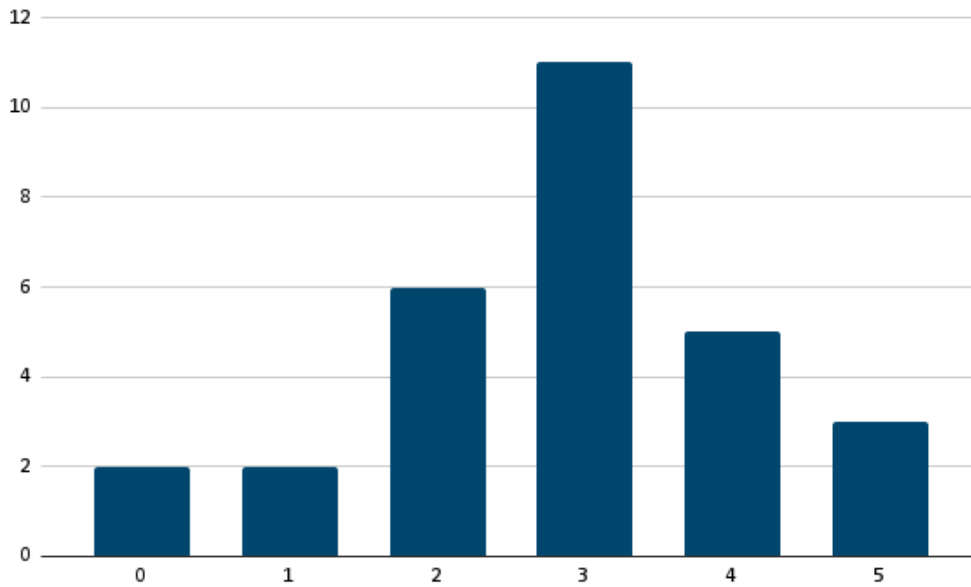
The Hub engaged in extensive awareness-raising activities to enable the UK’s AI community to be well informed about AI Standards and in a position to identify standards relevant to them. This segment considers information, resources and Hub activities that contributed to greater awareness of AI standards among Hub Participants, and the broader UK AI community.

As illustrated in Figure 3 below, most Respondents rated their understanding of technical standards before encountering the Hub as limited or partial, confirming that knowledge and awareness of AI standards is a relevant element of the Hub’s work.

Interviewees and survey Respondents viewed the impact of the AI Standards Hub pilot as widely positive. Interviewees from local government, industry, civil society and academia reported the Hub has exceeded their expectations, quickly establishing itself as a **collaborative source for information** on AI standards and as a **trusted one-stop-shop** to assess quality and interoperability requirements in AI development.

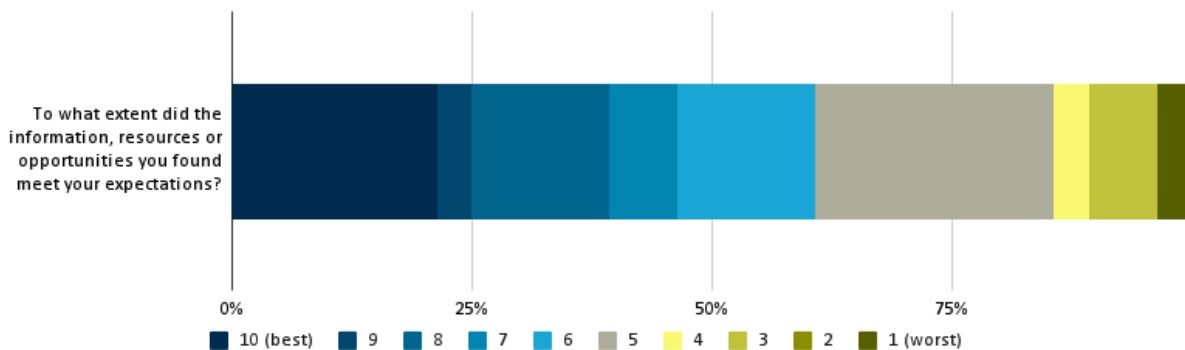


**Figure 3. What was your understanding of digital technical standards before engaging with the AI Standards Hub?**



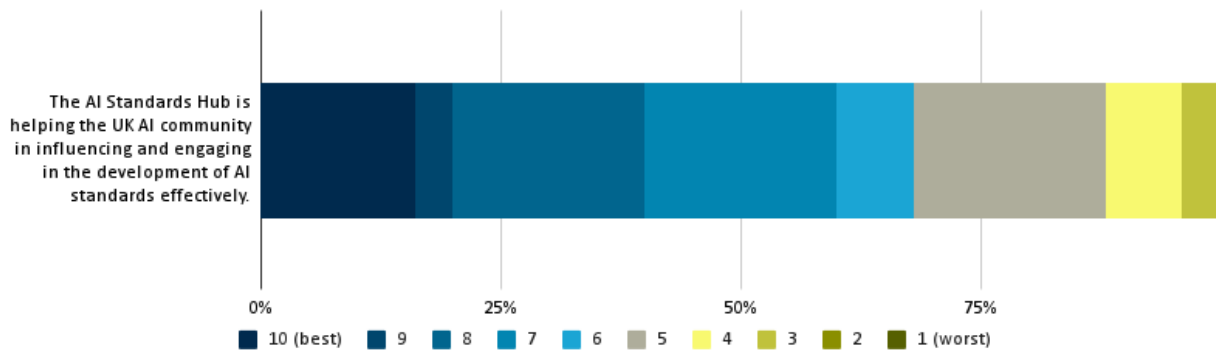
Participants were asked to rate on a scale of 1-10 the extent to which the information, resources or opportunities met their expectations, with 1 being the lowest rating, and 10 the highest. The report ranks these responses into three broad groups, with 1-4 being a negative response (correlating to opponents through to somewhat negative), 5 being passive (neither agree or disagree), and 6-10 being positive (somewhat positive to promoters). As shown by figure 4 below, 61% of the 28 survey Respondents who answered this question were promoters, compared with 14% opponents, and 25% passives. The relatively high percentage of passives is consistent with the early stage of the Hub project, and with DSIT’s recognition for this evaluation that the Hub is unlikely to have fully achieved its medium to long term aims and objectives. As a pulse point following the pilot stage, and as a baseline for further KPI development, this is an encouraging result.

**Figure 4. Survey: Respondents’ perspectives on the Hub resources**



Participants recognised that the Hub **fills a knowledge gap** they themselves were not necessarily aware of. They reported that the Hub provides them with a strong overview of fundamental issues related to AI standards, such as why standards matter, how they are adopted and what actors are involved in the standardisation process. As seen from the survey responses in Figure 5, when asked to assess the Hub’s contribution to helping the UK AI community in influencing and engaging with standards, 68% of the 25 Respondents to this question were promoters, 20% were passives, and 12% were opponents.

**Figure 5. Survey: Hub’s Impact on Stakeholder Awareness of AI standards**



Interviewees described the Hub as a “**signposting tool**” and as a **platform to learn** more about standards and how to participate in their development. Interviewees highlighted that the Hub encouraged involvement in Standards Development Organisations (SDOs), although most recognised they had no way to evaluate the Hub’s impact on standards adoption, given that the Hub has only recently been established. Further, survey Respondents ranked ‘**community events** that facilitate providing input into the development of standards’ as one of the top three critical activities of the Hub.

