

Equipment Data

A national approach to optimising equipment data management and discovery in the UK



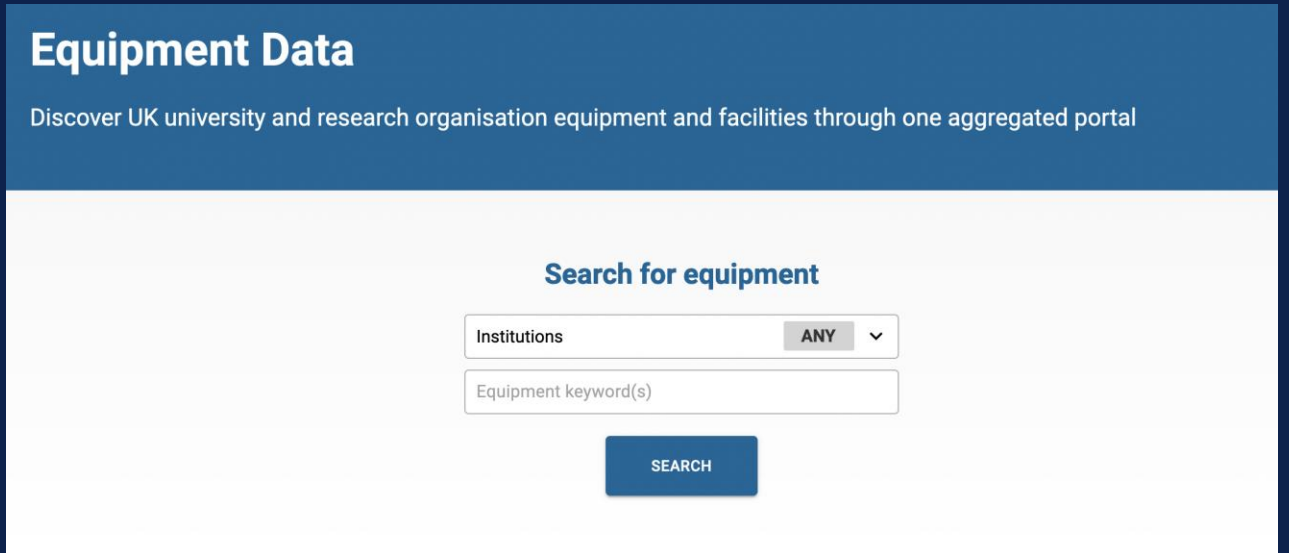
Presentation overview

- Background
- Discovery activity
- Member challenges and pain points
- Discovery recommendations
- Roadmap
- Jisc updates (Octopus, Research Management DPS)

The service

- Institutions can publish their asset register so their equipment and facilities can be discovered
- Comply with UKRI policy
- Check data quality against required standards
- Download of data files
- Other services can use data through open API

<https://equipment.data.ac.uk>



Equipment Data

Discover UK university and research organisation equipment and facilities through one aggregated portal

Search for equipment

Institutions ANY ▼

Equipment keyword(s)

SEARCH

The benefits

- Ease of discovery – researchers can find equipment at other institutions
- Sustainable route for recording these assets and meet funder conditions
- Transparency - provides a way to monitor the scale and growth
- A platform to explore opportunities to maximise the data and research estate
- Provides efficiencies and stimulates greater collaboration
- Supports generating impactful outcomes and increase economic, social and environmental benefits

Search for equipment

Institutions

ANY ^

REGIONAL CONSORTIA QUICK SELECT

☐ Eastern Arc i

☐ GW4 i

☐ Midlands Innovation i

☐ N8 i

☐ SES i

☐ Wales Innovation Network i

☐ Yorkshire Universities i

☒ Any

☐ Aberystwyth University

☐ Aston University

☐ Birkbeck, University of London

☐ British Ocean Sediment Core Research Facility

☐ Cardiff University

☐ Cranfield University

☐ Durham University

☐ Heriot-Watt University

Challenges in managing research equipment data

Reported issues fall into 6 key areas

Ageing systems

- In-house bespoke systems no longer fit for purpose
- Initial investment in equipment systems c.10 years ago has dropped away

Ownership

- Not clear who currently owns the equipment register
- Staff who owned equipment data workflows have left
- Contrast between people best placed to enter or maintain asset register & people with knowledge of research equipment

Setting thresholds for reporting

- Value at purchase?
- Potential for sharing?
- Rechargeable use?
- In working order?
- Obsolescence?

