

Engage 2

Open data and open science in ATM research

TATJANA BOLIC

Green Deal flagship meeting, BRUSSELS, 06 JUNE 2024]

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Overview

- Why open data and open science
- Interim results
- Open science alliance initiatives
- Have your say

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Open science

Open science practices involve:

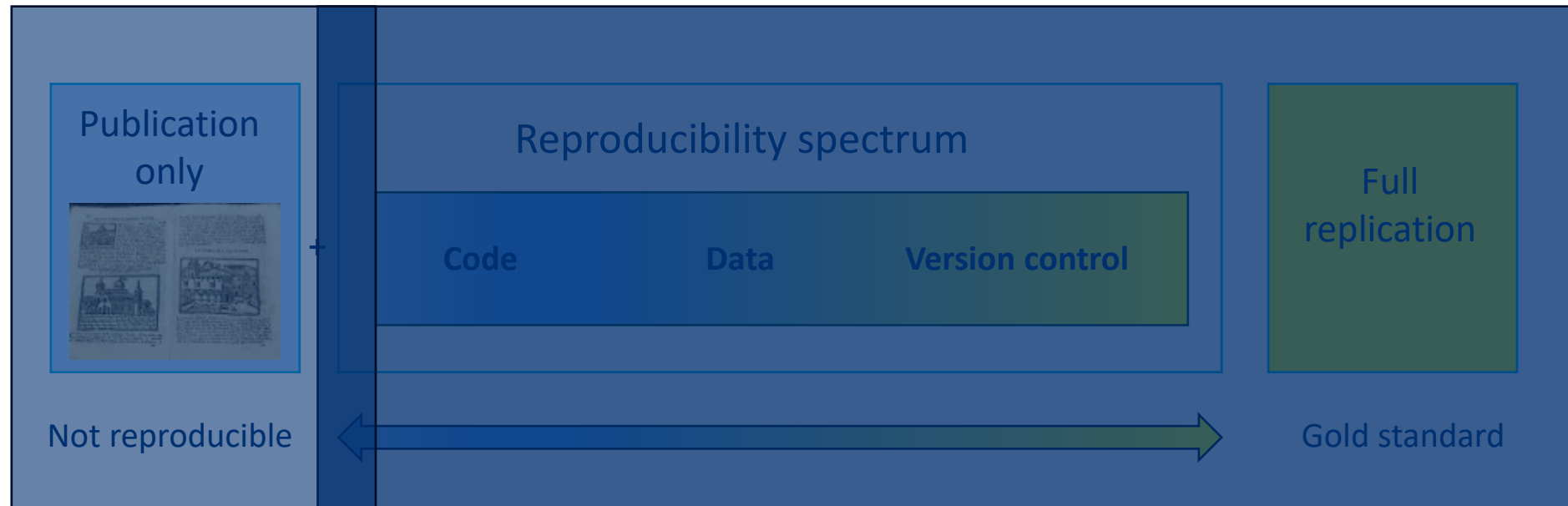
- open access (to publications)
- open data (sharing research data)
- open source/code (sharing software)
- open methodology (sharing models, methods, etc.)
- open peer review and
- open educational resources

Why it's important?

- greater efficiency in research through increased collaboration
- higher levels of verification/validation
- reduced duplication
- collaborations broaden the user community
- improve methods and code testing, and enable more reproducible research

