

The Western Balkans initiative at Elettra: Scientists from Western Balkans for synchrotron radiation research



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Elettra

- A international reserch centre specialized in synchrotron and free electron laser radiation and their application to materials and life sciences
- A non-profit shareholder company “of national interest”
- Established in 1987 to construct and manage synchrotron light sources – international facility
- Promoting cultural and socioeconomic growth at the regional, national and international level
- State-of-the art research facilities, technical leadership, skill development and transfer
- 393 empolyees + 102 students / trainees



Elettra
Sincrotrone
Trieste

Elettra synchrotron and FERMI FEL

Elettra

3rd generation synchrotron

first light (1993)

booster injector (2010)

constant accumulated current

310 mA (2 GeV)

160mA (2.4 GeV)

28 operating beamlines

open to academic users

06/2018 – 06/2019

submitted proposal

882 (Elettra) + 159 (CERIC)

Accepted proposals

451 + 93

FERMI

FEL free electron laser (seeded source)

Wavelength (FEL 1): 100 – 20 nm

Wavelength(FEL 2): 20 – 4 nm

Pulse energy : 100 – 10 μ J

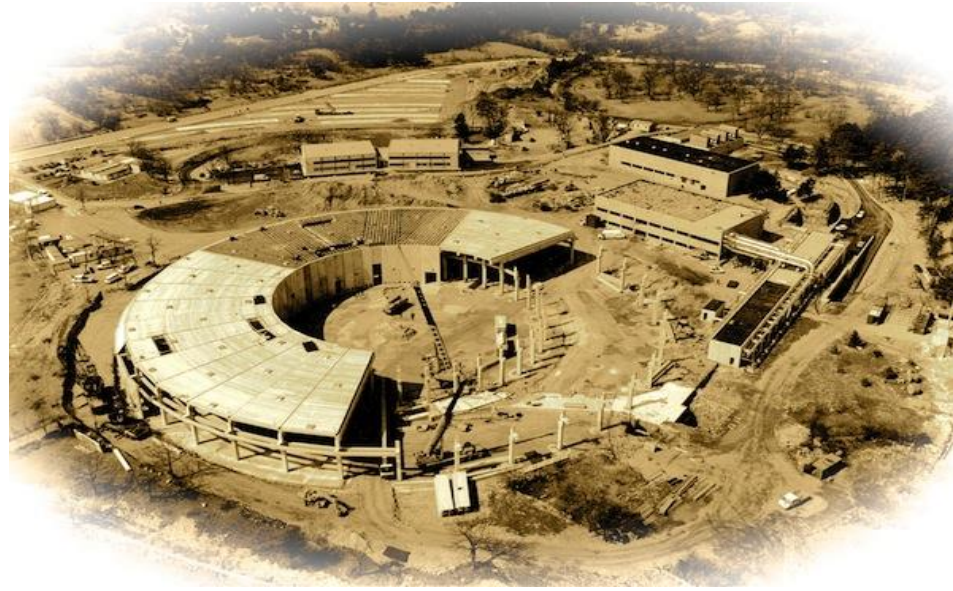
Pulse duration: 150 – 20 fs

Frequency: 10 – 50 Hz

6 operating beamlines

Elettra

1991



First "light"

