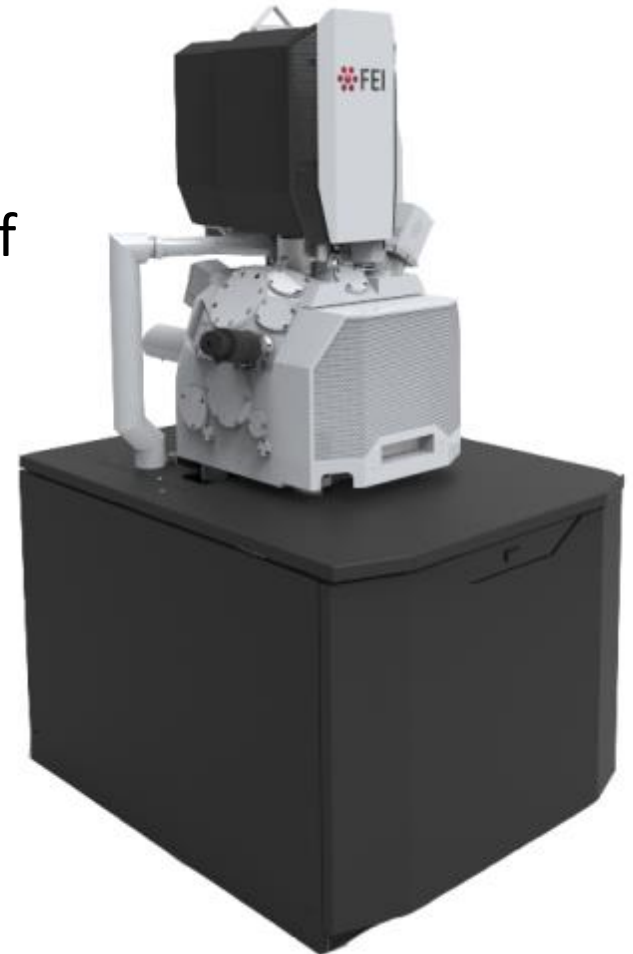


New Teneo SEM



Teneo

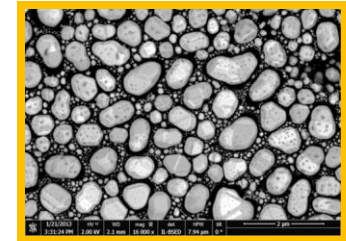
- A revolution in detection – the unique Trinity™ detection scheme delivers highest contrast on the widest range of samples
- Highest flexibility with samples
- Excellent Analytical performance
- Redefining SEM Workflows to deliver ease of use:
 - User Guidance and New User Interface ensures high performance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



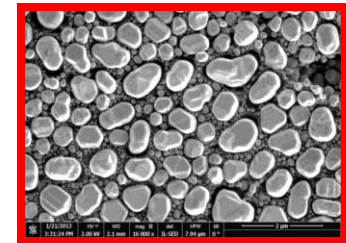
Trinity™ detection

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

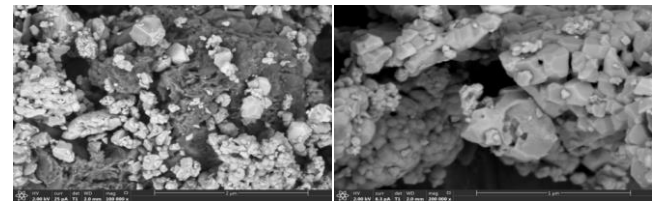
- Gather both material and topographic contrast with the unique segmented in-lens BSE detector (T1)



