Working Session 4

National Data Governance and Value Exchange

26 January 2026 at Millbank House, House of Lords

> This roundtable brought together diverse leaders whose insights and experience shape a bold vision for trusted, joined-up data frameworks that truly serve society. Through open, honest conversation, we charted a path where collaboration, stewardship and innovation make public value from data a shared reality. The ideas and commitments in this room set the tone for national progress.
>
> Merlin Hay, The Earl of Erroll

Executive summary

The United Kingdom has a strong opportunity to lead in the meaningful use of artificial intelligence (AI) to grow the economy, create jobs and improve daily life. Sectors such as water, energy, defence and finance are already showing what is possible – and with more coordinated national governance, shared best practice and a clear strategic vision, this progress can scale further and deliver wider impact.

This roundtable explored how both public and private sectors can unlock value, accelerate AI adoption, reduce friction for SMEs, support the scaling of high potential enterprises and lay the foundations for a UK-wide Digital and Data Infrastructure.

- The UK's Modern Industrial Strategy depends increasingly on AI-ready data and cross-sector data sharing, yet the operating reality remains federated, uneven and risk-averse. Participants emphasised that value is lost in silos and duplicated builds, while incentives to share – especially for private holders of potentially high-value data – are often weak or asymmetric.
- The discussion highlighted scenarios in which some level of national data governance framework is operating (with participation by a range of different players who are prepared to pool relevant data) – to clarify roles, liabilities and access rights; embed security and minimisation by design; and support place-based, cross-sector use cases where public value is highest. Sector-specific and place-based examples of data infrastructure illustrated both the art of the possible and the realities of commercial sensitivity, market structure and regulatory levers.
- A recurring theme was 'motivation and reciprocity': data holders will share when benefits are immediate, tangible and fairly distributed – for example, through reduced friction in permitting and planning, faster time-to-work or regulated expectations, cost recovery and upside.

- An agreed need for organisational (and cultural) change within enterprises both to interrogate and manage their data and to identify champions and leaders who can message clearly the benefits of data sharing in order to drive adoption. In this context, the room was broadly in favour of an effort similar to Cyber Essentials to encourage enterprises to manage their data and start to drive this cultural change.
- Key components of a national approach that supports growth, encourages market adoption and improves outcomes for individuals across the country include:
    - **Stewardship of national framework**
    - **Target technical architecture**
    - **Principles, best practices and norms** – a focus not on standards but on transferable and broad principles
    - **Credentials rather than compliance** – portable credentials for technologies, companies and innovators supporting trust
    - **Assurance** – supporting greater understanding of liabilities and informed risk vs reward decisions.

1. From isolated pilots to a governed, value-based data economy

Participants described a system rich in programmes but thin connective tissue: different procurement rules, divergent standards, inconsistent liabilities and cultural caution that rewards control over collaboration. The result is episodic innovation rather than cumulative capability.
A national approach must treat connection as infrastructure: shared frameworks that make access repeatable, proportionate and safe, pairing role-based access with clear purpose limitation and data minimisation.

2. Why connected spaces for accelerating innovation matter

Connected, governed environments reduce friction for SMEs and start-ups, let incumbents prototype safely and provide regulators with evidence to qualify technologies before deployment on critical assets. Participants warned that many datasets remain non-digital or poorly modelled; investment is needed to digitise and standardise, with appropriate tailoring of best practice and norms to domain operations rather than imposed universally.

> **“Society is shifting from data hoarding to building an abundance-based data culture.**
>
> George Johnston, Cambridge Institute for Sustainability Leadership
>
> **Many organisations’ data isn’t digitalised or accessible, making real-world data sharing difficult.**
>
> Toby Mills, Entopy

3. Roundtable insights: challenges and opportunities

A. Customer centricity, use cases and ‘place’ as a cross-sector wedge

Participants advocated an outside-in approach, starting from citizen, operator and buyer needs. Several argued for connected place-based initiatives (e.g. city regions) because they force cross-sector coordination – planning, utilities, mobility, resilience – where public value is clearest and benefits accrue quickly.

Participants also noted that connected testbeds should not be limited to technical demonstrations but should serve as environments for co-design where users, SMEs and end-customers are actively involved in shaping solutions. This approach not only de-risks innovation but also ensures that solutions are market-ready and have the buy-in of all relevant stakeholders.

One public sector view was that if you pick a place and a high-value issue, you will engage multiple big data owners by necessity, not hope.

B. Incentives, value proposition and economic case

Different sectors require different levers. In regulated monopolies (e.g. energy networks), obligations and price-control expectations can fund sharing. Elsewhere, procurement weighting, social value credits, innovation royalties or guaranteed returns may be needed. The group highlighted asymmetric risk – data providers shoulder liability while others monetise – arguing for transparent value frameworks and shared upside where appropriate (e.g. joint ventures).

> **“Data sharing problems are more about people than technology; socio-technical understanding comes first.**
>
> Stuart Weeks, MoD
>
> **Free markets work – where market forces exist. Where they don't, data leadership requires an enterprise-architecture-like discipline to govern our economic system.**
>
> Steven Steer, Zühlke

C. Governance, trust and ethics by design

Security, privacy and stewardship must be baked in, not bolted on. Examples from Stream (water) showed how industry-agreed publication standards plus joint risk assessments enable responsible release – open where possible, controlled where necessary. Participants supported tiered access, least-privilege, zero-trust patterns and clear liability chains to give councils and Chief Information Security Officers the required confidence.