Data quality

- Limited data fields or metadata
- Records not maintained
- Visibility controls and protecting confidential information

Multiple systems & data sets

- Local systems to meet departmental needs
- Multiple sources, formats and locations of data internally
- Integration between central systems, or between central and local systems

Manual processes

- Annual requests for data about equipment
- Manual updating of records
- Maintaining a spreadsheet

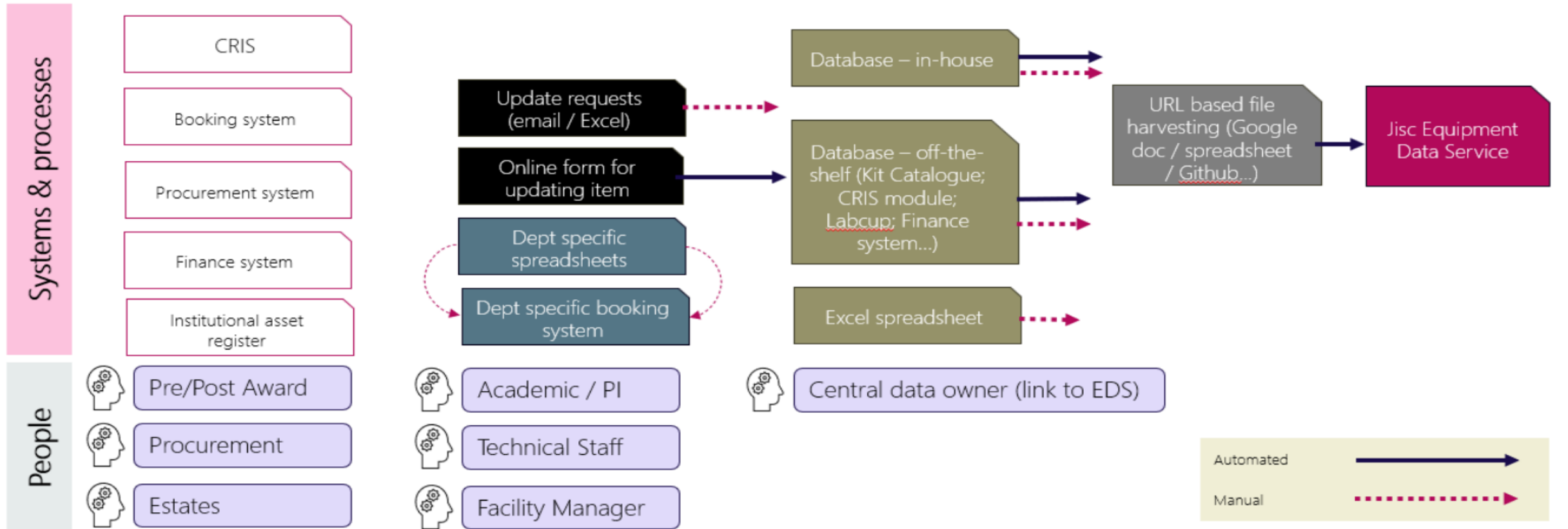
Typical institutional workflow

Institutions may have equipment data in some or all of these central systems:

