

Supporting Whole System Energy Researchers with data management planning

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The UK Energy Research Centre (www.ukerc.ac.uk) undertakes “Independent whole systems research for a sustainable energy future” and was formed in 2004. The Energy Data Centre is a capability of UKERC and provides a discovery portal and data management expertise for researchers funded through UKERC. Current key priorities for the EDC are:



Continuing service development and maintenance



Enabling FAIR data



Focusing on Environmental sustainability



Preserving energy knowledge through building a grey literature collection



Contributing to UKRI Digital Research Infrastructure

UKERC
Energy Data Centre

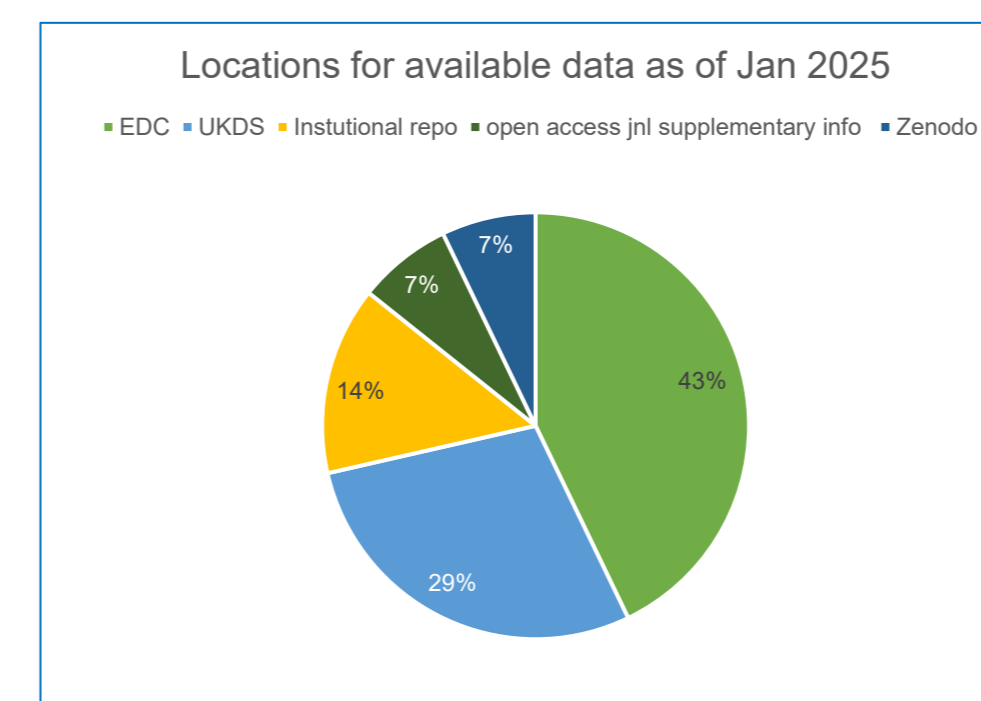
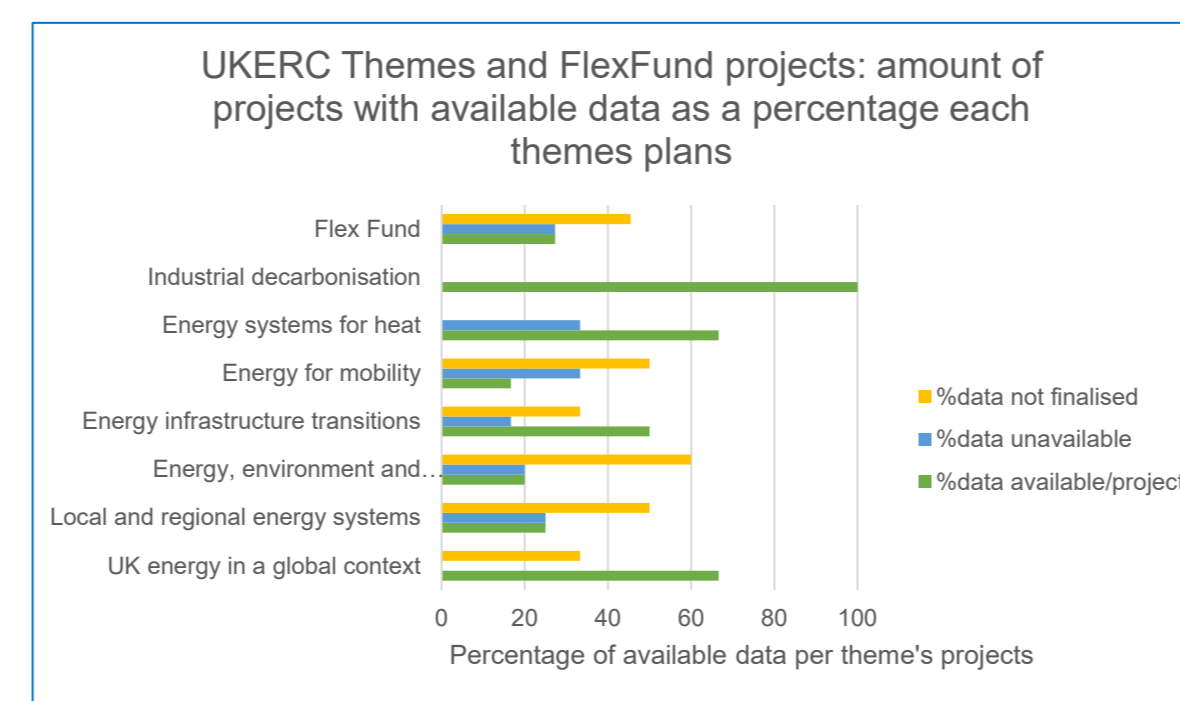
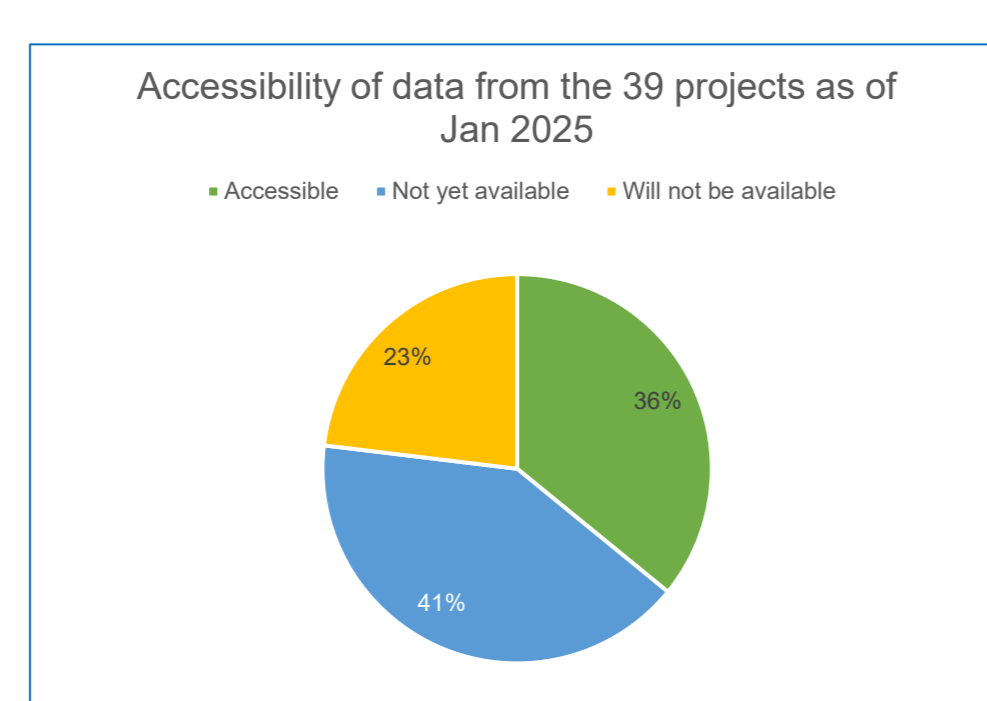
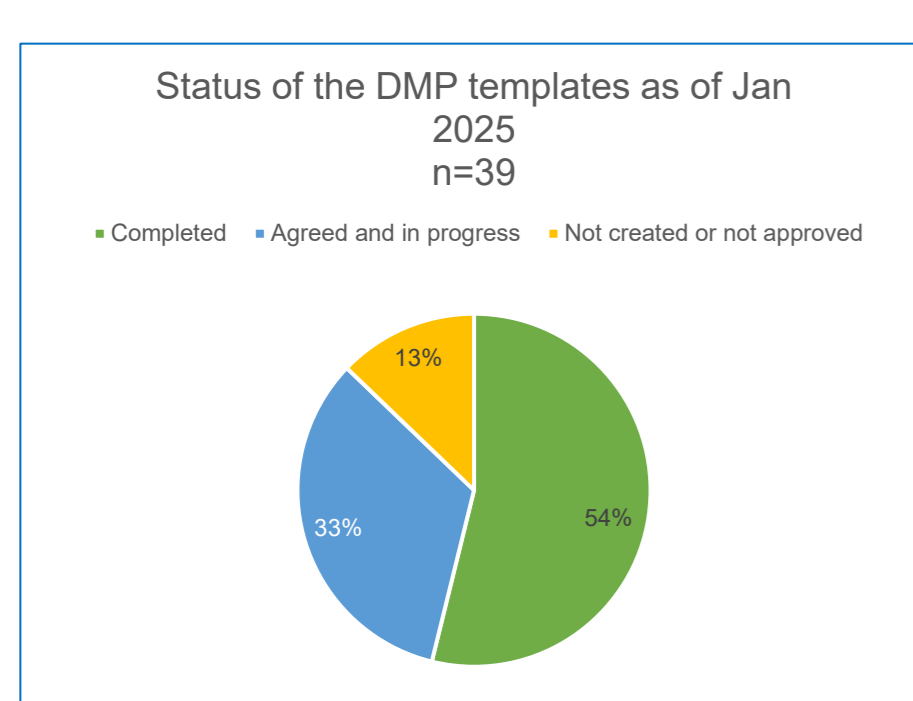
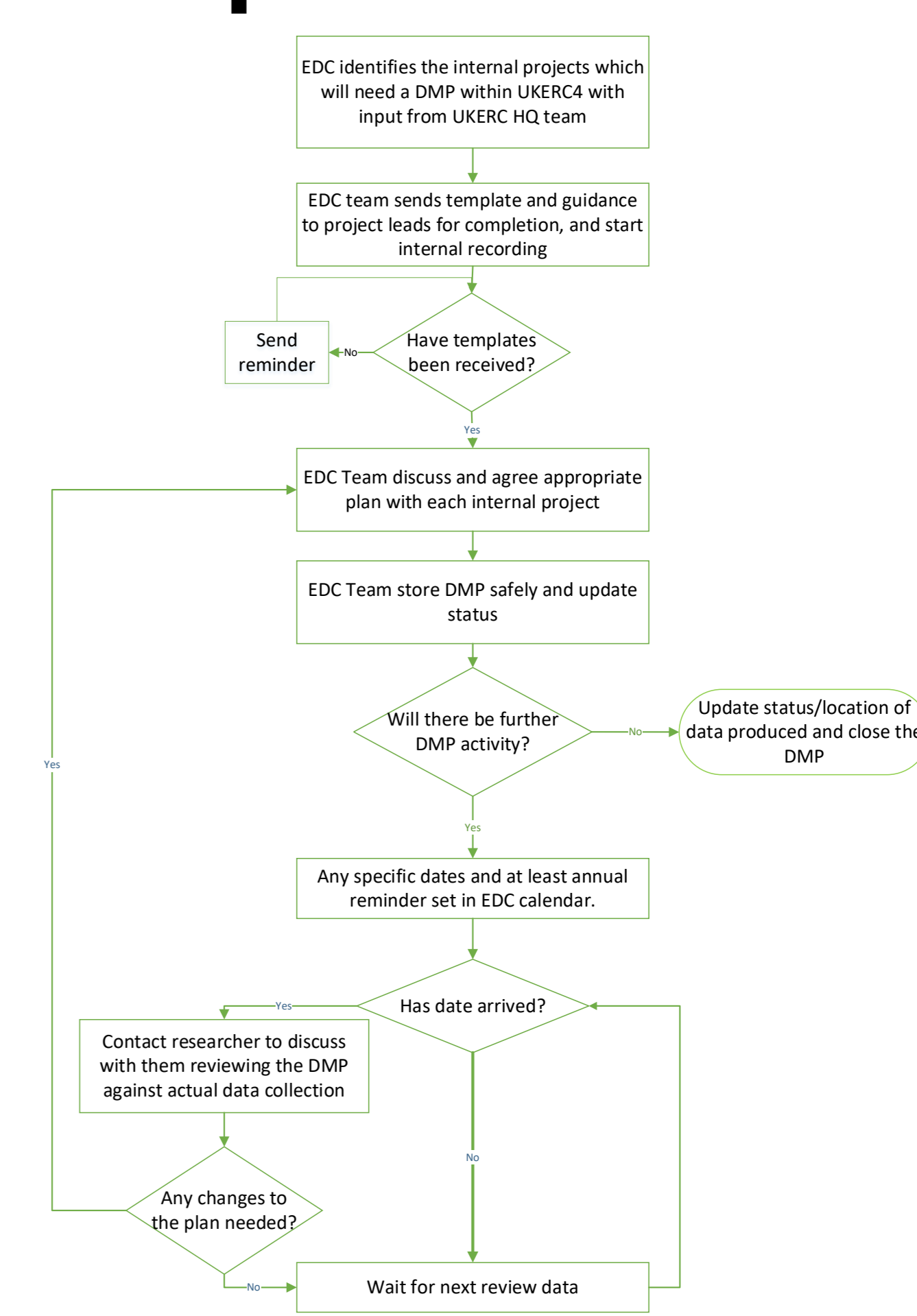


