

Welcome to the workshop ESRFUP-WP9

“Feasibility Study for a European Virtual User Office”



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

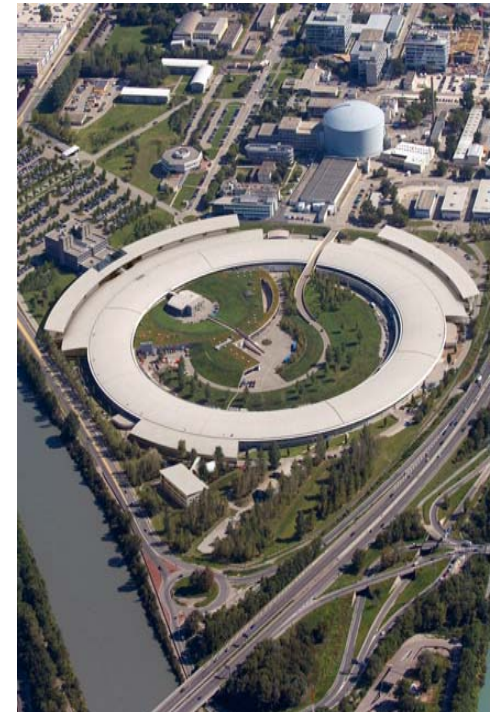
- The ESRF obtained 5 M€ to **prepare** the ESRF Upgrade
- The “ESRFUP” project started on Oct. 15th 2007



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



ESRFUP – 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 – WP7

Current status:

- Workshop took place May 2008, involving colleagues from the ILL and ESRF and many participants from various European labs.
- The overall feeling is that the ILL and ESRF should have a unique user entry point and streamline operation.
- A larger discussion for the establishment of a European User data base took place.
- Detailed design study now underway.,



ESRFUP – 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

EGEE Grid Study

- Duration 18 months, starting mid 2008

The study will:

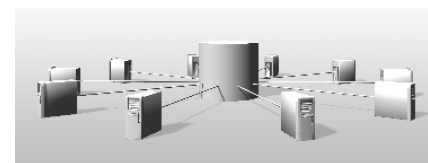
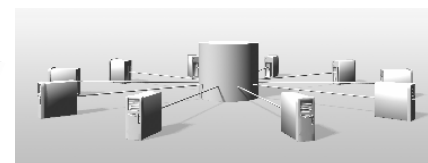
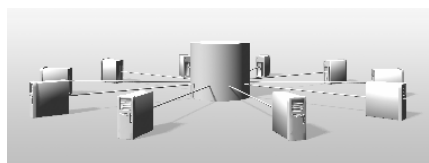
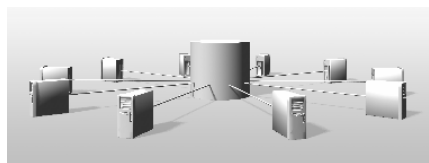
- Build up expertise on **gLite** and the **Globus Toolkit**
- Organise a workshop with experts and key users
- Create a VO (Virtual Organisation) for Synchrotron Radiation
- Specify the future user management system based on **Grid credentials**
- Train interested scientists, get feedback for future requirements

The test bed installation will:

- Dedicate Grid hardware to two partner laboratories
- Adapt one or two resource intensive applications
- Demonstrate data replication mechanisms and test credential management



ESRFUP – WP11



ESRFUP – WP11

Current status:

- VO “xray” has been created
- A testbed installation at the ESRF is almost up and running
- Hardware for partner labs is ready to be shipped
 - Storage
 - Compute elements
 - Grid servers
- The impact of the integration of Grid services into the existing infrastructure is carefully studied



FP7 proposal ELISA – JRA VEDAC

« Creation of a **V**irtual **E**uropean **D**ata **A**nalysis **C**entre 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

VEDAC will **not** receive funds now following a major budget cut of the ELISA proposal



