HDRuk
Health Data Research UK

INDUSTRIAL STRATEGY | UK Research and Innovation

UK Health Data Research Innovation Gateway

Metadata Catalogue Request for Proposals   July 2019

Contents

Purpose of the Document

Health Data Research UK is requesting proposals for a metadata catalogue as a component of the Health Data Research Innovation Gateway (the Gateway). This document is a request for proposals (RFP) from organisations capable of providing a suitable metadata catalogue that meets the specifications outlined in this document. The Gateway is part of the UK Research and Innovation (UKRI) Industrial Strategy Challenge Fund Digital Innovation Hubs Programme. Responses to this RFP should be sent to HDR UK (procurement@hdruk.ac.uk) by 12:00pm BST on Friday 26 July 2019.

Health Data Research UK
Health Data Research UK (HDR UK) is the national institute for health data science. Its mission is to unite the UK's health data to make discoveries that improve people's lives. By working in partnership with the NHS, industry, academia and patients, and providing safe and secure access to rich health data, it aims to better understand diseases and discover new ways to prevent, treat and cure them. HDR UK is leading the development and delivery of the UK-wide Digital Innovation Hub Programme. For more information visit www.hdruk.ac.uk

Industrial Strategy Challenge Fund
The Industrial Strategy Challenge Fund (ISCF) is part of the Government's modern Industrial Strategy. The fund is delivered by UKRI and brings together the UK's world-leading research with business to meet the major industrial and societal challenges of our time. It provides funding and support to UK businesses and researchers, part of the government's £4.7 billion increase in research and development over the next 4 years.

UK Research and Innovation
UK Research and Innovation (UKRI) brings together the UK Research Councils, Innovate UK and Research England into a single organisation to create the best environment for research and innovation to flourish. The vision is to ensure the UK maintains its world-leading position in research and innovation. For more information visit www.ukri.org

Introduction

The major barriers to the use of health data for research and innovation are the inability to quickly access data (reported by 70% of respondents across direct industry engagement[1]) and the inability to identify the location of data and understand data quality (reported by 55% of respondents).

The Health Data Research Innovation Gateway is being established as part of the Digital Innovation Hubs (DIH) programme, which is being run by HDR UK. The vision of the DIH programme is to make the UK home to data-driven research, scientific advances and innovation in healthcare to improve patient outcomes. This will be achieved through:

i.   The UK Health Data Research Alliance: a partnership of data custodians, uniting the UK's health data, facilitating partnership working and standard setting across NHS organisations and other data controllers
ii. Digital Innovation Hubs: centres of excellence which will improve the quality of the data and provide expert services to support its use
iii. The UK Health Data Research Innovation Gateway: a UK-wide platform which will support health data science. This is described in more detail below.

More detail on the Digital Innovation Hubs programme is given in the Prospectus, available here.

The Gateway
The Gateway will address the challenges of access to health data. Its function is to provide a common access point to UK health research data for industry, researchers and innovators. The Gateway is designed to support the whole user journey, from discovering the data that is available, coordinating an access request across multiple data custodians, requesting a linkage of multiple datasets and facilitating access to these through Safe Havens. The Gateway will be available to industry users from all sectors, as well as to researchers and innovators across health and social care and academia. While the focus of the Gateway is to support research and development in industry, academia and the NHS, HDR UK will work in partnership with NHSX and other NHS bodies to align this work with mainstream NHS endeavours, including the development of clear standards for the format and use of data in the NHS.