- 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

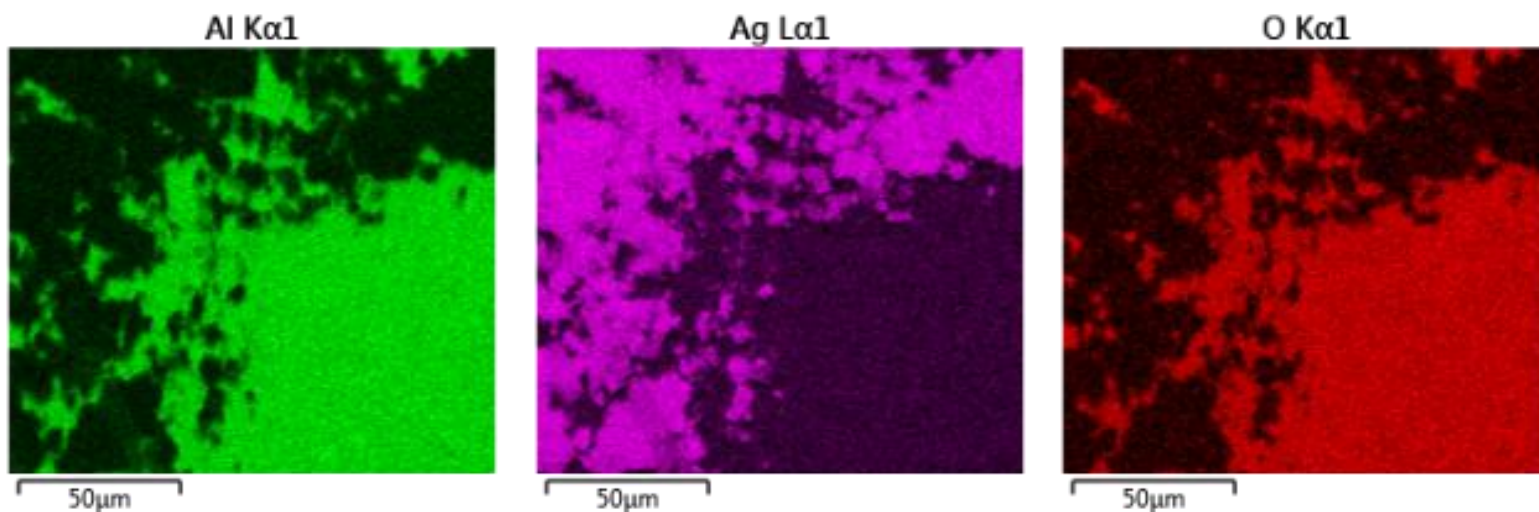
Space to do more: Add probing, sub-stages, nano-indentors etc.

Longer WD is more comfortable for new users afraid of damaging the final lens.

Analytical Performance

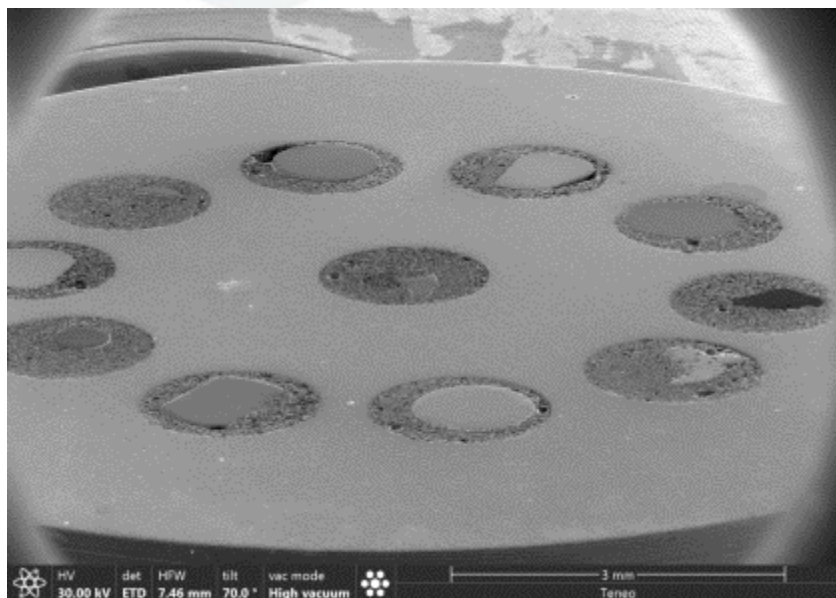
Fast mapping provided by large continuous beam current range up to 400nA

