



European Network of National Contact Points for
Research Infrastructures moving forward

Research Infrastructures for the Life Sciences

Dora Farmaki, EKT/NHRF, EuroRIs-Net+ coordinator

| Health Programme 7FP Workshop, July 5th 2012, Athens
(EKT/NHRF) |

www.euroris-net.eu

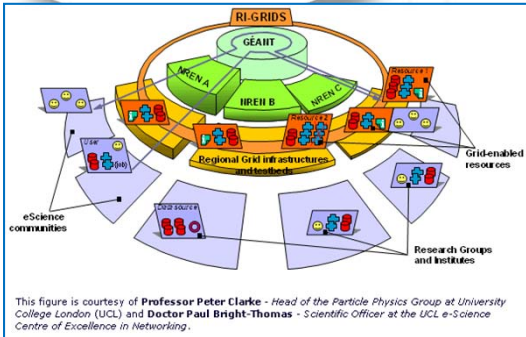


- **Research infrastructures** as instrument for scientific communities in Life Sciences
 - *Challenges from Greek participation*
- Introduction to **EuroRIS-NET+** project and services

What are research infrastructures?

- **Definition of ESFRI***
 - Facilities, resources or services – covers major **equipment** or **sets of instruments** as well as **knowledge resources** – collections, archives, databanks
 - Can be single-sited, distributed or virtual
 - Include **e-infrastructures**: structured information systems related data management, enabling information and communication; technology-based infrastructures: grid, computing, software and middleware

Definition of Research Infrastructures



Any facilities and resources that provide to the scientific community essential services needed for the performance of leading edge research in both an academic and/or industrial environment.

Research Infrastructures should be open to researchers, to the scientific community and to the Industry and cover the whole range of scientific and technological fields.



GEANT grid
 Mouse straine
 Alfred Wegener Institute for
 Polar and Marine Research Vessel
 Mobile facilities
 for in situ non-invasive measurements
 James Clerk Maxwell Telescope
 British Museums



Role of ESFRI - the European Strategy Forum on Research Infrastructures

Mission

- To support a coherent and strategy-led approach to policy-making on new and existing pan-European and global RIs
- To facilitate multilateral initiatives leading to the better use and development of Research Infrastructures, at EU and international level

Scope of the **Biological and Medical Sciences Landscape** on the **ESFRI** roadmap

- **Biological Sciences**
- **Biological Resources and Production systems**
- **Medical Sciences**

Strategy of ESFRI *is to support Europe with **excellent** infrastructures*

- *o Processes led by MS*
- *o Variable geometry*
- *o Peer review*
- *o Involvement of smaller MS by open access, Regional Partner Facilities and Structural Funds*
- **Complementarities between Integrating Activities and ESFRI projects are important as well as integration of access modalities**
- **Openness of access is essential**
- **Integrating Activities are an interesting tool for developing standards, SOPs, common data resources, etc.**

- 2010 update of the ESFRI roadmap: **13** research infrastructures identified for the Biological and Medical Sciences
- **6** related Joint Programming initiatives
- Context of the **Common Strategic Framework** for EU Research and Innovation
 - Raising the excellence of the research base and completing ERA
 - Tackling societal challenges
 - Strengthening competitiveness

Roadmap 2006

- **BBMRI*** - Biobanks
- **EATRIS*** - Translational research facilities
- **ECRIN*** - Clinical trial platform
- **ELIXIR*** – Data repositories
- **Infrafrontier*** - Mouse archives and clinics
- **INSTRUCT*** - Structural biology facilities

+ Update 2008 (In preparatory phase)

- **EMBRC** - Marine biology resources
- **ERINHA** - High-security labs
- **EuroBioImaging** – Imaging facilities
- **EU-Openscreen** - Chemical libraries

+ Update 2010 (Entering Preparatory Phase)

- **ANAE** - Analysis and experimentation on ecosystems
- **ISBE** – Infrastructure for systems biology
- **MIRRI** – Microbial resources



