

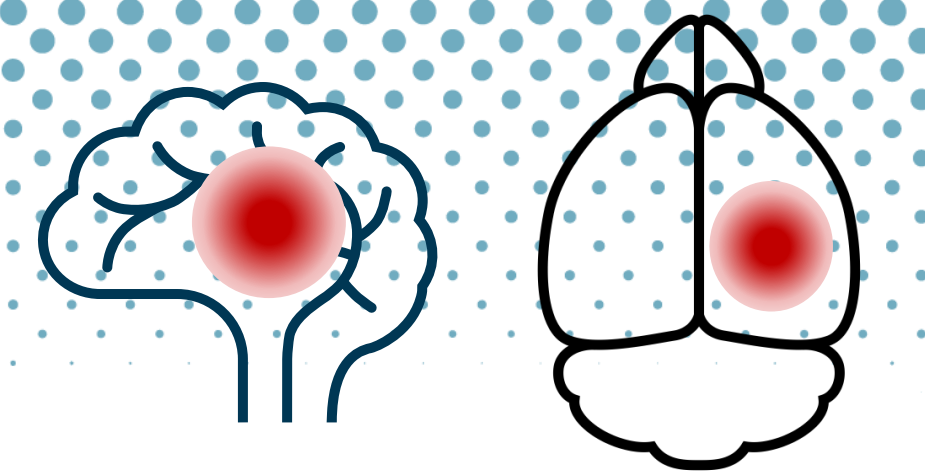
Open Data Commons for Stroke: a free community platform to share research data and facilitate synthesis

McCann SK, Bannach-Brown A, Vojvodic S, Rackoll T, Karmakar M

ODC-Stroke

Increasing requirements for sharing preclinical data aim to improve the reproducibility and translation of biomedical research. However, developing infrastructures to support effective data sharing remains a challenge. Specialised data sharing communities, where data are curated by domain experts, offer an alternative to general repositories that increase data findability, accessibility, interoperability, and reusability (FAIR data).

Open Data Commons (ODC) are cloud-based community-driven repositories to store, share, and publish primary research data. The development of ODC-Stroke will support the stroke research community to efficiently manage, share, reuse and synthesise data.



