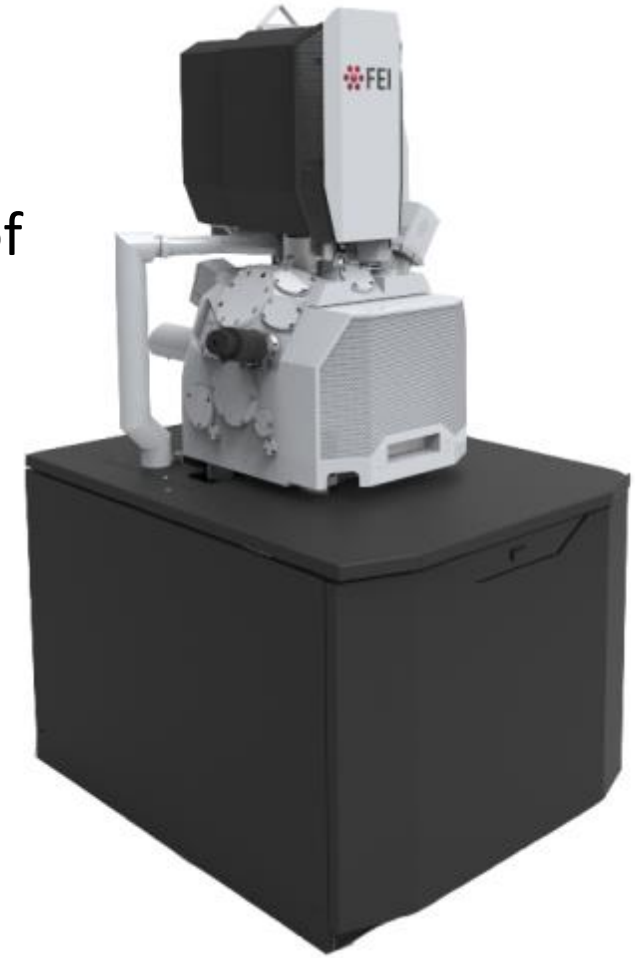
New Teneo SEM

FEI™

Teneo

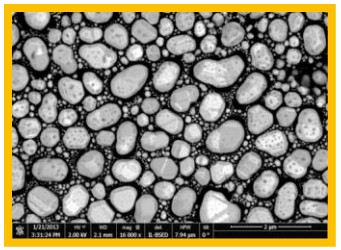
- A revolution in detection – the unique Trinity™ detection scheme delivers highest contrast on the widest range of samples
- Highest flexibility with samples
- Excellent Analytical performance
- Redefining SEM Workflows to deliver ease of use:
  - User Guidance and New User Interface ensures high performance for all users



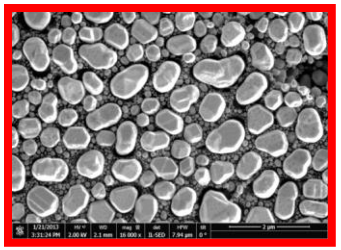
Trinity™ detection

Simultaneous detection of all information with the in-lens Trinity Detection system and NICol SEM column

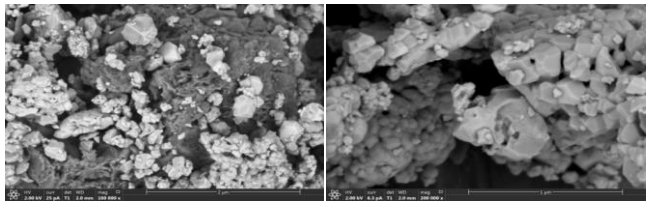
- Gather both material and topographic contrast with the unique segmented in-lens BSE detector (T1)



- Collect excellent edge contrast with the upper in-lens detector (T2).



- Dual mode final lens for optimum results on all materials – including magnetic samples



2 kV 200 kX image of FeNdB magnetic particles

Highest flexibility in loading samples

Largest tilt range -15˚ to 90˚

Flexibility to reach all angles on the sample. Perform perpendicular imaging after milling the sample.

