HELMHOLTZ

HERMES

Research for grand challenges.

Automated FAIR4RS software publication with HERMES

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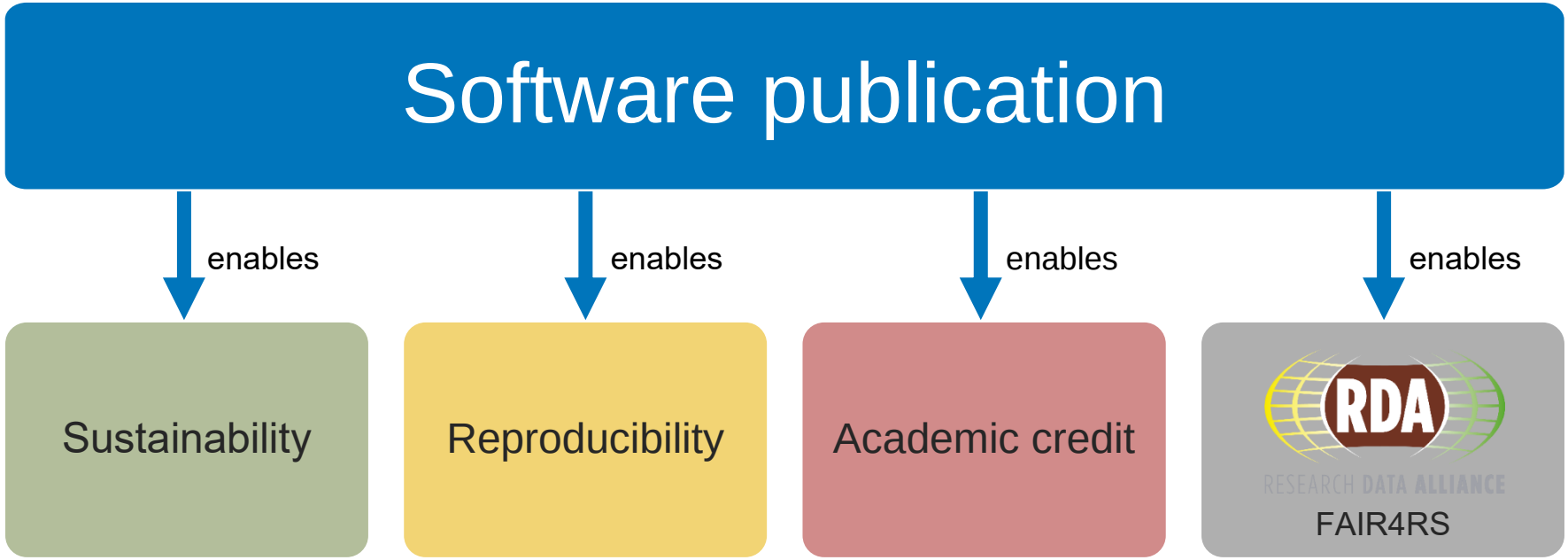
Overview

- The HERMES project
- A concept for automating software publication with rich metadata
- Status

