Working Session 2

Accelerating AI-Readiness

20 October 2025 at Millbank House, House of Lords

> As we gather to advance the data sharing agenda, it's clear that meaningful innovation comes not just from technical breakthroughs, but from united effort across sectors. Only by working together can we unlock the full promise of AI for the benefit of all.
>
> Merlin Hay, The Earl of Erroll

The Case for Investment in AI-Ready Data Infrastructure in the UK: Accelerating AI-Readiness

Executive summary

- The US-UK Technology Prosperity Deal and recent state visit have catalysed a new era of AI cooperation, with £150 billion in inward investment including NVIDIA's £2 billion commitment to the UK's AI ecosystem.
- The UK's AI Opportunities Action Plan and Industrial Strategy set a clear ambition: to be an "AI maker, not an AI taker", leading in AI-driven innovation, data-enabled public services, and prosperity-focused growth.
- Delivering on this ambition requires programmatic action and investment across public and private sectors, underpinned by robust, interoperable, and trusted data infrastructure.
- Legislative reforms, including the Data Use and Access Act, Smart Data Scheme, and National Data Library, are creating a credible operating environment for AI innovation.
- This roundtable brought together leaders from government, industry, academia, and infrastructure to define the challenges and interventions needed for AI-ready data infrastructure.
- Key outcomes include a call for cross-sector governance, accelerated standards, investment in public data assets, and a focus on organisational and workforce transformation.
- The report sets out actionable recommendations to bridge the gap between policy intent and market delivery, ensuring the UK's AI ambitions translate into shared prosperity and sustainable growth.

1. Context: A new era for UK AI

The recent US state visit and signing of the Technology Prosperity Deal Memorandum of Understanding marked a step-change in UK-US cooperation on frontier technologies. The deal brings a record £150 billion in inward investment, including NVIDIA's £2 billion to catalyse the UK's AI start-up ecosystem, alongside major commitments from Microsoft, Google, and others. This investment will expand advanced AI infrastructure, create new jobs, and empower the UK to compete globally.

The UK's AI Opportunities Action Plan and Industrial Strategy articulate a vision for the UK to lead as an "AI maker, not an AI taker". The ambition is to harness AI for economic growth, improved public services, and new opportunities for citizens. However, realising this vision requires more than capital: it demands programmatic action, cross-sector collaboration, and investment in the data infrastructure that underpins AI innovation.

2. Why AI-ready data infrastructure matters

AI-ready data infrastructure is the foundation for scalable, trustworthy, and impactful AI. It is defined by three core attributes:

- **System fit:** Integration with existing, often fragmented and legacy, real-world systems.
- **License to operate:** Compliance with legal and regulatory frameworks, enabling safe and responsible data use.
- **Market trust:** Broad willingness to adopt AI as business-as-usual, underpinned by ongoing investment in data quality, interoperability, and transparency.

Without robust data infrastructure, AI projects stall, value is lost, and the UK risks falling behind global competitors.

3. Legislative and policy foundations

Recent legislative reforms are reshaping the UK's data landscape:

- **Data use and access act (2025):** Modernises data protection, enables smart data schemes, and establishes frameworks for digital identity and data sharing.

- **Data sharing infrastructure initiatives:** Targeted interventions to proactively promote and accelerate the socio-technical infrastructure necessary to deliver trusted cross-sectoral data sharing providing AI with access to proprietary and hard to reach data.
- **Smart data scheme:** Empowers consumers and businesses to hare data securely with authorised third parties, unlocking innovation across sectors.
- **National data library:** Aims to make public data more accessible for research.

These initiatives create a credible operating environment for AI, but their success depends on effective implementation, governance, and market engagement.

4. Roundtable insights: challenges and opportunities

A. Strategic governance and system alignment

> **"We need to innovate and agree on standards for data interoperability, but we still need a layer of governance to enforce what the community needs.**
>
> Sarah Hayes

Developing joined-up systems for AI and data innovation presents complex challenges across governance, regulation, technology, economics and culture. A central issue is the lack of cross-sector governance: there is a clear need for coordinated outcome-focused leadership that brings together regulators, public infrastructure leaders and industry to oversee data and AI initiatives and foster a healthy ecosystem.

Participants noted the urgency of integrating AI adoption with data sharing and infrastructure planning and highlighted the need for better coordination across government departments. While the UK's Industrial Strategy and data chapter provide a mandate for change, implementation is lagging due to siloed working and lack of strategic alignment.

B. Regulation, funding and the role of business

> **“We must understand what information we are sharing and why, to ensure the ‘need to know’ access and also its conditions around its sharing.**
>
> Jonathan Eyre

A common theme throughout the roundtable was the evolving relationship between business and regulation. Participants discussed the importance of sustainable funding for regulators, suggesting that businesses benefiting from new data-driven markets should contribute to regulatory oversight. There was consensus that businesses must play a proactive role in educating the public and stakeholders about data and AI –demystifying complex technologies, building trust and informing regulatory approaches. The group highlighted the need for clear incentives and accountability mechanisms to ensure responsible innovation. It was noted that demonstrating clear value is often the catalyst for unlocking investment in data and AI initiatives, with participants emphasising the importance of aligning incentives and addressing gaps in current arrangements to unlock greater value. The role of data intermediaries in empowering individuals and organisations to manage and exchange data was highlighted, with the government seeking to remove barriers and support the growth of this industry.

