



ANDES Semester Meeting

FP7 Euratom Framework Programme Nuclear Fission & Radiation Protection

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ANDES Semester meeting, Brussels (BE), 18 November 2011





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Content

- ANDES progress reporting
- WP 2011 and Fission-Call-2011
- FP7+2
- EC Initiatives...
 - SET-Plan Materials for Energy Roadmap
 - Fukushima lessons, Euratom training initiative
- ESNII status
- CSF 2014-2020 "Horizon 2020"

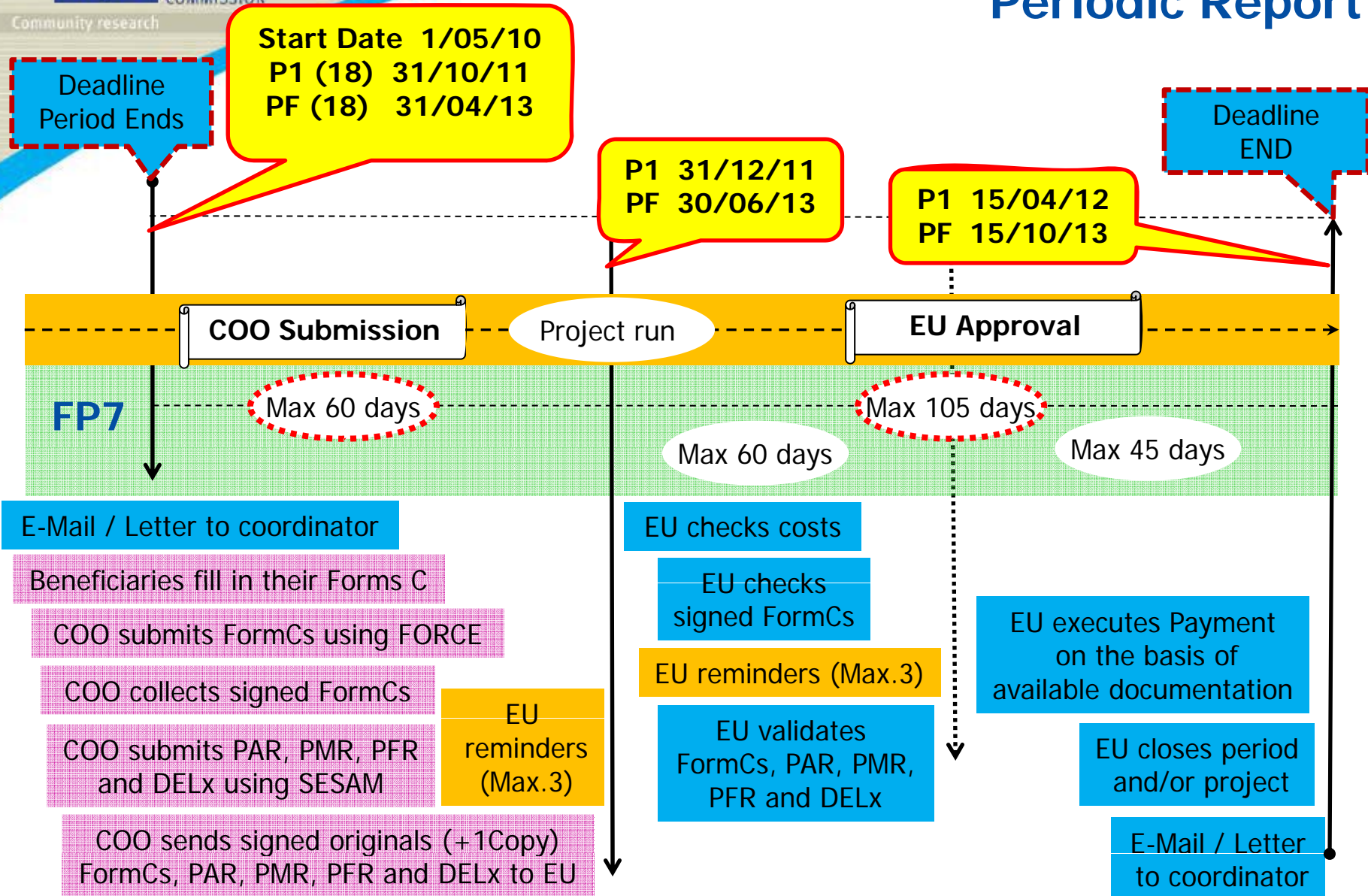
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FP7 ANDES Periodic Report



COO: Coordinator, **PAR:** Project Activity Report, **PMR:** Project Management Report, **PFR:** Project Final Report, **DELx:** Due Deliverables





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Euratom WP2011 & Call 2011

- **Work Programme 2011** adopted by EC on 20/09/2010
- ... publication of WP & 2011 call also on 20/09/2010
- **Call deadline 7 April 2011**, evaluations April-May 2011
- €41M available for call for proposals (+ €10.75M for Euratom contribution to JHR)
- **49 proposals** received and evaluated
- **Launch of negotiations** from June 2011
- **First projects launched before the end 2011**

http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=UserSite.EuratomDetailsCallPage&call_id=348





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2011 Call

...Strong Competition for ESNII & SNETP SRA

Fission2: 25 proposals, budget 19Mi€, EC Req. 55Mi€

- 2.2.1: **Support for ESNII...** 3 CP-FP or CSAs (5 proposals)
- 2.3.1: **R&D activities in support of SNETP Strategic Research Agenda ...** CP-FPs, CSAs And Max. One CP-IP (20 proposals)
- P&T, Safety and competitiveness of existing and future nuclear installations, Advanced nuclear systems for increased sustainability, Cross-cutting aspects of nuclear systems, Advanced systems for non-electrical uses of nuclear energy

