



# A Technology Platform in Geological Disposal

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# Principal FP6 projects GD and cross-cutting

project	partners / countries	instrument & EU / total cost	launch date / duration
<b>ESDRED</b> : Engineering Studies and Demonstrations of Repository Designs	13 / 9	IP <del>€7.32M</del> / <del>€18.1M</del>	1/2/04 5 years
<b>NF-PRO</b> : Near-field processes	40 / 10	IP <del>€8M</del> / <del>€16.8M</del>	1/1/04 4 years
<b>FUNMIG</b> : Fundamental processes of radionuclide migration	51 / 15	IP <del>€8M</del> / <del>€15M</del>	1/1/05 4 years
<b>PAMINA</b> : PA Methodologies in Applications to Guide the Development of the Safety Case	25 / 10	IP <del>€4M</del> / <del>€7.62M</del>	1/10/06 3.2 years
<b>ACTINET</b> Network for Actinide Sciences	27 / 13	NoE <del>€6.35M</del> / <del>€10.5M</del>	1/3/04 4-5 years
<b>RED-IMPACT</b> Impact of P&T and Waste Reduction Technologies on the Final Nuclear Waste Disposal	23 / 10	STREP <del>€2M</del> / <del>€3.51M</del>	1/3/04 3 years



# Principal FP6 projects governance / strategy

Project title & description	partners / countries	EU / total cost	launch & duration
<b>COWAM-2</b> Community Waste Management 2: Improving the governance of nuclear waste management and disposal in Europe.	19 / 9	€1.2M / €2.33M	1/1/04 3 years
<b>CIP</b> New Governance approaches to Radioactive Waste Management in Europe: COWAM IN PRACTICE	11 / 6	€300K / €1.54M	1/1/07 3 years
<b>ARGONA</b> Arenas for risk governance	13 / 8	€1.2M / €1.86M	1/11/06 3 years
<b>OBRA</b> European Observatory for Long-term Governance on Radioactive Waste Management	10 / 7	€300K / €21K	1/11/06 2 years
<b>CATT</b> Co-operation and technology transfer on long- term RWM for MS with small nuclear programmes	7 / 6	€210K / €267K	1/1/06 18 months
<b>SAPIERR-2</b> Strategy Action Plan for Implementation of European Regional Repository – Stage 2	7 / 6	€0.7M / €0.94M	1/11/06 2 years
<b>CARD</b> Coordination of RD&D Priorities and Strategies for Geological Disposal	10 / 10	€0.35M / €0.54M	1/11/06 1 year



