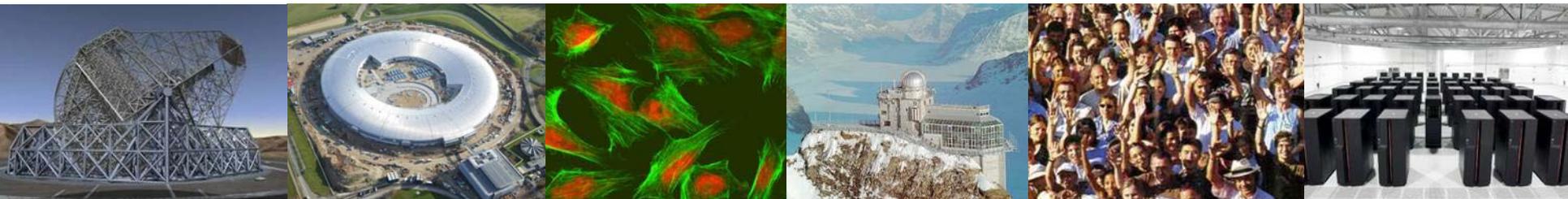
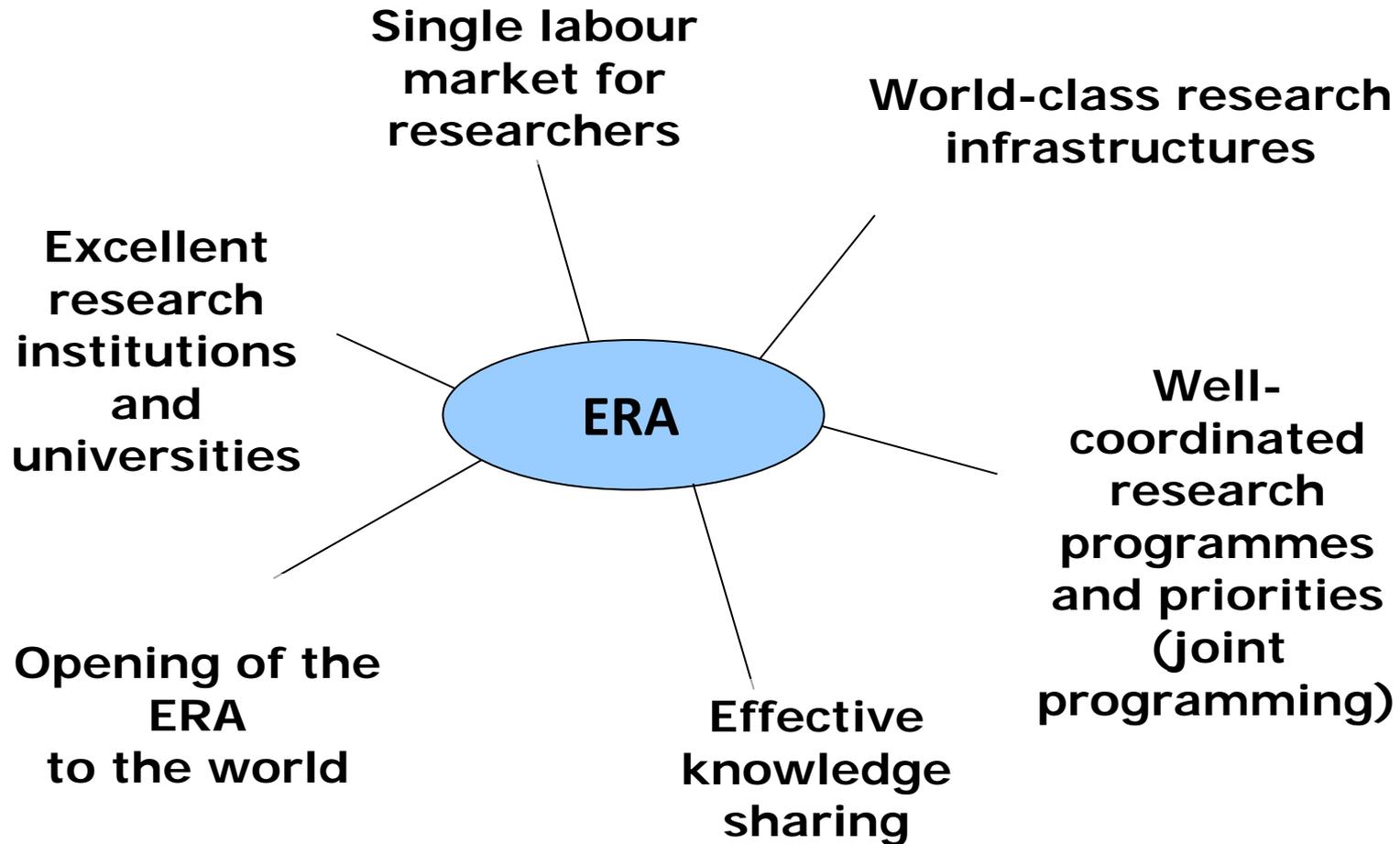