The **standards database** has been met with widespread praise amongst Respondents and Interviewees. This is supported by metrics on the standards database usage which estimated over 6000 database searches during the pilot period. Users appreciated the database’s coverage of different SDOs and the focus on key terminology. Respondents and Interviewees singled out specific platform functionalities as particularly useful, such as the ability to sort and filter standards on the standards database, identify a standard’s stage of development and access community discussions to anticipate the adoption of specific standards. Interviewees also viewed the Hub’s social media presence positively, as well as its informative newsletter. This is backed by the Hub’s social media performance data which reached 18,525 impressions on LinkedIn and 252,753 impressions on Twitter throughout the pilot period.

Overall, the standards database has been found to **facilitate the understanding and use of AI standards**. The Hub is recognised for being well-organised, particularly given the rapidly changing landscape of AI standards and regulation. Interviewees highlighted various benefits to the database, including how it contributes in a pragmatic way to their understanding of AI regulation, and its alignment with the UK National AI Strategy.

DSIT sees stakeholder awareness as a crucial role of the Hub, contributing to ensure that those working on AI across the UK are well informed about AI standards and able to identify and engage with those relevant to them. Participants found that the Hub is doing promising work in this direction and saw an opportunity for the creation of additional resources. While recognising that there will be cost and other resource implications of any expansion in the Hub’s activities, for completeness, the authors include the following suggestions from both Respondents and Interviewees:

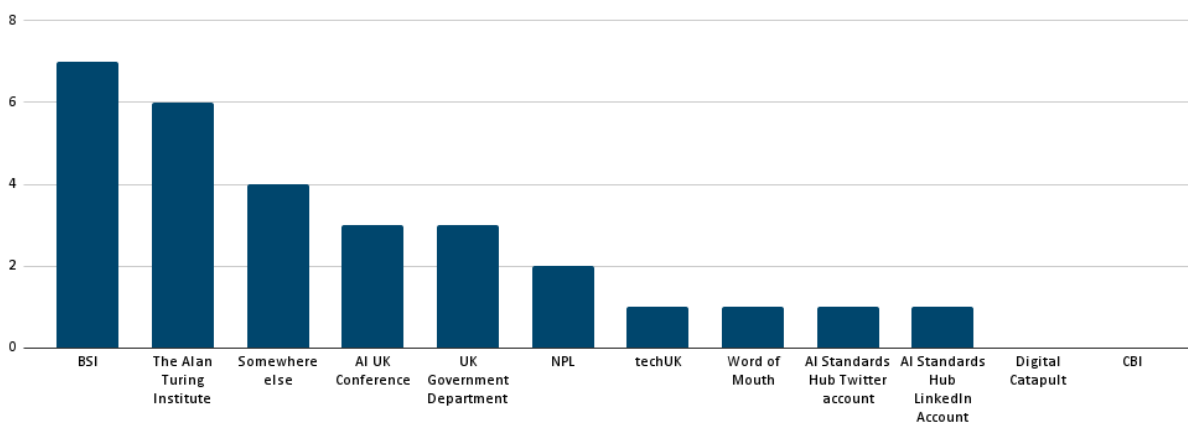
- **Additional materials for non-specialised audiences.** Participants reported interest in seeing more resources highlighting the potential benefits of standards for stakeholders less familiar with standards or with limited resources to track them, such as startups.
- **Domain Specific Content.** Participants reported interest in the potential development of tailored content based on the specific needs of various audiences and stakeholders.<sup>5</sup>
- **Practical Guidance.** Participants reported a need for the development of practical, sector-specific guidance and tools. They explained that, for most sectors impacted by AI standardisation, there are no opportunities for organic exposure to standards.
- **Enhanced Communication.** Participants reported their interest in seeing the enhanced promotion of existing and future Hub resources and events.

### 3.3. Stakeholder engagement and community development

*It's a fantastic initiative, they're doing really well, but I would like to see it scaled.*  
*Interviewee, Civil Society*

Stakeholder engagement and community development are essential activities to bring the work of the Hub close to its target audiences, and ensure organisations in the UK involved with or interested in AI can effectively influence and engage in AI standardisation.

**Figure 6. How did you first hear about the AI Standards Hub?**



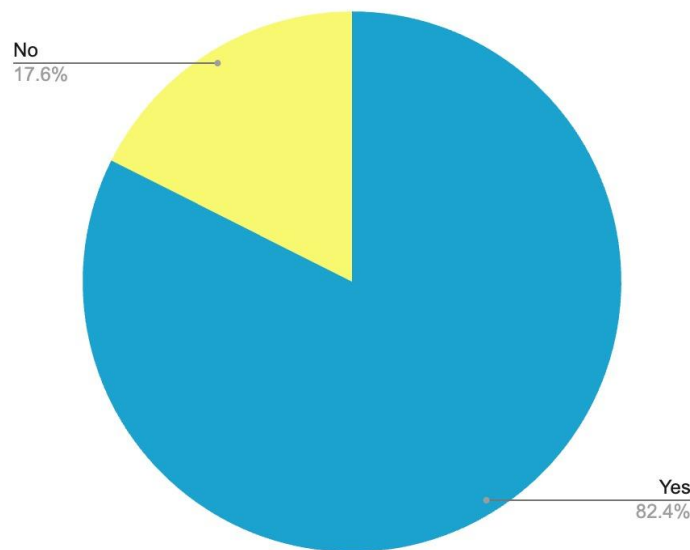
<sup>5</sup> One Participant illustrated this point with the following: “For example, companies seeking to adopt standards may need a focus on best practices, while standards developers may need more tools to track interplay between various standards.”

As shown by Figure 6, the Hub Partners and DSIT have been instrumental in reaching out to relevant stakeholders according to Respondents. Other relevant sources to learn about the Hub include the AI UK Conference and social media –classified in the figure above as “Somewhere else.”

Across all data sources, the Hub is **perceived to have increased multi stakeholder engagement in AI standards across the UK**, even at the current pilot stage. Respondents and Interviewees evaluated positively the diverse pool of stakeholders involved in the Hub, highlighting in particular efforts to engage with industry, SMEs and academia rather than “just Big Tech.”<sup>6</sup> According to the Survey results, activities aimed at promoting community development and collaboration –such as webinars, workshops and online community features– were the most appreciated by Respondents.<sup>7</sup>

**Opportunities to engage with other stakeholders on AI standards** also emerged as a driver in the Hub’s community development efforts. Participants appreciated the events organised to date, as they enabled a better understanding of the landscape of stakeholders involved with or interested in standards, and provided opportunities to build connections. This was especially visible in the survey data where, as shown in Figure 7 below, 82.4% of Respondents reported viewing the Hub as a ‘good place for collaboration and information-sharing on AI technical standards.’

**Figure 7. Do you feel the AI Standards Hub is a good place to collaborate with other stakeholders, and for sharing knowledge on AI technical standards?**



<sup>6</sup> Interviewee, Private Sector.

<sup>7</sup> Survey Respondents were asked to rank the four pillars of work of the Hub by level of importance. “Pillar 2. Community and Collaboration” came up first. The other pillars are: Pillar 1. Standards Observatory; Pillar 3. Capacity Building and training; and Pillar 4. Research and Analysis.

**Subject-matter expertise and stakeholder interaction** appeared as significant elements of interest to the growing community that engages with the Hub. Respondents and Interviewees also reported that the calibre of specialists participating in the Hub's activities has become a drawing factor for organised events. This was particularly true for civil society organisations, which expressed satisfaction with the Hub as both a means to develop connections and a way to gain valuable insight into standards.

*All academic Respondents were positive that the Hub is helping the UK AI community engage with AI standards development.<sup>8</sup>*

The Hub is perceived as having served as an **enabler for new Participants** coming into contact with standards. Respondents and Interviewees have highlighted the importance of current resources –such as training modules and tools– in expanding the Hub's reach and making standards accessible to more stakeholders.

