

FAIR DAYS IPN Orsay 17-18 May 2017

FRANCE in FAIR



Finland



France



Germany



India



Poland



Romania



Russia



Slovenia



Sweden



UK

The French **Republic** signed the **FAIR Convention** on 4 October 2010 in Wiesbaden, Germany, and declared its contribution to the FAIR construction to be 27 Million Euros (2005 prices).

Two French research institutions, the National Centre for Scientific Research (**CNRS**) and the French Alternative Energies and Atomic Energy Commission (**CEA**), each hold half of the French shares, which accounts for **2.6%** of the total FAIR shares.

With its participation in FAIR, **France enables its scientific community the access** to a high-end research infrastructure with a research potential complementary to that of the French low energy accelerator project SPIRAL2 .

Since many years, French scientists in CNRS, CEA and several French universities already work in international collaborations to plan and realize FAIR.

France dedicates its participation specifically to the FAIR experiments, with a focus on the research collaboration NUSTAR. Furthermore, planning and constructing the Superconducting Fragment Separator (Super-FRS) as well as the linear proton accelerator p-LINAC will be part of the French engagement to which specialized French enterprises could contribute.

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France Construction contribution :

p-linac accelerator CNRS/CEA

dipoles of Super-FRS CEA

GLAD for R3B CEA

With a Construction contribution of Germany to SPIRAL2

France contribution to operation costs : 2%

FRANCE in FAIR Committees

FAIR COUNCIL

Fanny Farget, CNRS

Patricia Roussel Chomaz, CEA

Administrative and Finance Committee of FAIR (AFC)

Bernard Dormy, Ministry of Education, Higher Education and Research, France

Cynthia Sayegh, CNRS

Salah Dib, CEA

In-Kind Review Board

Nicolas Alamanos, CEA

Jean-Luc Biarrotte, CNRS

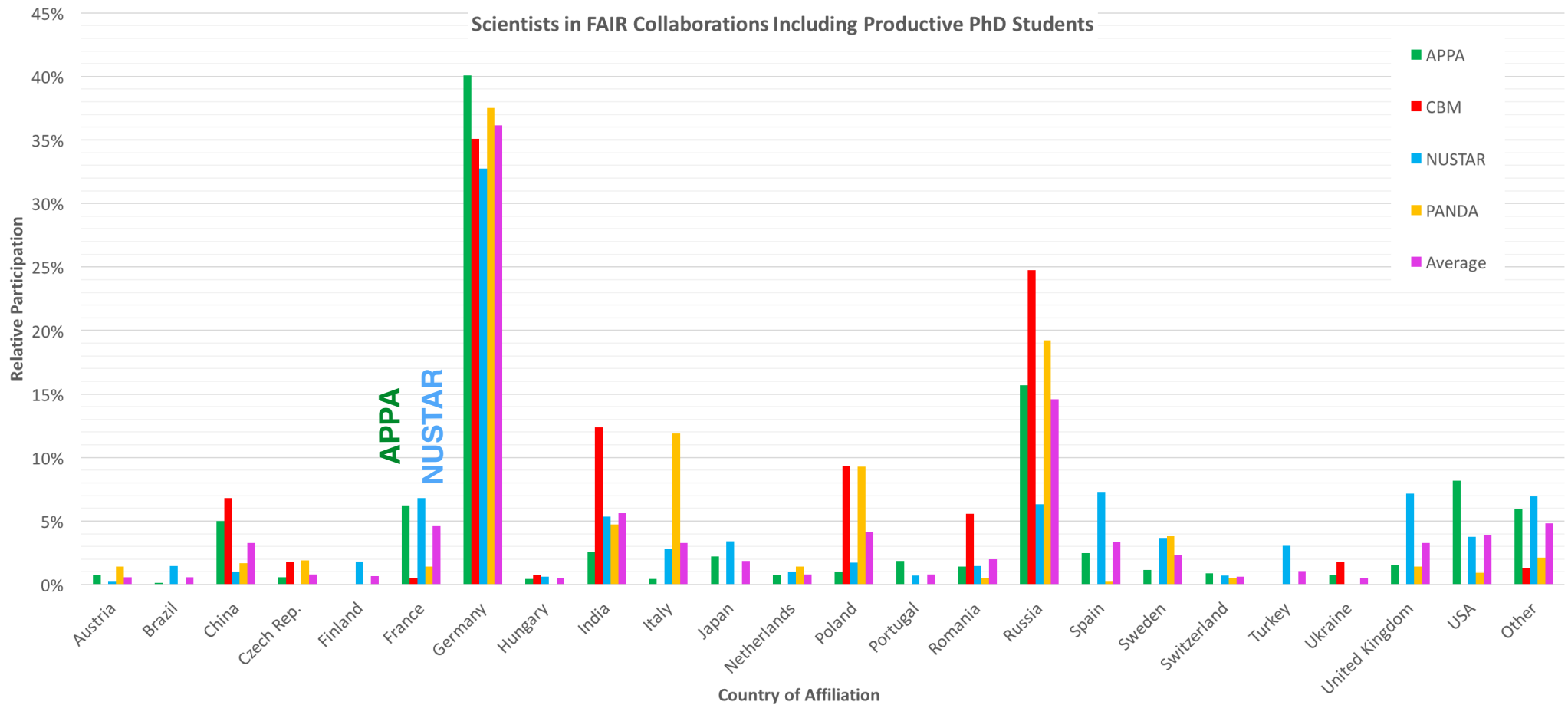
Ressource Review Board

Nicolas Alamanos, CEA

Fanny Farget, CNRS

FRANCE in FAIR experiments

~3000 physicists : 4% from France
—> More than 100 (french) physicists !



