Examples – Hardware/ Software design

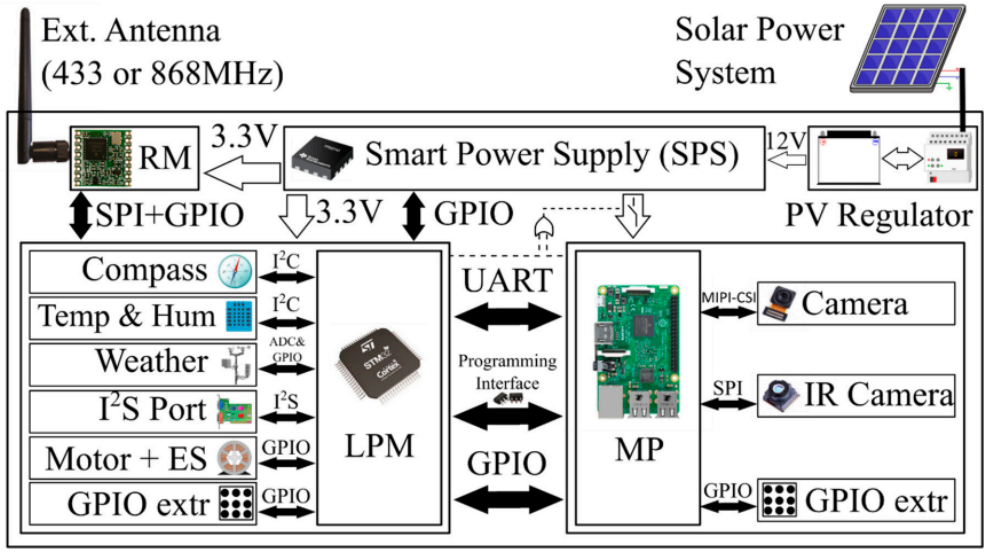


Figure 1. Node architecture. LPM, low power microprocessor; MP, multimedia processor; RM, radio module.

García, Sebastián, et al. "Heterogeneous LoRa-based wireless multimedia sensor network multiprocessor platform for environmental monitoring." *Sensors* 19.16 (2019): 3446.

Cottaar, Michiel, et al. "Multi-modal Monte Carlo MRI simulator of tissue microstructure." *Imaging Neuroscience* 4 (2026): IMAG-a.