25 s Acquisition Time

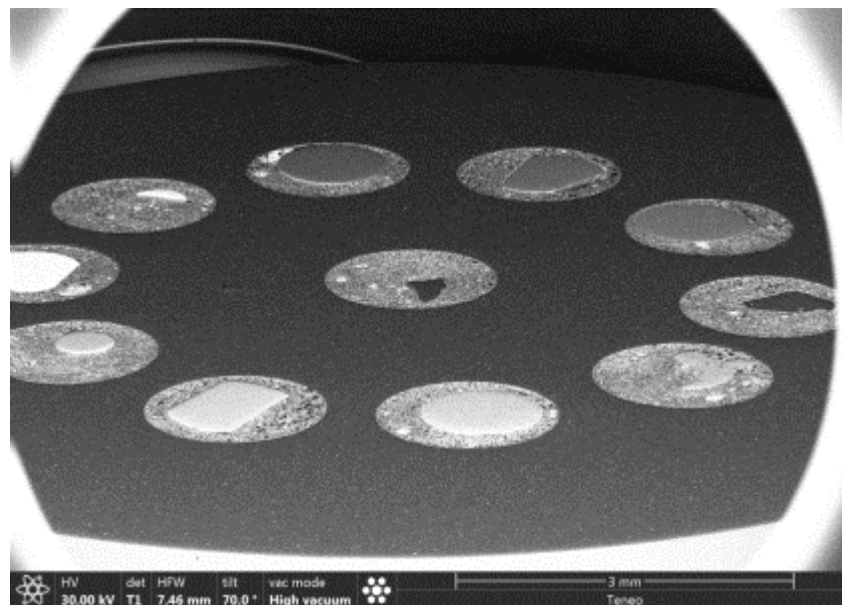


Analytical Performance

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°

Ease of Use: User Guidance

Workflows provided to guide all users to optimized results quickly

The screenshot displays the FEI User Guidance software interface. The main window is titled "User Guidance" and shows a workflow for "High resolution imaging". The workflow steps are: Sample Loading, Navigation to the area of interest, Setting imaging parameters (highlighted), Adjusting the image, and Taking the final image. The "Setting imaging parameters" step is expanded, showing a list of instructions:

1. High Voltage: **2kV**, Probe Current: **0.1nA**.
2. Set the electron beam to Displays:
 - a. **Display 1: ETD detector.**
 - b. **Display 2: T1 detector.**
 - c. **Display 3: T2 detector.**All parameters can be set by the Set Imaging Parameters button:

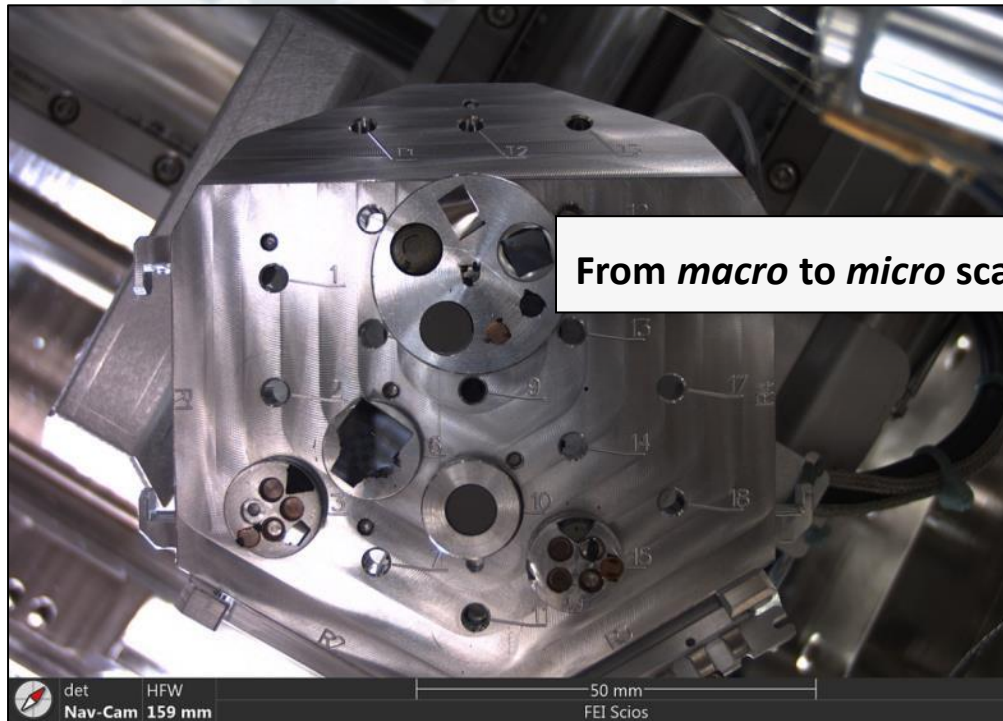
[Set Imaging parameters](#)

