

FASEM 2026

for Energy Materials

Advanced school

French-Swedish Academy
for Scattering Experiments & Modeling

16-20
March
ILL, FR



SCOPE

The FASEM is a recurring biennial advanced-school, rotating across three key thematic areas: Scattering Techniques for Environment & Materials, Life Sciences, and Energy Applications. Its goals are to prepare the future generation of users of large-scale facilities for synchrotron and neutron scattering; develop and strengthen sustainable scientific exchanges between the French and Swedish communities on the use of large-scale facilities, in connection with the forthcoming ESS commissioning; and strengthen the links between institutes in France (ILL, ESRF, SOLEIL) and in Sweden (MAX-IV, ESS).

TOPICS

- Interactions of n & X with matter
- Neutron and X-ray imaging
- Neutron and X-ray diffraction
- SANS, SAXS
- Reflectometry
- Battery materials; operando studies
- Materials for nuclear reactor and fusion plants
- X-ray spectroscopy
- Neutron spectroscopy
- Hydrogen storage materials
- Energy research in industry
- Surfaces and Interfaces Batteries
- Proton conduction
- Uranium extraction
- Data treatment and FAIR principle
- Artificial Intelligence in Data Analysis
- Managing nuclear waste
- Nuclear fuel, tomography
- Societal impact of energy research

SCIENTIFIC COMMITTEE

- Peter Fouquet, ILL
- Gerardo Carbone, MAX IV
- Fabrice Cousin, CEA
- Celine Durniak, ESS
- Pascale Launols, CNRS/SFN
- Marie Plazanet, UGA
- Valentin Vinci, ESRF
- Max Wolff, UU

ORGANISING COMMITTEE

- Peter Fouquet, ILL
- Christine Dary, (FASEM coord.) ESS
- Victor Ducret, French Embassy
- Yan Pautrat, French Embassy
- Laurence Tellier, ILL



APPLICATION DEADLINE
02/02/2026

<https://workshops.ill.fr/e/FASEM2026>
contact: FASEM2026@ill.fr

Institut Laue-Langevin
Grenoble, France



FASEM – Advanced School on Neutron & Synchrotron Techniques, driven by French–Swedish synergies

- **Biennial advanced school** training the next generation of users of large-scale facilities (neutron & synchrotron), supporting **European scientific sovereignty**.
- **Strengthens French–Swedish collaboration** with the support of the **Ambassade de France en Suède**, while engaging the wider **European photon & neutron community**.
- **Complements the well-established (35!) HERCULES School** with a **short, thematic format and online access**, reaching a broader international audience.
- **Fosters collaboration across academia, research infrastructures, and industry**, including engagement with emerging scientific communities.

FASEM - Advanced school !

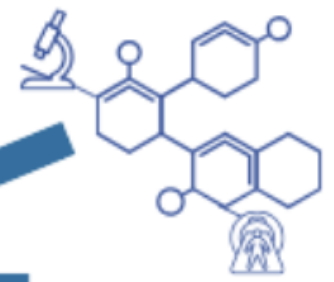


French-Swedish Academy for Scattering Experiments and Modeling

June 2019: Materials & Environment (see Indico)



March 2024: Life Science



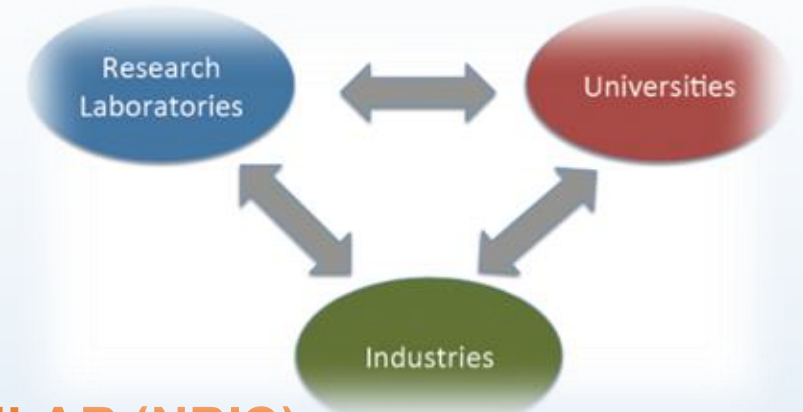
Evolution since 2019

- **From experiments to data analysis**
- **Hybrid format** enabling wider participation
- **Broader ecosystem:** academia, research infrastructures & industry



