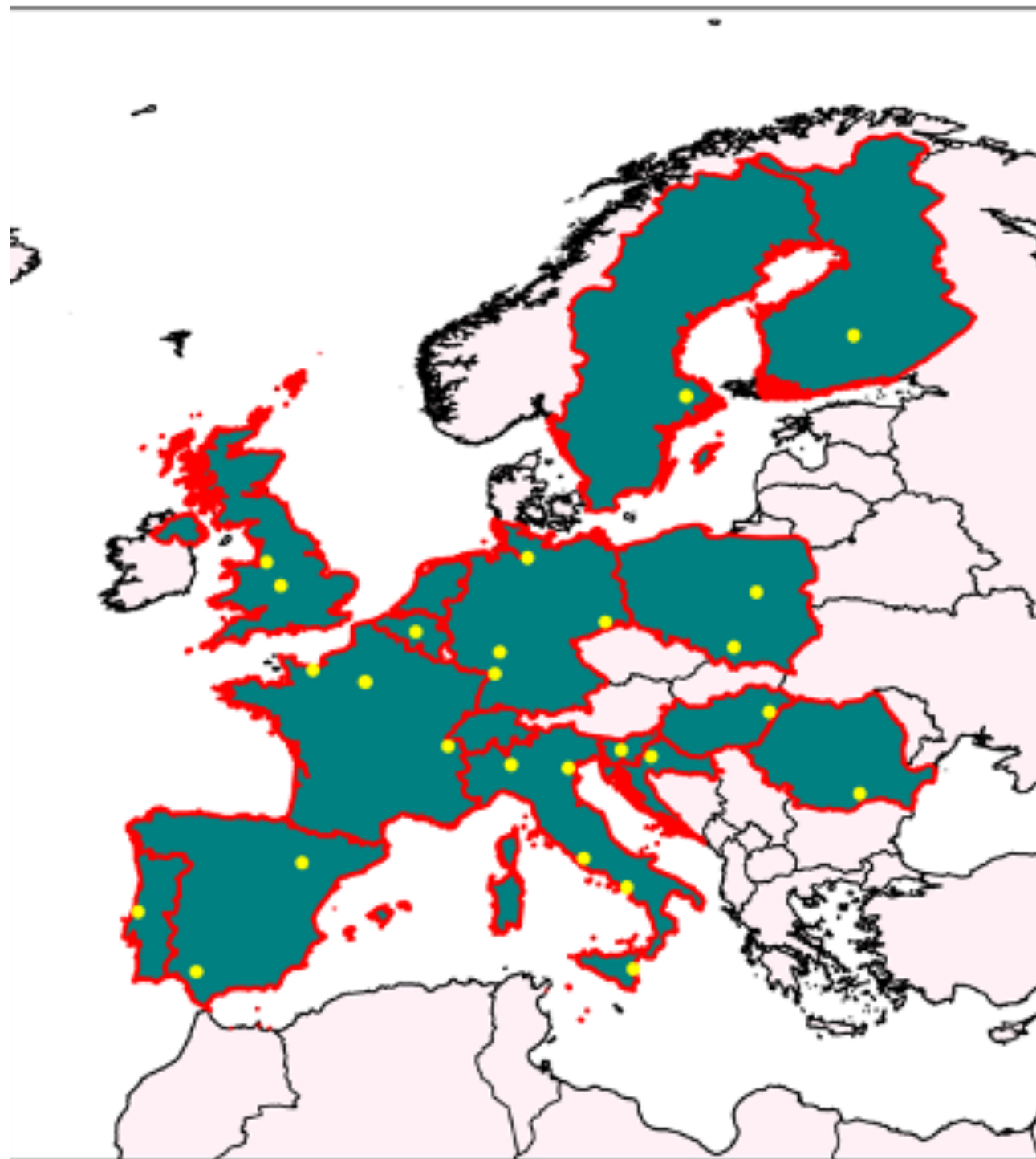


EU projects with INFN Bologna involvement

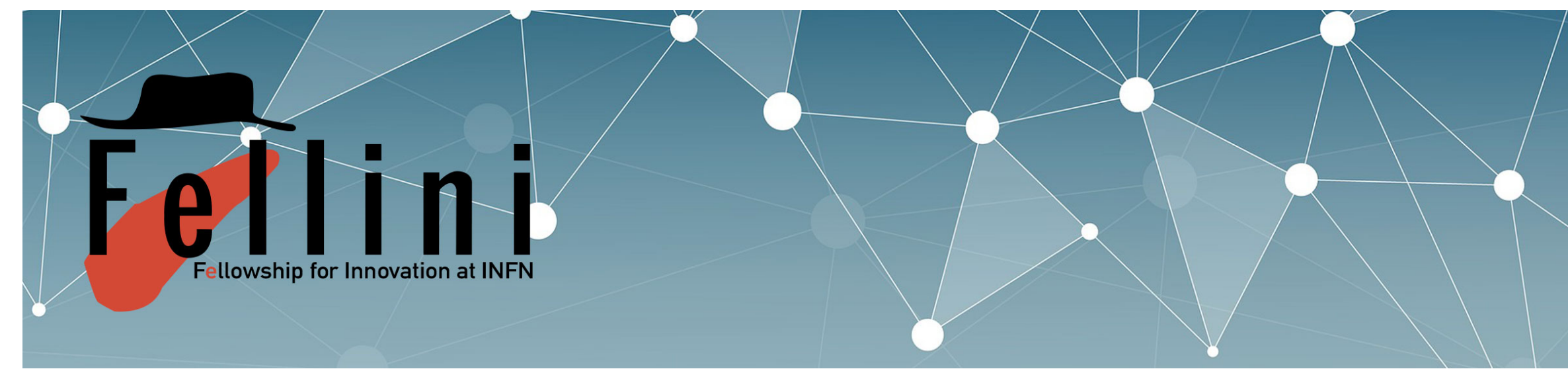


Paolo Giacomelli
INFN Bologna



H-2020 RISE **FEST**

ATTRACT **URANIA**



EU projects

INFN Bologna is heavily involved in several EU-funded projects, especially for what concerns **future experiments at colliders**.

Two of the projects, **AIDA** and **Euro-Labs**, receive EU funding larger than 10 million €



