



ROSATOM

JOINT STOCK COMPANY «ATOMIC ENERGY POWER CORPORATION»

ROSATOM CENTRAL INSTITUTE  
FOR CONTINUING EDUCATION AND TRAINING



# *Cooperation with European Research&Education Institutions in the Framework of the “ENEN-RU” Project*

ATOMEXPO'15

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Moscow

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1. ENEN-RU history
2. ENEN-RU II project
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3. Summary

# ENEN-RU Projects' Objectives

## ENEN-RU I

1. to define a common basis to allow effective cooperation between the European and Russian networks for nuclear E&T
2. to define the needs of cooperation in the long term
3. to establish a framework for mobility of teachers and students
4. to conduct some pilot items for Education and Training (E&T)
5. to launch the knowledge management framework
6. to list up and promote further use of E&T facilities, laboratories and equipment

## ENEN-RU II

1. based on the achievements of the FP7 ENEN-RU project, to further define a common basis for effective cooperation between the European and Russian networks for nuclear Education & Training (E&T)
2. to define a detailed implementation plan based on the needs of cooperation in the long-term agreed during the ENEN-RU project
3. to solve the difficulties for cooperation found during the ENEN-RU project
4. to implement the plan in a sustainable manner
5. to operate the knowledge management framework to list up and promote further use of E&T facilities, laboratories and equipment

# ENEN-RU I vs. ENEN-RU II Work Packages Comparison

	ENEN-RU I	ENEN-RU II
<b>WP1</b>	Bologna process and ECTS in Russia	Nuclear competence building by education and training
<b>WP2</b>	Needs for long term cooperation	ENEN-RU E&T forum
<b>WP3</b>	Pilot items for education	Strengthening participation in nuclear education
<b>WP4</b>	Pilot items for training	Strengthening participation in nuclear training
<b>WP5</b>	E&T facilities, laboratories and equipment	E&T facilities, laboratories and equipment
<b>WP6</b>	Knowledge dissemination	Project management and knowledge dissemination
<b>WP7</b>	Project management	



**Pilot training #1 – Engineering aspects of nuclear fuel fabrication – ROSATOM-CICE&T, Russia**  
May 20<sup>th</sup>-26<sup>th</sup>, 2012

- 36 academic hours (following the test the trainees were awarded ECTS grades )



**Pilot training #2 – Experimental reactor physics – CTU, Czech Republic**  
October 1<sup>st</sup>-5<sup>th</sup>, 2012

- Establishment of Internships in European universities for Russian students

# ENEN-RU II Kickoff Meeting

## ROSATOM-CICE&T, Obninsk, Russia, September 29-30, 2014

A successful kick-start to the ENEN-RU II project was given

STRENGTHENING OF COOPERATION  
AND EXCHANGE  
FOR  
NUCLEAR EDUCATION AND TRAINING  
BETWEEN  
THE EUROPEAN UNION AND THE  
RUSSIAN FEDERATION

ENEN-RU II

Description of Works  
Russian side



### E&T:

- *ROSATOM-CICE&T*
- *NRNU MEPhI*

### Experimental facilities and labs:

- *FSUE "SSC RF – IPPE"*
- *NIFKhI*
- *JSC "SSC RIAR"*

### Management:

- *Rosatom*



# EURATOM Participants at the ENEN-RU II Kickoff Meeting

## ROSATOM-CICE&T, Obninsk, Russia, September 29-30, 2014

No	Name	Organization
1	Mr Walter AMBROSINI	ENEN, Università di Pisa – Dipartimento di Ingegneria Civile e Industriale
2	Georges VAN GOETHEM	European Commission, Innovation in nuclear fission and Education & training, European Commission, Energy (Euratom), Unit G.4 Fission
3	Pedro DIEGUEZ PORRAS	ENEN
4	Thomas BERKVENNS	SCK-CEN, Belgian Nuclear Research Centre
5	Martin KROPIK	Czech Technical University (CTU), CTU FNSPE, Department of Nuclear Reactors
6	Radek REZAK	Research Centre (CV REZ s.r.o.)
7	Janis LAPINS	Institut für Kernenergetik und Energiesysteme, Universität Stuttgart
8	Dan Ovidiu MELINTE	Technische Universität München, Lehrstuhl für Nukleartechnik
9	Petre GHITESCU	University Politehnica Bucharest (UPB)
10	Branislav VRBAN	Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and Information Technology
11	Mario GONZALEZ	TECNATOM
12	John ROBERTS	The University of Manchester