# European Research Infrastructures (for SSH) during and after FP7

European Commission, DG Research and Innovation  
Unit B3 - Research Infrastructures



# *A key component of the EU strategy for ERA, (Green Paper 2007)*



# *What are Research infrastructures?*

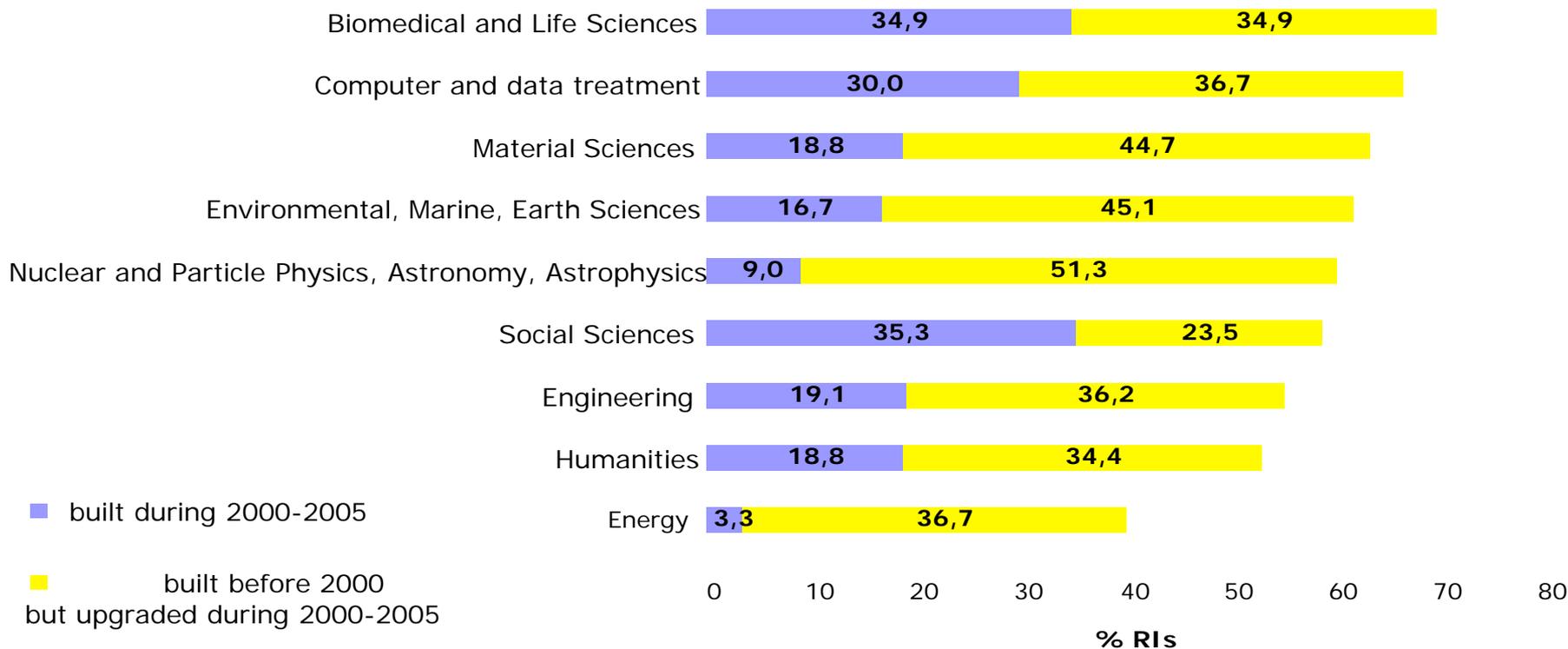
Outstanding facilities, resources, and related services that are used by the scientific community to conduct high quality research in all fields of science. Besides their human resources, these infrastructures include:

- Large-scale research facilities or instruments and major scientific equipment (e.g. telescopes)
- Knowledge based resources such as scientific collections, archives, databases and virtual libraries
- Enabling ICT -einfrastructure- such as GEANT, Grid, computers, software communication networks)

*They might be located in a single site. They might be distributed (network of distributed centres) and/or virtual*

# *Research Infrastructures' Pattern is rapidly evolving in Europe (results from EC-ESF survey)*

## Share of RIs Built or Upgraded between 2000 and 2005



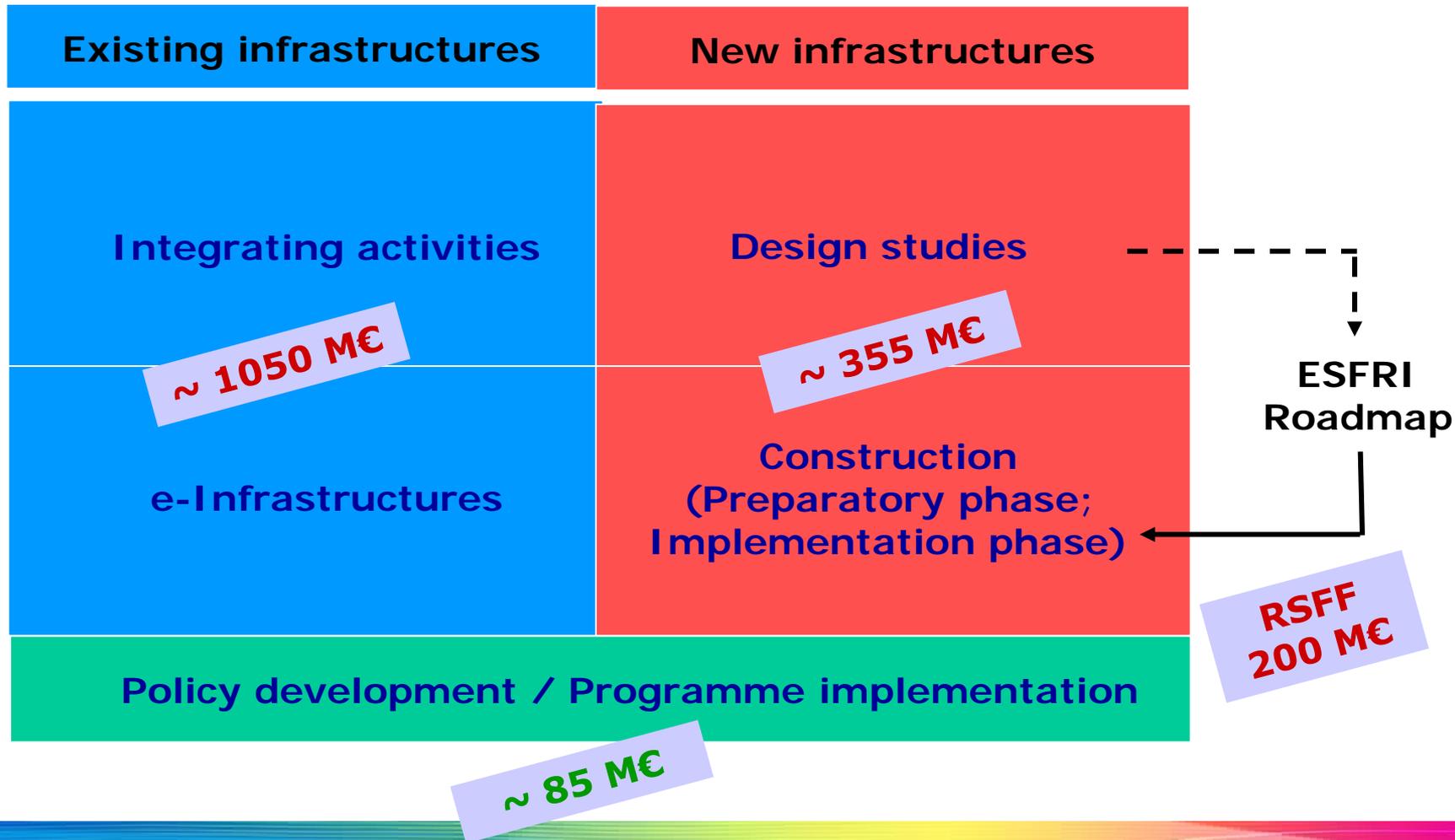
# For new or existing RIs, the EU needs to pave the way towards an efficient research 'eco-system'