FRANCE in FAIR experiments

FRANCE in NUSTAR

	total	FAIR	secured	Eol
Belgium	154		83	71
Bulgaria	16		16	
Finland	709	709		
France	3014	2530	405	79
Germany	14825	6020	5510	3295
Hungary	15			15
India	2509	2010		499
Israel	25			25
Italy	50			50
Poland	500	500		
Romania	1823	1823		
Russia	3101	904		2197
Spain	4707		1669	3038
Sweden	2800	1575	1225	
Turkey	89			89
UK	5047	4555		492
to be assigned	6246			
total	45630	20626	8908	9850

French expression of interests
are obsolete !!

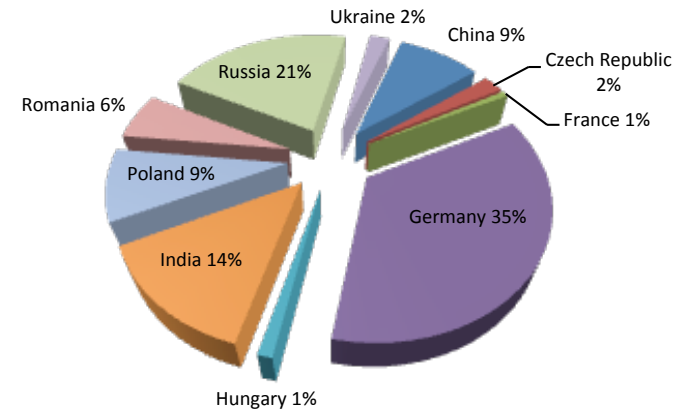
Are they in line
with the hundred physicists ?

What about the other experiments ?

FRANCE in FAIR experiments

FRANCE in CBM :

Micro-vertex Detector of CBM (IPHC)
Not a declared project of IN2P3



FRANCE in PANDA :

Participation has been stopped

Active collaboration in HADES : possible move further ?

IN2P3 @ GSI

Many bi-lateral collaborations

G. Duchene	J. Gerl	Gamma-ray detectors
B. Ramstein	Holzman	HADES
A. Chbihi	A. Lefevre	multifragmentation
B. Jurado	A. Kelic	SOFIA
B. Ramstein	F. Maas	PANDA
N. Lecesne	K. Wendt	Laser spectroscopy
J. Aichelin	Y. Leifels	Theory hyper nuclei
J. Piot	F.P. Hessberger	SHE
A. Gilbert	M. Heil	Liquid H2 target@R3B
G. Georgiev	J. Gerl	Gamma-ray detectors

GSI Program Advisory Committee Sydney Galès

From GSI to FAIR



FAIR DAYS

**Beatriz Jurado, Wolfram Korten :
France delegates @ NUSTAR RRB**

Is there a will to better invest the possible scientific programme at FAIR

Is there room for FAIR experiments to include french participation ?

How to structure a more visible and more coherent contribution ?

In presence of :

F. Farget, P. Verdier, CNRS/IN2P3

E. Lacaze CNRS/INP

N. Alamanos CEA/Irfu



FAIR DAYS

Invitation of the FAIR experiment spokespersons

C. Trautman, V. Bagnoud, Y. Litvinov : **APPA** BIOMAT, PLASMA, SPARC

F. Maas, L. Schmitt : **PANDA**

N. Kalanta, J. Gerl : **NUSTAR**

J. Stroth, W. Mueller : **CBM**

P. Giubelino : **FAIR**

Invitation to the french researchers to express their interest in the different experiments

==> Almost 70 participants !!