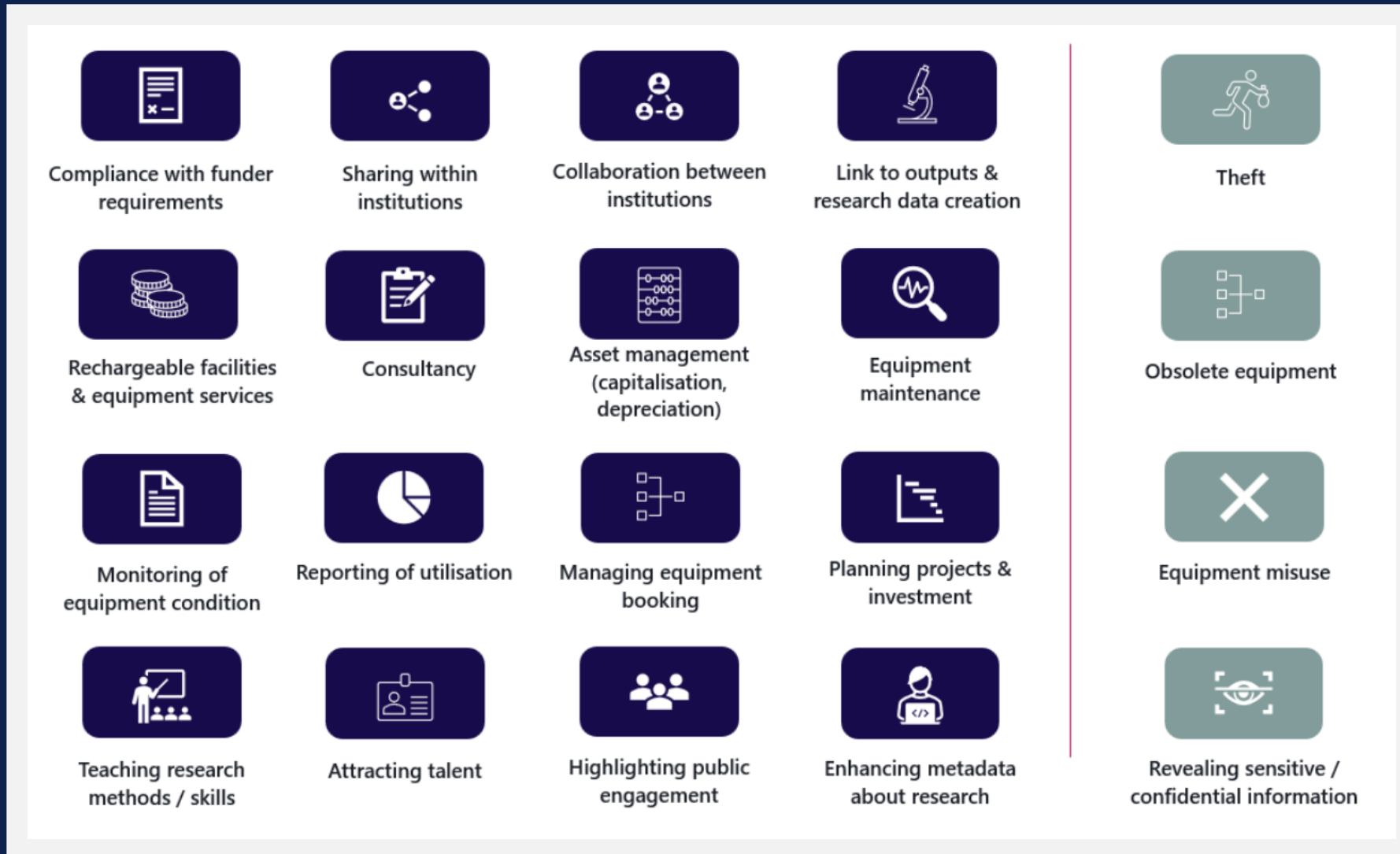
Departments manage data about research equipment locally – incl responding to requests for information from the centre:

Data about research equipment may be **stored** centrally in systems of varying sophistication:

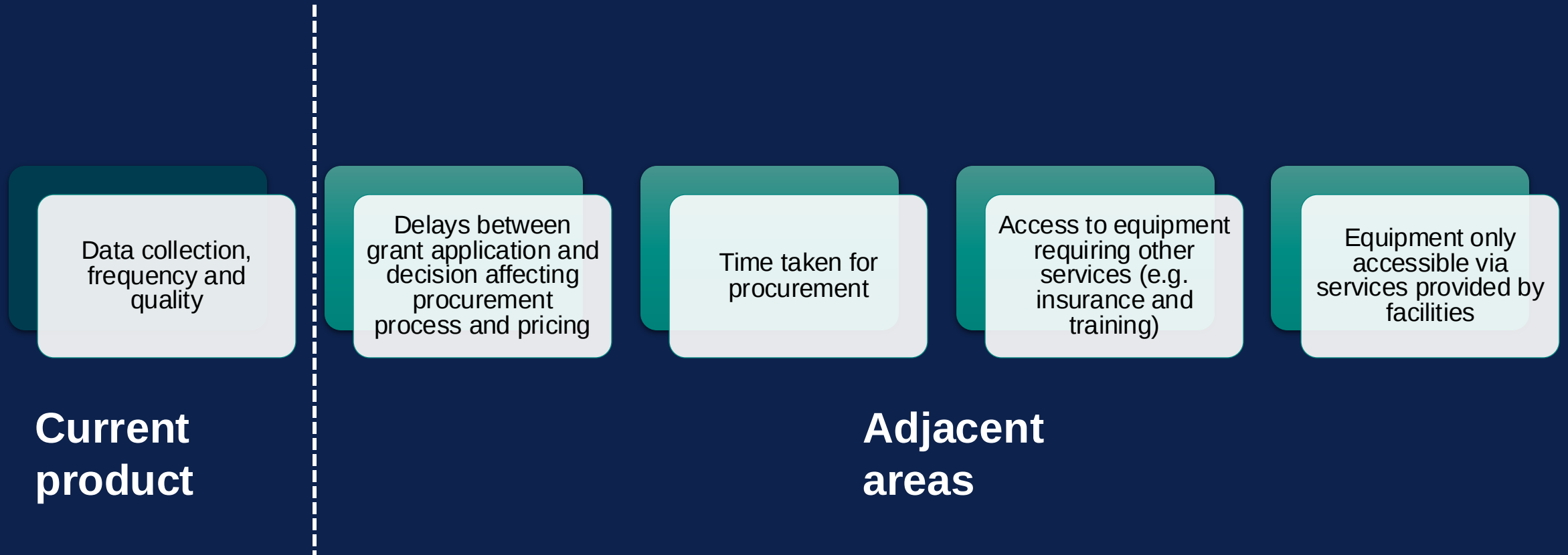
Data may then be **transferred** to the Jisc EDS through harvesting of spreadsheets:



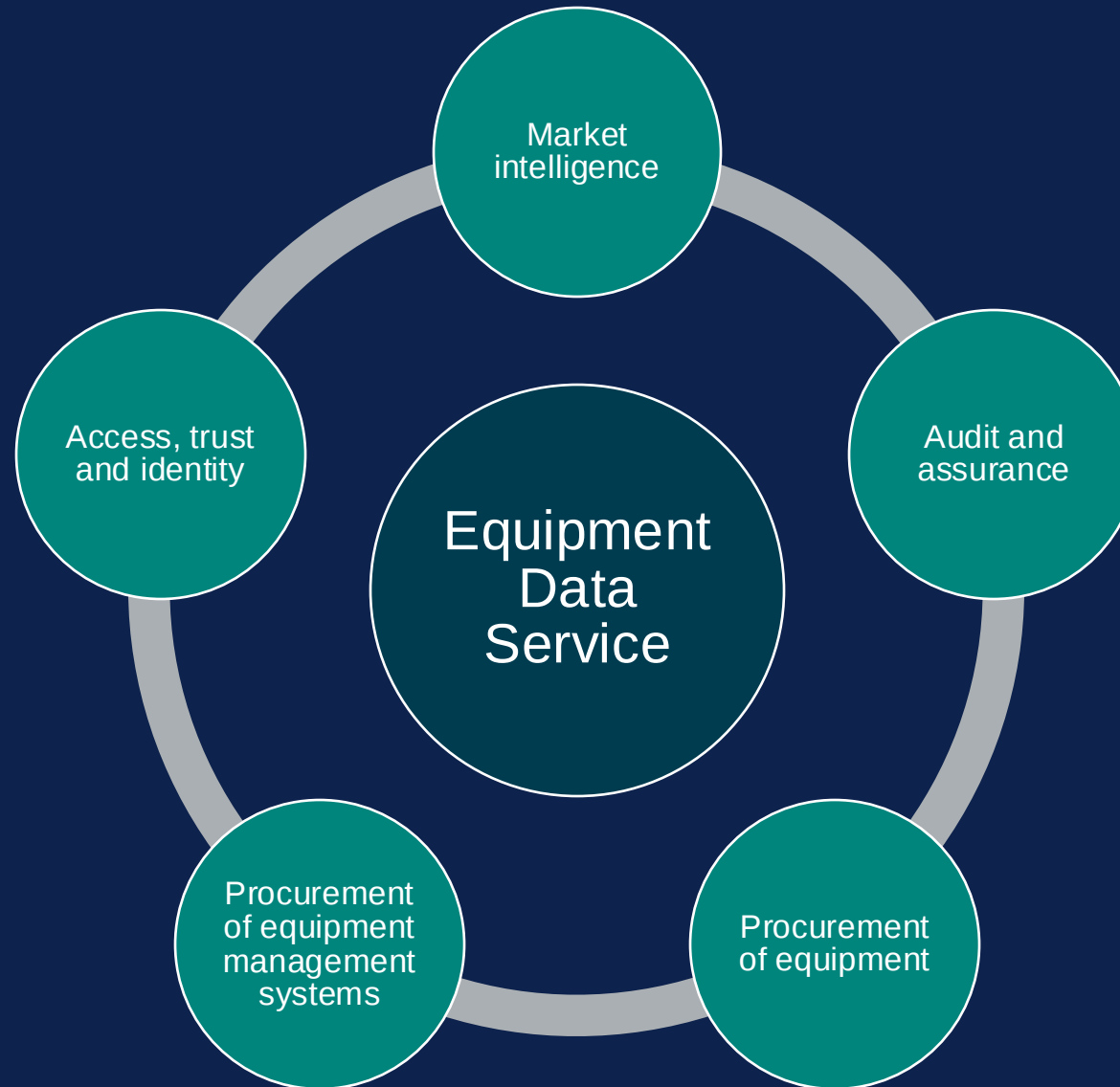
Examples of use cases and risks



Pain points identified in discovery



Potential value-added services



Recommendations

Discovery, consultancy and metadata mapping interviews and workshop

Short to medium term (underway):

Build data management area with ability to mint persistent identifiers

Update data model to allow new use cases and persistent identifiers to enable equipment citation and impact tracking

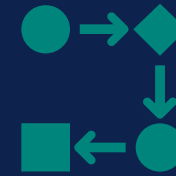
Build integration with Elsevier PURE Current Research Information System (CRIS)

Build integrations with other related services (NCUB Konfer, UKRI InfraPortal, Insitute for Technical Skills and Strategy)

Longer term:

Promote CRIS as source of truth for research infrastructure asset management.

Explore requirement and feasibility for adjacent services.



Optimise data management, quality, quantity and use



Build foundations to maximise value of the dataset

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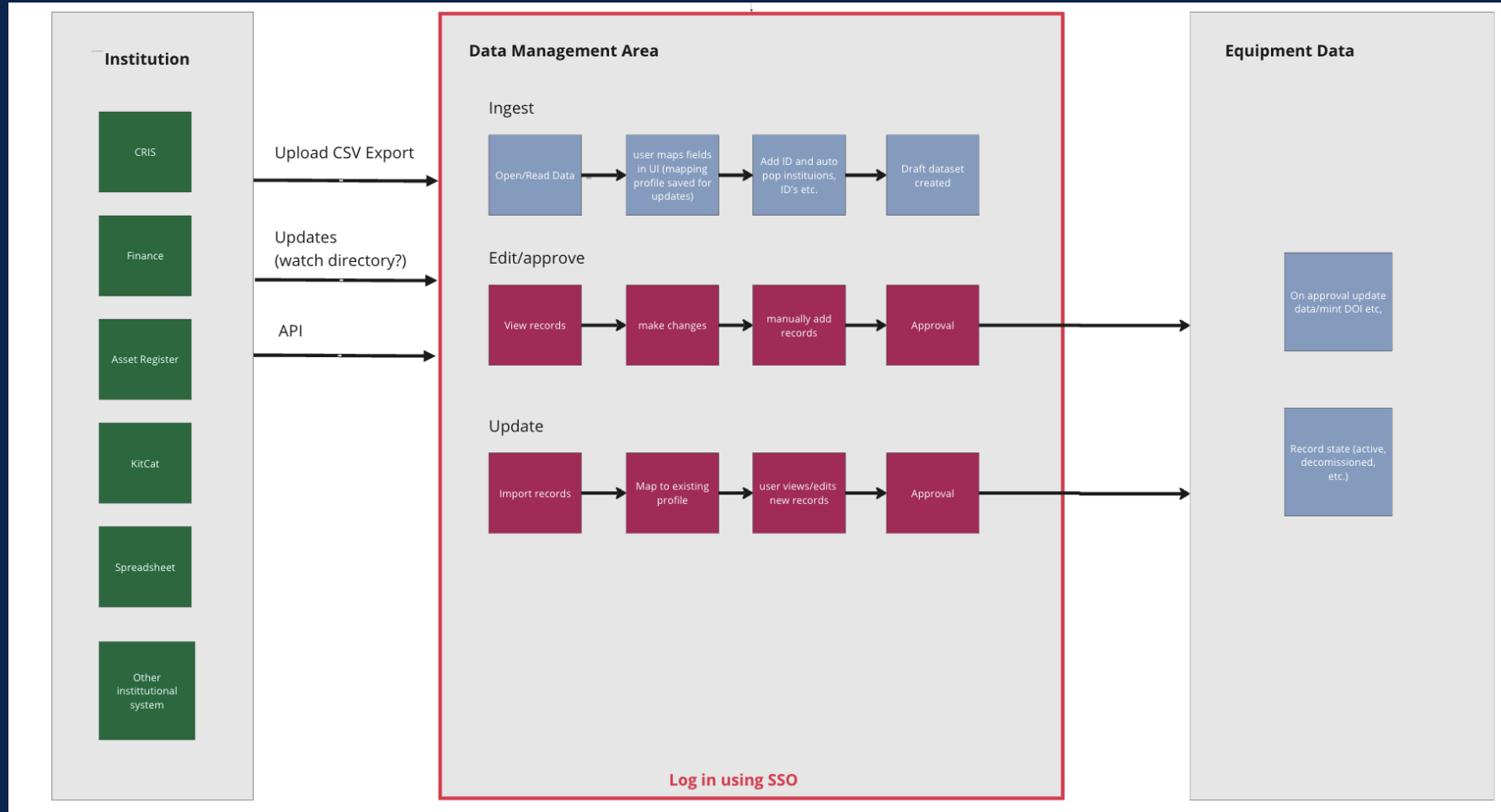
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Proposed Data Management Features