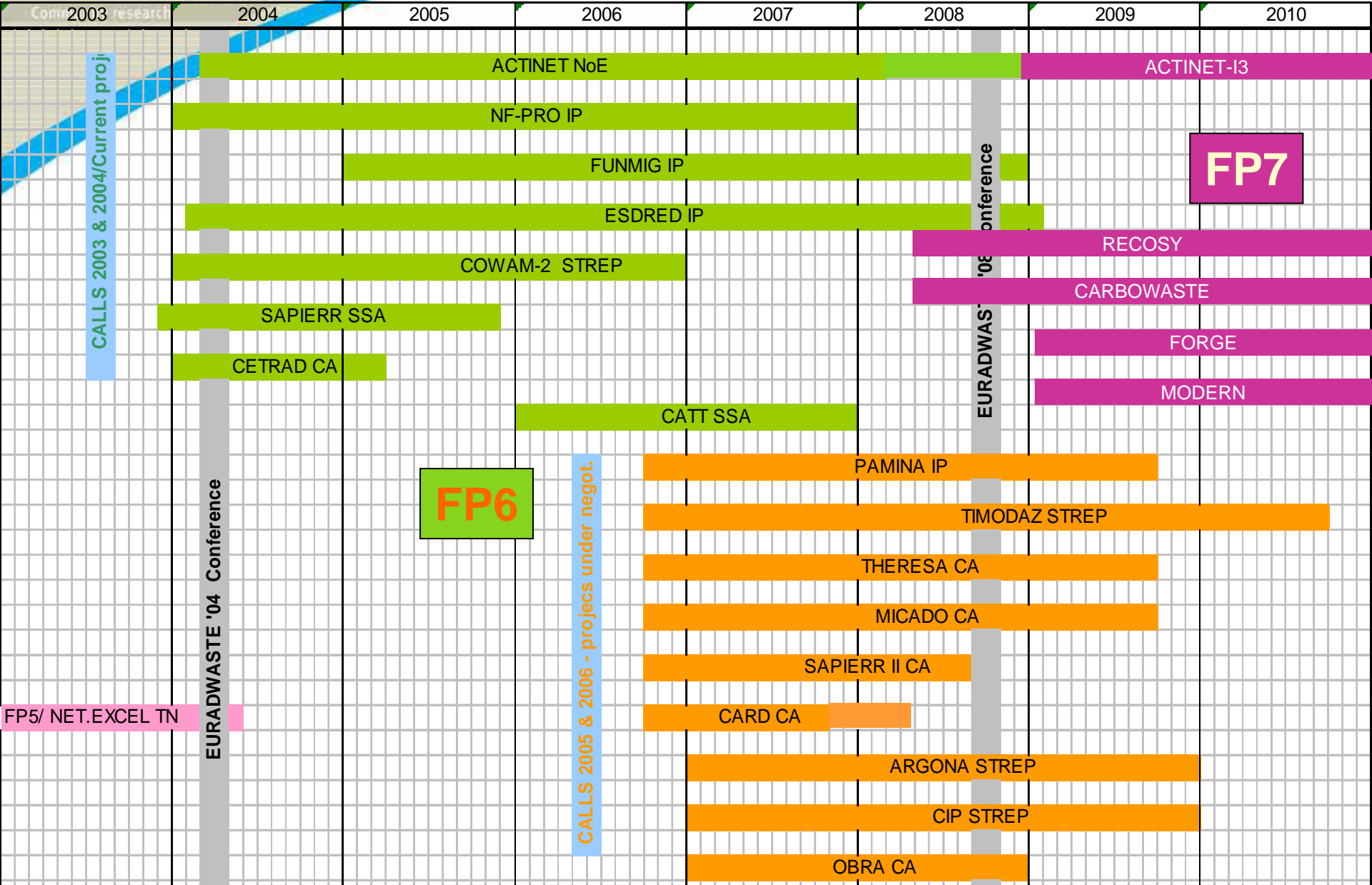
# FP7 projects (so far)

project	key areas of R&D	partners / countries	EU / total cost	launch & duration
<b>ReCosy</b> Redox phenomena Controlling Systems	Redox phenomena controlling long-term release / retention of radionuclides in radwaste disposal	32 / 14	€3.5M / €6.2M	Spring 2008 4 years
<b>CARBOWASTE</b> Treatment and Disposal of Irradiated Graphite & other Carbonaceous Waste	Integrated waste management approach to graphite waste from past and future reactors	29 / 11	€6M / c.€10M	Spring 2008 4 years

About to be launched: **FORGE, MODERN, ACTINET-I3**



# timeline of GD projects



CALLS 2003 & 2004/Current proj

EURADWASTE '04 Conference

FP6

CALLS 2005 & 2006 - projects under negot.

EURADWASTE '08 Conference

FP7



## **fission programme FP7 – *key issues for implementation***

- Programme must remain flexible to respond effectively to results of on-going research, emerging issues and political priorities
- Similar funding schemes to FP6 allow important continuity
- International cooperation a key overall policy objective
- Enhanced coordination with national & industrial R&D programmes essential
  - ➔ **“Technology Platforms” can build on the structuring effect of FP6 instruments & enable more effective use of FP funds**



# Technology Platforms *a 3-step process*

1. R&D stakeholders, led by “end users”, come together around a common vision for the technology
2. SH define a Strategic Research Agenda setting out medium to long-term research priorities to realise the vision
3. SH implement the SRA with the mobilisation of significant human and financial resources (“Deployment Strategy”)
  - Better align EU research priorities to end users’ needs
  - Positive impact on Europe’s growth, competitiveness and sustainability
  - Increased efficiency & effectiveness and reduced fragmentation of R&D efforts
  - Mobilisation of public and private funding sources





- “Safe geological disposal” is a truly shared vision
- SRA in “implementation-oriented” RD&D can ensure effective cooperation in remaining S&T areas
- Key stakeholders: WMOs, R&D institutes & organisations / TSOs ...
- As “end users”, WMOs are the driving force
- If necessary, a “mirror-group” of national representatives can also be established





