eBIC for Industry

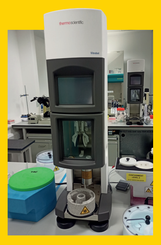
Flexible cryo-EM services to suit all levels

The electron Bio-Imaging Centre (eBIC) at Diamond Light Source offers bespoke services to industry clients wanting to learn or de-risk the adoption of cryo-EM in their research projects. By offering flexible access to world-class cryo-EM facilities, including dedicated Glacios and Krios microscopes, and highly-experienced scientists, eBIC for Industry lowers the barrier to entry for a technique traditionally requiring large capital and training investments.

Situated within the integrated synchrotron environment, our services represent a unique offer to industry, with a cross-over between structural techniques like MX and SAXS as well as dedicated experts for industry, and streamlined support services.

On-demand access to world-class facilities and expertise

- Industry-dedicated instruments and laboratories
- Full scientific consultancy and 1:1 support from experienced cryo-EM scientists
- Streamlined user, data, logistics, and legal functions
- Objective assessment of project suitability and progress

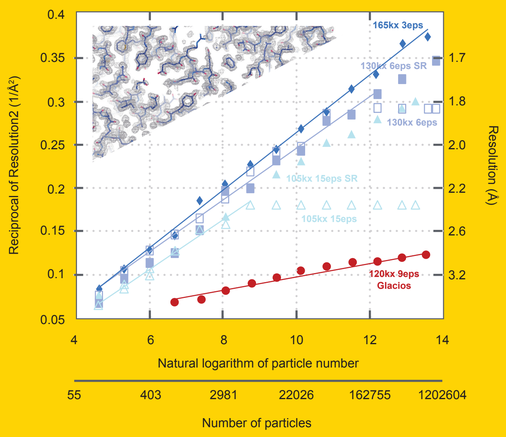


State-of-the-art capabilities for data collection

- Screening and preliminary data collection on our Glacios for rapid feedback
- High-throughput and best resolution data collection on our industry-dedicated Krios
- EPU multi-grid data collection and on-the-fly processing

	SCREENING	COLLECTION		
Microscope	Glacios™	Krios™ G3i		
Detector	TFS Falcon4i	TFS Falcon4i + SelectrisX		
Mode	Counting	Counting		
Acquisition software	EPU (3.3)	EPU (3.4)		
Image Size (pixels)	4096 x 4096	4096 x 4096		
Magnification (kx)	120	105	130	165
Pixel size (Å)	0.85	1.177	0.925	0.723
Dose rate (e-/px/s)	8.8	15.0	6.0	3.0
Total Dose (e-/Å2)	49	38	37	37
Exposure time (s)	4	3.5	5.23	6.7
EER internal Frames	1224	1080	1620	2061
Acquisition Rate (per hour) R1.2 type	400 (1shot per hole)	566 (6sph)	471 (8sph)	380 (9sph)
Movies Size (MB)	569	650	520	460
Movie Format	EER	EER		
Average Dataset Size (TB)	6	4.5 – 6.5		

