

HDRUK
Health Data Research UK

Innovation Gateway Open Door

Trusted Research Environments

9th September | 2021





How the Gateway works

- Launched in early 2020- the Gateway is a common entry point to facilitate **discovery** and **requesting access** to UK health datasets
- The Gateway has over 660 datasets **listed** with descriptions and technical metadata (info about datasets). This means as well as the Gateway helping researchers and innovators to discover datasets, it also helps them to work out whether a dataset would be useful to their research

The screenshot shows the HDRUK Gateway website interface. At the top, there is a navigation bar with links for 'Explore', 'Help', 'Usage Data', 'About Us', 'News', and 'Community'. A search bar is located on the right side of the navigation bar. The main header area features the text 'Gateway to health data and tools for research' and a sub-header: 'Search, discover and request access to hundreds of datasets, tools and resources for your research. Join the thousands of researchers and scientists worldwide who are already using the Gateway for research and scientific discovery.' Below this is a search input field with the placeholder text 'I'm looking for...'. A statistics table is displayed below the search bar, showing the following data:

datasets	tools	projects	courses	papers	dataset requests	registered users	searches last month
652	151	268	195	1,129	294	1,369	9,213

Below the statistics table, there is a link 'View all usage data'. The main content area is divided into three sections: 'For Researchers', 'For Data Custodians', and 'For Patients and Public'. Each section includes a brief description and a 'Learn more about how the Gateway can help you' link.



What is a TRE?

A TRE is a **Trusted Research Environment**. Also known as 'Data Safe Havens', TREs are highly secure computing environments that provide remote access to health data for approved researchers to use in research that can save and improve lives.

Why are they important?



TREs make **research safer**. Making data available through a TRE means that people can be **confident** that their personal health data is accessed **securely** and their **privacy protected**.

TREs help make **research efficient, collaborative** and **cost effective**, providing rich data that enables **deep insights** which will go on to improve healthcare and **save lives**.

TREs provide approved researchers with a **single location** to access valuable datasets. The data and analytical tools are all in **one place**, a bit like a **secure reference library**.

Learn more about TREs and discover examples of how TREs are being used to enable life-saving health research.

Learn more about **TREs**



How is my data safeguarded?

Health data should always be kept safe and secure, and used responsibly to ensure privacy. Health Data Research UK ensures these high standards are met by promoting the use of the 'Five Safes' model across all TREs.



Safe People

Only trained and specifically accredited researchers can access the data



Safe Projects

Data is only used for ethical, approved research with the potential for clear public benefit



Safe Settings

Access to data is only possible using secure technology systems – the data never leaves the TRE



Safe Data

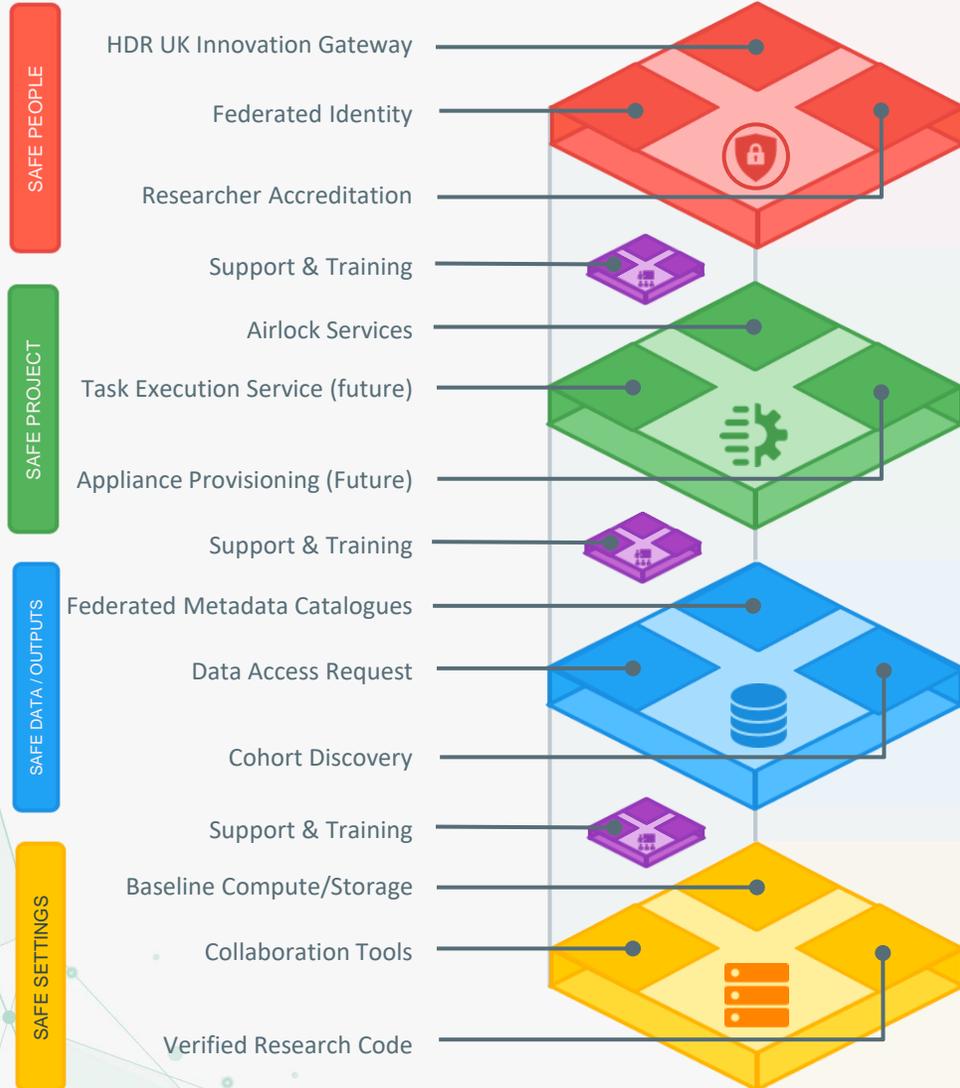
Researchers only use data that have been de-identified to protect privacy