The consulted Participants believed the **Hub's network could and should continue to grow**. Hub Partners appeared responsive to this need and driven to continue exploring the broader AI landscape to identify new, relevant stakeholders that could participate in the Hub. Other comments from Respondents included that the Hub should continue to foster knowledge exchange and bridge-building between AI experts, practitioners with direct experience in implementation of AI standards and stakeholders unfamiliar with, yet impacted by AI standards.

### Box 3. Stakeholder Engagement as a tool for Strategic Planning

The Hub Partners relied on stakeholder engagement for their development of the pilot activities. This was the case, for example, in the development of the Hub's work programme on **Trustworthy AI**. The Hub Partners ran consultations with over 100 stakeholders, identifying a need to "address cross-cutting trustworthiness topics across a wide range of sectors and industries." The strategy proved successful both in developing activities that responded to the needs of the Hub's target audience, as well as in subsequently bringing stakeholders together around a common topic of interest. Organised activities - consisting of 4 webinars, 3 workshops, online forum discussions and 2 training sessions - attracted significant interest from UK stakeholders and enjoyed high levels of participant satisfaction, as documented in post-event surveys.

Respondents and Interviewees offered multiple suggestions for how to step up community engagement. Again, any extension of the Hub's activities would have financial and resource implications, which are beyond the scope of this evaluation, but the authors include the suggestions for completeness:

<sup>8</sup> Data obtained from considering survey responses per stakeholder sector, in this case, academia.

- **Support for community projects.** Participants suggested the Hub could expand its mandate to support concrete actions and projects by its community of users, or community projects.
- **Enhanced participation from underrepresented groups.** Participants acknowledged the importance of continuing to enrich the diversity of Hub Participants.
- **Foster collaboration and opportunities for networking.** To cultivate community within the Hub, Respondents recommended the incorporation of additional collaborative features in the work of the Hub, such as opening up comments, adding whiteboard capabilities and coordinating interactive community discussions, and online sessions.

Hub Partners have identified areas for strengthening stakeholder engagement and community development, which are discussed in greater detail section 4.3 below ([Stakeholder outreach by Hub Partners](#)). These entail engaging with underrepresented stakeholder groups within the AI standardisation landscape, such as SMEs and civil society organisations, and increasing the Hub’s regional representation and outreach.

In addition, Hub Partners appeared open to introducing new initiatives that contribute to strengthening stakeholder outreach. Suggestions recorded in the Hub Partners questionnaire include the creation of a **standard testbed or sandbox** –distinct from the regulatory sandbox– to further enhance the participation of industrial stakeholders, as well as continued work on the horizontal theme of **trustworthy AI** which is recognized as a priority for Hub Partners and Participants alike.

### 3.4. Training and information-sharing

The goal of training and information-sharing is to increase the participation of underrepresented stakeholders, particularly SMEs and civil society, in SDOs, as well as increasing coordination and contributions from UK stakeholders in the area of AI standards.

Interviewees described the standards development ecosystem as “impenetrable” to those not familiar with it, further confirming the need for the Hub’s work on capacity building. For example, one Interviewee reported how standards organisations provide no onboarding in the face of “very boring documents,”<sup>9</sup> limiting participation to a specific set of people with the skills to make sense of them. In their view, training, such as that provided by the Hub, **enabled stakeholders to contribute in a more effective manner**, beyond “just turning up and casting a vote”.

The training offered by the Hub is an area that Respondents highlighted as **particularly useful** and generally well-implemented. Activities such as seminars, webinars, live briefings, workshops, and events were directly linked to Participants achieving a greater understanding of the scope, strengths and weaknesses of AI standards. Training sessions enabled Hub Participants to gain a greater understanding about how SDOs develop standards, how to contribute to standardisation processes, what could be real life impacts of standards and introduced key considerations around safety and security. Survey Respondents from the private

---

<sup>9</sup> Interviewee, Civil Society.

sector –that with representation of 35.8% make up the largest stakeholder among Hub users– identified capacity-building opportunities such as e-learning materials and live training as Hub’s activities that interested them the most.

Respondents noted that staff involved with the Hub were well-informed on AI standards and able to lead engaging, sophisticated conversations. Interviewees credited the Hub with enabling engagement within the international standards landscape, which in itself is perceived to be “difficult to navigate,” “disorganised,” and “excessively political.” The Hub’s approach has been praised for **providing Participants with clear information in the face of “noise and distraction.”**<sup>10</sup> Training also gave diverse stakeholders an opportunity to exchange ideas and find common ground, allowing them to pool knowledge and overcome silos within the AI standards ecosystem.

Respondents and Interviewees called for additional work on three areas. While recognising that any addition to the Hub’s activities may have financial and resource implications, the authors note these suggestions for completeness:

- **Standards processes.** Interviewees suggested additional guidance on standards processes in order to overcome participation barriers in standards organisations.
- **Practical application of adopted standards.** Interviewees pointed out that for many stakeholders the primary motivation for involvement in standards is in their practical application. This was echoed in the survey results, where Respondents identified “activities to enable trialling of and sharing experiences about the use of individual standards” as critical to the Hub’s work.
- **Applied research priorities.** Survey Respondents identified the relationship between standards, regulation, and other governance mechanisms as the most relevant area for future research.

Hub Partners recognised training as one of the key areas where the Hub is able to make a strong contribution to the UK AI community, and put forth a series of areas where work could be expanded. These include:

- **Workstreams on key industry verticals,** such as healthcare, transport, employment, financial services, energy, and online safety.
- **Developing complementary initiatives to the training,** such as AI standards skills certificate scheme or a fellowship programme to participate in standards development.

### 3.5. International influence on AI standards

With regard to international impact, the Hub’s goal is to support the participation and influence of UK stakeholders in AI standards development. This enhanced participation is expected to contribute to cementing the UK’s leadership in the field of AI, informing standards setting, market behaviour, and policy decisions.

---

<sup>10</sup> Interviewee, Civil Society.

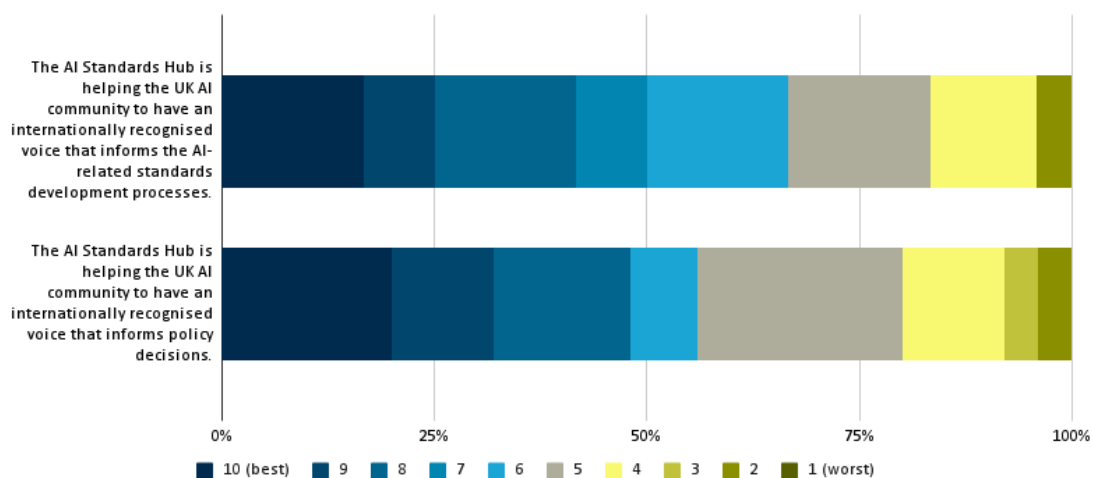
Throughout the pilot, work has focused on two lines of action: (i) enabling UK stakeholders to contribute to international standards development processes; and (ii) building connections with similar initiatives internationally and partner governments.