CAMARADES Berlin
QUEST Center for Responsible Research

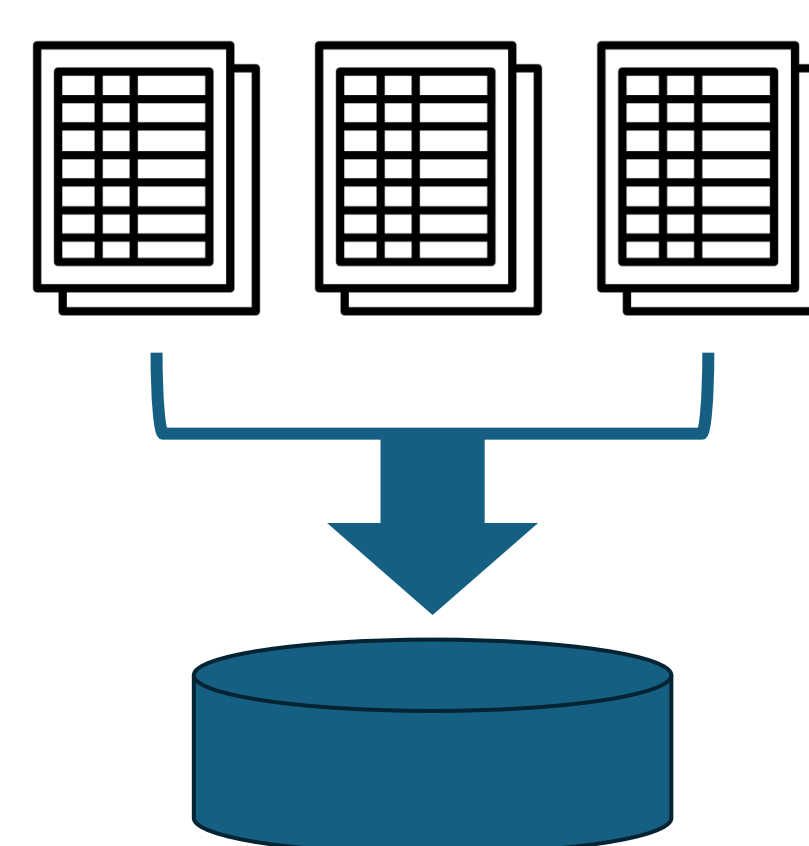
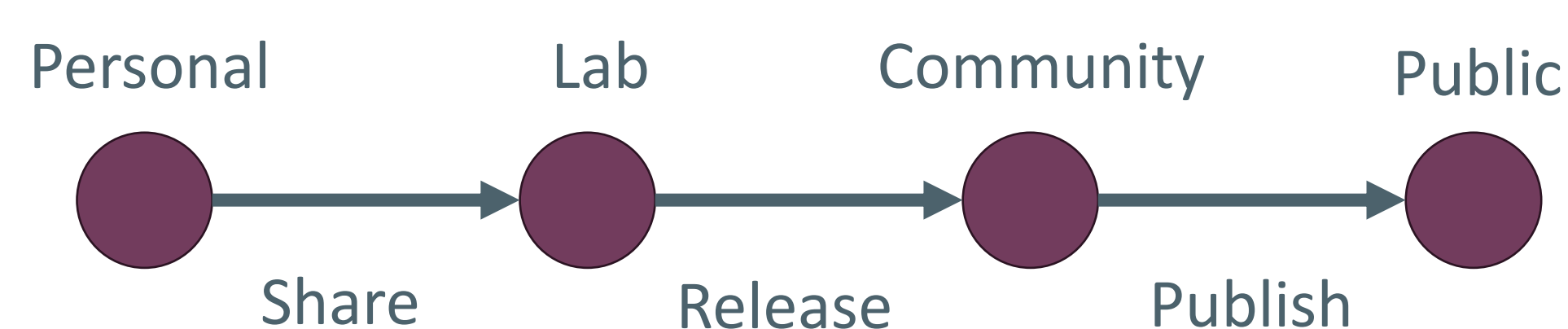
Contact

www.cores-hub.io
CAMARADES.berlin@charite.de
sarah.mccann@bih-charite.de



Advantages of ODC

- Data are curated with minimum meta-data standards
- Field-specific common data elements and ontologies are developed
- A community-driven approach to infrastructure and tool development
- Integration with data synthesis applications



