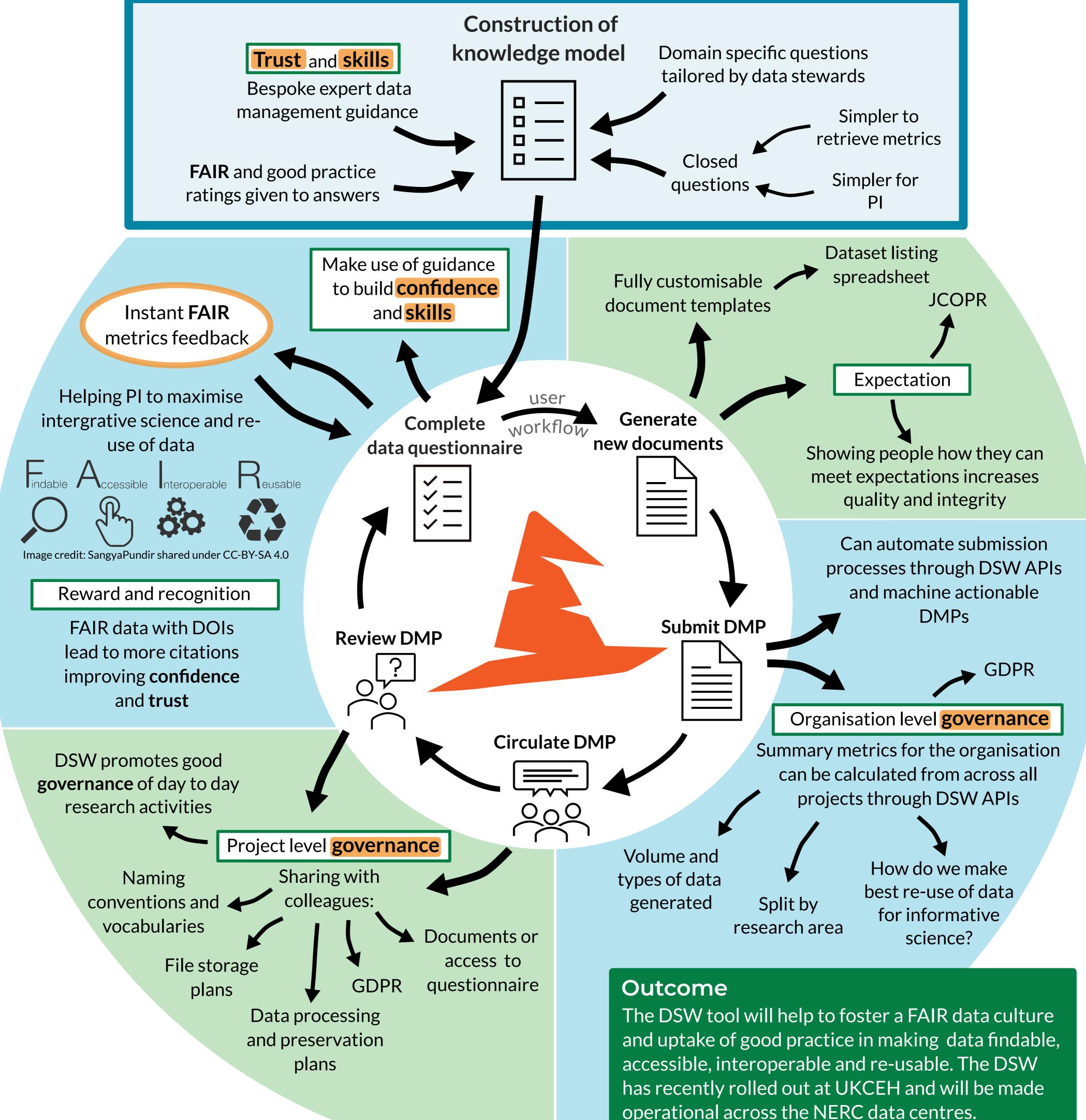# The Data Stewardship Wizard: Delivering the FAIR agenda

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Introduction

The Data Stewardship Wizard (DSW) is a new tool with a fundamentally different approach to data management, designed to help deliver FAIR data in practice. The tool guides researchers through a series of relevant, multi-choice questions in a smart questionnaire, offering links to expert guidance and showing metrics indicating progress towards FAIR data based on the answers. It also provides a bespoke data management plan document based on the questionnaire answers, with no further effort from the researcher.

Context

NERC funded environmental science is tackling larger and ever more complex questions. With this greater ambition comes the combined challenges of data deluge, integrative and cost-effective research, as well as meeting expectation and requirements in the age of open science. The internationally recognised FAIR Data Principles, as part of good research data governance, will increase the reusability and value of data holdings. This is beneficial for integrative science, enhances the impact of research and delivers important aspects of the open science agenda.

Construction of knowledge model

Trust and skills
Bespoke expert data management guidance

FAIR and good practice ratings given to answers

Domain specific questions tailored by data stewards

Simpler to retrieve metrics

Closed questions

Simpler for PI

Make use of guidance to build confidence and skills

Instant FAIR metrics feedback

Helping PI to maximise intergrative science and re-use of data

Findable Accessible Interoperable Reusable

Image credit: SangyaPundir shared under CC-BY-SA 4.0

Reward and recognition
FAIR data with DOIs lead to more citations improving confidence and trust

DSW promotes good governance of day to day research activities

Project level governance
Sharing with colleagues:

Naming conventions and vocabularies

File storage plans

GDPR

Documents or access to questionnaire

Data processing and preservation plans

Fully customisable document templates

Dataset listing spreadsheet

JCOPR

Expectation

Showing people how they can meet expectations increases quality and integrity

Can automate submission processes through DSW APIs and machine actionable DMPs

GDPR

Organisation level governance

Summary metrics for the organisation can be calculated from across all projects through DSW APIs

Volume and types of data generated

Split by research area

How do we make best re-use of data for informative science?

user workflow

Complete data questionnaire → Generate new documents → Submit DMP → Circulate DMP → Review DMP →

Outcome

The DSW tool will help to foster a FAIR data culture and uptake of good practice in making data findable, accessible, interoperable and re-usable. The DSW has recently rolled out at UKCEH and will be made operational across the NERC data centres.

UKRI NERC Environmental Data Service

UK Centre for Ecology & Hydrology

DSW