# OPEN METRICS ON THE CLOUD

Parallel Session 4

- HLEG report on Next Generation Metrics
- IRUS UK current usage statistics and standardization
- OpenAIRE current usage statistics and standardization
- OpenUP: Impact Data Services on the Cloud

Parallel Session 5

- IRUS UK demonstration
- OpenAIRE demonstration
- Q&A

## **Next-generation metrics:** Responsible metrics and evaluation for open science

Report of the European Commission Expert Group on Altmetrics

"As the evaluation of research has become more important, the assessment of societal impacts has grown in importance alongside that of research qualities. An open science system should make both objectives feasible. But first, a new framework for the development and use of metrics is needed, which we call 'next generation metrics'." – HLEG Report 2017

### Responsible metrics and evaluation for open science

### 2.7 The way forward for altmetrics

Probably the most significant challenge is to understand the <u>meanings and uses of altmetrics</u>. Without gaining a deeper understanding of why and how altmetric acts occur (Zahedi et al., 2014), we are just playing with numbers and do not know what we are counting. To gain a better understanding, qualitative studies should inform quantitative studies of altmetrics on why and how do people use these platforms. Correlations are not sufficient. Currently, we do not know what is the meaning of many of these metrics. Such understanding is needed in order to integrate them with traditional metrics and peer review.

## Responsible metrics and evaluation for open science

### 3.1 Headline findings

- #1 An open science system should be grounded in a mix of expert judgement, quantitative and qualitative measures
- #2 Transparency and accuracy are crucial
- #3 Make better use of existing metrics for open science
- #4 Next generation metrics should be underpinned by an open, transparent, and linked data infrastructure

#5 Measure what matters

## Responsible metrics and evaluation for open science

### 3.2 Targeted Recommendations

#### FOSTERING OPEN SCIENCE

- #1 Ahead of the launch of its ninth research framework programme (FP9), the EC should provide clear guidelines for the responsible use of metrics in support of open science.
- #2 The EC should encourage the development of new indicators, and assess the suitability of existing ones, to measure and support the development of open science.
- #3 Before introducing new metrics into evaluation criteria, the EC needs to assess the likely benefits and consequences as part of a programme of meta-research

#### **REMOVING BARRIERS TO OPEN SCIENCE**

- #4 The adoption and implementation of open science principles and practices should be recognized and rewarded through the European research system
- #5 The EC should highlight how the inappropriate use of indicators (whether conventional or Altmetrics or next generation metrics) can impede progress towards open science
- #6 In EU research policymaking, funding and evaluation, metrics derived from private platforms should always be accompanied by open metrics to enable proper validation.

#### DEVELOPING RESEARCH INFRASTRUCTURES FOR OPEN SCIENCE

- #7 Realising the vision for the EOSC will rely on linked meta-data that become the basis for open, publicly available data infrastructure.
- #8 The European research system and Open Science Cloud should adopt ORCID as its preferred system of unique identifiers, and an ORCID ID should be mandatory for all applicants and participants of FP9
- #9 The EC should encourage scholarly publishers across Europe to reduce emphasis on journal impact factors as a promotional tool, and only use them in the context of a variety of metrics that provide a richer view of performance

## Responsible metrics and evaluation for open science

### 3.2 Targeted Recommendations

#### EMBED OPEN SCIENCE IN SOCIETY

- #10 The EC should identify mechanisms for promoting best practices, frameworks and standards for responsible use of metrics in support of open science.
- #11 The agenda of this Expert Group should be taken forward by a European Forum for Next Generation Metrics
- #12 Over the next 18-24 months, the European Forum for Next Generation Metrics should focus on FP9 and the design of a next generation research data infrastructure