Fission 4-5-6: CSAs (8 proposals), budget 5Mi€, EC Req. 6Mi€

- Infrastructures, Access to infrastructures, Human Resources, Mobility and Training, Cross-Cutting Actions, Cooperation with Third Countries (actions integrated in all other topics)





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Euratom FP7 projects

... Nuclear Data

Project acronym and title	Key areas of R&D	Coordinating organisation & no of partners*	Start date & duration	Total budget / EU contribution
ANDES – Accurate Nuclear Data for nuclear Energy Sustainability http://fachp1.ciemat.es/andes/	Improved nuclear data for advanced reactor systems	<u>CIEMAT (ES)</u> 20 partners (from 15 countries)	1/05/10 36 months	€6.2M / €3M
ERINDA – European Research Infrastructures for Nuclear Data Applications	Transnational access to large infrastructures	<u>HZDR (DE)</u> 13 partners (from 10 countries)	1/12/10 36 months	€1.2M / €1M (Coordination Action)
EUFROT – European Facility for Innovative Reactor and Transmutation Neutron Data http://irmm.jrc.ec.europa.eu/eufrat	Transmutation of radioactive waste and Gen IV reactors - Nuclear data measurements	<u>JRC/IRMM</u> 1 partner	01/11/08 48 months	€0.5M / €0.5M





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Euratom FP6 projects

... *Nuclear Data*

Project acronym and title	Key areas of R&D	Coordinating organisation & no of partners*	Start date & duration	Total budget / EU contribution
<p>EUROTRANS – European Research Programme for Transmutation of High-Level Waste in an Accelerator Driven System http://www.fzk.de/eurotrans/</p> <p>DM5 – NUDATRA</p>	<p>Transmutation of long-lived radionuclides: Accelerator Driven System ADS design, incl. fuel / linac, coupling, HLM tech., nuclear data</p> <p>Improvement/ assessment of the simulation tools and associated uncertainties</p>	<p><u>FZK-NUKLEAR (DE)</u> 32 partners (from 15 countries)</p> <p>22 partners (from 13 countries)</p>	<p>1/4/05 60 months</p>	<p>€43M / 23M</p> <p>€2M / 1.12M</p>
<p>EFNUDAT – European Facilities for Nuclear Data Measurements www.efnudat.eu</p>	<p>Transmutation of radioactive waste and Gen IV reactors - Nuclear data measurements</p>	<p><u>CNRS (FR)</u> 11 partners (from 5 countries)</p>	<p>01/11/06 48 months</p>	<p>€3M / €2.4M</p>
<p>CANDIDE – Coordinated Action on Nuclear Data for Industrial Development in Europe http://candide.ujv.cz/</p>	<p>Improved nuclear data for advanced reactor systems, Roadmap for sustainable nuclear data development</p>	<p><u>UU (SE)</u> 12 partners (from 10 countries)</p>	<p>1/1/07 24 months</p>	<p>€1M / 0.8M</p>
<p>NUDAME – Nuclear Data Measurements at JRC Geel http://irmm.jrc.ec.europa.eu/eufrat</p>	<p>TALI: Improved access to neutron facilities JRC-IRMM</p>	<p><u>JRC/IRMM</u> 1 partner</p>	<p>01/04/05 36 months</p>	<p>€0.3M / €0.3M</p>



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Summary of funding: *Euratom nuclear data projects*

- **FP4 (1994-1998) & FP5 (1998-2002) projects**

- Total funding: €10M
- Euratom contribution: €4.6M



- **FP6 (2002-2006) projects**

- Total funding: €6.3M
- Euratom contribution: €5.6M



- **FP7 (2007-2011) projects** (to date, committed or spent)

- Total funding: €7.9M
- Euratom contribution: €4.5M





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Euratom FP7 fission & RP – *implementation*

Euratom 7th Framework Programme for “Nuclear Research and Training Activities”

DG-Research
indirect actions

Fusion

€1947 M

€2200 M
(€ 1892 M for
ITER France)

DG-Research
indirect actions

Fission &
Radiation Protection

€287 M

€118 M

JRC
direct actions

Nuclear-related
activities

€517 M

€233 M

(2007-2011) FP7 = €2751 M (2011-2013) FP7+2 = €2551 M

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/256> dated 7/03/2011



Euratom WP2012 & Call 2012

- FP7 'extension' (2012-13): Commission proposal adopted 7/03/2011
 - 'Business as usual' as far as possible **with Safety focus** following Fukushima events **as we always did!** (look at the selected projects in 2011...)
- **Work Programme 2012** to be adopted by EC 15/12/2011 (due to ITER 1.3 Bi€ holding issue)
- ... publication of WP & 2012 call also on 15/12/2011
- **Call deadline April 2012**, evaluations April-May 2011
- **Launch of negotiations** from June 2012
- Closure of negotiations mid-July 2012
- **First projects to be launched before end 2012**



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... Fukushima lessons Euratom training initiative

- A Euratom training initiative will be launched, drawing the lessons from Fukushima from a "Research and Innovation" prospect / Initiative of Commissioner Mrs Máire Geoghegan Quinn
 - **Named Beneficiary Action in favour of ENEN Association**
<http://www.enen-assoc.org/>
 - **A budget of up to EUR 1.000.000 (duration up to 4 years)**
 - Launch event with the Commissioners in autumn 2011
- This training initiative will also report on the "stress tests"
- **Expected impact:** Through targeted **training of key personnel and stakeholders** over a relatively long time duration, impacts should be expected mainly in two areas:
 - further strengthening of the **nuclear safety culture** throughout Europe, with particular emphasis on the human element
 - **public understanding** of nuclear fission technologies and radiation protection issues in general.



