

## 4<sup>th</sup> ELI User Call Set to Launch 25 March

### Instrument offer/ Available equipment for CALL 4

Launch: 25th March 2024

Deadline: 29th April 2024

Experiment period: October 2024- March 2025

DRIVER LASER (on-target parameters)	Equipment available for experimenting	Short description
<b>L1</b> (1 kHz, 15 fs, 2.5 TW)	HHG	kHz High Harmonic Generation source of 10-120 keV photons
	HHG-MAC	Multipurpose station for AMO science and Coherent Diffractive Imaging served by HHG source
	PXS	kHz plasma X-ray source of hard incoherent X-rays
	PXS -TREX	Endstation for time-resolved X-ray diffraction or spectroscopy experiments served by PXS
	ALFA	kHz laser-plasma electron accelerator and relativistic-intensity laser-matter interaction station
<b>L3</b> (3.3 Hz, 27 fs, 0.4 PW)	ELBA	High-energy electron beamline for fundamental science and applications
	ELIMAIA	Laser-driven ion accelerator and ultrahigh-intensity laser-matter interaction beamline
	ELIMAIA - ELIMED	Station for multidisciplinary applications of laser-driven ion beams
<b>L4n</b> (1 shot / 2min, 0.5 kJ, 2-10ns, 530 nm, broad/narrow band)	P3	Plasma Physics Platform for high energy density science and fusion research
<b>SYLOS 2</b> (1kHz, 8fs, 3.75 TW)	SYLOS2	Experimental platform for the SYLOS 2 laser
	GPRC	Gas phase reaction control pump-probe setup for femtochemistry
	SYLOS COMPACT	High Harmonic Generation source @ 1 kHz with XUV - IR pump-probe setup
	SYLOS LONG	High Harmonic Generation source @ 1 kHz with XUV - IR pump-probe setup
<b>SYLOS 3</b> (1kHz, 9 fs, 13 TW)	SYLOS3	Experimental platform for the SYLOS 3 laser
	LEIA	Low-energy ion acceleration and neutron generation beamline driven at 1 kHz.
<b>SYLOS ALIGNMENT</b> (10Hz, 12fs, 40mJ)	SYLOS COMPACT	High Harmonic Generation source @ 10 Hz with XUV-XUV and XUV - IR pump-probe setup

	SYLOS LONG	High Harmonic Generation source @ 10 Hz with XUV - IR pump-probe setup
	LEIA	Low-energy ion acceleration and neutron generation beamline driven at 10 Hz.
	LIDT	Laser-induced damage threshold test station
<b>MIR</b> (100kHz, 40fs, 40mJ)	MIR	Experimental platform for the MIR laser
	MIR - HHG in Solids	Generation and study of HHG in solids
<b>HR1</b> (100kHz, 8fs, 1mJ)	HR1	Experimental platform for the HR1 laser
	TAS	Transient absorption spectroscopy for liquids and films
	MDOS	Multi-dimensional optical spectroscopy for biological samples
	HR Condensed	High Harmonic Generation source @ 100 kHz with XUV - IR pump-probe setup
	HR Gas	High Harmonic Generation source @ 100 kHz with XUV - IR pump-probe setup
	HR Gas- REMI	HHG source with a reaction microscope (COLTRIMS) endstation
<b>HR Alignment</b> (10 kHz, 7 fs, 1 mJ)	HRA	Experimental platform for the HRA laser
	HR Gas	High Harmonic Generation source @ 10 kHz with XUV - IR pump-probe setup
<b>THz Pump</b> (1:50Hz, 500fs, 500mJ; 2: 1kHz, 92 fs, 4mJ)	THz High Energy	High-energy THz source (~mJ) for intense THz experiments @ 50 Hz
NLTSF Pump (no external output)	NLTSF	Non-linear THz spectroscopy for THz pump-probe measurements with visible probe beams
Venteon/ helium VUV	NanoESCA	NanoESCA/photo-emission electron microscope (PEEM) with spatial, momentum and spin resolution applicable for static and pump-probe measurements
Astrella	trELIPs & TCT	Time-resolved Spectroscopic Ellipsometry and Transient Current Technique
Femtopower-Solstice	FSRS & TA	Femtosecond Raman spectroscopy and transient absorption spectroscopy
Element2	UF Ellipsometer	Ultrafast ellipsometer with fs resolution
CW1550, CW632, CW533	SNOM	Scanning near-field optical microscope with fs irradiation
n/a	Radiobiology with IFIR	Biology facilities including cell culture, histopathology, zebrafish labs with dosimetry. Irradiation endstation for multidisciplinary research
n/a	Nanofabrication	Electron microscopy, electron lithography and focused ion beam lithography facilities