



ENEN RU Project Cooperation in personnel training

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1. ENEN Association

THE ENEN ASSOCIATION

The European Nuclear Education Network is

***a non-profit international organization established on 22 September 2003
under the French Law of 1901***


***Its mission is the preservation and further development of expertise in the
nuclear fields by higher education and training through:***


- promotion of **networking** for education and training in Europe
- favouring **borderless mobility** of students and teachers
- providing **attractiveness** for young and motivated students
- leading relevant **EU Projects** for E&T and R&D
- qualifying itself as a **reference institution** to cross-cut E&T in the nuclear fields: setting up a **“bridge” academia ↔ stakeholders**

***ENEN presently involves Universities or University clusters,
Research Institutions, Industrial Bodies and International
Agencies or Societies***

EMSNE Certification



 Certifications

European Master of Science in Nuclear Engineering (EMSNE) 
European Nuclear Education Network
September 2014 – Present

PhD Event & Prize

Competitive and friendly presentation of research in Nuclear fields.
12 Finalists, of which 3 winners



This year will be held in ICAPP'2015

Signature of Practical Arrangements with IAEA



2009



2013
Networking
E & T
K. Mg.



2. ENEN RU I project

ENEN RU projects are two parallel projects on the EU side and the Russian side

Coordinator: ENEN

Partners:

- *SCK-CEN, Belgium*
- *CVUT Prazе, Czech Republic*
- *CV REZ, Czech Republic*
- *Universität Stuttgart, Germany*
- *TU Muenchen, Germany*
- *CIRTEN, Italy*
- *University Politehnica Bucharest, Romania*
- *STU v Bratislave, Slovakia*
- *University of Manchester, UK*
- *Tecnatom (TEC), Spain*



Coordinator: ROSATOM

Partners:

- *State Atomic Energy Corporation (ROSATOM)*
- *National Research Nuclear University*
 - *NRNU-MEPHI **
 - *NRNU-Obninsk*
- *Central Institute for Continuing Education and Training (CICET) **
- *SSC - Research Institute for Atomic Reactors (SSC-RIAR)*
- *Russian Technology Transfer Network (RTTN)*
- *Ulyanovsk State University (ULSU)*



ENEN RU I

Project Title:

ENEN Cooperation with Russia in Nuclear Education, Training and Knowledge Management

The objectives of the ENEN-RU I project (2011 – 2013) were:

- *to define a common basis to allow effective cooperation between the European and Russian networks for nuclear E&T*
- *to define the needs of cooperation in the long term*
- *to establish a framework for mobility of teachers and students*
- *to conduct some pilot items for Education and Training (E&T)*
- *to list up and promote the use of E&T facilities and laboratories*
- *to launch the knowledge management framework*

ENEN RU - WORK PACKAGES

	ENEN-RU I (2011-2013)	ENEN-RU II (2014-2017)
WP1	Bologna process and ECTS in Russia	Nuclear competence building by education and training
WP2	Needs for long term cooperation	ENEN-RU E&T forum
WP3	Pilot items for education	Strengthening participation in nuclear education
WP4	Pilot items for training	Strengthening participation in nuclear training
WP5	E&T facilities, laboratories and equipments	E&T facilities, laboratories and equipments
WP6	Knowledge dissemination	Project management and knowledge dissemination
WP7	Project management	

ENEN RU II - WORK PACKAGES

	ENEN-RU I (2011-2013)	ENEN-RU II (2014-2017)
WP1	Bologna process and ECTS in Russia	Nuclear competence building by education and training
WP2	Needs for long term cooperation	ENEN-RU E&T forum
WP3	Pilot items for education	Strengthening participation in nuclear education
WP4	Pilot items for training	Strengthening participation in nuclear training
WP5	E&T facilities, laboratories and equipments	E&T facilities, laboratories and equipments
WP6	Knowledge dissemination	Project management and knowledge dissemination
WP7	Project management	

3. ENEN RU II project

ENEN RU II

Project Title:

***Strengthening of Cooperation and Exchange
for Nuclear Education and Training
between the European Union and the Russian Federation***

The OBJECTIVES of the ENEN-RU II project (2014 – 2017) project are:

- ***to further define a common basis for effective cooperation between the European and Russian networks for nuclear Education & Training (E&T)***
- ***to define a detailed implementation plan based on the needs of cooperation in the long-term agreed***
- ***to implement the plan in a sustainable manner***
- ***to operate the knowledge management framework***
- ***to list up and promote further use of E&T facilities, laboratories and equipment***

