

*Preliminary  
Programme*

**IRIS 2026**

**International Radioisotope Supply Chain Meeting**

20 – 21 April 2026

Leiden, The Netherlands



EUROPEAN NUCLEAR SOCIETY

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# The International Radioisotopes Supply Chain Meeting

## IRIS

### **Monday 20 April 2026**

#### **9am – 11am**      **Opening Session: From Innovation to Implementation**

Chair: J.B. Zonneveld, NRG Pallas, The Netherlands

**Welcome Address and Introductory notes by P. Luijten, NRG Pallas, The Netherlands**

**Interdependencies and challenges along the radioisotope supply chain**

N. Mario, NucAdvisor, France

**From PRISMAP to PRISMAP+: introducing emerging radionuclides for medical applications**

U. Koester, ILL, France

**Radionuclide production from bench to bedside – the example of Terbium 161**

N. van der Meulen, PSI, Switzerland

**The challenges of developing a radioisotope supply chain - Actinium-225**

S. Van den Berghe, PanTera, Belgium

**Establishing a reliable supply chain for Lutetium 177**

N. Quigley, ITM Radiopharma, Germany

#### **11am – 11.30am**      **Coffee Break**

#### **11.30am – 1.00pm**      **Expanding Horizons**

Chair: **R. Eloirdi, JRC**

Introductory notes by the Chair

**Radionuclides in industrial, agricultural, civil society and environmental applications**

T. Bjornstad, University of Oslo; Liv Stravsetra, Institute for Energy Technology, Norway

## **Radioisotope Use for Space Exploration and Developing a European Capability**

S. Barron, European Space Agency

## **Extraction of isotopes from waste – turning by-products into valuable resources**

M. Poupinel-Descambres, ORANO, France

### **1.00pm – 2.00pm Lunch Break**

## **2.00pm – 3.40pm Stable Isotope Separation Technology & Innovation in Infrastructure**

**Chair:** S. Van den Berghe, PanTera, Belgium

### **Advancing Stable Isotope Separation – Technologies and Applications**

L. Ashton, Urenco, UK

### **Building a Reliable Stable Isotopes Supply Chain for Quantum and Healthcare**

L. Bigot, ORANO, France

#### **- Combined Q & A -**

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Development and Characterisation of the ISOLPHARM Radionuclide Implantation Station at SPES	Serafini, D. (1); Chen, D. (2); Martello, M. G. (3); Corradetti, S. (3); Leso, A. (4); Li, Z. (5); Valli, G. S. (1); Arzenton, A. (2); Ballan, M. (3); Donzella, A. (6); Monetti, A. (3); Lunardon, M. (2); Moretto, S. (2); Mariotti, E. (1); Margotti, A. (7); Andrighetto, A. (3) 1 - University of Siena, Department of Physical Sciences, Earth and Environment, Italy 2 - University of Padua, Department of Physics and Astronomy, Italy 4 - University of Ferrara, Department of Physics and Earth Science, Italy 5 - INFN Padua, Italy 6 - University of Brescia, Department of Mechanical and Industrial Engineering, Italy 7 - INFN Bologna, Italy
Current and Planned Improvements to Radioisotope Production at Oak Ridge National Laboratory	Bryan, C. (1) 1 - Oak Ridge National Laboratory, United States
Isotope Harvesting at FRIB: Unique Infrastructure for Radionuclide Production	Vyas, C. (1); Severin, G. (1); Severin, G. (2) 1 - Facility for Rare Isotope Beams, Michigan State University, United States 2 - Department of Chemistry, Michigan State University, East Lansing, United States

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### 3.40pm – 4.10pm Coffee Break

### 4.10pm – 5.50pm Target Production

Chair: B. Stepnik, Framatome, France

#### Target Preparation, Cross Section Reactions, and Side Products – Implications for the Supply Chain

F. Haddad, Arronax, France

Radiometal production with hybrid targets	Szikra, D. (1) 1 - Syniq Ltd, Hungary
Development of a process for recovering Ra 226 from legacy sources : a matter of sustainability and sovereignty for a European production of Ac225, a very promising radioisotope for cancer treatment	Moreau, C. (1); Feydi, P. (1); Brillon, A. (1); Celier, M. (1); Wagner, C. (1); Morlaes, I. (1); Morel, B. (1) 1 - ORANO, France
Separation and purification of Ag-111 from neutron-irradiated Pd targets	Karantoumanis, F. (1); Rován Stiplošek, L. (1); Jaćimović, R. (1); Štrok, M. (1) 1 - Jožef Stefan Institute, Slovenia
Neutronic Evaluation of Ir-192 in SAFARI-1 research reactor	Chinaka, E. (1); Bonnanye, G. (1); Tchonang Pokaha, M. (1); Jacobs, C. (1) 1 - The South African Nuclear Energy Corporation (Necsa) SOC Ltd, South Africa

### 6.30pm – 9.00pm Evening Reception

#### *Joint IRIS/RRFM Walking Dinner*

A registration desk for arriving RRFM participants will be open from 5.00pm

# **Tuesday 21 April 2026**

## **9am – 10.30am Opening Session RRFM 2026**

### **Host Country Presentation: Newbuilt in the Netherlands – on the brink of a new nuclear era**

G.J.L.M. de Haas, Chairman of the Netherlands Nuclear Society

### **ERVI: European Radioisotope Valley Initiative to secure the supply of medical radioisotopes in the European Union**