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... SET-Plan Materials for Energy Roadmap

- The end-goal of this **multi-technology focus process** is
 - to develop implementable roadmaps
 - **a short to medium term roadmap** covering the 2020– 2030 time horizons and
 - **a longer term horizon**, similar to the SET-Plan Technology Roadmap that contains per **priority**, **proposed key actions** and Key Performance Indicators (KPIs)
 - It is noted that the **key actions** should clearly stipulate the **linkage** with the implementation framework of the SET-Plan that is **inclusion or not** of the proposed activities in the current EIIs and/or EERA or **needs to develop additional cross-cutting instruments** (e.g. if multi-technology focus)



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... SET-Plan Materials for Energy Roadmap

- Technology Scope and **Roadmap Targeted Information**
 - 1. Technology/System baseline
 - 2. Material Supply Status
 - 3. Material Challenges
 - 4. Material future specification targets
 - 5. **Needs and recommendations for activities**
 - 6. **Synergies with other technologies**
 - 7. On-going material research for energy and Current actors in the field of material research and energy technology development
 - 8. New avenues and research methods





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As a starting point

... technology priorities of the SET-Plan covered

- 1. Wind energy
- 2. Solar energy (photovoltaic)
- 3. Solar energy (thermal) including heat storage
- 4. Electricity grid
- 5. Electrical storage
- 6. Bioenergy
- 7. Novel materials for the fossil energies sector, including CCS and advanced fuels
- **8. Materials for the nuclear industry (fission)**
- 9. Hydrogen storage and fuel cells
- 10. Energy efficient materials for Buildings

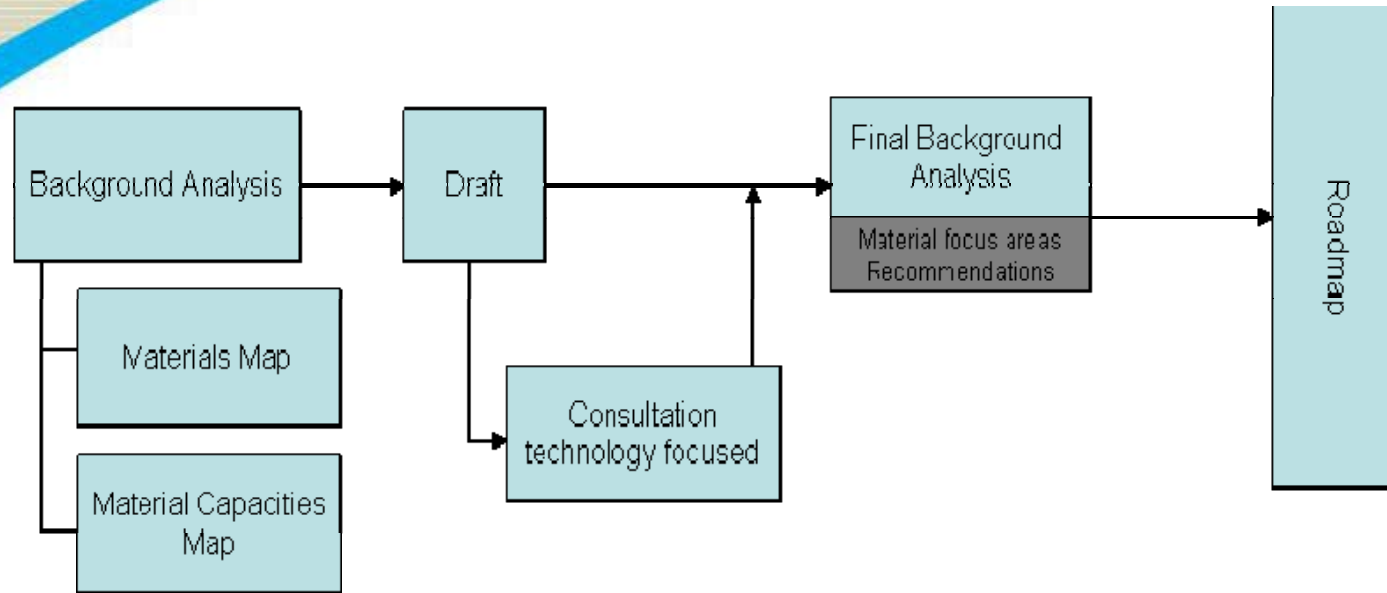




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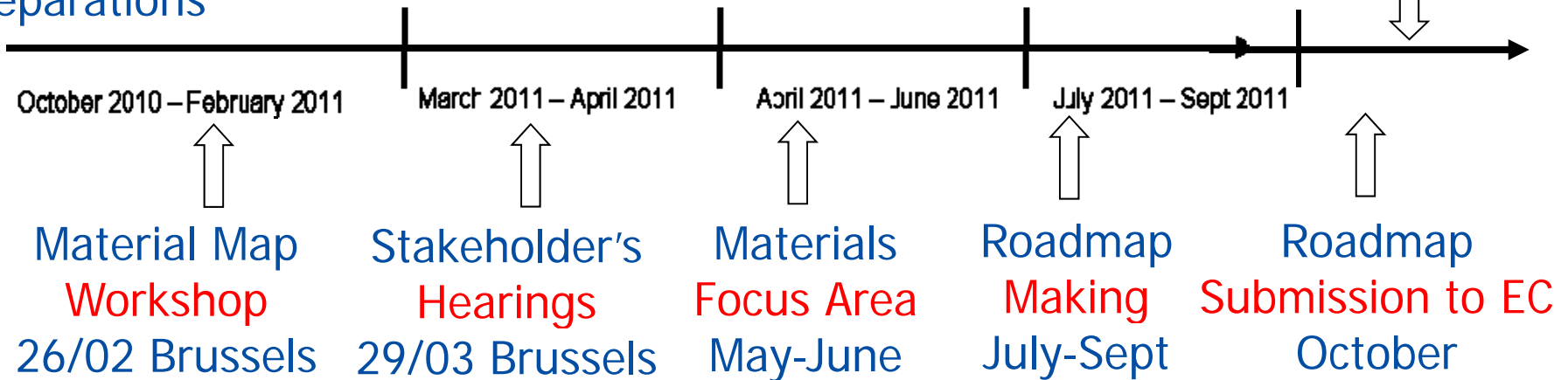
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Process – Timelines



