



Micro-Computed Tomography (MCT) Beamline

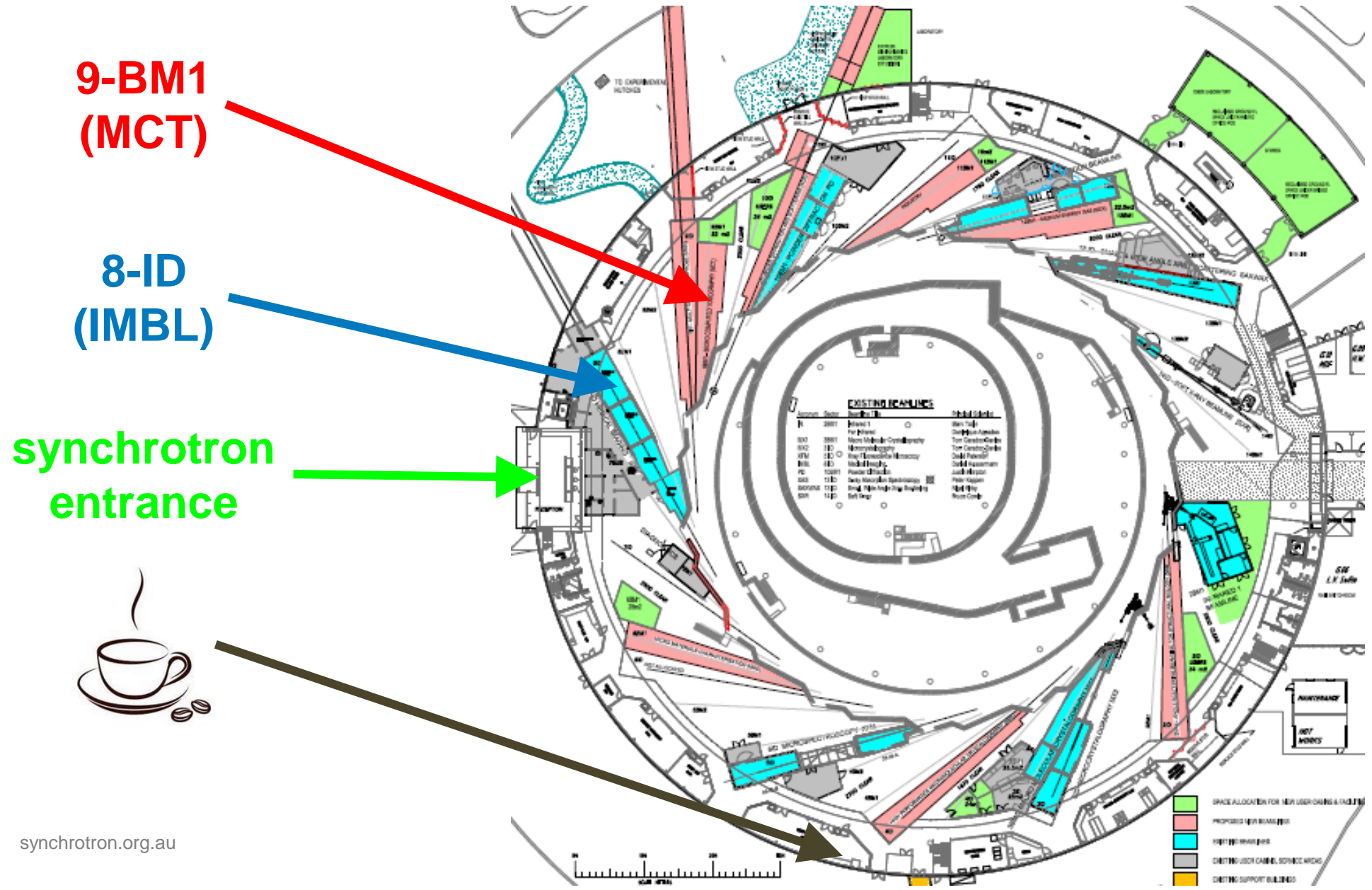
CT@IMBL workshop
24th October 2017

Where?

