"European Nuclear Science and Applications Research 2"

(ENSAR2)

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on behalf of the
ENSAR management group and ENSAR2 SSC

NuPECC Meeting

11-12 October 2013

Kraków, Poland

EC Consultation

In July 2012, the EC started a consultation process in the framework of Horizon 2020:

"This consultation is organised in order to prepare future EU activities supporting the integration of and access to existing national research infrastructures."

"The aim of these activities is to provide a wider and more efficient access to, and use of, the research infrastructures existing in EU Member States, Associated Countries and at international level when appropriate."

"Provide the users of research infrastructures with a harmonised, improved and optimised access to the best research infrastructures in a given field."

"Increase the potential for innovation and technology transfer of the related research infrastructures, in particular by reinforcing the partnership with industry…"

Response

ENSAR responded in October 2012. The ENSAR2 proposal aims at:

- **Supporting the access costs to the research infrastructures at the highest possible level and >> than the few % of real operational costs today**
- **Supporting the scientists, especially the young researchers, participating in experiments at these infrastructures**
- **Supporting the novel instrumentation and theory developments leading to strong improvements of the research infrastructures through Joint Research Activities**
- **Supporting the synergy of the community and promoting and facilitating the use of the research infrastructures through Networking Activities**

FP8 Selected projects February 2013: ENSAR2

Physical Sciences:

Acronym	Topic title
PHY01	Integration of research infrastructures for particle accelerator science and technology
PHY02	Advanced infrastructure for detector development for future High Energy physics projects at accelerators
PHY06	Advanced Radio Astronomy in Europe
PHY08/PHY09	European Gravitational Wave Infrastructures Integration (including atom interferometry techniques)
PHY10	European Laboratory Astrophysics
PHY11	European Virtual Observatory
PHY13	Integrated Activities for High Energy Astrophysics Domain
PHY15	Optical-Infrared Coordination Network for Astronomy
PHY16	European Network for Solar Physics
PHY17	European Nuclear Science and Applications Research
PHY18	European Planetary Science Network
PHY19	Integrating activity in the domain of underground science

ENSAR & ENSAR2

- **ENSAR started on Sept. 1, 2010**
- **End of the ENSAR project August 31, 2014**
- **Pre-proposal for ENSAR2 as response to the EC consultation by October 2012**
- **In February 2013, ENSAR2 came on the short list of the EC to be targeted for a call.**

We asked the community to help in the preparation of the ENSAR2 proposal (in particular suggestions for NAs and JRAs).

Preparation of FP8 ENSAR2

- **Creation of the Scientific Steering Committee with representatives of ENSAR2 TNA facilities and experts of their scientific fields: beginning of March 2013**

ENSAR Scientific Steering Committee (SSC)

ENSAR	**Muhsin N. Harakeh**	**Ketel Turzó**
CERN/ISOLDE	**Maria Borge**	**Karsten Riisager**
CNRS/ALTO	**Faiçal Azaiez**	**Wolfram Korten**
COPIN/IFJ-HIL	**Adam Maj**	**Krzysztof Rusek**
ECT*	**Wolfram Weise**	**Paul-Henri Heenen**
GANIL	**Marek Lewitowicz**	**Martin Freer**
GSI	**Jürgen Gerl**	**Lola Cortina Gil**
IFIN-HH	**Livius Trache**	**Norbert Pietralla**
INFN/LNL-LNS	**Rosa Alba**	**Suzana Szilner**
JYU	**Rauno Julin**	**Rolf-Dietmar Herzberg**

Preparation of FP8 ENSAR2

- **Call for new ideas: deadline on April 15, 2013**

  42 new ideas received

  14 Networks

  27 Joint Research Activities

  1 Transnational access to AGATA

- **Presentation of new ideas during ENSAR Town Meeting, Warsaw, Poland – June 17 to 20, 2013**
- **October 2013: ENSAR 2 proposal well advanced.**
- **We are ready for the 1st HORIZON2020 call**
  - **Work packages will be ready by beginning 2014**
  - **SSC meeting and presentations of WPs**

ENSAR2 New Ideas - 1

After a 2-step selection:

- **10 TNA**
- **7 JRA**
- **10 (+1?) NA**

EC financial contribution request: ≥ 15 M€

- **Transnational Access Activities: ≤ 50%**
- **Joint Research Activities: ≥ 35%**
- **Networking Activities: ≥ 15%**

ENSAR2 New Ideas - 2

TNA

- GANIL (France)
- GSI (Germany)
- LNL / LNS (Italy)
- JYFL (Finland)
- ISOLDE – CERN (Switzerland)
- ALTO – CNRS (France)
- KVI (The Netherlands)

NEW
- SLCJ-HIL / IFJ PAN (Poland)

NEW
- ELI-NP / IFIN-HH (Romania)

NEW
- ECT* (Italy)

