DARE UK (Data and Analytics Research Environments UK)

DARE UK Interest Group (IG) Charter Template

Name of proposed Interest Group: *Federated Research Community Group*

The WHY | Introduction, purpose and use cases

Trusted Research Environments (TREs) are secure locations in which data are safely available for researchers to analyse; however, it is difficult for researchers to perform analyses across multiple TREs, especially for cross-sector research. To meet this challenge, federation has emerged as a solution to enable independent organisations to collaborate through agreed-upon standards and protocols, while maintaining control over their own data, services, and platforms. However, variability amongst TRE implementations and analysis tools can prevent a federated approach to data access and research. To enable federated, cross-sector research, approaches are required that:

- are straightforward for independent systems to adopt,
- cater to a variety of system implementations, and
- operate using standards to facilitate safe access and use of data.

Designing these approaches to federated research are not only a technical challenge. Acceptance and adoption of this new way of working requires involvement from the public, industry, and the research communities to understand needs, requirements, and expectations.

The formation of the Federated Research Community Group will:

1. Drive collaboration on the safe use of sensitive, cross-sector data.
2. Promote engagement and shared understanding across the ecosystem and community.
3. Inform the needs and requirements for solutions that have utility, scalability, and flexibility.

These objectives uphold the DARE UK mission *to put the UK at the forefront of sensitive data research and innovation by assembling the tools, technologies and standards needed to streamline secure data linkage and use.* Where Table 1 demonstrates how the group's aims are well-aligned with DARE UK's objectives:

Table 1 Alignment of objectives between DARE UK and the Federated Research Community Group

DARE UK objectives	Federated Research Community Group objectives
We're championing the security and safe use of data	Drive collaboration on the safe use of sensitive, cross-sector data
We're maximising the UK's potential to improve lives through data	
We're creating the environment for better, more linked data research	Inform the needs and requirements for solutions that have utility, scalability, and flexibility
We're supporting a connected, UK-wide ecosystem of like-minded specialists	Promote engagement and shared understanding across the ecosystem and community

UK Research and Innovation

HDR UK
Health Data Research UK

ADR UK

Furthermore, there is significant work underway across the data research on developing models of federation, defining appropriate standards and implementing federated architecture/ products. Key groups include:

- The UK TRE Community Group who are the key community in facilitating broader discussions on adoption and implementation from an infrastructure perspective.
- The UK Synthetic Data Community Group provides an opportunity to leverage existing synthetic datasets and practices to understand the role synthetic data plays in cross-sector research.
- PEDRI, Public Advisory Groups (incl. DARE and HDR UK), and project PIE groups (e.g. TREvolution) are simultaneously providing channels to facilitate the collaboration and empowerment of the public to promote trust.

Table 2 Summary of existing communities to engage key stakeholder groups.

Stakeholders	Possible	Useful	Acceptable
Data organisations (incl. TREs)	UK TRE Community Group UK Synthetic Data Group	UK TRE Community Group UK Synthetic Data Group	UK TRE Community Group UK Synthetic Data Group
Public	Project PIE groups	Public Advisory Groups Project PIE groups	Public Advisory Groups PEDRI
Researchers			
Industry			

By reviewing the current state (see Table 2) of communities/ groups in the context of:

- Possible: What can we do?
- Useful: What will help?
- Acceptable: What should we do?

Table 2 highlights there is limited engagement with the public, researchers and industry on broader concepts and understanding of federated research. Borne from this gap, the Federated Research Community Group will engage these specific groups to:

- Involve and collaborate with the public to promote trust and transparency, ensuring federated research operates within social licence.
- Consult and involve with researchers on their needs and requirements to inform federated research development.
- Work with industry, recognising the potential of involvement and consultation as existing vendors and potential users of federated platforms/ products.

Engagement with the public, the research community, industry (for research and as vendors) will be key in promoting acceptance and adoption of federated research solutions that are possible, useful, and acceptable. To drive this, the Federated Research Community Group will align activities with appropriate use cases for cross-sector use of sensitive data, building on existing DARE UK work. Where the group will have the potential to drive the development of additional working groups focussed on cross-sector research.

The WHAT | Objectives and Outcomes

In addition to the alignment of objectives, Table 3 demonstrates how the group aligns with DARE UK's strategic themes, including those that are more technology focussed.

