



# Iberian Partner Day

*Madrid*  
*June 1, 2022*



IMPULSE has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 871161

**Allen Weeks, Director General**





Spain has  
World Leading Laser  
Research Infrastructure





# The ELI ERIC Facilities

**The mission of ELI ERIC is to provide access for European and international researchers to the ELI Facilities in the Czech Republic and Hungary.**

**ELI Attosecond Light Pulse Source**  
**[www.eli-alps.hu](http://www.eli-alps.hu)**

**ELI Beamlines**  
**[www.eli-beams.eu](http://www.eli-beams.eu)**



- **Excellence-Based Access** – Scientific evaluation of proposals by and international peer-review panels composed of qualified scientists. Results of experiments based on excellence must be published and open.
- **Mission-Based Access** – Thematic areas of research granted on the basis of specific scientific missions pursuing clearly defined challenges. Results of experiments generally published and open.
- **Proprietary Access** – Paid access for industrial or other users, where results are retained by the user, consistent with ELI ERIC's Data and IPR Policy.





# ELI ERIC is a single, multi-site organisation

## A European Research Infrastructure Consortium – an ERIC

This new legal form enables the participation of States as member countries to govern the ELI Facilities jointly and make them available to the scientific community as a single international organisation. Its headquarters are in Dolní Břežany in the Czech Republic.

***The Czech Republic**, Founding Member  
Host of Seat*



***Hungary**, Founding Member  
Host*



***Italian Republic**  
Founding Member*



***Lithuania**  
Founding Member*



***Federal Republic of Germany**  
Founding Observer*



***Bulgaria**  
Founding Observer*



ELI ERIC involves the Czech Republic, Hungary, Italy and Lithuania as founding Members. Both Germany and Bulgaria are Founding Observers. ***Romania and ELI-NP are also expected to join the ELI ERIC consortium, which is open to European and non-European countries to join its membership.***





# User Access at ELI ERIC

## Three modes of access

- **Excellence-Based Access** – Evaluation of proposals by international peer-review panels. Results of experiments published and open.
- **Mission-Based Access** – Thematic research granted on the basis of scientific missions pursuing challenges. Proposals reviewed by international panels. Results published and open.
- **Proprietary Access** – Paid access for industrial or other users. Results are retained by the user, consistent with ELI ERIC's Data and IPR Policy.



High-power ultra-short laser pulses for groundbreaking res



# ELI ERIC 1<sup>st</sup> User Call

*<https://www.eli-laser.eu>*

- The call will run October 2022 through March 2023
- Proposals will be accepted through August
- There will be more than eight instruments
- All instruments have been thoroughly tested during commissioning
- Advise proposers to contact the facilities for technical questions
- The 2<sup>nd</sup> call will be published January 2023





**ELI Attoscience**  
*Szeged, Hungary*

**ELI Attoscience is a world-class centre for :**

- Ultrafast physical processes
- Chemical, medical and materials science analysis
- Development of attosecond measurement techniques
- Research into biological imaging technologies
- Artificial photosynthesis
- Nanoscience





**ELI Beamlines explores the interaction of light with matter at intensities that are 10 times higher than previously achievable.**

**Ultra-short laser pulses  $<30$  femtoseconds**

**laser achieving up to 10 PW enables new techniques and tools for research such as**

**medical imaging and diagnostics, radiotherapy**

**new materials**

**X-ray optics**

**Laser driven hadron-therapy**

**Proton-boron nuclear fusion**

**ELI Beamlines**

*Dolní Břežany, Czech Republic*





# ELI Nuclear Photonics

IMPULSE

ELI ERIC and IFIN-HH have reached an agreement to include the ELI-NP laser systems in the first ELI ERIC Call. This is made possible through the collaboration under IMPULSE

It means experiments will be performed using:

- One laser @ 100 TW
- One laser @ 1 petawatt







# Integrated Management and oPerations for User-based Laser Scientific Excellence

## Project Objective

IMPULSE focuses on achieving quick and effective transition of ELI ERIC from construction into sustainable operations by uniting the ELI facilities and making them accessible for users through one single, high-quality access point.