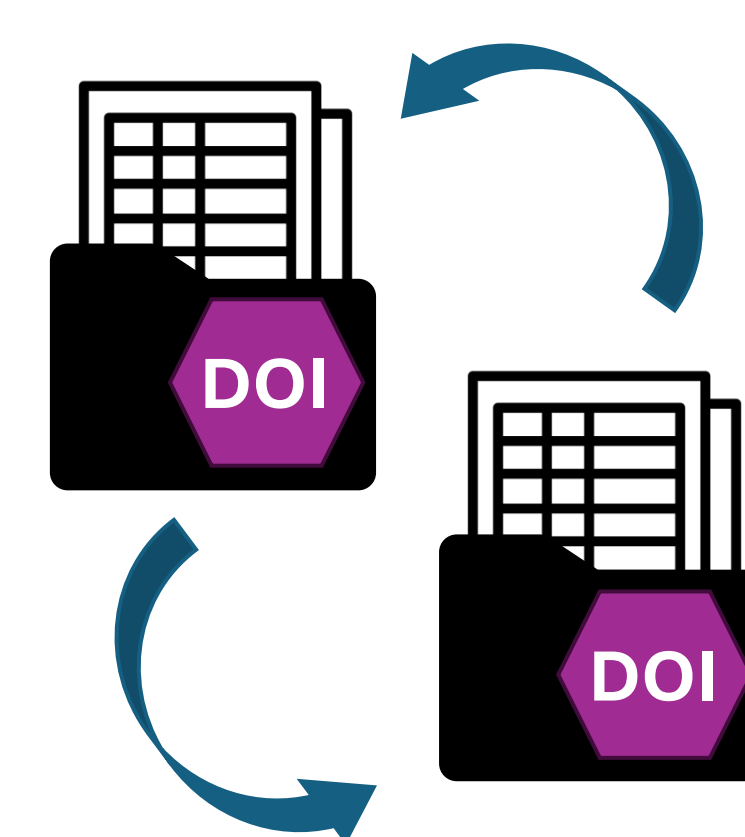
Data collection

- Single laboratory
- Multi-laboratory



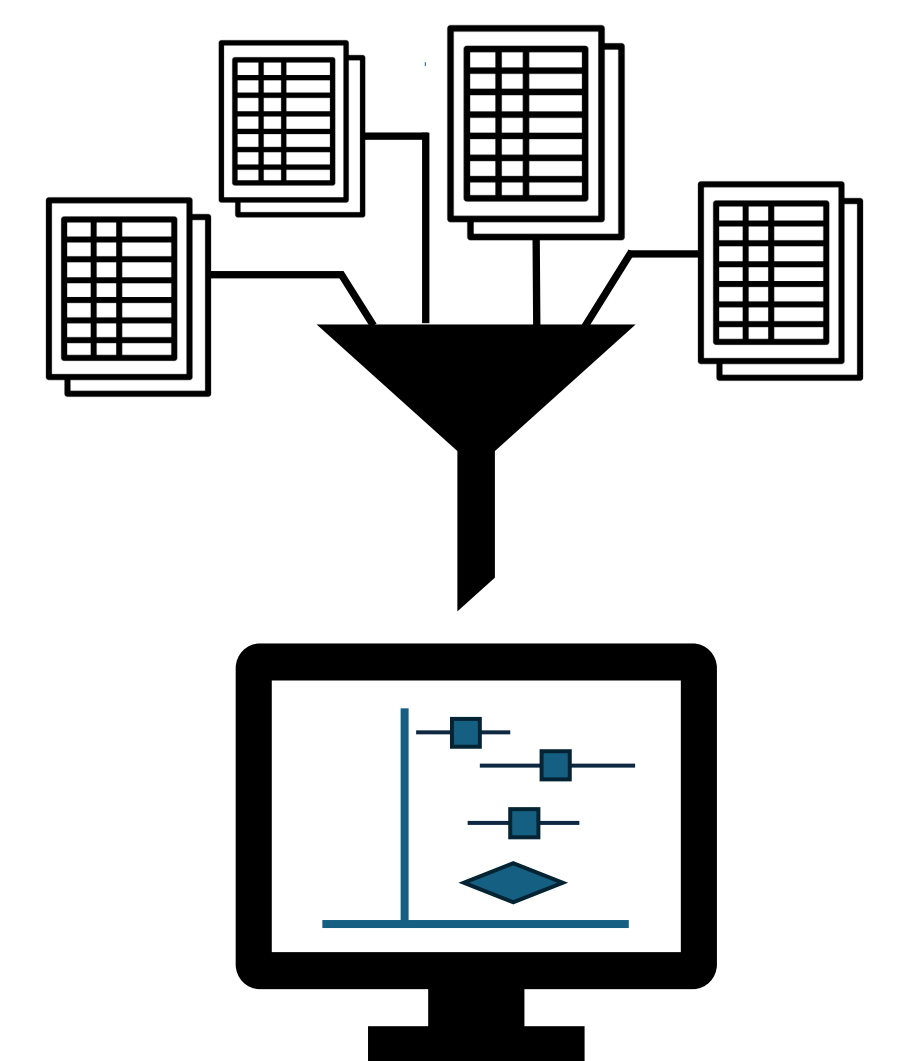
Data analysis

- Improves data management
- Facilitates reproducibility



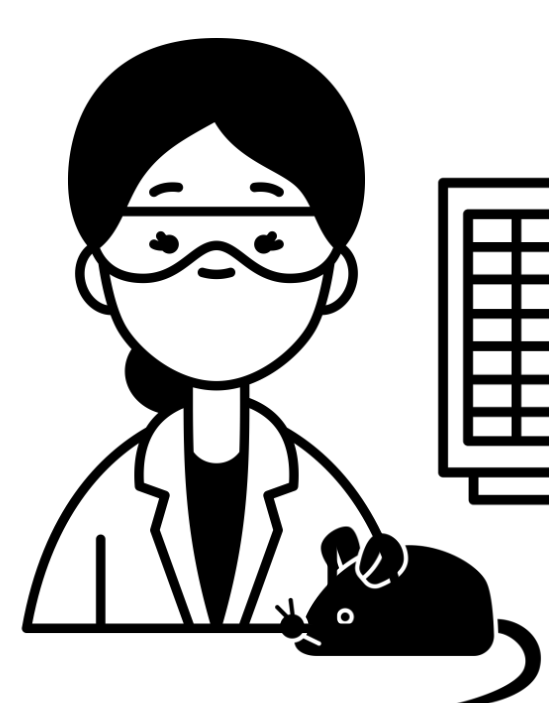
Data sharing

- Within-laboratory
- Collaborations
- Required public sharing

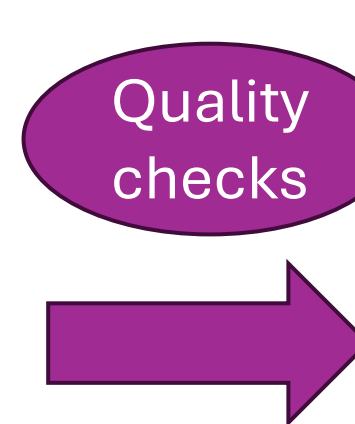


Data synthesis

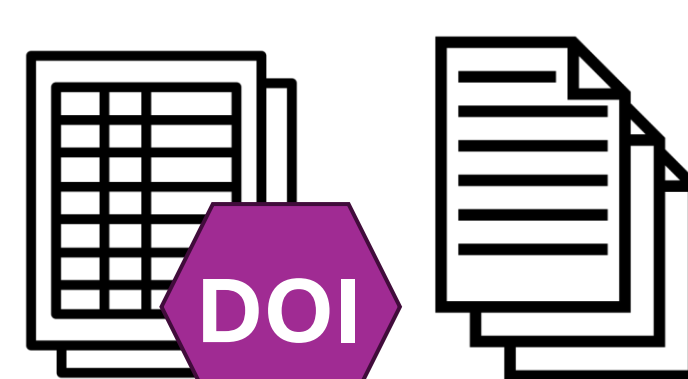
- Curated data
- Reduced bias



Data are collected using CDEs



- Account types:
- Limited access
 - No account
 - Registered user
 - Full access
 - General member
 - Lab member



- Dataset is citable as a separate research output
- Attribution is given upon reuse

Principles behind community-based FAIR data sharing technology

- Prioritise community acceptance over engineering perfection
- Recognise that cultural change is slow and needs constant effort in parallel to offering technological solutions
- Multiple levels of research community engagement with multiple stakeholders (researchers, consumers, funders, government, publishers) are essential for evolving a data publication culture and the data platform
- Collaboration with funding agencies early on is essential and potentially the key for adoption of FAIR and open data sharing portals

doi: 10.1007/s12021-021-09533-8

Common Data Elements (CDEs)

- CDEs are content standards that enable researchers to **systematically collect, analyse, and share data** across the community
- CDEs **facilitate research** by improving data collection, data analysis, data sharing, and ease of use in data repositories
- Related data can be **synthesised across multiple studies** or relationships can be investigated between unrelated datasets

Get involved

Check out other ODCs:
ODC-SCI <https://odc-sci.org/>
ODC-TBI <https://odc-tbi.org/>



Sign up for ODC-Stroke news

- Stay up-to-date on progress
- Volunteer for user testing
- Contribute to the development of CDEs