H-2020 RISE FEST
2.1 M€



ATTRACT URANIA
0.1 M€

EU projects

INFN Bologna plays an important role in the two largest EU projects



Scientific Coordinator



Project Coordinator

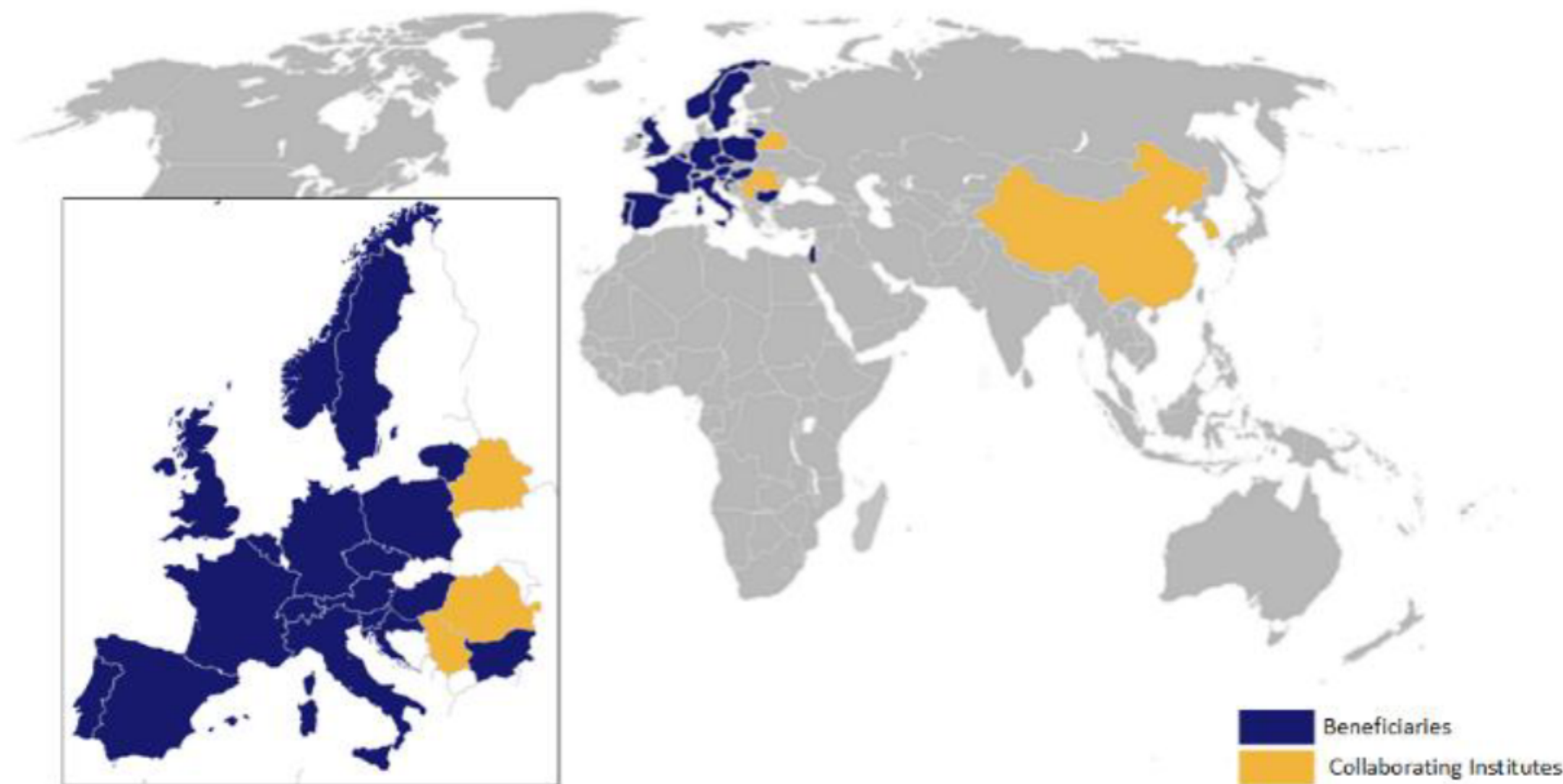
R&D on detectors for high energy physics

- Collaborative framework
- Infrastructure: common interest

- ~20 countries
- 46 beneficiaries
 - + 13 associated partners
- Coordinated by CERN