Heaviest sample = 2kg

Keep bigger samples intact for analysis – no need to break them up to reduce the weight. Load heavier samples without affecting stage performance

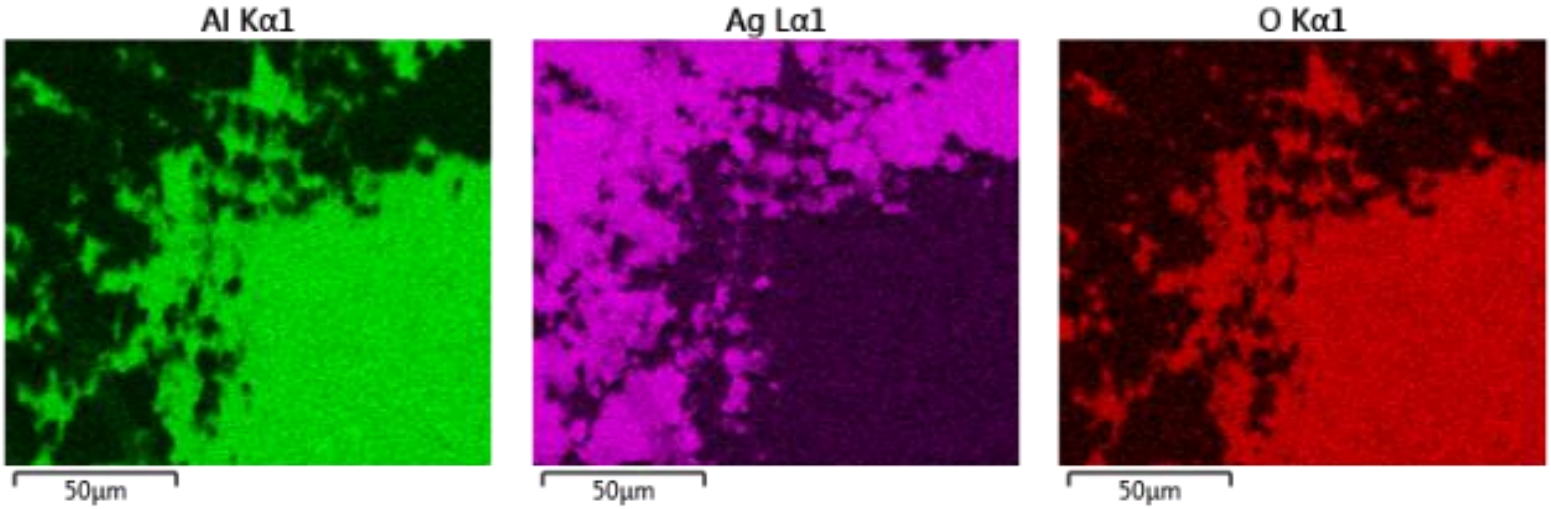
Longest eucentric Working distance = 10mm

Space to do more: Add probing, sub-stages, nano-indentors etc.
Longer WD is more comfortable for new users afraid of damaging the final lens.

Analytical Performance

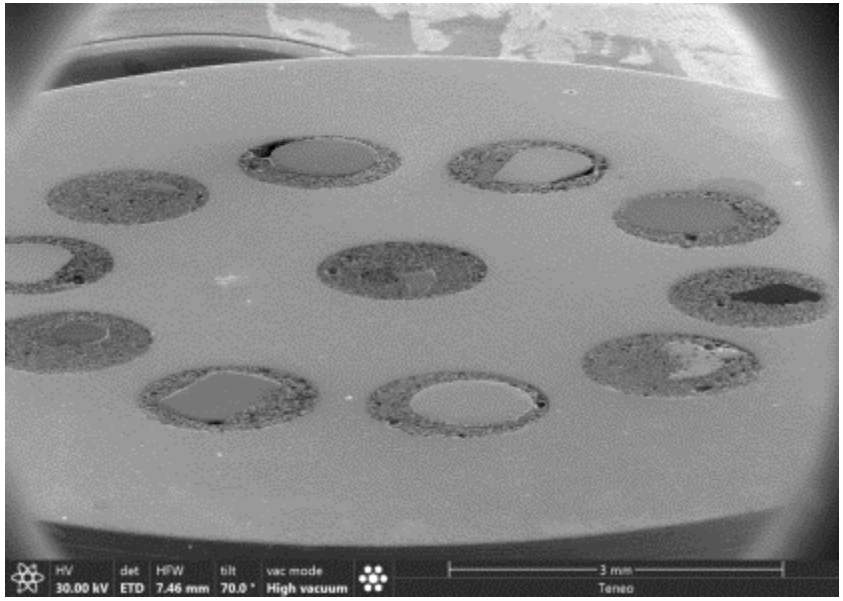
Fast mapping provided by large continuous beam current range up to 400nA