Presentation
At SET-Plan
Conference
Nov.2011

Preparations





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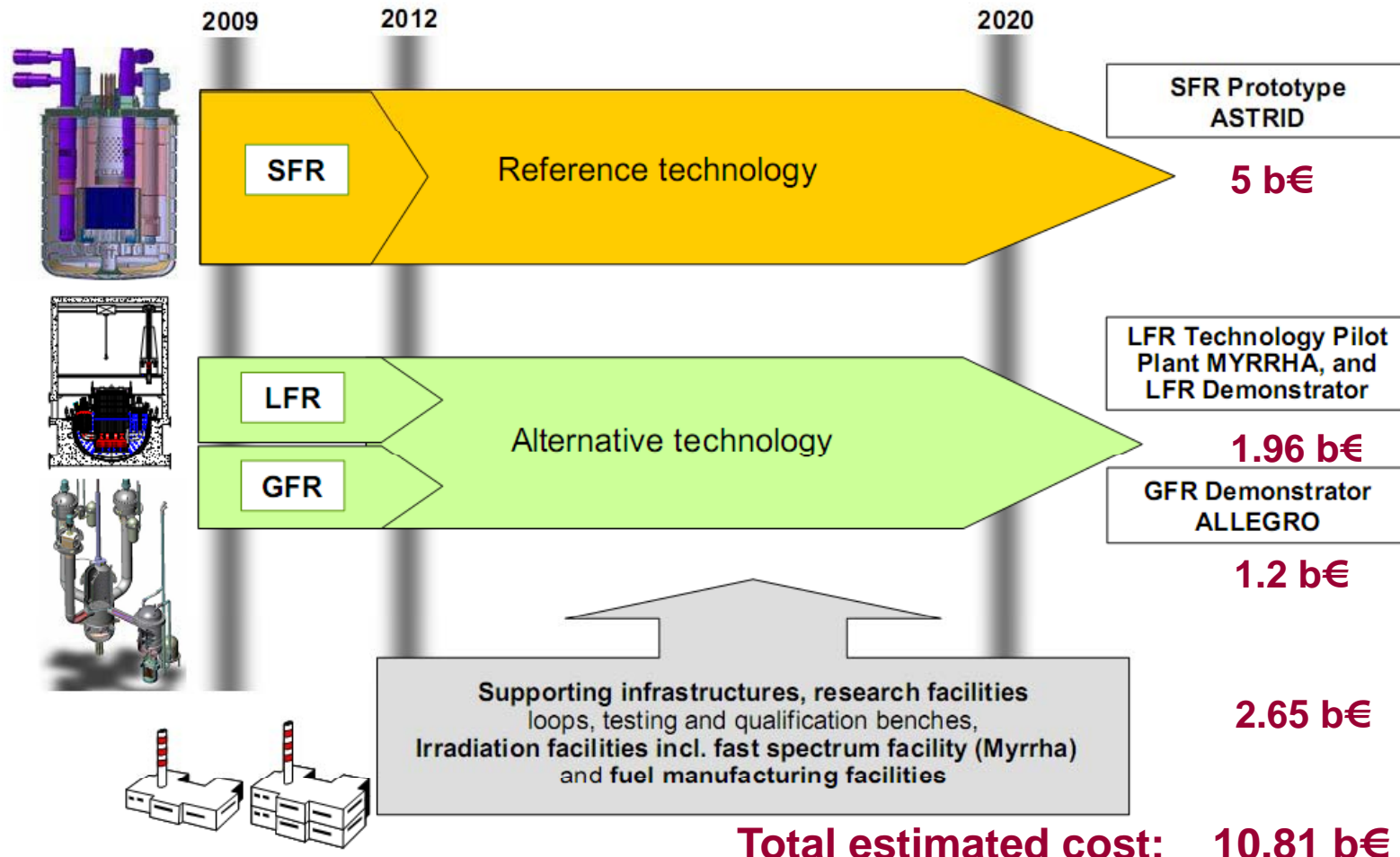


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The European Sustainable Nuclear Industrial Initiative

2040: Target for the deployment of Gen-IV Fast Neutron Reactors with Closed Fuel Cycle