The Gateway will support the use of health data acquired by members of the UK Health Data Research Alliance (the 'Alliance') and Digital Innovation Hubs (the 'Hubs'). This data will be held in Safe Havens to provide a safe location for data storage and access, facilitate interoperability, and provide analytical capability[2]. **Only the rich metadata (i.e. no personal identifiable information) that describes the detailed structure, content, permitted usage and community feedback will be stored locally in the Gateway.**

Gateway Design Approach
The Gateway will build on tools and best practices that already exist in the UK and make use of realised assets and existing 'best of breed' solutions which will be sought from the market. Custom development will only be required where a suitable product or application does not already exist. Harnessing capability

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[1] Industry Engagement conducted as part of the DIH Design and Dialogue phase, which involved 32 in-depth interviews with industry representatives
[2] As part of the UK Health Data Research Alliance, a workstream has been established to define the functions and best practice of Safe Havens across the UK, with a view to agreeing on a standard/accreditation process.

across the UK, the majority of the elements of the Gateway will be developed by industry experts in partnership with NHS and academia. Once developed, HDR UK will work with partners to evaluate the appropriate long-term approach to running a sustainable, reliable and scalable service.

The Gateway will be developed in two phases. First will be a Minimum Viable Product including the metadata catalogue. The second phase will deliver the full end-to-end Gateway, which will be delivered through a technology partnership. Each component will be required to integrate with the other components through open application programming interfaces (APIs). The work completed should follow HDR UK's and NHSX Development Principles, given in the Appendix. All modules should be developed such that they can be replaced and extended as requirements evolve.

The Gateway will not take on the role of data storage. Data security is paramount. Data will remain under the control of existing data custodians in certified Safe Havens. HDR UK will partner with Save Havens (e.g. SAIL, Scottish National Safe Haven, NHS Digital and other academic, NHS and commercial providers) to ensure integration with the Innovation Gateway and this integration will be a key deliverable in Phase 2. The Gateway will operate under principles of federated access, with existing data custodians retaining robust governance procedures to ensure that any access to data remains appropriate, proportionate and necessary. The Gateway will provide the ability to operate at scale, as further health data research activity takes place.

Delivery Phases

Phase 1 of Gateway development will commence in July 2019. Its components will operate independently and integrate through fully documented open APIs. Components of the Gateway will be developed in the open, using open-source principles and with a focus on providing services that incorporate best practice in security, reliability, availability and scalability such that it can meet the business critical requirements of industry as well as researchers from academia and the NHS.

As part of the wider Digital Innovation Hub programme, the development of the Gateway is being timed to coincide with the priorities of the Alliance, and the data which will be made available through the Digital Innovation Hubs. The Hubs will be expected to make initial metadata available by December 2019, which will be included in the Gateway to facilitate discovery.

Phase 1

Phase 1 has two primary functions:

- A **Gateway Portal –** Minimum Viable Product (MVP). The portal will be a web application hosted on a public cloud that will provide the front-end for users to discover and request access to datasets, and will support capability such as user profile management and logging of activity. More detail about how to apply for this opportunity, including the link to the Government Digital Marketplace, are available here.
- A **Metadata Catalogue** (this document) will be a web hosted backend application that will provide the functionality to manage the datasets discoverable through the Gateway Portal.

This document is a request for proposals for the metadata catalogue.

Phase 2

The future development of the Gateway will be delivered through a technology partnership. This is out of scope for this RFP, but an outline is provided here as additional context on our ambitions for the Gateway.

HDR UK will be requesting proposals for potential technology partnerships in 2019. The selected technology partnership will be responsible for ongoing development of the Gateway over at least three years. It is our expectation that the partnership will consist of a lead partner with an established international track record of deploying complex and secure web applications working with other partners with domain specific leadership in areas such as data de-identification.

Through the technology partnership, further functionality will be developed in the Gateway to:
- **Assess** and pre-validate data requests based on workflow management to improve response times for decisions, whilst allowing data controllers to stay in control
- Extend the existing **access** functionality to provide a business process engine, collecting information on requests, turnaround times and use, allowing for seamless and rapid processing of requests
- Link with best in class de-identification and encryption software across the Alliance in **privacy** and interoperability, in line with information governance requirements, to provide secure and novel data linkages across a wide range of datasets to meet researcher needs while ensuring privacy of sensitive health data

- Harness **interoperability** to facilitate access to linked datasets across the data custodians in the Alliance. The interoperability support will also extend to support mapping between datasets. This will focus on enabling re-use of mapping carried out as part of planned research projects, as well as codifying interoperability issues between different datasets, for example through the calculation of an interoperability score which would be available to other researchers considering working with the same datasets.
- Provide a **library** to act as a single storage area supporting reusable or shareable analytics, linkage maps and phenotypes.
- Support close integration with certified **Safe Havens / Trusted Research Environments** provided through partner organisations in academia, NHS and industry to allow for direct provisioning of flexible analytical workspaces.

