

## The ESRF After the EBS Upgrade: A New Research Opportunities

M.Jankowski<sup>1\*</sup>

<sup>1</sup>*The European Synchrotron Radiation Facility – ESRF, Grenoble, 38043 France*

\*e-mail: maciej.jankowski@esrf.fr

With its recent Extremely Brilliant Source (EBS) upgrade<sup>1</sup>, the ESRF has significantly increased the brilliance of the synchrotron radiation produced, enhancing the data quality and reducing measurement times. This advancement allows researchers to conduct previously unattainable experiments, solidifying the ESRF's position as a leader in cutting-edge research.

The facility operates advanced beamlines equipped to handle a variety of experiments using techniques such as X-ray diffraction, scattering, spectroscopy, imaging, and tomography. These capabilities enable researchers to explore matter at atomic and molecular scales while offering the ability to investigate larger scales through tomography. This range of techniques allows for a comprehensive understanding of materials, from their fundamental building blocks to their larger structural and dynamic behaviors.

The ESRF operates on a competitive beamtime allocation model, prioritizing innovative and impactful research projects from various fields. Potential scientific researchers are encouraged to apply for beamtime at the ESRF and utilize this exceptional resource to advance their scientific inquiries. Whether exploring new materials, studying complex biological systems, or probing fundamental processes, the ESRF—bolstered by the enhanced capabilities of the EBS— provides the tools and expertise needed to achieve breakthrough results. Additionally, the ESRF welcomes industrial research collaborations with industrial partners, further expanding opportunities for innovative research.

### References

1. Raimondi, P., Benabderrahmane, C., Berkvens, P. et al. The Extremely Brilliant Source storage ring of the European Synchrotron Radiation Facility. *Commun Phys* 6 (2023) 82.