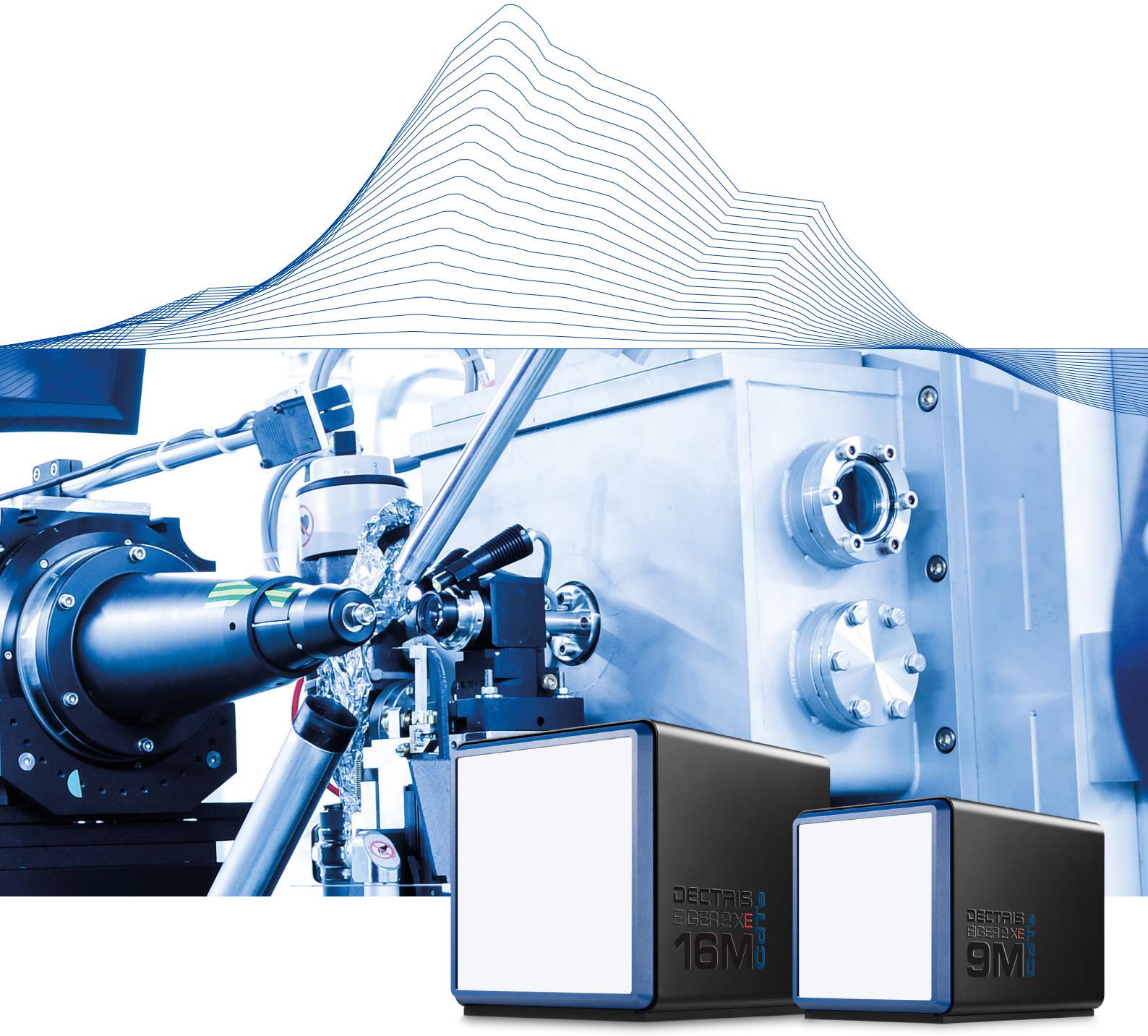
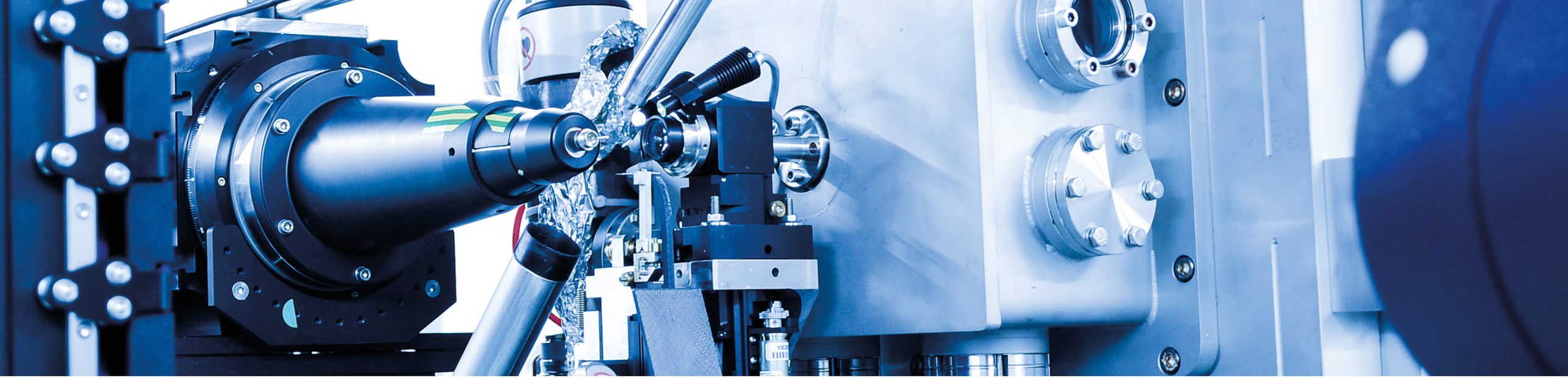
DECTRIS
detecting the future