Data Quality vs. Quantity for eB4i Collection Configurations



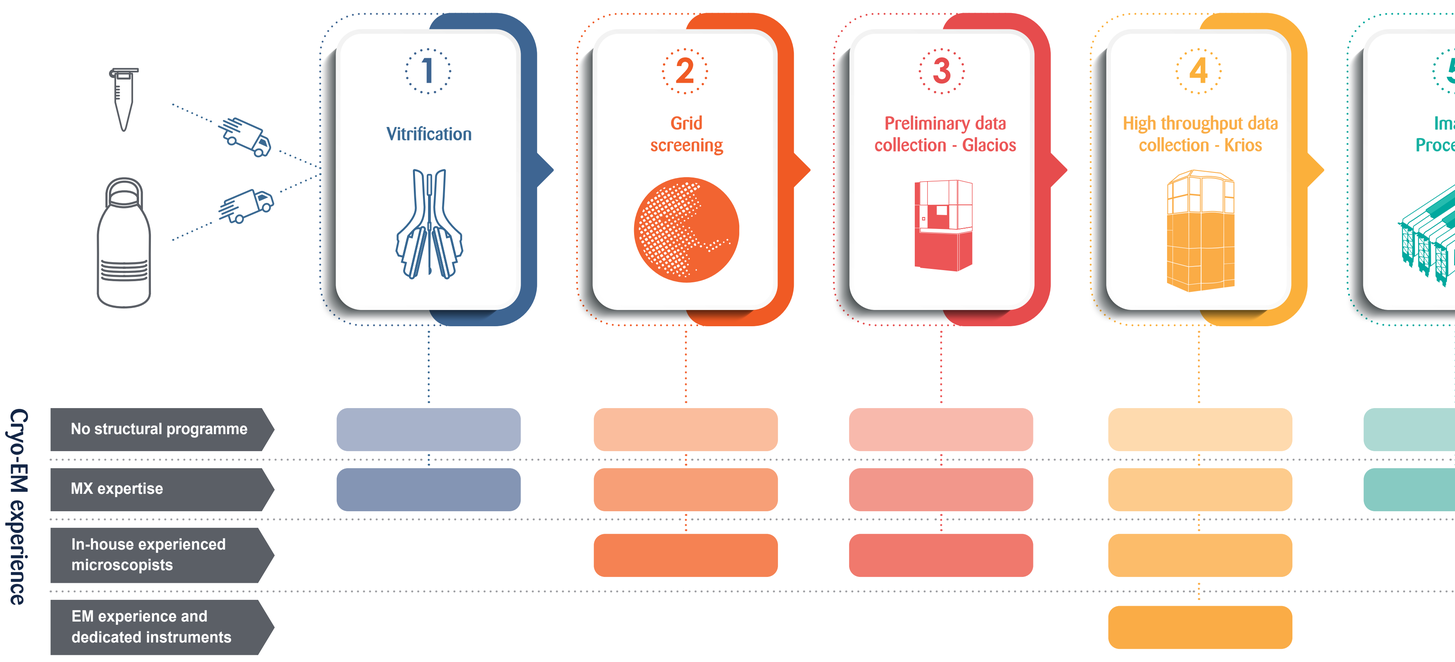
Flexible and scalable access modes

1. **Rental:** come and use our labs and microscopes in person
2. **Remote:** send grids and log into the microscopes to collect the data yourself
3. **Mail-in:** send your grids and our experts will collect data for you
4. **Full-service:** we freeze, screen, collect, and solve your structures

Services tailored to meet your requirements

Full support for companies adopting cryo-EM

- From start-ups without labs to existing microscope owners
- Lower upfront costs and de-risking of EM adoption, with scalable access
- Clients can participate in all aspects of the experiment
- Industrial scientists can enter or leave the pipeline at any stage

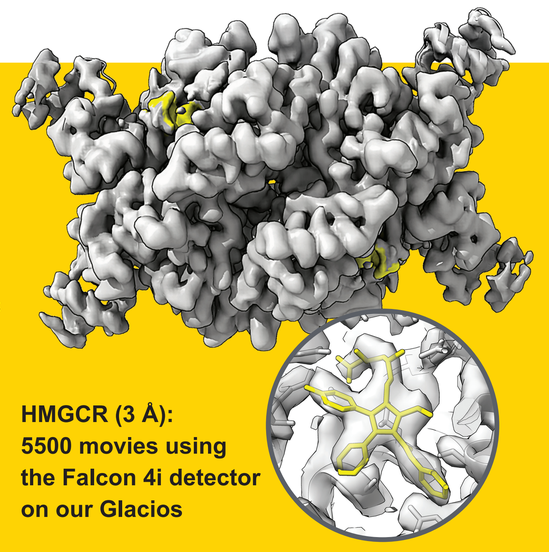


Applied training at any level

- Bespoke, hands-on, practical training in sample preparation and data collection
- Progress real samples whilst learning EM
- Attend in-person or remotely

Rapid structural insights for challenging proteins

- SPA structures of ligand/fragment-bound proteins
- Macromolecular complexes and flexibility analysis
- IHRSR of amyloid structures
- Rational vaccine design
- Antibody epitope mapping
- Drug delivery system and gene-therapy vector characterisation



HMGCR (3 Å): 5500 movies using the Falcon 4i detector on our Glacios

For further information

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