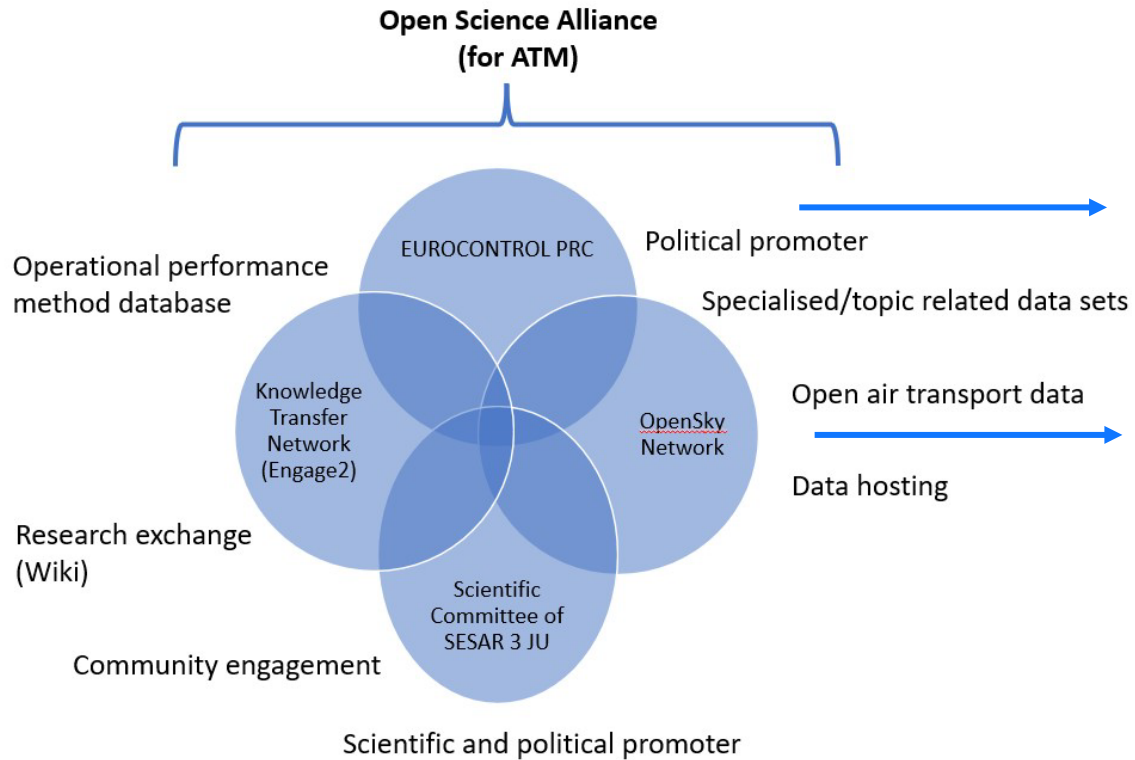
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Reproducibility in European ATM research



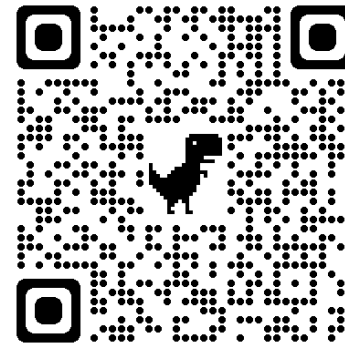
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Open Science Alliance

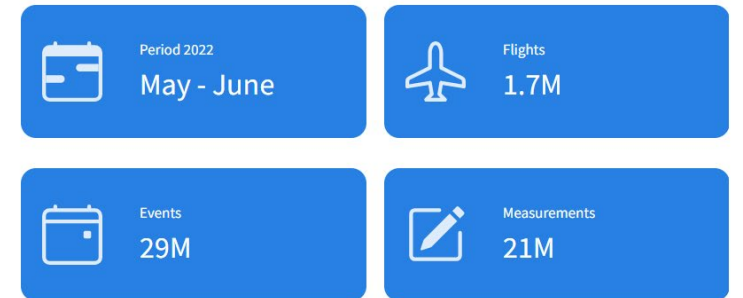


<https://www.opdi.aero/>

OPDI Home Data Concepts Methodology Roadmap About



Open Performance Data Initiative (OPDI)



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Open Science Alliance

<https://wikiengagektn.com/EngageWiki>

Check out the main wiki features

Interactive research map of ATM



European university programmes



ATM concepts roadmap



Discussion fora



Research repository: Projects and Papers



<https://engagektn.eu/wiki/>

Stay tuned! The Wiki platform is coming soon, bringing a wealth of knowledge at your fingertips.