25 s Acquisition Time

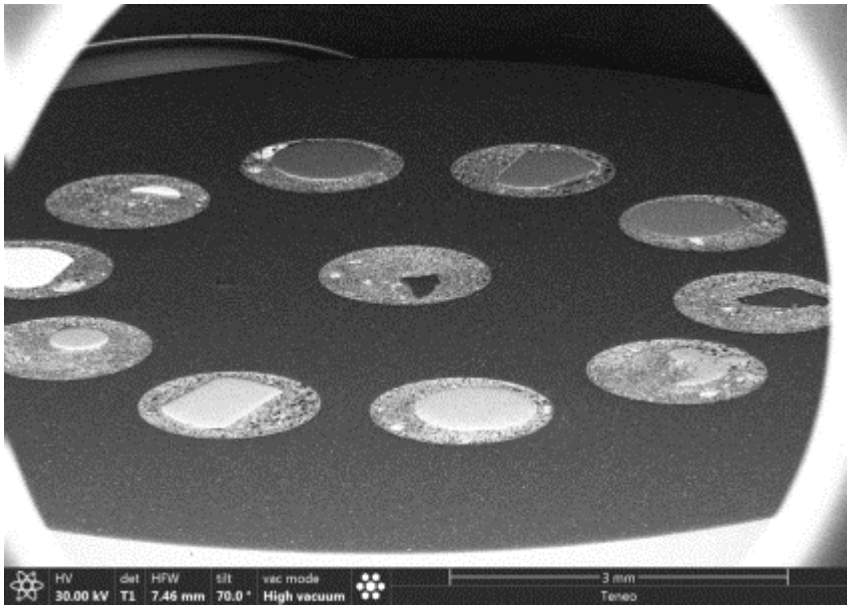


Analytical Performance

Dedicated Analytical mode with optimized aperture angle provides not only high current (density), but also large depth of focus