Table 3 Alignment of DARE UK strategic themes to the Federated Research Community Group

DARE UK strategic theme	Alignment with the Federated Research Community Group
Demonstrating trustworthiness	- Co-design of materials for the public, researchers, and industry, to describe and understand data use, storage, processing, and access processes in a federated research ecosystem. - Leadership of the group by public representative and inclusion of (P)PIE advocacy groups to ensure alignment with the PEDRI Good Practice Standards. - Active involvement of the community, where needs, expectations, and experiences will guide the group deliverables. - Inclusion of academic and research expertise in standards (incl. FAIR, 5 Safes), with members key contributors in the federated research ecosystem. - The group objectives align to DARE's objectives and mission, towards the safe use of sensitive data for research and innovations.
Researcher accreditation and access	Provide a platform for the public, researchers, and industry to openly discuss the user accreditation process and provide guidance on their in the context of the Five Safes; specifically safe people (access) and settings (accreditation).
Accreditation of research environments	- Define and understand approaches to federated research, including the process for the accreditation of trusted research environments. - Up-skilling of non-technical communities through guided sessions to reach a shared understanding of accreditation standards and technical terminology.
Data and discovery	- Collaboration across sectors to support the safe use of sensitive data, with a focus on improving the discoverability of datasets within federated research. - Engagement on solutions designed for broad utility, scalability, and flexibility, supporting efficient and ethical data discovery across diverse research domains.
Core federation services	Engaging across sectors to define and support shared services that enable the safe and effective use of sensitive data in a federated environment, ensuring these services are inclusive, transparent, and meet the needs of all users.
Capability and capacity	Development of resources to support literacy across the public, research, and industry communities. Championing this will ensure the group goes beyond informing, by educating communities will be informed participants, decision-makers, and advocates of federated research.
Funding and incentives	- Outputs and agendas will align with delivery of existing projects, to ensure that recommendations and findings are appropriately incorporated. - As a unique community between the public, research and industry, this group will leverage networks to identify further opportunities to collaborate on cross-sector use-cases.

This work will be complementary to DARE UK's existing objectives, outcomes and portfolio; where DARE channels (e.g. Slack, mailing lists) will be included in the dissemination and consultation of federated research outputs. Distinctly this group will provide value and benefits through:

- Leveraging expertise across relevant domains, to articulate what federated research means across different sectors.
- Involving researchers and industry to understand the requirements for analytical tools and services.

- Understanding how to articulate the value and benefits for federations to various groups in the community.
- Developing consumable materials that effectively communicate federated research concepts, technical and non-technical, to the public, industry and researchers.
- Upskilling and educating the public to be informed advocates on data research infrastructure and federated research concepts.
- Organising a platform for key stakeholder groups, across the spectrum of federated research, to present emerging innovations and challenges to receive feedback.

With the alignment between objectives and strategic themes, there are two phases to this group's activities. Table 4 describes the work packages and activities planned for this group, with planned commence and delivery periods listed. To emphasise co-design, the deliverable details and success criteria will be determined through the regular group meetings. This approach will produce outputs driven by the needs and requirements of the public, research community and industry.

Table 4 Deliverables for the Federated Research Community Group, where italicised deliverables indicate planned outputs.

Deliverables	Description	Planned commence	Planned delivery
Phase 1			
Co-design of resources suite	Co-design engaging and accessible resources to inform, educate and up-skill all communities on federated research. These resources will capture and articulate key concepts to support non-technical people in engaging discussions in federation. Importantly, public consultation through new and existing channels is essential in developing appropriate resources. Messaging and content of the materials will be based on the needs and recommendations of the communities.	November 2025	March 2026
Federated research resources suite	*Delivery of a resource suite that will describe the purpose, people, and processes of federated research. Resources that have been developed will be made available and disseminated through relevant channels (e.g. videos will be publicly hosted online, flyers available at conferences etc.)*	*November 2025*	*March 2026*
Voices pilot	Delivery of a pilot to upskill and educate a group of contributors (minimum six) on federated research. These pilots will provide participants with the necessary information to describe the value and benefit of federated research. This will support contributors to become advocates and voices of federated research within their communities. The pilot will have in-person and virtual delivery.	March 2026	June 2026
Phase 1 summary report	*Summary of findings from the development of resources suits, Voices pilot and regular meetings. The group will collect feedback from all community members, with lessons learnt and resources to be incorporated into Phase 2 of activities.*	*February 2026*	*June 2026*
Phase 2			

Solution Lab	Delivery of a workshop where the community will address emerging questions on federated research and potentially co-create solutions to address them. This workshop to holistically understand challenges and how federated research can meet them. The Solution Lab workshop will be delivered in-person, with limited options for virtual attendance.	June 2026	November 2026
Community Jury	Convening of a structured jury of participants to deliberate and advise on critical issues with federation and address specific technical or non-technical questions of federated research. This will provide a space for contributors to critically review and discuss any benefits, limitations, or value.	November 2026	February 2027
Phase 2 summary report	*Summary of findings from the Solution Lab, Community Jury, and regular meetings. Feedback will be gathered from all community members to identify lessons learnt.*	*October 2026*	*February 2027*
Closure report	*Summary of group delivery in relation to the objectives and outcomes. Included will be a review of effectiveness of PPIE, recommendations for future activities and identification of further grant opportunities.*	*February 2027*	*March 2027*

The HOW | Participation, collaboration, and mechanism

Figure 1 describes the communities that the Federated Research Community Group will complement in the DARE ecosystem, where cross-promotion between groups will support collaboration and grow the communities.