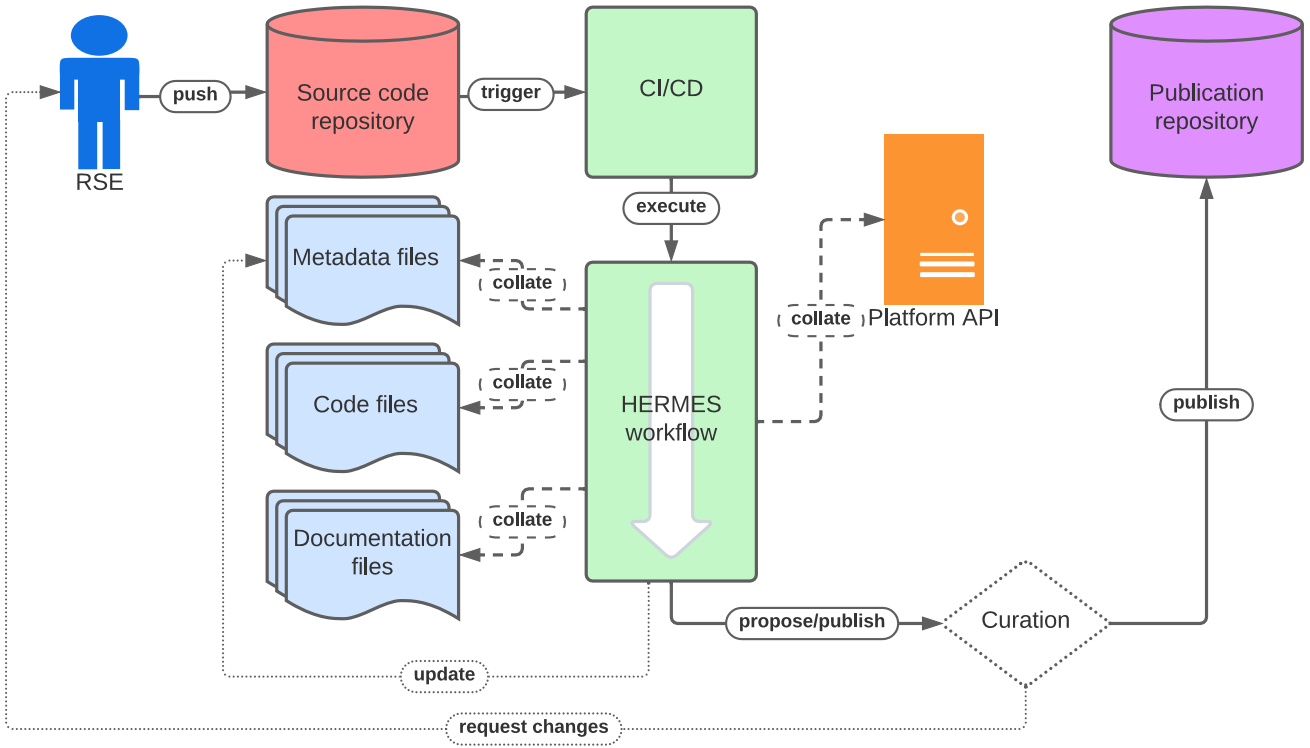
HERMES: Helmholtz Rich Metadata Software publication
HMC 2020 project cohort

- **Team:** 7 people at 3 centres - DLR, FZ Jülich, HZDR
- **Aim:** Make it easier for developers of research software to publish their software FAIRly
- **Method:**
  - Develop a workflow to prepare metadata from source code repositories for publication
  - Automate workflow via continuous integration, provide CI templates
  - Disseminate knowledge how to publish software automatically via HIFIS
  - Update policies to create guidance and provide incentive

