

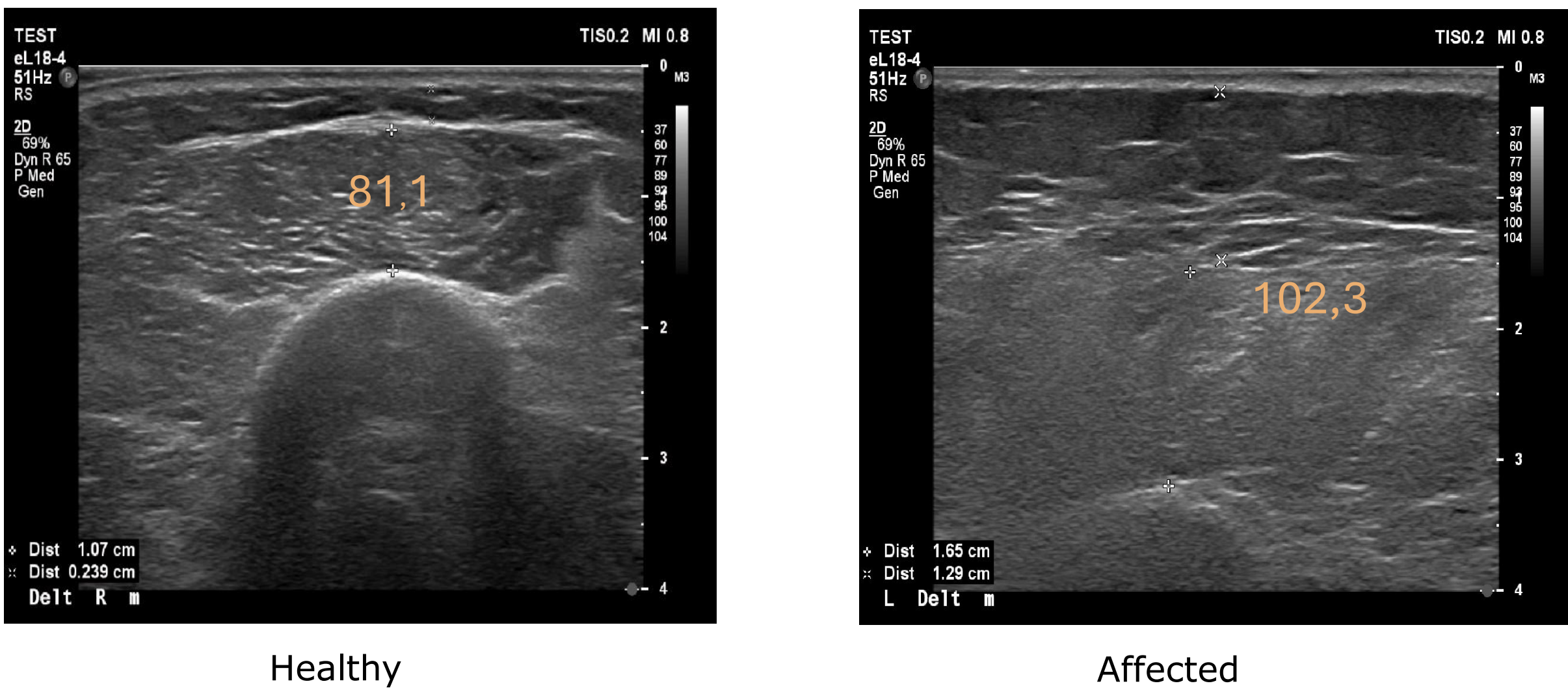
Quantitative Muscle Ultrasound: Steps Toward Clinical Implementation in Norway