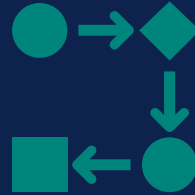
Data management area



Roadmap (2024/25)



Develop data management platform



Increase data quality, coverage and usage



Explore adjacent services



Data integration and metrics



Engagement and comms



Sustainability / Strategic partnership

Challenges

- Ensure researcher, institutional and funder awareness of PIDs for instruments and how to use them
- Alignment of CRIS/CERIF with PIDinst (ensure link to manufacturer organisational unit)
- How to integrate with other PID systems? e.g. Technicians adding equipment to ORCID profiles
- How to integrate into researcher workflow? e.g. exposing equipment registry/DOIs in research notebooks
- Further simplifying and automating data collection e.g. using supplier data/grant application data to base records on



Octopus at a glance

The primary research record for registering ideas and outputs at all stages

- Entirely open and free to use
- Share work in detail
- 8 publication types aligned with research process
- All publications are linked in branching chains
- Open, post-publication peer review
- Integration with existing research systems e.g. PIDs
- Aligned with open research policies and best practice

Learn more at: www.octopus.ac


PEER REVIEW
A considered, detailed review of any of the above kinds of publication.


RESEARCH PROBLEM
a neatly defined scientific problem.


HYPOTHESIS/RATIONALE
an original hypothesis relating to an existing published Problem or the rationale for how you think the Problem could be addressed.


METHODS/PROTOCOLS
a practical method of testing an existing published Hypothesis.


DATA/RESULTS
raw data or summarised results collected according to an existing published Method (can be linked to a data repository).


ANALYSIS
a statistical or thematic analysis of existing published Data or Results.


INTERPRETATION
a discussion around an existing published Analysis.


REAL-WORLD APPLICATION
real world applications arising from an existing published Interpretation.

Research management systems DPS



For institutions procuring a CRIS or repository



A tool for quicker and easier procurement



Procure from a list of pre-qualified suppliers



Access detailed information about system functionality and supplier service



Run a mini competition for specific requirements

Eligibility

For suppliers

- New suppliers can join at any time during the lifetime of the DPS

For buyers

- The DPS can be used by any National Research and Education Network (NREN) community with a direct connection to Janet or that is a member of GÉANT

Find out more

- Email rms-support@jisc.ac.uk
- <https://www.jisc.ac.uk/research-management-systems-dps>

Thank you

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