



Funding initiative Proposal Form

Initiative Title:

Reproducible Publications at AGILE Conferences

Description of the type of the Initiative:

Support for development of new guidelines for AGILE conference submissions to improve reproducibility

Funding requested in Euros: 6000 €

Expected start date: January 2019

Expected end date: June 2019

Description of initiative

Reproducible research (RR) is a crucial topic for any research domain using computational processes, including GIScience. Recent research has shown, that AGILE conference publications leave room for improvement regarding their computational reproducibility [<https://doi.org/10.7717/peerj.5072>]. While code & data availability seemed to be mentioned a bit more at this year's conference presentations, authors and reviewers lack clear guidelines to make workflow transparency the norm. This need is underpinned by the aforementioned publication and two pre-conference workshops [<https://o2r.info/reproducible-agile/>].

The initiative will prepare new author guidelines and reviewer guidelines suitable for all submission types (full, short, poster). The guidelines help authors to prepare and reviewers to assess high-quality scholarly manuscripts by giving concrete recommendations for data and code repositories (e.g., OSF, GitLab), transparent workflows (e.g. Binder notebooks), citing software & data, and storing data (e.g. VGI).

The funding is requested for travels, accommodation, and catering for a face-to-face meeting to be held in spring 2019¹. At the meeting, the initiative's initiators (5 people) convene with up to four invited experts and representatives of the AGILE 2020 organisation and programme committee. The group composition ensures familiarity with AGILE, RR-expertise in GIScience, and a smooth transition towards the conference in 2020. The meeting will take 2 days (at most three nights accommodation) and is preceded by online collaborations. The first draft of the guidelines will be presented in a one-hour online webinar in the late afternoon of the second day. All AGILE members are cordially invited to the webinar, which will be recorded and includes time for questions. The immediate

¹ Location to be determined when participant list is fixed to minimise costs.

feedback and comments from a 3-week consultation period after the webinar will be included in the final draft, which will be submitted to the AGILE council for consideration. At the 2019 AGILE conference, the initiative members organise a full day workshop for (a) teaching authors hands-on to apply the new guidelines to their accepted AGILE conference submissions and act as multipliers in their labs, and (b) reaching out to the AGILE community to introduce the guidelines and seek further feedback. The guidelines may also be presented as a poster to maximize outreach.

Expected benefit

AGILE is already in the process of reconsidering the publication format and process, changing towards an Open Access model and potentially a new submission management platform. This initiative's timeline leaves enough room to align with such plans and make two promising transitions at the same time, benefiting from each other in personpower and expertise.

Increased awareness of the role of data and software in research and subsequently improved transparency and reproducibility of computations leads to better research. Besides normative reasons ("RR and Open Science are the right things to do") a sensible combination of giving credit, public acknowledgement, and concrete requirements by conference organisers is the only way to encourage researchers to sustainably change their habits. The quality of AGILE conference submissions is expected to improve, the usefulness of AGILE papers for readers is expected to grow considerably, the number of citations of published articles is expected to increase, and the relevance of the conference in the field is expected to be solidified. When reproducibility becomes the norm outside of AGILE conference, senior and early career researchers in AGILE member labs will be well prepared. The AGILE conference series will remain a highly popular venue for impactful manuscripts. The activities establish RR and Open Science within the AGILE community and are a starting point for further actions (e.g. reproducibility chair, updates for syllabi at member labs, awards, badges etc.) to make AGILE a leading reproducible conference.

Any additional comments or remarks

This initiative proposal is submitted by Daniel Nüst, Frank Ostermann, and Rusne Sileryte, in collaboration with council members Carlos Granell and Barbara Hofer.

Further invited participants are the programme committee chair, the local organising committee chair of AGILE 2020, and experts (potentially non-AGILE members) on reproducibility, open science, and peer review, to be sought if the initiative is funded.