National Roadmaps Life Sciences *

		National Roadmaps												
		CZ	EE	EL	ES	FI	FR	IE	IT	NL	NO	RO	SE	UK
ESFRI Roadmap 2006	Biobanks and biomolecular resources, BBMRI													
	Translational research facilities, EATRIS													
	Clinical research facilities, ECRIN													
	Life Science data resources, ELIXIR													
	Mouse repositories and phenotyping centers, Infrafrontier													
	Structural biology facilities, INSTRUCT													
ESFRI Roadmap 2008	Marine biology resources, EMBRC													
	BSL4 laboratories, ERINHA													
	Chemical libraries, screening platforms, drug development facilities, EU-OpenScreen													
	Imaging facilities, EuroBiol maging													
ESFRI Roadmap 2010	Sites and experimental platforms for long-term terrestrial ecosystem research, ANAEE													
	Systems biology resources, ISBE													
	Microbial resources, MIRRI													

* *Source:*
European Commission

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BioMedBridges

Building data bridges between biological and medical infrastructures in Europe (<http://www.biomedbridges.eu/>)

The BioMedBridges consortium brings together the six established ESFRI infrastructures with common goals to define, implement and deliver data interoperability across the biological and biomedical domains

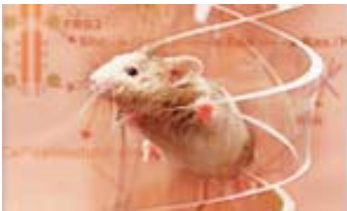
EMBL Monterotondo



EMBL Hamburg



<http://www.embl.org/>

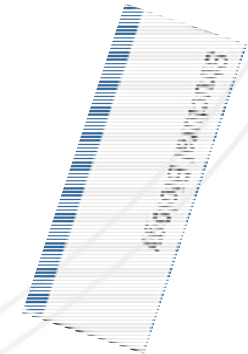


Structural Biology

EMBL-EBI Hinxton

Main Laboratory

Mouse Biology



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Greek participation in ESFRI construction & Preparatory Phase projects in Biological and Medical Sciences

INFRAFRONTIER (Functional Genomics in the mouse as a model of human disease)	BSRC Fleming - BIOMEDICAL SCIENCES RESEARCH CENTER ALEXANDER FLEMING	ESFRI Roadmap 2006
BBMRI (European Biobanking and Biomolecular Resources)	BRFAA - BIOMEDICAL RESEARCH FOUNDATION, ACADEMY OF ATHENS	ESFRI Roadmap 2006
EATRIS (European Advanced Translational Research Infrastructure for Medicine)	BRFAA - BIOMEDICAL RESEARCH FOUNDATION, ACADEMY OF ATHENS	ESFRI Roadmap 2006
EMBRC (European Marine Biological Resource Centre) *	HCMR – HELLENIC CENTRE OF MARINE RESEARCH	ESFRI Roadmap 2008
BSL4 Laboratories (European High Security BSL4 Laboratories) *	HPI – HELLENIC PASTEUR INSTITUTE	ESFRI Roadmap 2008
EUROBioImaging (European Biomedical Imaging Infrastructure) *	Associated partners: ❖ Democritus University of Thrace Biomedical Research Institute, Ioannina Biomedical Sciences Research Center "Alexander Fleming" Foundation for Research and Technology Hellenic Pasteur Institute University of Patras Biomedical Research Foundation of the Academy of Athens	ESFRI Roadmap 2008

- *Running Preparatory Phase projects*
- *GSRT provides more detailed data for Greek participation in ESFRI projects*

FP7: 18 networks (13 projects) of Life Sciences RIs

DG Research & Innovation official site on Research Infrastructures / Networks of RIs:
http://ec.europa.eu/research/infrastructures/index_en.cfm?pg=ri_projects_fp7

Greek participation

Structural Biology

EAST-NMR (<http://www.east-nmr.eu/>)

- UNIVERSITY OF PATRAS

BioStruct-X – *Greece participates through a National Consortium (Instruct-Ellas)*

Genetic control of mosquitoes

INFRAVEC (<http://www.infravec.eu/>)

