Open Research Publishing Platforms:

open, rapid, holistic reporting of outputs

Rebecca Lawrence, PhD
Managing Director, F1000 Group
rebecca.lawrence@f1000.com

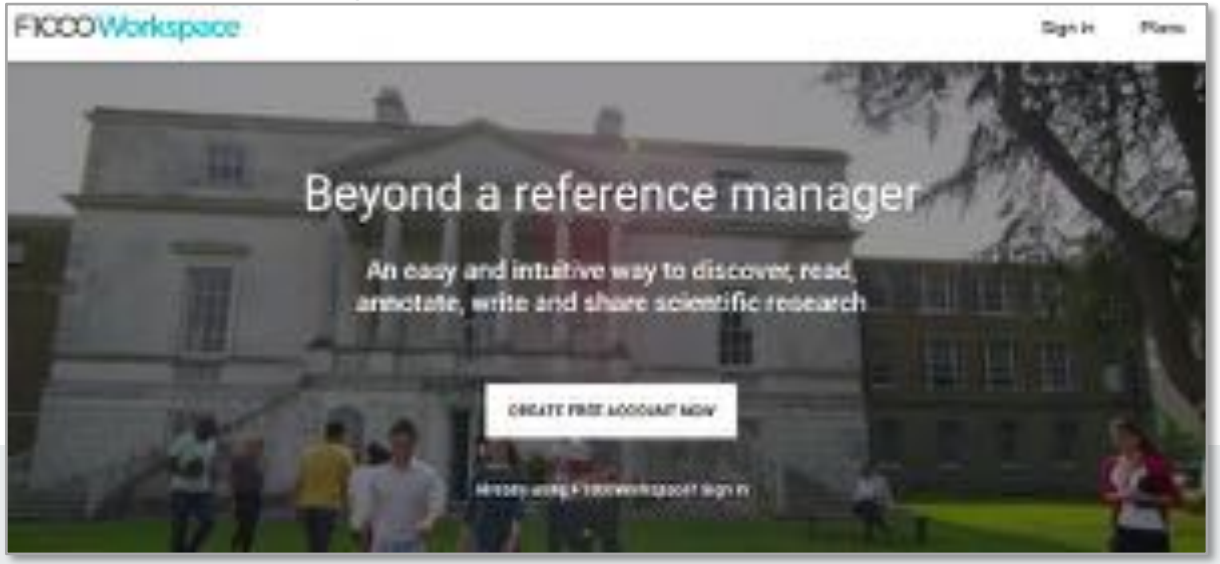
F1000

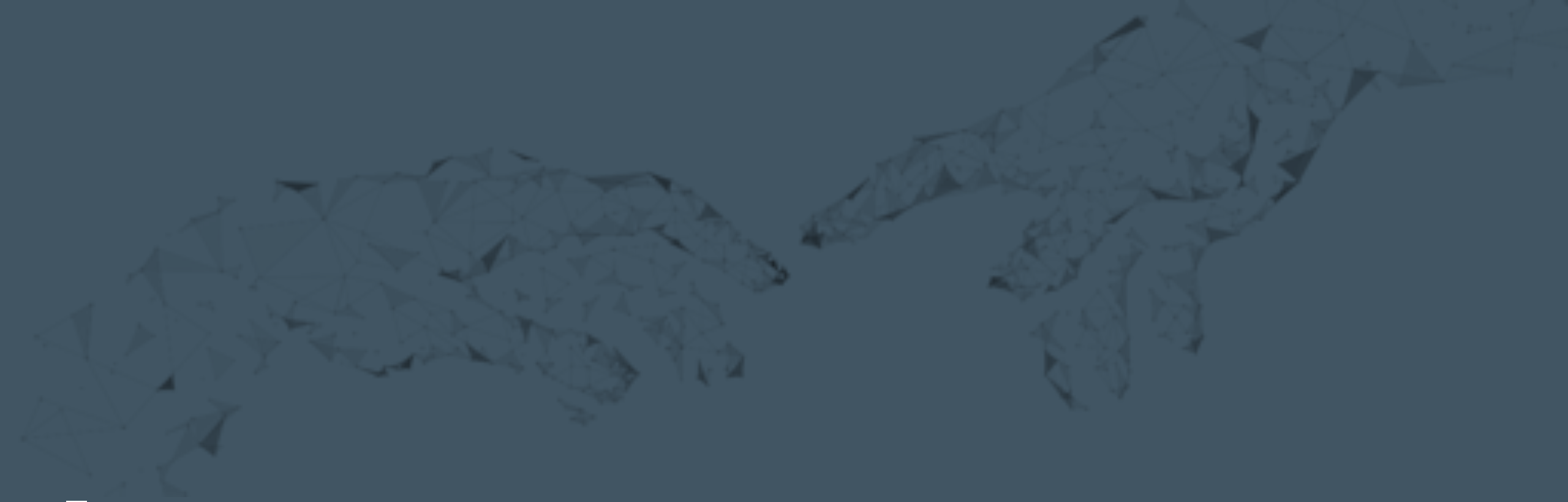
F1000

Open science publishing

Expert-based article recommendations

Tools to manage & discover references, and write

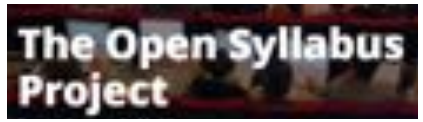


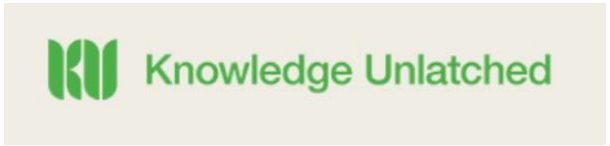


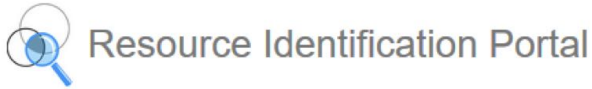
A changing landscape for research

F1000

© 2000-2018 Faculty of 1000 Ltd







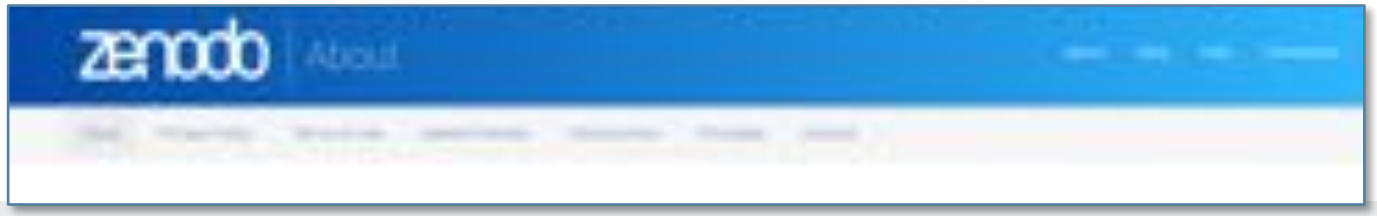
how we share, discover & talk about science is evolving fast

© 2000-2018 Faculty of 1000 Ltd

Widening range of research outputs available

Data

Resources



Software

all with a trackable & persistent DOIs

© 2000-2018 Faculty of 1000 Ltd

A shift to more open & collaborative science

the future of science is OPEN

fosteropenscience.eu

Source: https://www.fosteropenscience.eu/content/what-open-science-introduction

© 2000-2018 Faculty of 1000 Ltd

Massive cost of publishing

- Much research behind paywalls
- Long delays in publishing
- Peer review non-transparent
- Lack of access to data
- Much good research never published
- Significant research waste

© 2000-2018 Faculty of 1000 Ltd

Need to improve how researchers are assessed

https://sfdora.org

New models of scholarly publishing

F1000

© 2000-2018 Faculty of 1000 Ltd

Rapid publication models: growth in preprints

Source: 2018 http://asapbio.org/

F1000Research: Preprints + Journal-like model

Submission and preprint-like stage
Open Access

Broad range of article types:

Research Articles
Data Notes
Software Tools
Methods Articles
Systematic Reviews etc

© 2000-2018 Faculty of 1000 Ltd

F1000Research: Preprints + Journal-like model

Submission and preprint-like stage
Open Access

Broad range of article types:

Research Articles
Data Notes
Software Tools
Methods Articles
Systematic Reviews etc

- Plagiarism checks
- Image manipulation checks
- Ethical checks
- FAIR data compliance
- FAIR software compliance
- Open materials & methods
- Adherence to recognised standards
- Open Access compliance

© 2000-2018 Faculty of 1000 Ltd

F1000Research: Preprints + Journal-like model

Submission and preprint-like stage
Open Access

Broad range of article types:

Research Articles
Data Notes
Software Tools
Methods Articles
Systematic Reviews etc

Formal *invited* peer review
Indexing in bibliographic databases

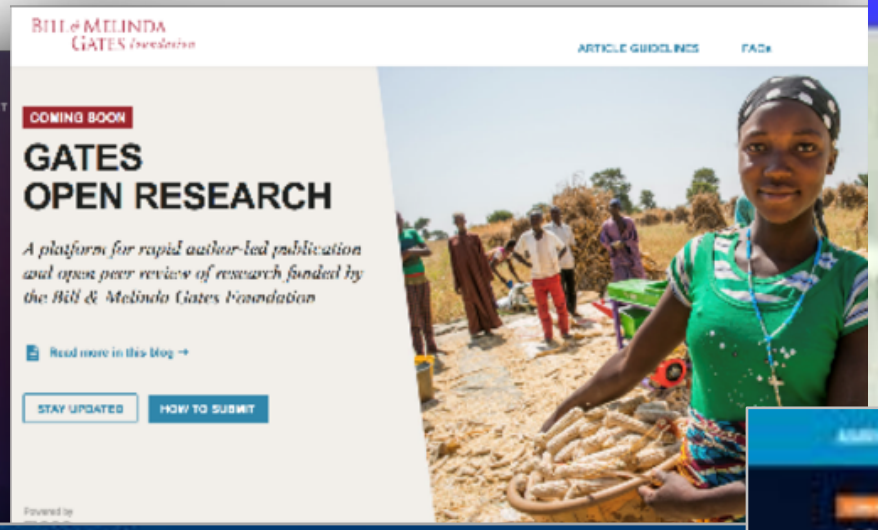
Articles that pass peer review are indexed in PubMed, Scopus, etc.

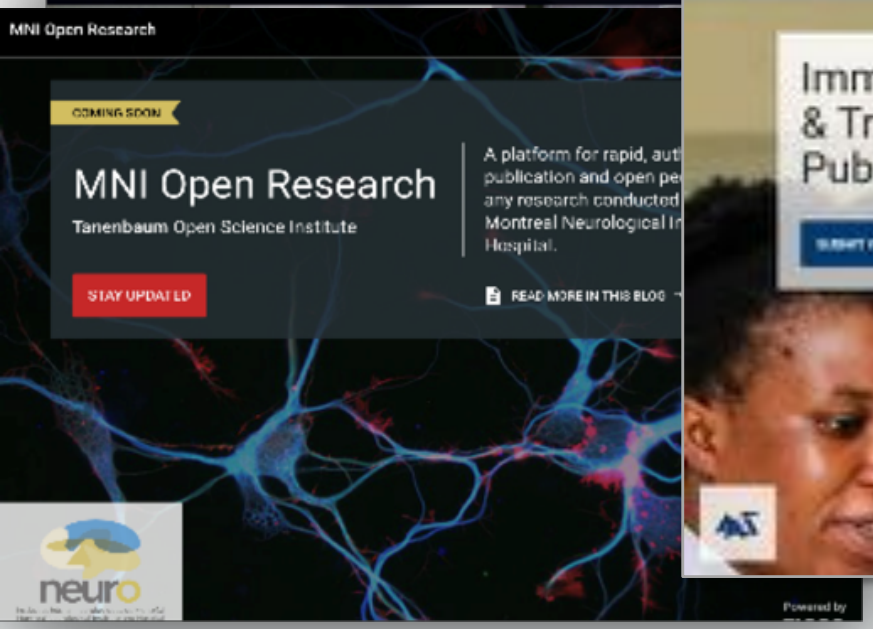
Review status:

Approved
Approved with reservations
Not approved

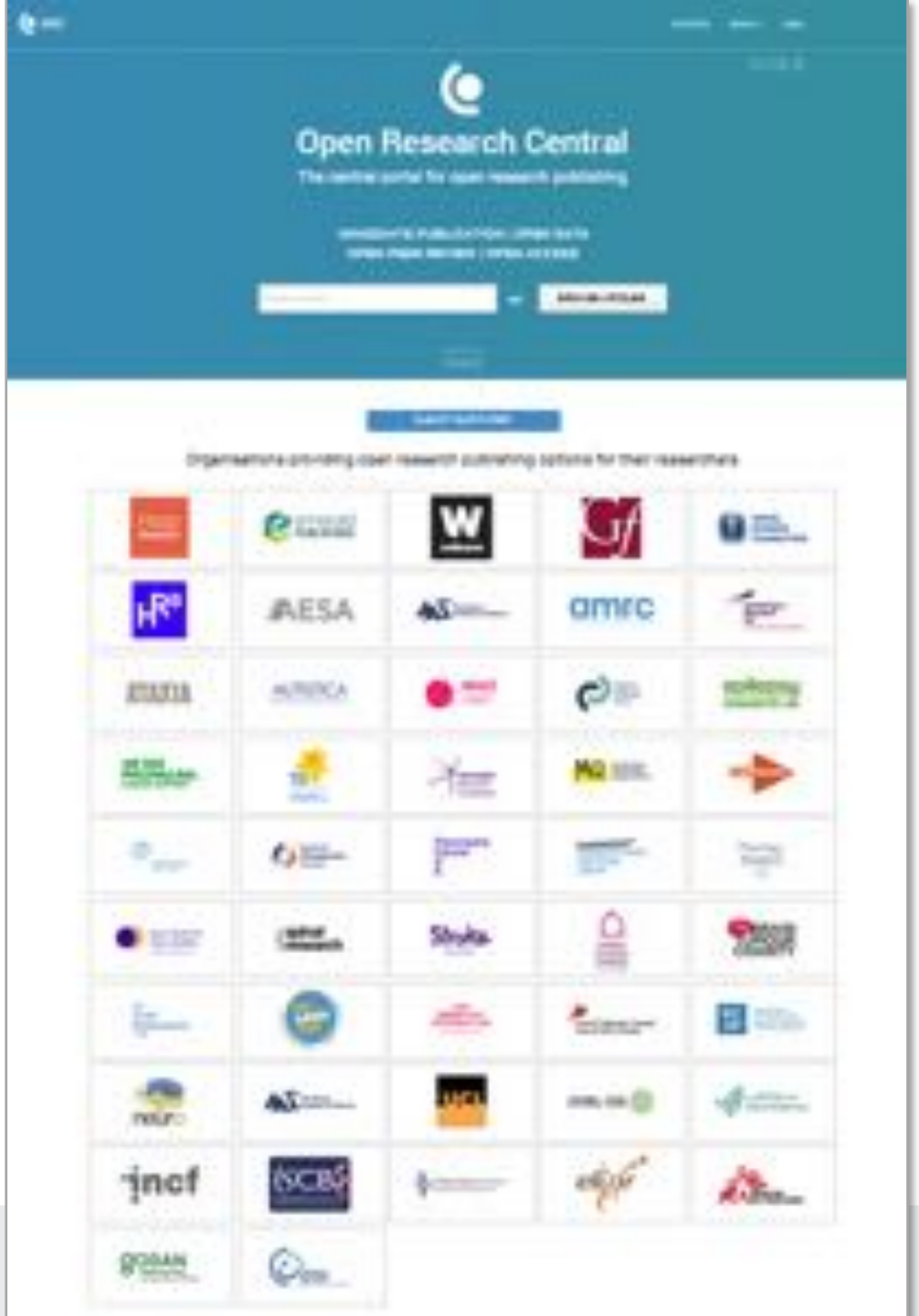
© 2000-2018 Faculty of 1000 Ltd

Research funder-/institution-controlled platforms





Central portal for publication



© 2000-2018 Faculty of 1000 Ltd

Incentivising a shift to new models

© 2000-2018 Faculty of 1000 Ltd

How to incentivise a shift towards new models

- **Leadership & innovation** – testing new approaches (e.g. Wellcome Open Research, Gates Open Research, DORA)