> **“We convene the industry, agree what data should be published and how, and run joint and independent risk assessments – that’s what builds confidence to share.**
>
> Melissa Tallack, Northumbrian Water/Stream
>
> **Smart data enables secure, consent-driven sharing for more valuable services.**
>
> Priya Ramdas, Department for Business and Trade

D. Interoperability, standards and technical integration

Interoperability must be a first-order design constraint. The NUAR journey demonstrated the power of a neutral, internationally-recognised data model and community onboarding – balanced by proportionate controls for critical national infrastructure. Participants favoured federated architectures that permit local stewardship with national discoverability and formal qualification for technologies before Critical National Infrastructure deployment.

> **“Define a standard model, onboard the community and open additional use cases securely once the safety case is proven.**
>
> Colin Henderson, AtkinsRéalis
>
> **Legislation helps, but what really moved NUAR was convincing participants they’re better off sharing and anchoring that in an open standard.**
>
> Carsten Roensdorf, Ordnance Survey

E. Skills, operating models and assurance

Scaling requires delivery discipline as much as vision: guiding principles, target data architecture, roadmaps, and independent assurance of both promises and plans. Participants highlighted workforce upskilling, sector empathy and digitised self-service communications so stakeholders can track progress and learn without manual bottlenecks.

> **“We’re comfortable promising ‘what' we’ll do; less so ‘how’ it will be done. Assurance must validate ‘how’ delivery is conducted as much as ‘what’ outcomes are to be.**
>
> Steven Steer, Zühlke
>
> **Internal data sharing is hard; success happens when there's mutual interest.**
>
> Bill Wilson, NTT Data

F. Pragmatism on sensitivity, minimisation and synthetic data

Where commercial sensitivity or security posture makes sharing hard, start with minimised, purpose-bound views and immediate advantages (e.g. operational deconfliction, planning certainty). Synthetic data can amplify learning with a small seed of real data, but participants noted the need to qualify decision-grade use and avoid over-claiming.

> **"The safest way to share for some competitors is not to share at all – until there's a tangible advantage.**
>
> Toby Mills, Entopy
>
> **Synthetic data will matter, but we must be honest about where it is decision-worthy and where it isn't yet.**
>
> George Johnston, Cambridge Institute for Sustainability Leadership

4. Toward a national proposition: Federated, governed data access

Building on previous work on interoperable testbeds, participants envisaged a federated national fabric connecting sector programmes (e.g. utilities, energy, transport), place-based initiatives and mission-oriented projects (e.g. decarbonised kit-of-parts in construction, emergency response planning). The aim is repeatable patterns: standard contracts and licenses, role-based access controls, common logging and audit, shared evaluation and assurance assets and procurement hooks (e.g. 'Data Essentials' badges akin to Cyber Essentials) that raise the floor without stifling SMEs.

> **"We publish as much openly as possible, but sensitive data requires secure sharing arrangements.**
>
> Melissa Tallack, Northumbrian Water/Stream

Recommendations

1. Governance and strategic oversight

Create a cross-sector orchestration function (lightweight, delivery-oriented) to: publish guiding principles and a target data architecture; coordinate assurance; and align departmental, regulator and local priorities around place-based, public-value wedges.

2. Standards, licensing and regulatory clarity

Accelerate AI-ready, sector-agnostic data sharing approaches with exemplar model clauses and licenses, role-based access patterns and liability maps so legal, security and compliance teams can approve reuse consistently. Use regulatory levers where appropriate to fund obligations in monopoly sectors.

3. Shared public digital infrastructure

> **"One of the Growth Mission Challenges in the UKRI R&D Missions Accelerator Programme is to create a Creative Content Exchange to understand the value of digital cultural assets – so we can unlock funding for digitisation and wider data sharing.**
>
> Melissa Zanocco, UKRI

4. Invest in benchmarks, evaluation protocols, conformance suites, reference ontologies and registers of best practice. Prioritise digitisation where data remains off-platform and support federated discovery (catalogues/metadata) over central hoarding.

5. Incentives and value frameworks

Adopt a transparent value framework for projects: articulate the quid-pro-quo, quantify efficiency dividends (e.g. permitting time saved), consider innovation royalties or shared upside models (e.g. joint ventures) where appropriate and use procurement weighting to reward good data stewardship.

6. Skills, SMEs and market access

Fund hands-on upskilling within testbeds; publish self-service playbooks; and ensure tiered requirements so SMEs can participate (e.g. Data Essentials vs Data Essentials Plus).

7. Security, privacy and minimisation by design

Mandate least-privilege, zero-trust patterns; formalise purpose limitation and data minimisation; and expand controlled environments for sensitive cross-sector use (e.g. planning, emergency response). Qualify synthetic data for defined decision classes.

8. Assurance and delivery discipline

Stand up an independent assurance mechanism to test plans and promises (not only outcomes), publish open, machine-readable status to build trust, and require qualification before Critical National Infrastructure deployment.

Next steps

- Select two place-based, cross-sector wedges (e.g. planning and street-works coordination; heat and power flexibility) to pilot the governance, plus incentives model with measurable returns (time and cost to permission, safety incidents avoided, SME participation).
- Publish model artifacts (principles, licenses, liability map, assurance checklists) and adopt them across pilots; iterate openly with stakeholders including citizens.
- Create a digitisation fund targeted at high-leverage datasets (where non-digital formats block value) with standard publication profiles and federated cataloguing.
- Embed procurement hooks (Data Essentials/Plus) and report quarterly on benefits realisation to maintain momentum and public confidence.

We would like to thank the roundtable chair, Natasha Good, Corporate Partner at Freshfields LLP. We also extend our thanks to the participants who generously shared their insights, challenges and visions.

Participants at the roundtable

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Ministry of Defence
Northumbrian Water/Stream
NTT Data
Ordnance Survey
UKRI
Zühlke Group

Non-participatory observers

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