



MINISTÈRE
DE L'ENSEIGNEMENT SUPÉRIEUR
ET DE LA RECHERCHE

Research Infrastructures French roadmap

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The French roadmap for RIs

- Process started in February 2007
- It lasted a year longer than initially planned
- The whole process turned to be more complex than expected, because the willingness of consulting a wide scientific community
- First edition was published in December 2008 (ECRI2008)
- The RI roadmap is one component of the national strategy for research and innovation (SNRI)

The French roadmap for RIs

- 4 thematic working groups
- WG composition introduced de facto a first level of pluridisciplinarity
 - Environment, Planet and Universe
 - Life Sciences
 - Matter and engineering
 - ICT and SSH

The French roadmap for RIs

- Synthesis was made by the Ministry, including the various status and some priorities.
- Between priority and high priority, there is a combination of scientific and calendar constraints

The French landscape:

- 90 Research Infrastructures
- 46 already existing or in operation
- 19 are decided (with or without committed budget or already in construction phase)
- Among them, some exist already as building blocks, but an improved governance is required to achieve the full integration.
- Others (25) are still as projects (priority or high priority).

Existing RIs for Earth Sciences:

- 10 RIs
 - Marine Fleet (« Flotte Océanographique Française »): (Marion-Dufresne 2, Atalante, Victor, etc.)
 - Ocean studies (MERCATOR, Euro-ARGO)
 - Research Aircraft Fleet (SAFIRE)
 - Antarctic base (Concordia)
 - Drilling (IODP/ECORD)
 - Geothermal Energy
 - Seismicity
 - Biodiversity
 - Climatology/Meteorology

Existing RIs for Universe Sciences:

- 7 RIs
 - Optical Astronomy (VLT/I (ESO), CFHT)
 - Radioastronomy (IRAM, ALMA, LOFAR)
 - Data for pour Astronomy and Astrophysics (CDS)

Existing RIs for High Energy and Particle Physics:

- 6 RIs
 - CERN/LHC
 - Gravitational Waves (VIRGO/EGO, HESS and HESS2)
 - Neutrinos Observatory (ANTARES)
 - Ions and heavy particles (GANIL)
 - Fusion (JET, TORE-SUPRA)

Existing RIs for

Matter Studies and Engineering:

- 11 RIs
 - Synchrotrons (SOLEIL, ESRF)
 - Neutrons (LLB, ILL)
 - Lasers (LULI, LIL)
 - High Magnetic Fields (LCMI, LNCMP)
 - Nanotechnologies
 - RMN
 - Wind Tunnels

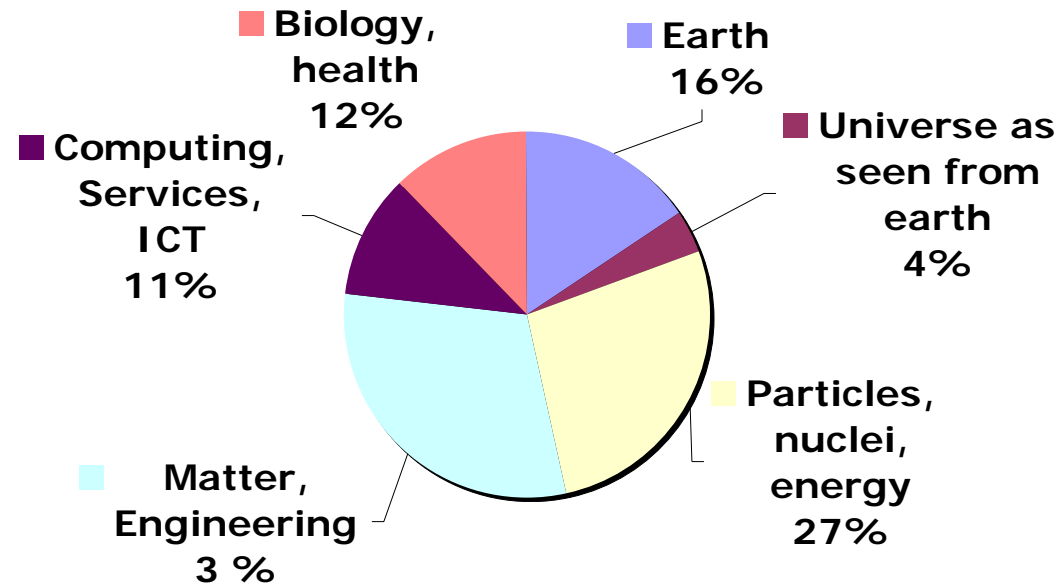
Existing RIs for Data management and ICT:

- 6 RIs
 - High Performance Computing (GENCI, CINES, IDRIS, CCRT)
 - Distributed Computing and Data Grids (CC-IN2P3)
 - Research Network (RENATER)

Existing RIs for Life Sciences:

- 6 RIs
 - Structural Biology (IGBMC, IBS)
 - High Security Laboratory (P4)
 - Biobanks
 - High Field NMR (Neurospin)
 - Molecular Biology (EMBL)
 - Genomics et Proteomics

Overall distribution:



EXISTING RESEARCH INFRASTRUCTURES

Decided RIs for Energy and Particles:

- 4 RIs
 - Jules Horowitz Reactor
 - ITER
 - IFMIF/EVEDA
 - SPIRAL2
 - FAIR



Decided RIs for Matter Studies:

- 5 RIs
 - XFEL
 - ILE
 - PETAL
 - ESRF upgrade
 - ILL upgrade



Decided RIs for ICT:

- 1 RI
 - National Grid Infrastructure



Decided RIs for SSH:

- 4 RIs
 - ADONIS
 - PROGEDO
 - CORPUS
 - BSN

High priority RIs

for planet and universe studies:

- 3 RIs for Planet
 - New Coast/Ocean Ship
 - ICOS (monitoring of atmospheric carbon fluxes)
 - SOERE (Environment Observatories)
- 2 RIs for Universe
 - E-ELT (42 m diam Optical telescope)
 - CTA (Cerenkov telescope)



High priority RIs for matter studies:

- 3 RIs
 - ESRF (phase 2)
 - ILL (phase 2)
 - High Magnetic Fields in Grenoble



High priority RIs for HPC and data management:

- 2 RIs
 - Research Grid (G5K/ALADDIN)
 - PRACE (HPC)



High priority RIs For Life Sciences:

- 2 RIs
 - Biodiversity (LIFEWATCH)
 - Translational Medicine Research (EATRIS)



Other priorities:

- IAGOS-ERI, COPAL, EMSO
- LSST, SKS, KM3NET
- S-LHC, ILC/CLIC, LSM/ULISSE, EURISOL, MYRRHA, IFMIF
- ELI, ESS, EMFL

Concluding remarks:

- This is not a frozen situation: “a roadmap is a living instrument”
- Update of the roadmap is currently going on in the framework of the SNRI
- Needed exercise for building an global vision and providing the Ministry with a mid and long term programming tool
- The roadmap covers all disciplines
- Needed also for proper interaction with the EU Policy and Strategy
- Growing importance of e-infrastructures and pluri-disciplinarity

Next Edition: 2010/2011

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