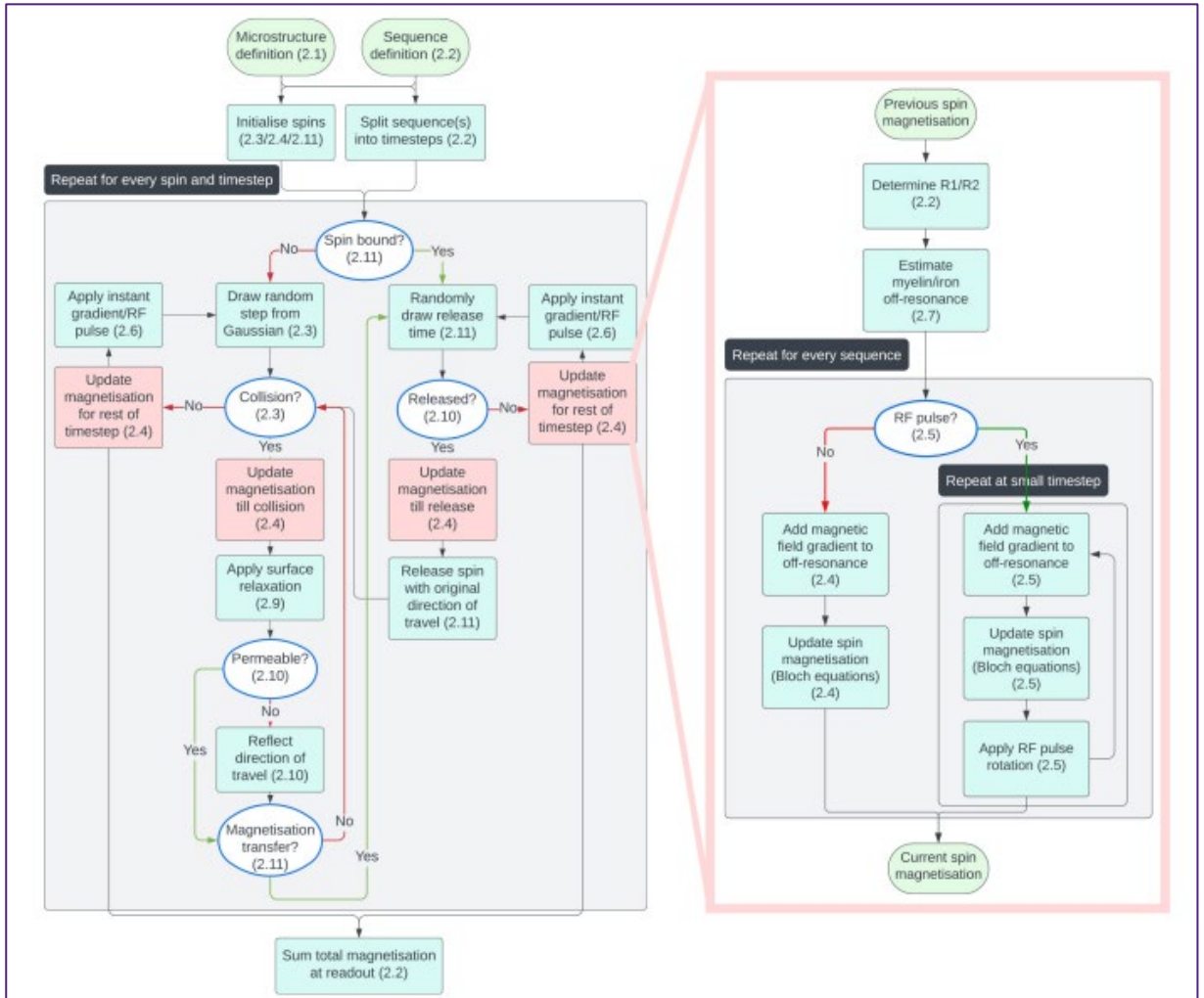