© 2000-2018 Faculty of 1000 Ltd

DORA

sfdora.org

@DORAssessment

Signed by >500 organizations and >12,500 individuals

Supporting organizations

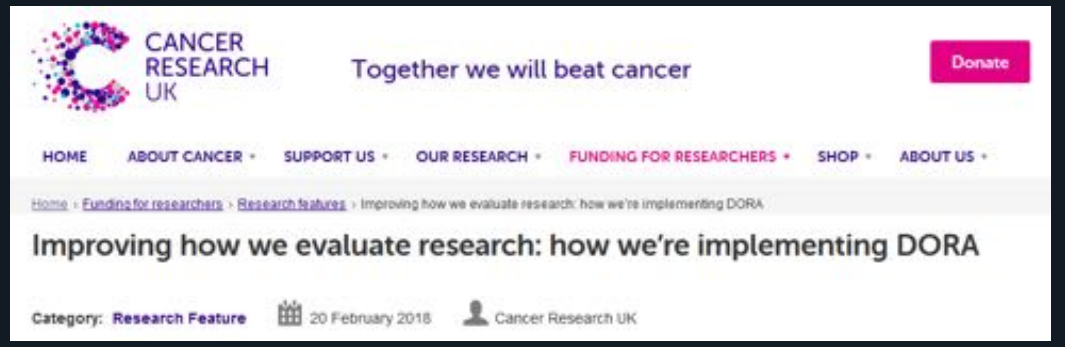
ascb an international forum for cell biology · CANCER RESEARCH UK · eLIFE · EMBO excellence in life sciences · F1000Research Open for Science · Hindawi · PLOS · The Company of Biologists · wellcome

Leadership & change: research funders

Application includes:

- List of research outputs
- Contributions to mentorship
- Output sharing plan to advance potential health benefits
- Plans for public engagement

Guidance provided to advisory panel members



Application includes:

- List of research outputs
- Summary of 3-5 achievements
- Space to describe other measures of impact

Reminds peer reviewers and committee members of DORA principles throughout funding process

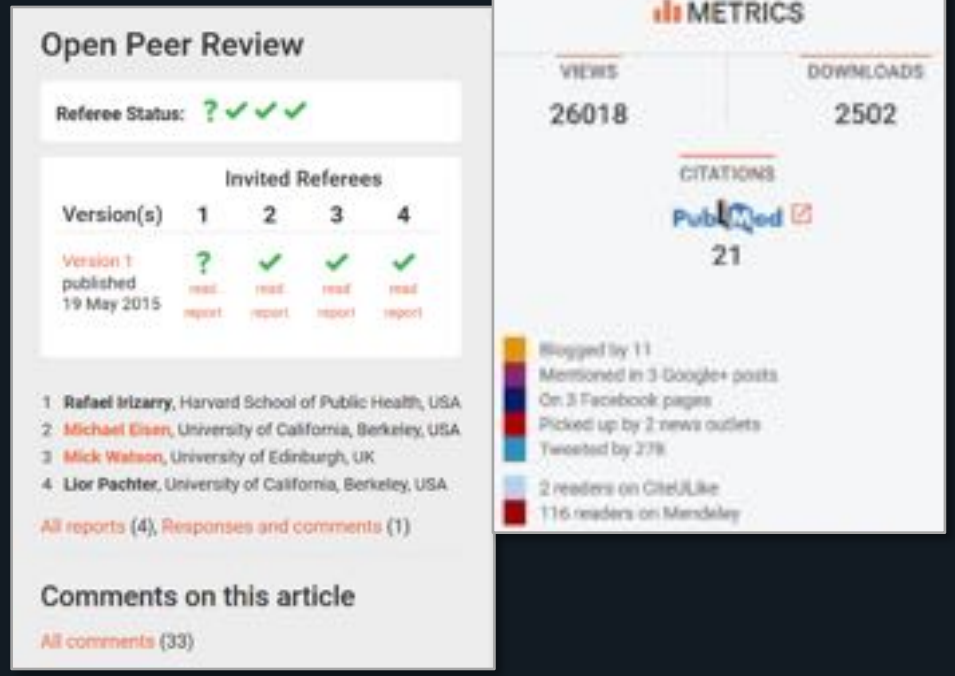
DORA

Leadership & change: publishers

- Dedicated page on website describing how its journals comply with DORA recommendations
- Full portfolio of real time metrics

F1000Research

- Broad portfolio of use, re-use, reach & attention indicators
- Indicators around peer review
- Real time



- Shows citation distributions for its journals
- all metrics side-by-side - rounded to single digit

DORA

How to incentivise a shift towards new models

- **Leadership & innovation** – testing new approaches (e.g. Wellcome Open Research, Gates Open Research, DORA)
- **Build evidence-base** around ‘what works’ in OS

© 2000-2018 Faculty of 1000 Ltd

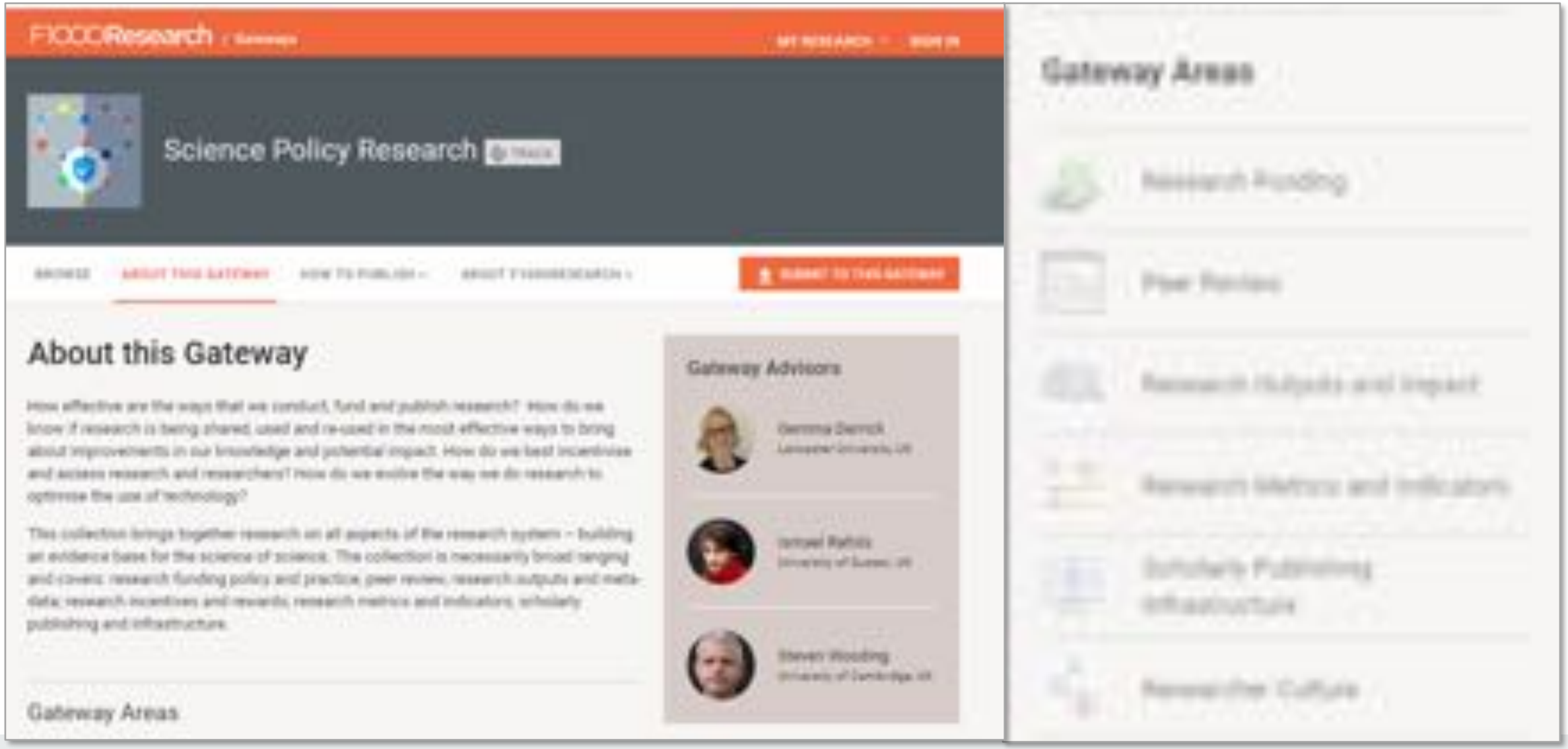
Build the evidence base: research on research

