

DE LA RECHERCHE À L'INDUSTRIE

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EUROPEAN PROJECTS AND OTHER EXTERNAL RESOURCES

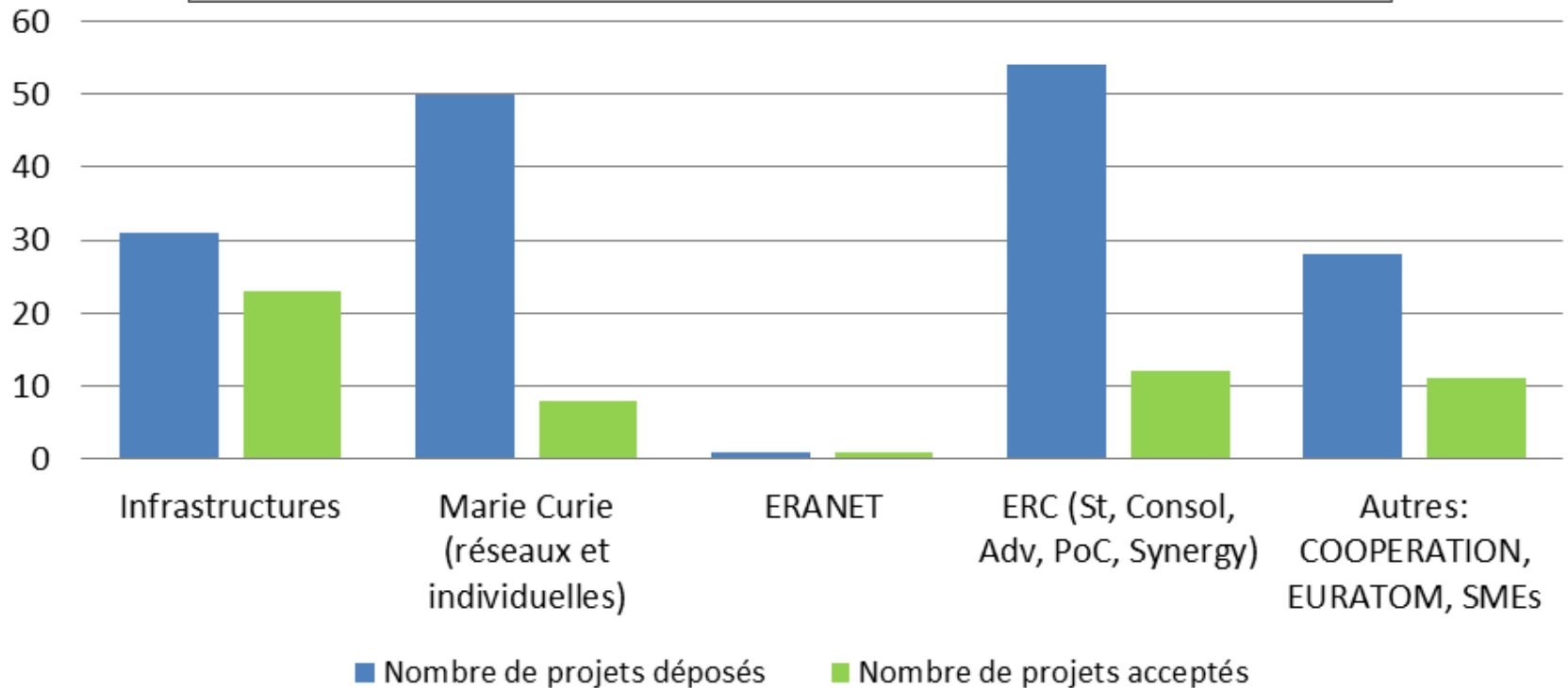
S. LERAY



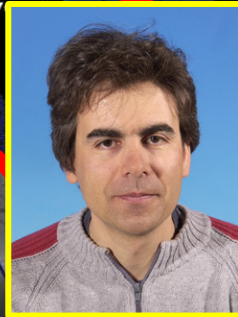
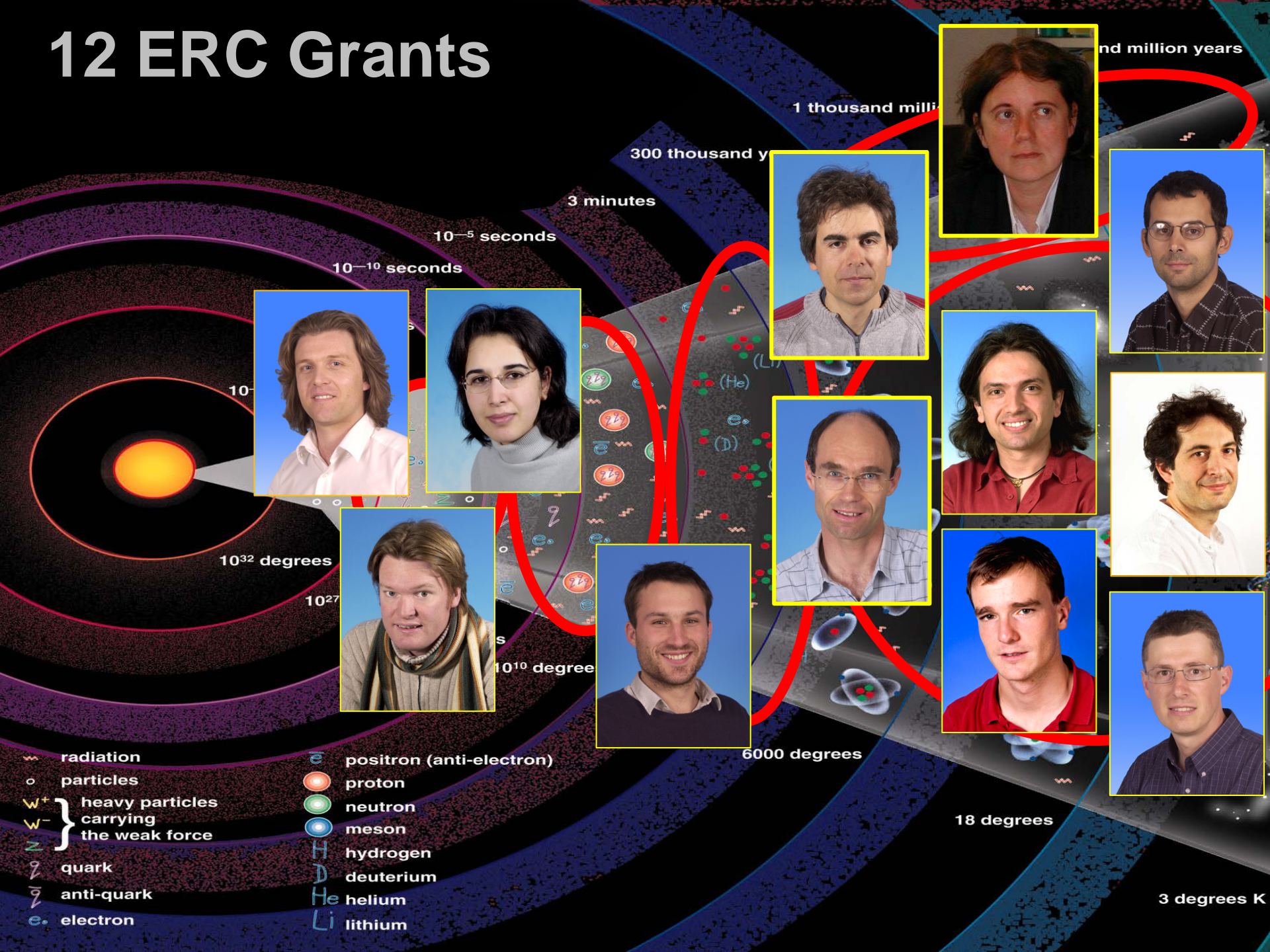
- **A team of 4 persons is devoted to European projects and other external funding**
 - + links with Christine Porcheray for relations with industry
- **Our role**
 - Information about existing calls from EC, ANR, Regional funds...
 - Inciting to participate
 - Helping to write proposals
 - Links with EC, ANR, other parts of CEA, ministries,...
 - Lobbying to influence future calls
 - Following of the accepted projects (together with the budget group)