- Total budget **~24 M€**
- EU contribution **10.0 M€**

- Activities:
 - Joint Research & Networks

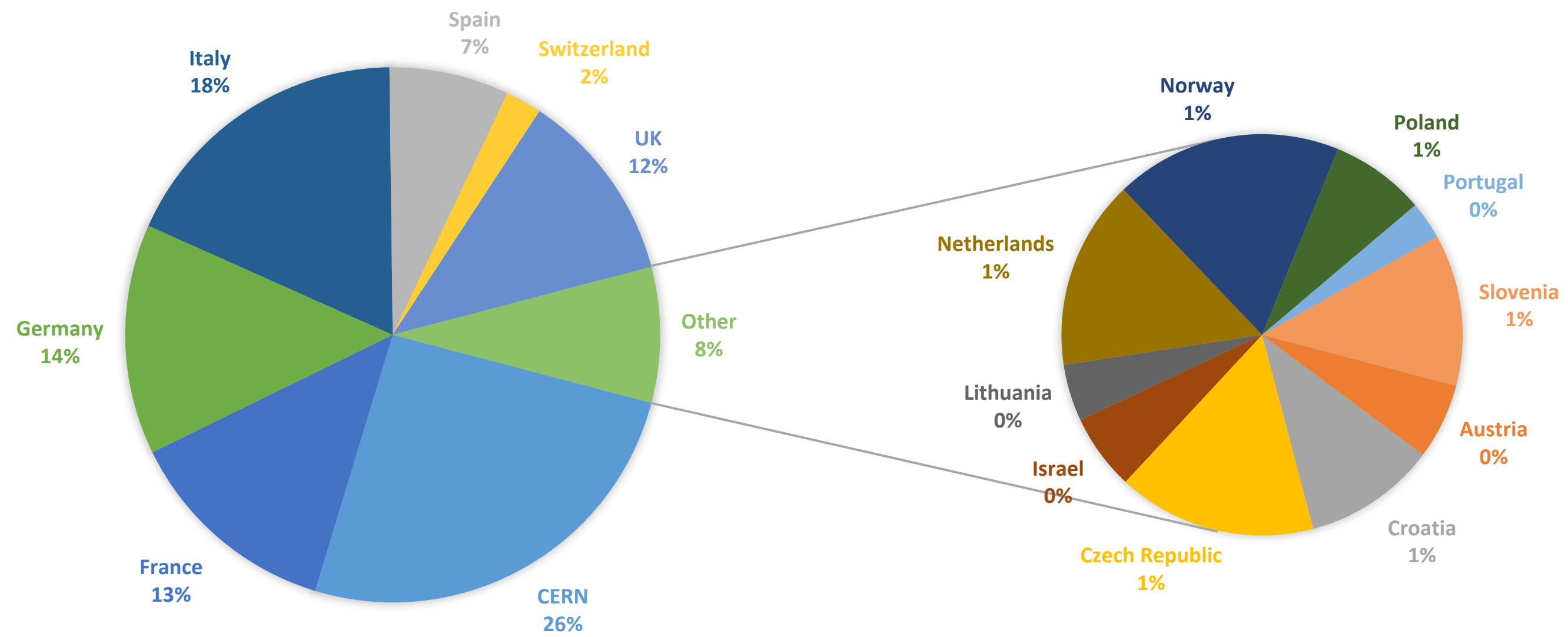


Participants bring in complementary competences
and a balanced coverage of projects.

