

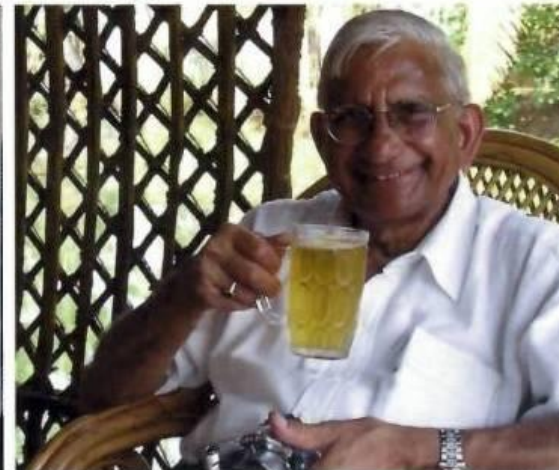


# 15 years of the European Nuclear Education Network (ENEN)

Academic session

March 1, 2018, 14:00-18:15  
Koninklijke Vlaamse Academie van België, Paleis der Academiën  
Hertogsstraat 1, Brussels, Belgium

# In memoriam Professor Bal Raj Sehgal





# The ENEN Association today and tomorrow

Leon Cizelj

President of the Board of Governors  
European Nuclear Education Network (ENEN)



# Geel, Belgium, February 2016





# 15 years, since 2003!



ENEN (66 members) is international non-profit organization with the **mission** to preserve and further develop the expertise in the nuclear fields by higher Education and Training.



# OBJECTIVES

The main objective is the **preservation** and further **development** of expertise in the nuclear fields by higher Education & Training:

- Promote and further develop the **collaboration** in nuclear education and training of students, researchers and professionals
- Ensure the **quality** of nuclear education and training
- Increase the **attractiveness** for engagement in the nuclear fields for students, researchers and professionals
- Promote **life-long learning** and career development at post-graduate or equivalent level

## European Union Council

“The Council hopes that, with the help of the EU, **ENEN** and its members will continue to develop the coordination of nuclear education and training in Europe.

The Council welcomes the existence within the European Union of coordinated teaching and training leading to qualifications in the nuclear field, provided notably by the **ENEN**”.

December 1-2, 2008



# European Master Of Science in Nuclear Engineering (EMSNE)

- Since 2005
- 5 years university (360 ECTS)
- 60 ECTS nuclear
- 20 ECTS abroad
- ➔ more than 200 laureates





# ENEN Ph D Events

## 12 finalists, 3 prizes annually

- 1<sup>st</sup> at IYC on Energetics, in Budapest, 2007.
- 2<sup>nd</sup> at IYNC in Interlaken, Switzerland, 2008.
- 3<sup>rd</sup> at International Youth Conference on Energetics 2009 in Budapest, Hungary, 2009
- 4<sup>th</sup> PhD event, ENC 2010, Barcelona June 2nd, 2010
- 5<sup>th</sup> PhD event, ICAPP 2011, Nice May 4th, 2011
- 6<sup>th</sup> PhD event, Inter. Conf. Nuclear Energy for New Europe in Ljubljana, 2012
- 7<sup>th</sup> PhD event, Int. Conf. on Emerging Nuclear Energy Syst. (ICENES), in Madrid, 2013.
- 8<sup>th</sup> PhD event, in IYNC 2014, in Burgos, Spain, 2014.
- 9<sup>th</sup> ENEN PhD Event & Prize took place in the framework of the International Congress on Advances in Nuclear Power Plants, ICAPP2015, in Nice, France, 5-6 May 2015
- 10<sup>th</sup> PhD event, European Nuclear Conference 2016, Warsaw, Poland, 9-13 October 2016
- 11th PhD Event, ANNETTE-PETRUS conference, Lisbon, Portugal, June 2017



# Nuclear ETKM Communities within ENEN

## Cooperating with ENEN

- Nuclear engineering (ENEN)
- Radiation protection (ENETRAP)
- Geological disposal of radioactive waste (PETRUS)
- Nuclear security (ANNETTE)
- Fusion Engineering (ANNETTE)
- Medical Physics (ENEN+)
- Decommissioning (ELINDER)
- TSO (nuclear safety assessment, ENSTII)

## Approaching ENEN

- GIF  
- EERA JPNM (joint programming nuclear materials)
- OECD/NEA NEST initiative
- ESARON (security)

## Beyond ENEN

- Nuclear regulators (ENENRA, ENSREG...)
- ...

