
ESRF
The European Synchrotron

The ICO role at

The European Synchrotron

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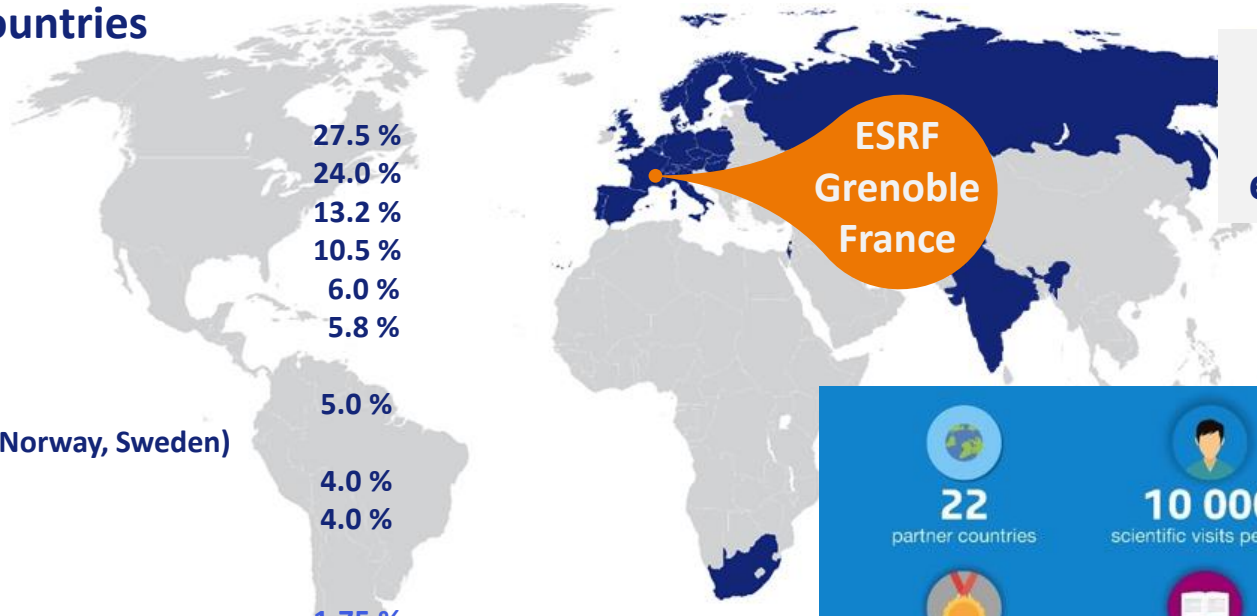
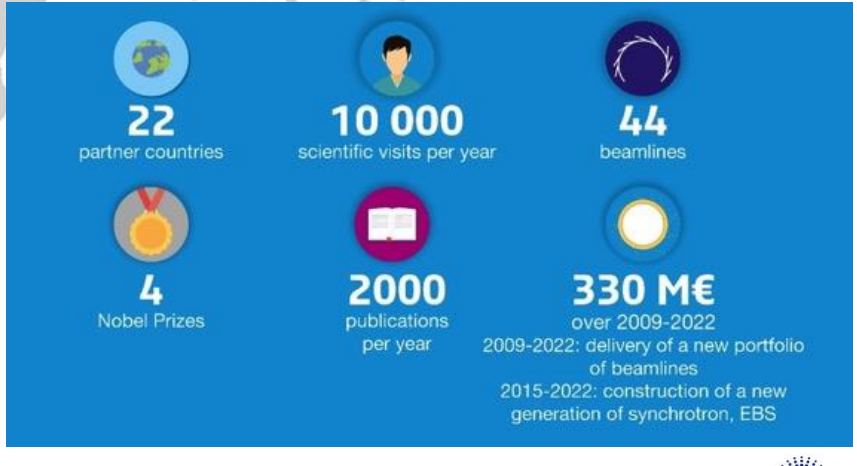
AN INTERNATIONAL GOVERNANCE BRINGING TOGETHER NATIONS THROUGH SCIENCE

22 Partner Countries

13 Members:	
France	27.5 %
Germany	24.0 %
Italy	13.2 %
United Kingdom	10.5 %
Russia	6.0 %
"Benesync" (Belgium, Holland)	5.8 %
"Nordsync" (Denmark, Finland, Norway, Sweden)	5.0 %
Spain	4.0 %
Switzerland	4.0 %
9 Associates:	
Austria	1.75 %
Israel	1.75 %
"Centralsync" (Czech Republic, Hungary, Slovakia)	1.05 %
Poland	1.00 %
Portugal	1.00 %
India	0.66 %
South Africa	0.30 %



The first fourth generation high-energy synchrotron



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Version including amendments
resulting from the accession of the Netherlands
to the ESRF Convention

Recognizing that synchrotron radiation will in future be of great significance in many different fields and for industrial applications;

In the hope that other European countries shall participate in the activities which they intend to undertake together under this Convention;

Building on the successful co-operation of European scientists in the framework of the European Science Foundation and the preparatory work carried out under its

Photo by Tim Mossholder on Unsplash

ESRF BUSINESS DEVELOPMENT OFFICE (BDO)

To strengthen and enhance the following activities:

1. **Provision of commercial services, particularly related to beamline use and beam time sales for proprietary use by industry.**
2. **Fund-raising from EU and ESRF partner countries in the form of grants and collaborations.**
3. **Exploitation of ESRF intellectual property, particularly in terms of instrumentation.**

WHY USE SYNCHROTRON X-RAYS?