# Work Package Leaders

WP	WP title	EURATOM leader	ROSATOM leader
WP1	Nuclear competence building by education and training	UPB, Romania	NRNU-MEPHI
WP2	ENEN-RU E&T forum	ENEN	ROSATOM
WP3	Strengthening participation in nuclear education	CTU, Czech Republic	NRNU-MEPHI
WP4	Strengthening participation in nuclear training	SCKCEN, Belgium	ROSATOM-CICET
WP5	E&T facilities, laboratories and equipment	TUM, Germany	ROSATOM
WP6	Project management and knowledge dissemination	ENEN	ROSATOM

Strengthening of cooperation and exchange for nuclear education and training between the European Union and the Russian Federation ENEN-RU II – Description of Works. Russian side (2015)



# The Organizations Involved from the Russian Side

The Russian side is coordinated by the State Corporation for Atomic Energy “Rosatom”

No	Participant organization name	Participant short name
R1 (Coordinator)	ROSATOM Central Institute for Continuing Education and Training	ROSATOM-CICE&T
R2	State Atomic Energy Corporation “Rosatom”	ROSATOM
R3	National Research Nuclear University MEPhI	NRNU MEPhI
R4	Obninsk Institute for Nuclear Power Engineering – branch of National Research Nuclear University MEPhI	OINPE NRNU MEPhI
R5	Federal State Unitary Enterprise “State Scientific Centre of the Russian Federation – Institute for Physics and Power Engineering named after A. I. Leypunsky”	FSUE “SSC RF – IPPE”
R6	Obninsk Branch of “State Scientific Centre of the Russian Federation – Scientific Research Institute of Physics and Chemistry named after L.Ya. Karpov”	NIFKHI
R7	Joint Stock Company «State Scientific Center – Research Institute of Atomic Reactors»	JSC “SSC RIAR”

# Plan of Work for 2015-2016 for the Russian Side

- Development of competence model for RR safety engineer
- Development of the English version of an information resource «Portal of research and educational resources of “Rosatom Core Universities Consortium” Association»
- Development of training course «Research reactors in support of the establishment of new nuclear power programmes. Russian experience» programme in English language
- Improving and conducting a training course “Engineering aspects of nuclear fuel fabrication” taking in account feedback from trainees of the same course held under the ENEN-RU I project
- Development and conducting of a training course “Nuclear data for innovative materials of research reactors”

## 2011 ENEN-RU I project 2013



**Pilot training #1**  
 – Engineering aspects of nuclear fuel fabrication –  
**ROSATOM-CICE&T, Russia**  
 May 20th-26th, 2012

- Following the test the trainees were awarded **ECTS grades**



**Pilot training #2** –  
 Experimental reactor physics –  
**CTU, Czech Republic**  
 October 1st-5th, 2012

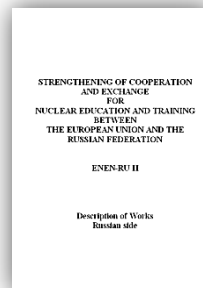
- Establishment of Internships in European universities for Russian students

## 2014 ENEN-RU II project

**September 29-30, 2014 ROSATOM-CICE&T hold the ENEN-RU II project kick-off meeting**



**A successful kick-start to the ENEN-RU II project was given**



### E&T:

- **ROSATOM-CICE&T**
- **NRNU MEPhI**

### Experimental facilities and labs:

- **FSUE "SSC RF – IPPE"**
- **NIFKhI**
- **JSC "SSC RIAR"**

### Management:

- **Rosatom**

## 2016

**Safety Culture: (SC)**  
 Measuring SC  
 Training in SC

**Piloting training to**

**Building mutually recognized trajectories of NPP personnel training**

**based on measuring the Training outcomes & competences**

**Thank you for attention!**

**Kiitos!**

**ありがとう！**

**Grazie!**

**Gracias!**

**Спасибо за внимание!**

**<http://rosatom-cicet.ru/>**