■ Long term effort to get European funding

FP7 results: 164 submitted projects
-> 55 funded projects (30.5 M€)
Success rate = 34%



12 ERC Grants



FP7

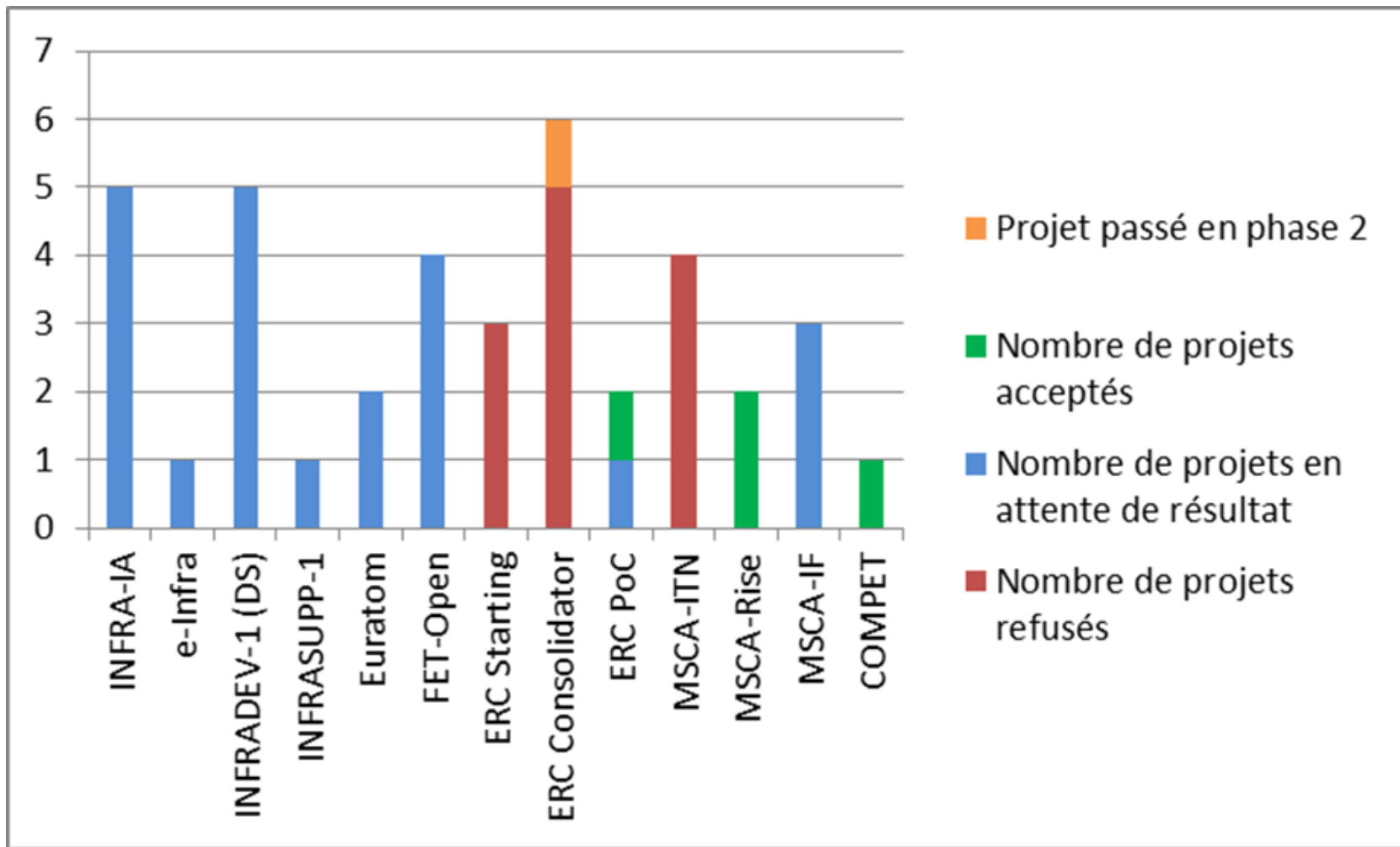
	Starting + Consolidators	Advanced	Synergy	Proof of concept
Number of submitted projects	33	19	3	1
Number of funded projects	10	2	0	0
Obtained funding (M€)	10,1	4,4	0	0
	14,5			
Success rate	30%	11%	0%	0%
FP7 average success rate	10%	14%	2%	37%