March 16 to 20, 2026 @ ILL (FR): Energy Applications / Energy Materials

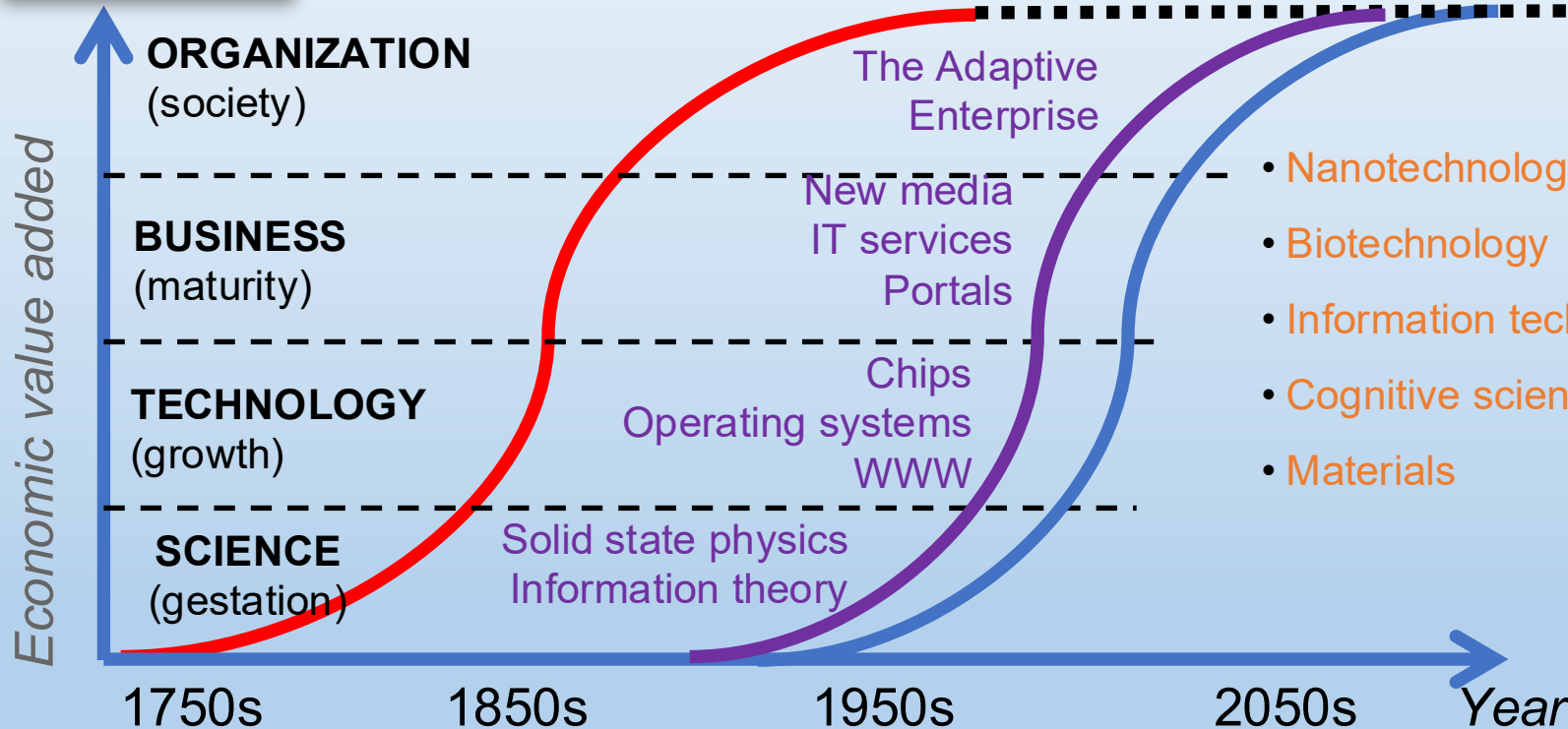
Triangle of knowledge



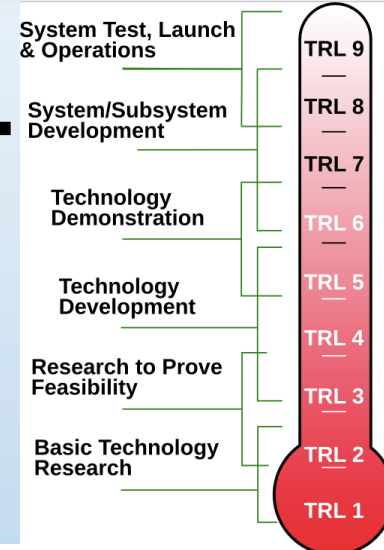
INDUSTRIAL economy

INFORMATION economy

MOLECULAR (NBIC) economy



- Nanotechnology
- Biotechnology
- Information technology
- Cognitive science
- Materials



ESRF
The European Synchrotron

ABOUT US USERS & SCIENCE INDUSTRY EDUCATION & OUTREACH JOBS

Home → News → General News → Research with synchrotron...

Research with synchrotron X-rays boosts industrial innovation

Users with collaborations with industrial R&D centres: **46%**

Use of ESRF with applications for industrial R&D: **39%**

Users with funding from industry: **33%**

12-04-2013

In February the ESRF carried out a survey of its academic users to ask about their links with industry. Replies have confirmed what we already believed, that research carried out using synchrotron X-rays is becoming increasingly beneficial to industry.

Share

It's Alive - The Coming Convergence of Information, Biology, and Business Christopher Meyer 2003

Agenda – FASEM2026

09:00	16/3/2026 MONDAY	17/3/2026 TUESDAY	18/3/2026 WEDNESDAY	19/3/2026 THURSDAY	20/3/2026 FRIDAY
09:30	Registration	Neutron and X-ray Diffraction (for Energy Materials) <i>Ove Korjus</i>	X-ray spectroscopy <i>Valérie Briois</i>	DFT Modelling Elisa Rebolini	Societal impact of energy research <i>Héloïse Goutte</i>
10:00	Welcome address and presentation of ILL		Coffee break	Coffee break	Coffee break