- a) Large facilities
- b) Distributed European Facilities
- c) Regional Partner Facilities
- d) Network of national facilities
- e) Linked with EU and national programmes,  
universities & schools
- f) Network of industrial suppliers / users



**Without the joint involvement of the scientific communities and the actors on e-infrastructures, the EU will not succeed in developing an efficient management of this 'eco-system'**

# FP7 Research Infrastructures action



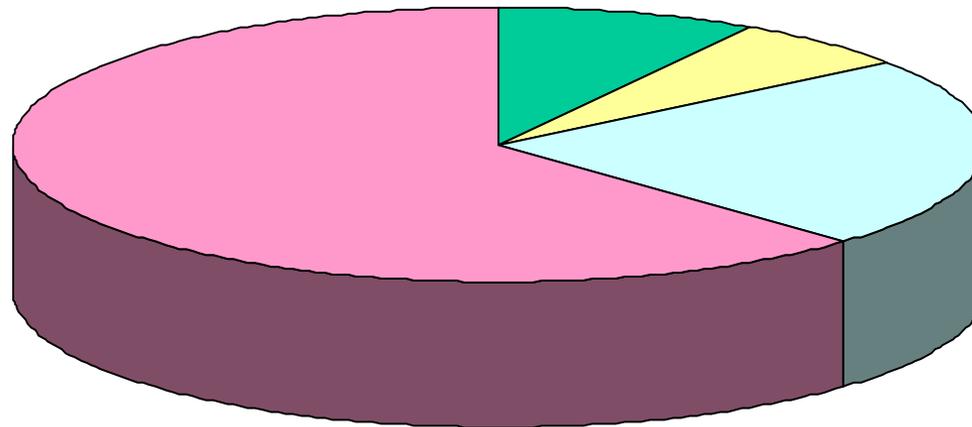
# *FP7 support to existing Research Infrastructures*

**Integrating Activities:** to structure better, on a European scale, the way RIs operate, in a given field, and promote their coherent use and development through

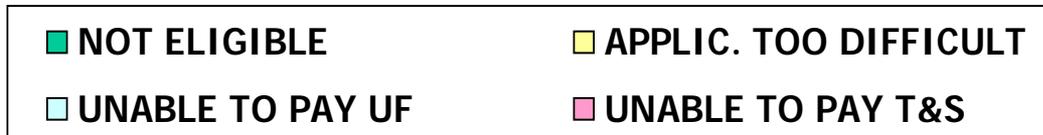
- Trans-national Access and/or Service Activities
- Joint Research Activities
- Networking Activities

# *European researchers consider the access activity to be essential to have access to RIs*

90% of the users have said that they would not have been able to carry out their work at the RI without EC support  
EC support  
(Source: 5050 filled questionnaires)



Reasons:



# Examples of FP7 Integrating activities for SSH

## 1. Enhancement and Access Improvement of the SHARE RI (SHARE-LEAP)

To maintain and enhance the longitudinal stability of the SHARE panel and provide and improve access and consulting services to users

EU Support 3 M€, Duration 2 years (January 2009-December 2010)