- AGRICULTURAL UNIVERSITY OF ATHENS, FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS

National Hellenic Research Foundation / NHRF

partner of:

ERA-INSTRUMENTS

- **An ERA-Net initiative for promoting infrastructure funding in the Life Sciences**

<http://www.era-instruments.eu/>

FP7 contribution to Life Sciences RIs (total: ~220 M€ of EU contribution)

Genomics and proteomics research facilities

INSTRUCT, Bio-NMR, BioStruct-X, East-NMR, Pcube, ESGI, Prime-XS, eNMR, WeNMR

Imaging facilities

Euro-BioImaging, neuGRID, N4U

Biological Resource Centres

BBMRI, **EMBRC**, **EU-Openscreen**, **INFRAFRONTIER**

Assemble, EMMAservices, EMBaRC, EUPRIMnet-II, EVA, Infravec

Data resources

ELIXIR, **BioMedBridges**, **SLING**, **IMPACT**

Medical research facilities

EATRIS, **ECRIN**, **ERINHA**

ECRIN-IA, Transvac, ULICE

Food and agriculture research facilities

NADIR , AQUAEXCEL, EPPN, **transPLANT**

*Health and Ageing, Food safety, Environmentally friendly production,
Climate change*

Instruct is the dynamic hub of structural biology providing an integrated infrastructure of cutting-edge technology, scientific expertise and pioneering training. Aim: to provide strategic leadership for structural biology in Europe by promoting an integrated approach to technology and methodologies

- ❖ **Greece** participates as an **affiliated country** of INSTRUCT (prep. phase)
- ❖ A **national user group** was formed in 2008

Instruct-Ellas



12 Academic & Research Organisations

Objectives

Structural Biology to be included in the “National Priorities for Research”

Vision

Create a National Affiliated Centre, for “Structural/ functional studies towards drug design & development”

Significance

Access to Research Infrastructures

Use of specialized and state-of-the art-equipment

Reasoning

- Important research output during the last 30 years in the field
- Invest further on existing and recently obtained facilities acquired from national & EU funding
- Education & training of a large number of young scientists
- Support the profession of researcher in Greece

A National consortium has been formed by

23 PIs from 10 Academic & Research Organizations have joined efforts

Successfully attracted support by **BioStructx** for access to SR facilities

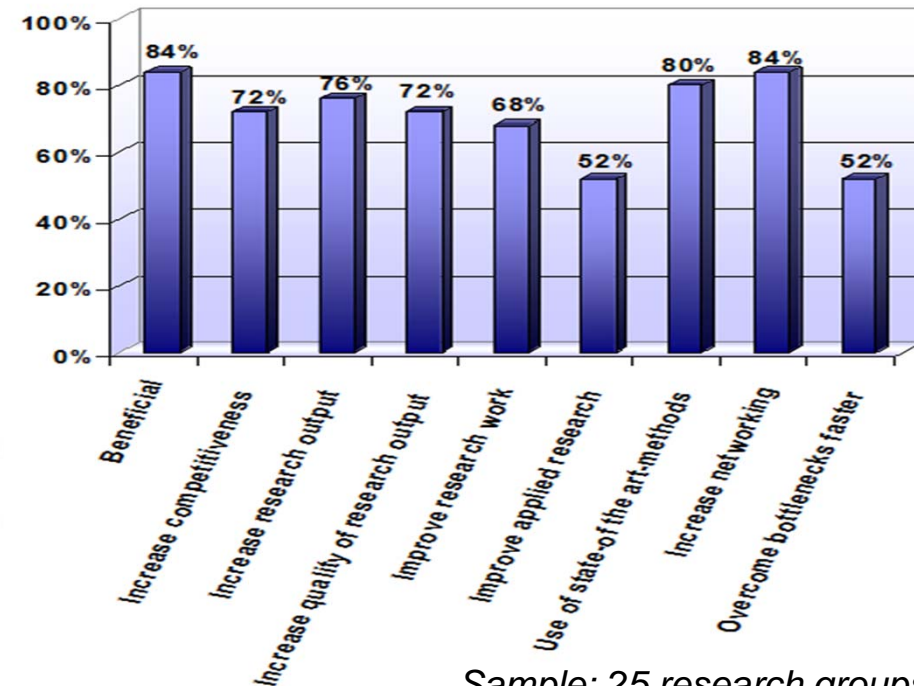
Greek scientists make every effort to ensure national participation in