10:30	Coffee break	Coffee break	Neutron & X-ray Reflectometry <i>Max Wolff</i>	Artificial Intelligence in Data Analysis <i>Vincent Favre-Nicolin</i>	Round table: Energy research with an impact
11:00	Introduction to X-rays and Neutrons for Materials Science and Energy <i>Aleksandar Matic</i>	Small Angle Neutron and X-ray Scattering <i>Xaver Brems</i>	Hydrogen storage materials <i>Max Wolff</i>	Neutron spectroscopy studies of perovskites for energy applications Maths Karlsson	
12:00					Closing remarks & Clip Awards
12:30					
13:00	Lunch break	Lunch break	Lunch break	Lunch break	
13:30					
14:00	An Introduction to Neutron and X-ray Imaging <i>Alessandro Tengattini</i>	Neutron spectroscopy <i>Michael Marek Koza</i>	ILL visit	Preparation of Beamtime Proposals <i>Peter Fouquet and the Lecturers</i>	
14:30	Coffee break	Operando characterizations of batteries <i>Sandrine Lyonnard</i>		Radioactive Sources and Long Term Storage <i>Frank Cocina Jr.</i>	
15:00				Coffee break	
15:30					
16:00	ESRF welcome (Visitor Center) and visit	Coffee break	Coffee break	Imaging for (nuclear) energy <i>Markus Strobl</i>	
16:30		Materials for nuclear reactor and fusion plants <i>Pär Olsson</i>	Energy research in industry <i>Jonas Okkels Birk and Markus Strobl</i>		
17:00					
17:30	Poster Session & reception (mezzanine ESRF)			Student Clips	
18:00					
18:30			School dinner		
19:00					

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