



ESFRI and e-IRG shared views for Research Infrastructures

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Outline



- What is ESFRI
- What is e-IRG
- The Roadmap 2008 and its indications
- The scientific data issue...

What is ESFRI

- **European Strategy Forum for Research Infrastructures (<http://cordis.europa.eu/esfri>)**
- **Created in 2002**
- **Mission: To provide EU with a shared strategy for pan-European RI, as ingredient for ERA**
- **Made of 2 national delegates per EU country (MS and associates).**
- **First roadmap in October 2006 (35 items)**
- **Second roadmap in December 2008 (44 items)**
- **Current activities: To monitor the implementation of the roadmap and act as an incubator for new topics.**
- **Next hot topics for the roadmap update: Energy and food...**

What is e-IRG

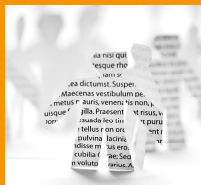
- **E-Infrastructures Reflection Group**
(<http://www.e-irg.eu>)
- **Created in 2003**
- **Mission: To contribute to the common definition of e-infrastructures policy and strategy at the EU level**
- **Made of 2 national delegates per EU country (MS and associates).**
- **Initially focused on the development of GRID infrastructures in Europe, but open now to all e-infrastructure aspects (networking, HPC, digital repositories, etc...)**
- **Produce white papers, roadmaps etc**

ESFRI roadmap 2008

- **Social Science & Humanities** *5 Projects*
- **Environmental Sciences** *10 Projects*
- **Biomedical and Life Sciences** *10 Projects*
- **Energy** *4 Projects*
- **Physical Sciences & Engineering:** *8 Projects*
- **Materials and Analytical Facilities:** *6 Projects*
- **e-Infrastructures** *Wide input* *1 Project*

Total: 44 projects (~ 20 B€ in ~ 10 years)
equal to ~ 2 B€ per year,
increase of ~ 20% on present investment

Social Science and Humanities



CLARIN

Towards an integrated and interoperable
research infrastructure of language resources
and its technology enabling **eHumanities**

