Proposal for workshops – AGILE 2025

Dresden, Tuesday 10 June 2025

https://agile-online.org/conference-2025

1. Workshop name/title (and acronym is applicable)

Geospatial Data Management – challenges and good practices

2. Description of the workshop by listing topic(s), objective(s) and planned outcome(s)

2.1 Topic(s)

- Data Management
- FAIR and Open Research
- Reproducibility
- Data Quality

2.2 Objective(s)

1) Bring together researchers, practitioners, and teams to discuss challenges and **share good practices** in geospatial data management, including ensuring data quality, within scientific workflows.

2) Collect insights into common problems and potential solutions encountered in geospatial data management.

3) Collaboratively transform the collected ideas into actionable and structured guidelines for effective geospatial data management.

4) Build a network of professionals interested in improving geospatial data management practices across disciplines.

2.3 Planned outcome(s)

A collaboratively developed framework (guideline) outlining best practices for geospatial data management in scientific contexts. The guideline will include a list of challenges and corresponding good practices related to geospatial data management, as contributed by workshop participants. A summary document will be shared with the AGILE community, promoting continuous improvement in geospatial data management practices.

3. Abstract

Managing geospatial data effectively is a critical challenge in scientific research, with issues ranging from data quality and interoperability to scalability and reproducibility. This workshop will explore these challenges while focusing on solutions and good practices. The aim of the workshop is to bring together researchers, practitioners, and teams to discuss challenges and share good practices in planning and implementing geospatial data management (incl. data management plan), identify common problems and solutions, collaboratively develop actionable guidelines, and foster a professional network to advance geospatial data management practices across disciplines.

In the first part of the workshop, participants will engage in discussions to share their experiences, challenges, and strategies for geospatial data management. The aim is to foster a collaborative environment where diverse perspectives are heard.

In the second part, we will organize the collected ideas into structured guidelines, addressing key themes and developing actionable recommendations. The guidelines will serve as a valuable resource for AGILE community and researchers, helping to advance best practices in the field.

4. Short description of the intended length (half or full day) and the format of the workshop

Half day (4h) workshop where the first part (2h) there will be short introduction (objectives of the workshop, brief introduction to the geospatial data management) and sharing experiences in groups on following questions:

What are the biggest challenges you face in managing geospatial data?

What practices or solutions have worked well for you?

What tools, platforms, or workflows do you use?

Each group appoints a rapporteur to summarize key points.

In the second part, using inputs from the first part, participants collaboratively group challenges and solutions into key themes (e.g., data quality, interoperability, scalability, storage, reproducibility). Moderators facilitate this activity.

Finally, the participants break into thematic working groups, each focusing on a specific theme. Groups work to draft actionable guidelines addressing the identified challenges. Summarize outcomes and next steps (e.g., compiling and sharing the final guidelines with participants and AGILE community).

5. Brief statement of the relevance of the workshop for AGILE

Reproducible research has been one of the key pillars of AGILE and efficient data management is foundation for reproducible research. In addition, ensuring spatial data quality is integral part of any geospatial analysis. Therefore, mapping geospatial data management challenges and developing common good practices for the data management will be valuable for the AGILE community and especially for the young researchers.

6. What is the approximate number of expected participants?

10-20 plus organisers

7. Names and e-mail addresses of the organizing member(s)

Leading AGILE member (or sponsor) and contact person: Evelyn Uuemaa

Contributing AGILE members (including the persons involved) – at least one seconding AGILE member is needed: Alexander Kmoch

Seconding: Carsten Keßler, Carlos Granell

Contributing non-AGILE members (including the persons involved) – if applicable:

Organizing Committee (if applicable):

Programme Committee (if applicable):

8. Additional information about previous workshops, if held.

Tutorial "Spatial modelling and interpretability with Random Forest" at AGILE 2024 conference. Organisers: Holger Virro, Marta Jemeljanova, Evelyn Uuemaa, Alexander Kmoch and Wai Tik Chan

9. Expected resources needed

Room with internet and data projector.

10. Other information