

*Coordination of European efforts to exploit up-to-date neutron beam technology  
novel research on advanced concepts for nuclear fission reactors  
and the transmutation of radioactive waste.*

## **Transnational Access to Large Infrastructures**

Consortium of all relevant nuclear data facilities in Europe

Pool of 2500 hours of beam time for experiments in 36 months

01.12.2010 – 30.11.2013.

Competence building of young scientists

## **Scientific support of experiments**

10 scientific visits (up to 8 weeks each) at the participating institutes

## **Communication and dissemination of results**

4 scientific workshops at Dresden, Prague, Jyväskylä, Geneva

[www.erinda.org](http://www.erinda.org)

# ERINDA Objectives

- Establish access for **nuclear data measurements** at the consortium facilities
- Experiments shall account for nuclear data requests of highest priority and scientific value
- **Simulation methods** to predict the running conditions of innovative reactor systems and the transmutation of nuclear waste.
- Generation of complete, accurate and consistent **nuclear data libraries** and measured nuclear reaction cross sections.

# ERINDA Facilities

## 15 ERINDA Partners:



### 1. Time of flight facilities for fast neutrons:

- nELBE (HZDR, Dresden); n\_TOF (CERN, Geneva); GELINA (IRMM, Geel)

### 2. Charged-Particle Accelerators

- production of quasi-monoenergetic neutrons electrostatic accelerators at Bordeaux, Orsay, Bukarest, Dresden
- Neutron reference fields at PTB Braunschweig, NPL Teddington
- Cyclotrons at Rez, Jyväskylä, Oslo, Uppsala neutron energy range up to 180 MeV
- Pulsed Proton Linear Accelerator at Frankfurt

### 3. Research reactor

- Budapest, Rez cold neutron beam, PGAA

# ERINDA results

Nuclear data measurements for:

- optimisation of existing power plants  
design and operation of advanced reactor systems 68 %  
nuclear waste management strategies and transmutation
- advancing nuclear safety and security 26 %
- development of new experimental techniques 6 %

Performance Indicators:

**25** Experiments    **2876** beam time hours

**109** Participants    **21** young researchers

**18** scientific visits to ERINDA institutes ( average duration 40 days)

**4** scientific workshops at Dresden, Prague, Jyväskylä, Geneva

**33** publications in refereed journals (status: September 2013)

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# ERINDA thank you on behalf of the MB

- A project is only as good as its participants
- THANK YOU to all ERINDA Partners, Experimenters and scientific visitors for their excellent contributions and collaboration.
- See you all at CHANDA