3. Press the [Beam On](#) and start scanning the beam over the sample with Scanning Preset **s1**: image resolution = **768**, dwell time = **200us**, averaging = **4**.
4. Use the [Auto contrast and brightness](#) for all appropriate displays.
5. Focus the overview image and [Link Z](#) free working distance.
6. Navigate to the area of interest at low magnification.

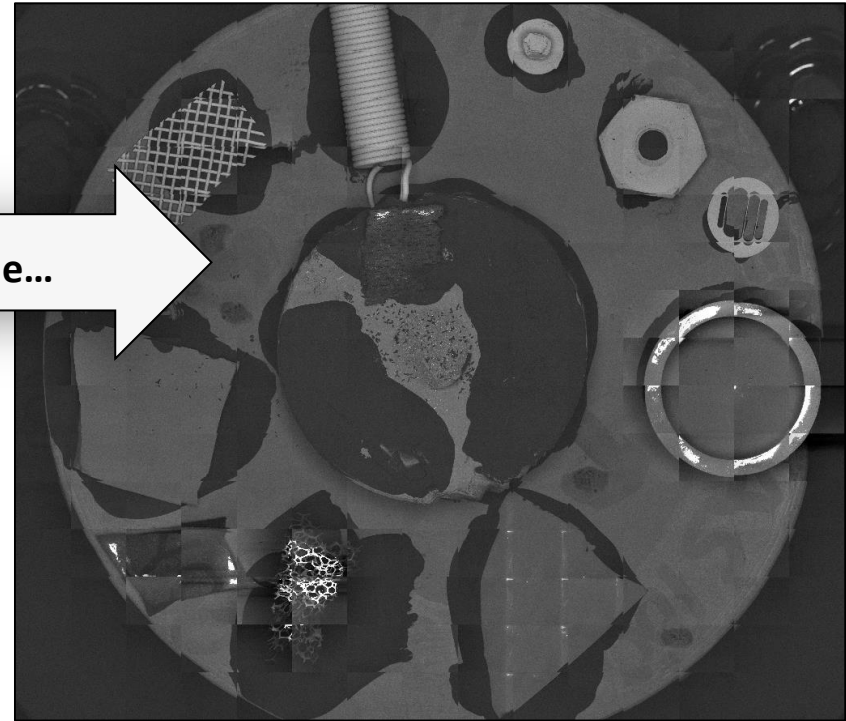
The interface also includes a sidebar with various controls and a main display area showing a live image of a sample. The sidebar includes sections for Vacuum, Column, Magnification, Beam, Beam Deceleration, Scan Rotation, and Detectors. The main display area shows a live image of a sample with a 50 µm scale bar.