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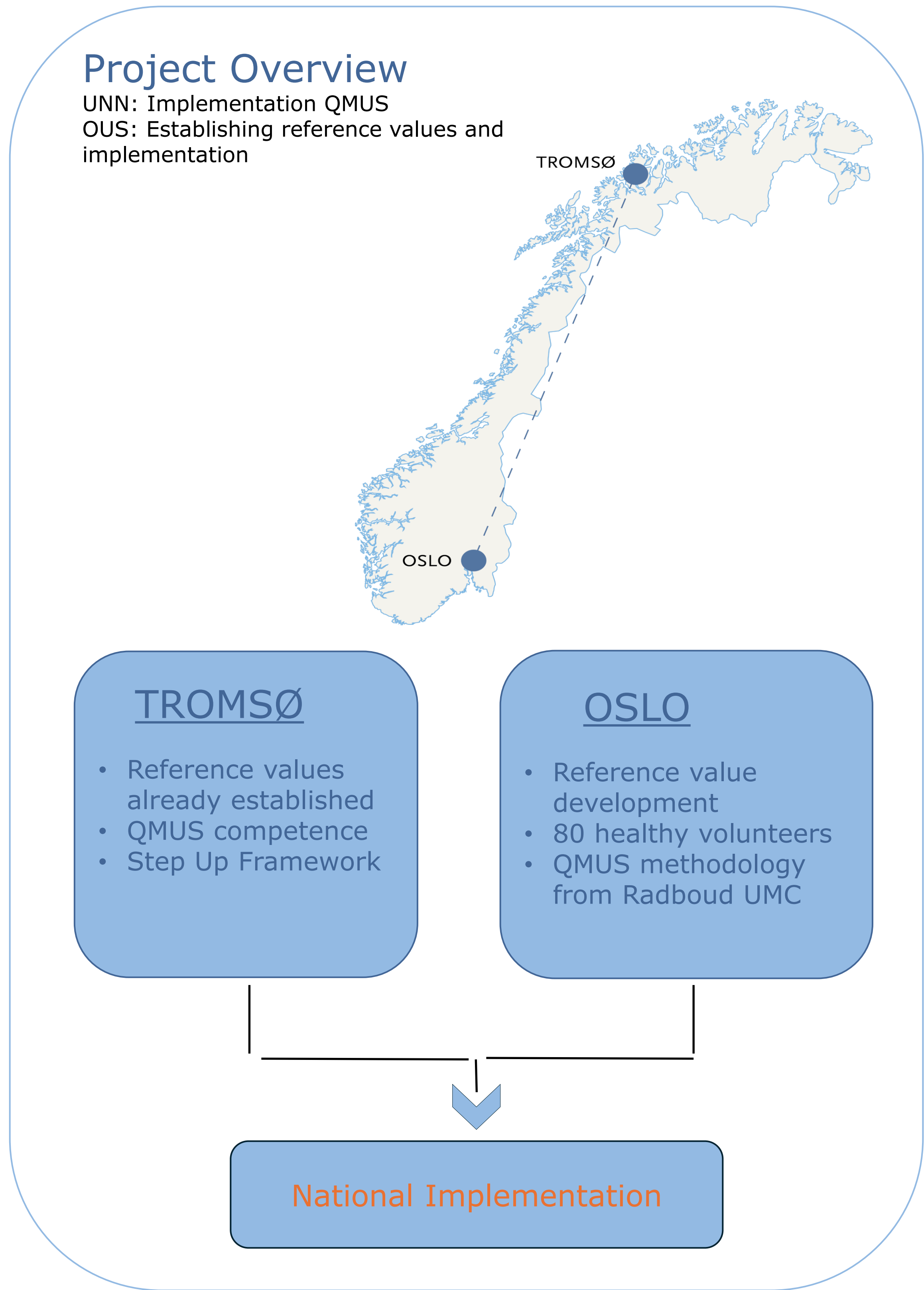
Background

Neuromuscular disorders often require invasive diagnostic procedures that may be burdensome for patients, particularly children. Quantitative muscle ultrasound (QMUS) is a non-invasive imaging technique that quantifies muscle echo intensity by measuring mean grayscale values within a region of interest in ultrasound images. Despite demonstrated diagnostic value, QMUS is not routinely used in the Norwegian neuromuscular clinic. Existing QMUS competence and reference values at the University Hospital of North Norway (UNN) provide a foundation for clinical implementation and knowledge transfer to Oslo University Hospital (OUS).