TRAININGS AND WORKSHOPS

- Cross-fertilization workshops
- Thematic workshops
- Flagship workshops
- Training materials
- SESAR webinars
- Orientation serious games

EDUCATION AND RESEARCH

- PhD calls
- MSc support calls
- Summer Schools
- Orientation serious games
- Academic opportunities



CAREERS AND OPPORTUNITIES IN ATM

- Open days
- Hackathons
- Job and internships
- Catalyst funding calls
- ATM job cards and videos
- Recommendations on pathway for skills and career development
- Thematic challenges

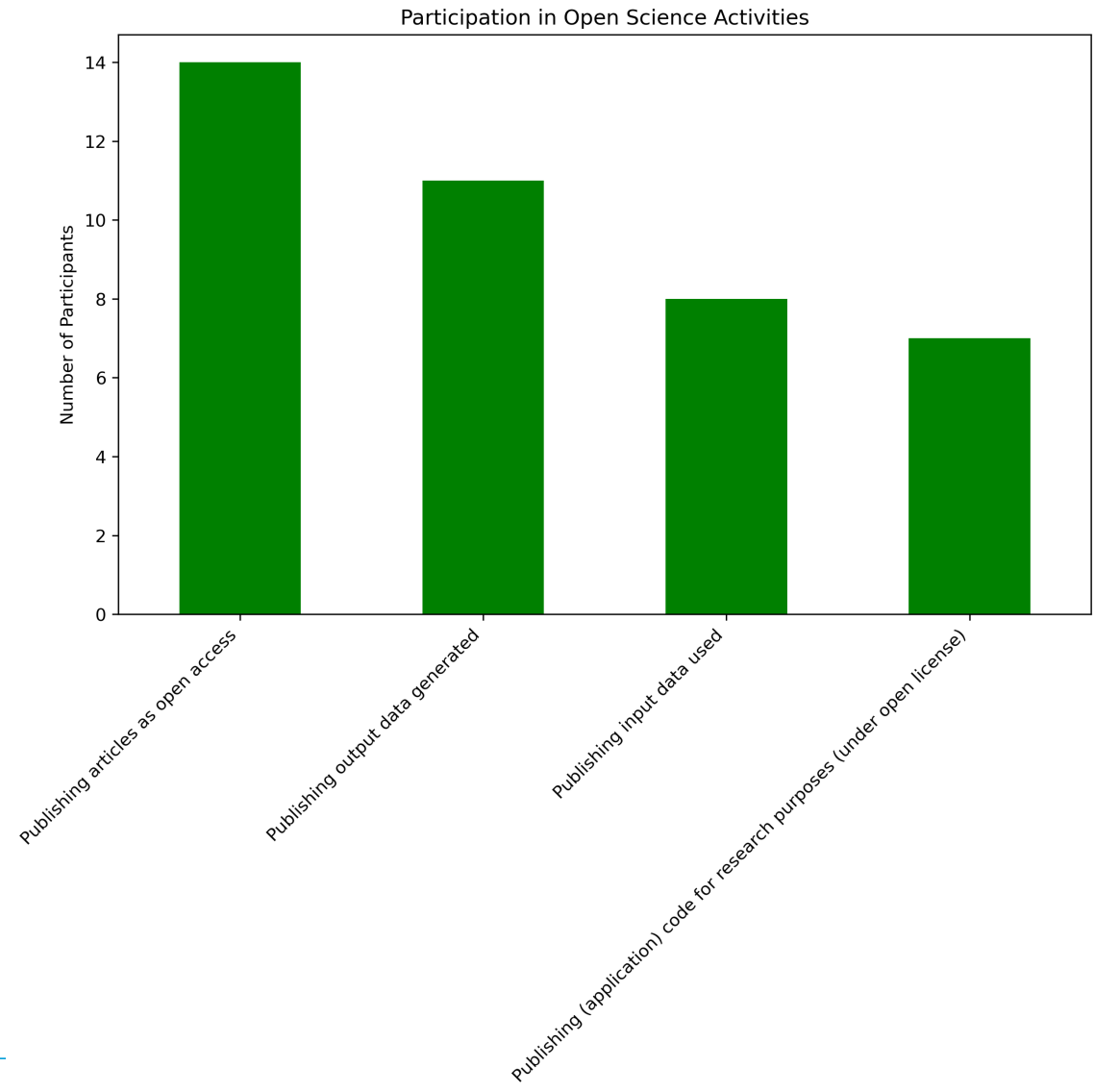
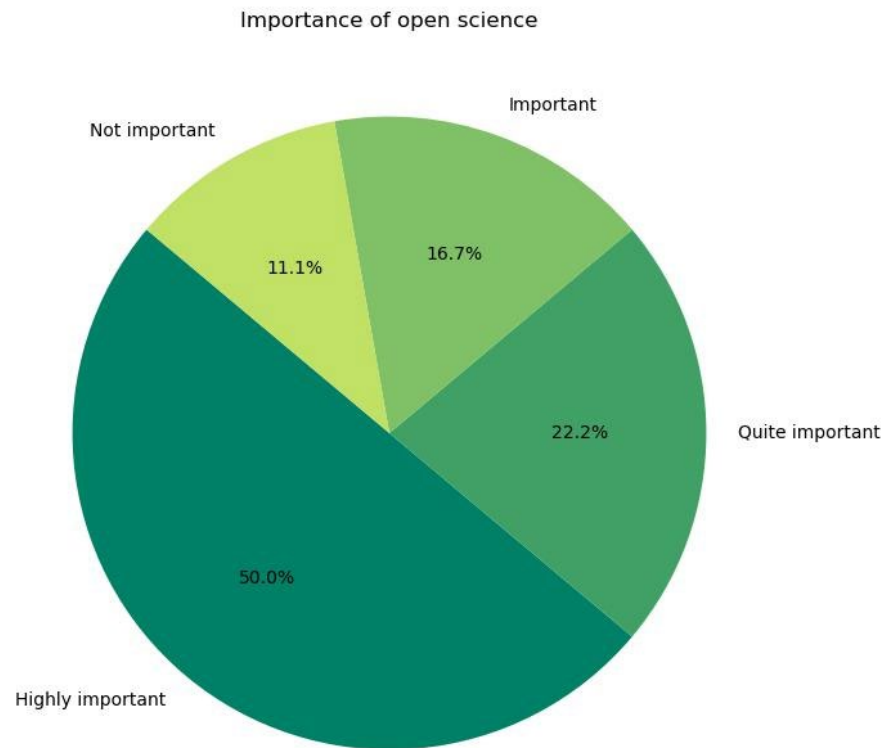
REPOSITORY