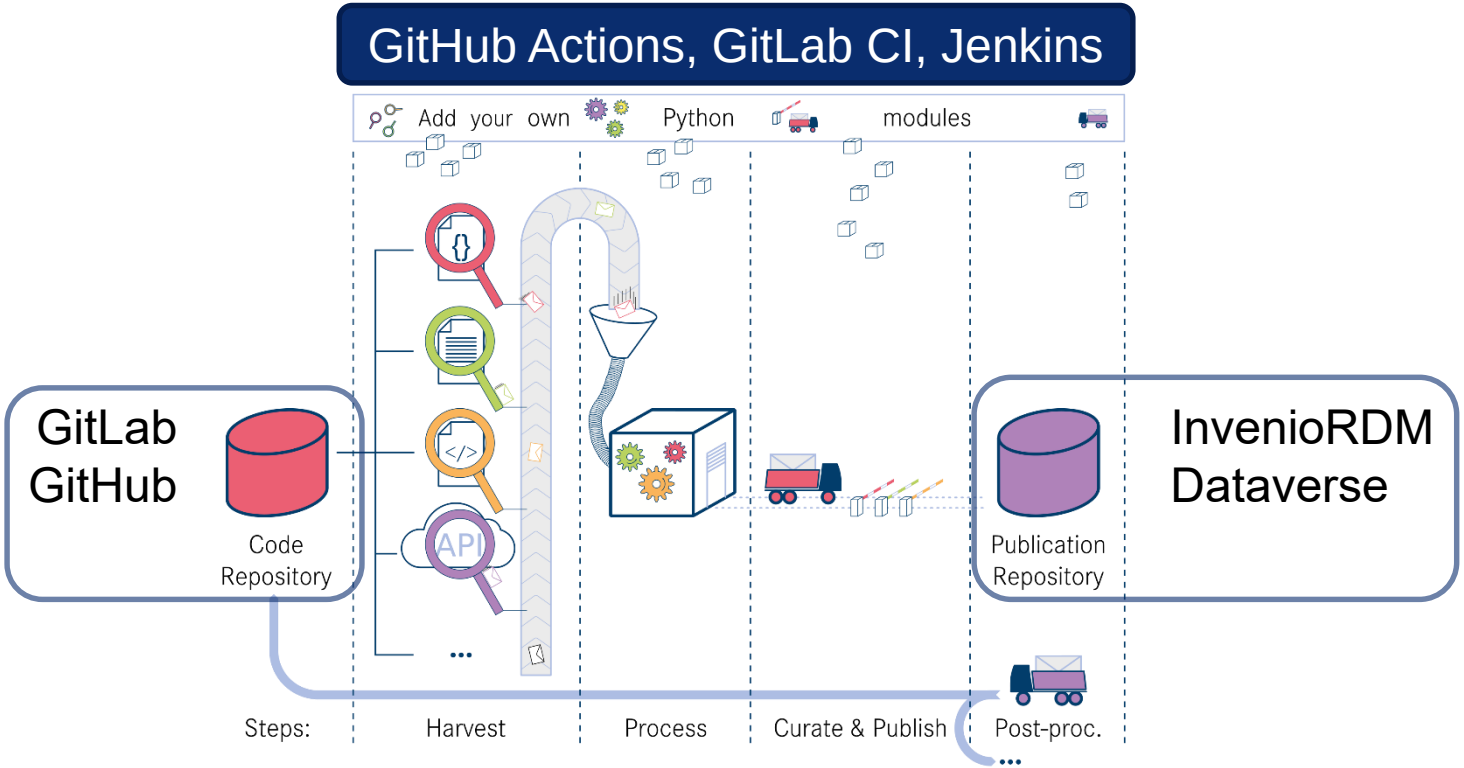
HERMES: Motivation – software publication



HERMES: Concept



HERMES: Concept



HERMES: Outputs

- **Outputs (OA / FLOSS ✓):**
  1. Concept for automating software publication with rich metadata
  2. Modular workflow software with command-line interface
  3. Templates for using workflow software in continuous integration
  4. Concept for research software-ready publication repositories
  5. Enhancements for 4. in Dataverse and InvenioRDM
  6. Training materials
  7. Documentation, policy proposals and community building
- **Partners and stakeholders:**
  1. Helmholtz-internal: **HIFIS**, all Helmholtz centres
  2. External: **The Carpentries**, **SURESOFT** (TU Braunschweig), **RO-Crate**

HERMES: Status

- **Done** ☑
  1. Conceptualization
  2. Requirements analysis
- **Doing (continuously)** ⚙
  1. Community outreach*, consultation*, documentation, training materials
  2. Workflow implementation (complete MVP ~12/2022)
  3. Concept „research software-ready repositories“ (w/ HU Berlin, Harvard CfA, ARDC)
  4. Dataverse & InvenioRDM contributions
  5. CI templates
- **To Do** 📋
  1. Policy proposals

*E.g., stakeholder workshop 2021, RSECon workshop 2022

HERMES: Thank you (and reach out)

- **Website**
  https://software-metadata.pub
- **Workflow documentation**
  https://docs.software-metadata.pub/en/latest/ (WIP)
- **Concept paper**
  https://arxiv.org/abs/2201.09015 (update forthcoming)
- **Email**
  team@software-metadata.pub
- **Presentations**
  RSECon22, SE2022
- **Poster**
  https://doi.org/10.5281/zenodo.7092348

Thank you!