Figure 1 Proposed governance structure for Federated Research Community Group community engagement

More broadly, this group will be open invite to anyone that has interest in supporting the group objectives. Where existing networks from the core membership will be leveraged to target key stakeholder groups and promote participation.

Subject matter experts (SMEs)

Table 5 describes the specific capabilities of the academic and research SMEs included in the core membership. This group will leverage existing capabilities provided through leadership of:

- Swansea University
- The University of Manchester
- University of Nottingham

These SMEs have partnered across various projects focussed on safe access and use of sensitive data in secure, federated infrastructure. Significant examples of projects include CO-CONNECT, TRE-FX, TELEPORT, Federated Analytics and EOSC-ENTRUST.

Table 5 Description of the capabilities and value proposition of academic and research subject matter experts

Capability	Value proposition
Federated Infrastructure	- Implementation of infrastructure that supports local TRE processing, using standardised APIs and layers to enable coordinated analytics across sites. - Integration of best-practice infrastructure to promote scalability, compliance, and sustainability.
Federated architecture	- Developing scalable architecture that efficiently incorporates new partners/ datasets, which is resilient, flexible, and compliant. - Preserving data privacy and sovereignty in-situ, thereby reducing legal and ethical concerns. - Enabling collaborative research without the requirement of data centralisation, thereby accelerating data provisioning.

Capability	Value proposition
FAIR data	- Enhancing research credibility by developing transparent services to document methods, data sources, and analysis, for reproducibility. - Promoting stakeholder trust by incorporating processes to support usage auditing, accountability, and data control. - Fostering innovation with oversight, through inclusive cross-collaborative procedures to address ethical and legal obligations and mitigate any risks to data security.
Adoption and Implementation	- Development of federated solutions that incorporate common data models, schemas, governance, and software that supports interoperability across distributed environments. - Foster trust and engagement amongst stakeholders through collaborative objectives, and transparent decision-making processes.
Scalability and Feasibility	- Federated deployment, through standardised platforms and workflows, which will support expansion while maintaining performance. - Adapting to diverse technical environments by integrating with local TREs, which supports participation without hindering functionality. - Reducing resource demands by leveraging existing systems and standards, where feasibility is being validated by use-cases.
Data standardisation	- Enabling cross-institutional research through common data structures, reducing need for site-specific transformation. - Enabling federated research at scale, through use of common tools, services and methods that enhance data quality, comparability, and consistency.

Cross-sector involvement

Smart Data Foundry is a mission-led organisation with advanced capabilities in unlocking financial and administrative data for societal benefit. It operates a robust, secure Trusted Research Environment and has experience partnering with public, private, and academic sectors to deliver impactful data-driven insights. They also operate the Financial Data Service (FINDS) under the Smart Data Research UK data infrastructure programme. With proven expertise in data engineering, privacy-preserving technologies, and dashboard development, Smart Data Foundry is well-positioned to support innovation, policy evaluation, and public service transformation. Smart Data Foundry will:

- Provide expertise on how financial and administrative data is managed securely and safely.
- Inform how federated research capability can deliver benefits and value to the finance sector.
- Review federated research materials to ensure relevance and appropriateness for the finance domain.

The _BioIndustry Association_ (BIA) is the UK's leading trade association for innovative life sciences and biotech companies, with decades of experience supporting the growth of a globally competitive bioscience ecosystem. It has deep expertise in policy influence, regulatory engagement, and connecting early-stage biotech innovators with investors, government, and global partners. Of importance, is the BIA Data, AI, and Genomics Advisory Committee (DAGAC), which leads the BIA's techbio policy development, drawing on the expertise and experience of thought leaders from across technology in life sciences. Additionally, through its active member network, strategic reports, and expert policy teams, BIA provides powerful advocacy and insight

across areas including biomanufacturing, genomics, cell and gene therapies, and health data innovation. BioIndustry Association will:

- Advocate for the community group through the dissemination of information and EOIs at DAGAC and broader BIA groups.
- Provide expertise and feedback on challenges that face industry in accessing and analysing data
- Inform how federated research capability can deliver benefits and value to industry.
- Review federated research materials to ensure relevance and appropriateness for industry.