Metadata Catalogue Request for Proposals

HDR UK is seeking proposals from organisations able to provide a functional metadata catalogue that will support the development of the Health Data Research Innovation Gateway. It is will be fully API-enabled, allowing it to be used in a flexible manner and support ongoing development of the Gateway.

The metadata catalogue is required to provide a unified structure to the datasets accessible through the Gateway, allowing the mapping of the information held in a way that can be understood by a user.

The Gateway will not store or hold data – this will continue to be held by data custodians within existing Safe Havens. The metadata is used to provide information on the data that is available. In the same way that a library has an index which details the location and shelf of a book, metadata will be used to detail available data assets across the health data landscape. However, metadata provides significantly more detail than simply the location and outline of a dataset: it provides context to data, annotation of data assets with community knowledge, standards and governance. This contextualises the data, allowing for much greater usability.

It is anticipated that responses to the RFP will include an existing feature rich Metadata Catalogue, which may be customised for further development, rather than the bespoke development of a new tool.

HDR UK Development Principles

The metadata catalogue should comply with HDR UK development principles, which are provided in Appendix 1.

Funding and Timescales

A maximum of £80,000 including VAT is available for this work. We reserve the right to exclude proposals in excess of this amount. The metadata catalogue will need to be deployed and functional, with datasets added, by 20 September 2019. Full integration with the Gateway Portal – MVP (which is being procured separately) and all testing and training must be completed by 10 January 2020.

This will cover licence costs, customisation to integrate with the Gateway front-end and one year of service and support. The support period will commence once the development has been signed off by HDR UK.

It is expected to take place over the following period:
- Deadline for responses – 26 July 2019
- Work commences – 19 August
- Development complete – 20 September
- Fully integrated with the Gateway Portal, enabling use of metadata to successfully discover the datasets available through the Alliance and Hubs – 10 January 2020
- Service and maintenance of metadata catalogue, in line with agreed service line agreement until 9 January 2021

Contract Requirements

The successful supplier will be required to provide a functional metadata catalogue that can be integrated as part of a wider technology platform.

The metadata catalogue will be required to provide an open and extensible fabric for development of community driven tools built upon the underlying code.

The following items detail generalised mandatory high-level requirements, which are covered in more detail below:

- **Classification:** the catalogue will be required to support a *consistent, descriptive framework* to store properties of data and provide a mechanism for these to be *ranked and categorised*
- **Metadata model, types and instances**: the catalogue should allow *grouping, association and data linkage*, with relevant governance tools
- **Storage and management**: provide clear information on data *versions and lineage*, managing *persistence and retrieval of data* and driving access control and information governance
- **Search and discovery**: allow a *standardised way to locate network-accessible material*, including but not limited to datasets, data transformation and models, integrated through *open APIs*
- **Security and data masking**: utilise an *adaptable approach* to security which is embedded in the tool

In addition, the supplier will be required to demonstrate that the metadata catalogue is fit for purpose by migrating a specified list of currently available datasets, which are currently held in existing catalogues and among members of the Alliance.

The supplier will be required to provide brief training for the use of the tool and supporting resources to enable ongoing operation.

Specific Technical Requirements

The following items detail specific requirements, categorised by type:

Classification

Description: the metadata catalogue will be required to support a *consistent, descriptive framework* to store properties of data and provide a mechanism for these to be ranked and categorised. The catalogue will be delivered as a working MVP hosted on a public cloud platform.

