



# ECOS Steering Committee

## M I N U T E S

DATE: 30/08/11	OBJECT: 1 <sup>st</sup> Steering Meeting – 2011/08/30
N/REF: ENSAR-ECOS/2011.01	PLACE: IFJ PAN, Krakow, Poland

INSTITUTION	IFJ PAN	CNRS	GSI	INFN	JYU	GANIL
PRESENT	A. Maj	F. Azaiez	D. Ackermann	G. De Angelis	R. Julin	M. Lewitowicz C. Stodel K. Turzó
EXCUSED						
DISTRIBUTION:	PARTICIPANTS AND NON PARTICIPANTS					

N°	TOPIC	SPEAKER
1	<u>Welcome</u>	F. Azaiez A. Maj
2	<p><u>SHE</u></p> <p>See corresponding presentation.</p> <p>Task 2: <b>Synergies in Super Heavy Element Research.</b></p> <p><u>FUSHE 2012</u>: workshop to discuss the future strategy for the SHE research field.</p> <ul style="list-style-type: none"> <li>• 1<sup>st</sup> circular to be sent early September</li> <li>• 2<sup>nd</sup> circular to be sent in January 2012</li> <li>• Main categories: experiment, theory, instrumentation, combined under various topics</li> <li>• Recommendation paper from the convenor reports to be published on FUSHE and ENSAR/ECOS websites</li> <li>• FUSHE strategy paper preparation in 2012-2013</li> </ul> <p>Around 15(+?) k€ are needed for the meals, the logistics and participant support.</p> <p>Present and near future:</p> <ul style="list-style-type: none"> <li>• SHE synthesis</li> <li>• Nuclear structure</li> </ul> <p>Long term:</p> <ul style="list-style-type: none"> <li>• Nuclear structure studies</li> <li>• Reaction mechanism systematics</li> <li>• Efficiency upgrade of accelerators</li> <li>• Mass measurement</li> <li>• Mass determination -&gt; S<sup>3</sup> @ SPIRAL2</li> <li>• Rare isotopes for SHE: <ul style="list-style-type: none"> <li>○ synthesis: not in the near future</li> <li>○ systematic studies: yes</li> </ul> </li> </ul> <p>GSI: difficulty to fund anything else than FAIR, even if the projects have excellent evaluations.</p> <p>Laboratories will have to participate financially to the activities, especially to the FUSHE workshop. Budget strategy to be discussed on part 6 of this meeting.</p> <p>Dubna is one of the leading laboratories in SHE production and is therefore expected to participate in the FUSHE advisory committee with more than one representative.</p> <p>Marek: every lab wants to be the first in the SHE synthesis (Z=120, for instance). Then, what is a common strategy (physics, instrumentation)? What is the mission of ECOS collaboration in this context?</p> <p>Dieter: for the presently ongoing Z=120 synthesis experiments, there are problems of feasibility and of Z identification. On the political side, each lab wants to be the first to identify new SHE's. Therefore, the project of a common strategy is not easy to be set up. At the same time, excellent research is done apart from just synthesis experiment like e.g. nuclear structure studies (inbeam and decay spectroscopy, mass measurements and more).</p> <p>Façal: facilities are important for the research on SHE's. The common strategy could be first to list the instrumentation used for the different approaches (gamma spectroscopy, reaction mechanisms, etc)</p> <p>Dieter: there are many young researchers now working on SHE's who should take part in the discussion and the definition of the strategy of the field. A bottom-up approach taking this into account is reflected in the constitution of the FUSHE 2012 Organising Committee.</p>	D. Ackermann

