

## REPUBLIKA SLOVENIJA MINISTRSTVO ZA VISOKO ŠOLSTVO, ZNANOST IN TEHNOLOGIJO

#### Služba za mednarodno sodelovanje in evropske zadeve

Oddelek za bilateralno sodelovanje

### MINUTES OF THE CEA – SLOVENIAN MINISTRY OF HIGHER EDUCATION SCIENCE AND TECHNOLOGY MEETING

MARCOULE, Thursday July 12th, 2007 and Friday July the 13th

#### Participants:

#### From Slovenian Ministry of Higher Education, Science and Technology

Office of international cooperation and European affairs

- Mr Peter Volasko, M.Sc., Head of Office
- Ms Alenka Kocjan, Head of Bilateral Scientific Cooperation Division

Directorate of Science and Higher Education, Department for Science

• Mr. Bojan Jenko, Ph. D., Secretary

#### From Slovenian Ministry of Defence

Mr Franc Pojbič, Head of Sector R&D

#### From CEA

International affairs division

- Dr Claude Ayache, head of European department
- Ms Anne-Marie Birac, bilateral European relationships
- Dr Gérard Cognet, CEA representative in Central Europe

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This meeting is the second steering committee which has been settled according to the agreement signed on by the two parties on 2006 March the 27 th.

The Slovenian delegation visited the Marcoule centre, Visiatome and Phenix reactor. (see agenda Appendix 1)

As it was foreseen in this agreement R&D cooperation between Slovenian and CEA laboratories have been encouraged. Meetings have taken place in Slovenia which are listed in Appendix 1.

A first joint call for proposition of R&D projects has been launched during summer 2006. Six projects have been selected during the first steering committee in Ljubljana, September the 25<sup>th</sup>, 2006.

The aim of this meeting is:

- to review the projects supported in 2006-2007 (Appendix 2),
- to select the projects which will be supported in 2007-2008 (Appendix 3),



- according to the experience gained from the two first years period, improve, if necessary, the cooperation between the two parties
- miscellaneous

#### 1. Review off the projects supported in 2006-2007

Despite of a very tide agenda and to the fact that this call for proposals was the first of this kind, both parties agreed that the collaboration is going on smoothly. The specific contracts have been signed.

On the occasion of the visit of M. Paillere in JSI Ljubljana on July the 6<sup>th</sup>, Slovenian teams took the opportunity to describe the status of present projects and of the propositions for 2007 call for proposals.

It has been outlined that two

Slovenian researchers are within CEA laboratories (CEA founded their stays):

- M. Babić (4 months)
- M. Murn (one year)

Note: A clarification was needed regarding the exact amount of money which is available:

		Total budget for the call for proposal	2006	2007	2008
First call for proposal	Slovenia	420 K€	210 K€	210 K€	
	CEA (initial)	644 K€	644 K€		
Second call for proposal	Slovenia			210 K€	210 k€
	CEA			42	20 K€

#### 2. Selection of the projects supported in 2007-2008

In order to prepare the 2007 call proposal a meeting was held on the beginning of April in Ljubljana. Advertising has been made both on CEA side and by the ARRS in Slovenia. Seven propositions have been prepared. Unfortunately, one of those has not been posted in due time by the Slovenian team.

Three projects are new ones. The three others are a follow-up of project selected in 2006.

All projects have been recognized of scientific interest. No overlapping has been observed.

The classification by each party made before the meeting appears to be very close.

It has been jointly decided that all six projects have to be supported. Due to the amount of money available (420 000 € on both sides) budget adjustment was necessary.

The results are available on Appendix 3.



#### 3. Improvements

From the discussion the following statements have been drawn

- Clarification of the aim of the future call for proposal has to be made
- The entire process has to be better clarified
- It is important to keep into consideration in future both short term projects and long term ones.
- The fact that Security is a thematic of high interest for both parties has to be taken into account
- A technical meeting should be prepared in order to:
  - > allow research teams to report on results from the projects
  - Inform the steering committee of their wishes and ideas in the framework of the existing program (bottom-up approach)
  - > define the additional thematics to include in the next call for proposal
- This technical meeting could take place in October 2007. It will be organized by the Slovenian party
- Both parties convene to conduct strategic thematic discussion in order to examine how the present agreement can be used as a tool to stimulate convergence between their respective current research programmes.

#### 4. Miscellaneous

On the occasion of the next meeting a visit of Krško will be planned.

#### Appendix 1

#### List of the meetings held since the first steering committee

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				participants
03/04/2007	Ljubljana	Preparation of the call for proposal	CEA/DRI/DAE: AM Birac G. Cognet French Embassy G. Lapeyre	MHEST: Mr Peter Volasko, Head, Office of International Cooperation and European Affairs Ms Alenka Kocjan, Head, Bilateral Scientific Cooperation Division Ms Ruth Martinčič, Adviser Mr Bojan Jenko, Ph. D., Secretary, Directorate of Science and Higher Education, Department for Science Ms Darja Štefelj, Secretariat MHEST MD: Mr Franc Pojbič, Undersecretary ARRS: Ms Marjetica Primožič, bilateral relationships



06/07/2007	Ljubljana	Technical meeting	<u>CEA/DEN</u> : Dr. H. Paillère	JSI: Prof. B. Mavko, Prof. I. Tiselj, Dr. B. Končar, Dr. M. Leskovar, Dr. I. Kljenak, Dr. I. Simonovski, Dr. A. Trkov U. Ljubljana Prof. I. Mlinarič-Raščan ZAG: Dr. M. Leban