- ATM concept roadmap
- ATM relevant documents
- SIDs articles
- Skills transformation map
- SESAR projects
- Catalyst projects
- PhDs final reports
- MSc theses

Interactive research map of ATM
Research Repository
Open data

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Open data and science for ATM - survey



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Data sources

Free and accessible

- ADS-B - OpenSky Network and Flightradar24
- Weather and Copernicus
- EUROCONTROL R&D
- Bureau of Transport Statistics
 - On-time – schedules
 - Passenger fares and itineraries
 - Financials

Paid or not accessible

- Premium access to Flightradar24
- Mobile network data
- Weather data
- European schedules
- Various multimodal data (e.g. rail capacities, cancellations, delays)
- (original) flight plans
- DDR2 - airspace configuration
- BADA

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Opportunities and barriers

Opportunities

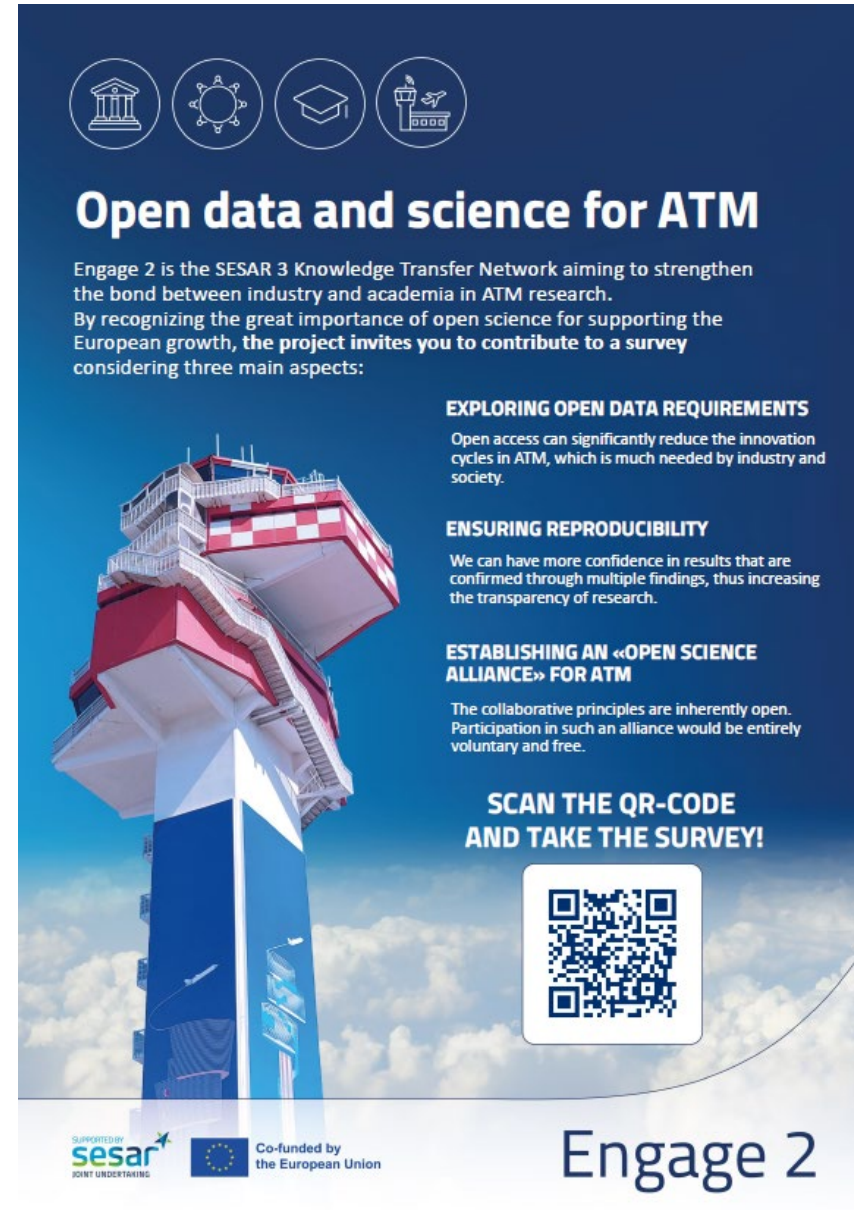
- Reproducibility and transparency
- Facilitates faster Solution development
- Avoids time/money spent on data acquisition
- Better education possibilities





Barriers

- Confidentiality, sovereignty, legal
- Costs of data collection and maintenance
- Lack of common platform

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Have your say



Open data and science for ATM


Engage 2 is the SESAR 3 Knowledge Transfer Network aiming to strengthen the bond between industry and academia in ATM research. By recognizing the great importance of open science for supporting the European growth, the project invites you to contribute to a survey considering three main aspects:



EXPLORING OPEN DATA REQUIREMENTS
Open access can significantly reduce the innovation cycles in ATM, which is much needed by industry and society.

ENSURING REPRODUCIBILITY
We can have more confidence in results that are confirmed through multiple findings, thus increasing the transparency of research.

ESTABLISHING AN «OPEN SCIENCE ALLIANCE» FOR ATM
The collaborative principles are inherently open. Participation in such an alliance would be entirely voluntary and free.

SCAN THE QR-CODE AND TAKE THE SURVEY!



  Co-funded by
the European Union

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THANK YOU FOR
YOUR ATTENTION
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