FAIR DAYS

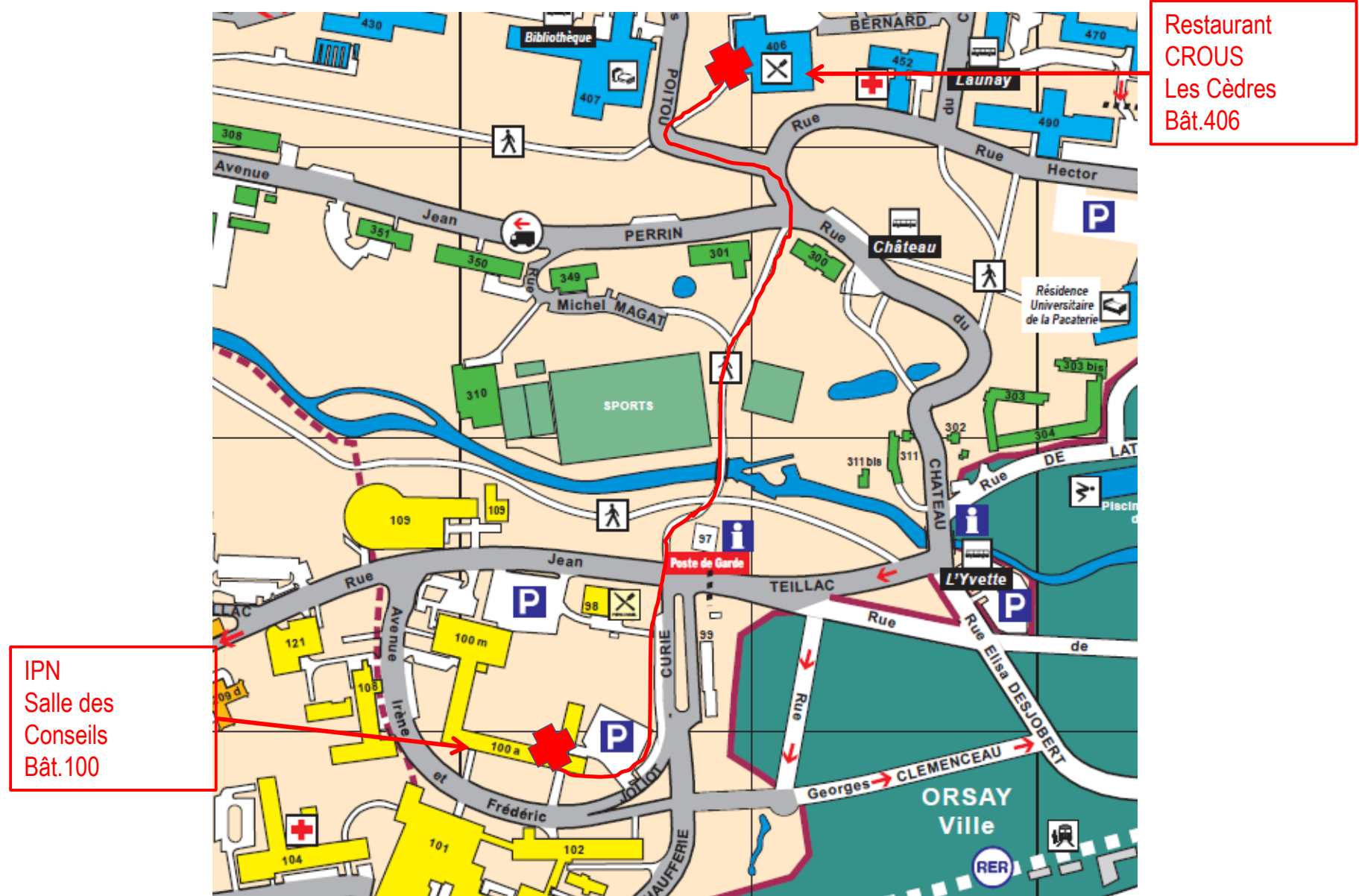
Wed. 17 May

Welcome coffee
14h-16h30 APPA
Coffee break
17h-18h30 PANDA

Thurs. 18 May

8h45-9h50 Status of FAIR
9h50-10h35 NUSTAR
Coffee break
11h-13h NUSTAR
Lunch
14h15-15h35 CBM
Coffee break
16h-17h Discussion

Lunch on Thursday





FAIR DAYS

Thank you

B. Jurado, W. Korten for organisation

IPNO Orsay for hosting

M. Guidal, V. Frois, P. Pichot

FAIR delegates

All participants for a fruitful discussion !



FAIR DAYS

Objectives : inform

- the french community about status, opportunities @ FAIR
- the FAIR experiments spokespersons of the scientific motivations of french researchers



FAIR DAYS

These days and the number of participants are a demonstration of the enthusiasm of the french community for the FAIR facility.

As France is an owner of FAIR:
it is probably of its interest to have a significant and valuable scientific activity in FAIR.

—> How to build it ?

1st condition : scientific interest

—> french scientists with the pillars/experiments responsible to propose specific collaborations

This is the aim of these days : brainstorm, informations from FAIR



FAIR DAYS

Significant activity in GSI :

SHE, Nuclear reactions (SOFIA, Nuclear structure with ALADIN and LAND, ...) Atomic physics, HADES, ...

—> We are already actors of phase0

Is there a will to better invest the possible scientific programme at FAIR

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FAIR DAYS

How to structure a more visible and more coherent contribution ?

- coherent programme on fission(R3B, CRYRING)
- diverse programme on NUSTAR
- clear programme on HADES/CBM

— Needs more strength (national cohesion)

- collaboration with other institutes (INP,..) who finance the interdisciplinary programmes

Collaborative detectors (AGATA, NEDA, MONSTER) are a way to enhance scientific contributions

Strategy to protect and maintain our involvement in our own national facilities.
Collaboration/synergies may enrich the physics cases.