“Science remains the key driver of human progress, yet we have little evidence on how to best fund science and incentivize high-quality work.”

John Ioannides (2018), Professor of Medicine & Health Policy

© 2000-2018 Faculty of 1000 Ltd

F1000Research Science Policy Research Gateway



© 2000-2018 Faculty of 1000 Ltd

How to incentivise a shift towards new models

- **Leadership & innovation** – testing new approaches (e.g. Wellcome Open Research, Gates Open Research, DORA)
- **Build evidence-base** around ‘what works’ in OS
- **Policy requirements (e.g. OA mandates; Horizon Europe)**

© 2000-2018 Faculty of 1000 Ltd

European Commission
Europe's Future:
Open Innovation
Open Science
Open to the World

Policy requirements: e.g. Plan S

https://www.scienceeurope.org/coalition-s/

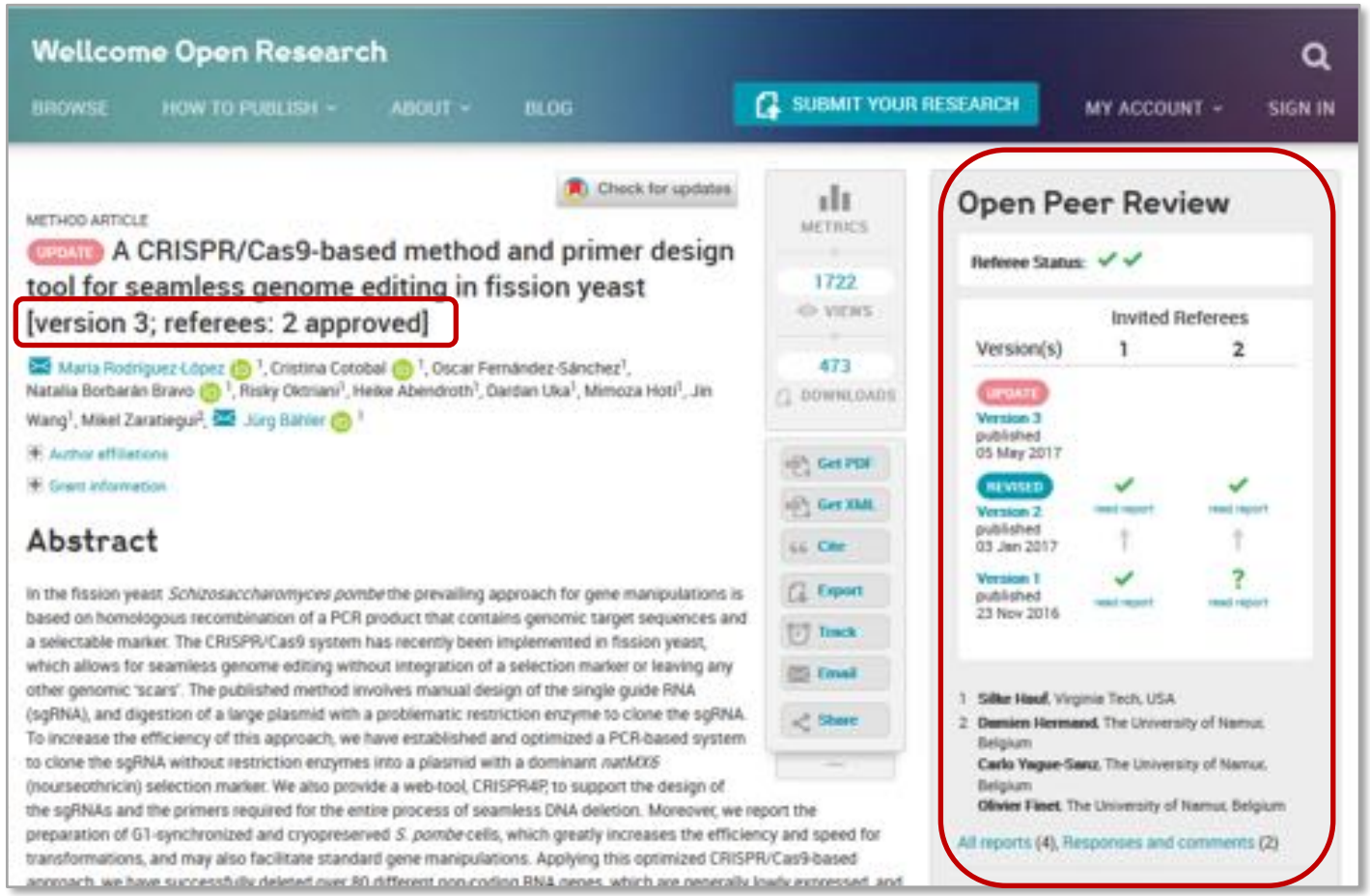
© 2000-2018 Faculty of 1000 Ltd

How to incentivise a shift towards new models

- **Leadership & innovation** – testing new approaches (e.g. Wellcome Open Research, Gates Open Research, DORA)
- **Build evidence-base** around ‘what works’ in OS
- Policy requirements (e.g. OA mandates; EU Horizon 2020)
- **Provide routes for ‘behaviours’ to be recognised & rewarded**