Instruct-Ellas - Scientific points of contact

Prof. Constantinos E. Vorgias
 Dept. of Biology, University of Athens
cvorgias@biol.uoa.gr

Dr. Evangelia D. Chrysinia
 Inst. of Biology, Medicinal Chemistry & Biotechnology,
 NHRF
echrysinia@eie.gr



Sample: 25 research groups
 Data from feasibility study performed by Instruct-Ellas: January 2011

How to find RIs projects?

European Commission
Research & Innovation - Infrastructures

European Commission > Research & Innovation > Research infrastructures > Networks of RIs funded under FP7

PROJECTS

Networks of RIs funded under FP7

This table contains a list of Networks of RIs funded under FP7 as Integrating Activities.

Engineering and Energy

- **DERR**: Distributed Energy Resources Research Infrastructure
Project reference : 228449
[Web site](#)
- **ESWIRP**: European Strategic Wind tunnels Improved Research Potential
Project reference : 227816
[Web site](#)
- **EUMINAFab**: Integrating European research infrastructures for micro-nanofabrication of functional structures and devices out of a knowledge-based multimaterials repertoire
Project reference : 226460
[Web site](#)
- **HYDRALAB IV**: Hydralab IV deals with the complex interaction of water with environmental elements, sediment, structures and ice
Project reference : 261520
[Web site](#)
- **MARINET**: MARINE Renewables Infrastructure Network for Emerging Energy Technologies
Project reference : 262552
- **NERA**: Network of European Research Infrastructures for Earthquake Risk Assessment and Mitigation

Environment and Earth Sciences

- **ACTRIS**: Aerosols, Clouds, and Trace gases Research Infrastructure Network
Project reference : 262533
- **EUFAIR**: European Facility for Airborne Research in Environmental and Geo-sciences
Project reference : 227159
[Web site](#)
- **EUROCHAMP-2**: Integration of European Simulation Chambers for Investigating Atmospheric Processes
Project reference : 228335
[Web site](#)
- **EUROFLEETS**: Towards an alliance of European research fleets
Project reference : 228344
[Web site](#)
- **EXPEER**: Distributed Infrastructure for EXPERimentation in Ecosystem Research
Project reference : 262960
- **INCREASE**: Integrated Network on Climate REsearch Activities on Strubland Ecosystems
Project reference : 227628
[Web site](#)
- **INTERACT**: International Terrestrial Arctic Collaborative Network Integrating Activities
Project reference : 262662

European Commission
ICT Research in FP7

European Commission > CORDIS > FP7 > ICT > e-Infrastructure > Projects

e-Infrastructure

Projects

FP7 projects

Call 5 | Call 4 | Call 2 | Call 1

CALL 2

DISTRIBUTED COMPUTING INFRASTRUCTURE

Registration number	Acronym	Title	Fact sheet
RI-261323	EGI-InSPIRE	European Grid Initiative: Integrated Sustainable Pan-European Infrastructure for Researchers in Europe	
RI-261611	EMI	European Middleware Initiative	
RI-261556	EDGI	European Desktop Grid Initiative	
RI-261560	IGE	Initiative for Globus in Europe	
RI-261552	StratusLab	Enhancing Grid Infrastructures with Virtualization and Cloud Technologies	
RI-261565	Venus-C	Virtual Multidisciplinary Environments Using Cloud infrastructures	

DG INFSO:

http://cordis.europa.eu/fp7/ict/e-infrastructure/home_en.html



Swiss Federal Institute of Technology

DG R&I :
http://ec.europa.eu/research/infrastructures/index_en.cfm?pg=ri_projects_fp7

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EuroRIS-Net+

European Network of National
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www.euroris-net.eu