ENSAR2 New Ideas - 3

JRA

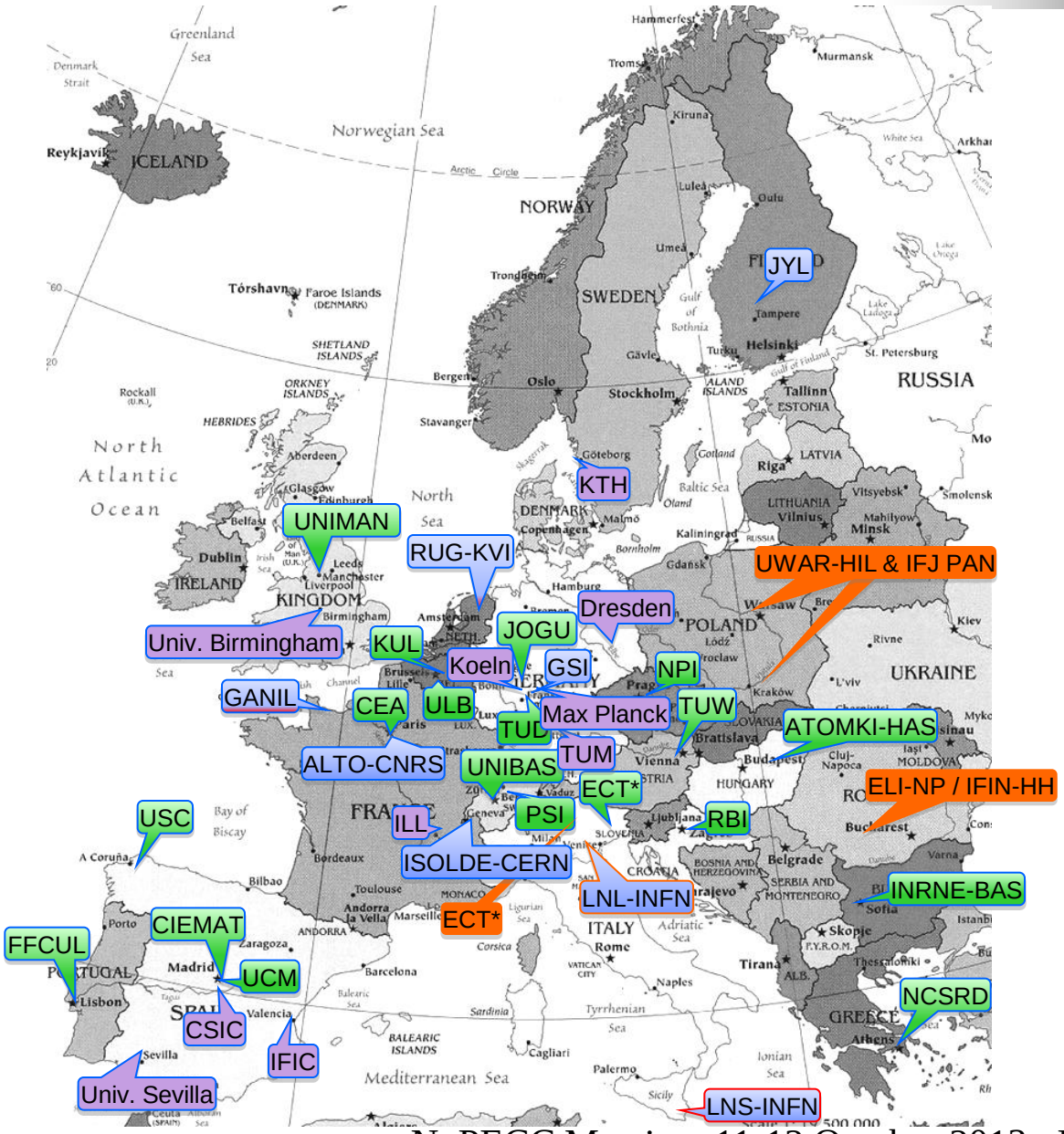
- AGATA detector + applications
- Theory (Nuclear Structure & Reactions)
- ECOS: stable ion beams + medical isotopes
- EURISOL facility (all stages)
- RESIST: resonant ionization techniques for separators
- PASPAG-SEE: particle and gamma detection
- SiNuRSE2: simulations

ENSAR2 New Ideas - 4

NA

- **FISCO: FInancial and Scientific COordination NA**
- **ASTARTE: advancement of radiation therapy detectors**
- **NucApp: applications (+hadrontherapy?)**
- **FULN: Fundamental Understanding of Light Nuclei**
- **ENSAF: small scale accelerator facilities**
- **HiCONS: High Complexity nuclear structure**
- **GDS: Active targets (TPC gaseous detectors)**
- **MIDAS: ECR ion sources**
- **Precision tests of FIS**
- **Advanced electronics network**

Partners of ENSAR2



7 ⇒ 10 TNA Facilities

30 ⇒ 40 beneficiaries
≥ 18 countries

Community: 2700-3000 scientists and highly qualified engineers

Close collaboration with infrastructures outside Europe:

Japan: RIKEN & RCNP
China: IMP Lanzhou
United States: NSCL & ANL
Canada: TRIUMF
South Africa: iThemba

Project Call

- **Call 2 - Integrating and opening research infrastructures of pan-European interest (Draft 18-9-2013)**

H2020-INFRAIA-2014/2015 *Integrating and opening existing national and regional research infrastructures of pan-European interest*

Physical Sciences - Advanced Communities

Research infrastructures for nuclear physics. This activity aims at furthering the integration of, and access to, the key research infrastructures in Europe for studying the properties of exotic nuclei or of nuclear matter at extreme conditions.

- **ENSAR2**

→ Open and interconnected science and engineering for academia and industry

→ Improvement of access, of cooperation, of services

- **ENSAR2 partners have already prepared the proposal**
- **We are ready for the 1st HORIZON2020 call**

Questions to be asked on 14 October (Draft 4-7-2013)

Deadline of September 15th, 2014 for 1st call?

Budget boundaries? (Listed 39 projects; total budget: ?? M€)

Use of old forms?

Prolongation of ENSAR?

TNA ELI, NUSTAR?

ECT*
Access to ECT* through ENSAR2 and HadronPhysics projects?

NucApp
One super network on applications?
Separate networks (NucApp + Hadrontherapy)?

Thank you for your attention