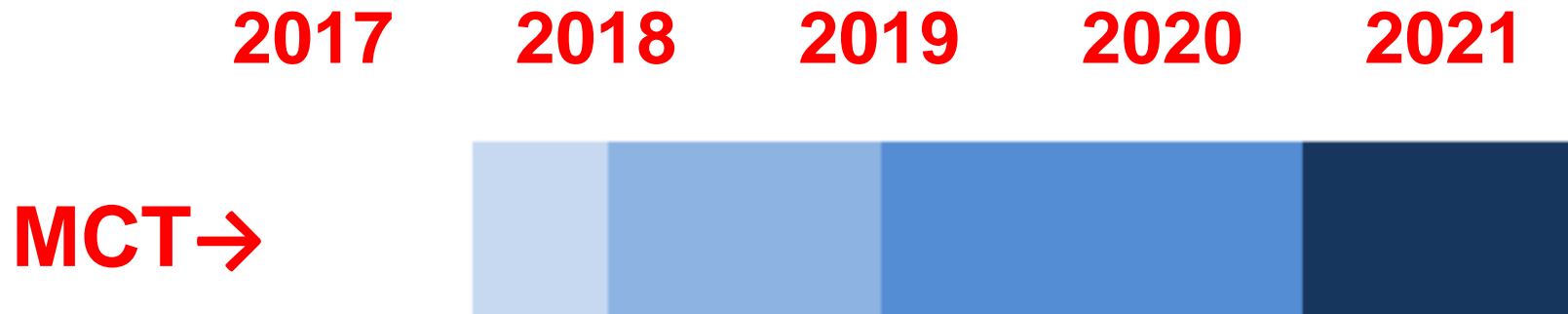


Australian Government

Ansto



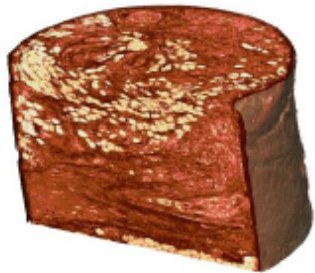
When?



What?

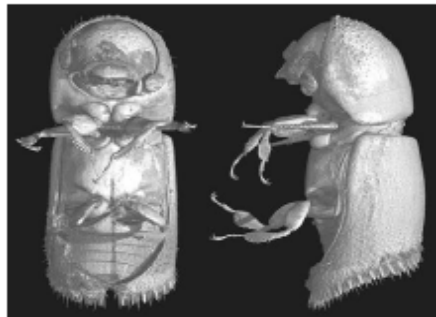
- Will strongly complement IMBL, allowing 3-D structures to be studied down to 0.7 μm resolution
- Sub-second imaging in high-speed mode
- Bending Magnet: 8-40 keV
- 2 Endstations: Parallel Beam & High-resolution Focussing modes for imaging/ MCT Grating-based Phase Contrast MCT
- Strong & engaged user community based on past IMBL demand

Biological and Health Science



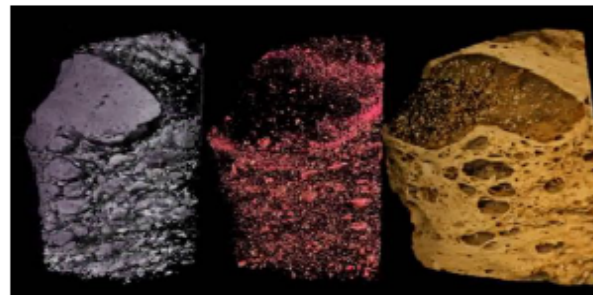
*Biomedical micro-CT,
'virtual histology'*

Palaeontology



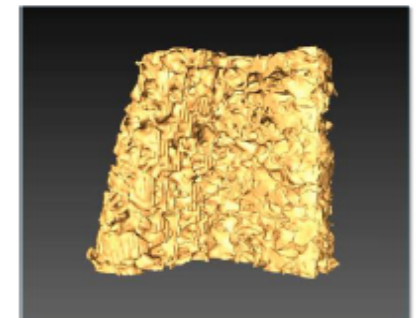
*Micro-fossils, Amber
Encapsulated Objects*