Easy access to Language Resources and Technology
for the Humanities community

Roadmap 2008
5 Projects

CESSDA

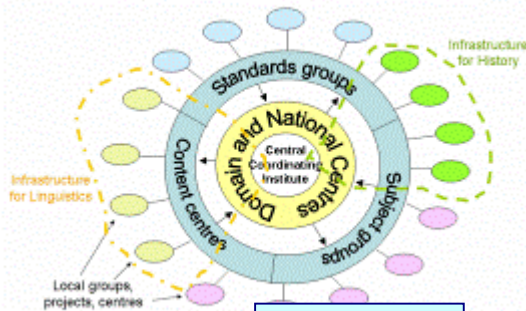


ESS

DARIAH

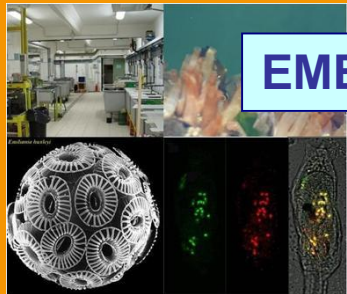
dariah.eu

Expanding and consolidating the infrastructure

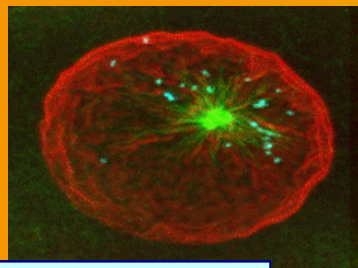


SHARE

Biomedical and Life Sciences



EMBRC



INSTRUCT



ECRIN



BLS4

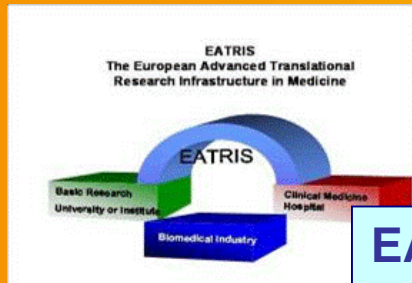


EU-Openscreen

Euro-Bio-imaging



BIOBANKS-BBMRI



EATRIS

INFRAFRONTIER

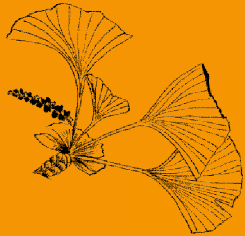


EBI-ELIXIR

Roadmap 2008
10 Projects

Environmental Sciences

Roadmap 2008
10 Projects



EURO-ARGO



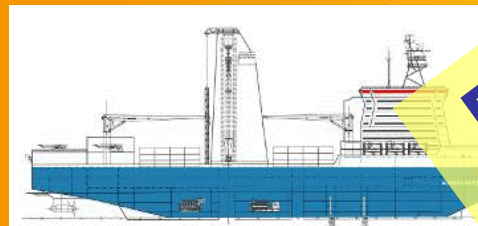
