

The DERri Project: a short presentation

Milan – June 16th 2010

DERri Project

Distributed Energy Resources Research Infrastructure (n.228449)

FP7, Capacities, Research Infrastructures

INFRA-2008-1.1.2.20: for research on Smart Energy networks, to develop advanced electricity networks architectures and/or for testing of power components.

Start date: September 1st, 2009

Duration: 48 months

What is DERri?

- A Consortium of excellent Research Infrastructures with the main objective of supporting the sustainable integration of Renewable Energy Sources (RES) and Distributed Energy Resources (DER) into the Power Electric System by developing common requirements and international standards and quality criteria, as well as proposing test and certification procedures.
- The main focus of the project is the Transnational Access, that is the opportunity, offered to Researchers Groups, of using free-of-charge selected experimental installations for making tests in the Distributed Energy Resources field.

Networking Activities

- **NA1: Management of the Transnational Access**
- **NA2: Installation of an electronic network**
- **NA3: Set up a user support service**
- **NA4: Information and dissemination**

Apart from NA1, the other NAs are designed to facilitate easy communication between the project partners, users, practitioners and public stakeholders.

Joint Research Activities

➤ JRA1

The establishment of a virtually unique demonstration laboratory with testing equipments linked with a single communication protocol.

➤ JRA2

It aims at clarifying the performance criteria and the associated characterisation methods for DER components to be connected to smart electricity grids, focusing on storage systems and large-scale RES inverters.

➤ JRA3

To establish a specialised test facility for hardware-in-the-loop simulation of power systems and components, allowing the grid operators to gain answers on system questions in regard to safety functions, grid management, security of supply and quality of supply.

The JRAs have the double aim of improving the access of users to the research facilities, but also of developing further synergies and complementary capabilities between the partners

Overview of the Consortium

The core is made by the partners of the Network of Excellence (FP6) DERlab, complemented with some important laboratories.

It includes the most representative European facilities in the DER field.

15 Partners

13 Research Infrastructures

12 EU countries represented



The Partners of the Consortium

No.	Organisation name	Short name	Country
1	ENEA – Ricerca sul Sistema Elettrico S.p.A. (co-ordinator)	ERSE	IT
2	Österreichisches Forschungs- und Prüfzentrum Arsenal Ges.m.b.H	AIT	AT
3	Commissariat à l'Énergie Atomique	CEA	FR
4	Centre for Renewable Energy Sources	CRES	EL
5	Groupe EDF	EDF-SA	FR
6	Fraunhofer Institut fuer Windenergie und Energiesystemtechnik IWES Standort Kassel	IWES	DE
7	KEMA Nederland B. V.	KEMA	NL
8	Fundación LABEIN	TECNALIA-LAB	ES
9	National Technical University of Athens	ICCS-NTUA	EL
10	RISØ National Laboratory	RISØ-DTU	DK
11	Technical University of Lodz, Institute of Electrical Power Engineering	TU Lodz	PL
12	Technical University of Sofia - Research and Development Sector	TUS-RDS	BG
13	Technical Research Centre of Finland	VTT	FI
14	University of Strathclyde	USTRAT	UK
15	The University of Manchester	UNIMAN	UK

DERlab Project

European Network of Excellence of DER Laboratories and Pre-standardisation

European Network of Excellence (NoE) of independent laboratories, working in the area of the integration of distributed energy resources (DER) into electricity grids and the preparation of related standards and test procedures.



DERlab

Start date: November 1, 2005

Duration: 72 months

Why DERri ?

Why is it essential a Research Infrastructure in the DER (Distributed Energy Resources) field and what are its features?

- One structure joining the different facilities with an access mode centralized and uniform, able to direct the European researchers to the facility the most suitable to their needs.
- One structure focusing:
 - the **interfaces** among different kinds of DER
 - **architectural and system aspects.**

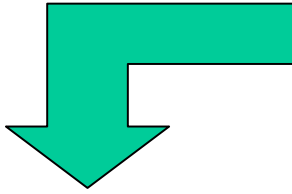
How to access DERri?