## 2. Multinational Advancement of Research Infrastructures on Ageing (SHARE-M4)

To ensure the coordination of the SHARE rounds, push the state of the art in interdisciplinary panel construction and improve the multinational services for the users by a more efficient centralized data base management

EU support 5,5 M€, Duration 4 years (January 2011-December 2015)

# Examples of FP7 Integrating activities for SSH

## 3. Cultural Heritage Advanced Research

### **Infrastructures: a Multidisciplinary Approach to conservation/Restoration (CHARISMA)**

To bring together 21 leading EU infrastructures to improve research on restoration of artwork materials and support access of researchers to the services of three complementary groups of facilities, involving material sciences and artwork and restoration  
EU support 7.6 M€, Duration 4 years (Oct 2009-Sept 2013)

## 4. The European Social Survey - Data for a Changing Europe (ESS-DACE)

To secure the continuation, including the coordination of the second year of Round5 and the two years of Round 6 and improve access and consulting services to ESS data users.

EU support 5 M€ (under negotiation), Duration 4 years, (July 2010-June 2014)

# Examples of FP7 Integrating activities for SSH

## 5. Data without Boundaries (DwB)

To prepare the essential relationships between the European Social Science Data Archives (CESSDA) and Official Statistics and develop an integrated model for the best solutions for access to data of official statistics (with focus on confidential data), irrespective of national boundaries

EU support 6,5 M€ , Duration 4 years (2011-2015)

## 6. European Holocaust Research Infrastructure, (EHRI)

To transform the data available for Holocaust research around Europe and elsewhere into a cohesive corpus of resources and provide access of researchers to a wide variety of dispersed key Holocaust archival materials

EU support 7 M€ , Duration 4 years (Oct 2010 – September 2014)

# Draft WP 2012

## Next call for proposals

### *Topics for SSH*

1. Research infrastructures for the study of Poverty, Working Life and Living Conditions
2. Research infrastructures for the assessment of science, technology and innovation policy
3. Research infrastructures for archaeological datasets and technologies

# *The ESFRI*



- ❑ Mandate from the Council of Ministers, November 2004
- ❑ to support a coherent and strategy led approach and facilitate multilateral initiatives leading to a better use and development of RIs
- ❑ The Roadmap (2006) and its updates (2008, 2010) is the result of several years of intensive work
- ❑ The today roadmap contains 48 projects
- ❑ About 1000 high-level experts were involved, from every MS and AS, from most fields and user communities, giving the end product credibility and quality.

# ESFRI roadmap 2010

48 new - or major upgrade of - Research Infrastructures of pan-European interest

(+ 3 additional projects from the CERN Council strategic roadmap for particle physics\*)

Social Sc. & Hum. (5)	Life Sciences (13)		Environmental Sciences (9)		Energy (7)	Material and Analytical Facilities (6)	Physics and Astronomy (10)		e-Infra-structures (1)
SHARE	BBMRI	ELIXIR	ICOS	EURO-ARGO	ECCSEL	EUROFEL	ELI	TIARA*	PRACE
European Social Survey	ECRIN	INFRA FRONTIER	LIFEWATCH	IAGOS	Windscanner	EMFL	SPIRAL2	CTA	
CESSDA	INSTRUCT	EATRIS	EMSO	EPOS	EU-SOLARIS	European XFEL	E-ELT	SKA	
CLARIN	EU-OPENSREEN	EMBRC	SIAEOS	EISCAT_3D	JHR	ESRF Upgrade	KM3NeT	FAIR	
DARIAH	Euro BioImaging	ERINHA BSL4 Lab		COPAL	IFMIF	NEUTRON ESS	SLHC-PP*	ILC-HIGRADE*	
	ISBE	MIRRI			HiPER	ILL20/20 Upgrade			
	ANAEE				MYRRHA				



Distributed research infrastructures

Single sited research infrastructures

# A European approach ESFRI and its roadmap

## *Observed impacts*

### The ESFRI Roadmap ...

- Attracted Member State's attention to the importance of RIs and to the projects of the ESFRI roadmap
- Stimulated the development of national roadmaps (70% of MS) and the (starting) setting-up of priorities in relation to the ESFRI roadmap
- Mobilises many countries to host an ESFRI project or participate in others