#### Appendix 2

Intitulé du projet	Porteur slovène	Porteur CEA
<ul> <li>Ocena ustreznosti evaluiranih jedrskih podatkov za torij – uranov gorivni cikel</li> <li>Thorium/uranium data evaluation assessment</li> </ul>	Andrej TRKOV Inštitut »Jožef Stefan« - »Jožef Stefan« Institute, Ljubljana	Robert JACQMIN, CEA, Cadarache (DER/SPRC)
<ul> <li>Simulacija termo-hidravličnih pojavov v atmosferi zadrževalnega hrama jedrske elektrarne pri nezgodnih pogojih</li> <li>Simulation of thermal-hydraulic phenomena in the atmosphere of a nuclear power plant containment at accident conditions</li> </ul>	Ivo KLJENAK Inštitut »Jožef Stefan« - »Jožef Stefan« Institute, Ljubljana	Henri PAILLERE, CEA, Saclay (Lab. d'Etudes des Transferts et de Mecanique des Fluides)
<ul> <li>Razvoj in validacija turbulentnih dvofaznih stenskih funkcij pri podhlajenem vrenju</li> <li>(Development and validation if turbulent two-phase wall functions for subcooled boiling flow)</li> </ul>	Iztok TISELJ Inštitut »Jožef Stefan« - »Jožef Stefan« Institute, Ljubljana	Dominique BESTION, CEA, Grenoble (LMDL)
<ul> <li>Vpliv sestave korija na parno eksplozijo</li> <li>Influence of corium composition on steam explosion</li> </ul>	Matjaž LESKOVAR Inštitut »Jožef Stefan« - »Jožef Stefan« Institute, Ljubljana	Daniel MAGALLON, CEA, Cadarache (Lab. d'essais pour la Maitrise des Accidents graves - DEN/DTN/STRI/LM A)
<ul> <li>Detekcija in karakterizacija napetostno- korozijskega pokanja (NKP) kovin in zlitin v nuklearni tehniki</li> <li>Detection and characterizatiom of stress- corrosion cracking (SCC) of structural materials in nuclear power plants (NPPs)</li> </ul>	Mirjam LEBAN Zavod za gradbeništvo (ZAG) - Slovenian National Building and Civil Engineering Institute, Ljubljana	Olivier RAQUET CEA, Saclay Center (Lab. of aqueous corrosion studies,)
<ul> <li>Iskanje novih modulatorjev apoptoze INOMA</li> <li>In search of novel modulators of apoptosis INOMA</li> </ul>	Irena MLINARIČ RAŠČAN Univerza v Ljubljani, Fakulteta za farmacijo - University of Ljubljana, Faculty of Pharmacy, Ljubljana	Xavier GIDROL, CEA (Service de génomique fonctionelle), Génopole, Evry

Call for proposal 2006



# Appendix 3 Call for proposal 2007 List of accepted propositions

					Founding decided		Founding asked	
No	Name of organization	Name and surname of responsible researcher	Name and surname of responsible researcher	Title of Project	Slovenia	CEA	Slovenia	CEA
1	Inštitut »Jožef Stefan« - »Jožef Stefan« Institute, Jamova 39, 1000 Ljubljana	Boštjan Končar	Dominique Bestion CEA DENLaboratoir e de Modélisation et de Développement des Logiciels	Use of CFD approach for safety analysis of nuclear reactor systems	82000	82000	95000	95000
2	Inštitut »Jožef Stefan« - »Jožef Stefan« Institute, Jamova 39, 1000 Ljubljana	lgor Simonovski	Maxime Sauzay CEA/DEN/DMN	The influence of microstructural features on the short cracks	43000	43000	100000	100000
3	Inštitut »Jožef Stefan« - »Jožef Stefan« Institute, Jamova 39, 1000 Ljubljana	Ivo Kljenak	Etienne Studer CEA - Laboratoire d'Etudes des Transferts et de Mécanique des Fluides	Simulation of MISTRA containment tests with computational fluid dynamics and lumped-parameter codes	62000	62000	72000	72000
4	nstitut »Jožef Stefan« - »Jožef Stefan« Institute, Jamova 39, 1000 Ljubljana	Matjaž Leskovar	Daniel Magallon CEA - Laboratoire d'essais pour la Maîtrise des Accidents graves, DEN/DTN/STRI /LMA	Prediction of ex-vessel steam explosion pressure loads in reactor cavity	108000	160000	126000	163000
5	Inštitut za kovinske materiale in tehnologije – Institute of metals and technology Lepi pot 11, 1000 Ljubljana	Jelena Vojvodič Tuma	Bernard Marini CEA/DEN/DMN	Modelling of relation toughness, hardness and tensile properties for two- phases Fe-NiCrMo cast stainless alloys	52000	52000	104953,8	59940
6	Institut »Jožef Stefan« - »Jožef Stefan« Institute, Jamova 39, 1000 Ljubljana	Saša Novak Krmpotič	Jérôme Canel (CEA) DEN/DMN/SR MA Laboratory Technology for Extreme Materials (LTMEx)	Development of ceramic matrix composite for advanced nuclear applications, with an SiC continuous fiber reinforcement and a nanostructured carbide matrix, processed by electrophoretic infiltration	73000	21000	98280	21000

total 420000 420000 596233,8 510940