SIAEOS



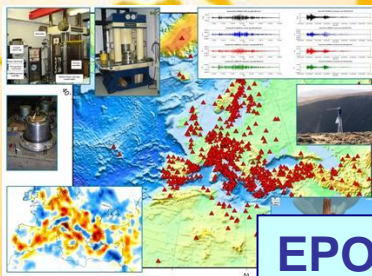
IAGOS-ERI



EUFAR-COPAL

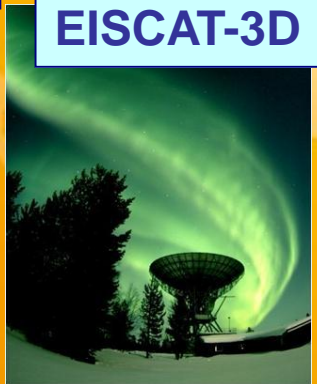


AURORA BOREALIS



EPOS

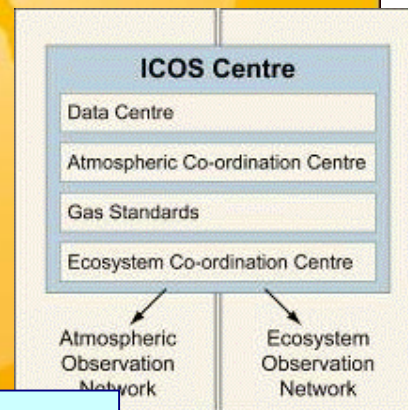
EISCAT-3D



LIFEWATCH



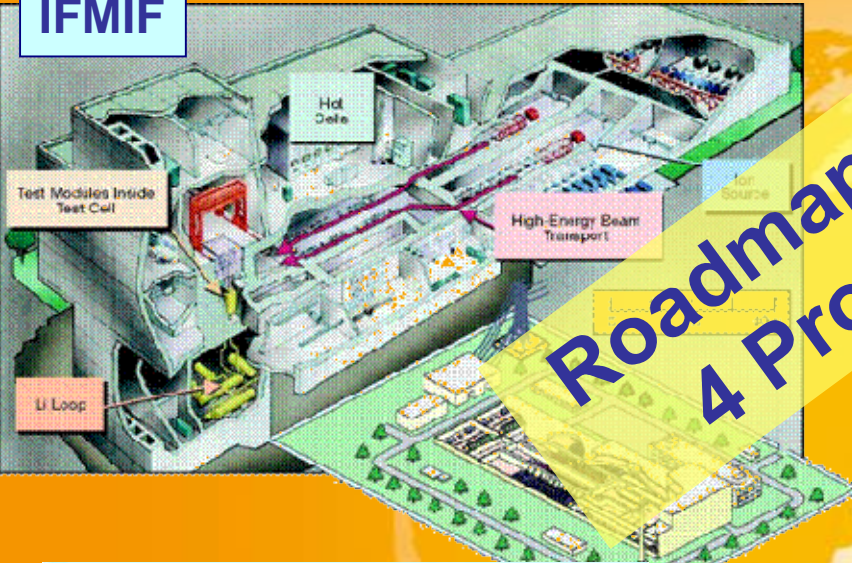
EMSO



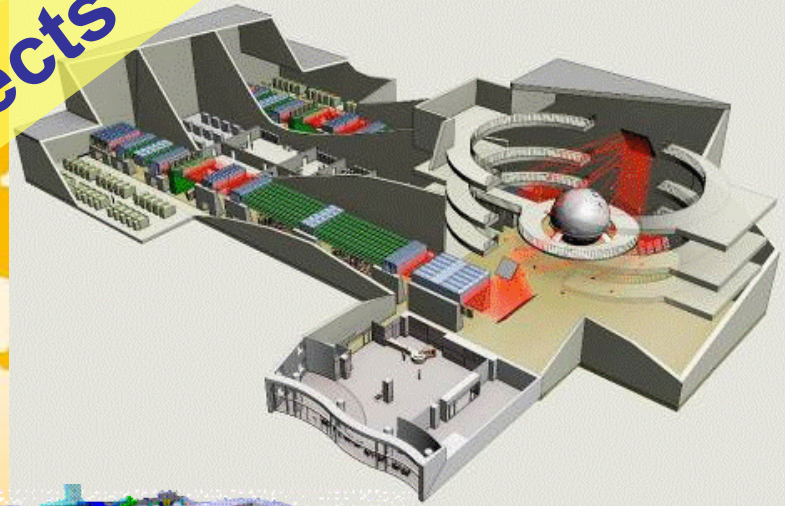
ICOS

Energy

IFMIF



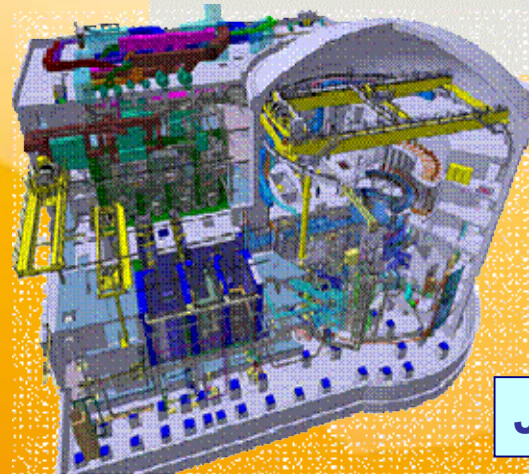
Roadmap 2008
4 Projects



HiPER



ECCSEL



JHR

Materials and Analytical Facilities

XFEL

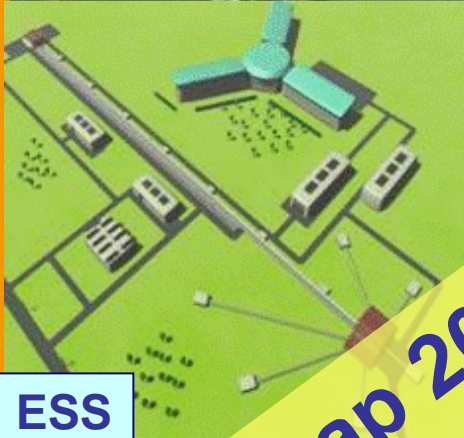


EMFL



IRUVX-EUROFEL

ESS



Roadmap 2008
6 Projects

ILL

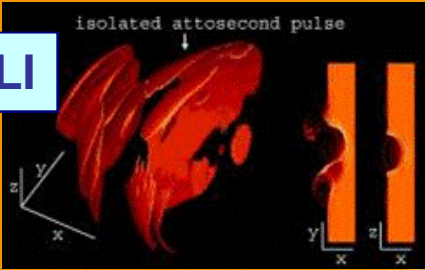


ESRF

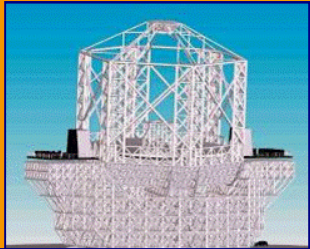
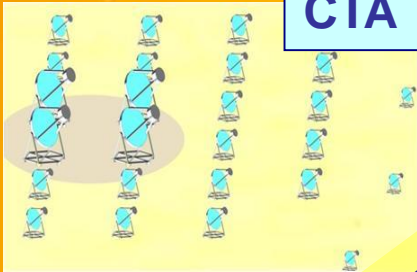