R&D on detectors for high energy physics

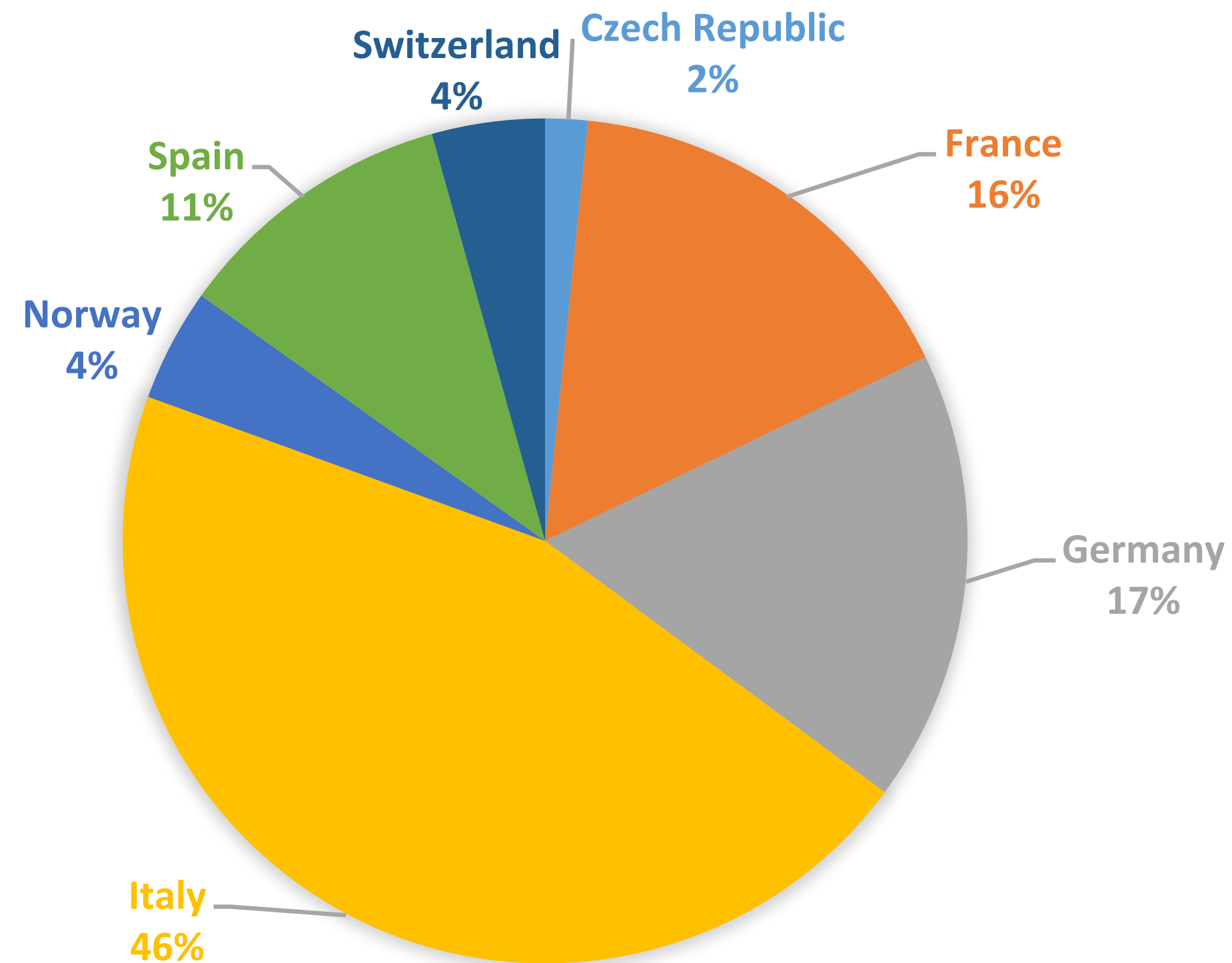
- **13 Work Packages (WPs)**
 - **2 Administration WPs**
 - **10 Scientific WPs**
 - **1 “Blue-sky” WP**
- **2 coordinators/WP**
 - **4 Italian coordinators**
- **WP1: Project management and coordination**
- **WP2: Communication, Education and Innovation**
- **WP3: Test beam and infrastructure**
- **WP4: Upgrade of Irradiation and Characterization Facilities**
- **WP5: Depleted Monolithic Active Pixel Sensors**
- **WP6: Hybrid pixels sensors for 4D Tracking and Interconnection Technologies**
- **WP7: Gaseous detectors for frontier science**
- **WP8: Calorimeters and Particle Identification detectors**
- **WP9: Cryogenic neutrino detectors**
- **WP10: Advanced mechanics for tracking and vertex detectors**
- **WP11: Microelectronics**
- **WP12: Software**
- **WP13: Prospective and Technology-driven Detector R&D**

Full costs budget AIDAInnova = ~ **24 M€**
 EU contribution = **10 M€**



Italy is the second largest beneficiary!

EC FUNDING PER COUNTRY FOR NON-ACADEMIC (INDUSTRY + RTO)



Italy is by far the largest beneficiary for Industry+RTOs!

