Comments on the dLSF Project

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FP7 (2007-2013) Specific Programmes

1. Cooperation → ***Collaborative trans-national research activities***

2. Ideas → ***Basic research implemented through a European Research Council (ERC)***

3. People → ***Marie Curie actions and other initiatives***

4. Capacities → ***Research infrastructures, regions of knowledge, science and society, international cooperation,…***

2. Ideas programme

Support to cutting-edge research carried out by individual research teams competing at European level

Implemented independently of the rest of the Framework Programme by an autonomous *European Research Council (ERC)*

4. Capacities programme

Support the optimum use and the development of Research infrastructures,

Strengthen the research potential of European regions,

Develop the research potential in the EU's convergence regions,

Science and Society issues,

International cooperation,

Support to SMEs, …

Research Infrastructures in FP7

- Term refers to "facilities", "resources" or "services" that are needed by the research community to conduct research in all scientific and technological fields

- Definition covers: major equipments, knowledge based resources (collections, archives, …), enabling ICT-based infrastructures (Géant, Grids, ..) and any other entity of a unique nature used for research

Objectives:

- To optimise the use, development and integration of the best research infrastructures existing in Europe

- To help create new research infrastructures of pan-European interest (or major upgrades of existing ones)

Existing research infrastructures in FP7

Objective: **To optimise their use, development and integration**

- Transnational Access: **to support new opportunities for research teams to obtain access to the best research infrastructures**
- Integrating Activities: **to promote the coherent use and development of research infrastructures in a given field. Integrating Activities will combine "networking activities", "joint research activities" and "transnational access activities"**
- ICT based e-infrastructures: **to foster development of high-capacity and high-performance communication (GÉANT) and grid infrastructures and reinforcing European computing capabilities**

Implementation : **bottom-up calls for proposals open to all fields of science + targeted calls in close cooperation thematic areas in FP7**

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FP7 will also increase support to new research infrastructures

- **Design studies**: to support the conceptual design for new facilities or major upgrades, of clear European dimension and interest
  - ➔ through bottom-up calls
- **Support to the Construction of new infrastructures and major upgrades** to existing ones
  - ➔ the list of projects to be supported will be based on the work conducted by the European Strategy Forum on Research Infrastructures (ESFRI roadmap)

CAPACITIES

European Strategy Forum on Research Infrastructures

ESFRI

EUROPEAN ROADMAP FOR RESEARCH INFRASTRUCTURES

Report 2006

	Projects (in alphabetical order per discipline)	Estimated Construction Cost (M€) *	First possible operations for users	Indicative Operational/ Deployment Cost (M€/year)
Social Sciences & Humanities	CESSDA	30	2008	6
	CLARIN	108	2008	10
	DARIAH	10	2008	4
	EROHS	43	2008	12
	ESS : European Social Survey	9	2007	9
	SHARE	50	2007	< 1
Environmental Sciences	AURORA BOREALIS	360	2010	18
	EMSO	150	2011	20
	EUFAR	50 - 100	2007	2 - 4
	EURO ARGO (GLOBAL)	76	2010	6
	IAGOS-ERI (GLOBAL)	20	2008	6
	ICOS (GLOBAL)	255	2010	13
	LIFE WATCH	370	2014	70
Energy	HIPER	850	2015	80
	IFMIF (GLOBAL)	855	2017	80
	JHR	500	2014	30
Biomedical and Life Sciences	EATRIS	255	2010	50
	European Bio-banking and Biomolecular Resources	170	2009	15
	INFRAFRONTIER	320	2007	36
	Infrastructure for Clinical Trials and Biotherapy Facilities	36	2007	5
	Integrated Structural Biology Infrastructure	300	2007	25
	Upgrade of European Bio-Informatics Infrastructure	550	2007	7
Material Sciences	ELI	150	2013	6
	ESRF Upgrade	230	2007-2014	NA
	ESS: The European Spallation Source	1050	2017	80
	European XFEL	986	2013	84
	ILL 20/20	160	2012-2017	NA
	IRUVX-FEL	760	2006-2015	70
	PRIMS	1110	2008-2013	256
Astronomy, Astrophysics, Nuclear and Particle Physics **	ELT: The European Extremely Large Telescope	850	2018	40
	FAIR	1186	2014	120
	KM3NET	220-250	2015	NYD
	SKA: The Square Kilometre Array (GLOBAL)	1150	2014-2020	100
	SPIRAL2	137	2011	7
CDT	EU-HPC	200-400	2008	100-200

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FP7 will support the construction of new Infrastructures (or major upgrades)

- The list of projects to be supported will be based on the work conducted by ESFRI
- A two-stage process:
  - ➔The preparatory phase: to check the commitment of the Member States and reach a (draft) agreement between Member States and stakeholders for the construction
  - ➔The implementation phase: the actual construction

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Planning of calls and indicative budget

