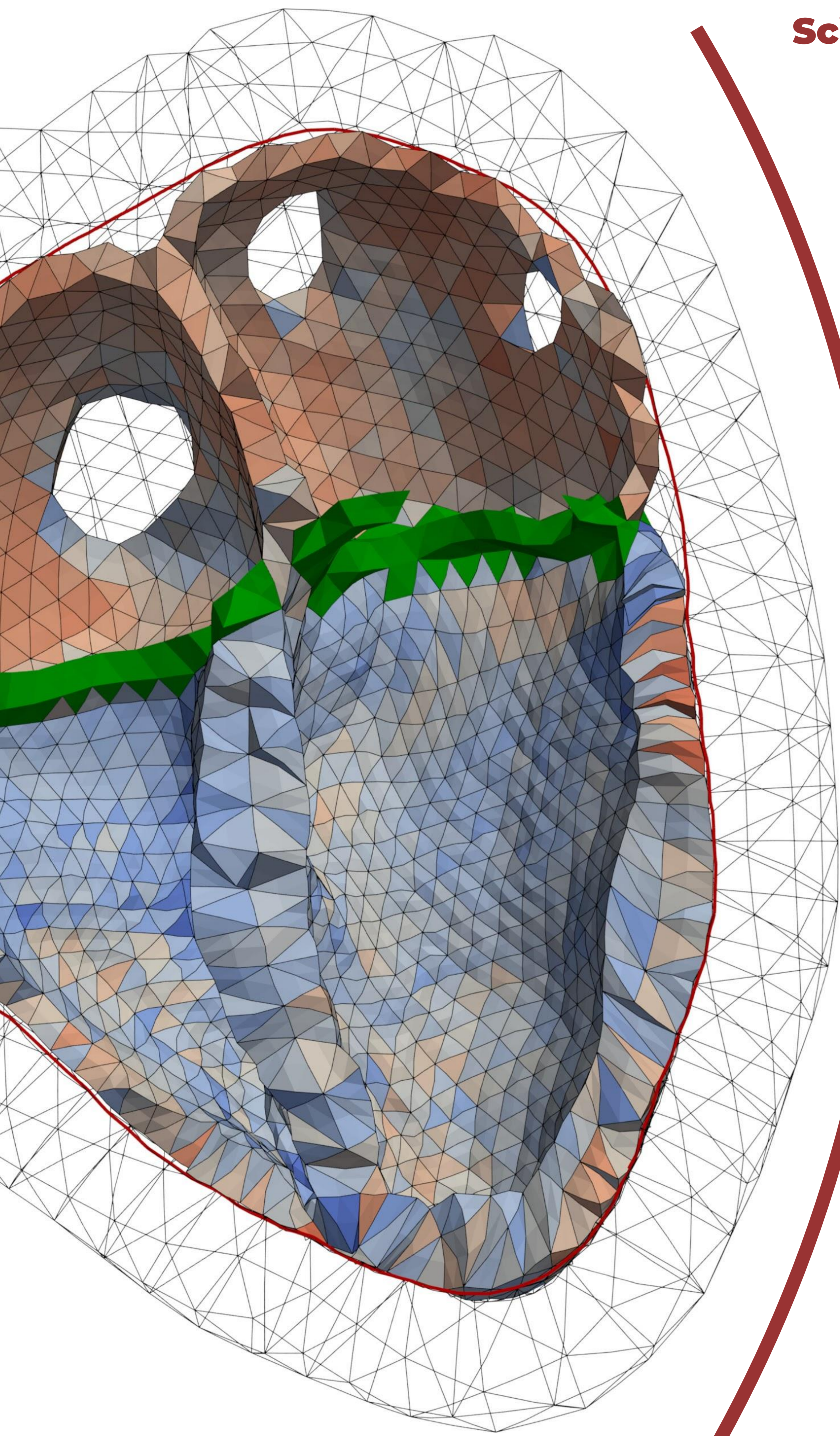




# SuLMaSS

**Sustainable Lifecycle Management for Scientific Software**



## Scientific Software

- Provide an open source electrophysiology simulation solution for the wider community
- Computational modeling becomes increasingly important in the cardiac electrophysiology field
- Existing closed-source solution: CARPentry
  - Organically grown in more than 15 years
  - Powerful and flexible but tough learning curve
  - Software architecture requires adaptation to new requirements and focus on user friendliness
  - Release new solution as open source under Apache License

## Community

- Lively and active user community
- Training: documentation / video tutorials / user meetings
- Usability & low entry threshold
  - Easy software installation
  - User-friendly GUI
  - Off-the-shelf simulation pipelines (carputils framework)
- Support & community platform
  - Question and answer system
  - GitLab: feature requests, bug tracking and release plans

## Quality

- Quality assurance procedures
  - Code review by core developers
  - Continuous, automatic, subject-specific testing
- Test-driven development
  - Modularized, flexible, reusable and extensible code
  - Focussed classes, loose coupling and clean interfaces
- Implementation
  - Google style guide
  - DevOps practices

## Infrastructure

- Reusable and citable representation of software, pipelines and data
- Infrastructure for sustainable lifecycle management
  - Community-driven development
  - Software releases with persistent identifiers (PID)
  - User and developer interaction platform
- Archiving for long-term availability

**Partners & Networks**



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**Authors**

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Axel Loewe (1), Gunnar Seemann (2), Eike Moritz Wülfers (2),  
Yung-Lin Huang (2), Jorge Sánchez (1), Felix Bach (1),  
Robert Ulrich (1), Michael Selzer (1)

Organizations: (1) Karlsruhe Institute of Technology (KIT), Germany  
(2) Universitäts-Herzzentrum Freiburg, Germany

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