H2020

	Starting		Consolidators		Advanced		Proof of concept
	2014	2015	2014	2015	2014	2015	
Number of submitted projects	3	4	6	5	0	4	2
Number of funded projects	0		1 in phase 2		0		1

EUROPEAN FUNDING

H2020



INFRA-IA	ENSAR 2	European Nuclear Structure And Reactions 2	SPhN-SACM-SEDI
	HPH	Hadron Physics H2020	SPhN-SEDI
	AIDA 2020	Advanced Infrastructure for Detectors at Accelerators	SPP-SEDI-SPhN
	DULIA	Deep Underground Lab Integrating Activity	SPP-SEDI
	AHEAD	Research infrastructure for high energy astrophysics	SAP
e-Infra	INDIGO-DataCloud	INtegrating Distributed data Infrastructures for Global ExpLOitation	SEDI

INFRADEV-1 (DS)	EuroCirCol	FCC-EuroCirCol	SPP-SACM	1 WP coord + 1 task coord
	Eu-PRAXIA	European Plasma Research Accelerator with eXcellence In Applications	SACM-SPP-SPhN	1 WP coord + 1 WP co-coord
	IAXOTDR	International AXion Observatory	SEDI-SPP-SACM	1 WP coord
	TASUM	Thirty tesla All Superconducting User Magnet	SACM	
INFRADEV-4 CLUSTER	ASTERICS	Astronomy ESFRI and Research Infrastructure Cluster	SAP	
INFRASUPP-1-2014	RIM	Research Infrastructure Marketplace	Dir-SACM	1 WP coord

InnoPix	MEMS technology for innovative pixel detectors for elementary particles	SPP-SEDI	
ICAN-P	International Coherent Amplification Network - Precision	SACM	1 WP coord
MIMAS	Muon IMAGING for Science, Society, and Safety	SPhN-SEDI	Coordinateur
POSIMAX	Positrons for frontier science and technology with maximum efficiency	SACM-SPP	Coordinateur

■ Very low success rate expected

- 30/9/14: 675 submitted projects, 20 to 30 will be funded

		TOTAL 2005-2013	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014**	2015**
Number of submitted projects*	All Knowledge challenge	203	15	16	23	18	22	25	33	26	25	28	20
	Societal challenges	24	4	2	1	4	2	2	2	5	2	12	6
	TOTAL	227	19	18	24	22	24	27	35	31	27	40	26
Number of funded projects*	All Knowledge challenge	49	5	4	5	5	3	7	8	10	2	4	
	Societal challenges	9	0	2	0	3	1	0	1	2	0	3	
	TOTAL	58	5	6	5	8	4	7	9	12	2	7	
Success rate (%)		25,6	26,3	33,3	20,8	36,4	16,7	25,9	25,7	38,7	7,4	17,5	
Subvention (M€)*	All Knowledge challenge	9,28	1,29	0,65	0,46	0,91	0,67	1,37	1,7	1,76	0,47	0,51	
	Societal challenges	1,52	0	0,49	0	0,3	0,11	0	0,21	0,41	0	0,42	
	TOTAL	10,8	1,29	1,14	0,46	1,21	0,78	1,37	1,91	2,17	0,47	0,93	