1993

Open to external users

1994

Elettra

2004



Elettra & FERMI

2010



fabio

Elettra & FERMI

2010



fabio

Elettra & FERMI

2022

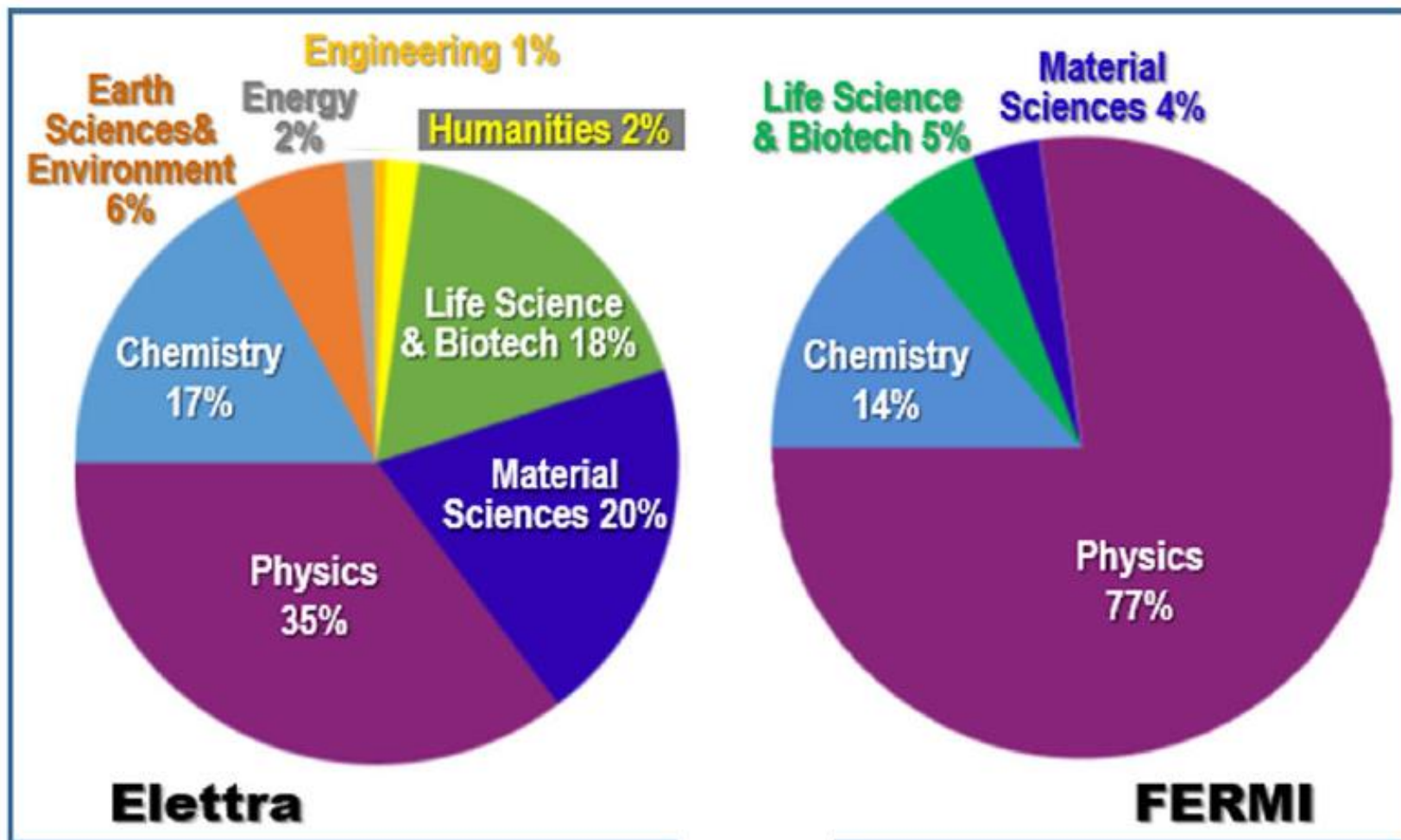


Synchrotrons & FELs in Europe

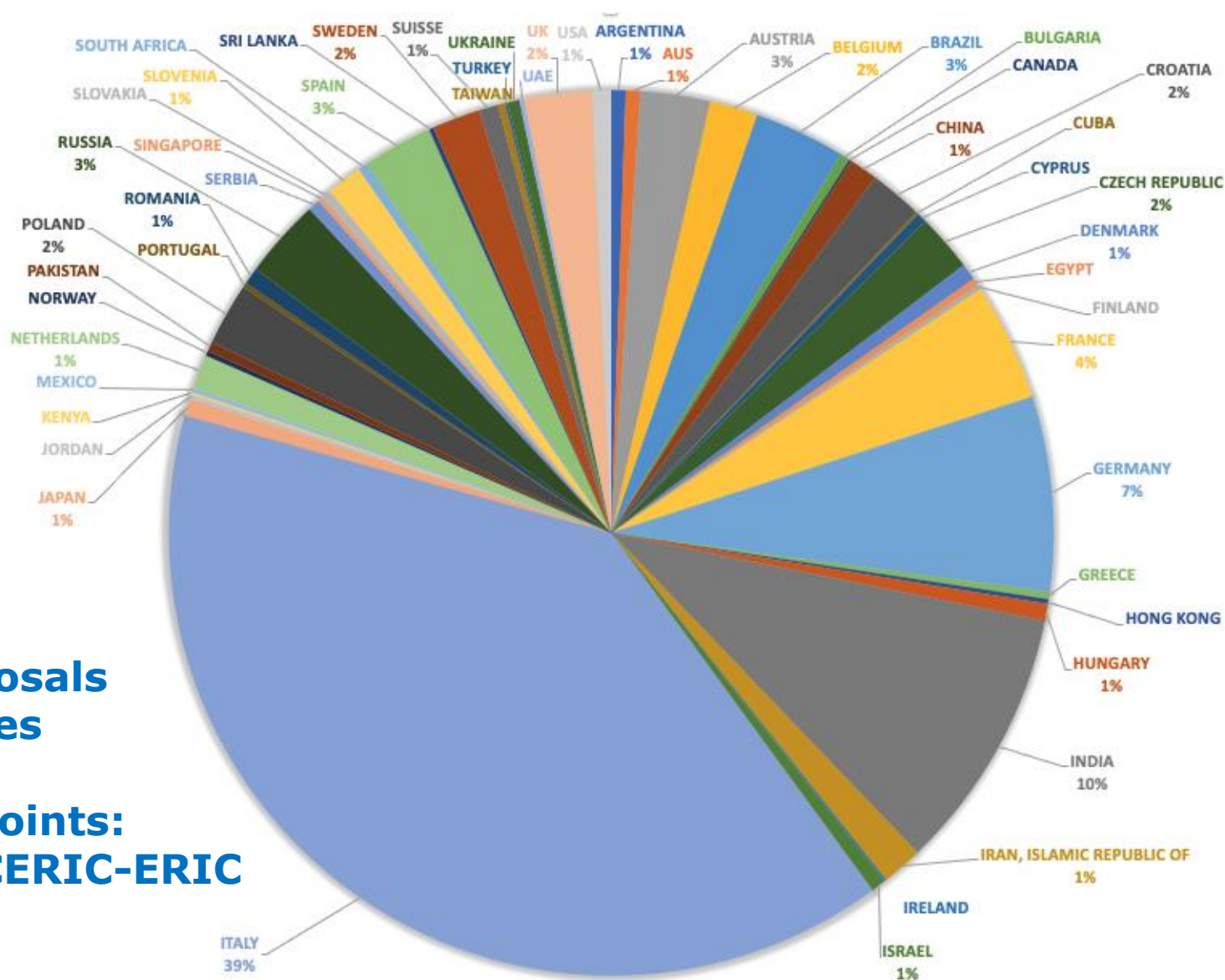
www.lightsources.org

“In Europe, in the past **5 years** alone, light source facilities have welcomed **24,000 users**, who have had an impact on a wider network of **35,000 researchers**, with **23,400 unique articles published** in peer-reviewed journals.”