Physical Sciences and Engineering

ELI

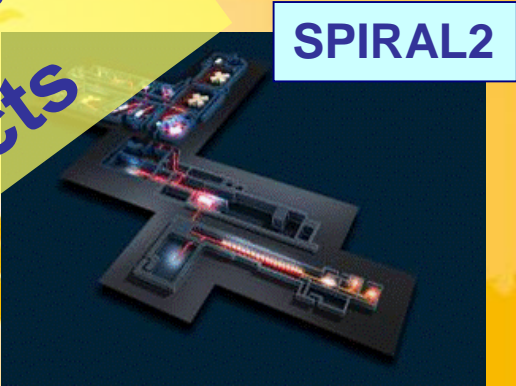


CTA



European ELT

PRINS



SPIRAL2

Roadmap 2008
8 Projects



SKA



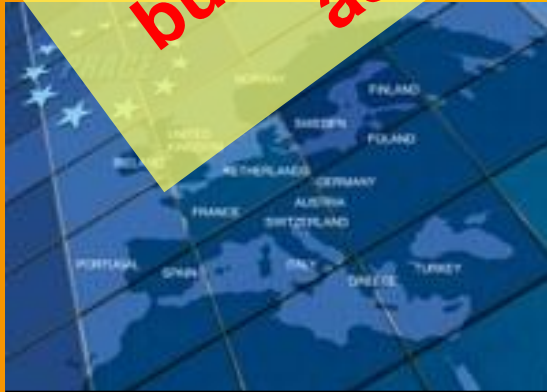
KM3NeT



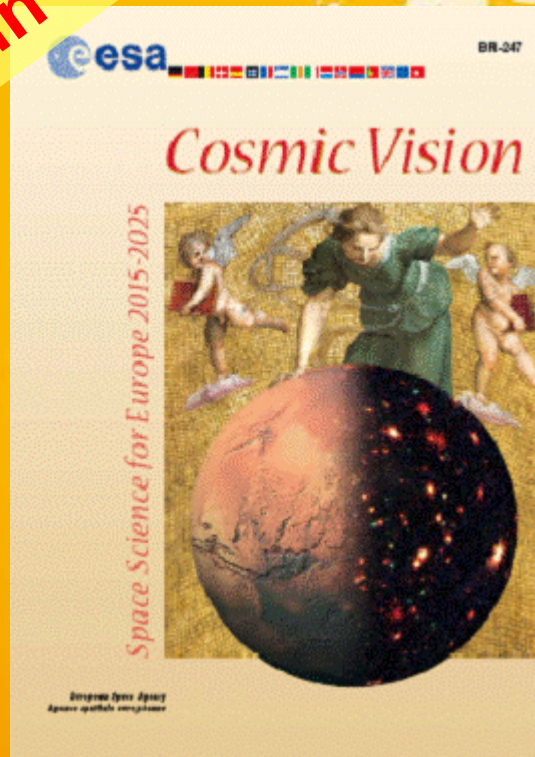
FAIR

No changes referring
to these topics
but increase of e-Infra
aspects in all

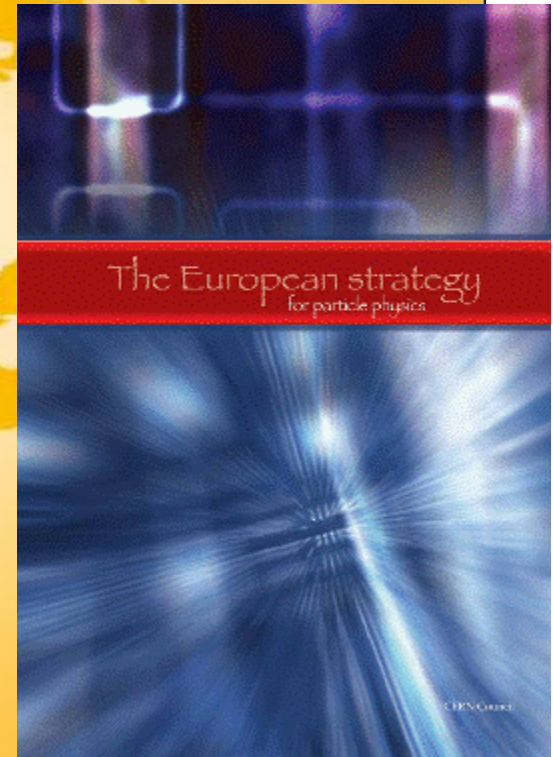
e-Infrastructures & others



**PRACE
(ex-EU-HPC)**



The ESA Cosmic Vision



The CERN Council
strategy for
particle physics

ESFRI and digital repositories



- A few milestones:
 - February 2007 Communication of EC
 - OECD GSF contribution about scientific data
 - Sep 2007 : ESFRI position paper on DR
 - Setting-up of DMTF with e-IRG and ESFRI
 - Early 2009: EC Communication about e-science...
 - June 2009: DMTF interim report

ESFRI and digital repositories



- ESFRI position paper problem identification:
 - Availability
 - Permanency
 - Quality
 - Right of Use
 - Interoperability

ESFRI and digital repositories



1) Availability

- Data are existing and stored somewhere. As a consequence, they are accessible (on-line or off-line, on-site or remotely):

2) Permanency

- Data remains available (accessible from their creation to the time any user may need them)

3) Quality

- Data available from research infrastructures must be quality-proved, either from proper documentation of lab methodology, or peer-review or any other way to guarantee this.

ESFRI and digital repositories



4) Right of Use

- Publically funded research produces data for public access and use.
- Restriction may apply (temporarily) for due time to prepare publications or prior contractual arrangement with private stakeholders
- Distinction between raw data and full data (including metadata needed for description and handling)

5) Interoperability

- All digital repositories must be interoperable to each other, I.e. using open standards (and cross-referencing).