Enabling greater UK participation in international standards has been pursued primarily through training and online resources offered through the Hub’s online platform (see [section 3.4](#) above). Hub Participants viewed engagement in international standards development as challenging and complex. **Seemingly small actions** such as the inclusion of international experts in events and seminars, or the notification feature that allows the observatory users to stay up to date with international standardisation processes, **contributed to contextualising standards work within a wider international context.**

**Respondents and Interviewees recognised that the Hub aspires to position the UK as an international leader in AI standards.** As shown by figure 8 below, in response to the statement ‘The AI Standards Hub is helping the UK AI community to have an internationally recognised voice that informs the AI-related standards development processes’, of the 24 Respondents who answered the question, just under 67% of Respondents are promoters, 17% were passives, and 17% opponents. In response to the statement ‘The AI Standards Hub is helping the UK AI community to have an internationally recognised voice that informs the AI-related standards development processes’, of the 25 Respondents who answered the question, 56% were promoters, 24% passives, and 20% were opponents.

Interviewees describe the Hub as a **catalyst bringing the UK’s domestic AI community together** and as the **leading coalition in the UK facilitating international conversations around AI standards.** While Hub Partners showed agreement on the international influence the Hub has had to date, these contributions appear less obvious to Respondents and Interviewees. This indicates that the Hub Partners have had limited time to raise awareness about the Hub’s international work during the pilot. Interviewees find the Hub has enabled the UK to project an international influence and present itself as a serious player, though it is early for it to have reached a consolidated international leadership position.

**Figure 8. Respondents’ views on the Hub’s international impact**





With regard to the development of international ties, **DSIT reported there has been significant interest in the Hub by international partner governments.** In addition, the Hub was invited to participate in a panel discussion at the Global Partnership of AI (GPAI) in late November 2022, among multiple other international engagements. The Hub's collaboration with international certification bodies coordinating joint workshops on forthcoming standards allowed Participants to become involved in the standards process earlier than usual.

Looking ahead beyond the pilot phase, significant work remains to be done on achieving the goal of international influence, although initial signs are encouraging. Participants and Hub Partners suggested a series of areas for additional work. While recognising that any addition to the Hub's activities may have financial and resource implications, the authors note these suggestions for completeness:

- **Strengthening partnerships with international counterparts.**
- Developing tools that could be adopted beyond UK borders, such as a **common dictionary or shared standards taxonomies.**
- Shaping the Hub into an **international one-stop shop for AI standards related resources and tools**, that is well-regarded among public and private international partners.
- **Leveraging the Hub's international reach to promote investments in the UK** –both in support of the Hub itself and the UK's AI ecosystem as a whole.

Hub Partners believe that there are opportunities for the AI Standards Hub to build on the current momentum and success it has had on the global level, playing a leading role in coordinating international activities with global partners. To complement the work of UK participants that currently engage in international SDOs –including the Hub's own partner BSI– the Hub could **develop an institutional presence in international SDOs.** Ideas documented in the responses include the establishment of an International AI Standards Network to bring together AI Standards related initiatives across partner countries, and for which the UK AI Standards Hub could act as the convenor and secretariat.

### 3.6. Domestic influence on AI policy-making

The Hub aims at influencing domestic policy-making related to AI in ways that positively contribute to the UK's AI Strategy goal to generate a trusted, pro-innovation approach to global AI Governance. Through its community-building activities, the Hub supports the cooperation between various national stakeholders and their expression of shared interests and concerns related to domestic AI policy development. In addition, through its research activities, the Hub supports the development of domestic AI policy and standardisation efforts aligned with the values in the UK AI strategy.

Despite the pilot's short timeframe, there are signs that the Hub has contributed to **shaping the national debate on AI standards** and strengthening the UK's **AI governance ecosystem**.

*All government Respondents feel the Hub is a good place to cooperate with other stakeholders and share knowledge on AI standards.<sup>11</sup>*

DSIT reported that the AI Standards Hub **has gained significant traction within government** and that it has served as an exemplary initiative that illustrates the UK's approach to broader AI policy and regulatory development. Responses collected for this evaluation indicate that the **AI Standards Observatory is perceived as a highly valuable tool by policymakers** and regulators, as demonstrated by feedback received during the AI Standards Forum for UK Regulators.

**Participants viewed the involvement of regulators in the Hub as widely positive**, and as an opportunity for the Hub to help regulators better understand the evolution of standards and enact informed policy-making.

#### Box 4. The AI Standards Forum for UK Regulators

The AI Standards Forum for UK Regulators, which aims to regularly convene regulators and facilitate cooperation across the regulatory ecosystem, has enabled the Hub's successful cooperation with domestic policy-makers. The programme was developed to address challenges affecting regulators, as identified through two roundtable discussions and surveys coordinated by the Hub Partners in the early stages of the pilot. Regulators reported two main challenges: lack of time to influence standards and insufficient understanding of standards, which were then used as inputs for developing activities of the forum. Individual Participants increased from 21 to 71, representing a total of 25 regulatory bodies.

Respondents and Interviewees have limited visibility into how the Hub has impacted across the government. While Respondents viewed the domestic engagement of the Hub as broadly positive, Interviewees indicated that some Hub Participants see a less direct relationship between the Hub and the influence in government. This is reportedly due to the fact the Hub has been around for a short period of time, and that it is not the sole forum for discussion on AI – meaning other initiatives are also likely to have influenced domestic policy. Hub Partners expect the Hub's influence on policy making to grow naturally over the coming months, especially following the publication of the AI Regulation White Paper which explicitly emphasises the role of standards. The Hub has also been mentioned in the UK Science and Technology Framework and the Integrated Review Refresh 2023. Additionally, the Hub Partners reported that the research work carried out by the Hub has generated novel insights set to shape priorities and decisions surrounding AI governance.

Interviewees reported seeing an opportunity for the Hub to shape perceptions of this emerging industry and establish itself as a relevant actor in AI governance. In contrast to more traditional

<sup>11</sup> Data obtained from considering survey responses per stakeholder sector, in this case, government.

organisations working on standards, like national standardisation agencies, Participants **described the Hub as having the tools to engage more actively with the broader AI ecosystem**, becoming more involved with diverse stakeholders and even advocating on their behalf. In this sense, some Respondents envision the Hub acting as a forum for preliminary consultation on AI standards, documenting potential challenges and conveying issues to the government.

Hub Participants and Hub Partners reported an interest to continue developing the engagement with regulators. While recognising that any addition to the Hub's activities may have financial and resource implications, the authors note these suggestions for completeness:

- **Continued engagement with regulators** and for the overall implementation of measures outlined in the AI White Paper, such as sandboxes or piloting initiatives.
- Expand the Hub's domestic influence on policy-making by strengthening linkages between the AI Standards Hub and AI regulatory approaches. The vision is to further propel the role of the Hub as a **driver for prosperity by accelerating the adoption of safe and ethical AI technologies** across the country's economy.

## 4. Process Evaluation: the pilot and structure of the Hub

This section evaluates the implementation of the pilot across three assessment dimensions: (i) governance structures, coordination and roles; (ii) stakeholder outreach by Hub Partners; and (iii) monitoring processes in place. This session considers how well implementation processes have worked both for the Hub Partners and DSIT, as well as for the successful delivery of Hub activities. Data to assess implementation processes is drawn primarily from the questionnaires to DSIT and Hub Partners. The section also draws in evidence presented in the monitoring reports and case studies.