Components and functions:

- Workflow style and display of dataset information lifecycle and provenance
- Description of each extract provided for research use (supporting transparency, collaboration, re-use, coordination of crowd sourced data
- Entities can be associated with multiple classifications, enabling easier discovery and security enforcement
- Classifications can include attributes, for example, expiry date attribute in EXPIRES_ON
- Ability to dynamically create classifications - like PII, EXPIRES_ON, DATA_QUALITY, SENSITIVE
- Propagation of classifications via lineage - automatically ensures that classifications follow the data as it goes through various processing
- Data topology able to be extended to included other domains phenotypes, transformations, classifications, researcher-supplied content including the insights, abstractions, mappings, conversions, fixes, tribal knowledge provided by those who understand and/or use the content.

Metadata model, types and instances

Description: the metadata catalogue should allow grouping, association and data linkage, with relevant governance tools.

Components and functions:

- Types can have primitive attributes, complex attributes, object references, can inherit from other types
- Ability to define new types for the metadata to be managed
- Provision of data definitions – a description (in a standard format, compatible with ISO) for each item/field/column in the dataset, grouped into classes, tables, or categories, with links to related definitions in other datasets or data standards
- Provision of dataset metadata – describing the dataset, with standard items (which can support search and filtering) and additional items that may apply only to that dataset, or to that class of datasets
- Provision of summary metadata – statistical summary capability across each class or category of data
- Open RESTful APIs to work with types and instances supporting open integration
- Storage of models in support of a model driven architecture and this approach
- Ideally, the metadata catalogue should provide existing datasets for health research already included in the tool.

Storage and Management

Description: provide clear information on data versions and lineage, managing persistence and retrieval of data and driving access control and information governance.

Components and functions:

- Simple administrative portal to allow effective onboarding of available metadata, with ongoing troubleshooting and error-fixing to ensure that metadata can be successfully added to the catalogue
- The metadata catalogue should have a minimal administrative user interface to support management of the tool
- Storage and relation of metadata for each of the datasets provided by Alliance members, together with derived datasets, pick lists and models
- Loading of standards content, including the NHS data dictionary and terminologies (linked through to the new NHS Digital terminology/ontology service)
- Support for the metadata associated with typical data modalities including structured, semi-structured and unstructured datasets covering the breadth of health data including imaging and genomics data
- Description of each extract provided for research use (supporting transparency, collaboration, re-use, coordination).

Search and Discovery

Description: allow a standardised way to locate network-accessible material, including but not limited to datasets, data transformation and models, integrated through open APIs. This must be scalable and support multiple concurrent queries.

Components and functions:

- Ability to search entities by type, classification, attribute value or free text, based on the full range of datasets expected to be discoverable across the Digital Innovation Hub programme
- Rich RESTful APIs to search by complex criteria
- SQL like query language to search entities - Domain Specific Language (DSL)
- Provision of an API for searching, tagging and management of metadata
- Ability to use templates, viewpoints and perspectives to drive the presentation of metadata that are held on each of the datasets, offering different views of that metadata to support different presentation modalities.

Security and Data Masking

Description: utilise an adaptable approach to security, which is embedded in the metadata catalogue

Components and functions:

- Fine grained security for metadata access, enabling controls on access to entity instances and operations like add/update/remove classifications
- Ability to drive governance and embedded security and sensitivity into the data
- Integration with rich identity management suite, enable authorisation/data-masking on data access based on business classifications, for example who can access data classified as PII, SENSITIVE
- Security protocols for on- or off-premise hosting in compliance with international standards.

Documentation, Training and Services

Description: provide appropriate documentation and training to HDR UK to support handover of operations.