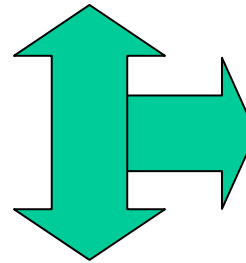
- Any users group can **propose a research Project** to be developed in a Research Infrastructure of DERRI responding to a **6-monthly** Call for Proposal.
- A **User Selection Committee** will evaluate the proposals, following the principles of transparency, fairness and impartiality and basing on a set of **technical and non-technical criteria**.
- The selected groups will access to the offered Facilities with EC financial support, i.e. **“free of charge”** to external users
- Access includes all the infrastructural, logistical, technological and scientific support and **reimbursement of travel and subsistence** costs for the users.

Main conditions for access

- The research team, or its majority, must come from **countries other** than where the operator of the infrastructure is established.
- Only research teams that are entitled to **disseminate the knowledge** they have generated under the project are eligible to benefit from research services to the infrastructure. The duration of stay at a research infrastructure is normally limited to three months.
- **Main recipients** for DERRI:
 - Universities
 - Research Centres
 - Other European Projects

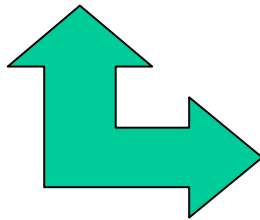


**APPLICANT
USER**



**SUBMISSION
& SELECTION
PROCEDURE**

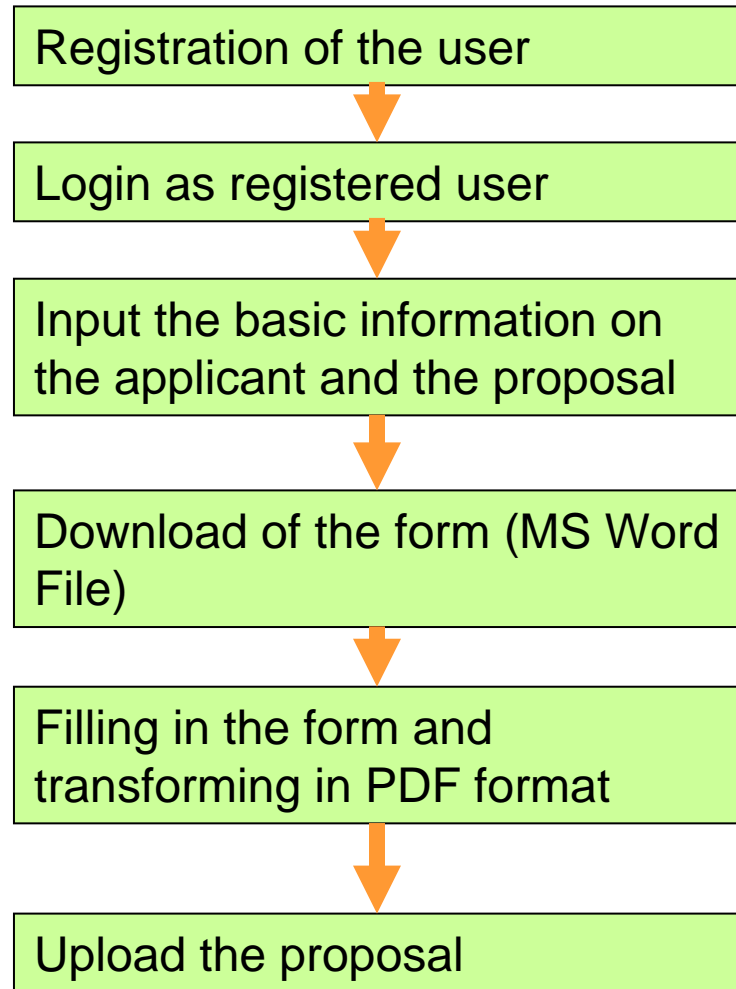
**User
Selection
Committee**



**Test Facility
Responsible**



The sequence of the application



2nd Call for application

The second Call for Application is open with deadline September 30th

**More details at the
WEB site**

www.der-ri.net

DERri and the CIM

- The CIM will be the basis for the description of the Test Facilities offered by DERri, in order to implement well defined interfaces to each Test Facility
- One of the Research Infrastructure offered is a complete CIM environment (Digi²tal of EDF-SA)

Riferimenti

- **The co-ordinator:**

Paolo Mora

**ERSE S.p.A., Power System Development
Department**

Ph.: 02.3992.4223 / 5246

E-mail: paolo.mora@erse-web.it

- **The WEB site:**

www.der-ri.net