



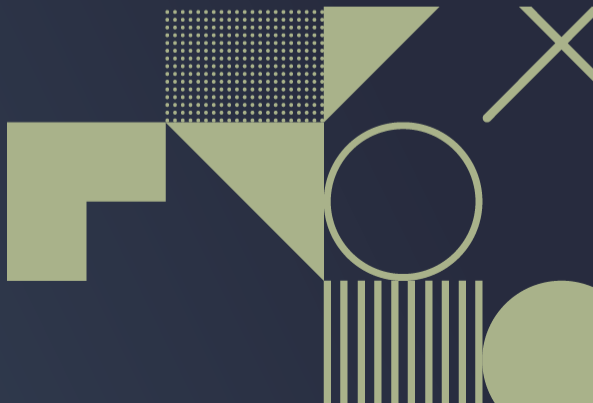
**SC21**

St. Louis, MO | science & beyond.

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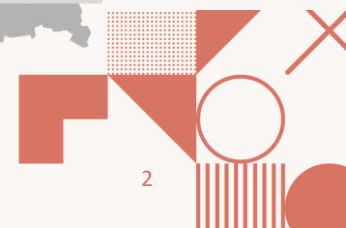
# German Aerospace Center (DLR) Some Facts around Software Development

## Some numbers

- ~10.000 employees
- 54 institutes and facilities
- 30 locations

## Characteristics

- „Developer“ often do not have any official training in software development
- Huge amount of software projects
- Variety of used software technologies





# Sustainable Software Engineering Mission

We are improving the software quality at DLR, in Helmholtz, and around the world.

We research, develop, and implement software engineering solutions.

We are committed to ensure that software is recognized as an independent research result.



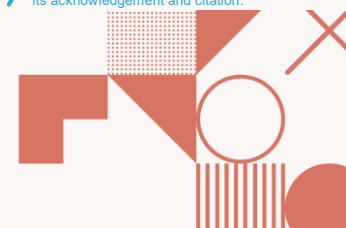
**HELMHOLTZ**  
SPITZENFORSCHUNG FÜR  
GROSSE HERAUSFORDERUNGEN



Software is a critical part of modern research...



... yet there is little support for its acknowledgement and citation.

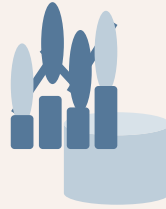


# Sustainable Software Engineering Research Topics



## Research Software Engineering

- Knowledge transfer
- Guidelines
- Consultation
- Software development
- Tools



## Software Analytics

- Repository Mining
- Knowledge graphs
- Provenance



## Open Science

- Open Source
- (Research) data management
- Open (meta) data formats
- Reproducibility

## RSE communities in Germany

- de-RSE (<http://www.de-rse.org/>)
- HIFIS (<https://www.hifis.net/>)
- NFDI4Ing (<https://nfdi4ing.de/archetypes/betty/>)
- Allianz Initiative (<https://www.allianzinitiative.de/handlungsfelder/digitale-werkzeuge-software-und-dienste/>) > Digital Information > Software and Services
- Helmholtz Task Group „Wissenschaftliche Software“ (<https://os.helmholtz.de>)
- EOSC (European Open Science Cloud) Association (<https://www.eosc.eu/>) > Infrastructure for Quality Research Software