Attractivity or Complexity?

Cooperation or Competition?

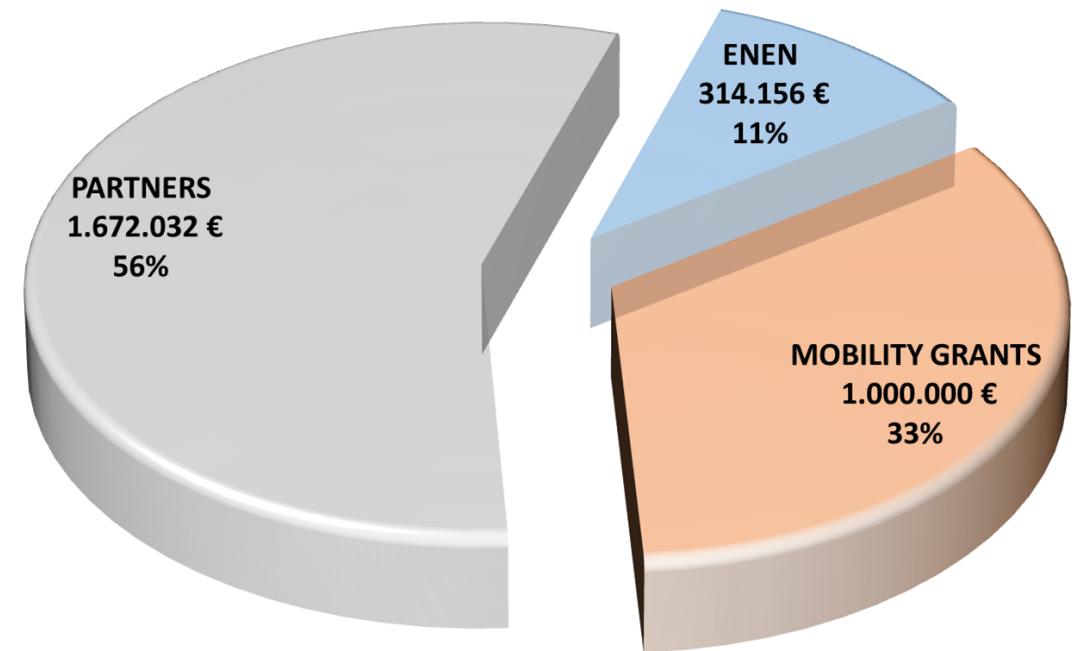
Education (why?) or Training (how?)

# The ENEN+ project

- **Attract** new talents to careers in nuclear.
- **Develop** the attracted talents beyond academic curricula.
- Increase the **retention** of attracted talents in nuclear careers.
- **Involve** the nuclear stakeholders within EU and beyond.
- **Sustain** the revived interest for nuclear careers.

The ENEN+ focuses on the learners and careers in:

- Nuclear reactor engineering and safety,
- Waste management and geological disposal,
- Radiation protection and
- Medical applications.





# Our Achievements

## Established

- Exchange of information, best practices, teachers and students
- Voluntary accreditation in academic education (quality assurance)
- Coordination of projects of mutual interests

## In development (ANNETTE, ENEN+)

- Facilitating communication and cooperation between nuclear stakeholders
- Facilitating access to research infrastructures/projects and internships
- Voluntary accreditation in professional training (quality assurance)
- **Coordination** of ETKM activities (Education, Training, Knowledge Management) **among different NUCLEAR communities**
- **Financial support for the mobility** of students and teachers

1 MEUR for mobility  
2018-2020

# Future ambitions

Participate in strategic discussions and decisions on nuclear ETKM in EU and beyond.

**ENEN AISBL in Brussels**  
**Starts in 2018**  
**[www.enen.eu](http://www.enen.eu)**





# Human Resources for Low Carbon Economy

Vladimír Šucha

Director General

Joint Research Center (JRC), European Commission





Fifteen years of successful cooperation between  
professionals and academia, as viewed by the European  
Nuclear Society

Alastair Laird

President  
European Nuclear Society (ENS)

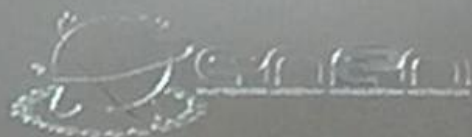


# The ENEN Association From FP5 to Horizon 2020

Joseph Safieh

past president

European Nuclear Education Network (ENS)



HONORARY AWARD

The European Nuclear Education Network, ENEN, awards:

**Prof Dr Michel Giot**

this honorary commendation for his untiring efforts and limitless enthusiasm  
in the establishing, launching and operations of the  
European Nuclear Education Network Association.