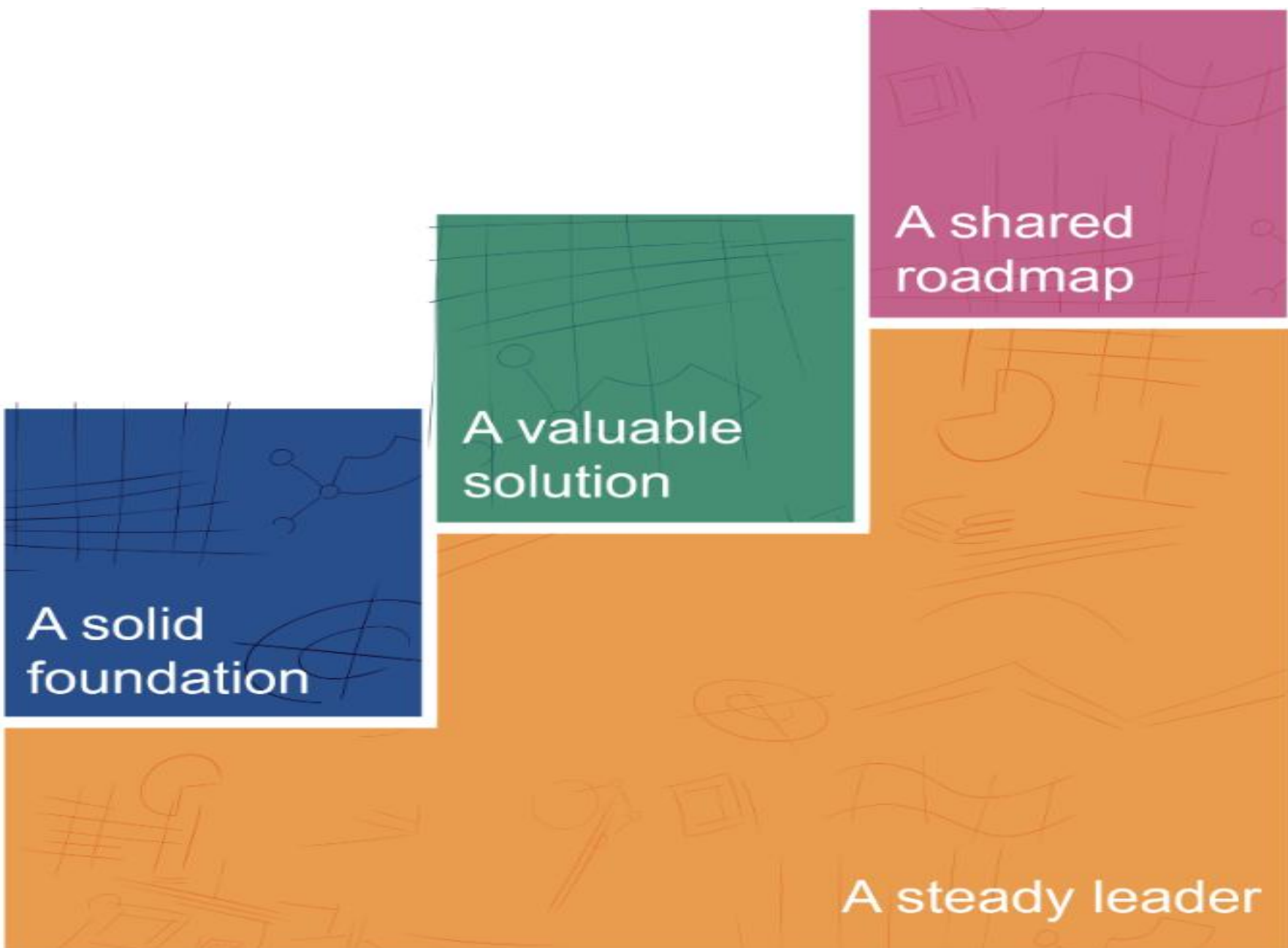
Aim

To establish and implement QMUS at two Norwegian neuromuscular centres and evaluate feasibility, usability and clinical utility in routine clinical practice.