The discussion further underscored the importance of aligning incentives through risk and benefit sharing models, which could encourage more organisations to participate in data sharing initiatives. Past examples, such as the telecoms sector, demonstrated how industry-funded regulators and mandated education campaigns can support market transformation.

While building trust for interoperability is often resource-intensive, participants noted that unlocking value between companies can be relatively straightforward once foundational trust mechanisms are in place.

C. Data infrastructure: technical and legal foundations for AI

> **“Tackling challenges related to interoperability and varying digital maturity informs the measure of what joined-up means.**
>
> Amit Bhave

Technological interoperability remains elusive, with no shared definition of what constitutes a joined-up system. Many initiatives continue to run in parallel without coordination, leaving organisations without the regulatory ‘air cover’ needed to deploy AI safely and confidently. The roundtable explored the technical and legal complexities of data sharing for AI, noting that different use cases – such as training models, fine-tuning or safety testing – require tailored data types and legal frameworks.

Participants discussed the development of data exchanges and marketplaces, including the Creative Content Exchange, as mechanisms to facilitate secure, value-driven data sharing between content owners and AI developers. These platforms are seen as vital to supporting a healthy data market in the UK.

Current data licences are often inadequate, particularly with the rise of agentic AI and synthetic data. The UK’s success with AI depends on access to high-quality, well-licensed data. Yet, existing licensing models frequently fail to account for the complexities of modern AI, underscoring the need for tailored data sharing models and technical infrastructure. The importance of standardised approaches and interoperability was repeatedly emphasised, with reference to ongoing work by the Open Data Institute and international bodies.

The roundtable also highlighted the value in a consistent data valuation framework for the public sector, recognising data as an economic, financial, and social asset, providing an effective starting point for the articulation of private sector data as an asset. Participants stressed the importance of modernising licensing options beyond the Open Government Licence to better reflect current technological realities and enable more flexible, value-driven data sharing.

Finally, the expansion of smart data schemes, supported by £36 million in funding, was discussed as a way to enable secure, consented data sharing across multiple sectors, driving both innovation and consumer benefit.

D. Organisational transformation and workforce readiness

> **“The advent of AI has absolutely increased the visibility and importance of data at board level.**
>
> Natasha Good

The rise of AI is driving the creation of new organisational roles (e.g. Chief Data Officer, Chief AI Officer) and expanding the remit of existing ones, particularly in HR and data governance. Data and HR leaders are seen as increasingly pivotal in managing the workforce transition brought about by AI and automation, requiring leaders to navigate changes in skills, culture and accountability.

However, cultural and organisational barriers persist, including fear of deploying AI, resistance to change and limited mechanisms for sharing data and learning from failure. The roundtable highlighted that successful organisations are those that invest in upskilling, foster cross-functional collaboration and embrace a culture of experimentation and transparency.

E. Public infrastructure and standards for innovation

> **“There is a huge amount of work that’s been done on building trust and enabling interoperability for data sharing, but there remains a great deal to be done on generating and sharing value from data.**
>
> Ben Ramsden

Robust public infrastructure is essential for a healthy data ecosystem. This includes public benchmarks, evaluation protocols and registers of best practice – resources that underpin trust, transparency, and continuous improvement. However, commercial incentives to develop these assets are limited, making multi-stakeholder collaboration vital. To ensure credibility and adoption, a governance layer comprising voices from government, industry, academia and civil society is required to enforce community-agreed standards and ensure responsible innovation.

The government's commitment of up to £12 million for cross-sectoral data sharing infrastructure initiatives was noted, particularly targeting the eight industrial strategy sectors. The National Data Library, supported by a £100 million award, was also highlighted as a major initiative to enhance public sector data capability and capacity, further supporting the UK's data-driven growth ambitions.

Participants distinguished between data infrastructure and data sharing infrastructure, noting that the latter should be treated as a public asset enabling secure and scalable data exchange between organisations. The roundtable also discussed the challenge of aligning economic value across sectors. Unlocking value between companies requires leadership and compelling business cases to justify investment in shared data infrastructure.

F. Sectoral challenges and the need for regulatory 'air cover'

> **"We will not decarbonise our energy system without more effective data sharing. It simply won't happen.**
>
> Izzy Woolgar

The energy sector was cited as a case study in the challenges of deploying AI in high-stakes environments. Despite the transformative potential of data-driven innovation, a culture of risk aversion and regulatory uncertainty often slows adoption. The concept of 'air cover' – regulatory support and clear accountability – was discussed as essential for enabling innovation in critical infrastructure. Without it, even the most promising AI tools may remain unused. Regulators must provide not just rules, but reassurance and guidance to help organisations innovate with confidence.

Flexibility in infrastructure design was also emphasised, again noting the energy sector, where emerging sources of energy require adaptable systems capable of managing dynamic inputs.

