

# NMX Macromolecular Diffractometer – Sample Preparation area

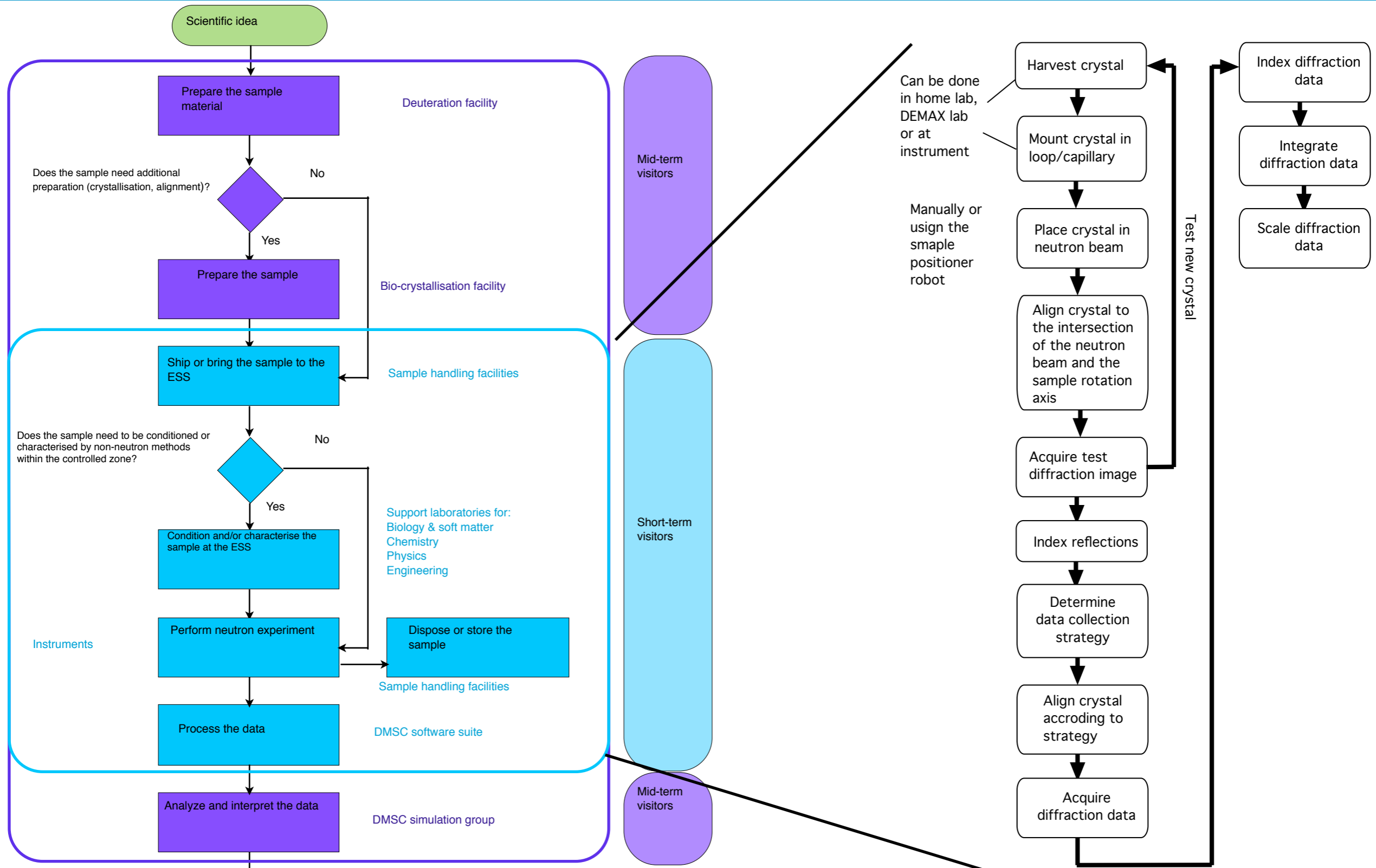
Users & Samples STAP

Lund 2018-03-06

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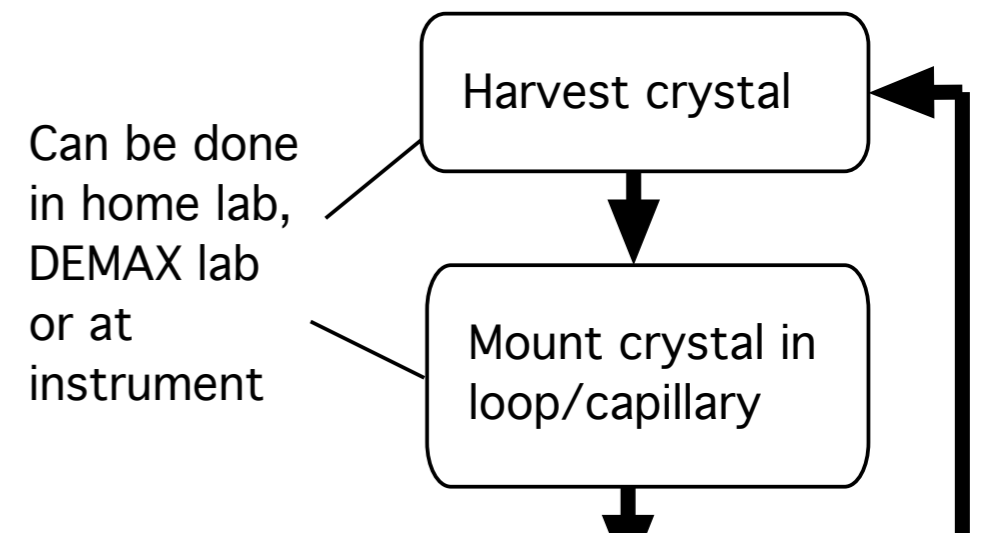
Scientific Project Leader

# Experiment workflow



# Crystal harvesting

- The sample preparation area below the control hutch has a small lab (microscopes, cryo tools etc.) for harvesting and viewing crystals
- We might want to systematically estimate crystal volumes before the measurement to benchmark performance