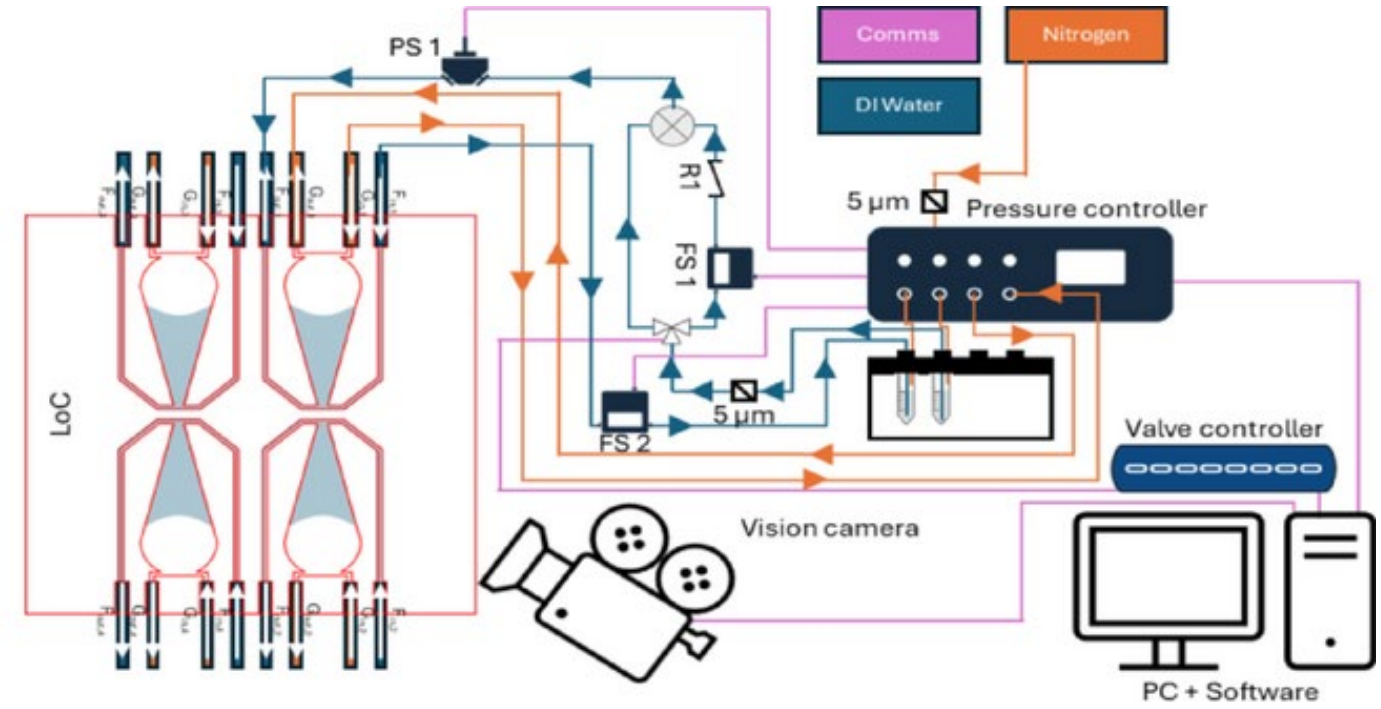