FP7 proposal EDNP



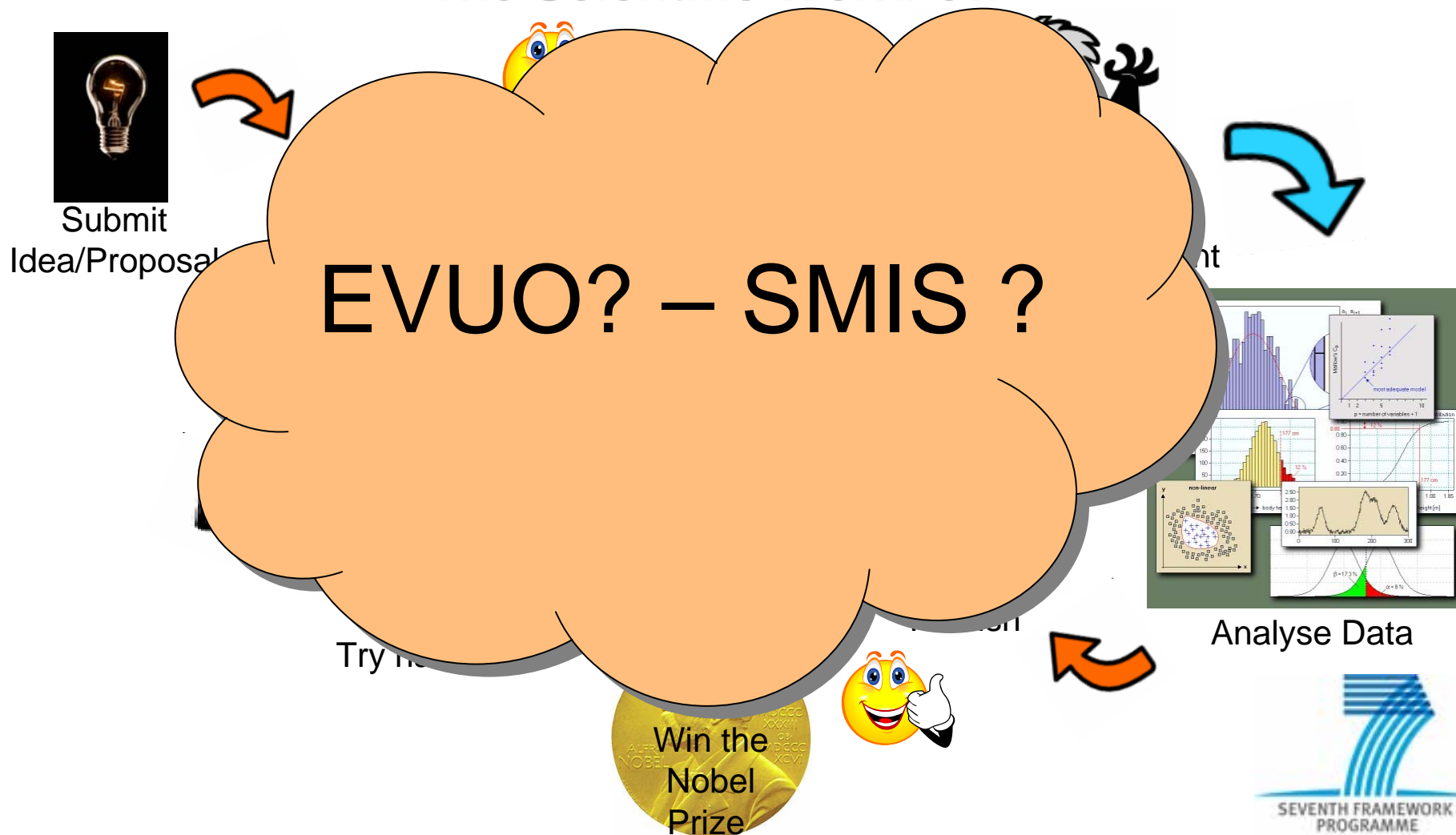
European **D**ata Infrastructure for **N**eutron and **P**hoton Sources

Focusing on **data management tools** to:

- Manipulate large data sets
 - Standardise data formats and annotation of data
 - Allow transparent and secure remote access to data
 - Establish sustainable and compatible data catalogues
 - Allow long term preservation of data
 - Provide compatible open source data analysis software
- Current Status: a decision is expected for mid January 2009



Back to ESRFUP – WP9 The Scientific Workflow



Back to ESRFUP – WP9

The SMIS should help our users in
every step of the scientific workflow:

from the proposal to the publication



Working together for the benefit of Science

- Sharing developments becomes mandatory
- Interoperability between laboratories is of increasing importance
- Users often do their research in more than one facility
- WP7+9+11, VEDAC, EDNP all require authentication of users
- Time to think of a pan European user database
...as a starting point for other functionalities
- 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 active participation in this workshop!