Fact Sheet

Project acronym: **EuroRIs-Net+**

Contract n°: **RI-283663**

Project type: **CSA-SA**

Start date: **01.10.2011**

Duration: **24 months**

Total budget: **1,199,043 €**

EC Funding: **949,984 €**

Project participants:

**EKT NHRF (GR), FFG (AT), APRE (IT), IPPT-PAN (PL), Euresearch (CH), SU (BG),
STIS/BELSPO (BE), DST (ZA), TUBITAK (TR), MATIMOP-ISERD (IL), CNRS (FR), MCST
(MT), MINECO (ES), BELISA (BY), ICIT (RO), NIH (HU)**

Collaboration sought with other EC funded projects:

SEERA-EI, PAERIP, MERIL, e-FISCAL, eNVENTORY & other NCP networks

Web site: www.euroris-net.eu

To contact the project: riwp1@ekt.gr

A comprehensive Knowledge Repository on Research Infrastructures (incl. e-Infrastructures)

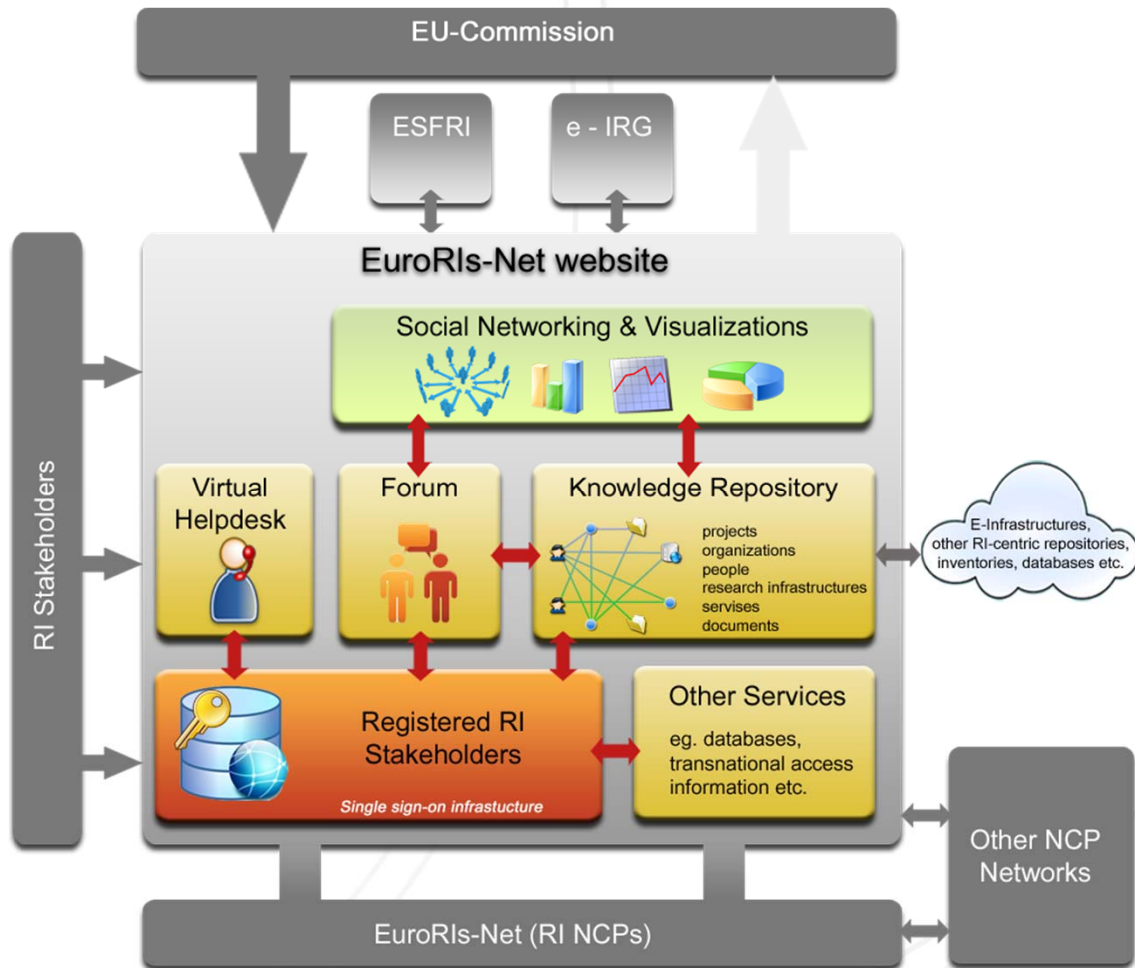
Observatory of national & regional programmes and initiatives on RIs