Components and functions:

- All code and APIs to be fully documented using appropriate self-documenting tools, e.g. using Swagger
- Contextual help to be provided and support through the Gateway user interface
- Written documentation for functions accessed directly through the metadata catalogue, including detailed processes for the administration of datasets
- Three days of deep dive administrative training to HDR UK staff on technical functions and process required to administer the catalogue and maintain datasets
- Ongoing maintenance and technical support for 1 year following successful integration of the tool, in line with an agreed SLA. An provisional SLA is given below, which is subject to review:

Service Line Agreement	
Operational Hours	24x7x365
Business Support Hours (Service Support Hours)	9-5 Mon-Fri (exc BH)
Planned Maintenance Downtime	Outside of Business Support Hours
Availability (in business support hours)	99.50%
Unplanned downtime (mins per month)	58 minutes
Times to Resolve	
Incident Resolution Times (in business support hours):	
Sev1 (loss of system or major function affecting multiple users, no workaround)	4 hrs
Sev2 (loss of major function affecting single user, or major function with workaround)	8 hrs
Sev3 (minor functional impact)	24 hrs (Mon - Fri 9-5 ex BH)
Sev4 (no impact on function)	72 hrs (Mon - Fri 9-5 ex BH)
- Resolution may be provision of workaround or fix.	
Problem Fix Times	
Sev1	30 working days or an agreed release
Sev2	60 working days or an agreed release
Sev3	120 working days or an agreed release
Sev4	240 working days or an agreed release
RTO - Recovery Time Objective *Maximum expected recovery time following a service outage*	24 hours
RPO - Recovery Point Objective. *Maximum expected data loss for customer*	24 hours

Appendix 1: Health Data Research UK Technical Development Principles

HDR UK follows the principles detailed below, which align with those of NHSX. Any technical work by and for HDR UK will be required to follow these processes and principles:

Process Principles

- All software developed by or on behalf of HDR UK will be shared as open source under the HDR UK GitHub organisation
- All code developed will be under the MIT licence
- All work is design thinking led (https://dschool.stanford.edu/resources/getting-started-with-design-thinking) – all elements should be tested with users in order to ensure it meets users' needs
- Development should take place in a modular fashion as technologies and tools will regularly advance and therefore need to be able to be replaced quickly and easily. All aspects to be supported through interoperable open APIs
- Development should take place in an agile fashion, with multiple iterations and improvements throughout the process, using the concept of a Minimum Viable Product (MVP) to launch improvements quickly. Within the fortnightly sprints, work should be prioritised around delivering working features and software after each iteration
- All front-end development should adhere to W3C standards as documented at https://www.w3.org/standards/webdesign/ include those standards associated with accessibility such as WCAG 2.1.
- Continuous integration and deployment will be used to allow for rapid feedback on all new features (code talks)
- Open source tools, technologies and frameworks will be used wherever possible. Custom development should be by exception only and when discussed with the Technical Solutions Architect and approved by the Chief Technology Officer
- All software developed by or on behalf of HDR UK will make use of open standards. For example, existing open standards for data and metadata (e.g. DCAT, DataCite, Schema.org)

Architecture Principles

- The Gateway should provide the user community with an exceptional user experience
- The Gateway elements should not have fixed dependencies or be tightly coupled to other components, and should be able to integrate and scale as needed
- The Gateway activity data must be recoverable to a specific point in time after any technical failure
- The Gateway will be built with GDPR and other regulatory frameworks in mind, ensuring the features and documentation to remain compliant
- The Gateway should integrate and support the development of external tools and services
- The Gateway will seamlessly scale in response to high and varied loads and the software must be developed to be inherently scalable
- Trust in data and data safe keeping is paramount, User Interface, End Points and APIs should be secured to enterprise levels with input validation, encryption, using https and storing one-way password hashing and string authentication.
- Platform / Data Access, User Actions and Transactions together should be audited
- Changes to a Metadata record should generate a history of change, preserving the old record as a previous version.

- The Gateway should have a rapid deployment infrastructure using virtualisation and continuous integration i.e. Kubernetes, Docker, Virtual Box or amazon Cloud Formation
- To provide for interoperability, the FHIR (http://hl7.org/fhir/) standard will be used to model all resources.

Principles for Participation

As development of the Innovation Gateway forms part of the Digital Innovation Hub Programme, all suppliers will be required to sign up to the Programme Principles of Participation, available here.

Appendix 2: Metadata Catalogue – Criteria for Selection

The criteria by which metadata catalogue proposals will be assessed are given in the below section.

