



MINI SYMPOSIUM

SUSTAINABLE RESEARCH SOFTWARE DEVELOPMENT FOR GEO-INFORMATION SCIENCE AND EARTH OBSERVATION

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ITC Auditorium, Enschede

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Fellowship Programme



Sustainable Research Software

- **Software** is an essential part of research.
 - Researchers* develop and reuse software as part of the research process to generate, process or analyze results.
- Research software can be any piece of code, script, package, tool, library, or program written for research purposes.
 - Reproducibility, reusability, and accuracy of data analysis are important for research software.
 - (OpenScience → makes them more important)
- Existence of research software is the crucial first step, but it needs to be sustainable to be alive in long term*
 - FAIR principles (for research data → not sufficient for software)
 - **Software engineering** practices (2010s → Research Software Engineer)
 - Community building and management

It may be difficult, but not impossible.

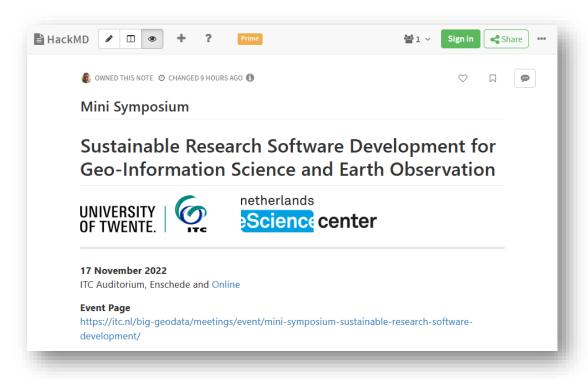
Programme

10:10 - 11:20	About eScience Center and Scientific Departments of ITC*
11:20 – 11:30	Coffee Break
11:30 – 13:00	eScience Center Software Presentations ESMValTool, eWaterCycle, CGC, Springtime, Laserchicken, RS-DAT, Geospatial Data Carpentry
13:00 – 13:40	Lunch
13:40 – 15:20	ITC Software Presentations geoslurp, IlwisPy, LTB, LISEM, FlowMaps, QTM Generator, NRS Tools, OGITO, fairly / JupyterFAIR, STAS, GlobeTrotter
15:20 – 15:30	Coffee Break
15:30 – 16:15	Discussion: Needs and challenges of sustainable research software development
16:15 – 16:30	Closing
16:30 – 17:00 *	Drinks

Group Photo*

Questions and Comments

https://tinyurl.com/sustainable-research-software





- No need to sign-in to edit the collaborative document.
- Please add your personal information (e.g. institution, e-mail address, nickname).
- Please indicate your nickname with your questions and comments.



Fellowship Programme

- This event is supported by the <u>Netherlands eScience Center</u> Fellowship Grant NSESC.ESCF.2022.013.
- The Netherlands eScience Center's **Fellowship Programme** supports individuals who have the ambition to promote or improve the use of research software within their organization or discipline.

https://www.esciencecenter.nl/fellowship-programme/

 GEOnnect: Connecting eScience Center RSEs and ITC researchers for better environment and sustainability-related research software uptake and development

GEOnnect Project

- Uptake by the research community can help to make a software sustainable.
- Bringing together the developers and researchers* through hands-on training workshops can facilitate the uptake.
 - Researchers learn the software directly from its developers.
 Use in research and education → Better visibility, larger user community
 - Developers get direct feedback from the domain experts.
 Adjustments and further development based on user needs → Better software
- **GEOnnect** aims to organize a **workshop series** for the researchers of **ITC** on environment and sustainability-related **eScience Center** software and research software development best practices.



Fellowship Programme

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GEOnnect Activities

Mini Symposium

- Presentations by RSEs and researchers on research software
- Open discussion on needs and challenges

Training workshops at ITC by eScience Center RSEs

- Workshops on eScience Center Research Software
 - Presentation (motivation, features, methods, etc.)
 - Demonstration
 - Hands-on exercises
 - Feedback
- Workshop on research software development best practices (e.g.: Building structured code repositories, enabling continuous integration, etc.)

Closing Meeting

- Presentations on experience, uptake and improvements
- Open discussion on future collaboration