Fig. 2. Flowchart of the Monte Carlo algorithm implemented in the MCMR simulator. User-defined sequence(s) and microstructure inputs (top) are initially processed. The remaining steps on the left are repeated for every spin and timestep. On the right, the step to update the spin magnetisation (red boxes) is further expanded. For more details on each step, check out the referenced section number.

Example - Lab Setup Schematic/Workflow



Nardi, Lorenzo, et al. "Modular lab-on-chip platform with integrated a-Si: H sensors for real-time bioluminescence monitoring in bioreactors under microgravity conditions." *Scientific Reports* (2026).

Modified from Fig 6: Schematic representation of the external fluidic circuitry and picture of the corresponding laboratory setup. At the heart of the fluidic circuit lies the Elveflow OB1 MK3 + pressure controller, which is interfaced by a computer running LabView Software.

Example GitHub Repo and Workflow

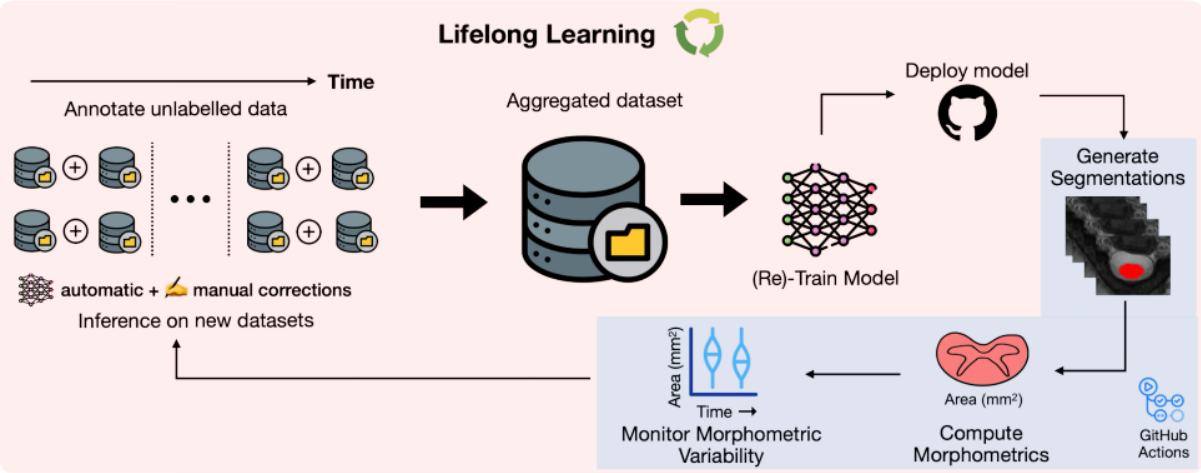
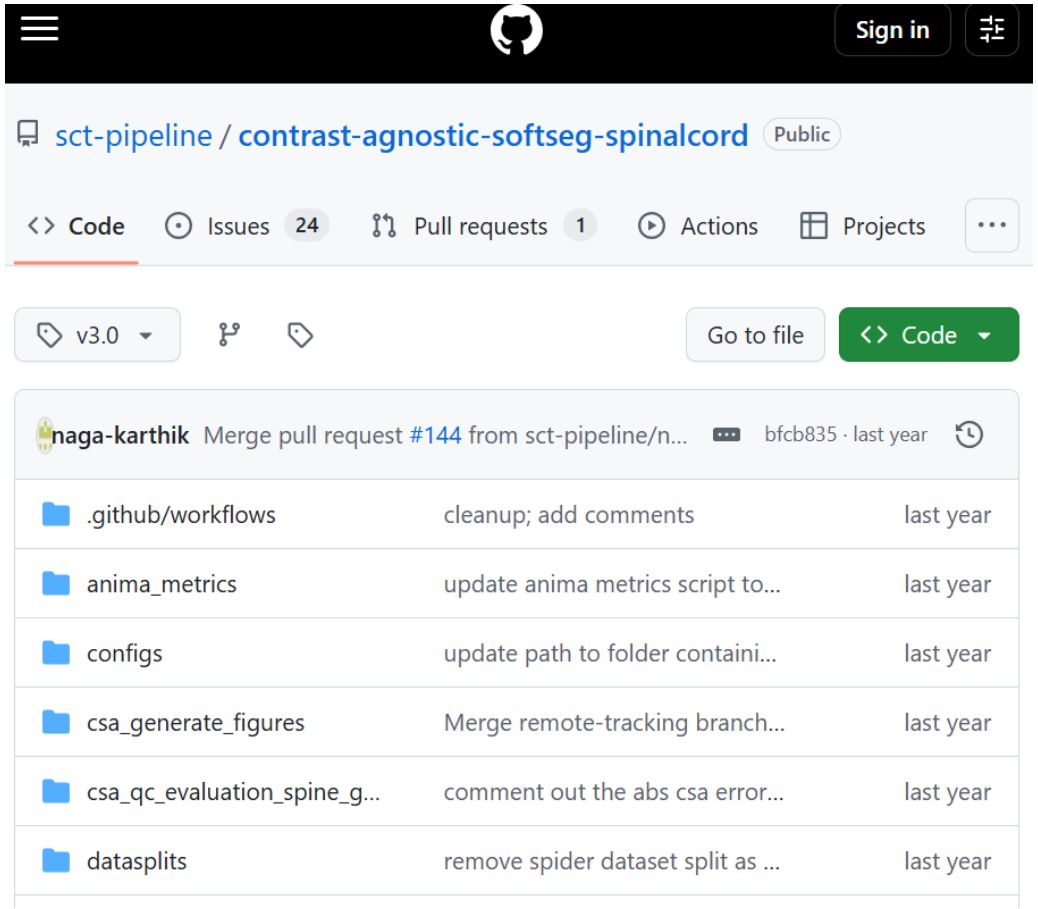


