

# ERF challenges and opportunities

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# ERF presentation

- ▶ Free association based on a mutual agreement
- ▶ Members are European national large scale facilities
  - Centered on providing analytical tools for characterization of matter in all its forms, based on the exploitation of large equipments derived from Physics (synchrotrons, neutron or ion sources, lasers, ...) ;
  - Most are single sited ;
  - Providing free access after peer review of proposals to national and international users.
- ▶ The mission of ERF
  - To promote dialogue and concerted actions between national large scale facilities on key common issues, such as access modalities and financing, staff mobility, energy cost, EU framework programs, etc.
- ▶ Members
  - BNC Budapest (H), DESY (D), Elettra (I), FOM (NL), FRM-II (D), GANIL (F), GSI (D), HZB (D), LNCMI (F), MAX-lab (S), MBI (D), PSI (CH), SOLEIL (F), STFC (UK), LLB (F)

# Place of the RIs in the ERA

- ▶ One of the 5 pillars of the ERA
- ▶ About 600 (RI survey 2007)
  - 80 of them represent 80% of the budget
- ▶ Operation budget ~30b€/y (inc. 4b€ re-investment)
- ▶ 25.000 to 28.000 operating staff
- ▶ More than 1M users/y
  
- ▶ FP8 preparation
  - innovation Union : RIs at the center of the knowledge triangle
  - ESFRI programmes requires to group cutting-edge skills
  - cornerstone of territorial challenges
    - ▶ regions ↔ nations ↔ Europe

# Challenges

- ▶ Access to the facilities
  - only peer review–based ?
- ▶ Funding of the services
  - public resource
  - industrial access
  - research centers as a whole ?
- ▶ Career development
  - mobility
- ▶ Operation costs vs fixed budgets
  - energy savings
- ▶ Evaluation
- ▶ Instrumentation developments and technology transfers
- ▶ Environmental impacts

# Individual career development

- ▶ All jobs are concerned (researchers, engineers, professionals, administrators)
- ▶ Challenge: keep the skills in !
- ▶ Service or research oriented ?
- ▶ Cutting-edge technologies require cutting edge skills
- ▶ One RI = 1 SME → group SMEs !
- ▶ Ease and get the mobility flowing
  - Modern HR management rules
  - At the European level
  - Attract foreign talents

**Session 1 : modern HR management practices**

# At the European level

- ▶ Mobility for the holders of knowledge is a very old tradition in Europe (from Middle-Age until now, including Einstein, writers and biologists)
- ▶ Worldwide investment in RIs is at the cornerstone of economic competition (but developing countries - BRICS - are getting equipped !)
- ▶ Europe still benefits from an indisputable attraction to foreign talents (for how long ?)
- ▶ RIs – in particular the ESFRI projects – represent a major generator of young skills and fresh innovations
- ▶ Pan-European researcher status just in time ? But when ? Should we propose alternative temporarily actions ?

## Session 2 : European regulations

# Motivation

## Interest in science or else ?

- To be at the limits of science and technology is definitely an exciting challenge!
  - designing the 2020 machines !
- Tough counterpart: to manage 2 « quite schyzophrenic » challenges:
  - access service and in-house research
  - day-to-day operation and far reaching and exciting projects
- HR challenge: attract and keep the skills in !
- Very diverse individual motivation
  - capacity building (learning and training)
  - new responsibilities (autonomy, management)
  - financial and family situations

### Session 3 : obstacles to mobility

# ERF seminars

- ▶ Original events gathering about hundred participants
- ▶ Overview of the current best practices
  - real time benchmarking ?
- ▶ Conclusions are translated into position papers
  - In line with other pan-European initiatives (survey, middle-range RIs, new FP instruments for FP8, etc)
- ▶ Regularly re-examined by the ERF Board
- ▶ **Next « rendez-vous » in Hamburg ?**
  - **« Energy for Large Research Infrastructure » (fall 2011)**
  - **in continuation to the “Symposium Solar Energy for Science” hosted by DESY 19/20 May 2011 ?**