Earth Sciences



*Vulcanology,
Mineral Processing*

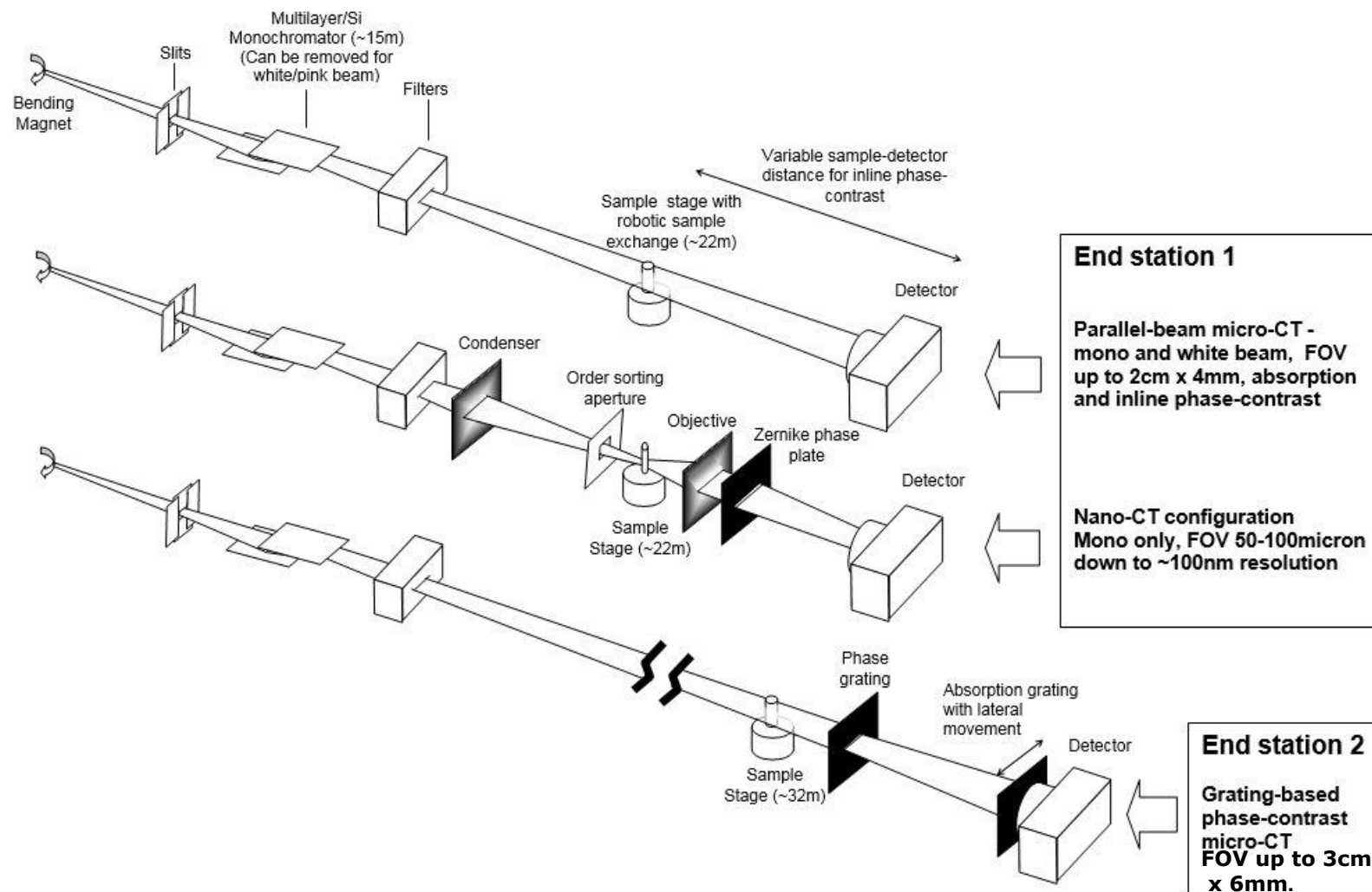
Materials Science



*Soft-matter,
biomedical materials,
additive manufacturing*

To design and build a world-class Micro-Computed Tomography (MCT) beamline capable of:

- Non-destructive, 3D sample characterisation with sub-micron spatial resolution
- High-throughput/ high-speed sample mode
- Innovative phase-contrast modality to improve sample information content
- Using non-ambient sample environments
- Robotics for automatic sample exchange
- Supporting state-of-the-art IT infrastructure for data processing, reconstruction, visualisation and analysis



Two end stations not running simultaneously