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Euratom research on radioactive waste management & Disposal

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Unit K4 – Nuclear Fission
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OVERVIEW

- ❑ Euratom FP7 status in geological disposal
- ❑ Issues for implementation of BELBaR
- ❑ Euratom programme (2014-2018): Horizon 2020



Funded projects in call FP7 - 2011

Management of radioactive waste – Geological Disposal

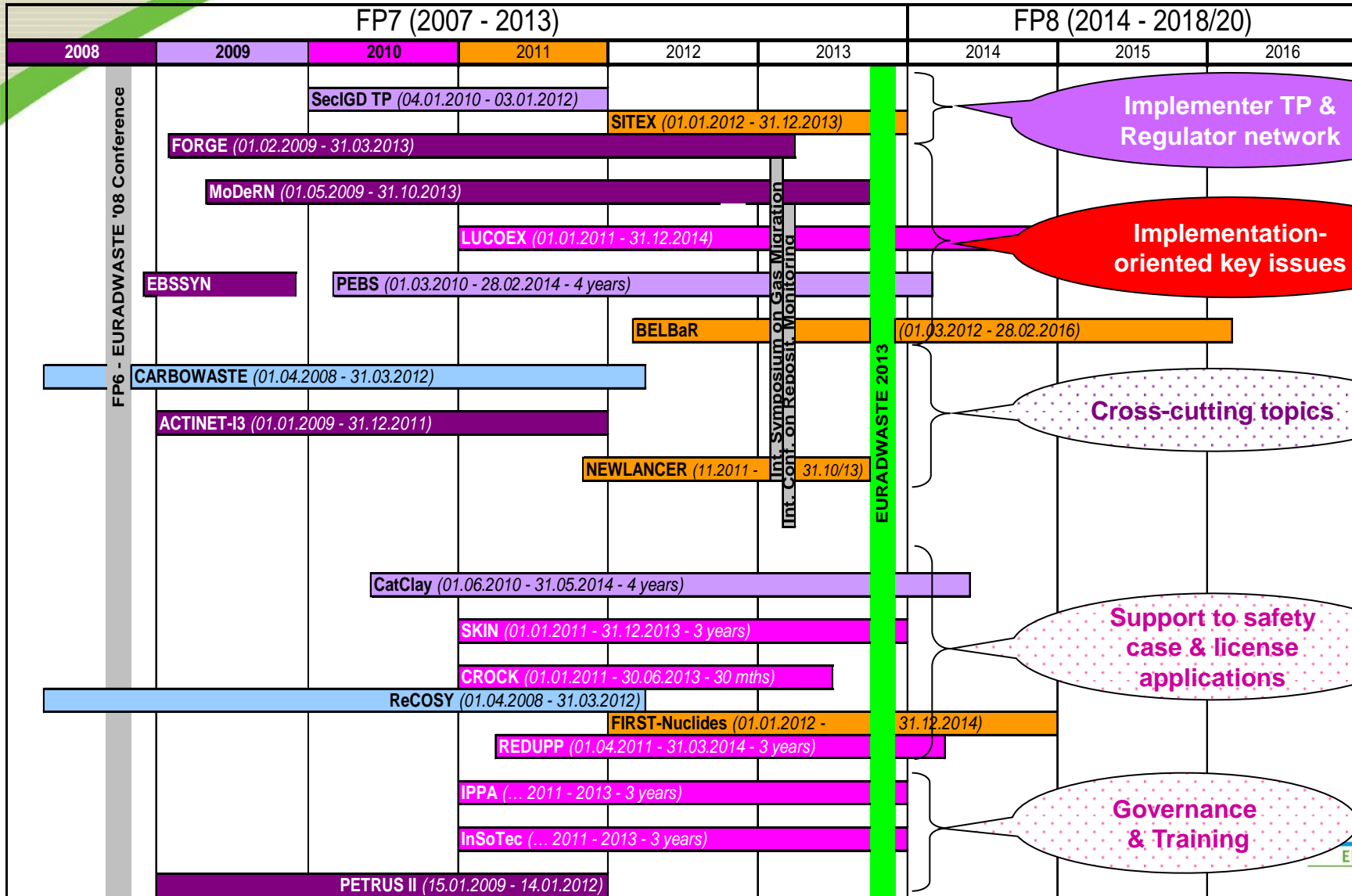
Project acronym and title	Key activities	Coordinator / no. partners	Start date & duration	Total cost / EU funding
BELBAR – Bentonite Erosion: Effects on the long-term performance of the engineered barrier and radionuclide Transport	To increase the knowledge of processes that controls clay colloid stability, generation and ability to transport radio-nuclides.	<u>SKB (SE)</u> 14 partners (6 countries + Russia)	March 2012 48 months	€5.6M / €2.6M R&D
FIRST-NUCLIDES – Fast / Instant Release of Safety Relevant Radionuclides from Spent Nuclear Fuel	To improve understanding of fast instant released radionuclides from disposed high burn-up UO ₂ spent fuel	<u>KIT (DE)</u> 10 partners (7 countries)	Jan. 2012 36 months	€4.7M / €2.5M R&D
SITEX – Sustainable network of Independent Technical Expertise for radioactive waste disposal (Support for regulatory functions)	Network regulatory bodies & TSOs for common understanding of the key safety elements to be presented in the safety case in discussion with waste management organisations	<u>IRSN (FR)</u> 15 partners (9 countries + Canada)	Jan. 2012 24 months	€1.34M / €0.95M Coordination

