



## AGENDA

- 14:00 - 14:15: EOSC Pilot Monitoring Framework - Overview and goals (George Papastefanatos - EOSC Pilot)
- 14:15 - 14:25: OpenAIRE monitoring - Stakeholders, Vision ([Natalia Manola](#) - OpenAIRE)
- 14:25 - 14:45: Introduction of the DANS Approach to FAIR Metrics ([Peter Doorn](#) and [Elly Dijk](#) - DANS)
- 14:45 - 15:00: Policies: representation & registries from a UK perspective from Jisc's open access services (Frank Manista - JISC)
- 15:00 - 15:20: Monitoring open science trends in Europe (Salil Gunashekar - RAND Europe)
- 15:20 - 15:30: Open Data Monitor: Monitoring Open gov data (Dimitris Skoutas - OpenDataMonitor)

## SPEAKERS

- [George Papastefanatos](#) - Athena RC/EOSCpilot
- [Natalia Manola](#) - Athena RC / OpenAIRE
- Frank Manista- Jisc
- Salil Gunashekar - RAND Europe
- [Elly Dijk](#) - DANS - Data Archiving and Networked Services/EOSCpilot/OpenAIRE
- [Peter Doorn](#) - DANS - Data Archiving and Networked Services
- Dimitris Skoutas - Athena RC/OpenDataMonitor

***OSFair 2017 | 6-8 September, Athens  
Open Science Monitor Workshop***

***Report***

**Organisers:** OpenAIRE, EOSCPilot, Jisc, DANS

Which are the measurable components of Open Science? How do we build a trustworthy, global open science monitor? This workshop addressed the need of a potential framework to measure Open Science, including the path from the publishing of an open policy (registries of policies and how these are represented or machine read), to the use of open methodologies, and the opening up of research results, their recording and measurement. It explored aspects of openness on all results artefacts from open access publications in journals and repositories to FAIR data principles and FAIR metrics as well similar measures and approaches developed in the context of monitoring of open government data.

The workshop attracted a wide range of audience (around 30 people), from research managers, research funders to publishers and researchers, who actively participated in the discussion following each presentation. The workshop contained 6 presentations which addressed different aspects of the open science monitoring landscape so far.

George Papastefanatos from RC ATHENA presented the objectives of the EOSCPilot activities related to the establishment of an Open Science Monitoring Framework. George provided a brief overview on how traditional research models transitioned to "Science 2.0", or the so-called now "Open Science", and presented some of the main characteristics of this movement. He then reported on a set of approaches for measuring these characteristics as identified by other projects and case-studies, such as RAND's OS Monitor Framework. The outcome and ongoing activities of OSI2016 and SPARC about openness, DANS' badge schemas and DTL's (Dutch Techcentre for Life Sciences) Go-FAIR metrics group about FAIRness of data, Open Data Monitor and Open Data Barometer for Government Data, were also described. George, then, focused on the goals of EOSC OS Monitor Framework and the focus given on trends pertaining to: open access to publications, FAIR research data and data repositories and open source software. He finally concluded both on the specifications to be derived and on the dynamic model to be developed so that everyone from different disciplines will be able to use it in order to monitor OS implementation within EOSC as well as to understand and gradually measure the greater impact to its research community.

Natalia Manola (OpenAIRE Director) took the floor to explain how OpenAIRE operates and to stress on how by aggregating information and linking it together, better statistics and integrated monitoring of OS elements can be achieved. OpenAIRE has been monitoring open access to publications for a while now by using metrics that also form part of their usage statistics data

visualisations. During her speech, Natalia argued that everything should be FAIR, even publications, and that Universities and National Infrastructures are aware of the research artifacts that they hold as well as of these objects' levels of FAIRness, therefore OpenAIRE could coordinate and align these efforts to a European level. That is actually the scope of the Open Science Observatory that OpenAIRE will start to develop in 2018. In response to a participant's query, it was clarified that the Observatory will be both descriptive and prescriptive so as any gaps or weaknesses can be easily identifiable and further curated/acted upon. In other words, there will be levels of compliance attached to it. The talk came to an end with Natalia highlighting the importance that will be given in engaging community and stakeholders in this practice and with ensuring that Interoperability of the Observatory's mechanisms is provisioned.