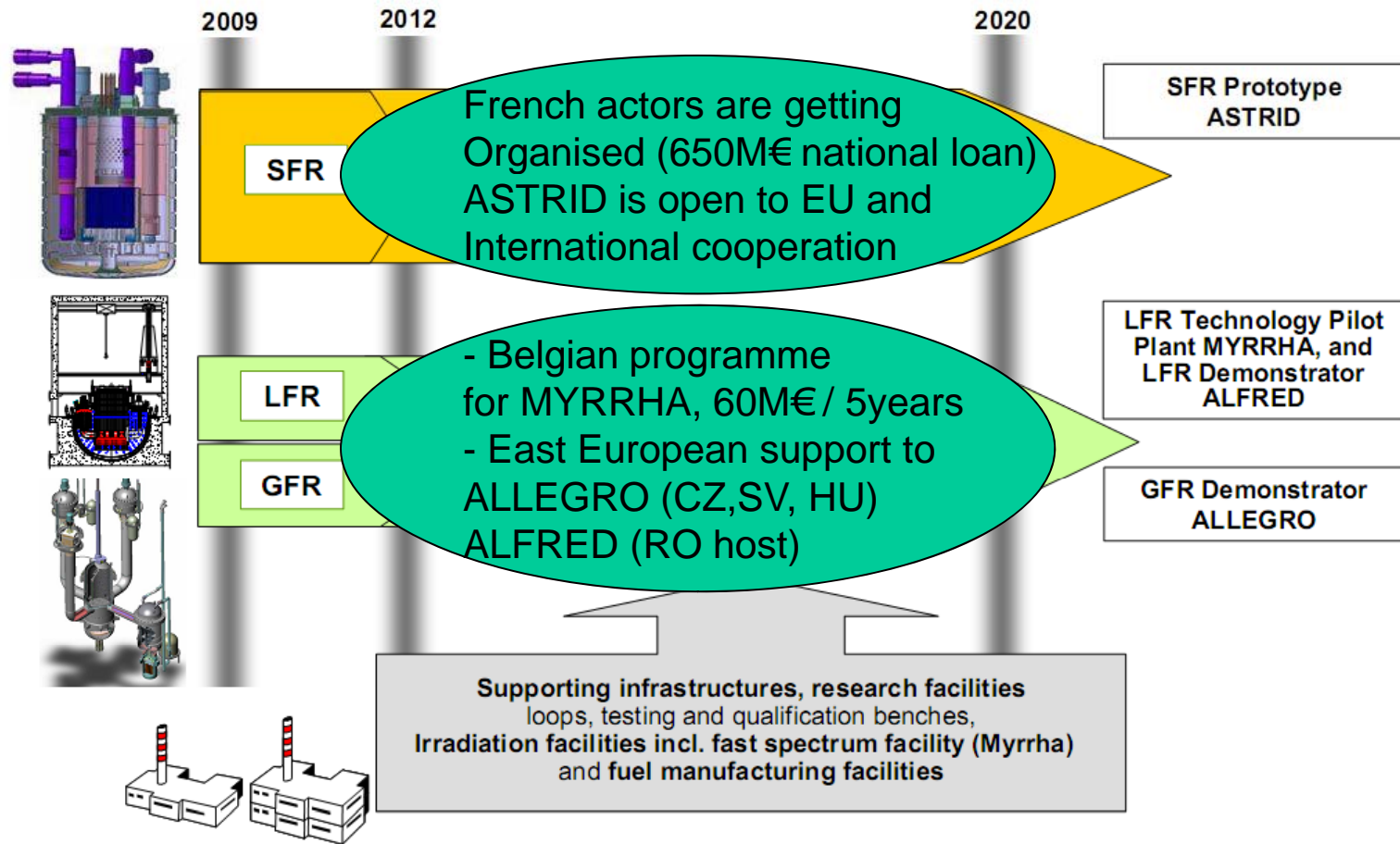


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Projects are being launched

- preliminary design phases: partially funded
- next steps: strong need for Public - Private Partnerships (MS - EU - Private funding)





Industrial Initiative ESNII

- **SETPLAN 2007 & 2009** Communications – endorsement by EP & Council – nuclear is part of it
 - Roadmap 2008-2009, Stockholm Conference Oct 2009
- **2010 launch of EII**s – preparation for the financial perspectives
 - Detailed Concept Paper, Deloitte Study financing / legal options
 - ESNII Task Force MoU signed spring 2010, Detailed Implementation Plan 3-years 2010-12, 1st 'ESNII Team Meeting' in September 2010, Spanish SET-Plan Conference in June 2010, SNETP General Assembly 14/09/2010 Brussels
 - **Belgium SETPLAN Conference Brussels - launch of ESNII 15-16/11/2010**
- **2011 progress**
 - 2nd 'ESNII Team Meeting' on 18/03/2011
 - 3rd 'ESNII Team Meeting' on 26/10/2011
 - **Polish SETPLAN Conference Warsaw – EII**s Progress of EIIs 28-30/11/2010, launch of SETPLAN materials for Energy
 - SNETP General Assembly 29/11/2011
 - Refinement of Financing Plan (CSF, EIB, financial perspectives)
 - Set-up of Consortia (MYRRHA, ASTRID, ALLEGRO, ALFRED...)



ESNII 4 – Supporting Infrastructures

- **Design, construct, upgrade and operate a consistent set of experimental facilities** for component design, system development, code qualification and validation, **that are essential to perform design and safety analyses of the demonstration programme of ESNII**, including zero-power reactors, hot cells, gas loops, liquid metal loops;
- Design, construct and operate the necessary **irradiation tools and devices to test materials and fuels**;
- Design, construct and operate the necessary **fuel fabrication workshops**, dedicated to uranium-plutonium driver fuels, and to minor actinide bearing fuels;
- 2011: complete identification of the necessary facilities
- 2012: initiate construction or upgrade of the necessary facilities including:
 - fuel manufacturing workshop
 - micro-pilot for separation of minor actinide bearing fuels





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ESNII-4:

Mapping of Research Infrastructures

- **NEA Research and Test facilities Database (RTFDB)**
 - ➔ <http://www.nea.fr/rtfdb/public>
 - ➔ Report <http://www.nea.fr/html/science/reports/2009/6293-Research-Test-Facilities.pdf>



- **ADRIANA (ADvanced Reactor Initiative And Network Arrangement)** is a coordination action supported by the Euratom 7th Framework Programme, dedicated to the **mapping and gap analysis of research infrastructures** in support of the European Sustainable Nuclear Industrial Initiative: "ESNII" established under the umbrella of the Sustainable Nuclear Energy Technology Platform (SNETP).
 - ➔ <http://adriana.ujv.cz/>