© 2000-2018 Faculty of 1000 Ltd

Look at outputs more holistically - I

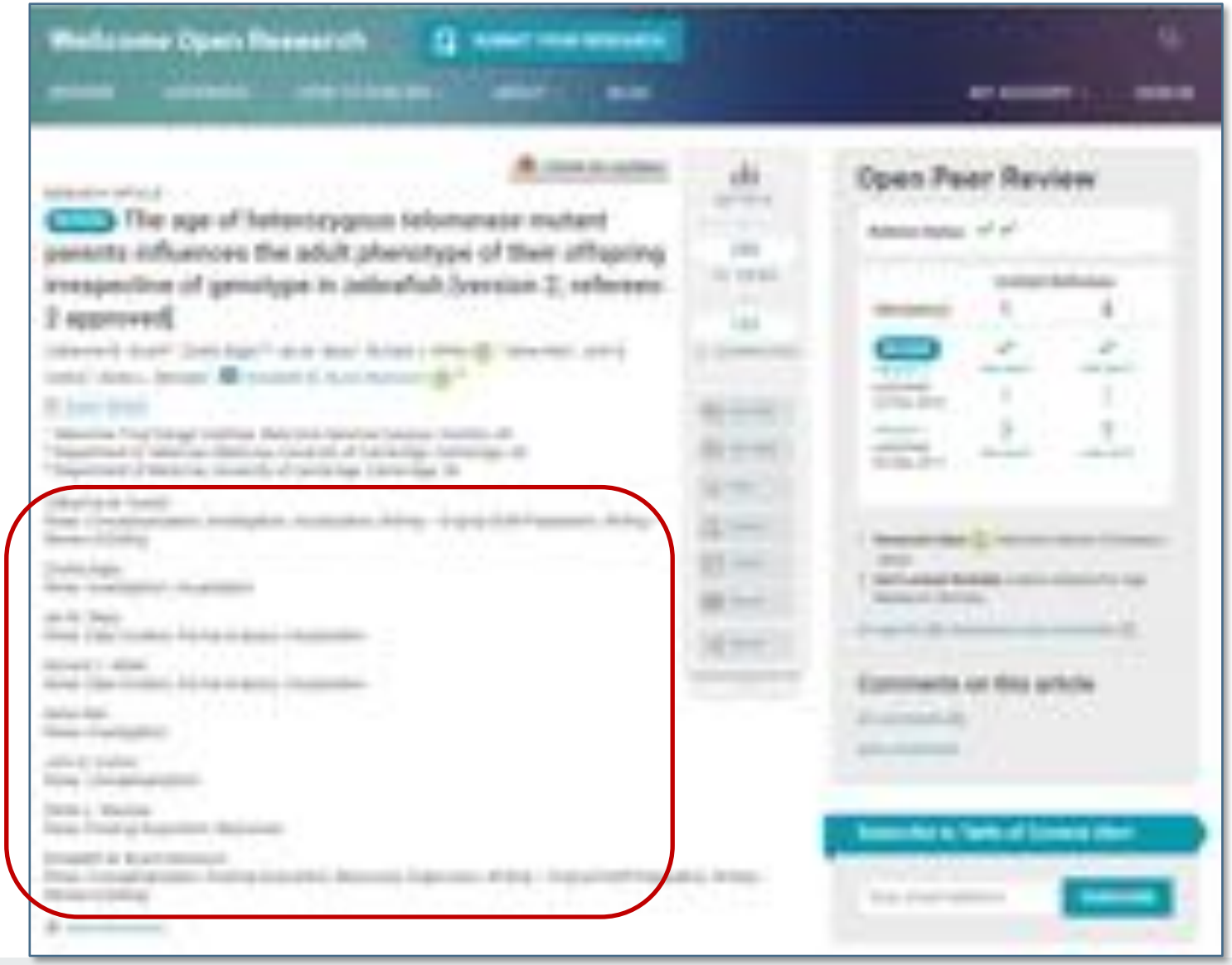


Non-static view of articles:

- versioning
- continuous publishing
- living figures

© 2000-2018 Faculty of 1000 Ltd

Look at outputs more holistically - II



From ‘author’ to contributor (CRediT) – transparency around role

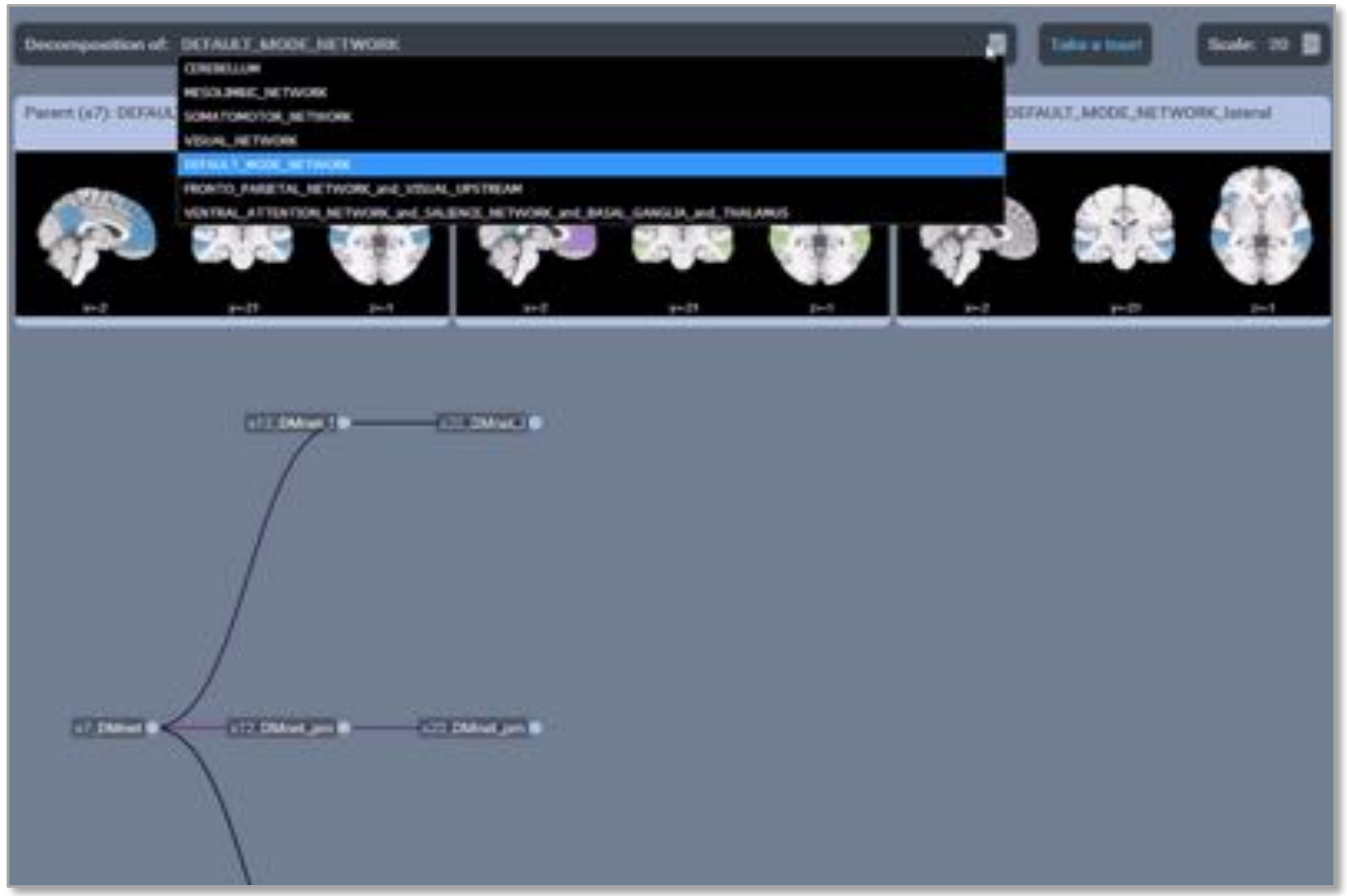
© 2000-2018 Faculty of 1000 Ltd

Look at outputs more holistically - III

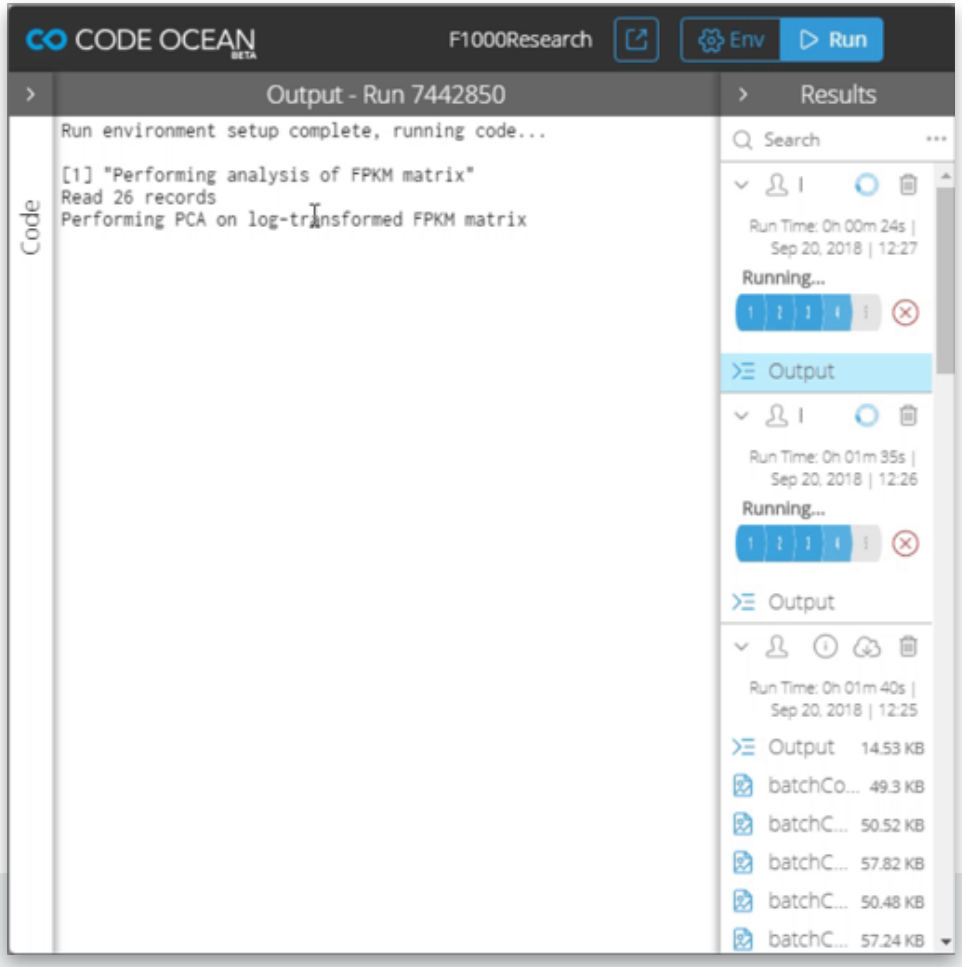
Credit for expert input
(‘peer review)