Easy navigation

Comprehensive sample navigation options



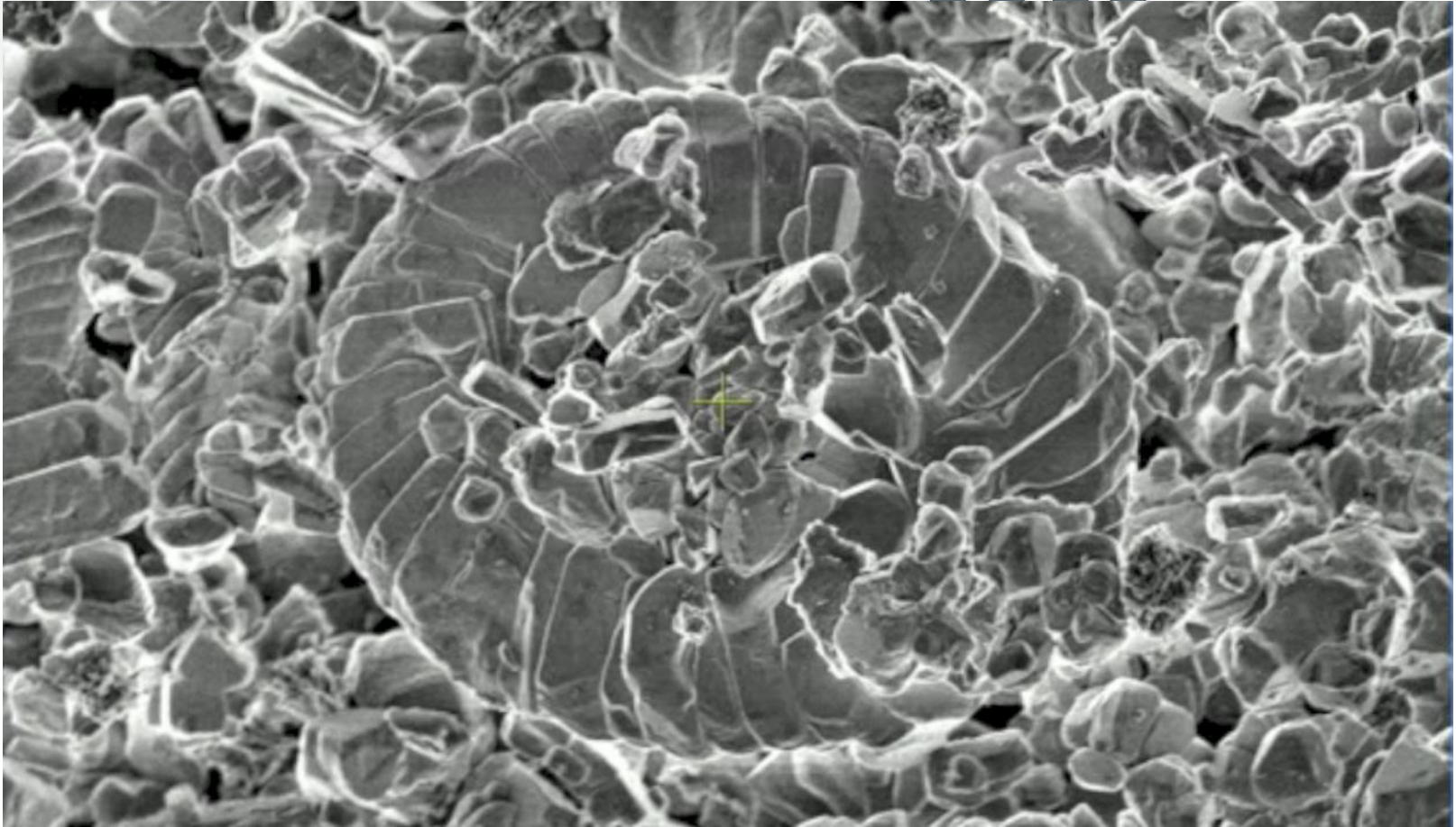
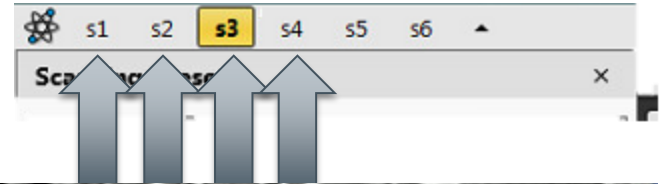
From *macro* to *micro* scale...



- 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