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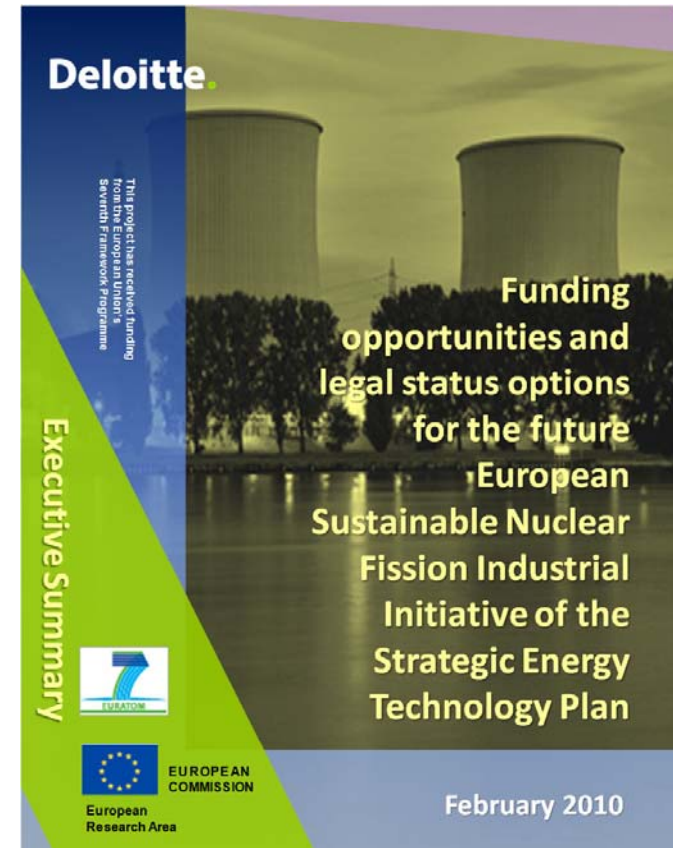
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ESNII 2010 Deloitte Study

- **Deloitte Study: Funding opportunities and legal status options for ESNII the future European Sustainable Nuclear Fission Industrial Initiative of the Strategic Energy Technology Plan**

http://cordis.europa.eu/fp7/euratom-fission/library_en.html

<ftp://ftp.cordis.europa.eu/pub/fp7/euratom-fission/docs/deloitte-gen4-022010-executive-summary.pdf>





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ESNII Deloitte Study

Financial sources

Source	Colour	Description	Criteria to include in the financial framework
EIB Loan (or Euratom)	Green	Financial support provided by these institutions.	Gen-IV initiative projects results are subject to uncertainty, so this source is limited according to promoter risk profile. In any case this percentage will never exceed 25.8% of forecast project value
Tax exemptions	Red	Exemptions of direct and/or indirect taxes due to Joint Undertaking or ERIC schemes.	Assumed that Joint Undertaking or ERIC schemes are used - represents between 14-15% of the total costs.
EU incentives & grants	Yellow	Financial support provided by Cohesion Policy Funds, Framework Programme, subsidies, etc.	Cohesion funds: limited up to 35% Other subsidies: according to the project characteristics and project promoters expectations.
Private investors	Cyan	Amount of money supported by providers of nuclear utilities, facilities and equipments, and other private energy players.	Information provided by private investors, promoters, etc.
National public research investors	Yellow	Financial support provided by national nuclear organisations and other public R&D institutions.	Information provided by national nuclear research organisations.
Hosting country public investment	Orange	Financial support dedicated to basic infrastructures co-related to the installation of a new research facility (land, civil buildings, access infrastructures, etc.)	Financial support that would be provided by national or local / regional authorities to host the projects: 5% of the budget.

This section was carried out with the collaboration of different agents, therefore being the best possible estimation in January 2010; it does not represent any financial commitment by the different project participants.



Timeline

- **Commission proposals:**
 - for post-2013 EU budget (29 June 2011)
 - for the Common Strategic Framework (30 Nov 2011)
 - **Legislative decisions** on the Common Strategic Framework by the Council and European Parliament (2012-13)
- => **Common Strategic Framework** (from 2014)





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ERA Public Consultation Till 30/11/2011

- http://ec.europa.eu/research/era/index_en.htm

The screenshot shows a web browser window displaying the European Research Area (ERA) website. The browser's address bar shows the URL ec.europa.eu/research/era/index_en.htm. The website header features the European Commission logo and the text "EUROPEAN RESEARCH AREA". Below the header, there is a navigation menu with links for "Home page", "Understanding ERA", "ERA Public Consultation", "Facts, figures and analysis", "Partnership for ERA", "Areas of action", and "ERA instruments". A prominent blue banner in the center of the page reads "Have your say! 13Sept - 30Nov 2011 Public Consultation on ERA areas of untapped potential". To the right of the banner, there is a "LATEST NEWS" section with two entries: "13.10.11 Social Sciences and Humanities - I-Know project final conference 'Taming the Wild & Listening to the Weak', 27-28 October 2011, Brussels" and "21.9.11 Press Centre - Commission calls for partnerships to tackle societal challenges". Below the news section, there is a "USEFUL LINKS" section with links to "Europe 2020", "Innovation Union", "Maire Geoghegan-Quinn", and "European Research website". At the bottom of the page, there is a photograph of a building with the words "RESEARCH INSTITUTE" visible on its facade. The browser's taskbar at the bottom shows the system clock as 16:09 on 26/10/2011.



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ERA Public Consultation

RAISE Your VOICE Till 30/11/2011

- This public consultation aims at gathering views and evidence from stakeholders on the key obstacles which have to be tackled to achieve a well-functioning ERA. Completing ERA will require the support and effort of all Member States and Associated Countries and their stakeholders (e.g. research performing organisations including universities, funding organisations, researchers, private sector and civil society). The consultation aims to reinforce the Commission analysis of the key issues to be addressed as well as to gather views on their importance: researchers' careers and mobility, research infrastructures, cross-border operation of research actors, knowledge circulation, international cooperation and cross-cutting governance issues.