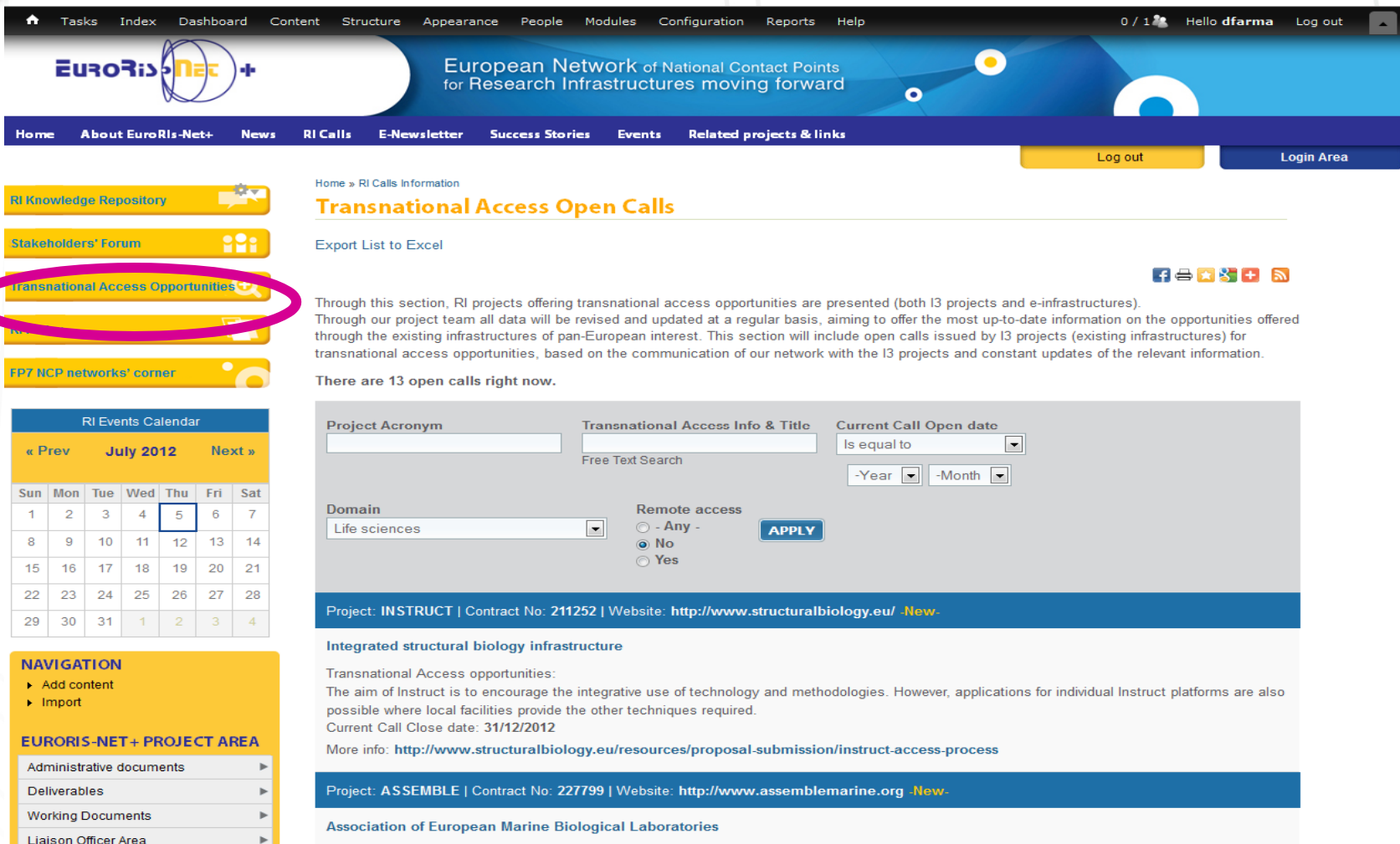
Visibility of access opportunities to RIs