Support actions – Cross-cutting

NEWLANCER – New MS Linking for an Advanced Cohesion in Euratom Research	To enhance NMS involvement in future Euratom FP and strengthen full NMS R&D potential and cohesion.	<u>INR (RO)</u> 15 partners (12 countries)	Nov. 2011 24 months	€0.94M / €0.9M Coordination
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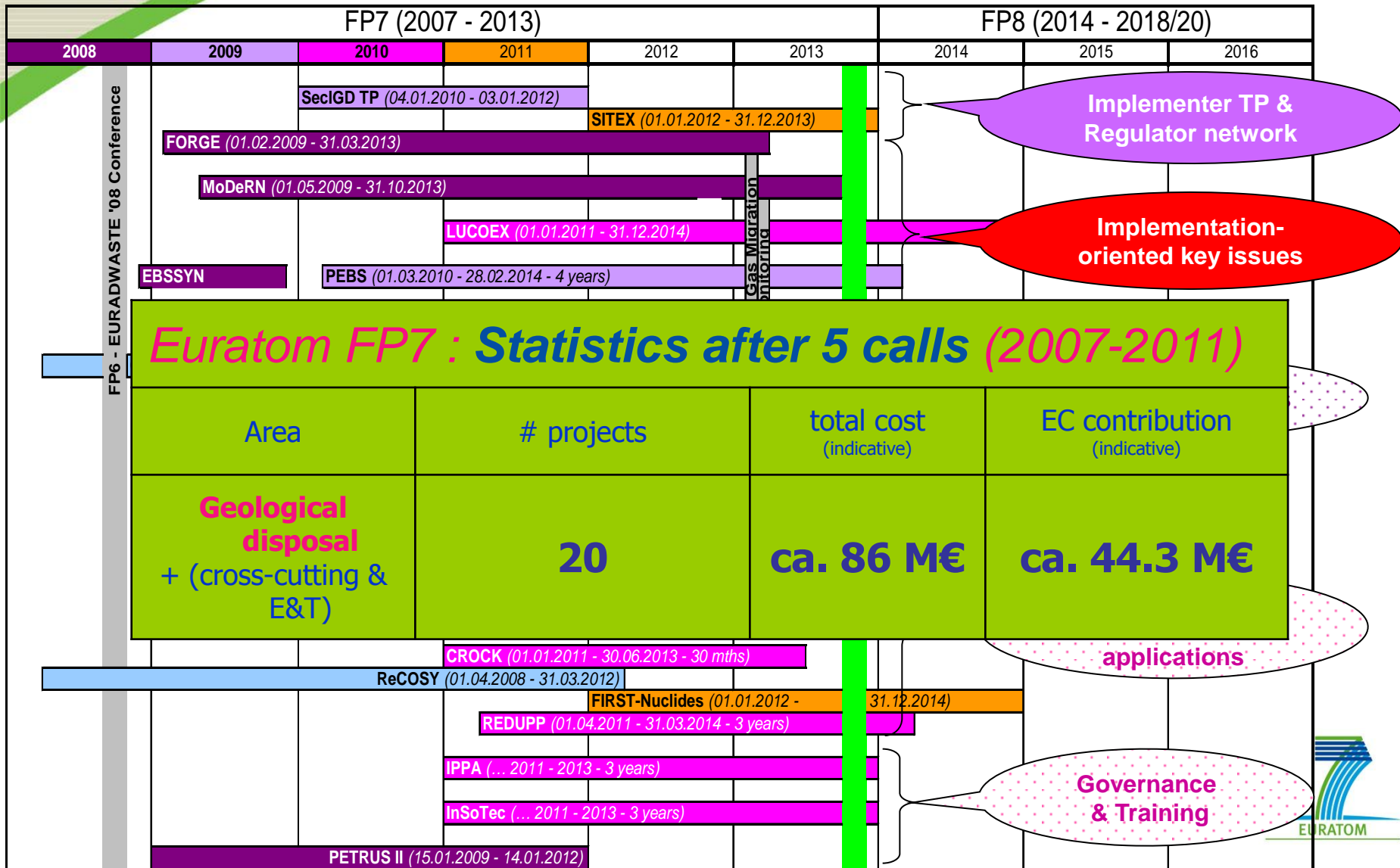