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Euratom Programme: *the future*

- FP7 'extension' (2012-13): Commission proposal adopted 7/03/2011
 - 'Business as usual' as far as possible **with Safety focus following Fukushima events as we always did!** (look at the selected projects in 2011...)
- FP8 (2014-18/20): Commission proposals (EU & Euratom) end 2011
 - Intense preparations + impact assessment covering all themes (EU + Euratom) over coming months
 - Simplification a key objective **Fission thematic priorities will probably remain similar to FP7+2 ... + Support for EU policy initiatives, Energy Policies, SET-Plan and ESNII may justify greater EU investment**
 - **A true European ERA** and International cooperation initiatives
- **Financial Framework 2014 – 2020 "Horizon 2020"**
 - http://ec.europa.eu/budget/reform/index_en.htm
 - http://ec.europa.eu/budget/biblio/documents/fin_fwk1420/fin_fwk1420_en.cfm



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Conclusions Available Links

- EU Energy research: http://ec.europa.eu/research/energy/index_en.htm
- Euratom Seventh Framework Programme: http://cordis.europa.eu/fp7/euratom/home_en.html
- Information on FP7 and access to programmes and calls: http://cordis.europa.eu/fp7/home_en.html
- Euratom Seventh Framework Programme funded projects http://cordis.europa.eu/fp7/euratom-fission/library_en.html
- **CORDIS publications**
 - ➔ http://cordis.europa.eu/fp6-euratom/library_en.html
 - ➔ http://cordis.europa.eu/fp7/euratom-fission/library_en.html
 - ➔ **Euratom FP6 Research Projects and Training Activities, Volume I-II and III (PDF)**
 - ➔ **Volume I** ftp://ftp.cordis.europa.eu/pub/fp6-euratom/docs/nuclear_fission_eur21228_en.pdf
 - ➔ **Volume II** ftp://ftp.cordis.europa.eu/pub/fp6-euratom/docs/nuclear_fission_eur21229_en.pdf
 - ➔ **Volume III** ftp://ftp.cordis.europa.eu/pub/fp7/docs/euratom-fission_eur22385_en.pdf
 - ➔ **Euratom FP7 Research Projects and Training Activities, Volume I (PDF)**
 - ➔ **Volume I** ftp://ftp.cordis.europa.eu/pub/fp7/docs/fin-266-euratom-web-jun09v02_en.pdf
 - ➔ **Volume II** <http://ec.europa.eu/research/energy/pdf/euratom-fp7-vol-2.pdf>
- Research*eu magazine http://ec.europa.eu/research/research-eu/index_en.html
- **Strategic Energy Technolog Plan SET-Plan**
http://ec.europa.eu/energy/technology/set_plan/set_plan_en.htm
- FISA 2009 http://cordis.europa.eu/fp7/euratom-fission/fisa2009_en.html
- iKnow for Beneficiaries <http://212.68.215.215/dashboard.action>
- **Financial Framework 2014 – 2020 “Horizon 2020”**
- http://ec.europa.eu/budget/reform/index_en.htm
- http://ec.europa.eu/budget/biblio/documents/fin_fw1420/fin_fw1420_en.cfm



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Thank you for your attention!

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Principal Euratom FP7 projects 1/3

Call 2011 *Gen-IV nuclear systems and ESNII*

Project acronym and title	Key areas of R&D	<u>Coordinating organisation</u> & no of partners*	Start date & duration	Total budget / EU contribution
JASMIN – Joint Advanced Severe Accidents Modelling and Integration for Na-cooled fast neutron reactors	To develop a new European code ASTEC-Na to capitalise SFR severe accident knowledge, with improved physical models to support the development of a Gen-IV European SFR	<u>IRSN (FR)</u> 9 partners (from 5 countries)	01/12/2011 48 months	€5.6M / €3.0M CP-FP
SEARCH – Safe Exploitation Related Chemistry for HLM reactors and Lead-cooled Advanced Fast Reactor	Investigating safe chemical behaviour of fuel and coolant in lead-cooled reactor and support of Myrrha LFR technology	<u>SCK-CEN (BE)</u> 12 partners (from 8 countries)	01/11/2011 36 months	€5.4M / 3.0M CP-FP
PELGRIMM – PELLets versus Granulates: Irradiation, Manufacturing and Modelling	Gen-IV Minor Actinide (MA) bearing fuel developments and investigation of two fuel forms pellet and spherepac	<u>CEA (FR)</u> 12 partners (from 7 countries)	01/01/2012 48 months	€7.2M / €3.0M CP-FP





Principal Euratom FP7 projects 2/3

Call 2011 *Gen. IV nuclear systems and ESNII*

Project acronym and title	Key areas of R&D	<u>Coordinating organisation</u> & no of partners*	Start date & duration	Total budget / EU contribution
ASGAR – Advanced fuelS for Generation IV reActors ,Reprocessing and Dissolution	Cross-cutting studies innovative fuels to develop compatible techniques for dissolution, reprocessing and manufacturing of new nuclear fuels	<u>CHALMERS (SE)</u> 17 partners (from 10 countries)	01/01/2012 48 months	€9.6M / €5.8M CP-IP
SARGEN-IV – Harmonized European methodology for the Safety Assessment of innovative GEN-IV reactors	Safety R&D assessment and methodologies in support to ESNII gathering European TSOs, designers, vendors and Research organisations	<u>IRSN (FR)</u> 22 partners (from 12 countries)	01/01/2012 24 months	€1.0M / 1.0M CSA-CA
SILER – Seismic-Initiated events risk mitigation in Lead-cooled Reactors	To study risks associated to seismic initiated events in Gen-IV Heavy Liquid Metal reactors and develop adequate measures	<u>ENEA (IT)</u> 18 partners (from 8 countries)	Under Negotiation 36 months	€5.3M / €3.0M CP-FP





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Principal Euratom FP7 projects 3/3