Figure 2 ***Overview of the lifelong learning strategy for continuous training of spinal cord segmentation models.*** *Unlabelled data containing various contrasts and pathologies, gathered from multiple sites worldwide, are segmented automatically with an existing state-of-the-art model and undergo visual quality control for inconsistencies in segmentations, excluding data with artifacts. Labelled datasets are aggregated to train the spinal cord segmentation model. Post-training, the model is deployed as an official release, triggering an automatic GitHub Actions workflow that generates the segmentations, computes the morphometrics, and actively monitors the drift in the morphometric variability between the current version of the model and the previously released versions (automated tasks shown in the blue box). As new data arrive, the process is repeated, enabling continuous (re)training of the models to segment a diverse set of contrasts and pathologies.*



Naga Karthik, Enamundram, et al. "Monitoring morphometric drift in lifelong learning segmentation of the spinal cord." *Imaging Neuroscience* 4 (2026): IMAG-a.

Example – Data Handling Workflow

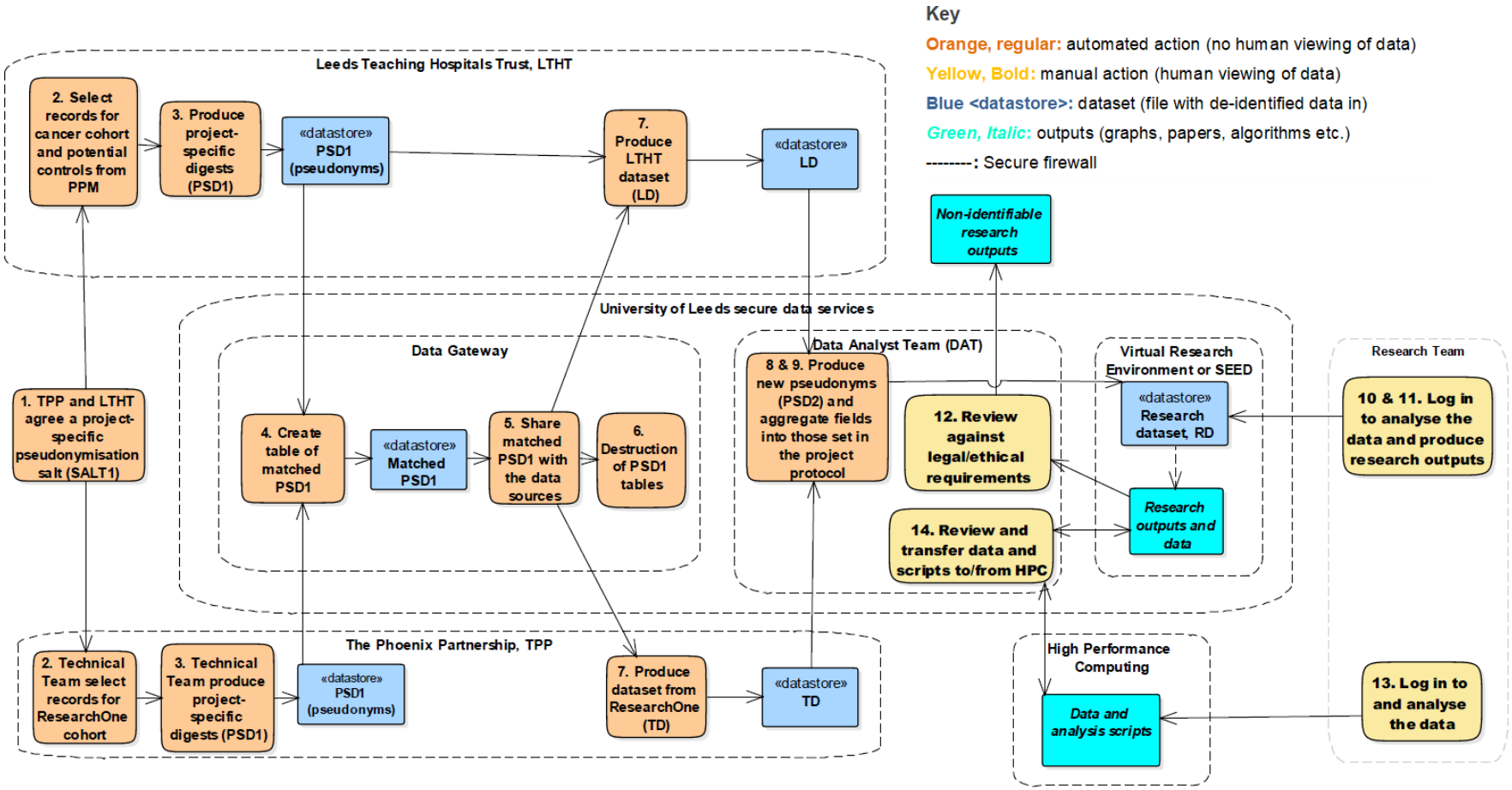
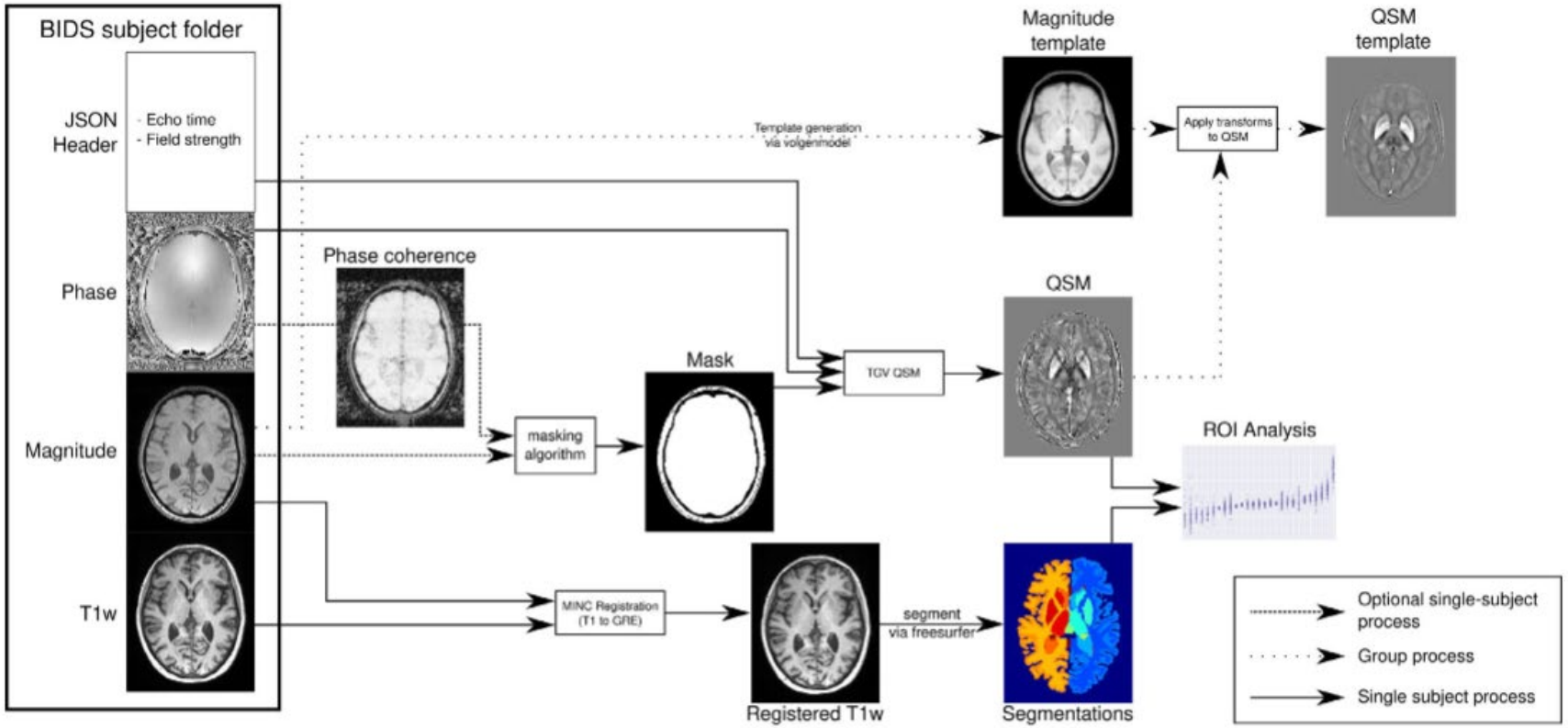