WORK PACKAGES

	ENEN-RU II (2014-2017)	EU Leader	RU Leader
WP1	Nuclear competence building by education and training	UPB	NRNU-MEPHI
WP2	ENEN-RU E&T forum	ENEN	ROSATOM
WP3	Strengthening participation in nuclear education	CTU	NRNU-MEPHI and CICET
WP4	Strengthening participation in nuclear training	SCKCEN	CICET
WP5	E&T facilities, laboratories and equipments	TUM	NRNU-MEPHI
WP6	Project management and knowledge dissemination	ENEN	ROSATOM

ENEN-RU II

WP1 - Nuclear competence building

- To promote the implementation of the Bologna process and ECTS
- To establish the **nuclear competences** required for BS and MS level graduates in Nuclear Engineering based on learning outcomes as defined by knowledge, skills and attitudes
- To analyse the **curricula** for Nuclear Engineering in EU countries and Russia
- To define, on this basis, the criteria for **mutual recognition** of nuclear E&T.
- To investigate the opportunity of professional E&T passport for Russian professionals

ENEN-RU II

WP2 - ENEN-RU E&T FORUM

- To establish the ENEN-RU E&T Forum, among the **project partners** and **experts beyond the project**.
- To get expert advice review the progress of the project, on a regular basis, in terms of the short-term strategy and give **advices** to WP1, WP3, WP4, WP5 and WP6;
- To clarify the long-term **strategy** and define actions to be taken towards the agreed future direction.

ENEN-RU II

WP3 - Pilot courses of ENEN-RU II, Strengthening Participation in Nuclear Education

- To organize and review the **participation of Master and/or PhD students and professors** to selected existing courses
- To **organize joint course(s)** at Master or PhD level taking into account the recommendations from the ENEN-RU project;
- To **organize joint PhD projects** taking into account the recommendations from the ENEN-RU project;
- To promote and demonstrate the use of **distance learning tools** to facilitate participation to selected courses; and
- To develop a system of financial support for students by the industry.

ENEN-RU II

WP4 - Strengthening Participation in Nuclear Training

- To organize and review the **participation of young professionals and lecturers** to selected training courses
- To organize one or more joint training **courses** taking into account the recommendations from the ENEN-RU project.
- To promote and demonstrate the use of **distance learning** tools to facilitate participation to selected training courses.
- To develop a system of financial support for young professionals by the industry

ENEN-RU II

A Very Fruitful Progress Meeting

Moscow, July 1-2, 2015



5. Link with NUSHARE Project



Project proposed by:

- Commissioner for Research and Innovation
- Commissioner for Energy

after the Great East Japan Earthquake and Tsunami in 2011.

OBJECTIVE: to develop and implement Education, Training and Information programmes strengthening competences required for achieving excellence in **NUCLEAR SAFETY CULTURE.**

From January 2013 to December 2016, a 4-years action!

NUSHARE .EU

EUROPEAN NUCLEAR EDUCATION NETWORK



Single Beneficiary of NUSHARE



Target Group 1

Policy decision makers & opinion leaders

Target Group 2

Nuclear Regulatory Authorities & TSOs

Target Group 3

Electric utilities, suppliers, & providers of Nuclear services



1st phase: Development of concepts and basic programmes

- **NUSHARE Catalogue** (NSC training courses - live document)
It includes **45 offers** for E.T.I. schemes offered by **20 providers**
- **Stakeholders' Meeting** (Brussels, March 13-14, 2014)



- **Validation**
 - Interaction with international recognized experts from industry and WANO. IAEA in process.
 - New methodology tested during test sessions

Hearing at the EU Parliament

- In February 2014, ENEN was invited to a public hearing of the Committee on Industry, Research and Energy (ITRE) to present issues related to the “new safety directive”
- A message on the needs of E&T in the nuclear fields and on the ongoing NUSHARE Project was conveyed



2nd phase: Execution of the proposed actions including pilot courses and actual course delivery



Joint course on Nuclear Safety Culture

6. Link with CORONA II Project

CORONA II Partners

Enhancement of Training Capabilities in VVER Technology through establishment of VVER Training Academy

Participation of members of the ENEN RU II project in the new CORONA II project:

Coordinator: Kozloduy NPP PLC, Bulgaria

1. Institute of Nuclear Research and Nuclear Energy – Bulgarian Academy of Sciences, Bulgaria
 2. ESIS GmbH, Germany
 3. **TECNATOM S.A., Spain**
 4. **CV REZ, Czech Republic**
 5. **NRNU MEPhI, Russian Federation**
 6. Risk Engineering, Bulgaria
 7. Budapesti Muszaki es Gazdasagtudomanyi Egyetem, Hungary
 8. **ENEN Association, France**
- Project approved by the European Commission. Start during 2015

Thanks for your attention !

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