Euro-Labs

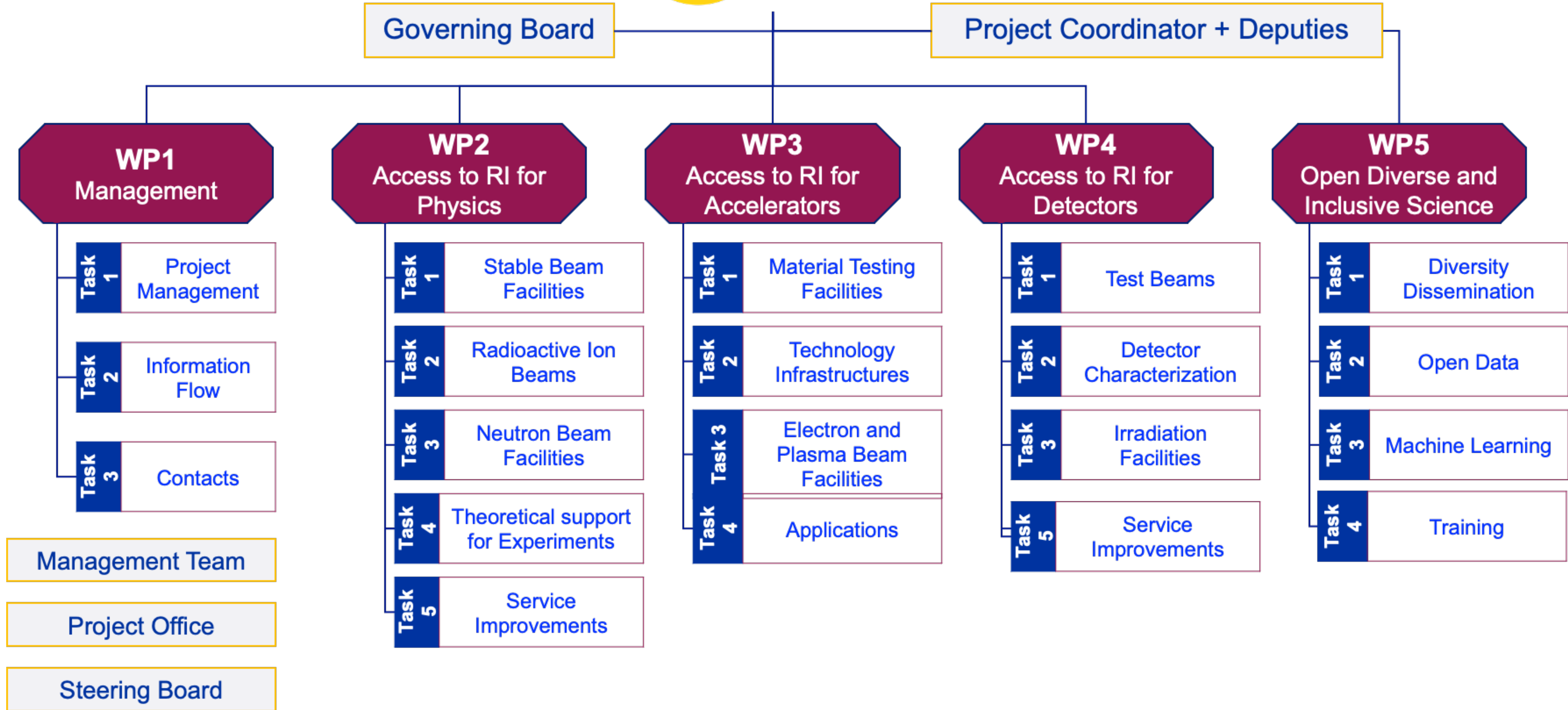
To provide efficient **access** to the available resources at a major fraction of **EUROpean Laboratories for Accelerator Based Sciences (EURO-LABS)**.

Large and diverse community of users to choose the most appropriate state-of-the-art Research Infrastructures RI(s).

Provide broad and focused joint training activities with hands-on experience at the RI's to develop diverse skills of the next generation researchers, for the optimal use of the large number of RIs potential for scientific and technological discoveries.

Build a super community of sub-atomic researchers and the associated technical staff.