Metadata Catalogue Test Version

Bidders are required to provide access to a test or beta version of the proposed metadata catalogue for the evaluation process.

This section is not scored but will be used to assess compatibility and usability and inform potential questions if bidders are successful in getting to interview stage. Bidders who are unable to provide this will not be considered as part of the review process.

Metadata Catalogue Written Proposal – Assessed Section

Please see Appendix 3 for details on how to respond

1.1 Organisation Information & Working Practice – 10%
Your response should provide:

- An overview of your organisation and details of relevant experience your organisation has of carrying out similar services, including specific examples
- Details on the proposed team dedicated to this contract including information about their experience, the availability of staff and any associated lead times. This should include a named account manager
- Information on the quality assurance and performance management processes that you have in place to ensure high quality delivery.

1.2 Existing Metadata Catalogue – 40%
Your response should describe:

- Your existing metadata catalogue product in detail, the unique selling points and distinctive characteristics compared with other available products, your existing clients and evidence of sustained use of the product in multiple environments, further product development plans and the immediate usability for loading new datasets
- The functionality and capability of your existing product to support a full range of multimodal data (please define the modes of data that can be supported and any volume or other constraints of your existing metadata catalogue system, as well as details of any modes of data it cannot support), version management, logging, ontology integration and user management. Detail the metrics you use to quantify the quality of the user experience and how you have integrated user feedback into the development of your metadata catalogue
- The current alignment and additional work required to ensure that your metadata catalogue adheres to the specific technical requirements given above, namely: classification; metadata model types and instances; storage and management; search and discovery; security and data masking.

1.3   Development Principles – 20%

Your response should describe:

- Your product development principles, including how these meet HDR UK's Technical Development Principles, how these have been/will be deployed in the development of the catalogue, how you develop products via an open source basis, support full API criteria, utilise modular design and integrate the ability to federate to other metadata sources.

1.4   Project and risk management – 15%

Your response should explain:

- How you will meet each of the delivery milestones;
  - Milestone 1 – (Tuesday 3 September 2019) metadata catalogue available for testing
  - Milestone 2 – (Friday 20 September 2019) Demonstration of pre-specified datasets (from existing catalogues or Alliance) successfully included in the metadata catalogue
  - Milestone 3 – (Friday 10 January 2020) integration complete with Gateway Portal - MVP. Datasets made available by Hub included in catalogue.
- Describe the project management process that will provide assurance that the delivery milestones and goals will be achieved
- An overall project plan (e.g. Gantt) and risk register (with mitigating actions), each with sections relating to each milestone. These documents should be provided as an appendix to the response.

1.5 Value for Money – 15%

The maximum funds available for this project are £80,000 including VAT. We reserve the right to exclude proposals in excess of this amount. This will cover licence costs, customisation to integrate with the Gateway front-end and one year of service and support.

Your response should outline the costs associated with each stage of delivery, including:

1. Development of the metadata catalogue and licencing (Milestone 1)
2. Loading datasets and integration with Gateway portal (Milestones 2 and 3)
3. Ongoing service and support

This should be provided on a fixed cost basis, in line with the financial profiling given below. Where relevant, a day rate should be provided. Please also provide a day rate chargeable for services requested above the service agreement for this work.

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Scoring Process

Sections 1.1, 1.2, 1.3 and 1.4 will be rated against the evaluation matrix below:

Score	Interpretation	Criteria

0	Unacceptable	The response does not meet the requirement. Does not comply and / or insufficient information provided to demonstrate that the bidder has the ability, understanding, experience, skills, resources and quality measures required to provide the supplies / services.
1	Poor	Major reservations concerning the bidder's relevant ability, understanding, experience, skills, resources and quality measures required to provide the supplies / services, with limited evidence to support the response.
2	Below Expectations	Some minor reservations concerning the bidder's relevant ability, understanding, experience, skills, resources and quality measures required to provide the supplies / services, with some evidence to support the response.
3	Meets Requirement	Adequate demonstration by the bidder of the relevant ability, understanding, experience, skills, resources and quality measures required to provide the supplies / services with evidence to support the response.
4	Good	Above average demonstration by the bidder of the relevant ability, understanding, experience, skills, resources and quality measures required to provide the supplies / services. Response identifies factors that will offer potential added value, with evidence to support the response.
5	Outstanding	Exceptional demonstration by the Bidder of the relevant ability, understanding, experience, skills, resources and quality measures required to provide the supplies / services. Response identifies factors that will offer potential added value and continuous improvement, with evidence to support the response.