© 2000-2018 Faculty of 1000 Ltd

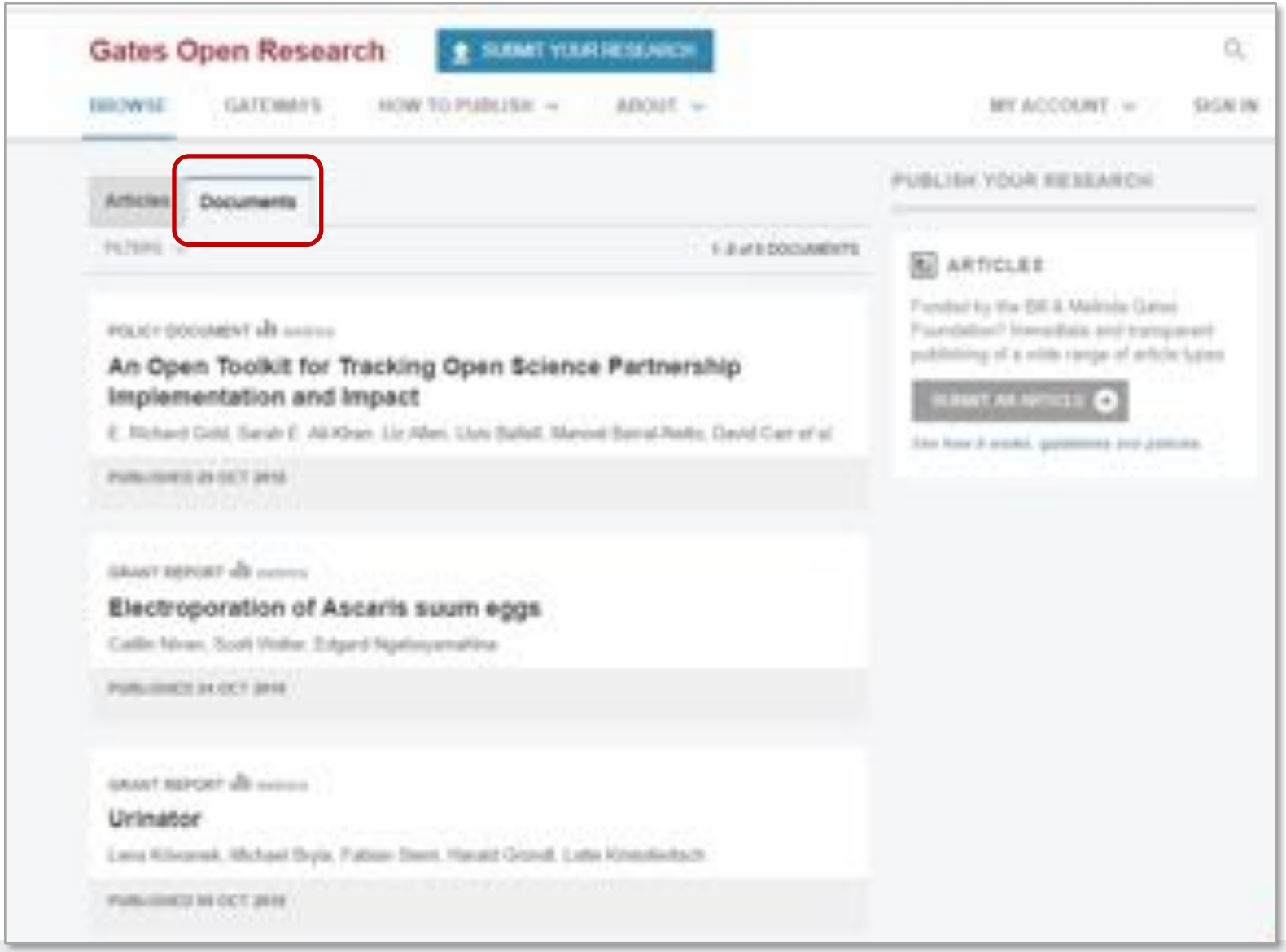
Look at outputs more holistically - IV



Support review and use of associated data and code



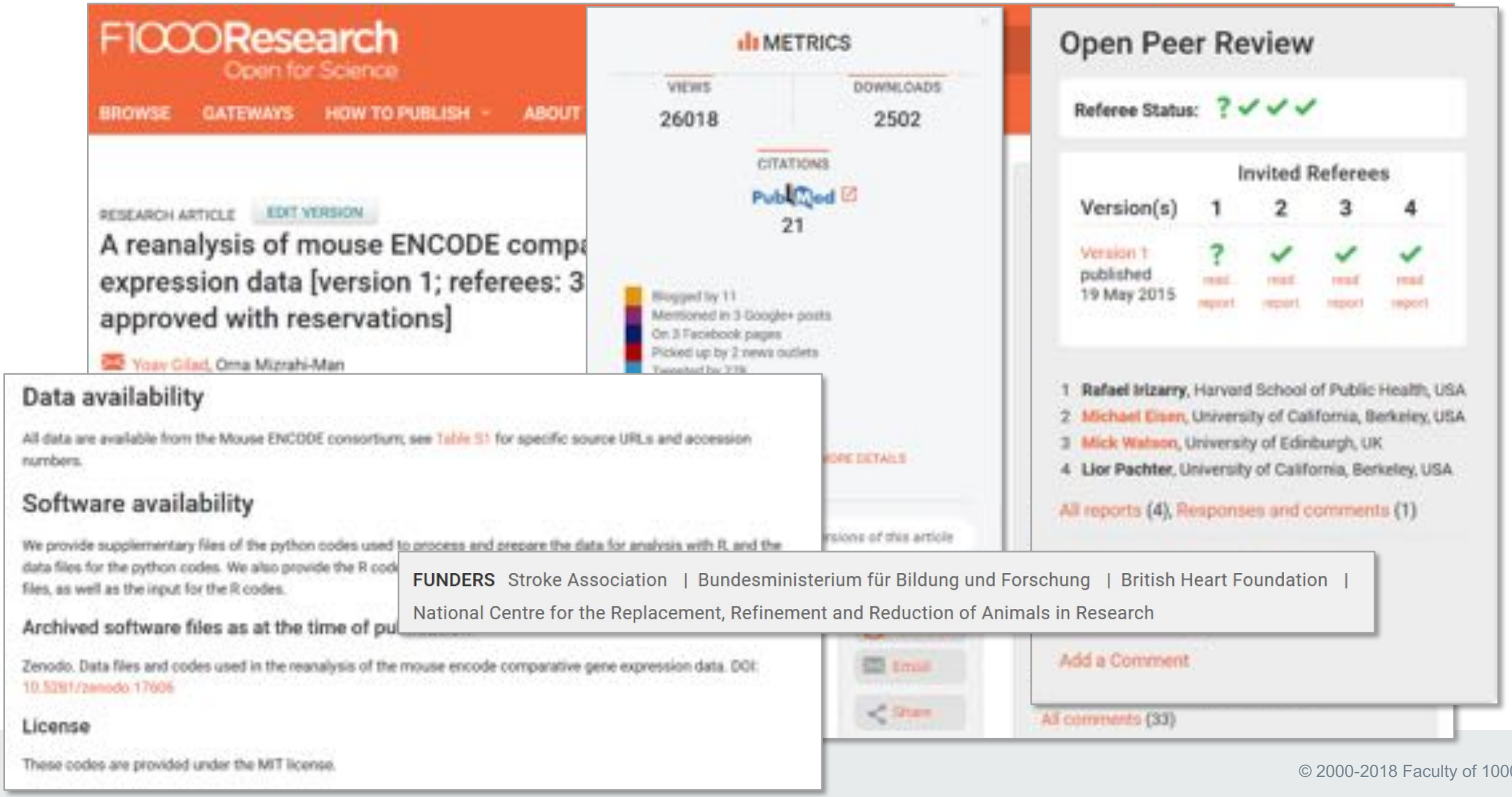
Look at outputs more holistically - V



Digital footprint for all outputs types

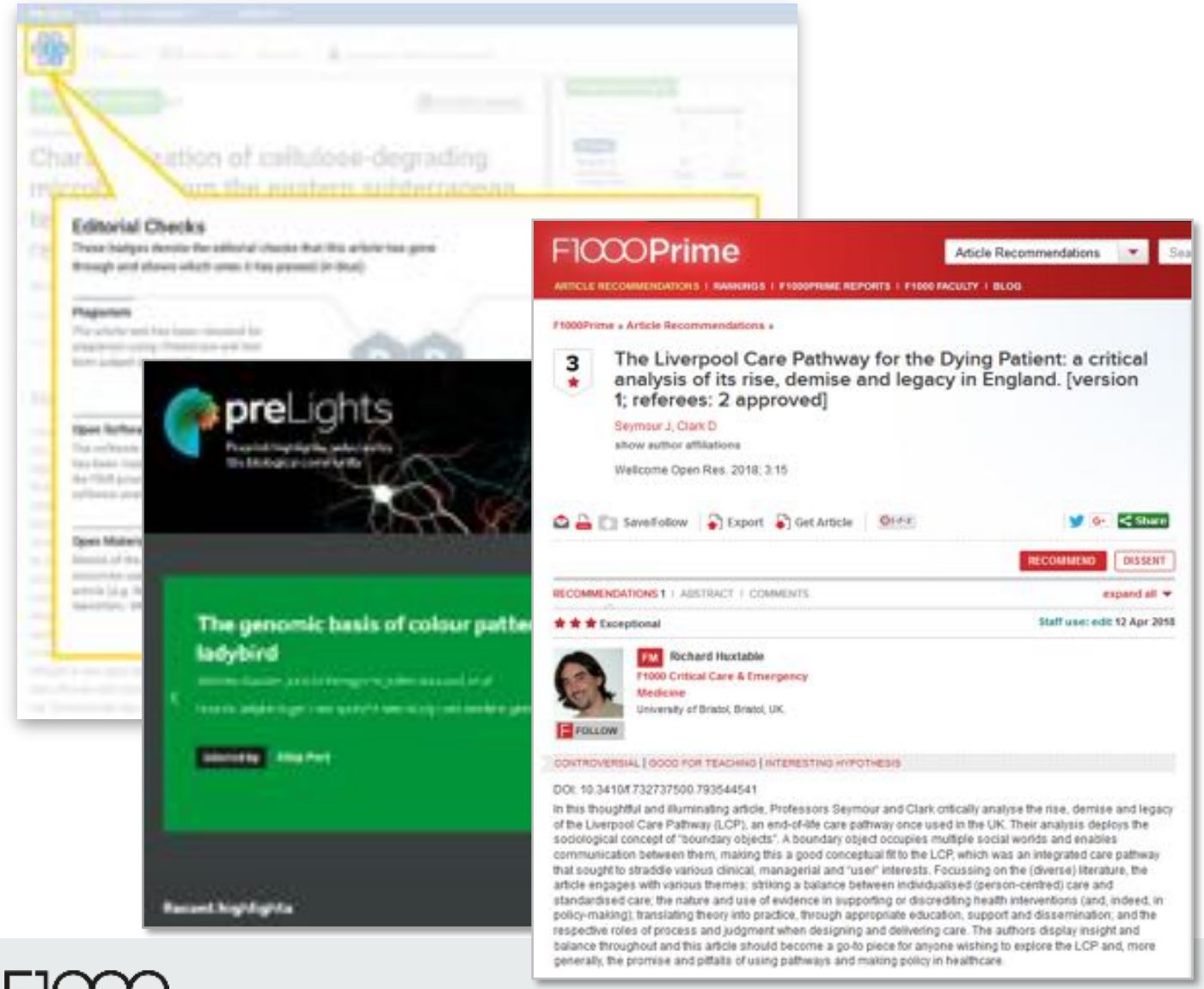
© 2000-2018 Faculty of 1000 Ltd

Range of outputs and associated metrics



© 2000-2018 Faculty of 1000 Ltd

Indicators of quality: existing and new



- Badges to capture level of
  - checks (e.g. plagiarism, reporting)
  - review (e.g. expert peer review, community review)
- Relative Citation Ratio
- Expert recommendations
  - (e.g. F1000Prime, PreLights, PreReview, Research Highlights)
- Journals & societies could move from publishing new findings to curating across all published findings (not just what sent to them)