Active forum for RI stakeholders

Improvement of data collection and dissemination in collaboration with “cluster” of projects with relevant scope & mission

Evolution of the role of RI NCPs through “user-demanding” activities





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Home » RI Calls Information

Transnational Access Open Calls

Export List to Excel

Through this section, RI projects offering transnational access opportunities are presented (both I3 projects and e-infrastructures). Through our project team all data will be revised and updated at a regular basis, aiming to offer the most up-to-date information on the opportunities offered through the existing infrastructures of pan-European interest. This section will include open calls issued by I3 projects (existing infrastructures) for transnational access opportunities, based on the communication of our network with the I3 projects and constant updates of the relevant information.

There are 13 open calls right now.

Project Acronym: Transnational Access Info & Title: Current Call Open date: Is equal to -Year -Month

Domain: Remote access: - Any - No Yes **APPLY**

Project: **INSTRUCT** | Contract No: 211252 | Website: <http://www.structuralbiology.eu/> **.New.**

Integrated structural biology infrastructure

Transnational Access opportunities:
The aim of Instruct is to encourage the integrative use of technology and methodologies. However, applications for individual Instruct platforms are also possible where local facilities provide the other techniques required.
Current Call Close date: 31/12/2012
More info: <http://www.structuralbiology.eu/resources/proposal-submission/instruct-access-process>

Project: **ASSEMBLE** | Contract No: 227799 | Website: <http://www.assemblemarine.org> **.New.**

Association of European Marine Biological Laboratories

RI Knowledge Repository Stakeholders' Forum **Transnational Access Opportunities** News E-Newsletter Success Stories Events Related projects & links

FP7 NCP networks' corner

RI Events Calendar

« Prev July 2012 Next »

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

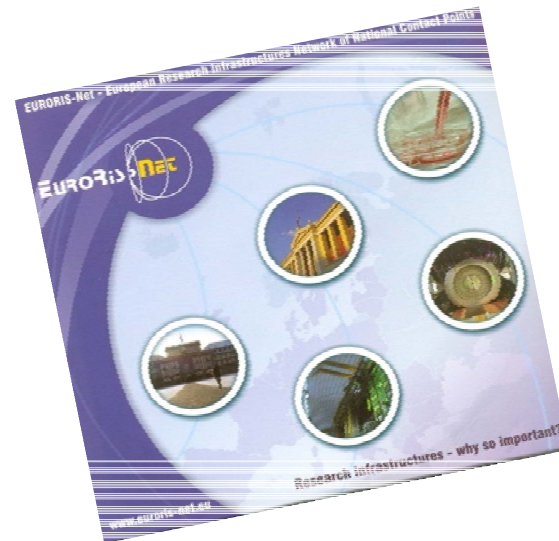
NAVIGATION

- Add content
- Import

EURORIS-NET+ PROJECT AREA

- Administrative documents ►
- Deliverables ►
- Working Documents ►
- Liaison Officer Area ►

- ✓ E-newsletters
- ✓ Press releases
- ✓ Project leaflets
- ✓ Success stories
- ✓ DVD



Available at:

www.euroris-net.eu



EMTRAIN – European Medicines Research Training Network / ESFRI BMS partners

<http://www.emtrain.eu/index.php/partners/esfri-bms-partners>

Research Infrastructures - SYNERGIES WITH EU INITIATIVES

http://ec.europa.eu/research/infrastructures/index_en.cfm?pg=synergies

Thank you !

**Ευχαριστώ για την
προσοχή σας!**



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