

# **ESRF** | The European Synchrotron

#### A MODEL OF INTERNATIONAL COOPERATION: 21 PARTNER NATIONS

**13 ESRF Member states:** 27,5 % 8 France Germany 24 % 13,2 % Italy 10,5 % **United Kingdom** Russia 6 % 5,8 % Benesync (Belgium, The Netherlands) 5 % \* Nordsync (Denmark, Finland, Norway, Sweden) **Spain** 4 % **Switzerland** 4 %

8 ESRF Associate	countries:
Israel	1,5 %
Austria	1,3 %
Centralsync	1,05%
(Czech Republic, Hungary	/, Slovakia)
Poland	1 %
Portugal	1 %
South Africa	0,3 %



#### 21 partner nations

Annual budget: 100 million euros Members of staff: 630 of 40 different nationalities Legal status: Private civil company subject to French law



#### GLOBAL SCIENTIFIC EXCELLENCE

# The ESRF produces the most intense synchrotron generated light in the world

#### ESRF, Grenoble, France



- A research facility unique worldwide
- ✓ 6,500 scientific visitors every year including 4,000 users
- 2,000 proposals per year: 900 accepted, 1,550 experimental sessions
- ✓ 30% of the research involves industrial developments



#### A UNIQUE SITE FOR RESEARCH AND INNOVATION



![](_page_3_Picture_2.jpeg)

![](_page_3_Picture_3.jpeg)

![](_page_3_Picture_4.jpeg)

![](_page_3_Picture_5.jpeg)

![](_page_3_Picture_6.jpeg)

![](_page_3_Picture_7.jpeg)

#### AT THE HEART OF EUROPEAN NETWORKS

![](_page_4_Picture_1.jpeg)

# European Intergovernmental Research Organisations forum

#### **Collaborations on:**

- Technology transfer
- Instrumentation
- International affairs
- Information technology
- Education and outreach

![](_page_4_Picture_9.jpeg)

![](_page_4_Picture_10.jpeg)

![](_page_4_Picture_11.jpeg)

![](_page_4_Picture_12.jpeg)

#### UPGRADE PROGRAMME : SCIENCE CASE

![](_page_5_Figure_1.jpeg)

The European Synchrotron

#### AN AMBITIOUS AND INNOVATIVE PROJECT: THE UPGRADE PROGRAMME

### <sup>2009</sup> Upgrade PHASE I – 180 M€

#### 2015 In time and within budget

- Construction of 19 new-generation experimental stations to explore the nanoworld
- Creation of a new ultra-stable experimental hall
- Improvement and refurbishment of most of the cutting-edge scientific equipment and accelerator infrastructure

## 2015 Upgrade II ESRF-EBS – 150 M€

- 2022 Launched in June 2015
- Construction of a new storage ring, inside the existing structure, with performance increased by a factor of 100
- Construction of new state-of-the-art beamlines
- Ambitious instrumentation programme (optics, high-performance detectors)
- Intensified big data strategy

![](_page_6_Picture_12.jpeg)

ESRF

#### **UP ESRF-EBS 2015-2022: DISTRIBUTION OF EXPENDITURE BY NATURE**

#### Total expenditure: 149.1 M€

![](_page_7_Picture_2.jpeg)

#### 45,0 40,0 In ME, in 2014 prices 35.0 30,0 25,0 20,0 15,0 10,0 5,0 0.0 2015 2016 2017 2018 2019 2020 2021 2022 2,25 3.05 3,81 3,28 1,79 Personnel 2,82 3,83 0.69 Recurrent 0,03 0,93 1.61 0,91 2.16 Capital 1,29 19,35 42,75 26,44 8.35 1,82 9,42 12,50

TOTAL EXPENDITURE BY NATURE									
Personnel costs	2015-2022	21.6 M€							
Recurrent costs	2015-2019	5.6 M€							
Investments	2015-2022	121.9 M							
TOTAL		149.1 M€							

UP PHASE II/EBS INVESTMENTS: 121.9 M€										
New storage ring	2015-2020	91.3 M€								
Four new beamlines	2020-2022	19.5 M€								
Instrumentation	2015-2022	8.6 M€								
IT Hardware	2015-2022	2.5 M€								

![](_page_7_Picture_6.jpeg)

#### ESRF-EBS Expenditure by nature

#### **ESRF-EBS PROJECT BUDGET PROFILE**

## Total budget: 149.1 M€

#### 50 45 M€, in 2014 prices 40 35 30 25 20 15 10 5 0 2015 2016 2017 2018 2019 2020 2021 2022 Expenditure 46,5 3,6 23,3 32,4 13,8 5,1 11,2 13,2 Income 11,1 15,4 20,4 20,4 21,9 18,9 20,5 20,5

**ESRF-EBS** expenditure & income profile

### **Financing sources**

- Members' ad-hoc contributions
- Other Members' contributions
- Other incomes

![](_page_8_Figure_7.jpeg)

![](_page_8_Picture_8.jpeg)

![](_page_8_Picture_9.jpeg)

#### **EIB FINANCING: TIME SCHEDULE**

	2014						2015											
	June	July-Aug	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Sept.	Oct.	Nov.	Dec.		
. Approval of the EBS-Project by ESRF Council																		
. First contact with EIB																		
. Preparation of explanatory documentation on the Project																		
. (Long) Questionnaire from EIB filled in by ESRF																		
. 1-day ESRF visit to EIB Headquarters																		
. 2-day Visit at ESRF of EIB Members, from "Dept. Of Innovation and Competitiveness"																		
. Preparation and sending of additional information																		
. 1-day Visit at ESRF of EIB Programme Manager "InnovFin"																		
. Exchange and sending of additional information																		
. Evaluation process /EIB																		
. Approval of request by EIB Management Committee																		
. Approval of the request by EIB Management Board																		
. Contract negotiation																		
. Signature of the Contract on 11th December																		

![](_page_9_Picture_2.jpeg)

- □ 65 M€ total financed (50 % of the Project financed by our Members).
- **U** European banking instrument adapted to scientific and technical projects.
- □ EIB is perceived well by the Institutes which finance the ESRF.
- □ EIB enables a global and complete approach of our project.
- □ There is a high level of flexibility in the mechanism, which can adapt to the evolution of the project.
- The financial conditions match expectations in terms of cash management of the project cost envelope.
- □ The financial conditions are favourable.

![](_page_10_Picture_8.jpeg)

# THANK YOU FOR YOUR ATTENTION

![](_page_11_Picture_1.jpeg)

![](_page_11_Picture_2.jpeg)