Participants highlighted that fear and uncertainty around accountability remain significant barriers to deploying AI in critical environments, with concerns about responsibility if things go wrong.

G. Government strategy and cross-departmental coordination

> **“If the UK wants to make AI, rather than take AI, access to data and data sharing is absolutely paramount.**
>
> Elena Simperl

Finally, the roundtable turned to the role of government in shaping the future of data and AI policy. While the UK’s Industrial Strategy provides a strong mandate, implementation is often hampered by siloed working and lack of strategic alignment. There is an urgency to integrate AI adoption with data sharing and infrastructure planning but ‘the cogs are not yet in motion.’ Participants noted the need for better coordination across government departments, possibly via a structural committee with oversight of data and AI initiatives.

Ongoing stakeholder engagement was identified as a key mechanism to maintain momentum and ensure policy remains grounded in real-world needs. The group advocated for cross-departmental committees or task forces with the authority to drive alignment and oversee delivery. Only through sustained, collaborative effort can the UK be an ‘AI maker’.

Recommendations and next steps

1. Governance and strategic oversight

To address fragmented governance and regulatory uncertainty, the roundtable recommended the creation of a cross-sector orchestration body with representation from government, industry and academia. This body would oversee data and AI initiatives, foster a healthy ecosystem and ensure strategic alignment across sectors.

2. Standards and regulatory clarity

Accelerate the development and adoption of standardised approaches for data sharing that are AI-ready. Establish a governance layer, including exemplar licenses, to enforce these approaches, provide regulatory clarity and avoid fragmentation, and support responsible innovation.

3. Infrastructure and public assets

Invest in public infrastructure such as benchmarks, evaluation protocols and registers of best practice, recognising sectoral nuances and regulatory environment. These assets are essential for trust, transparency and continuous improvement, and require multi-stakeholder collaboration to ensure credibility and adoption.

4. Data valuation framework and skills development

Support organisational change by enabling enterprises to recognise data as an economic, financial and social asset. Expand smart data schemes and support the growth of data intermediaries to encourage businesses to invest in new roles and skills to manage AI's impact. This includes fostering cross-functional collaboration, upskilling the workforce and embedding AI responsibly into business operations.

5. Government coordination and stakeholder engagement

Enhance government coordination through cross-departmental committees or task forces. Maintain momentum via ongoing stakeholder engagement, including regular roundtables and reporting to ensure policy remains grounded in real-world needs and implementation stays on track.

The roundtable reaffirmed the UK's ambition to lead in data sharing and AI innovation. Achieving this vision will require coordinated action across standards, governance, infrastructure and skills. The group committed to ongoing collaboration on progress against these goals in the coming months.

Closing words and acknowledgements

The Case for Investment in AI-Ready Infrastructure in the UK: Accelerating AI-Readiness brought together leading voices from government, academia, industry, and research to explore further how the industry can progress.

> **“We’ve seen from our own experiences and in conversation here, that investment in AI-ready infrastructure is fundamental to the UK’s ambitions for growth, innovation and global leadership. High-quality, interoperable data infrastructure will underpin our ability to harness AI for economic and societal benefit, supporting everything from decarbonisation to regional development.**
>
> **These discussions have shown that true AI-readiness is about more than technology. It requires joined-up governance, modern legal frameworks and a culture of trust and collaboration. We must prioritise open standards, shared benchmarks and a governance layer that unites government, industry and academia in a common purpose.**
>
> **By committing to this agenda, we create the business case for AI-ready infrastructure to empower SMEs, foster local innovation and create the right conditions for responsible AI adoption across all sectors. This is about building the foundations for a resilient and future-proof digital economy**
>
> Justin Anderson

We would like to thank the roundtable chair, Lord Timothy Clement-Jones CBE, former Chair of the House of Lords Artificial Intelligence Select Committee and Co-Chair of the All-Party Parliamentary Group on Artificial Intelligence. We also extend our thanks to the participants who generously shared their insights, challenges and visions for an AI-ready infrastructure in the UK.

Resources

Data Sharing and Innovation Roundtable briefing note, August 2025
AI Opportunities Action Plan
Blueprint for Modern Digital Government
CReDo Climate Resilience Decision Optimiser
Creative Content Exchange
Data Intermediaries – Government Response
Data Use and Access Act
European Data Spaces
Geospatial Commission Framework Document
National Data Library
NESO's Energy Data Sharing Infrastructure (DSI)
NESO Virtual Energy System
Open Banking Roadmap
Open Government Licence (OGL)
Re-use of Public Sector Information Regulations 2015
Smart Data Roadmap
Resilience Action Plan (HTML) – GOV.UK
UK Infrastructure: A 10 Year Strategy
UK Modern Industrial Strategy and IS-8 Sector Plans

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Centre for Net Zero (Octopus Energy Group)
CMCL
Chrysalis Ecosystems
Connected Places Catapult
Department for Science, Innovation and Technology
DNV UK Ltd
Freshfields
King's College London
Open Data Institute
National Energy System Operator (NESO)
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