Next on the programme were Peter Doorn and Elly Dijk from DANS. Peter described the work that DANS itself as well as in collaboration with other organisations, like DTL, have been doing towards assessing data and repositories FAIRness and trustworthiness. Peter started his presentation by sharing the European Commission's statement that "Open Science has become a policy priority" adding that FAIR data occupies an exceptional part of it. Among the difficulties pertaining FAIR principles when evaluated, he addressed operationalization issues, especially those underlying Re-usability. The FAIR Metrics Framework group, in which he is also an active member, is trying to solve such issues by working closely with the experts who conceived the idea of FAIR principles.

Elly introduced FAIRdat, a FAIR data assessment tool developed by DANS, currently running on a surveymonkey platform, to be soon migrated to a database where its information will be enriched with metadata (PIDs, contributors, etc). According to DANS, assessing FAIR data is not a binary procedure, hence why they have established levels of FAIRness (high - low) within their badge schema. The presentation concluded with a prediction of things growing and becoming similar to the data repositories audits situation. That translates to/means different certification allowances depending on formalities and inclusiveness of activities undertaken during evaluation and on the set of requirements that have to be met each time.

FAIR principles and metrics discussions inspired a participant to make with his own recommendation on OS FAIRness. He claimed *Validation* to be one principle that could accommodate interoperability needs, yet it is missing from the list. He later suggested the development of validation tools that the repositories themselves can use so that they "keep their promises and measure FAIRness".

Representing JISC, Frank Manista gave an overview of the committee's/organisation's open access services supporting the publication lifecycle. He first described more mature services such as the SHERPA series for funders and publishers policies and authors compliance to them, to newer facilities like the Monitor UK and Monitor Local. Specifically for the latter, Frank

explained that it is based on a cloud and that it plays the role of the national APC aggregator by simultaneously serving as a compliance checker with repositories. He also highlighted the international interest that the UK Monitor has gained so far comparing it to that of IRUS-UK for usage statistics. The presentation ended with Frank mentioning that Research Data and Open Access Groups/Organisations in the UK have started to work together under JISC's UK NOADship.

Salil Gunashekar from RAND Europe presented their project regarding the monitoring of Open Science, as a response to the European Commission's call for an OS monitoring pilot. More specific on the context in which it was built, Salil added that their efforts were mostly driven by a strong determination as to whether Open Science can be tracked at all and by what kind of means. RAND carried out desk-based research and online consultations with stakeholders and decided to concentrate on open access, research data and scholarly communications trends and case-studies, because these areas were proven to be widely understood and to have reliable data sources. Citizen science was not easy to thoroughly be interpreted and allocated within the Open Science spectrum, therefore it was excluded from initial planning. Overall, it was a successful pilot that met its goals and set new ones for further examination/investigation.

Last on the session to outline the work performed for the Open Data Monitor was Dimitris Skoutas from RC ATHENA. Dimitris presented the approach and brief results of the ODM project to collect and monitor the performance of various Open Data hubs across Europe. ODM approach was to perform desk research as well as to contact the persons, who were responsible for the maintenance of the data hubs, and measure information regarding various quality characteristics, such as the appropriate use and the completeness of metadata, the availability format of the datasets, the use of licenses, etc. ODM employed both qualitative and quantitative metrics to measure the trends of Open Data publishing in Europe, highlighting strong differences across open data sectors and countries. Finally, Dimitris stressed on the technical difficulties for collecting and measuring metrics from different data catalogues, highlighting that for CKAN repositories it was easier to collect data because they provide a standard API.