### 3.1. Implementation process summary: what worked well

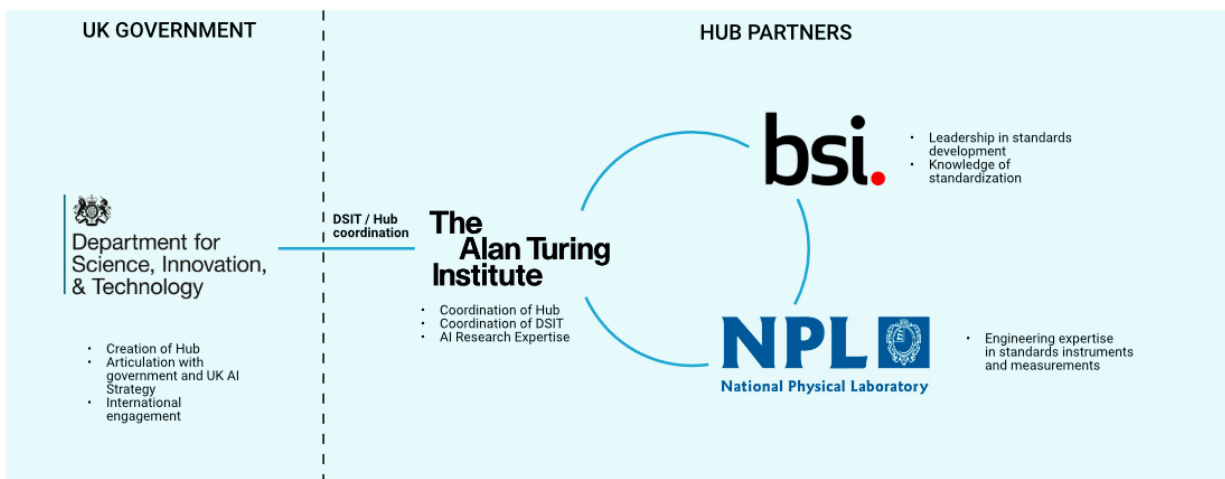
What worked	Assessment dimension
<p><b>Current structure successfully enabled the delivery of the pilot.</b> Established governance structure and collaboration mechanisms enabled the successful delivery of the pilot phase of the Hub.</p>	<p><b>Governance, coordination and roles</b></p>
<p><b>Partner alignment on Hub’s goals.</b> Hub Partners and DSIT demonstrated a strong degree of alignment in connection to the overall goals of the Hub, even if acknowledging the need for strategic planning going forward.</p>	<p><b>Governance, coordination and roles</b></p>
<p><b>Increased understanding of value brought by each member of the partnership.</b> Beyond the original distribution of roles and responsibilities, the pilot enabled Hub Partners to better understand each other’s skills and further refine their specific contributions to the Hub.</p>	<p><b>Governance, coordination and roles</b></p>
<p><b>Innovative approach in partnering organisations with complementary expertise.</b> The collaboration between partners enabled them to bring together their respective standards, metrology and AI expertise in a collaborative fashion, enriching the Hub through the integration of different perspectives.</p>	<p><b>Governance, coordination and roles</b></p>
<p><b>Communication mechanisms built trust.</b> Established communications mechanisms worked well and enabled the development of trust among Hub Partners.</p>	<p><b>Governance, coordination and roles</b></p>
<p><b>Robust stakeholder engagement.</b> Partner collaborations worked well in engaging Participants domestically, and raised interest in the Hub’s activities internationally.</p>	<p><b>Stakeholder outreach by Hub Partners</b></p>

## 4.2. Pilot implementation: governance, coordination & roles

The creation of the AI Standards Hub was spearheaded by DSIT and brought together **three leading organisations with complementary expertise** to advance trustworthy and responsible AI through technical standards. As depicted in Figure 9 below, the Alan Turing Institute was appointed as lead partner, tasked with serving as a coordination point between DSIT and the Hub Partners. The Alan Turing Institute also brought to the partnership its solid research track record on AI applications and their implications for society. The British Standards Institution contributed through its leadership in national standards development and in-depth knowledge of standardisation processes, and the National Physical Laboratory provided its unique expertise and leadership –as the UK’s National Measurement Institute and a National Laboratory for Science, Innovation and Technology– in measurement standards and approaches to measuring confidence in AI. Following the creation of the Hub, DSIT continued to play a key role in providing strategic direction, connecting the Hub with government policy and facilitating international engagement. DSIT provided approximately £1,3 million in seed funding for the Hub’s pilot phase, and Hub Partners provided substantive in-kind contributions.

**DSIT has expressed appreciation for the Hub’s current governance structure**, particularly its expert-led focus, multi stakeholder approach to community engagement, and independence from government. These features are perceived to have enabled the Hub’s reputation and credibility, both domestically and internationally. DSIT also describes the nature of the partnership –bringing together complementary expertise on AI, standards and metrology from the Alan Turing Institute, BSI and NPL respectively– as specially “unique and valuable.”

**Figure 9. The AI Standards Hub’s Governance Model During Pilot Phase**



The Hub Partners showed a **strong degree of alignment** with each other and with DSIT with regards to the Hub’s **goals and objectives**. They see the Hub as a tool to advance AI in the UK, ensuring that it is developed responsibly, that it is trustworthy, and that it has a positive impact on innovation and industry leadership.

These goals are to be pursued through a greater understanding of the standards landscape, which the Hub is devoted to bringing closer to an array of diverse stakeholders, including those, such as SMEs and civil society, that find it challenging to engage in traditional SDOs. The Hub aims to give these actors the tools they need to participate effectively in the AI standards ecosystem, in terms of knowledge, skills development and information sharing. Hub Partners aim to connect a larger number of interested stakeholders to standards development processes, including international standards making bodies, and facilitate the informed adoption of published standards.

The governance model adopted for the pilot phase enabled the successful delivery of activities and programmes. Box 5 below summarises some of the key accomplishments of the Hub during its pilot phase.<sup>12</sup>

### Box 5. Lines of work during the pilot

- **Overall Hub management.** Hub Partners managed activities of the Hub through the established governance model, with the Alan Turing Institute as the lead coordinator.
- **Impact tracking and evaluation.** Hub Partners contributed to the tracking of KPIs and completed 6 monitoring reports for DSIT.
- **Marketing and communications.** Hub Partners supported marketing and communication efforts. Some indicators as of April 2023 include the publication of 17 editions of the Hub’s email newsletter, and social media presence on LinkedIn (21 posts for a total of 18,525 impressions and 939 followers) and Twitter (109 tweets for a total of 23,463 profile visits, 666 followers, and 252,753 tweet impressions).
- **Delivery of launch event.** Hub Partners held a widely successful launch event on 12 October 2022, attracting a total of 1024 Participants (108 in person and 916 remote). The event demonstrated strong interest from the UK and international communities on the issue of AI standardisation.
- **Launch of the Hub’s platform and AI Standards Hub Observatory.** Hub Partners collaborated in the set up of the AI Standards Hub Observatory and maintenance of platforms and databases. During the pilot phase, the database grew to incorporate 346 standards.
- **Events for community development and outreach.** The Hub Partners conducted 3 webinars<sup>13</sup> and 6 workshops.<sup>14</sup> Some of these activities included innovative elements, such as BSI’s efforts to involve new stakeholders in providing comments to BSI’s ART 1 committee. In addition, 3 AI Standards Forum for UK Regulators sessions were held, engaging 71 individual Participants from a total of 25 regulatory bodies.
- **Knowledge and training.** Hub Partners collaborated in developing training resources

<sup>12</sup> Please, note that the table is intended to illustrate the result of collective efforts by all Hub Partners.