Detector: ETD



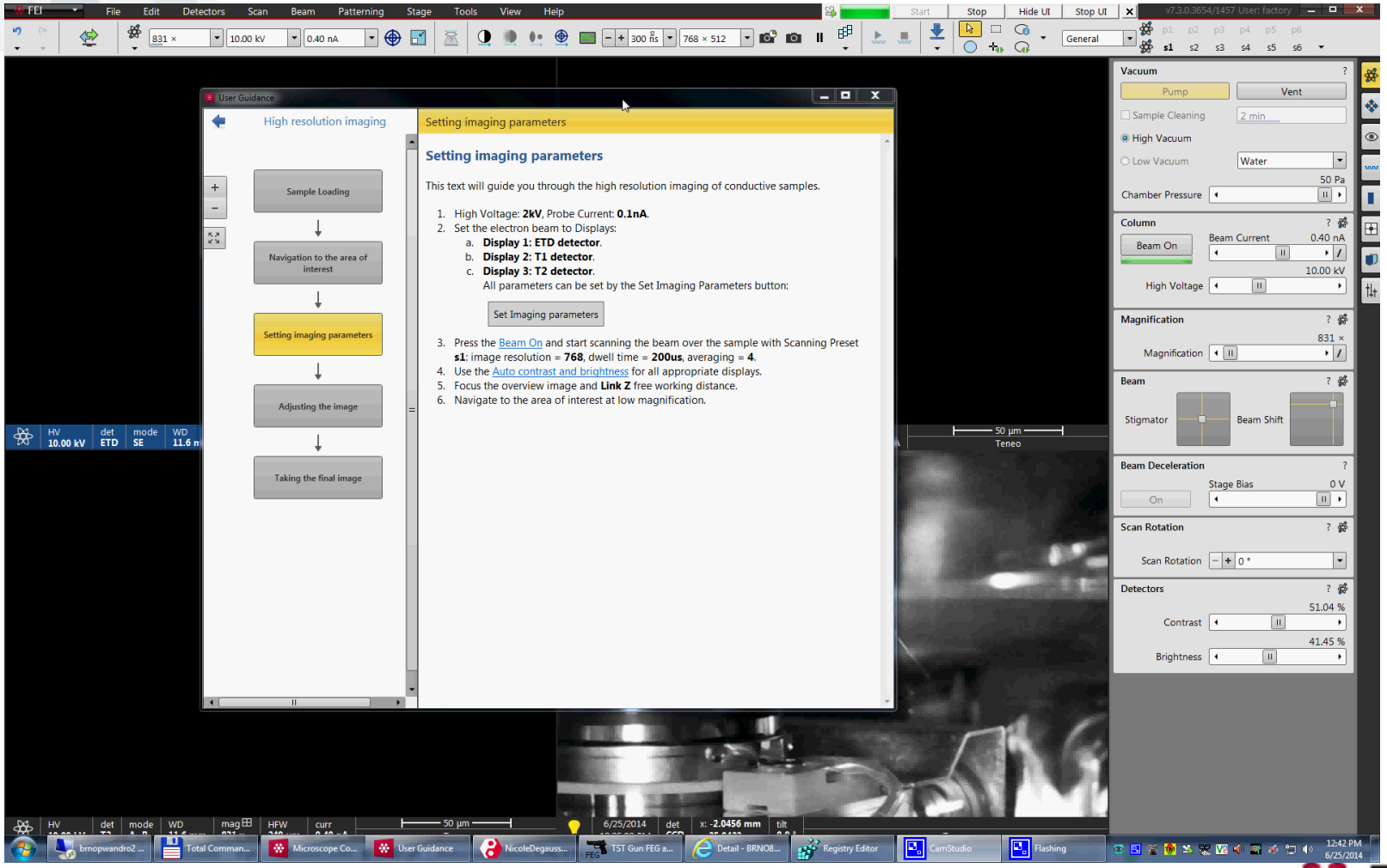
Detector: T1

Large depth of field image acquired in analytical mode with the sample tilted to 70˚