Investigations @Elettra by research area



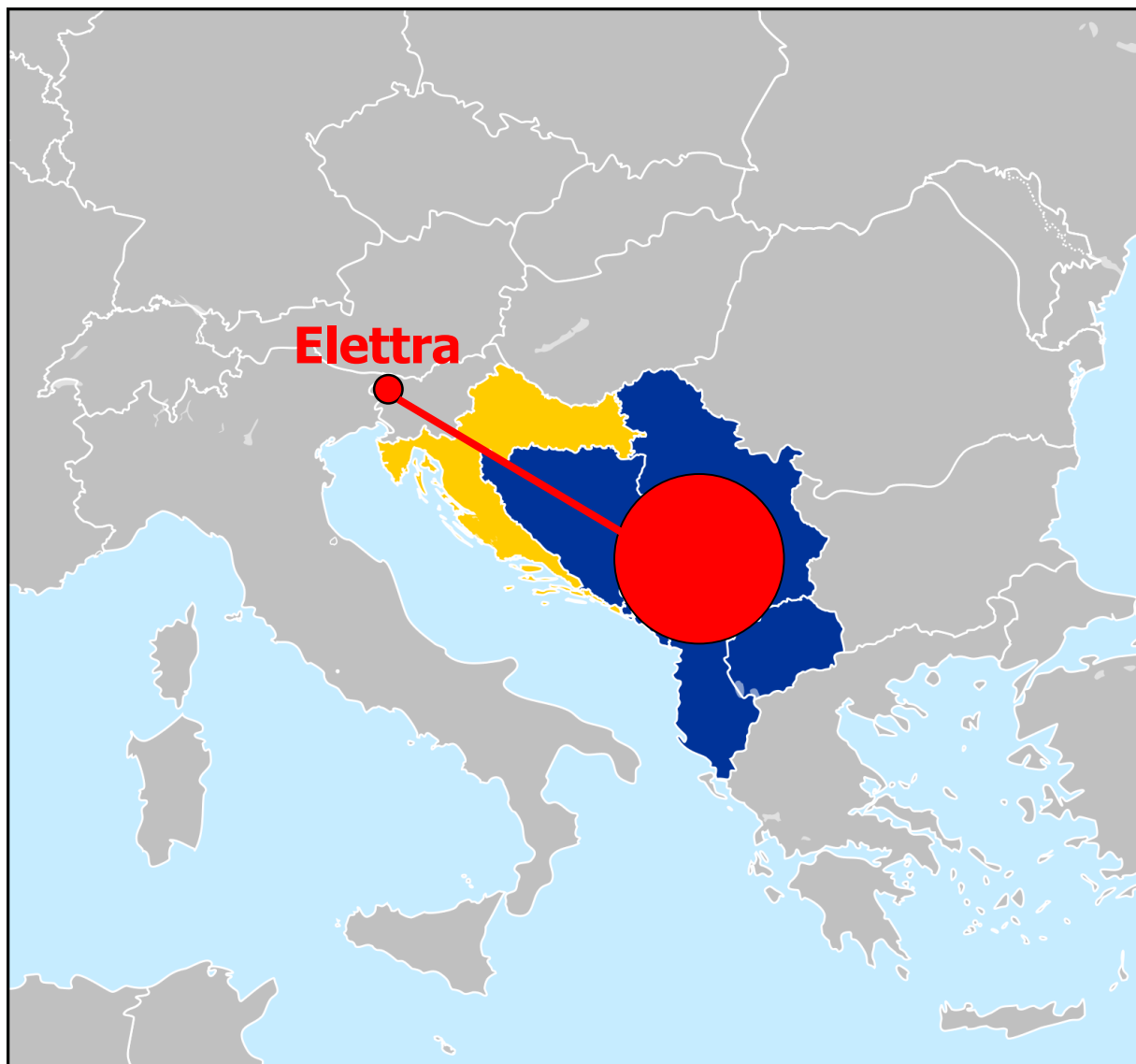
Elettra's user community by nation



2021:
1115 proposals
51 countries

2 Access points:
Elettra & CERIC-ERIC

Where WE are



*Commission staff working document, Accompanying the document «Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions»
A New European Innovation Agenda
{COM(2022) 332 final}*

PhDs and doctoral students are newest form of resource in a world driven by knowledge-based economies. The recruitment of doctoral graduates leads to collective knowledge, skills, networking, and prestige benefits to the firms that decide to make doctoral graduates an asset of their organisation. Doctorate holders have a determinant role in building relationships between universities and businesses that enable knowledge sharing, and more innovative firms tend to recruit more PhDs.

Based on Eurostat data, the number of researchers in the EU increased nearly by one-quarter (22.6 %) between 2008 and 2018, from 1.27 to 1.79 million. More than half (54.9 %) of researchers in the EU worked in business enterprises, 33% in higher education and 11.3% in government sector in 2018, with increasing trend.

SYnchrotron Radiation Training Educational Programme for the Western Balkans at Elettra (SYRTEP – WB)

PhD scholarships opportunities in synchrotron radiation techniques and applications

SYnchrotron Radiation Internship Programme for the Western Balkans at Elettra (SYRIP - WB)

Postdoctoral fellowships opportunities in synchrotron radiation techniques and applications

The SYRTEP and SYRIP programmes @Elettra

Both the SYRTEP and SYRIP initiatives aim to offer **support to young scientists from WB** operating in the fields of **materials science, physics, engineering and life sciences**.

Their goal is to **introduce and train them to synchrotron-based experimental techniques**, providing means to access to the world-class research facilities in Trieste.

SYRTEP and SYRIP will **offer scholarships and fellowships to PhD students and researchers at postdoctoral level, respectively**, encouraging them to master synchrotron radiation techniques by applying them to their specific research interests.

The SYRTEP and SYRIP programmes aim to **stimulate the formation and growth of a research community in the Western Balkans**, that can actively participate in the **exploitation of the large-scale science facilities being developed throughout Europe**.

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for synchrotron radiation research*

The purpose of this call is **(1) to train promising young scientists from Western Balkans in the most advanced material characterization techniques using synchrotron radiation** and contribute to the **(2) development of a user community in the Western Balkans.**

Deadline (postponed to): February 28, 2023

Ref: EA/22/35

<https://www.elettra.eu/about/careers.html?id=2821>

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This call is a **pilot action** in the framework of the **Elettra** scientific and social activities **in favor of the Western Balkans**, in line with the outcome of the Ministerial Meeting of the Western Balkans Platforms on Culture, Research and Innovation, Education and Training held in Tirana on June 27th – 28th 2022, in which the commitment made by the leaders at the Brdo EU-Western Balkans Summit in 2021 **to promote scientific excellence and help to prevent brain drain**, has been confirmed.

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