Higher Penetration
(2D->3D & large objects)

Higher Spatial Resolution
(focused spot size down to 20nm-> mapping and multimodal imaging)

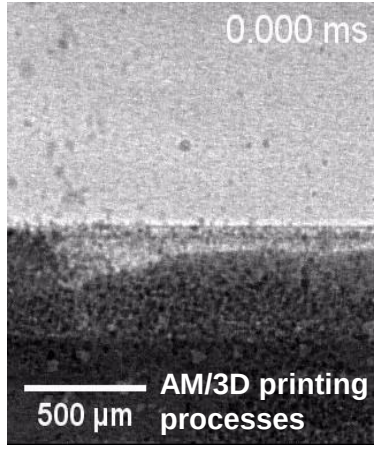
Faster
(statistical measurements, 4D - time resolved)

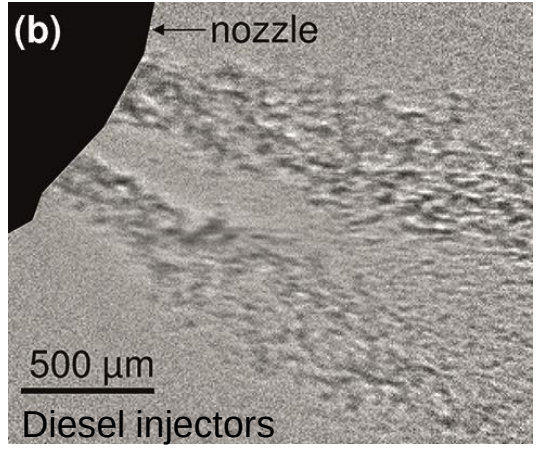
Improved Detection Limit
(finest chemical information)

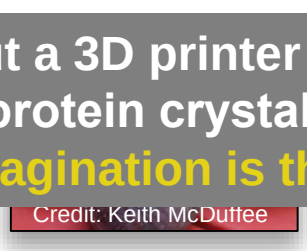
WHY USE SYNCHROTRON X-RAYS?

Higher Spatial

Real samples, real conditions

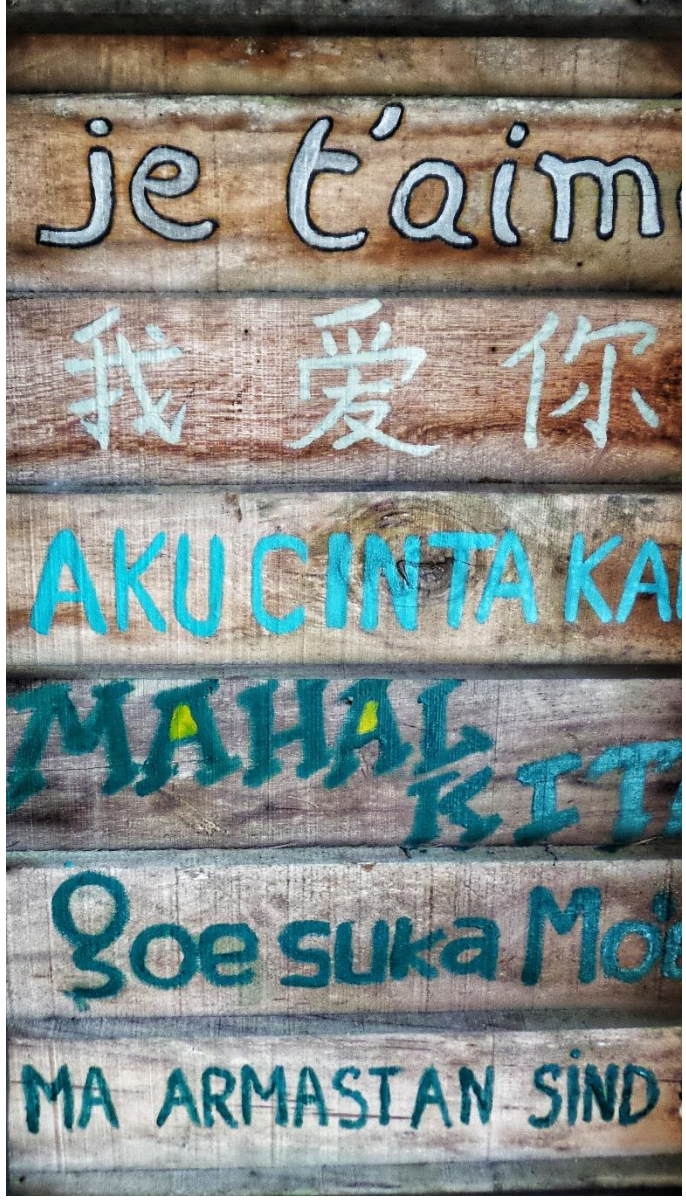






Put a 3D printer on the beamline, a battery abuse system, a catalyst bed, a protein crystal harvesting system…
Imagination is the only limitation.