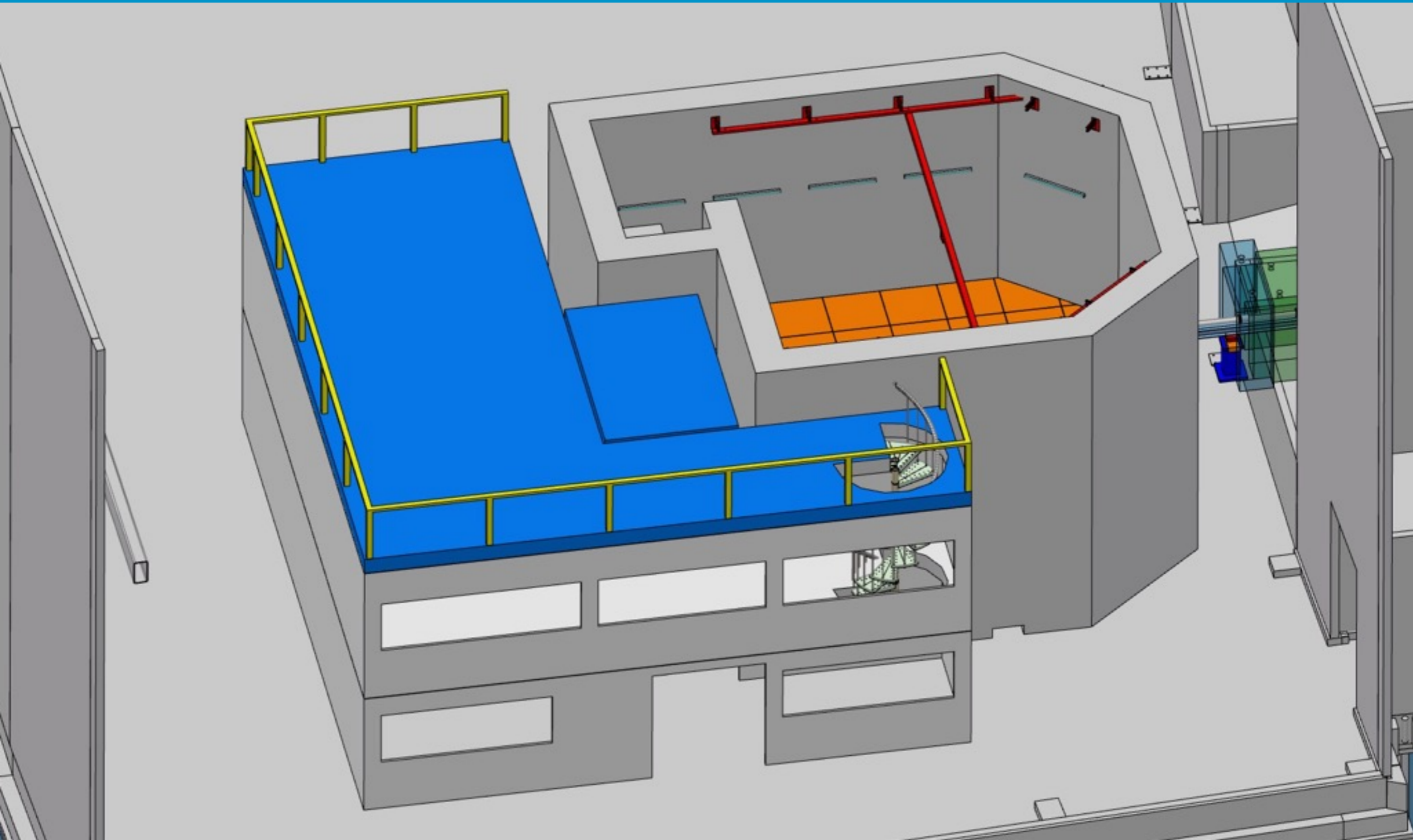


# Sample mounting standards

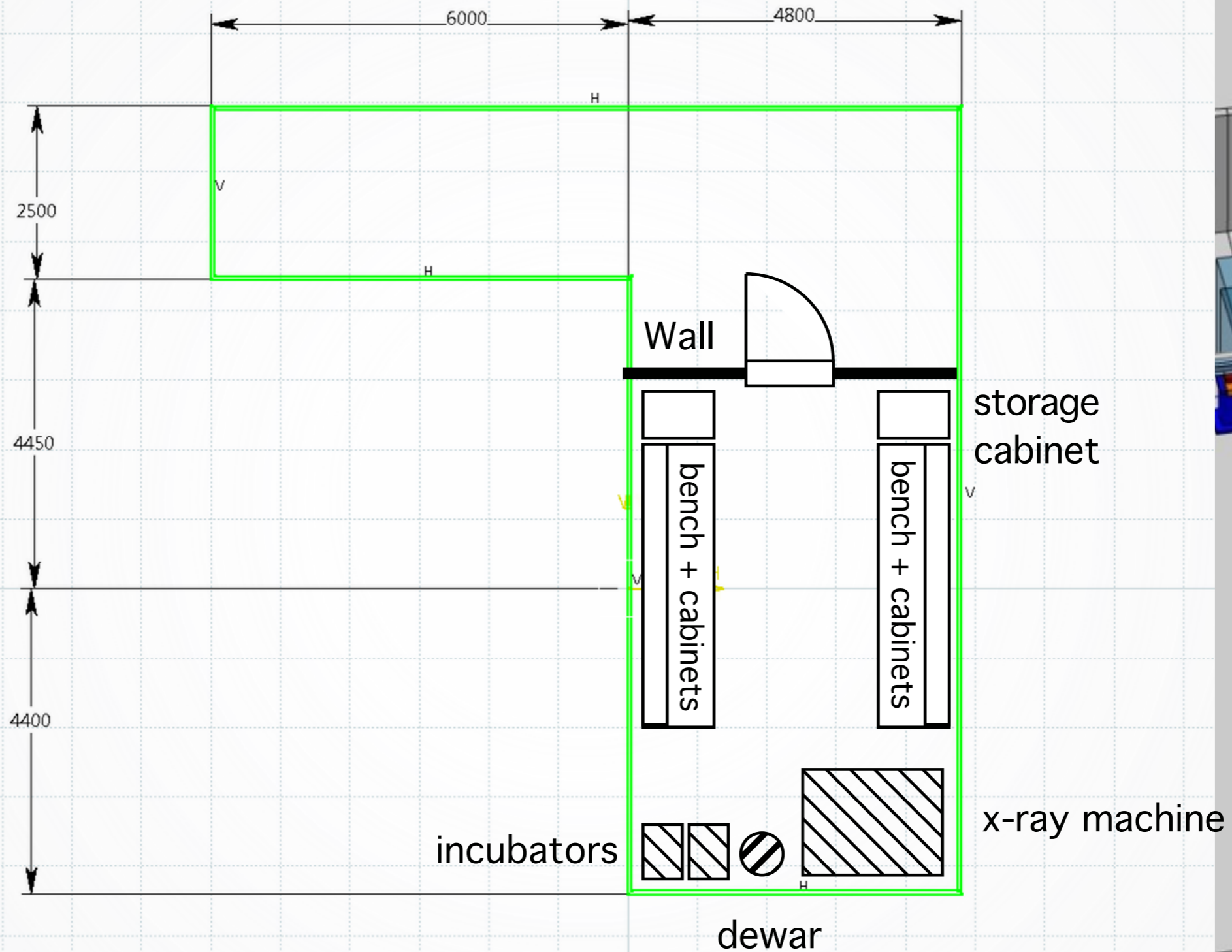


- Users may bring samples
  - In plates or other crystallisation setups
  - Mounted in capillaries (length & crystal position highly variable)
  - Cryo-cooled in (SPINE standard) loops