FAST, FASTER,

EIGER2 XE CdTe



Fastest large area detectors for high-energy applications

EIGER2 XE CdTe detector systems allow endstations to reach new summits in X-ray research. To fully exploit the increasing photon fluxes at higher energies of the brightest new synchrotron sources, DECTRIS has boosted the EIGER2 XE CdTe detector series to new extremes. EIGER2 XE CdTe 9M and 16M not only provide an unrivalled count rate capability of 10^7 counts/s/pixel and a second energy discriminating threshold but also frame rates above half a kilohertz.

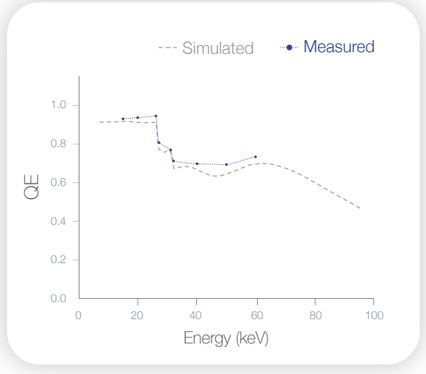
Realize your most ambitious projects with an EIGER2 XE CdTe detector and prepare your beamline for the future.

Key Advantages

- High quantum efficiency, up to 100 keV
- Count rate capability 10^7 photons/s/pixel
- Frame rate up to 550 Hz
- Large active area

Applications

- In situ and in operando techniques
- Macromolecular crystallography (MX)
- High pressure studies
- Diffuse scattering & pair distribution function