Outreach.
Translation.
Matching.
Common understanding.



Much here we are not aware of

Feasibility access: "have a go"

PROPRIETARY SERVICES

- Confidential & rapid
- >150 clients in 35 countries
- Mail-in services & a la carte

PUBLIC ACCESS

- Results published
- Competitive peer review
- About 30% of work linked with industry

TECH TRANSFER

- Licensed >30 technologies
- In-house manufacturing
- Consultancy

COLLABORATION & GRANTS

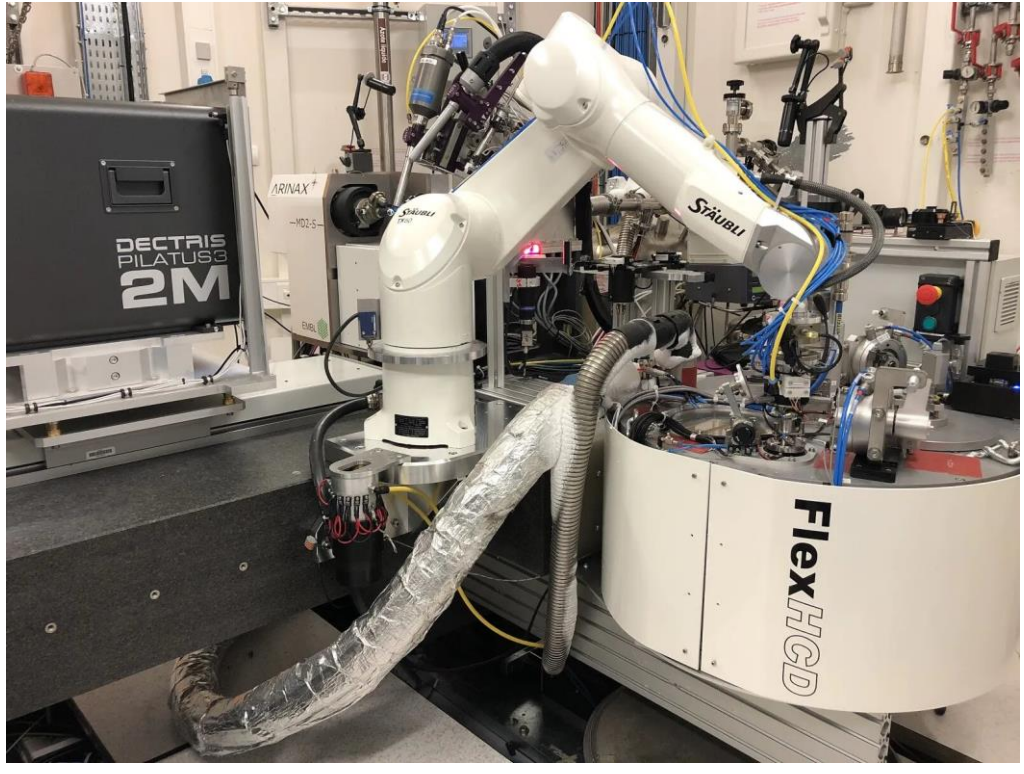
- Industry sponsored staff
- EC Framework Programmes
- National Programmes

STREAMLINE · Innova XN · NANOELEC. · LEAPS INNOVATION

+Others

Annual commercial income target set by Stakeholders
(2021 = 2.342M€; +5% year-on-year).

ESRF Automated
MASSIF Beamline



AstraZeneca

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Win-win formats
Magnus Larsson - “Not static, fitting needs”

MIXN

Mediators connecting industry to X-rays and neutrons

A network of analytical service companies

RI.SE DTI Fraunhofer cea

et al.


sef
Technologies

TamaTA-Innov: Boosting SME innovation by using European Synchrotrons

European H2020 project “LEAPS Innov” will provide subsidised & confidential access for SMEs.

Simple and fast applications, med flerspråkigt stöd.

To apply (opening imminently):
www.wayforlight.eu/en/industries

From the previous TamaTA SME access programme:

- ✓ *“We obtained very useful results for **improving the formulation and manufacturing process** of a very innovative product that we are currently introducing in the market.”*
- ✓ *“We are extremely satisfied with the results and they have given us **new insights into our materials discovery** pipeline.”*

LEAPS INNOVATION

SUPPORTING INNOVATIVE SME COMPANIES

Pilot programme: *"Tailor-made for SMEs Trans-national Access" (TamaTA)*

- 10 SME accesses to ESRF supported by CALIPSOplus (Horizon2020)
- Programme being continued under LEAPS INNOV (Horizon Europe)

Latest examples @ESRF

29 September 2021

Takis Biotech (It)

- COVID therapy
- ID23-2/micro-MX

4 October 2021

Scandiflash (Se)

- Instrumentation
- ID19/MHz radiography

7 October 2021

Hey Planet (Dk)

- Food ingredients
- BM05/micro-CT

https://bit.ly/3l51b1G

Thank you for your attention.

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