# Preparatory Phase

## Social Sciences and Humanities

### 1) CESSDA-Preparatory Phase

EU support 2,7 M€. Construction costs ~30 M€

### 2) The ESS-Preparatory Phase

EU support 1,5 M€. Estimated total financial commitment of around 54 M€ over 6 years

### 3) SHARE-Preparatory Phase

EU support 2,5 M€. Total costs ~58 M€ for 5 waves

### 4) DARIAH-Preparatory Phase

EU support 2,5 M€. Construction costs ~12 M€

### 5) CLARIN-Preparatory Phase

EU support 4,1 M€. Construction costs ~104 M€

## WP 2011- Call for proposals: Support to *implementation phase*

- Call publication: July 2010
- Budget: **30 M€**
- **4 topics** concerning clusters of ESFRI projects in:
  - **Social Sciences and Humanities**
  - Life sciences
  - Environmental Sciences
  - Physics, Astronomy and Analytical Facilities

# WP 2011

## *Two new SSH projects to be soon negotiated*

### **CENDARI**

Will provide and facilitate access to existing EU archives and resources for the study of European history. This “integrating Activity” will help creating new ways to engage with large data sets across ERA in two research domains: Medieval culture and the First World War. This work should also leverage the power of the ESFRI European Infrastructure for Digital Humanities (DARIAH)

### **DASISH**

Will provides solutions to a number of common issues for the five ESFRI projects in social sciences and humanities: CESSDA, CLARIN, DARIAH, ESS and SHARE. These five SSH infrastructures will work together along four major areas of common concern: data quality, data archiving, data access and legal and ethical issues. The outcome of this work will form the basis for educational activities and for outreach to the communities of researchers

# ***Community legal framework for a European Research Infrastructure Consortium (ERIC)***

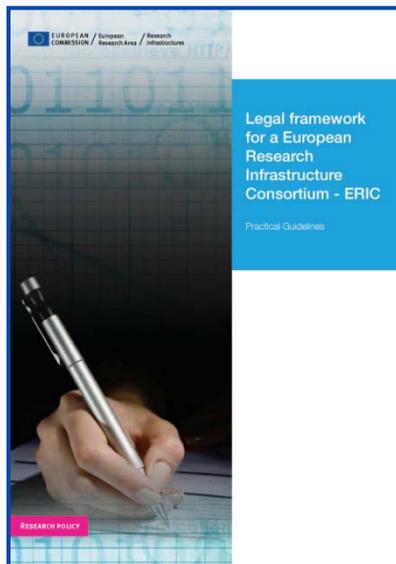
- designed to facilitate the joint establishment and operation of research infrastructures of European interest (at least 3 MS)
- based on EU law (Article 187 TFEU, ex-171 EC Treaty)
- entered into force on 28.08.09

## ***ERIC - Main characteristics***

- the spirit is of a truly European venture
- a legal personality recognized in all Member States
- flexibility to adapt to the specific requirements of each infrastructure
- some privileges / exemptions allowed at a national level for intergovernmental organisations (VAT exemptions)

## *Setting up an ERIC*

- At least 3 EU Member States agree to establish and operate together a research infrastructure.
- Members agree on statutes ruling governance, IPR policy, financing, etc.
- Members submit an application file to the Commission, which, with the aid of independent experts, examines whether the conditions of the ERIC Regulation are fulfilled
- Commission takes decision to set up the ERIC following consultation of the Committee composed representatives of the Member States



- ✓ The Commission has awarded **the first ERIC status to SHARE** on 17 March 2011
- ✓ About ten ERIC applications are currently under preparation
- ✓ These concern mainly distributed facilities and data services in the domains of life sciences (biological, medical), environment and social sciences and humanities
- ✓ **ERIC Application of ESS, CESSDA, CLARIN, DARIAH is underway**