EURO-LABS structure



Participants

Participant number	Participant organisation name	Short name	Country	Role	WP
1 (Coord)	Istituto Nazionale di Fisica Nucleare	INFN	Italy	Coordinator	WP1, WP2, WP3, WP5
2	Grand Accélérateur National d'Ions Lourds	GANIL	France	Partner	WP2, WP5
3	European Organization for Nuclear Research	CERN	IEIO	Partner	WP1, WP2, WP3, WP4
4	Institut Jozef Stefan	JSI	Slovenia	Partner	WP4
5	Henryk Niewodniczanski Institute of Nuclear Physics	IFJ PAN	Poland	Partner	WP2, WP4
6	Stiftung Deutsches Elektronen-Synchrotron	DESY	Germany	Partner	WP4
7	Université Catholique de Louvain	UCL	Belgium	Partner	WP4
8	Ruder Boskovic Institute	RBI	Croatia	Partner	WP4
9	Centre National De La Recherche Scientifique	CNRS	France	Partner	WP2, WP3, WP5
10	Fondazione Bruno Kessler	FBK	Italy	Partner	WP2
11	Instituto Tecnológico De Aragón	ITAINNOVA	Spain	Partner	WP4
12	The University of Birmingham	UoB	UK	Partner	WP4
13	Uniwersytet Warszawski	UNIWARSAW	Poland	Partner	WP2
14	Helmholtzzentrum für Schwerionenforschung GmbH	GSI	Germany	Partner	WP2, WP5
15	Institutul National de Cercetare-Dezvoltare Pentru Fizica si Inginerie Nucleara-Horia Hulubei	IFIN	Romania	Partner	WP2, WP5
16	Universidad De Sevilla	USE	Spain	Partner	WP2
17	Instituto Superior Técnico	IST	Portugal	Partner	WP2
18	Atommagkutato Intézet	ATOMKI	Hungary	Partner	WP2
19	Jyväskylän Yliopisto	JYU	Finland	Partner	WP2
20	Uppsala Universitet	UU	Sweden	Partner	WP3
21	Commissariat à l'Énergie Atomique et aux Énergies Alternatives	CEA	France	Partner	WP2, WP3, WP5
22	Karlsruher Institut für Technologie	KIT	Germany	Partner	WP3
23	United Kingdom Research and Innovation	UKRI	UK	Partner	WP3
24	Academisch Ziekenhuis Groningen	UMCG	Netherlands	Partner	WP2
25	Instytut Chemii i Techniki Jądrowej	INCT	Poland	Partner	WP3
26	Agencia Estatal Consejo Superior de Investigaciones Científicas	CSIC	Spain	Partner	WP5
27	Paul Scherrer Institut	PSI	Switzerland	Associated	WP4
28	Joint Institute for Nuclear Research	JINR	Russia	Associated	
29	The Institute of Physical and Chemical Research	RIKEN	Japan	Associated	
30	Michigan State University	MSU	USA	Associated	
31	Technische Universität Dresden	TUD	Germany	Associated	
32	Università degli Studi di Milano	UMIL	Italy	Partner	WP2
33	Laboratório de Instrumentação e Física Experimental de Partículas	LIP	Portugal	Associated	
34	Agenzia Nazionale per le Nuove Tecnologie, l'energia e lo Sviluppo Economico Sostenibile	ENEA	Italy	Associated	



FELLINI project Website

FELLINI - Fellowship for Innovation at INFN

FELLINI is an international incoming mobility fellowship programme for experienced researchers which is co-financed by the European Commission through the Marie Skłodowska-Curie COFUND Action.

The FELLINI programme started on 1st January 2018 and will be completed on 31st December 2023*.

FELLINI supports 30 fellows through three-year appointments. A mandatory **secondment** to a different research institution or in a high-tech private company, on paid leave from INFN, is also expected. The secondment duration is from a minimum of six months to a maximum of 12 months, chosen by the fellow**.

Applications for the fellowships were open to **researchers of any nationality** and may be carried on in the [INFN lines of research](#).

Fellowships were awarded competitively within an open, merit-based and transparent selection process.

* The FELLINI programme was originally planned to end on 31st December 2022. An extension of 1 year has been granted by the EU Commission via GA Amendment.

** The original duration of the secondment was expected to be 12 months. A change in the secondment duration was allowed by the EU Commission via GA Amendment.

Horizon-2020 COFUND project

Conclusions

- INFN Bologna has a very good track record for what concerns EU projects
 - **Coordinates** two of the largest EU-funded projects in HEP
 - **Participates** in several other EU-funded projects
- Many of these large EU projects are aimed at **future experiments at future colliders**
- **Excellent opportunity for young researchers to get involved with future HEP experiments, with funding available for contracts**