FP7 Geological disposal & cross-cutting projects (Status Oct. 2011)





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International Symposium and workshop on

Gas generation and migration:

“Implications for the performance of geological repositories for radioactive waste disposal”

5 to 7 February 2013 - Luxembourg



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website: www.FORGEproject.org/Luxembourg2013



MODERN

Monitoring Developments for Safe Repository Operation and Staged Closure

International conference & workshop
Monitoring in Geological disposal of radioactive waste
Luxembourg, 19-21 **March 2013**

<http://www.modern-fp7.eu/Monitoring-GDRW-2013/>





Call 2012 / LAST BUT ONE in FP7
Deadline 27 March 2012

- Two Topics:

Plugs and seals - full-scale demonstration & long-term performance Maximum one Collaborative Project.

Secretariat of IGD-TP

Maximum one Coordination and Support Action

Budget EUR 9 million +/-10% of total (ca.€53 million)



BELBaR implementation: Negotiation issues 1)

Evaluation and issues in negotiation mandate	WP#	Outcome in Description of work
Colloid / radionuclides - Host rock interactions considered of lower priority because related to buffer mass loss → Priority to other activities	3	Currently, no conflict of resources is foreseen between the work packages
Type and values parameters selected for experiments and modelling → Report to end-user board for review & agreement + <u>milestones prior to starting work</u>	1	✓ Milestones month 2
Deliverables in WP 2, 3 & 4: too generic (progress reports) → Del. to bring specific answers to the scientific issues	...	✓ Adopted
D1.1 “Summary” SoA on treatment of colloids issues in safety case → to be comprehensive	1	✓ status report: to be a key tool to monitor how uncertainties on processes are reduced.
Project reviews by end user board to be documented as internal deliverables	6	✓ One del. created after each workshop



Negotiation issues 2)

Evaluation and issues in negotiation mandate	WP#	Outcome in Description of work
Commitment on proposal that "each member will produce at least one journal publication during the project"	...	Publication of deliverable * as articles in peer-reviewed journals anticipated for each member → Needs to be followed-up & reported in the periodic reports
Training: 1) session on colloid science at 1st workshop 2) Summer schools & professional courses → bespoke courses / training activities to become a del. 3) Scheme for mobility of students / staff to be detailed	6	<ol style="list-style-type: none">1) At workshop Mth 92) Arrangement of Clay Colloid training course (D6.11) Mth 403) Mobility plan discussed at 1st workshop → 3 actions to be followed-up



BELBaR implementation: Contractual requirements

- **Reporting:** (within 60 days of end of period), (payment within 105 days of receipt)
 - Three periodic reports (M18, 36 & 48) and a final report at M48
 - Publishable summary of work
 - Justification of use of the resources
 - Financial statement (individual) & summary financial report (coordinator)
 - Report on distribution of the EC financial contribution 30 days after receipt of final payment
 - Guidance notes on project reporting: http://cordis.europa.eu/fp7/find-doc_en.html
 - Deliverables (technical) & Periodic reports (management & financial) prepared and submitted online:
 - Access via participant portal: http://cordis.europa.eu/fp7/pp_en.html
 - Technical part in SESAM,
 - Financial Statement (Form C) in FORCE FormC editor



Publications / dissemination:

- Any publicity, including at a conference or seminar or any type of information or promotional material, must specify that the project has received Community research funding and display the European flag & Euratom logo with appropriate prominence, (contract article II.30).
- All publications must include the statement below:
“The research leading to these results has received funding from the European Atomic Energy Community's Seventh Framework Programme (FP7/2007-2011) under grant agreement n° ..., the ... project”
- Expenses for participation in international workshops and events only accepted if for presentation of the project or key parts of it, Annex I, section section B.2.4. resources to be committed

European flag: http://europa.eu/abc/symbols/emblem/index_en.htm

Euratom FP7: http://ec.europa.eu/research/fp7/index_en.cfm?pg=logos





Payment modalities:

- **Pre-financing:** (within 45 days of signature of the grant agreement (GA) by the EC: 24 Nov. 2011)

Maxi EU contribution	€ 2,581,476.20
Pre-financing 53% of total	€ 1,375,926.80
Guarantee fund 5%	€ 129,073.81
Net paid	€ 1,246,853.00

- Interim payments based on financial statements (EC contribution= amounts justified & accepted * funding rate)
- Maxi payment before completion: 85 % of total EC contribution (Retention 10% and 5% guarantee fund)
- Final payment



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Thank you for your attention