Safe Outputs

All research outputs are checked to ensure they cannot be used to identify subjects

Open, Federated and Interoperable Technology Stack for Trusted Research Environments



Identity Federation

Provides authenticated, authorized and auditable access to federated resources using standardized single sign-on and identity federation

Analytics Federation

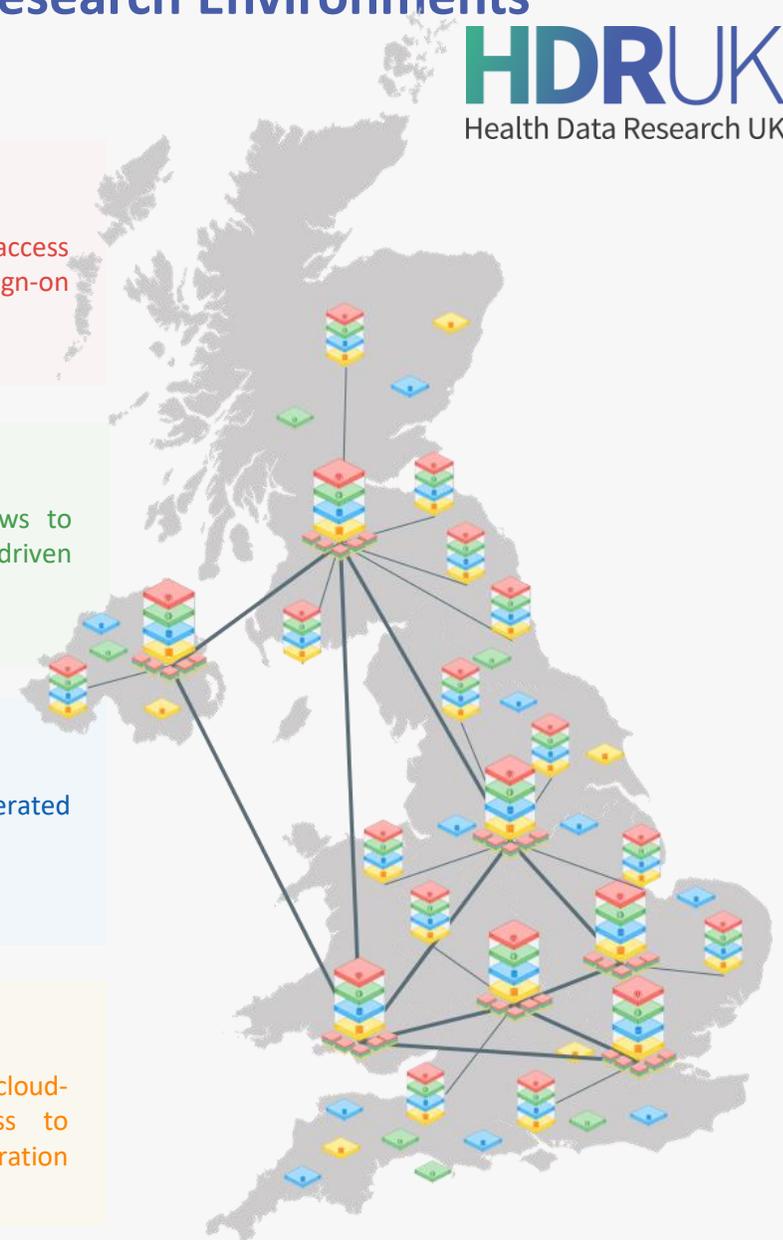
Reuse and combine portable tools and workflows to enhance healthcare delivery with advanced data-driven translational insights.

{Meta}Data Federation

Discover, explore, organize and securely access federated data for accelerating the translation into healthcare.