- Application of universal naming/referencing system should be considered for data, as it will be for objects?

Data Management Task Force



- **Timetable:**

- DMTF was proposed by e-IRG at Spring 2008
- Proposal was made as a conclusive action of the e-IRG workshop in Paris (October 2008)
- ToR and composition was presented and endorsed in December 2008 by e-IRG and ESFRI
- Subtopic WG were set up in December 2008
- First interim report was presented at the e-IRG plenum on June 17th, 2009.
- Submitted for comments from e-IRG and ESFRI constituencies during Summer 2009
- Final report endorsement by e-IRG and ESFRI at Fall 2009

Data Management Task Force



- 3 topics were proposed:
 - Metadata and Quality
 - Interoperability
 - Survey of the existing projects and initiatives
- Final report is being endorsed by both ESFRI and e-IRG constituencies

ESFRI REQUIREMENTS... or expectations!

- Value of the RI infrastructure is in the facilities and know-how
- But the value is in the scientific production, i.e. in the data!
- Availability of data allows transdisciplinary use of the scientific outcome: Ageing cohorte has outcome for social sciences, health issues, environmental framework...

ESFRI REQUIREMENTS... or expectations!

- Interdisciplinary access fosters also new scientific domains as environment, climate global change, nanotech or sustainable development

ESFRI REQUIREMENTS... or expectations!

- Support tools:
 - Global communication networks
 - Consistent identity management
 - Digital repository interoperability
 - Curation, permanency, open access etc
- Accompanying actions
 - Make Ris responsible for the data they produce

Danke

Merci

Tānan

Grazie

Bedankt

Dziękuję

Gracias

Grazzi

Hvala

Many thanks

Mersi

Kiitos

for your attention

Tak

Tack

D'akujem

Obrigada

Благодаря

Ευχαριστω

Ačiū

Köszönöm

Paldies

Go raibh maith Agat