Call 2011 *Cross-cutting activities and ESNII*

Project acronym and title	Key areas of R&D	<u>Coordinating organisation</u> & no of partners*	Start date & duration	Total budget / EU contribution
MULTIMETAL – Structural performance of multi-metal component	Structural performance and ageing of dissimilar metal welds (DMW), modelling towards harmonised European code and standards	<u>VTT (FI)</u> 11 partners (from 9 countries)	Under Negotiation 36 months	€3.1M / €1.7M CP-FP
HPMC – High Performance Monte Carlo reactor core analysis	To develop full core Monte Carlo calculation for time-dependent safety analysis with thermal-hydraulic feedback and burn-up using high performance computing	<u>KIT (DE)</u> 4 partners (from 4 countries)	01/10/2011 36 months	€0.8M / 0.55M CP-FP





Principal Euratom FP7 projects 1/2

Call 2011 *NMS, E&T and Transnational access*

Project acronym and title	Key areas of R&D	<u>Coordinating organisation</u> & no of partners*	Start date & duration	Total budget / EU contribution
NEWLANCER – New MS Linking for an Advanced Cohesion in Euratom Research	To enhance NMS involvement in future Euratom FP and strenghten full NMS R&D potential and cohesion	<u>INR (RO)</u> 15 partners (from 12 countries)	01/11/2011 24 months	€0.91M / €0.90M CSA-CA
CORONA – Establishment of a Regional Centre of Competence for VVER Technology and Nuclear Applications	To provide a structure for training and qualification of personnel serving VVER technology and unification of training schemes according to IAEA standards	<u>KNPP (BG)</u> 11 partners (from 6 EU countries + Russia and Ukraine)	Under Negotiation 36 months	€2.1M / 1.0M CSA-CA
EURECA! – Cooperation between EU and Canada in Education, Training and Knowledge management on Gen-IV SCWR concept	EU-Canada collaboration, mirrored projects, Education and Training activities related to SCWR and LWR NPP.	<u>DUT (NL)</u> 6 partners (from 6 countries)	Under Negotiation 24 months	€0.69M / €0.5M CSA-CA



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Principal Euratom FP7 projects 2/2

Call 2011 *E&T and Transnational access*

Project acronym and title	Key areas of R&D	<u>Coordinating organisation</u> & no of partners*	Start date & duration	Total budget / EU contribution
ALISA – Access to Large Infrastructures for Severe Accidents	EU-China Large scale experiments under prototypical conditions addressing severe management in LWR	<u>KIT (DE)</u> 2 partners (from 2 countries)	Under Negotiation 48 months	€1.6M / €1.0M CSA-SA
ALICE – Access to Large Infrastructures in China and Europa	EU-China cooperation on irradiation of structural materials for advanced nuclear systems	<u>SCK-CEN (BE)</u> 5 partners (from 5 countries)	Under Negotiation 48 months	€1.1M / 0.63M CSA-SA





Principal Euratom FP7 projects 1/1

Call 2011 *Waste Management Disposal*

Project acronym and title	Key areas of R&D	<u>Coordinating organisation</u> & no of partners*	Start date & duration	Total budget / EU contribution
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 radionuclides.	<u>SKB (SE)</u> 14 partners (from 6 countries + Russia)	01/01/2012 48 months	€5.2M / €2.6M CP-FP
FIRST-NUCLIDES – Fast / Instant Release of Safety Relevant Radionuclides from Spent Nuclear Fuel	To improve understanding of fast / instantly released radionuclides from disposed high burn-up UO ₂ spent fuel as IGTP SRA High Priority	<u>KIT (DE)</u> 10 partners (from 7 countries)	01/01/2012 36 months	€4.7M / €2.5M CP-FP
SITEX – Sustainable network of Independent Technical Expertise for radioactive waste disposal	To identify efficient means to establish a sustainable network regulatory bodies, TSOs and waste management organisations	<u>IRSN (FR)</u> 12 partners (from 9 countries + Canada)	Under Negotiation 24 months	€0.98M / €0.98M CSA-CA





Principal Euratom FP7 projects 1/2

Call 2011 *Low-dose risk management*

Project acronym and title	Key areas of R&D	<u>Coordinating organisation</u> & no of partners*	Start date & duration	Total budget / EU contribution
ANDANTE – Multidisciplinary evaluation of the cancer risk from neutrons relative to photons using stem cells and the induction of second malignant neoplasms following pediatric radiation therapy	Multidisciplinary approach, including physics measurements and modelling, molecular biology, radiobiology and epidemiology	<u>UNIPV (IT)</u> 15 partners (from 12 countries)	01/01/2012 48 months	€4.2M / €3.0M CP-FP
RENEB – Realising the European Network in Biodosimetry	To create a sustainable network in biological dosimetry and improve EU accident and emergency response capabilities	<u>BFS (DE)</u> 23 partners (from 16 EU countries)	01/01/2012 48 months	€1.55M / 1.0M CSA-CA
PROCARDIO – Cardiovascular Risk from Exposure to Low-dose and Low-dose rate Ionizing radiation	To further study inconclusive evidence between cardiovascular disease and exposure of the heart and major vessels to doses below 500mGy	<u>HMGU (DE)</u> 12 partners (from 7 EU countries + Russia)	01/10/2011 36 months	€5.5M / 3.0M CP-FP



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Principal Euratom FP7 projects 2/2

Call 2011 *Low-dose risk management*

Project acronym and title	Key areas of R&D	<u>Coordinating organisation</u> & no of partners*	Start date & duration	Total budget / EU contribution
CEREBRAD – Cognitive and Cerebro-vascular Effects Induced by Low Dose Ionising Radiation	Risk estimates of the effects from internal and external exposures and cancer radiotherapy initial and late effects	<u>SCK-CEN (BE)</u> 11 partners (from 10 countries + Ukraine)	01/10/2011 36 months	€4.7M / €3.0M CP-FP

