Welcome
to the workshop

ESRFUP-WP7 User Single Entry Point

The ESRF Upgrade and ESFRI

The **E**uropean **S**trategy **F**orum on **R**esearch **I**nfrastructures

- Launched in 2002
- 35 major "big-science" projects identified
- The upgrades of ILL and ESRF are part of them
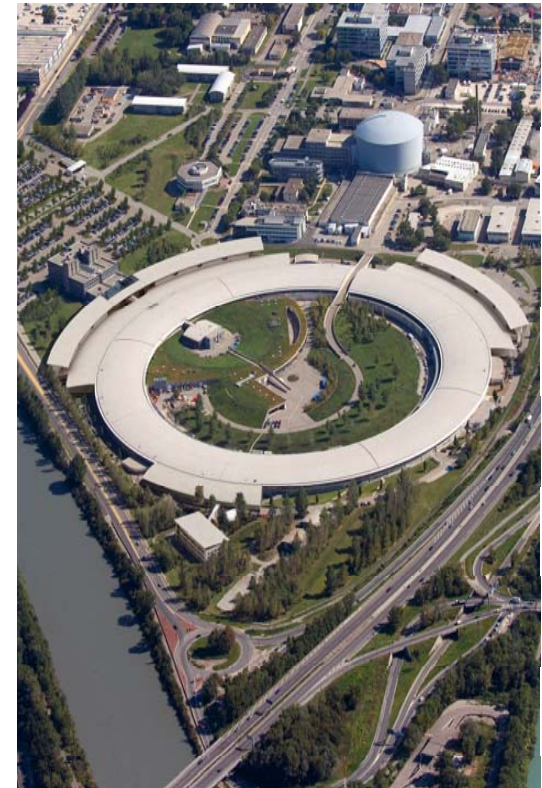- 150 M€ "preparatory money" allocated

ESRFUP

- The ESRF obtained 5 M€ to prepare the ESRF Upgrade
- The "ESRFUP" project started on Oct. 15th 2007

What is ESRFUP ?

13 Work Packages to prepare the ESRF Upgrade Programme

- WP1 – Contract Management
- WP2 – Architect Competition and design report
- WP3 – Upgrade Publicity
- WP4 – User Meetings and Workshops
- WP5 – Preparation of Technical Design Reports
- WP6 – Detector Strategy
- **WP7 – User Single Entry Point to ESRF and ILL**
- WP8 – Optimisation of Beamline Capacity
- **WP9 – New Scientific Management Information System**
- WP10 – Automation projects
- **WP11 – EGEE Grid study**
- WP12 – Joint High Magnetic Field Facility
- WP13 – Radiofrequency Cavity study

SEVENTH FRAMEWORK PROGRAMME

ESRFUP – WP7

WP7 – User Single Entry Point to ESRF and ILL

- Duration 24 months, started in March 2008

The study will:

- report on the impact and benefits of a single user entry point

- assess which scientific areas could benefit most and which could be promoted with joint applications for experiment time both at ESRF and ILL

- assess the practical issues effecting the operation of a single entry point

- if the overall impact is positive, propose a working structure and methodology for a single entry point system

ESRFUP – WP9

WP9 – Feasibility of a new Scientific Management Information System

- Duration 18 months, started in March 2008

The study will:

- Report on the existing software packages and their functionalities at the ESRF and national SR laboratories
- Evaluate suitability for the ESRF
- Report on tools, technologies and methods used
- Produce the specification of a generic, standard and flexible information system for the scientific user community. The document will describe in detail the implementation of such software at the ESRF (in eventual collaboration with other institutes)

ESRFUP – WP11

WP11 – EGEE Grid Study
- Duration 18 months, starting mid 2008

The study will:
- Build up expertise on **gLite** and the **Globus Toolkit** software, participate in EGEE training events
- Organise a workshop bringing together computer experts and key users
- Discuss with possible partners (Eiroforum members or national SR laboratories) in Europe for the creation of a Synchrotron Radiation Virtual Organisation (VO)
- Specify the future user management system based on **Grid credentials**
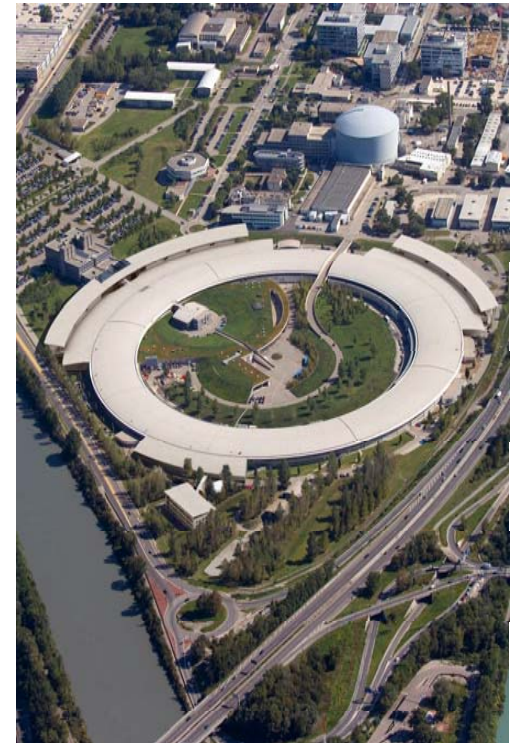- Train interested scientists, get feedback for future requirements

The test bed installation will:
- Dedicate computers and storage resources to EGEE at ESRF and in two other partner laboratories
- Adapt one or two resource intensive applications, e.g. tomography volume reconstruction, as test and show cases
- Demonstrate data replication mechanism between the partners
- Test credential management

UP Computing Projects

- An important component of the UP instrumentation and computing: collaborative projects with other facilities
- Why?
  - Create synergy, join forces, learn from others
  - Avoid duplicate/parallel developments
  - Create compatible environments
  - Allow for cross facility experiments
- For what?
  - Data management
  - GRID
  - Software developments
    - Control system
    - Instrumentation
    - Data analysis

SEVENTH FRAMEWORK PROGRAMME

FP7 proposal ELISA – JRA VEDAC

« **Creation of a Virtual European Data Analysis Centre for Photon Science, bringing together software developers of European SR and XFEL labs for the creation of common tools and analysis programs, to work on the most pressing problems created by data intensive X-ray detectors** »

Common data format and format converters between laboratories

Definition of a common software architecture

Common software repository

Join EGEE, create VO for photon science

Two case studies to be built on top of the common structure:

      1. Processing imaging and SAXS data

      2. on-line processing to tomography data

FP7 proposal EDNS

European **D**ata Infrastructure for **N**eutron and **S**ynchrotron Sources

Focusing on data catalogues

- Cross facility
- Cross discipline
    - Experimental and derived data
        - Common file formats
        - Metadata definitions
    - Common user data base
    - Common publication data base
    - Common data analysis software repository
    - Use Grid tools to establish and interact with the catalogues

Working together for the benefit of Science

- Interoperability between laboratories is of increasing importance
- Many of our users do their research in more than just one facility
- WP7+9+11, VEDAC, EDNS will all require authentication of users
- It is time to think of a pan European Neutron and Photon Science user database
- …to allow the streamlining of the whole process from the proposal to publication

- Computing has a major role to play to make interoperability happen:
  - for the benefit of the scientists
  - for the benefit of our communities

Thank you for participating in this workshop!

European Synchrotron Radiation Facility

ESRF