<sup>13</sup> These include “Towards transparent and explainable AI: The current standardisation landscape”; “European AI standardisation in the context of the EU AI Act: The work of CEN-CENELEC JTC21”; and “Enabling trustworthy AI: Key developments in international standardisation - AI Standards Hub”

<sup>14</sup> “Towards transparent and explainable AI: Workshop to inform ISO/IEC standards development”; “AI Standards Hub workshop on standardisation for intelligent and automated transport”; “Towards transparent and explainable AI: Online training session on key concept”; “Towards safe, secure, and resilient AI: Discovery workshop”; “Certification bodies workshop on 42001”; “Introduction to measurement and quantifying uncertainties for trustworthy AI.”

to support the development of skills and expertise needed to actively engage with AI standardisation, with 7 e-learning modules currently available on the Hub's website.

- **Research and analysis.** The Hub delivered 2 research reports on strategic questions around AI, as well as 16 blog posts covering both the Hub's activities and broader themes associated with AI standards development.
- **Domestic engagement.** DSIT led on ministerial engagement and promotion of the Hub within government.
- **International engagement.** Hub Partners engaged international organisations and governments, including the Association for Electrical, Electronic & Information Technologies (VDE) from Germany, the National Institute of Standards and Technology (NIST) from the US, the Standards Council of Canada (SCC), the Organisation for Economic Co-operation and Development (OECD), as well as other entities from Taiwan, Singapore, Germany.

The Hub Partners introduced a series of communications and governance mechanisms to enable adequate interaction between themselves. These included a joint coordination MS Teams channel, scheduled and ad hoc meetings, as well as regular email communication. Activities were structured and coordinated along four workstreams: research, communication, funding and overall management of the Hub. The **internal communication mechanisms** employed have been **highly effective and have enabled Hub Partners to build trust** and work towards shared goals.

Additionally, the three Hub Partners reported that their partnership has enabled them to engage and **network as the Hub more effectively at the international level**. Hub Partners appreciated DSIT's input in aligning the Hub initiatives with government policy.

Roles and responsibilities of the Hub Partners evolved throughout the implementation of the pilot phase. As reported in the questionnaire, "all partners gained a better understanding of the skills and knowledge they bring to the collaboration," enabling them to refine their specific contributions to the Hub. This greater familiarity among the Hub Partners is expected to inform post pilot planning.

Hub Partners and DSIT identified the **long-term financial sustainability** of the Hub as an area of common concern during the pilot phase. The Hub Partners reported that the six-month time horizon established for the pilot implementation and uncertainty about its future financial sustainability of the Hub limited their ability to set long-term goals and action plans. DSIT reported working proactively with Hub Partners to explore ways to strengthen financial sustainability, and transfer ownership to the Hub Partners.

### The Role of the DSIT in the the Eyes of Hub Partners

The three Hub Partners evaluated **DSIT's involvement in the pilot very positively**, crediting it for supporting, promoting and steering the Hub. Hub Partners recognised its crucial role in the launch of the pilot itself, informing the Hub's strategy and priorities, forming the partnership itself and providing seed funding. In addition, DSIT has proven instrumental in promoting the

Hub amongst other public bodies, contributing to the Hub's recognition as an legitimate, commercially neutral initiative, and building relationships with national and international stakeholders.

In the future, all three Hub Partners see important value in DSIT's **continued involvement with the Hub**. Tentative roles envisioned by the Hub Partners include: facilitating connections and access to opportunities that expand the reach of the Hub; supporting enhanced industry participation; and continuing to promote the work of the Hub with other government departments that may collaborate with and take advantage of the work of Hub.

Given DSIT's role in setting up and providing seed funding to the pilot, the Hub Partners reported interest in seeing a continued contribution from DSIT to the Hub's financial sustainability. **DSIT reported encouraging Hub Partners to devise a sustainability model for the Hub** centred around funding diversification and full partner ownership of the Hub. A diverse funding base would, in the opinion of DSIT, provide legitimacy through multi stakeholder involvement, as well as alleviating pressures on public funding during challenging economic conditions.

Lastly, Hub Partners have also highlighted a few areas for improvement. While recognising that any addition to the Hub's activities may have financial and resource implications, the authors note these suggestions for completeness:

- **Strategic planning.** Refining strategic direction and planning processes, including the development of more precise performance indicators. This item is discussed in greater detail in section 4.4 below ([Monitoring Processes](#)).
- **Evolving the governance model.** This may include incorporating "structured governance oversight mechanisms" (a suggestion from one Interviewee), to inform strategic decision-making processes and measure its success.
- **Financial sustainability.** Hub Partners and DSIT saw a need to advance discussions on a sustainable long-term funding model for the Hub, defining resourcing and funding after the pilot phase and developing a robust business and sustainability plan. From DSIT's perspective, such long-term solutions should be centred on funding diversification and avoid reliance on government support.
- **Better coordination in scheduling of public-facing activities.** In connection to activity planning, Hub Partners have highlighted the need for improved coordination on scheduling for events.
- **Flexible roles to respond to community needs.** The Hub Partners expressed the need to ensure the Hub remains flexible enough to be responsive to the needs of UK stakeholders developing, deploying, or adopting AI. Hub Partners reported being particularly interested in the results of the present evaluation of the pilot phase to distil lessons learned and inform activities going forward.



### 4.3. Stakeholder outreach by Hub Partners

Stakeholder outreach by Hub Partners is understood to be a central element of the implementation of the Hub, and an area for assessment to understand the overall effectiveness of the pilot, as well as the ability of Hub Partners to coordinate external engagement.

Hub Partners assess their joint efforts to coordinate **stakeholder outreach as widely positive**. Activities such as the pre-launch stakeholder consultations, the call for expression of interest, the collaborations with relevant sector organisations, and the coordination of the regulators forum have all been successes. DSIT found that the Hub’s multi stakeholder composition has enabled a greater degree of flexibility and made the Hub better equipped to conduct stakeholder outreach.

The preliminary results of this pilot phase show a **clear need among UK stakeholders**, especially from SMEs, civil society and underrepresented regions of the UK, for a collaborative platform of the characteristics of the AI Standards Hub. Moving forward, the Hub should continue interfacing with its existing community and strive to deliver services that address the needs of its immediate stakeholders. From a public sector perspective, DSIT reported an increase in cross-Whitehall traction on AI standards attributable to the work of the AI Standards Hub.

**International stakeholder engagement has also been successful**. DSIT notes a significant interest in government to government, international collaboration involving the Hub. The Hub Partners appeared receptive to this and interested in deepening international ties for mutual improvement.

During the pilot phase, Hub Partners also identified a number of challenges and suggested a series of potential solutions. These include:

Challenge	Proposed solution
Balancing the needs and expectations of diverse stakeholders	Targeted content and discussions
Limited involvement of civil society	Capacity building initiatives to enable civil society to contribute
Communications and PR management	Scaling up of the communications operation through a dedicated team.
Uneven regional representation within the UK (more interest around London)	Targeted outreach beyond London, events held in multiple cities across the UK, funding to reimburse travel
Difficulties moving from discussions to actual collaborations	More funding to support community projects

The question of **diversity and inclusion in standards** was identified by DSIT and one of the Hub Partners as especially crucial for the work of the Hub. On this front, it was suggested that the Hub could openly commit to a number of core diversity values: the active inclusion of underrepresented stakeholders, conducting comprehensive landscape monitoring; the incorporation of ethical considerations; and the adoption of interdisciplinary approaches and commercial neutrality.

