

GI-MS46-01 | THE ESRF-EBS AND THE NEXT CHAPTER IN X-RAY SCIENCE

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The European Synchrotron Radiation Facility (ESRF) is currently installing the first 4th generation high energy synchrotron radiation source. The start of the user operation of the ESRF-EBS in 2020 will mark the opening of the next chapter in X-ray science. After an introduction into the concepts behind this new revolutionary source, the so-called hybrid multiple bend achromat lattice (HMBA), the status of the project will be briefly reviewed.

The recently upgraded beamline portfolio (Phase I of the Upgrade Programme) is complemented by the construction of four new flagship beamlines and a full refurbishment of the remaining beamlines. In conjunction with the vastly enhanced source performance new opportunities will be opened to explore matter and materials in unprecedented detail.

Opportunities for new science will be presented and the challenges that come with it, including the challenge of handling very large data sets. New approaches for data analysis and curation must be developed in collaboration with the user community for the optimum use of resources.