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We present an overview of the FERMI seeded free electron laser (FEL) facility located at the Elettra laboratory in Trieste, Italy. FERMI, in operation with both FEL lines FEL-1 and FEL-2 since 2012, covers the spectral range between 100 nm and 4 nm with light characterized by variable polarization, narrow spectral width, stable intensity and central wavelength. A series of infrastructure upgrades have been proposed in recent years to keep the facility in a world-leading position. The upgrade includes profound modifications of the linac and the two FERMI FELs with the ambition to extend the performance of the FEL and the control of the light produced to include the K edges of N and O and the L edges of transition metals. Recently, new accelerating section allowed an increase of the beam energy of about 100 MeV and the configuration of the first FEL-1 has been revamped. The FEL has been changed into an echo-enabled harmonic-generating FEL, and commissioning of this new FEL is underway.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

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