	<p>The FUSHE Strategy paper should be helpful for lobbying at the funding agencies.</p> <p>Faiçal: The FUSHE Strategy paper has to be a review of all aspects of SHE research, not only the search of new SHE's and of the Island of stability. Therefore, a title such as "network paper" or "recommendation paper" instead of "strategy paper" sounds better.</p> <p>Marek: There will be a S3 meeting on SHE with the Dubna representatives during the Colloque GANIL end of September 2011.</p>	
3	<p><u>High power Targets</u></p> <p>See corresponding presentation.</p> <p>Task 1: High-power thin-target technology -&gt; collaboration and exchange of expertise between labs using different techniques for target preparation and tests under "real" conditions.</p> <p>Rare publications on target behaviour under irradiation.</p> <p>New techniques foreseen: new target backings</p> <p>Target tests at GANIL: June 2011, series of tests in 2012</p> <p>Numerous meetings to exchange knowledge for several years.</p> <p>Meetings in 2012: FUSHE, INTDS, one-day meetings...</p> <p>Faiçal: in the final report, would it be possible to define a strategy on the material and technology to use?</p> <p style="padding-left: 40px;">Christelle: hard to say if it would be possible in two years from now. For a common strategy, proposals should be possible, not agreements.</p> <p>Dieter: documents about targets after irradiation should exist in Mainz.</p> <p>CACAO Project at IPNO (Chimie des Actinides et Cibles radioActives à Orsay) – contact: Charles-Olivier Bacri. The preparation of the lab is in progress. The experience gained at CACAO will be used by S<sup>3</sup>, for instance.</p> <p>Marek: As the raw material to produce the most exotic targets comes from US and is very expensive it is important to fully explore possibilities to produce raw material for the target production in Europe?</p> <p style="padding-left: 40px;">Christelle: it is not included in Task 1. It has been done in the CACAO project. Difficulty to get the needed purity of the material in small quantities from the CEA. Generally, it is not easy to know where to find the raw material in Europe.</p> <p>Funding Christelle would like to cover the expenses of people coming for tests. Faiçal advises to try to find other funding sources than ECOS (lab participations, TNA if possible).</p>	C. Stodel
4	<p><u>Synergy between stable beam facilities</u></p> <p>Task 4</p> <p>Production of specific stable beams, not covered by another WP or another project, could be discussed by ECOS through the workshops.</p> <p>Database of available beams, already produced:</p> <ul style="list-style-type: none"> <li>• The information is generally available on the website of the facilities</li> <li>• A standard summary table will be necessary for the final report (deliverable)</li> <li>• Format of the table: isotope, energy range (including charge states), and intensity range (including charge states)</li> <li>• Giacomo will contact ALTO, GANIL, LNL, JYFL, GSI, IFJ PAN, and other ENSAR partners in September 2011.</li> </ul>	all

	<p>This database could be displayed as a chart of isotopes, as for <a href="#">GANIL</a>. Marek will ask if it is possible to use the same code. Faïçal will try to find somebody to work on an ECOS interactive chart of isotopes. One person per lab could be in charge to update the interactive chart.</p> <p>The instrumentation should be discussed more generally in a future meeting.</p>	
5	<p><u>Update of the 2007 ECOS report and recommendations</u></p> <p>See corresponding document.</p> <p>Additions:</p> <ul style="list-style-type: none"> <li>• S3 has to be mentioned</li> <li>• Extra paragraph on high-intensity heavy-ion sources</li> <li>• Update of the paragraph on UNILAC (CW accelerator) and second injector for LINAC of SPIRAL2</li> <li>• Longer term evolution of the facilities, instruments and projects -&gt; time table</li> <li>• ECOS@ENSAR contribution</li> <li>• New recommendations: <ul style="list-style-type: none"> <li>○ Facility with high intensity for very heavy beams to be developed in a new Member state (to be discussed at a future meeting)</li> <li>○ Facilities with intermediate intensity and specific instrumentation for spectroscopy (to be discussed at a future meeting?)</li> </ul> </li> </ul>	all
	<p><u>Discussion on using the ECOS@ENSAR budget</u></p> <p>See corresponding presentation.</p> <p>Main expenses:</p> <ul style="list-style-type: none"> <li>• 2 workshops (Legnaro – Oct. 2012, Jyväskylä – April 2014)</li> <li>• FUSHE workshop</li> <li>• Steering committee meetings</li> </ul> <p>The 5 main beneficiaries should keep part of their money for the travel and subsistence for colleagues from associated partners.</p> <p>Extra source of funding for workshops: local authorities (city, region, ...)</p> <p>Is it possible for IPNO to invite speakers to a workshop in Germany or Italy?</p>	all
7	<p><u>ECOS@ENSAR webpage &amp; Communication</u></p> <p>See corresponding presentation.</p> <p>ECOS home page: icon for the chart of nuclei</p> <p>Except some documents (the corresponding “private documents” directory to be created on the Web page), all the pages are public.</p> <p>Fulfilment of the MS35 milestone.</p> <p>Next meeting: short movies on each member of the steering committee to add to the web pages</p> <ul style="list-style-type: none"> <li>• Explanation of the activities of the WP (ref: <a href="#">Hadron Physics 2</a>)</li> <li>• Preparation of text and scenarios</li> </ul>	K. Turzó
8	<p><u>Setup of collaboration</u></p> <p>Faïçal will contact the ECOS associated partners and request the nomination of an official representative for each of them.</p>	all
9	<p><u>AOB</u></p> <p>Proposal from LRF Huelva, ANL and a private company (I. Martel, P. Ostroumov, T. Junquera) on ECOS to the EC in July 2011, for a LINAC research facility in Huelva. This facility could be partially funded by Structural Funds.</p>	all

	<p>Ismael Martel will be invited to the next steering committee meeting to present this proposal.</p> <p>Next meetings:</p> <ul style="list-style-type: none"><li>- Organisation of the mid-term workshop: January 9<sup>th</sup>, 2012, 14:00 – 16:00, phone</li><li>- Steering committee meeting: April 25<sup>th</sup>, 2012 at CERN</li></ul>	
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