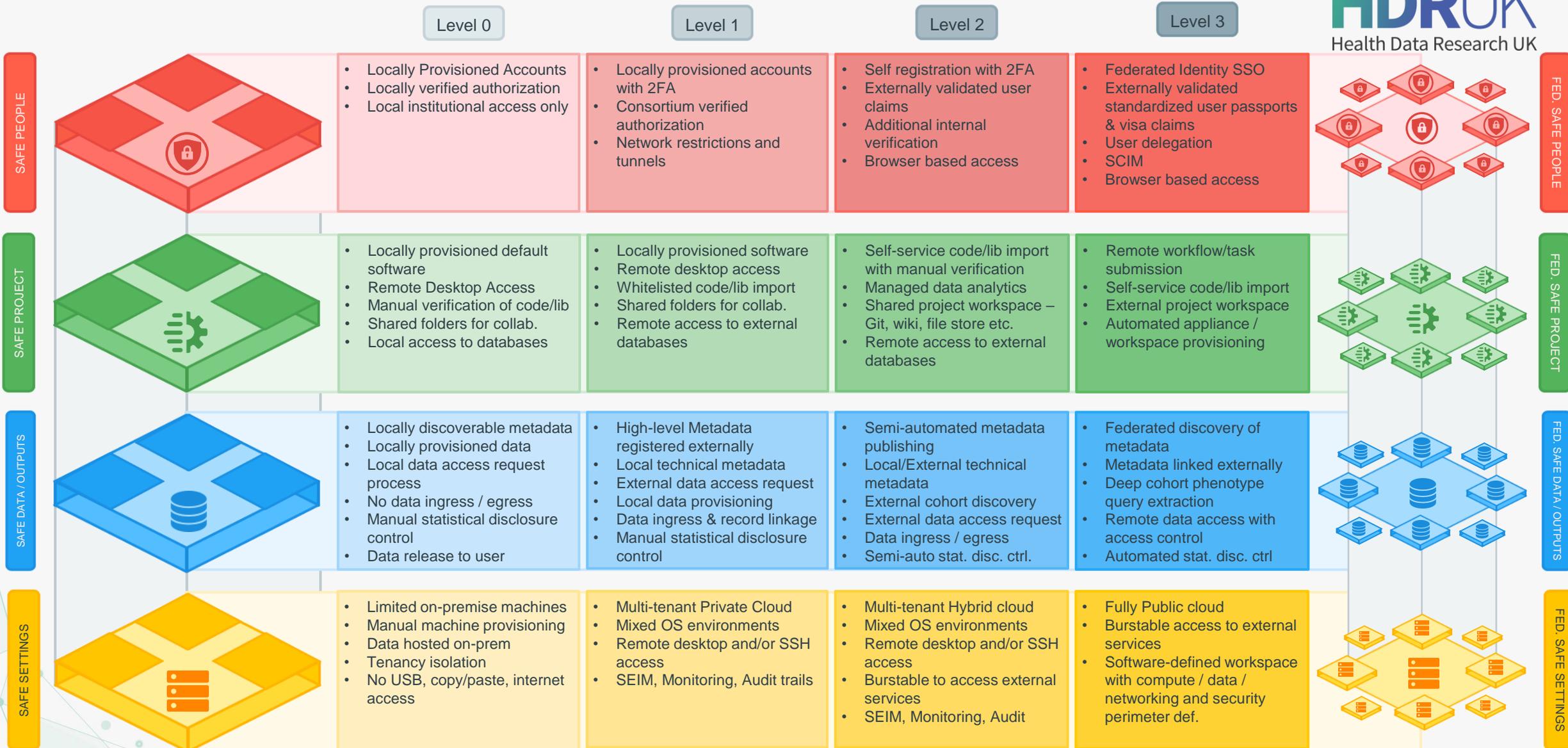
Infrastructure Federation

Immediate access to advanced & flexible hybrid cloud-based computational resource including access to specialized accelerators and container orchestration services.



Layout for illustration purpose only

Federated Data Analytics Infrastructure - Capability Maturity Model



FED. SAFE PEOPLE

FED. SAFE PROJECT

FED. SAFE DATA / OUTPUTS

FED. SAFE SETTINGS

Q&A



Thanks and next steps



- Explore and register on the Gateway- <https://www.healthdatagateway.org/>
- For more on HDR's work around TRE's check out our green paper- <https://zenodo.org/record/4594704#.YTiCfZ1KiUm> white paper to follow soon!
- BHF Data Science Centre blog- <https://understandingpatientdata.org.uk/news/what-why-trusted-research-environments>
- NIHR & BHF Data Science Centre Webinar: Data Linkage for COVID-19 Research- <https://www.eventbrite.co.uk/e/nihr-bhf-data-science-centre-webinar-data-linkage-for-covid-19-research-tickets-163476106435?>
- Brochure from the Data and Connectivity programme- <https://www.hdruk.ac.uk/wp-content/uploads/2021/08/Data-for-COVID-research-across-the-UK-NCS-Brochure.pdf>
- HDR UK TRE page- <https://www.hdruk.ac.uk/access-to-health-data/trusted-research-environments/>
- Next Open Door Event 14th October at 2pm-<https://www.eventbrite.co.uk/e/innovation-gateway-open-door-and-qa-october-tickets-169824602959>



Thank you