Scores will be weighted based on the percentage available for each section following interview. HDR UK reserves the right to deem ineligible any proposals which score 0 or 1 for any section.

Section 1.4 will be evaluated on a fixed quote basis up to £80,000, where each proposal is rated against the price of the lowest eligible proposal. This is calculated by dividing the given bidder's quote by the lowest quote available across eligible proposals, and then weighted based on the percentage available for that section (15 points).

Appendix 3: Proposal Process

The selection of the successful bidder will be via an open competition administered by HDR UK on the Contracts Finder web portal on behalf of the UKRI ISCF.

The **Metadata Catalogue Test Version** must be made available for up to 3 HDR UK staff – names and details will be supplied.

The **Written Proposal** must be submitted as a single PDF in accordance with the headings and criteria laid out in the assessed checklist below. Bookmarks must be used to link to each section. This PDF must include the following Accompanying Materials: Project Plan and Risk Register as appendices and included in the PDF.

The text in the PDF documents should be no smaller than Calibri 11-point font, with standard character spacing, margins no smaller than 2cm, and minimum single line spacing. Diagrams may be included in the response – any words in the diagram will contribute towards the word count. External links to additional information may not be included.

Proposals exceeding the limits given for each section will not be accepted.

A checklist ahead of submission is given below.

Proposals must be submitted by email to procurement@hdruk.ac.uk by the deadline of **12.00pm (BST) on Friday 26 July 2019**. No other method of submission will be accepted. Proposals may be rejected if the complete information required is not provided at the time of submission. We reserve the right to exclude proposals received after the closing date and time.

Written Proposal Checklist and Response Limits:

Section	Part	Limited – do not exceed	Weighting
Test version	Not assessed	Access for 3 users	N/A
Assessed section	1.1 Organisation details	400 words / 3500 characters including spaces	10%
	1.2 Existing metadata catalogue	1000 words / 9000 characters including spaces	40%
	1.3 Development principles	400 words / 3500 characters including spaces	20%
	1.4 Project and risk management	600 words / 4500 characters including spaces	15%
	1.5 Price	600 words / 4500 characters including spaces	15%
Accompanying material	Project Plan (e.g. Gantt chart)	1 Page	N/A
	Risk Register	1 Page	

	Bidder's Standard Terms and Conditions	N/A	N/A

Selection Process and Timetable

During the open competition period there will be an opportunity for potential suppliers to send clarification requests. These will be answered individually, and generic requests added to a Questions and Answers document, hosted on the HDR UK website.

All responses received will be reviewed to ensure that they are compliant with the assessment criteria. All eligible responses will be assessed by a panel to enable fair, open and transparent assessment against the criteria laid out above. For each bidder invited to interview, the panel will identify key areas to test, and provide feedback to bidders.

Interview

If you are invited to attend an interview, up to three people representing your proposal can attend the interview. Please ensure relevant members of the team will be available on the interview date. We are unable to reschedule slots once allocated.

The interview will be 30 minutes in length and comprised of questions based on your written proposal, test version and case studies.

It is anticipated that no more than 3 proposals will be invited to progress to the interview stage.