Hub Participants also provided feedback on the Hub's structure and outreach activities. Concerning structure, one Interviewee and one Hub Partner reported challenges with the signing of legal agreements to formalise partnerships which, due to the complex **legal structure** of the Hub, has been slow.<sup>15</sup> Participants also indicated the need to expand the current collaboration network and boost existing resources. In connection to outreach activities, Participants have noted that the Hub's activities would benefit from a forward looking approach, **informing Participants of the Hub's plans for future activities**. This aligns with the need identified by Hub Partners to do further strategic planning and introducing early scheduling of public-facing activities.

#### 4.4. Monitoring processes

The goal of the monitoring process has been to regularly assess the performance of the Hub pilot, providing an opportunity for DSIT and Hub Partners to collaborate on the Hub's direction and impact. Hub Partners regularly reported to DSIT on the Hub during the pilot phase. The Alan Turing Institute coordinated monitoring inputs from all three Hub Partners for reporting purposes. DSIT regularly assessed the progress of the Hub Partners against agreed pilot outcomes. Monitoring is understood to be a central element of the pilot's implementation process and, as such, it is evaluated here.

As part of the present pilot evaluation, the Hub Partners have provided valuable feedback on the monitoring process. One of the Hub Partners reported the need to **rework the existing structure of reporting instruments**, as it was in parts too generic and in parts too detailed. There appeared to have been challenges aligning the Hub Partners' internal accounting procedures with the government financial reporting requirements. For example, two Hub Partners reported having to submit budgetary estimates instead of actual expenses due to short turnaround on deadlines. **Increasing collaboration between the Hub Partners and DSIT in the design and testing of reporting templates** emerged as an area for potential improvement. This could entail having direct interaction between DSIT and the entire group of Hub Partners, instead of coordinating solely through the Alan Turing Institute in matters related to monitoring. Hub Partners and DSIT could also work together in exploring ways to address reporting requirements and improve financial reporting and forecasting.

---

<sup>15</sup> The Interviewee noted they were happy with the partnership but the Hub has 'been slow in legal terms,' meaning the signing of legal agreements has taken longer than expected.

Overall, the monitoring and reporting processes were effective. DSIT found that Hub Partners engaged positively and efficiently with the process. For the future, DSIT would like to see Hub Partners implement solutions to address the risk of underspending.

Hub Partners have demonstrated interest in an extended monitoring and evaluation setup, allowing them to concretely measure the impact of their work (e.g., “ an increase of UK participation and standards development by x%,” and other quantitative impact measures). Hub Participants reported being open to and interested in providing continuous feedback on the Hub’s work, which could enable the Hub Partners to perform more targeted impact assessments in the medium term.

## 5. Recommendations

As an external evaluator for the Hub's pilot phase, OXIL has been given access to a variety of sources, including survey data, in-depth interviews with Hub Participants, and background documentation, as well as the opportunity to directly query Hub Partners and DSIT. Below are recommendations that OXIL has developed based on the responses of Participants, Hub Partners and DSIT.

**Prioritising Planning for Financial Sustainability.** The question of future financial sustainability of the Hub is a shared concern that has featured prominently in the responses from Hub Partners and DSIT. The report highlights diverging views as to how this financial sustainability may be achieved. The authors view it as an immediate priority of the Hub Partners, including DSIT, to work on a sustainability plan and funding diversification to enable the continued existence and the long term planning of the Hub. Authors recommend taking the next 6 months to devise a plan for the next 2-3 years of the Hub, and explore alternative sources of revenue to reduce the reliance on government funding. This may entail contracting specialist support on fund development to have dedicated resources to conduct fundraising and execute a business plan. Devising a business plan should consider how proposed sources of revenue may affect the Hub's strategy, for instance, creating a revenue stream around the users of the Hub may require the Hub to adjust its strategy to best address the needs and demands of this community. DSIT, as seed funder of the initiative, should work with the Hub Partners and devise an adequate exit strategy, should it decide to sunset funds in the medium term. Alternatively, DSIT could consider becoming a formal partner of the Hub and contribute partial funding to the initiative; this would simultaneously enrich the Hub's multi stakeholder composition.

**Supporting Continued Community Development.** Community is the cornerstone of the Hub. Both Hub Participants and Hub Partners agree on the importance of continuing the expansion of and deepening the community that has consolidated around the Hub, and believe this will positively contribute to advancing the Hub's overall goals. The authors encourage Hub Partners to implement suggestions related to community development. These are understood to fall within two camps. First, enhancing the Hub's overall multi stakeholder nature and diversity through continued stakeholder engagement to encourage the participation of underrepresented groups and regions from the UK. Second, enhancing existing opportunities for collaboration, such as enabling new forms of information exchange and networking among Hub Participants themselves.

**Balancing Stakeholder Responsiveness with Strategic Prioritisation.** The report shows the Hub's community has welcomed initiatives to date very positively, and there are opportunities for expanding the work to best address specific stakeholder needs. While the Hub Partners broadly agree these represent clear opportunities to grow and enhance the influence of the Hub, the feedback is broad and varied and will require strategic prioritisation going forward. There are divergent views on how that prioritisation should take place, and how much of it should be driven by the community, Hub Partners or government. This should be a matter for careful

consideration for Hub Partners going forward. Three key areas for work emerged in the data: providing further resources for non-specialised audiences; developing sector- or domain-specific interventions, such as industry verticals; and providing practical, applied guidance for domestic implementation of standards.

**Devising a Clearer, Actionable Monitoring and Evaluation Framework.** Monitoring has been assessed as a satisfactory baseline by DSIT and Hub Partners, but flagged as an area in need of further refinement. The authors recommend that DSIT and the Hub Partners devise a lighter evaluation model based on key performance indicators, accompanied by mechanisms to regularly touch base with the community for feedback on priorities and needs. Current KPIs should be expanded to include measurements on aspects such as research as well as domestic and international engagement. KPIs should also incorporate targets; results from the Hub's pilot phase can serve as a baseline to assist in the establishment of those targets. Authors also encourage DSIT and Hub Partners to conduct regular, more targeted monitoring, e.g. focusing on specific themes, programs, or stakeholder categories. This pragmatic approach to evaluation will better enable the Hub Partners to draw actionable feedback from the monitoring and assessment process to inform their planning. It would also enable course correction closer to real time should the need arise.

**Refining the International Outreach Strategy.** While the pilot's international influence has been considerable for such a short period of work, international outreach is identified as an area for closer refinement in strategy. Hub Participants report understanding the Hub's aspirations in this regard, but have a less clear understanding of their role in this engagement, particularly whether they should dedicate resources for direct participation in international standardisation. DSIT and Hub Partners would benefit from more clearly communicating to the community their international engagement strategy, providing clarity for the roles of the Hub Partners and Participants, and which responsibilities fall within the exclusive remit of the government. DSIT could consider facilitating concrete collaborations between the Hub and the work of UK delegations across international SDOs.

## 6. Conclusion

Under the guidance and support of DSIT, the Hub Partners have delivered an extremely successful pilot for the AI Standards Hub. The work to date has paved the way for the Hub's continued contribution to the UK's vision for a pro-innovation AI governance system where standards contribute to generating trust in AI. Hub Partners, Hub Participants and DSIT report seeing multiple opportunities to enhance and deepen the work of the Hub. These span across all five dimensions of impact mapped under this report: awareness of AI standards, community development, training and knowledge sharing, and both international and domestic influence.