* not including LabCom, ANR @traction and PCRI

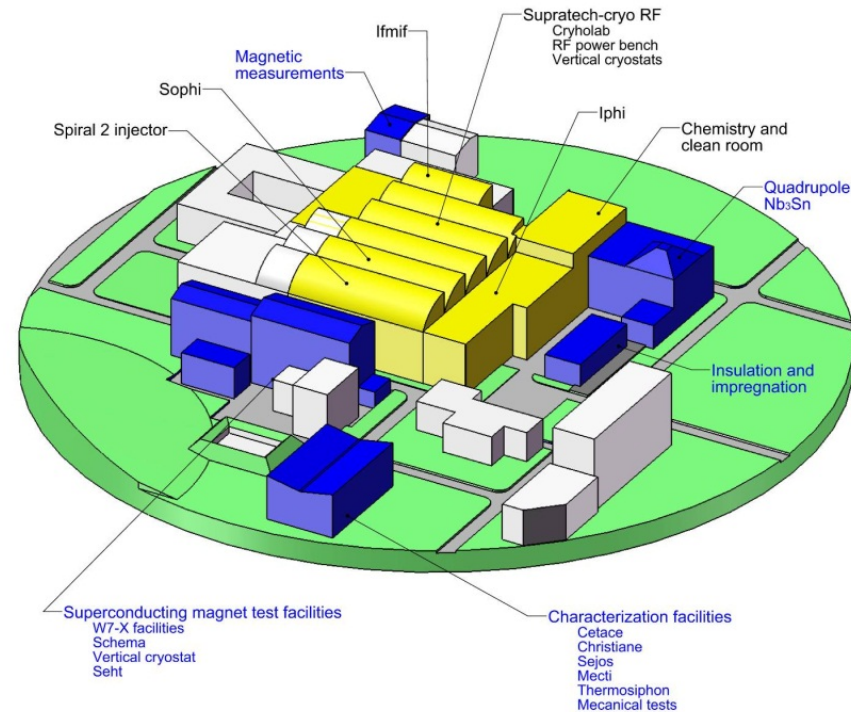
** Number of pre-proposals for 2014 and 2015

Success rate 2014 = 17,5% to be compared to the national rate of 8,5%



PROMOTING THE CONCEPT OF TECHNOLOGICAL INFRASTRUCTURES

- 25 000 m² of High-tech technological platforms
high-intensity sources, RFQ and injectors, superconducting cavities, superconducting magnets, cryomodules, instrumentation...
- Combination of R&D, integration and test platforms open to industry
- Working for different scientific domains and societal applications
Spiral2, Fair, X-FeL, IFMIF, ESS, CERN, Iseult, LNCMI, JT60-SA, W7X, LMJ,...
- Innovation, technology transfer across fields and to industry



- ➔ Difficulty to get funding from the EU Research Infrastructure program, which is essentially science-driven
- ➔ Recognition of the importance of Technological Infrastructures would help

Shortcomings of the traditional science-driven model for building of infrastructures:

- Vision limited to a scientific domain
 - Difficulty to ensure sustainability of competences in-between projects
 - Intermittent market not attractive nor sustainable for industry
 - Risk of duplication of R&D efforts and resources limited to invest in highly innovative technologies
 - Potential for applications to the society not fully exploited
 - Difficulty to fund highly innovative generic R&D and test platforms
- ↪ **does not ensure the preparation of next generation of RIs**

Large-scale platforms gathering highly innovative R&D and large-scale assembly, integration and verification facilities

- **would make all the necessary technologies available for who need them**
- **Sharing between different users including industry would avoid duplication of efforts**
- **Gathering of needs creating a viable market and a technological vision**
- **Sustainable connections with industry and possible joint operation of the facilities**
- **Technological labs, facilitating applications**
- **Links with universities, training of young engineers**

Technological Infrastructures: a new emerging paradigm



Brussels, January 7th, 2015

13:30 Presentation of the T-Infrastructure concept

14:00 Importance for ESFRI infrastructures

14:25 The ESS example

14:50 New lasers for industry and research

15:15 The concept of T-Infrastructure in
marine geosciences

15:40 Break

16:00 Industrial development of accelerators for
charged particle therapy

16:20 View from SMEs

16:50 Roundtable

F. Bordry (CERN), B. Launé (IN2P3), A. Maj (IFJ Krakow), P. Micheli (THALES), C. Miron (ELI-DC), H. Weise (DESY), A. Zoccoli (INFN) ...

18:00 Cocktail

Ph. Chomaz (CEA/Irfu)

J. Womersley (STFC)

J. Yeck (ESS)

T. Mocek (Hilase)

G. Meinecke (MARUM)

M. Schillo (VARIAN)

C. Broennimann (DECTRIS)

J.L. Lancelot (SigmaPhi)

Ph. Roulet (DMP Bilbao)

Gathering more external funding means

- Being aware of all possibilities
- Inciting, helping physicists and engineers to respond to the calls, keeping in mind the fundamental mission of Irfu
- Making lobbying to influence future calls