Total operational budget 1630 M€	*Call 1* 22.12.2006	*Call 2 2008*	*Call 3 2010*	*Call 4 2012*
Integrating activities		275	x	total: 580 M€
e-Infrastructures	89	115	x	x
Design studies	35		x	total: 70 M€
Construction – Support to the Preparatory Phase	130		x	total: 230 M€
Construction – Support to the Implementation Phase	RSFF (200 M€) + 100 M€			
Policy Development and Programme Implementation	25	5	x	x
Total per call (M€)	284	395		

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Call for proposals N°1 – closing in spring 2007

- For design studies and preparatory phase
- Indicative budget for design studies: 35 M€
  - → 7 to 10 projects to be selected
- Indicative budget for preparatory phase: 130 M€
  - → 34 projects
- Closure: May 2, 2007
- Single stage procedure for evaluation — evaluation week end of June 2007
  - → remote + panel evaluation, with possible hearings
- Results within 4 months after closure date
- First contracts will come into force before the end of 2007

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EURONS JRAs - Overview

ACTAR		**H.Savajols**	**GANIL**			
ACtive TARget detectors for the study of extremely exotic nuclei using direct reactions						
AGATA		**W.Korten**	**CEA Saclay**			
Advanced GAmma Tracking Array						
Charge Breeding		**O.Kester**	**LMU Munic**			
Advanced charge breeding of radioactive ions						
DLEP		**O. Tengblad**	**CISC Madrid**			
Detection of Low-Energy Particles from exotic β-decays						
EXL		**N.Kalantar**	**KVI**			
EXotic nuclei studied with Light hadronic probes						
INTAG		**P.Butler**	**Univ. Liverpool**			
INstrumentation for TAGing						
ISIBHI		**G. Ciavola**	**LNS Catania**			
Ion Sources for Intense Beams of Heavy Ions						
LASER		**P.Van Duppen**	**Univ. Leuven**			
LASer techniques for Exotic nuclei Research						
RHIB		**T.Aumann**	**GSI**			
Reactions with High-Intensity Beams of exotic nuclei						
SAFERIB		**P.Thirolf**	**LMU Munic**			
Radiation protection issues related to radioactive ion-beam facilities						
TRAPSPEC		**N.Severijns**	**Univ. Leuven**			
Improvements and developments of ion traps, spectrometers, and detectors for low-e. nucl. physics experiments						
EU contribution:		**6.010 M€**				

EURONS Networks - Overview

Network name	Goal	Coordinator	Institute
MANET	Management of EURONS	**Alex C. Mueller**	IPN Orsay (CNRS/IN2P3) and GSI Darmstadt
CARINA	Nuclear Astrophysics	**Carmen Angulo**	CRC, Louvain-la-Neuve
GAMMAPOOL	Gamma resources in Europe	**Silvia Lenzi**	INFN Padova
EWONS	East-WEST Outreach	**Harrissopolos/Broda**	Athens/Krakow/Warsaw
Mapping	NuPECC mapping studies	**Sissy Körner**	NuPECC
PANSI3	Public Awareness of Nucl.Sci.	**Helmut Leeb**	TU Vienna
SHE	Superheavy elements	**Antonio Villari**	GANIL
TNET	Theory Network	**Ian Thomson**	Univ. Surrey
		Sum	**1.456 M€**

Preliminary "NuPECC discussions"
(Fulton et al., Brussels, Athens and, to come, Bordeaux

- EURONS I3, I3HP: due to the sheer size it is not advisable to join the two projects;

- EURISOL CNI: bid for "construction of new infrastructure" will be put in for the second call in 2009, provided the project appears on the ESFRI list of "embryonic ideas" and is moved to the list of "mature projects".

- AGATA: the operation should be included in the EURONS I3, for the construction there is a need to discuss with the EC what instrument to use; the EUDET project in high energy physics should be looked at as an example

- ECOS: this project featuring target and spectrometer developments and astrophysics needs, could be suitable for EURONS JRAs and Networking

And what about dLSF?

- to my opinion:

- dLSF is an interesting and novel idea
  - it fits with the imperative need of EURONS-2 not being just a "trivial" EURONS successor
  - need to develop good arguments that one is not supporting obsolete equipment
  - what about an associated JRA
    - R&D on very novel electronics and detectors for basic NP research, but also applications?

- go ahead with your present thinking

- be present at the various forthcoming meetings

Roadmap for "EURONS-2"

- EURONS GA/PCC at Frankfurt March, 19 2007
- NuPECC meetings (Munich,….
- common EURONS/EURISOL & NuPECC LRP meeting in Jyvaskyla
- setting-up of group writing the "EURONS-2" proposal (ready for action immediately after publishing of call), dLSF representative should be included?

Ideas developed during discussion

- what is LSF? Mainly defined by Brho !!
- present LSF are oversubscribed (PAC rejection factor 3-5)
- thus R&D beam time is often reduced
- Detector R&D needs a wide variety of projectiles, but generally not the highest energy (dE/dx argument)
- a dLSF provides such an opportunity

- there is also still a need for low Brho beams
- most (almost all) applications need low Brho !!