Next steps will require strategic prioritisation from DSIT and the Hub Partners to agree on areas towards which to expand the work of the Hub and principles for guiding decision-making on priorities. Collaborating to devise a sustainability plan for the Hub is also identified as a key priority for DSIT and Hub Partners going forward. This next stage of strategic and financial planning will require new conversations to align expectations and responsibilities across the partnership. Future planning will benefit from the more mature, trusted relationships forged among the Hub Partners, and be informed by the Hub Partners' greater understanding of the community developed throughout the pilot.

## 7. Appendices

### 7.1. Appendix 1. Survey

How would you identify the sort of organisation you belong to?

How did you first hear about the AI Standards Hub?

What was your understanding of digital technical Standards before engaging with the AI Standards Hub? - Before you found the AI Standards Hub

Were you already aware of standards being developed specifically for AI by International Standards Development Organisations before you heard about the Hub?

What most interested you in engaging with the AI Standards Hub?

To what extent did the information, resources or opportunities you found meet your expectations?

Which features did you find most useful? What parts were of note, or were you most impressed by?

Was there anything that could be improved or didn't appeal to the needs of your organisation?

Do you feel the AI Standards Hub is a good place to collaborate with other stakeholders, and for sharing knowledge on AI technical standards?

- Please feel free to elaborate:

Now, the following questions are numbered out of ten: 1 being "strongly disagree," and 10 being "strongly agree." These pertain to your experience of the AI Standards Hub and your perception of impact upon the UK AI Community (anyone who researches, develops or is actively interested in AI.) To what extent do you concur with the following statements:

- I considered myself engaged and well-informed about AI standards before encountering the AI Standards Hub.
- I considered myself engaged with the standardisation process before encountering the AI Standards Hub.
- The AI Standards Hub is helping to engage the UK AI community on the topic of AI standards.
- I can easily identify standards that are relevant to me, through the AI Standards Hub.
- The AI Standards Hub is helping the UK AI community in influencing and engaging in the development of AI standards effectively.

- The AI Standards Hub is helping the UK AI community to have an internationally recognised voice that informs the AI-related standards development processes.
- The AI Standards Hub is helping the UK AI community to have an internationally recognised voice that informs market behaviour.
- The AI Standards Hub is helping the UK AI community to have an internationally recognised voice that informs policy decisions.

And finally,

- Would you like to be contacted to participate in exciting research on AI Standardisation and Digital Policy in Central Government? This will include, in-depth interviews and focus groups? Your details will NOT be shared with any third parties
- Would you like to be contacted to participate in exciting research on AI Standardisation and Digital Policy in Central Government? This will include, in-depth interviews and focus groups? Your details will NOT be shared with any third parties.

And finally some questions from Alan Turing Institute directly on what topics you might like to see in future.

What level of priority would you assign to the following types of possible AI Standards Hub activities going forward?

- Activities dedicated to horizontal (cross-sectoral) questions in AI standardisation and governance
- Activities dedicated to vertical (sector- or use case-specific) questions in AI standardisation and governance
- Activities dedicated to the relationship between AI standardisation and the international regulatory landscape
- Community events that facilitate providing input into the development of standards
- Community events that identify standardisation/governance gaps and best practices to address such gaps
- In-person networking opportunities
- In-person training events
- Development of additional e-learning materials
- Work to advance the development of testbeds for AI systems
- Activities to enable trialling of and sharing experiences about the use of individual standards



Are there any specific vertical areas (sectors in which AI is used or particular AI use cases) that you would like to see addressed by AI Standards Hub activities?

How much need do you see for research in the following areas?

- Research that analyses the AI standards landscape and provides AI standardisation roadmap recommendations
- Research on the interplay between horizontal and vertical standards
- Research on the relationship between standards, regulation, and other governance mechanisms
- Research on AI governance and regulatory developments outside the UK
- Research on relationship between AI standards and the wider AI assurance ecosystem
- Research on solutions to AI challenges that can inform the development of effective standards for AI

Is there anything else you would like to share to shape future AI Standards Hub activities?

Are there any other questions you'd wished we had asked? What were they, and how might you have responded to them?

**7.2. Appendix 2. In-depth interviews**

Section	Questions
<b>Context Questions</b>	<ol style="list-style-type: none"> <li>1. [Brief intro based on research into organisation]. Can you tell me more about your organisation and what it does?</li> <li>2. Can you tell me about your role within the organisation?</li> <li>3. What were you hoping to get out of the AI Standards Hub?</li> <li>4. How, if at all, did the Hub meet your expectations?</li> </ol>
<b>Awareness Questions</b>	<ol style="list-style-type: none"> <li>1. How, if at all, has the AI Standards Hub helped increase your general awareness of AI Standards?                         <ol style="list-style-type: none"> <li>a. What more could the AI Standards Hub be doing to increase awareness of AI standards?</li> </ol> </li> </ol>
<b>Adoption Questions</b>	<ol style="list-style-type: none"> <li>1. How, if at all, has the AI Standards Hub improved general understanding of the processes for adopting AI standards?</li> </ol>
<b>Contribution Questions</b>	<ol style="list-style-type: none"> <li>1. Do you think the development of AI standards at SDOs will benefit from the AI Standards Hub initiative?                         <ol style="list-style-type: none"> <li>a. Do you think the AI Standards Hub could be doing more to</li> </ol> </li> </ol>

	<p>encourage and enable contribution to the development of standards?</p> <p>2. How, if at all, in the last six months has the AI Standards Hub promoted the UK as a key player on AI standards in an international setting?</p>
<b>Collaboration Questions</b>	<p>1. How, if at all, has your organisation been able to collaborate with other stakeholders of the AI Standards Hub?</p> <p>a. How beneficial do you think it would be to have a feature linking up AI Standards Hub members? What format do you think this should take?</p>
<b>Process questions</b>	<p>1. What do you think the AI Standards Hub should be doing a) more of, and b) less of?</p> <p>a. Which features of the AI Standards Hub have you found particularly helpful and are there any that you haven't found particularly helpful?</p>

### 7.3. Appendix 3. Partners' questionnaire

On behalf of which stakeholder group are you responding?

The set up of the Hub and collaboration among the three Hub Partners and DSIT

1. How would your organisation define the goal of the AI Standards Hub?
2. What were the primary lines of work during the pilot phase of the AI Standards Hub? What activities did your organisation lead on?
3. What coordination mechanisms did you rely on to articulate with the other two AI Standard Hub Partners?
4. What aspects of the partner collaboration went well? What could be improved going forward?
5. What are your reflections on the ongoing monitoring processes of the AI Standards Hub?

Articulation with AI Standards Hub Stakeholders

6. How would you describe the experience of conducting stakeholder outreach and developing a community around the AI Standards Hub? What challenges and opportunities has your organisation identified?
7. What has been the role of DSIT and the UK government in relation to the Hub? How do you foresee their role going forward?

### Impact to date and going forward

8. What do you consider have been the successes of the AI Standards Hub in its first six months of operation?
9. How, if at all, has the AI Standards Hub advanced the engagement of the UK in international standards setting? With respect to international engagement on AI
10. How, if at all, has the AI Standards Observatory influenced policy-making within the UK?
11. What could be improved to generate impact and deliver on outputs outlined in the theory of change (e.g. observatory, stakeholder forum, increased UK stakeholder participation, etc)?

### The future of the AI Standards Hub

12. What does your organisation consider as immediate next steps for the work of the AI Standards Hub? Are there specific areas that require new or additional work?
13. What is your organisation's long-term vision for the role of AI Standards Hub? Think of a five-year timeframe.