

# Open Science, Research Software

**Peter Schmidt, 11-13 November 2022**

Workshop: Open Science, a landscape under construction with a horizon of possibilities, CIEM, Castro Urdiales, Spain

# Who Am I?

- Ph.D. in Physics (University of Hamburg, Germany)
- Private Sector for > 20 years as software engineer and software architect
- Back to academia in Dec 2019 as Senior Research Software Engineer
  - University College London (UCL), UK
- Fellow of the Software Sustainability Institute (UK) since 2021
- Podcast 'Code for Thought' since January 2021 to support the community of Research Software Engineers
  - <https://codeforthought.buzzsprout.com/>



# Research Software and Open Science

## Findable, Accessible, Interoperable, Reproducible

- Research Software is a core part for most research projects
- Software must be FAIR to be part of Open Science
- Software development requires skilled engineers and funding:
  - To produce stable and reproducible code (i.e. the software does what is expected)
  - To help avoid “re-inventing the wheel” (i.e. reuse of software in multiple projects)
- Software often “lives on” beyond the research project and its funding

# Better Software, Better Research

- The community of Research Software Engineers (RSE) is growing rapidly across the globe
- RSEs are addressing the need for trained engineers to help answer today's most pressing scientific questions
- With software being a core part of research, RSEs play an essential part in Open Science to help share and build scientific knowledge
- Software has a different life-cycle to publications and often continues being used beyond publication dates and/or for different research projects
- With open source software and high quality code software can help to improve scientific communication and make research more open and transparent

# Contact

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