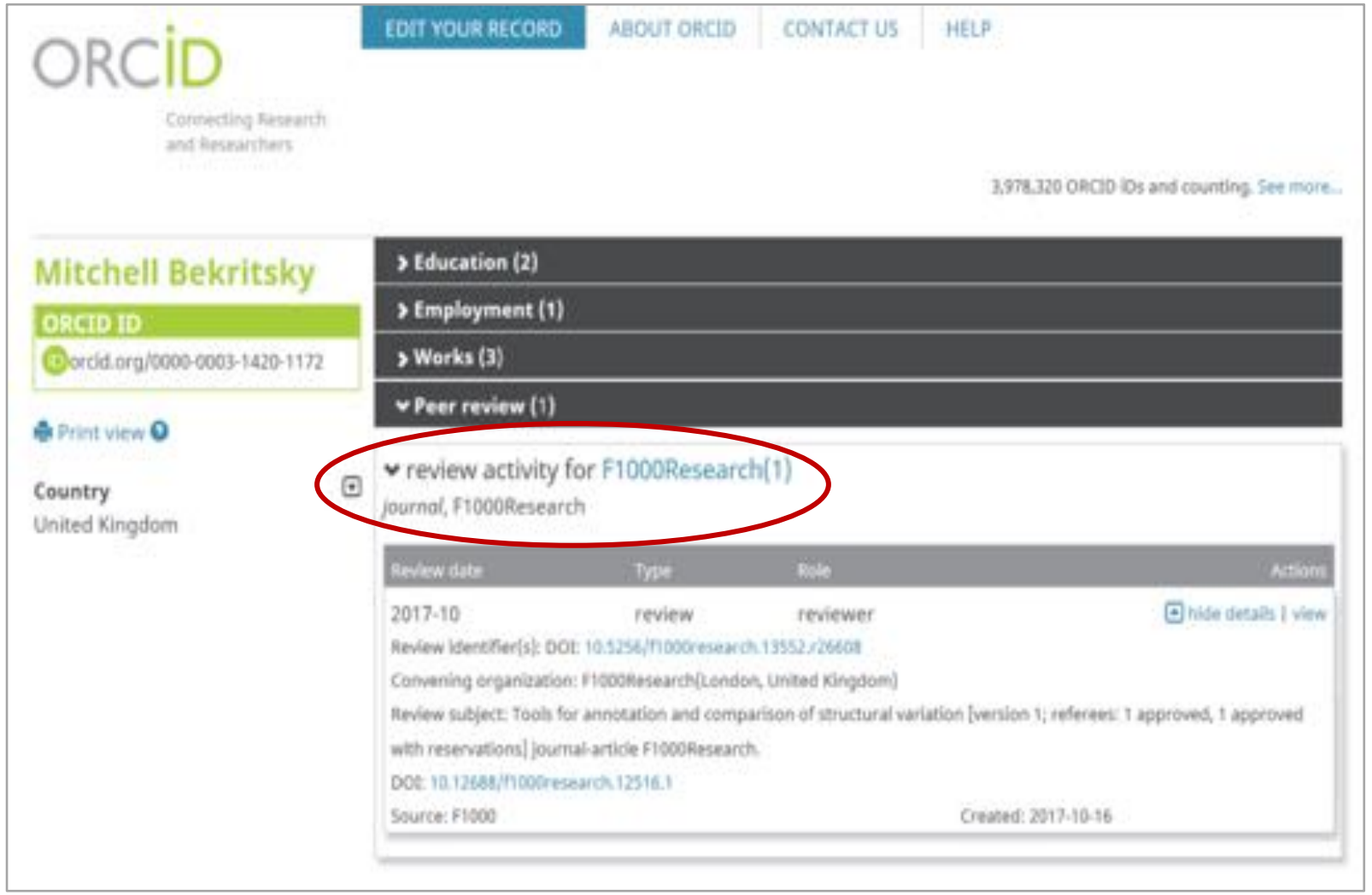
© 2000-2018 Faculty of 1000 Ltd

How to incentivise a shift towards new models

- **Leadership & innovation** – testing new approaches (e.g. Wellcome Open Research, Gates Open Research, DORA)
- **Build evidence-base** around ‘what works’ in OS
- Policy requirements (e.g. OA mandates; EU Horizon 2020)
- **Provide routes for ‘behaviours’ to be recognised & rewarded**
- **Making it easy and connected – interoperability**

© 2000-2018 Faculty of 1000 Ltd

Recognising peer review effort



© 2000-2018 Faculty of 1000 Ltd

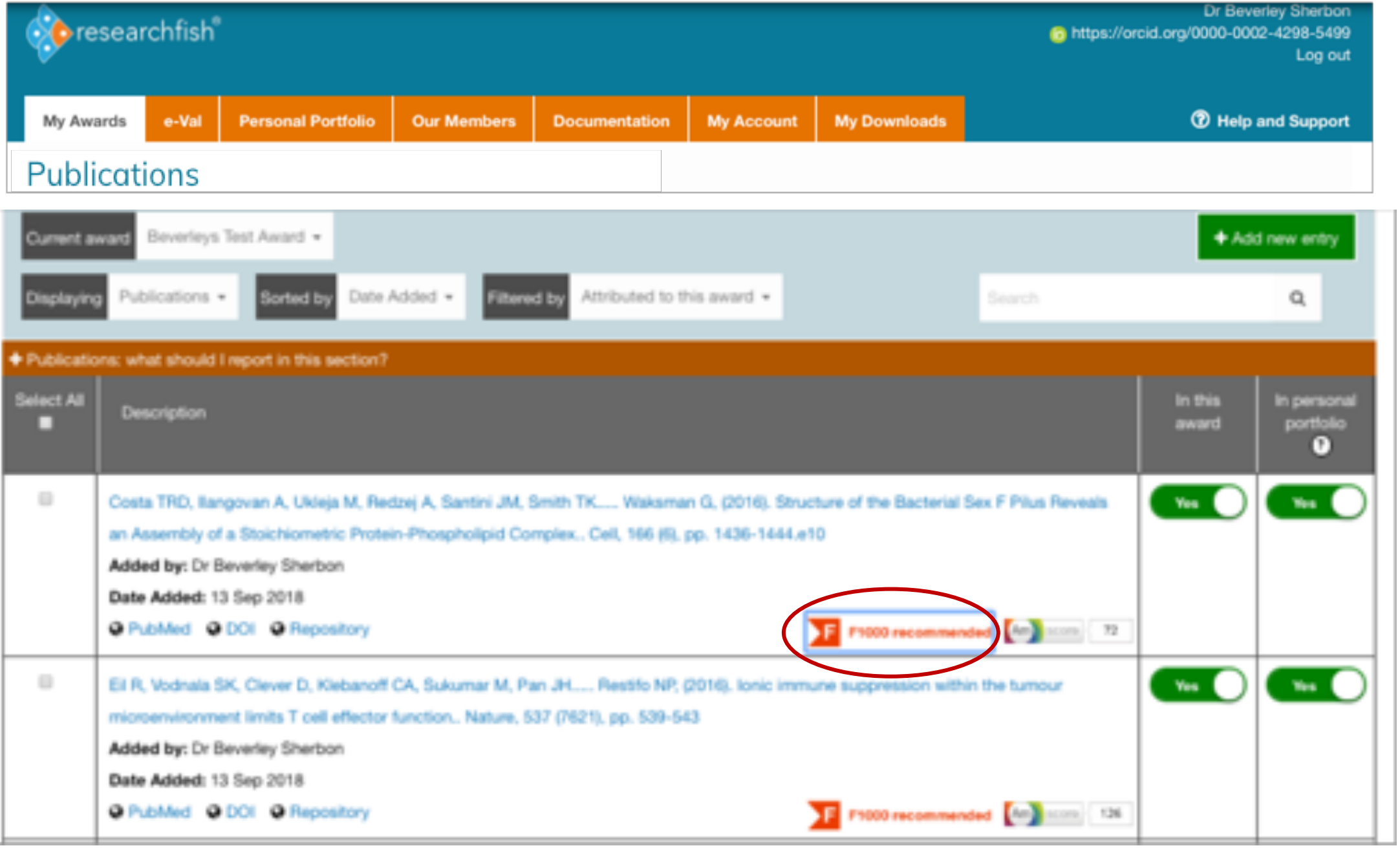
Making data count

DataCite

Article

Data & software

© 2000-2018 Faculty of 1000 Ltd



© 2000-2018 Faculty of 1000 Ltd

Summary

© 2000-2018 Faculty of 1000 Ltd

Summary

- The **landscape** for research is **changing/evolving fast**
- New tools & ***technologies facilitating change in*** how research is shared
- … accompanied by ***policy drivers*** for change in how research is made accessible, used and re-used
- Opportunity to **rethink how research outputs are shared**
- Opportunity to **rethink how research outputs/researchers are 'valued'**
- Need **cross-sector engagement and collaboration** to ensure potential benefits to science and society are realized

F1000

© 2000-2018 Faculty of 1000 Ltd

Questions?

rebecca.lawrence@f1000.com

© 2000-2018 Faculty of 1000 Ltd