Fig 1. Diagram of the parties involved in the case study and the actions performed during the process of data flow, linkage and access, as defined using the protocol for linkage and anonymisation of data.

Crossfield, Samantha SR, et al. "A data flow process for confidential data and its application in a health research project." *Plos one* 17.1 (2022): e0262609.

Example – Data processing pipeline



Stewart, Ashley Wilton, et al. "QSMxT: Robust masking and artifact reduction for quantitative susceptibility mapping." *Magnetic Resonance in Medicine* 87.3 (2022): 1289-1300.

FIGURE 1 QSMxT processing pipeline and outputs after automated conversion to the Brain Imaging Data Structure standard. Outputs for each subject include masks, T1-weighted images, segmentations registered to the quantitative susceptibility mapping (QSM) space, QSM images, as well as quantitative data for analysis and figure generation. Outputs for the whole group include magnitude and QSM templates

Example – Start of Ethics or Ethics Plan

https://research-support.uq.edu.au/resources-and-support/ethics-integrity-and-compliance/human-ethics/forms-and-resources

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Human Research Ethics Application (HREA)

All ethics submissions, including new applications, amendments, exemptions, ratifications, adverse event and annual reports are made through UQ's MyResearch system. The HREA within My Research has the following sections:

1. Introduction and Acknowledgement
2. Assessment Pathway SQ1 – 7
3. Project Overview Q1.1 – 1.8
4. Project Team – List Members of Research Team
5. Project Team Details – Contact details and role
6. Disclosure of Interest
7. Restrictions (on publication)
8. Evaluations (Scientific Merit)
9. Location (multi-site)
10. Methods – creates further questions depending on methods selected
11. Participant Specific
12. Project Details
13. Recruitment
14. Consent (alternative to consent)
15. Risk
16. Benefit
17. Data and Privacy
18. Generate HREA document.
19. Upload attachments.
20. Select review pathway.
21. Declaration
22. Generate HREA – Submission

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Reviewer Assessment Checklist – Lower Risk Research Applications

Reflection of values as listed in the National Statement

Confirmation of Lower Risk Research

1. Does the research meet the criteria for Lower Risk Research Review?

Research Merit and Integrity

2. Has a case been made for undertaking the research?
3. Is there likely to be a worthwhile outcome?
4. Has a conflict of interest been declared? See Q1.10 If yes, is there a plan in place for the conflict be managed?
5. Do participants have opportunity to be informed of research findings?

Just Dealings

6. Has the researcher described who the participants will be?
7. Is the recruitment of intended participants fair?
8. Are the participant inclusion/exclusion criteria consistent with the aims and objective of the research?
9. Does the research show any exploitation of participants in the conduct of research?

Beneficence

10. Does the burden imposed by the research seem reasonable?
11. Do the researchers clearly explain the risks/inconvenience to participants?

Respect for and Fair Treatment of Participants

12. Is the process of obtaining consent been adequately explained?
13. Is any information sheet and consent form written in simple everyday language and easy to understand?
14. Will participants be offered the opportunity to withdraw any data and/or tissue provided by them without penalty?
15. Is there a clear elaboration on how data will be managed should a participant decide to withdraw?
16. Is the participant's privacy being adequately protected?
17. Is any incentive or reimbursement of costs/time to participants being offered? If yes, is it reasonable?