  - The sample positioner robot can have multiple tools for handling sample mounts (SPINE caps tool already exists)
  - The simple solution is to glue capillaries to SPINE caps – also look into loops inside capillaries to fix crystal position
- Need a small, dedicated lab close by

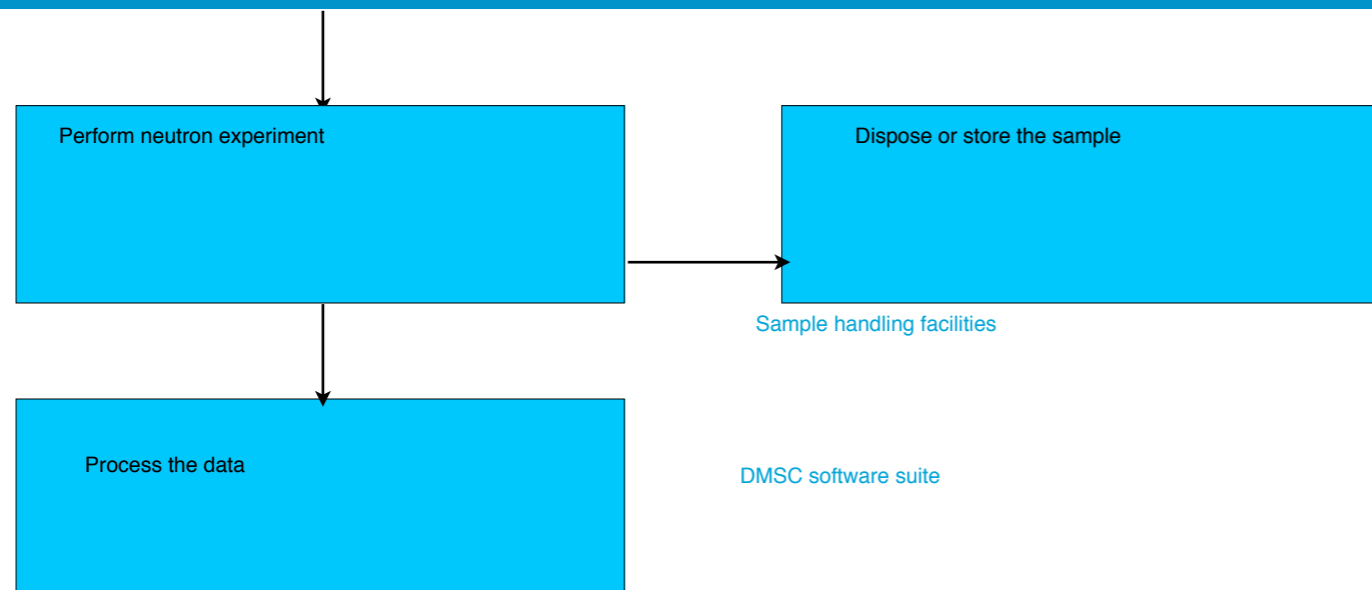
# NMX Cave & Sample preparation area



# NMX Cave & Sample preparation area



# After (neutron) data collection



- The sample preparation area allows  $> 500$  crystals to be stored at different temperatures (cryogenic, ca 5 around ambient)
- X-ray data can be collected from the same crystal immediately after neutron data collection

# Questions?