IMPULSE addresses the key scientific, technical, organisational, and management requirements of this transition, building user communities and expanding the ELI member consortium.

<https://impulse-project.eu/>

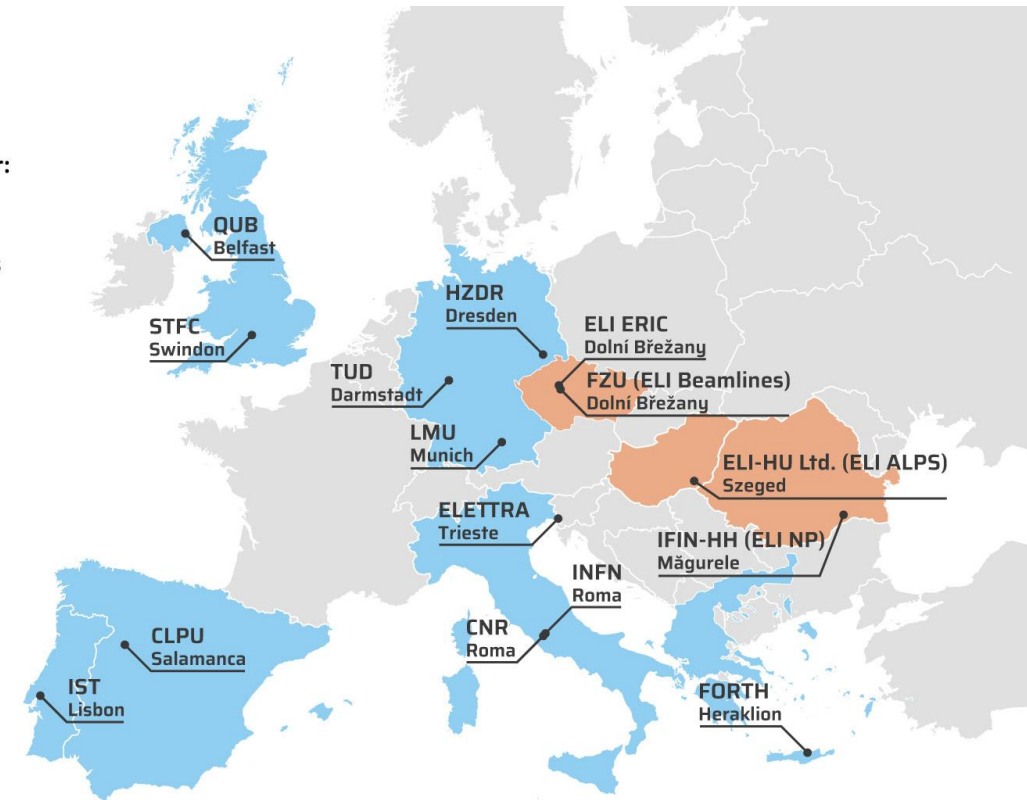
## Project Facts

- 15 Partners
- 9 Countries
- 42 Months
- €19.9 Million

Project Coordinator:  
ELI ERIC

ELI Project Partners

Other Partners



IMPULSE is funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No. 871161



# ELI ERIC Leads Innovation and Technology

**We train a generation of scientists and experts**

**The ELI Facilities have  
awarded over €455  
million in contracts to  
companies from 19  
European countries**







For more information about how to become an ELI user, or if you are interested in how your country can become a member of ELI ERIC, please contact us at

**The Extreme Light Infrastructure ERIC**

**info@eli-laser.eu**

tel +420 266 051 109

or visit our website at

**<https://eli-laser.eu>**

Za Radnicí 835  
Dolní Břežany, 252 41  
Czech Republic

Wolfgang Sandner utca 3.  
6728 Szeged  
Hungary