G. Simeonov, European Commission

### **Unlocking the Potential of Radiopharmaceuticals in Europe: Strategic Challenges and Policy Priorities** – presentation of the position of the ENS High Scientific Council

S. Baatout, ENS High Scientific Council

### **The DOE Isotope Programme**

C. Landers, DOE (tbc)

## **10.30am – 11.00 am Coffee Break**

## **11.00am – 12.40pm Irradiation**

Chair : S. Van Dyck, SCK-CEN, Belgium

### **Particle Accelerator for Radioisotope Production – Building Global Supply Chains for a Growing Demand**

J.M. Geets, IBA, Belgium

Simulation of Concrete Activation by a Cyclotron Source and the Economic Impact on Waste Disposal	Storms, J. (1); Vangansbeke, E. (1) 1 - Tractebel Engineering S.A., Belgium
Design of Research Reactors and Radioisotope Processing Facilities from a Radioisotope Supply Chain Perspective	Menbribe, M. E. (1); Cruz, M. L. (1); Wilkinson, M. V. (1) 1 - INVAP, Argentina
Moderator Assembly Design for Multi-isotope Production using high-yield D-T Neutron Generator	Saxena, A. (1); Swami, H. L. (1); Abhangi, M. (1); Vashi, V. (1); Vala, S. (1); Kumar, R. (1) 1 - Institute for Plasma Research, India
Establishing a Reactor-Based Radioisotope Program in Korea: Opportunities with the New Research Reactor	Lee, S.-K. (1) 1 - KAERI, Korea, Republic of

## 12.40pm – 1.40pm Lunch Break

### 1.40pm – 3.00pm Target Processing and infrastructure

Chair : C. Vyas, Michigan State University, US

#### Enabling Efficient Radioisotope Production and Supply – Field Lab

M. Bogert, NRG Pallas, The Netherlands

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Industrial Manufacturing Process of AmO <sub>2</sub> Powder from a Pu Solution: Separation, Conversion and Calcination	Prevost, T. (1); Kauric, G. (1); Bahri, M. (1); Brachon, C. (1) 1 - Orano Recycling, France
Parcoval project: Pd recovery from Spent Nuclear Fuels	Berenguer-Besnard, P. (1); Ropp, A. (2); Bahri, M. (3); Rougeaux, I. (4) 1 - Orano Recyclage, France 2 - Orano Support DRD, France 3 - Orano Recyclage, France 4 - CEA LITEN, France
Downstream Pb-212 purification for radiolabeling of Targeted Alpha Therapy (TAT) compounds	Marshall, S. (1); Villas Boas, C. (1); Henk, T. (1); Bushman, G. (1); Schmitz, J. (1); Verma, S. (1) 1 - TAGI, United States

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## 3.00pm – 3.30pm Coffee Break

### 3.30pm – 4.30pm Reduction of the A2 value in the transportation of radioisotopes

Chair: R. Baranczyk, Euratom Supply Agency

#### The Scientific Background

H. Mansoux, B. Louis, IAEA

#### An Industry View

R.W. Brown, Nuclear Medicine Europe (NMEU)

- Combined Q & A and Discussion -

### 4.30pm – 5.10pm Poster Session

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Multi-Location Chemical Characterization of Argan Kernel in Morocco by Neutron Activation Analysis: Application and Calibration of HPGe Detector via MCNP Simulation	Badague, A. (1); Bounouira, H. (2); Aarab, I. (1); Elmahjoub, C. (1); Amsil, H. (2) 1 - Ibn Tofail University, Morocco 2 - CNESTEN, Morocco
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Toward Isotope Sovereignty: Transforming Jordan's JRTR into a Premier Regional Hub for I-131, Ir-192, and Ho-166 Production and Distribution to Europe	Harahshah, K. (1) 1 - Jordan Nuclear Reactor for Research and Training, Jordan
On Proton irradiation and transmutation implementation on PyNE-Python library.	Natali, G. (1); Velazquez, D. (2); Plata, C. (2); Pille, G. (1) 1 - Apollo Generators, France 2 - Salomea Solutions, United States

## 5.10pm – 6.30pm **Transport**

Chair : S. Barithel, ORANO, France

### **Connecting the Dots - Transportation as the Backbone of the Radioisotope Supply Chain**

H. Van De Maele, PHSE International, Belgium

Challenges and Opportunities for Automation and Data Analytics in the Radioisotope Supply Chain.	Alcala, C. L. (1); Massera, J. R. (1) 1 - INVAP, Argentina
COMPARATIVE EVALUATION OF DEPLETED URANIUM CASKS FOR THE TRANSPORT OF LUTETIUM-177	Jacobs, C. (1); Bedhesi, L. (1); Chinaka, E. (1); Setlhare, A. (2) 1 - South African Nuclear Energy Corporation (Necsa), South Africa 2 - North West University, Potchefstroom Campus, South Africa
Optimal Production Scheduling and Distribution of a Medical Radioisotope Under Uncertainty	Nguyen, T. (1); Arts, J. (2); Seranilla, B. K. (2) 1 - SCK CEN, Belgium 2 - The American University of Beirut – Mediterraneo, Cyprus