Public Involvement and Engagement

PEDRI is a nationally coordinated initiative with deep expertise in designing and delivering high-quality public engagement in data research. It brings together leading organisations across the UK with a shared commitment to embedding meaningful involvement of the public in the governance, design, and use of data. With established Good Practice Standards, a wide-reaching network, and practical tools for implementation, PEDRI demonstrates strong capability in co-production, community engagement, and ethical data use. PEDRI will:

- Guide and inform how to best incorporate the Good Practice Standards into community group meetings and deliverables.
- Leverage expertise and experience in public engagement (in data and statistics) and apply lessons learnt to the digital research infrastructure domain.
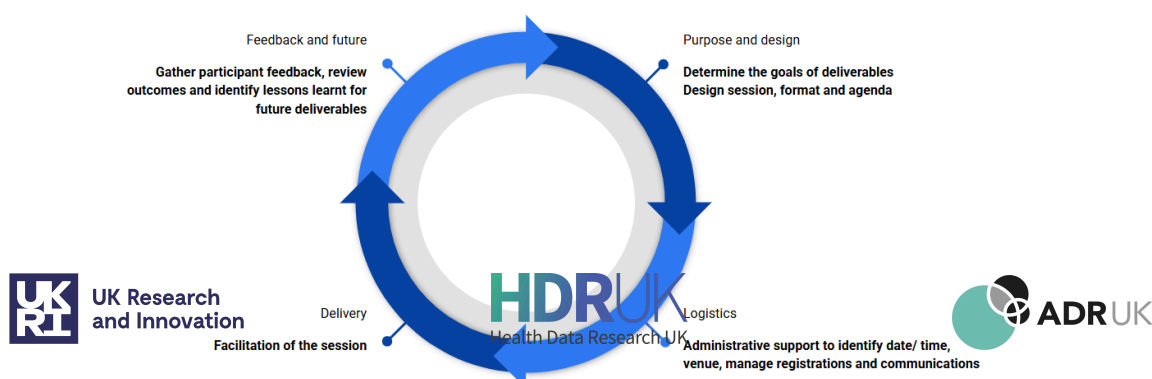- Amplify the dissemination of information through communication channels.

use MY data is a highly regarded, patient-led movement with specialist knowledge in health data advocacy, public engagement, and data governance. It has a strong record of influencing national policy, contributing to consultations, and supporting data users to align with public expectations around transparency and consent. Through its active community, expert-led events, and strategic partnerships, use MY data brings unparalleled lived experience and insight into the ethical use of health data for research and care improvement.

- Ensure that the community group actively and meaningfully incorporates the public into community group meetings and planned activities.
- Provide capability to receive critical review and feedback from the public on materials that have been developed.
- Amplify the dissemination of information through communication channels.

Communication channels

To deliver on the objectives and sustain progress, the group will schedule online meetings for a **fortnightly** basis. These meetings will be available for anyone to join and have a significant role in co-design and forming the success criteria for the deliverables. Figure 2 illustrates this approach to delivering co-design activities.

Figure 2 Federated Research Community Group approach to delivering co-designed activities.

Outside of these meetings the following follows channels will be implemented to support out of session communication:

- Slack (or similar platform) will be created to enable two-way communication and promote sharing of information amongst members.
- Existing social media channels (e.g. LinkedIn) will be used to communicate to broader community.
- Emails (e.g. newsletter) will be a primary contact for in/ formal communication.

Administrative support will be funded to support the group with meeting scheduling, event management reporting, and dissemination of information for this group.

Potential members:

FIRST NAME	LAST NAME	EMAIL	REPRESENTING	(Co-)Chair / Member
Jillian	Beggs	jillianbeggs@hotmail.co.uk	Public	Co-chair
Richard	Ballerand	rmballerand@gmail.com	Public	Co-chair
Jonaa	Eva	Jonaa.Eva@nottingham.ac.uk	University of Nottingham	Co-chair
Philip	Quinlan	Philip.Quinlan@nottingham.ac.uk	University of Nottingham	Co-chair
Simon	Thompson	Simon@chi.swan.ac.uk	Swansea University	Co-chair
Carole	Goble	Carole.Goble@manchester.ac.uk	The University of Manchester	Co-chair
Steve	Gardner	steve@precisionlife.com	BioIndustry Association	Co-chair
Charlotte	Binstead	charlotte.binstead@smartdatafoundry.com	Smart Data Foundry	Co-chair
Amy	Hodgkinson	amy.hodgkinson@hdruk.ac.uk	Public Engagement in Data Research Initiative (PEDRI)	Member

Note, please do not hesitate to point out gaps in the current DARE UK set of strategic themes and/or recommendations that the programme should consider as it continues to evolve these. Community feedback and input is welcomed.