# *Towards the Realisation of the ERA for research Infrastructures (EU 2020 Strategy)*

**Which are the major  
policy issues at stake?**

# *RI in the Innovation Union Flagship*

- ✓ Opening of Member State operated research infrastructures to the full European user community
- ✓ By 2015, the Member States with the Commission, should have completed or launched the construction of the priority research infrastructures, ESFRI projects.
- ✓ The European Union should step up its cooperation on the roll-out of the global research infrastructures

# ***Promoting Opening of MSs Operated national SSH data services and facilities for European SSH collaborative research challenges***

- How to enlarge and facilitate access of researchers to and use of existing national SSH resources and facilities across ERA?
- Can we improve the quality of ERA research infrastructure capacity for SSH collaborative research?
- Can we simplify and/or harmonize access conditions for researchers, which are currently highly dependent on national legal frameworks, institutional arrangements and practices?
- How to establish trust of SSH researchers in the infrastructure services?
- How can we manage to preserve our cultural and scientific memory and keep the records of science accessible?

# *Implementation of ESFRI Roadmap*

## *A real ERA policy challenge !*

- ✓ Implementation of the **5 SSH** projects of the ESFRI Roadmap with total estimated construction costs of around 256 M€.
- ✓ Implementation of the new **EU Legal Instrument (ERIC)** for European Research infrastructures

## ***Promoting International Co-operation for global SSH RIs and global research challenges***

- ✓ ESFRI SSH projects can participate in international networks to address global challenges
- ✓ We have started reflecting upon setting priorities for global collaboration through the OECD Global Forum and its working group on “Data and Research Infrastructures for Social Sciences”
- ✓ A Group of Senior Officials at G8+O5 level is looking at developing an international agreement for setting-up and operate Global RIs

## ***Belgian Presidency Progress report on the Realisation of the European Research Area, November 2010***

« A lot of work needs to be done now on the budgetary commitments (political support) and on developing a methodology that will allow for the evaluation and prioritization of the various new and existing research infrastructures across Europe. The coordination of ESFRI projects with existing and other new research infrastructures is another major challenge to be faced as is the right balance and complementarity between European research infrastructures and the national facilities active in the same fields »



## We need addressing the key factors affecting the vision and the capacity to change

- Capacity (or not) to *work together / pool resources* (thus coordination / integration of strategies and projects) to face more complex problems / costly solutions
- Capacity (or not) to develop a *favorable / catalytic environment* for EU research & innovation (e.g. ERIC)
- Capacity (or not) to strengthen relations with *education*, the people, and with *industry*
- Capacity (or not) to face *research internationalization*

Three EC communications  
to come within the next  
18 months

# TOWARDS A **COMMON STRATEGIC FRAMEWORK** FOR EU RESEARCH AND INNOVATION – GREEN PAPER

*Launched on February 9, 2011*  
*Consultation closing on May 20*

EUROPEAN  
COMMISSION



# Common Strategic Framework Key Drivers

- Underpin Europe 2020 & Innovation Union
- Address grand challenges, links to thematic policies
- Strengthen the science base & contribute to the European Research Area
- Couple research and innovation & contribute to increased competitiveness
- A globalised context
- To be driven by objectives, not instruments

# The Green Paper highlights

Issues related to EU funding, e.g.:

- Need for clearer objectives, reduced complexity, increased added value, increased impacts for competitiveness and society (e.g. opportunity to merge FP, CIP, EIT)