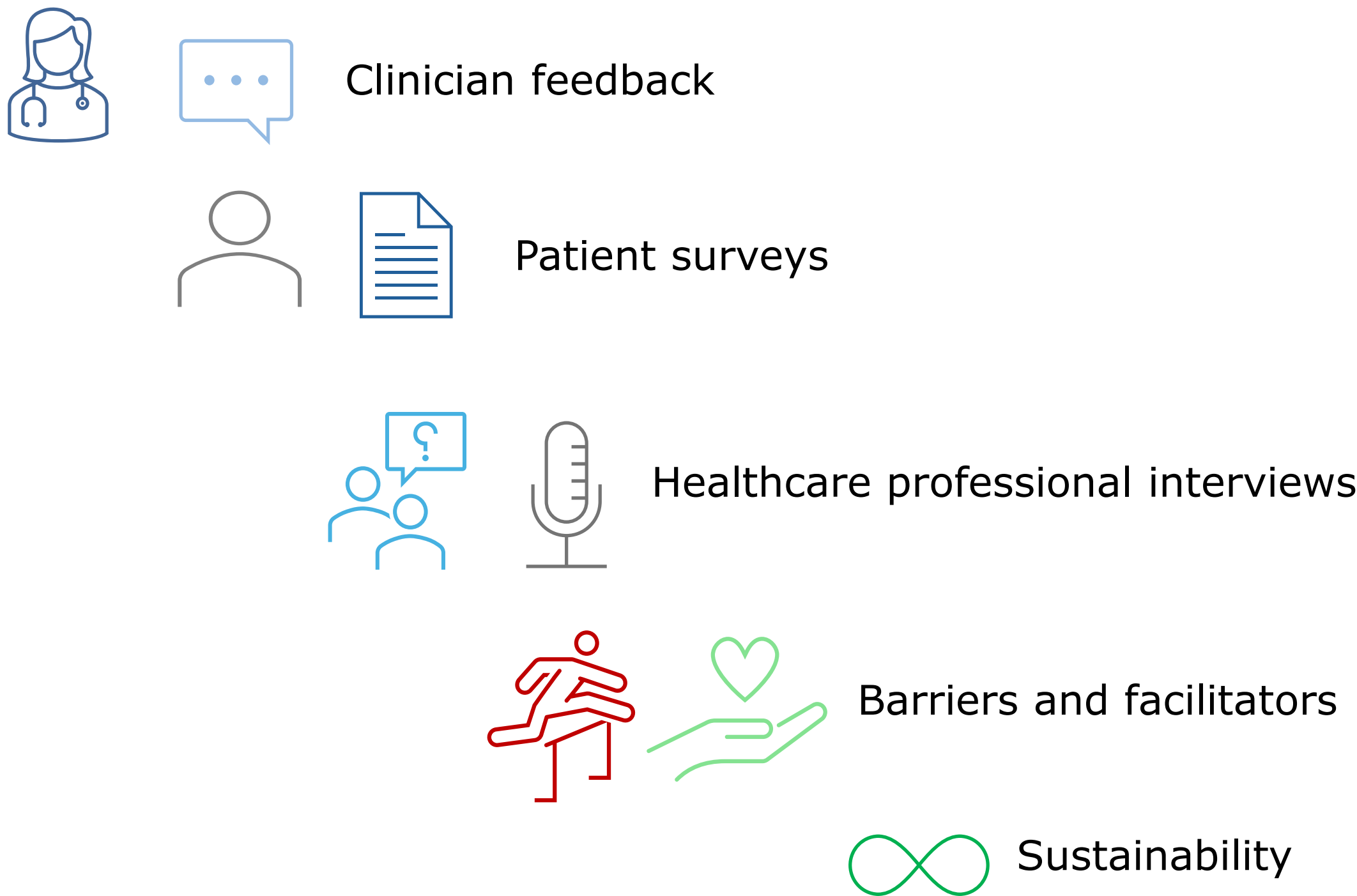


Implementation framework

Implementation activities at UNN are guided by the STEP-UP framework for innovation and service development in Norwegian healthcare. The framework supports stakeholder involvement, competence development, integration into clinical workflows, and continuous evaluation. Lessons learned from implementation at UNN will inform subsequent implementation at OUS.

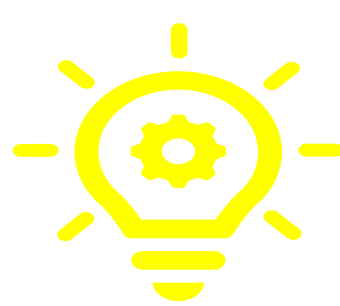


Evaluation



Expected outcomes

- National QMUS capacity and competence building
- Standardized procedures and reference values
- Integration of QMUS into clinical pathways
- Reduced diagnostic burden for patients
- Knowledge transferable to other Norwegian centres



Innovation
First coordinated national implementation of QMUS in Norway