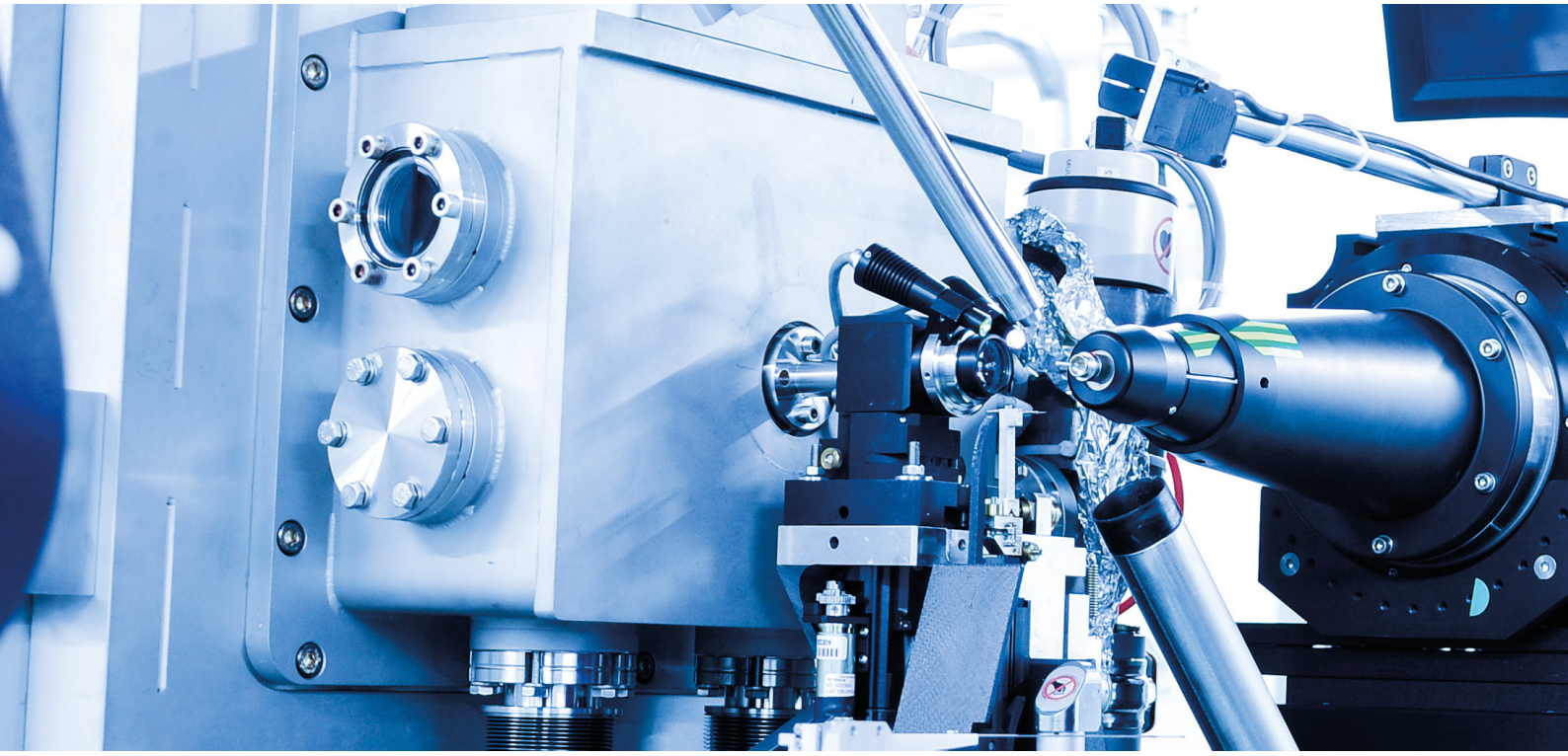


Measured and simulated quantum efficiency (QE) as a function of X-ray energy

Technical specifications

EIGER2 XE CdTe	9M	16M
Number of detector modules	3 x 6	4 x 8
Active area, width × height [mm²]	233.1 × 244.7	311.1 × 327.2
Pixel size [µm²]	75 × 75	
Total number of pixels	3108 × 3262 = 10,138,296	4148 × 4362 = 18,093,576
Gap width vertical / horizontal [pixels] plus 2 pixels vertical gap on each module	12 / 38	12 / 38
Energy-discriminating thresholds	2	
Count rate capability [photons/s/pixel]	10^7	
Maximum frame rate [Hz]	550	550 (20s burst), 400 (continuous)
Point-spread function [pixel]	1 (FWHM)	
Cadmium-telluride sensor thickness [µm]	750	
Optional vacuum compatibility	no	
Data format	HDF5 / NeXus	
Dimensions (WHD) [mm³]	340 x 370 x 500	400 x 430 x 500
Weight [kg]	41	55
Photon energy [keV]	Up to 100 keV	





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