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**ID** LEAPS

@LEAPSinitiative

competition, strengthening Europe's technological sovereignty.





# THE LARGEST NETWORK OF RESEARCH **INFRASTRUCTURES IN EUROPE CONTRIBUTING TO EUROPEAN GLOBAL LEADERSHIP**

## A NETWORK OF SYNCHROTRONS AND FREE ELECTRON LASERS IN

- 10 countries
- 16 institutions
- 19 facilities

LEAPS actively collaborates with Analytical Research Infrastructures in Europe (ARIE).

LEAPS facilities are open science pioneers.

#### **OUR ACTIVITIES IN NUMBERS**

- >300 operating Experimental stations
- >30.000 user / year from all EU and beyond
- >1 million hours beam time / year
- >7.000 publications / year

55.000 Protein Data Bank entries supporting health industry

**Materials for Energy** Life-science - Pharmacy Food **Information Technology Environment Materials** 

## **FUNDING** (reference period 2021-2027)

800M€ (yearly) operational budget

1,6B€ (over this period) investments

1,5B€ (over this period) upgrade programs (partly already funded)



#### **LEAPS ASSURES EUROPEAN TECHNOLOGICAL** SOVEREIGNITY

Strategic positioning in the value chain for Health; Climate neutral technologies; Quantum computing/technologies; European Chips Act.



#### **LEAPS IS BOOSTING INNOVATION AND TECHNOLOGY IN THE ERA**

LEAPS-INNOV H2020 piloted cooperation with more than 50 European industrial partners (see back page). Impact demonstrated by socio-economic studies; >10 spin off companies; Roadmap clearly demonstrating smart specialization.



#### **LEAPS PROVIDES A HIGHTECH EUROPEAN TRAINING AND EDUCATION PLATFORM**

International Conferences, PhD programs & Summer Schools.



## **LEAPS SUPPORTS EUROPEAN COLLABORATION**

Each LEAPS facility welcomes 30-50% non-local users.



## **LEAPS CONTRIBUTES TO EUROPEAN SCIENCE DIPLOMACY**

Strong scientific partnerships: SESAME Jordan and Canadian Light Source; Light for Ukraine (Ukrainian users); Africa, Americas.

# SUSTAINABLE EU FUNDING **WOULD TAKE US CLOSER** TO OUR OBJECTIVES OF

Developing new instrumentation and innovative technologies, based on established roadmaps, together with industry and user communities by upscaling LEAPS-INNOV.

Supporting strategic access programs focused on European priorities.

Supporting users from Widening countries.

Co-funding early-stage researchers.

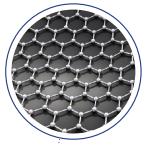
Co-funding high-level Chairs in Widening countries.

LEAPS as a strategic partner of European science diplomacy.

## LEAPS CONTRIBUTES TO GROUND-BREAKING FUNDAMENTAL RESEARCH.











Environment Materials
Information Technology
Life-science - Pharmacy Food

Materials for Energy



Find a sample of LEAPS scientific contribution here:



#### **LEAPS-INNOV**

- Jointly develop urgent key technologies for LEAPS facilities
- Transfer knowledge and technology within LEAPS and to interested companies at an early stage
- Exchange of facility experts with industry throughout the development process
- Develop models for production plans and technology transfer
- Speed up the innovation process for LEAPS facilities and industry
- Create viable markets through joint developments and standardization of academia and industry
  - → Shorten development times through collaboration and specialization
  - Reduce costs
  - Enhance commercial exploitation through open innovation





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#### **EXPANDS**

Since 2019, the European Open Science Cloud (EOSC) Photon and Neutron Data Service (ExPaNDS) project including, 10 LEAPS and LENS national facilities work together to make their data more open and FAIR. Many LEAPS partners have already adopted its main outcomes such as the FAIR data policy framework and self-assessment, the common metadata schema, the OAI-PMH endpoint for data catalogues or the PaN training platform.

ExPaNDS



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#### **PANOSC**

The Photon and Neutron Open Science Cloud (PaNOSC) is a European project for making FAIR data a reality in 6 European Research Infrastructures (RIs), developing and providing services for scientific data and connecting these to the European Open Science Cloud (EOSC).





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#### REMADE@ARI

ReMade@ARI leverages the development of innovative, sustainable materials for key components in diverse sectors, such as electronics, batteries, vehicles, construction, packaging, plastics, textiles and food on an unprecedented level. It will be the central hub in Europe for all sectors and research areas in which new materials for a circular economy will be developed.





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