**15th Anniversary of the ENEN Association**

**Brussels, Belgium, 1 March 2018**





## HONORARY AWARD

The European Nuclear Education Network, ENEN, awards

Institut National des Sciences et Techniques Nucléaires

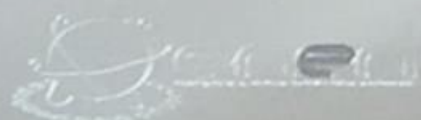
INSTN

this honorary commendation for the outstanding support

in the launching and operation of the ENEN Association

15th Anniversary of the ENEN Association

Brussels, Belgium, 1 March 2018



HONORARY AWARD

The European Nuclear Education Network, ENEN, awards:

Studiecentrum voor Kernenergie • Centre d'Étude de l'Énergie  
Nucléaire SCK • CEN

this honorary commendation for the outstanding support  
in the launching and operation of the ENEN Association

15th Anniversary of the ENEN Association  
Brussels, Belgium, 1 March 2018

Frans Moons  
Dominic Gentile  
Petre Ghitescu  
Borut Mavko  
Marcel Miglierini  
Bruno Panella  
Rainer Salomaa  
Emilio Minguez  
Csaba Szükosd  
William D'haeseleer  
Jan Haščik  
Vladimír Slugeň  
Olivia Comsa  
Rakesh Chawla  
Helmuth Boeck  
Anselm Schäfer



Awards this honorary commendation to



in deep appreciation of untiring efforts and limitless enthusiasm in the establishing, launching and operations of the  
European Nuclear Education Network Association.

Presented at the 15th Anniversary of the ENEN Association  
In Brussels, Belgium, on the 1st of March 2018.



Prof. Filip Tuomisto  
Vice president

Prof. Leon Cizelj  
President





# On the difficulty to address innovation in nuclear Fission

Hamid Aït Abderrahim

Chairman of the Governing Board  
SNETP



# The importance of education and training for the future of the nuclear industry

Yves Desbazeille

Director General  
FORATOM



# Training and skills management for creating value in nuclear industry

Michel Maschi

President

Nuclear Generation II and III Association (NUGENIA)



# Education and training activities in the radiation protection area

Michèle Coeck

member of MELODI E&T Working Group and Board  
European Training and Education in Radiation Protection Foundation (EUTERP)





# Skills and trends in operational Euratom safeguards – are we fit for the future?

Stephan Lechner

Director Euratom Safeguards  
DG Energy, European Commission

# ENEN+ Mobility

Call for 1 MEUR mobility grants

<http://plus.enen.eu>

## ENEN+ PROJECT

— attract, retain and develop new nuclear talents beyond academic curricula —

OPENS ON 1 MARCH 2018

CALL FOR MOBILITY GRANTS

WORK PLAN

PARTNERS

BACKGROUND

ABOUT



THE ENEN+ EUROPEAN NUCLEAR MOBILITY FUND OPENS ON 1 MARCH 2018!

The ENEN+ project aims to substantially contribute to the revival of the interest of young generations in the careers in nuclear sector. This is to be achieved by pursuing the following main objectives:

- Attract new talents to careers in nuclear.
- Develop the attracted talents beyond academic curricula.
- Increase the retention of attracted talents in nuclear careers.
- Involve the nuclear stakeholders within EU and beyond.
- Sustain the revived interest for nuclear careers.

**The Call for Mobility Grants  
opens on 1 March 2018!**

ENEN PLUS CONSORTIUM





# Innovation and education, a virtuous circle

Daniel Iracane

Deputy Director General and Chief Nuclear Officer  
OECD/NEA



# Knowledge management and networking activities of IAEA

Wei Huang

Director of the Division of Planning, Information and Knowledge Management  
IAEA





Current status of Russian nuclear power development and  
cooperation with Europe:  
The issue of human resource development

Vladimir Artisyuk

Vice-Rector  
Rosatom Technical Academy (RosatomTech)



# Generation-IV International Forum education and training initiatives

Konstatin Mikityuk

Co-Chair, Task Force on Education and Training  
GEN IV International Forum



Thank you very much for your attention!

[www.enen.eu](http://www.enen.eu)