Data Management Planning

The EDC team have always supported UKERC academics to deposit data, but for the UKERC phase 4 which ran from 2020 -2024, DMP outcomes were a key performance indicator. Our approach was “as open as possible, as closed as necessary” and “make conscious decisions”

The EDC team tracked 39 DMPs created by researchers from 23 UK academic institutions. The research topics covered a wide range of disciplines from psychology, political science, economics to heavy engineering. Most researchers completed a DMP. UKERC4 has finished so we are now tracking outcomes.

DMP process



Lessons learnt

Culture

- Need engagement from Theme (senior) leaders
- Noticeable differences in approach to DMPs by domain
- Academics know about FAIR and reproducibility challenges
- Most DMPs reflected conscious decisions

Roles


- EDC team responsible for DMP tracking was effective, but resource intensive
- More data available from UKERC than in previous funding

Types of data

- Elite interviews: difficult to share without impacting on discussions
- Modelling: Widely used, what to share is not standardised
- Curating computational notebooks is still an open question

Data management related projects

FAIR-IMPACT

- Updated policies and guidance and made policies publicly available. See the results: 

Data Infrastructure for National Infrastructures

- Data sharing in Energy Modelling workshop. Outcomes addressed Infrastructure, Guidance & support, the Energy modelling community and Research Organisations
- Energy Subject classification/ontologies review

Next steps

- Continue DMP process for UKERC 2024-2029
- Introduce more automation to reduce effort
- Track open UKERC4 DMPs to data deposit and completion.