# “Implementing Geological Disposal” Technology Platform: IGD-TP

- Executive group formed (Se, Fi, De, Fr)
- Information meeting at Euradwaste'08 conference last October
- Meeting of stakeholders in Berlin early Feb.09
  - ➔ Draft vision document available soon afterwards for broader public consultation
  - ➔ TP launch foreseen in 2<sup>nd</sup> semester 2009
- Once established, the TP will define a Strategic Research Agenda enabling the vision to be realised; and a deployment strategy to carry out joint research
- The Euratom FP would use the SRA as a source of priorities for annual WPs



## ... other considerations

- Communication strategy
- Knowledge management / education & training / technology transfer
- Use of research infrastructures
- The international dimension
- Must interface with SNE-TP
- Natl. programmes with different speeds?
- Roles of regulators, waste producers, CSOs, NGOs?



# Euratom FP7 *fission & radiation protection*

IGD-TP

**Vision document  
early 2009**

- Management of nuclear waste:
- Geological disposal
  - Partitioning & Transmutation

S  
N  
E  
|  
T  
P

- Reactor systems:
- Nuclear installations
  - Advanced nuclear reactors

**Platform launched  
on 21 Sept. 07!**

**Key cross-cutting  
activities:**

- Research infrastructures
- Human resources, mobility & training

MELODI

- Radiation protection:
- Risk from ionising radiation
  - Medical uses of ionising radiation
  - Emergency management

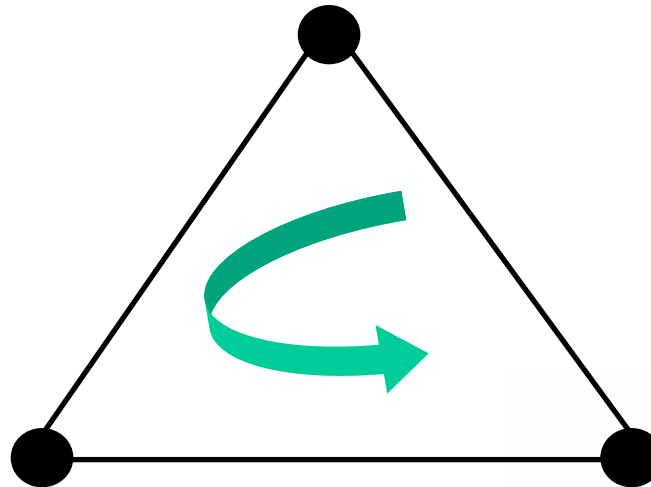
**Web consultation  
[www.hleg.de](http://www.hleg.de)**





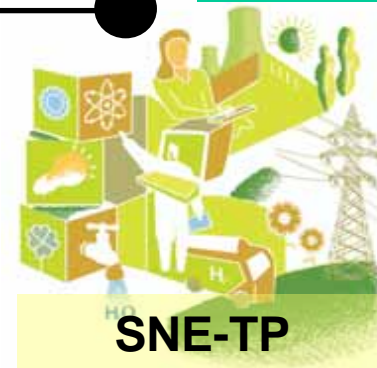
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**High-Level Group  
on  
Safety & Waste =  
ENSREG**

**IGD-TP**





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# The EU's "technology-based" response to the energy challenges

AN ENERGY POLICY FOR  
EUROPE

## European Strategic Energy Technology Plan (SET-Plan)

'Towards a low carbon future'

COM(2007)723

of 22 November 2007

*energy for a changing world*



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# Achieving the political vision: *the 2020 targets*

## What COM(2007)723 says:

Key EU technology challenges for the next 10 yrs to meet the 2020 targets:

→ ...

→ ...

→ ...

→ **Maintain competitiveness in fission technologies, together with long-term waste management solutions.**



- Euratom has provided important R&D funding in GD over many years in support of national programmes; this will continue in FP7
- Focus of FP7 is “implementation-oriented” RD&D
- The European R&D effort can remain effective and efficient by ensuring enhanced cooperation amongst all key R&D players ...
- ... and a TP offers a flexible and adaptable model for such enhanced cooperation
  - better use of resources
  - can deal collectively with numerous cross-cutting issues (E&T, use of infrastructures ...)
  - offers a voice for the GD RD&D community at EU level in key debates