FEI™

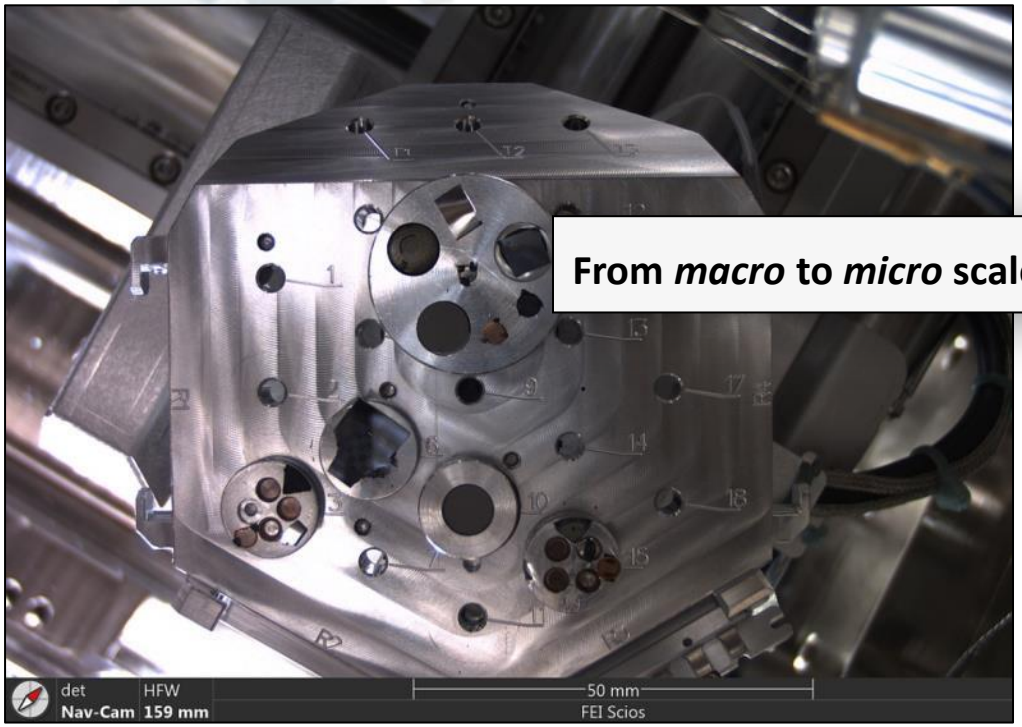
Ease of Use: User Guidance

Workflows provided to guide all users to optimized results quickly

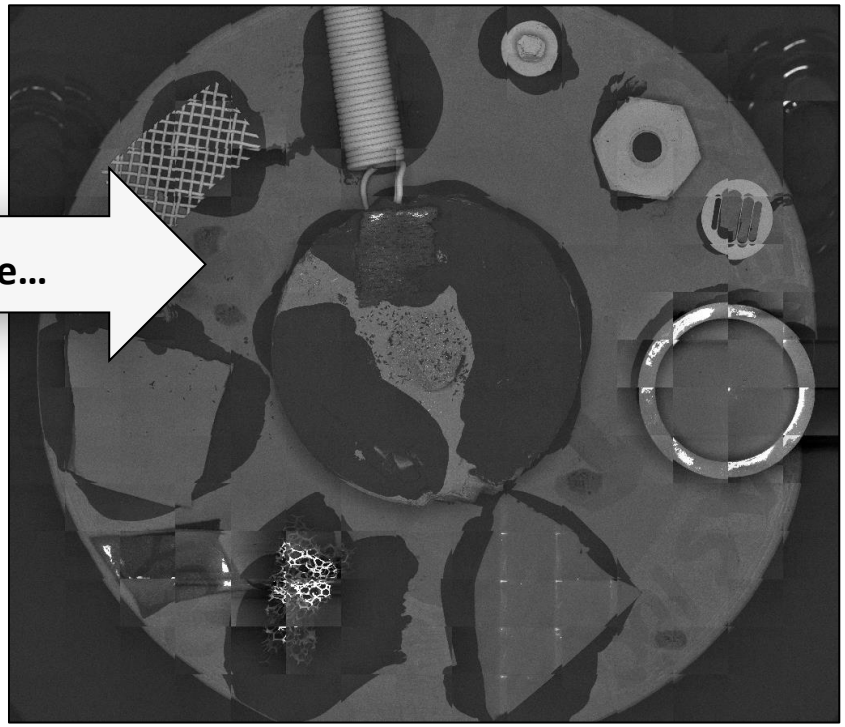


Easy navigation

Comprehensive sample navigation options



From *macro* to *micro* scale…

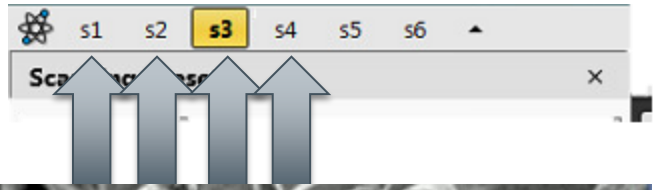


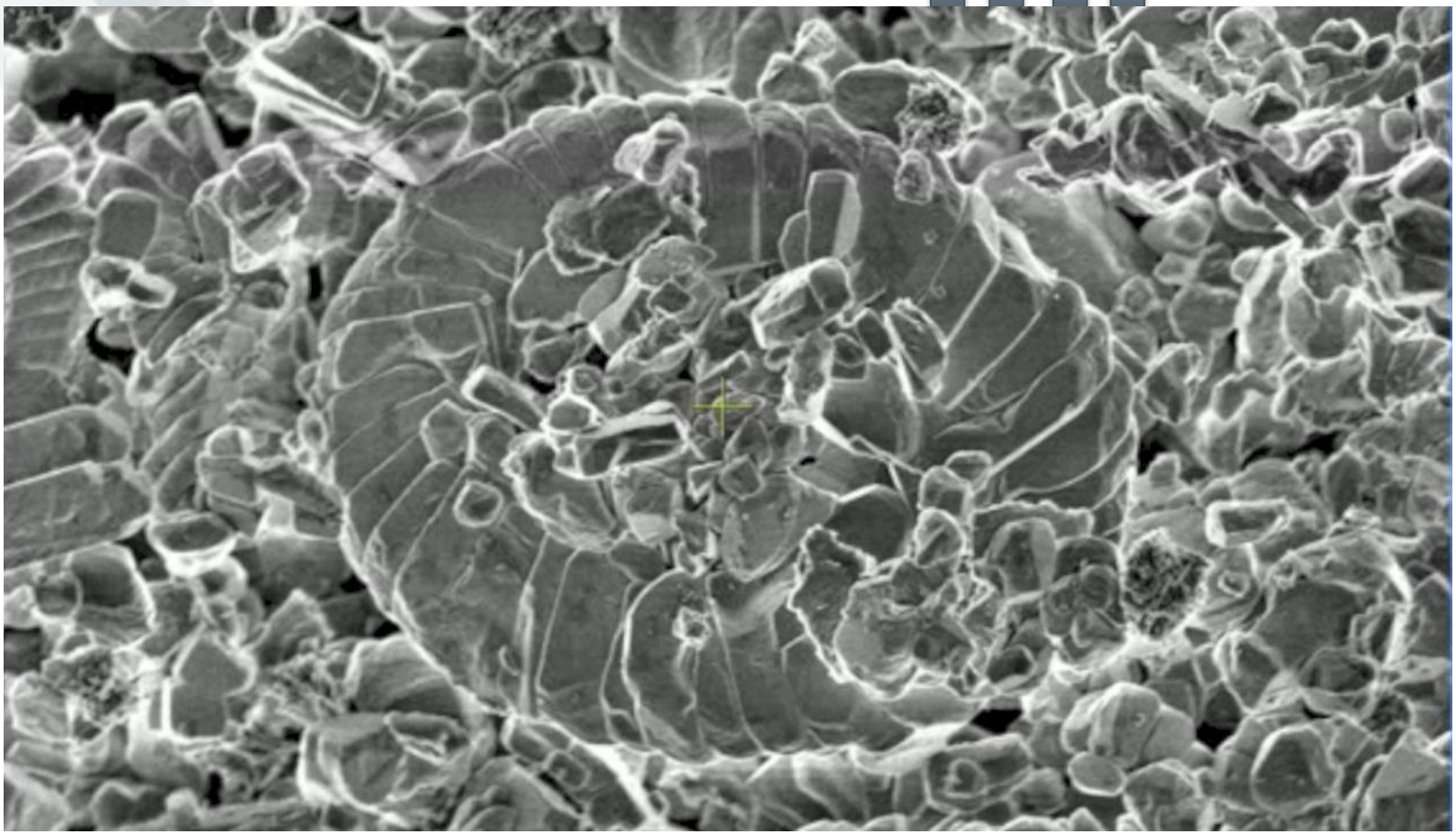
- Macro Color image of sample with Nav-Cam
- Point and click to drive to sample of interest

- 1X SEM image of sample with standard Navigation Montage
- Point and click to drive to sample of interest

Point and shoot

Use presets to get to an excellent result quickly





Presets for scanning and column settings make operation as simple as 1-2-3

Key specifications

15kV Resolution	1.0 nm
1kV Resolution	1.6 nm 1.4 nm (with BD)
In-lens Detectors	T1 (segmented A +B), T2, T3*
Analytical WD	10mm
Stage Range XYZ/RT	110 x 110 x 65mm / 180° 105°
Beam Current range	1pA-400nA
Low Vacuum	Optional
Low Vacuum	50 Pa

Thank You