Date	Activity
5 July 2019	Issue request for proposals
23 July 2019	Deadline for submission of questions
24 July 2019	Responses to all questions provided
26 July 2019	Deadline for proposals
6 August 2019	Interview
9 August 2019	Evaluation and award
14 August 2019	Finalise contract
26 August 2019	Begin work
9 September 2019	Fully operational, open API metadata catalogue delivered
20 September 2019	Demonstration of pre-specified datasets successfully included in the catalogue
10 January 2020	Completely integrated with finished Gateway Portal – MVP, and Hub datasets included – service period begins
9 January 2021	Service period ends

Any questions or clarifications during the procurement phase should be sent by email to: procurement@hdruk.ac.uk. Responses to questions from bidders will be issued as soon as practically

possible and posted on the HDR UK website. To ensure that bidders have sufficient time to take account of any answers given, please note that all questions must be submitted by 5.00pm (BST) on 23 July 2019.

Financial Arrangements

60% of the value of the contract will be paid following satisfactory delivery of the operational metadata catalogue in September 2019. 25% will be paid following the integration of the metadata catalogue with the Gateway Portal, by 10 January 2020. The remaining 15% will be paid quarterly over the period Jan – Dec 2020 as part of the support and maintenance service level agreement.

Conditions

For the purposes of this requirement it is anticipated that HDR UK will use the successful bidder's terms and conditions of contract. A copy of these terms and conditions should be submitted along with your proposal.

Proposals are invited in accordance with all sections of this RFP. All bidders should read these instructions carefully before completing the remaining documentation. Failure to comply with these requirements for the completion and submission of proposals may result in the rejection of a proposal as a whole on the grounds of non-compliance.

Submission of a proposal does not commit HDR UK to award a contract. By issuing this invitation, HDR UK is not bound in any way and does not have to accept the lowest cost or any other proposal and reserves the right to accept the whole or any specified part of the unless the bidder expressly states otherwise.

Awards will be subject to financial due diligence checks and acceptance of HDR UK Terms and Conditions.

Each bidder assumes all risks for resource commitment and expenses in respect of preparing the tender proposal, and participation throughout the inquiry process. Only the complete execution of a written contract by both parties will obligate HDR UK in accordance with the terms and conditions therein.

Whilst every endeavour has been made to provide an accurate description of the requirements, prospective legal providers should form their own conclusions about the methods and resources needed to meet those requirements. HDR UK will not accept responsibility for the bidders' assessment.

HDR UK reserves the right to amend the enclosed documents at any time prior to the tender return date. Any such amendment will be numbered, dated and issued by the HDR UK Procurement Team. Where amendments are significant, HDR UK may at its discretion extend the deadline for receipt of tender responses.

Unless otherwise stated, your initial tender shall remain valid for 60 days from the closing date for receipt of tender response.

The preferred supplier will be notified that HDR UK wishes to enter into negotiations to finalise the terms and conditions of the proposed contract. The contract will be negotiated between both parties on the basis of the Request for Proposals (RFP), the bidder's response to the RFP and subsequent discussions and correspondence.

HDR UK reserves the right to commence negotiations with any other party should it be unable to reach mutual agreement with the initially preferred bidder. Offerings and bids, as supplemented and/or modified by pre-selection negotiations may be accepted by HDR UK and become part of the final and binding contract.

All information supplied by HDR UK to suppliers must be treated in confidence and not disclosed to third parties except insofar as this is necessary for the purposes of submitting the proposal. All information supplied by bidders to HDR UK will similarly be treated in confidence except for the disclosure of such information with regard to the outcome of the procurement process.

Disclaimer
These instructions are designed to ensure that all proposals are given equal and fair consideration. Therefore, it is important that bidders provide all the relevant information in the required format and order specified.

Please note that references to Health Data Research UK (HDR UK), throughout these documents means any person who is authorised to act on behalf of HDR UK in matters pertaining to the Assignment Contract.

Whilst all reasonable care has been taken in compiling this document, no warranty or guarantee (expressed or implied) is given by HDR UK as to the completeness or accuracy of the document, or any information provided in connection with it.

Contacts

For further information about the request for proposals, visit the HDR UK website here www.hdruk.ac.uk, or email procurement@hdruk.ac.uk. More information about the DIH Programme, and other work undertaken by HDR UK, is available on the HDR UK website.