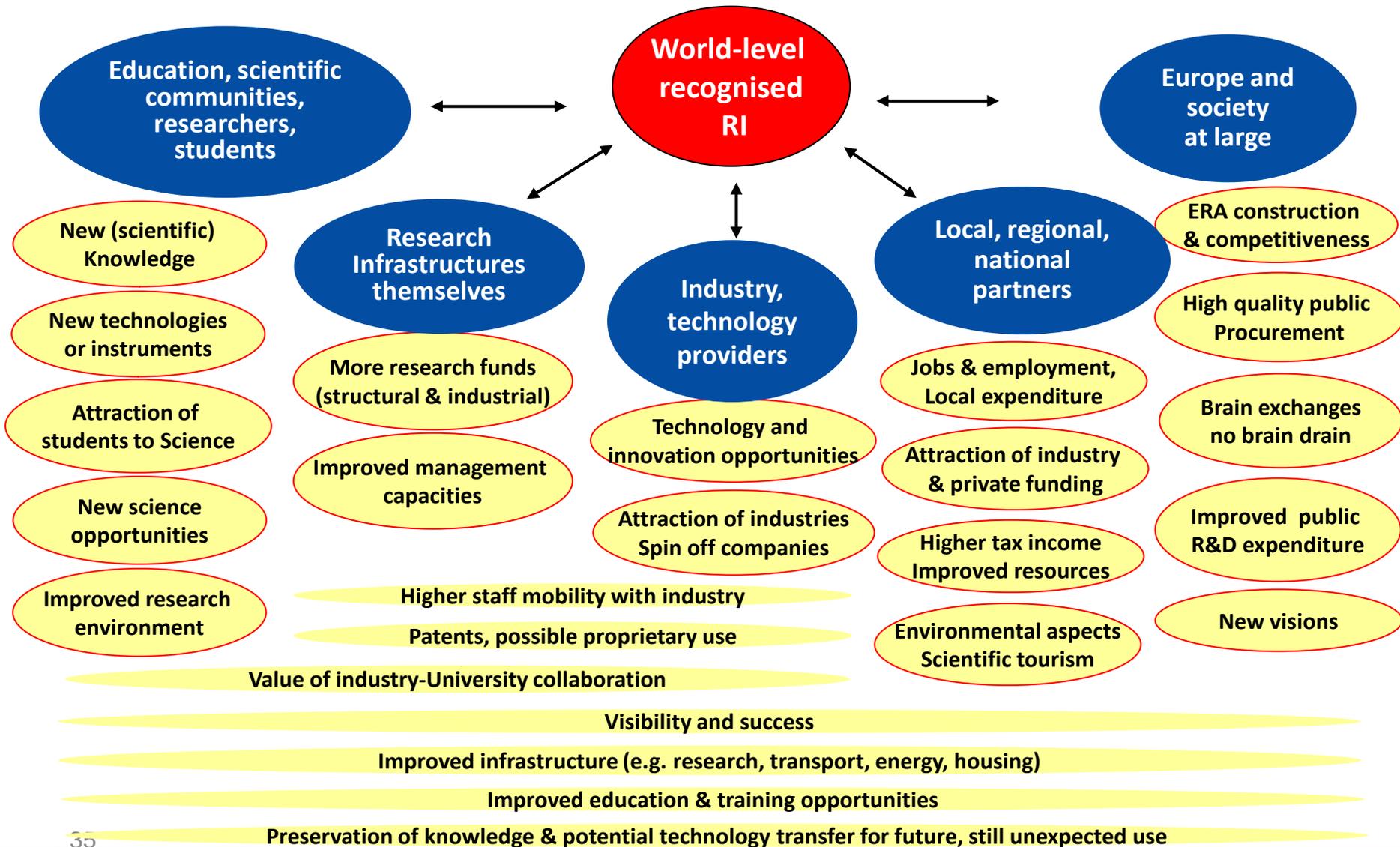
Therefore questions on

- Funding mechanisms
- Orientation of EU research
- How to support excellence
- On **10 June 2011** wrapping-up / discussion on public consultation

# RIs, at the core of an efficient EU Research & Innovation strategy

- ❖ Designed and operated to attract and host **best researchers** in the world (open access - size of research facilities is not the issue, excellence is !)
- ❖ Help responding to **Grand Challenges** but need **world-level quality** in all aspects of their activities: scientific, educational, technical and managerial.
- ❖ Important role in the **advancement of knowledge** and technology, liberating creative potential of staff, users and providers, thus being crucial **socio-economic drivers**

# SSH RIs could help in many respects





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European  
Research Area

## Next CSF

Innovation for  
Society

Innov. for  
Competitiveness

Science for  
Innovation

- Three main components
- RIs would be placed under “science for innovation”
- Milestones:
  - 10 June: Event concluding consultation
  - July: First draft legislative proposal
  - Nov/ Dec: Final legislative proposals

Many thanks for your attention...  
and all the best for SSH !