



SNETP Forum 2021 – Full Programme

| 2 February | 3 February | 4 February |
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| 14:00 – 17:30 GMT+1 (CET) Plenary Session | 9:00 – 10:30, 11:00 – 13:00 GMT+1 (CET) Technical Sessions – 1 st Part | 9:00 – 10:30, 11:00 – 13:00 GMT+1 (CET) Technical Sessions – 2 nd Part |
| Keynote & panel discussions | TS1 – Long-term operation & construction TS2 – SMRs TS3 – Fuel Development and fuel cycle efficiency TS4 – Innovative and perspective materials solutions | TS 5 – Energy systems, new applications, economy and licensing TS 6 – Decommissioning & waste treatment TS 7 – Advanced reactor systems TS 8 – Digitalisation – modelling and simulation |

14:00 – 17:30 | DAY 1 AFTERNOON – 2 FEBRUARY | SNETP FORUM PLENARY SESSION

| Timing | Topic | Speakers |
|----------------------|--|--|
| 14:00 – 14:05 | Welcome & Introduction | B. Salha – EDF, SNETP President |
| 14:05 – 14:20 | Presentation of SNETP Strategy | B. Salha – EDF, SNETP President |
| 14:20 – 15:20 | Presentation of the vision of SNETP pillars: ESNII, NC2I, NUGENIA | S. Napier – NNL M. Schyns – SCK-CEN J. Sobolewski – NCBJ |
| 15:20 – 15:35 | Coffee Break | |
| 15:35 – 17:15 | Panel discussion | Michael Chudakov – IAEA William Magwood – OECD/NEA Sama Bilbao – WNA Yves Desbazeille, Foratom Rosalinde VAN DER VLIES – DG RTD Nicolas Février – EDF |
| 17:15 – 17:30 | Q&A | B. Salha – EDF, SNETP President |
| 17:30 | End of Day 1 | |

3 FEBRUARY 2021 | SNETP FORUM TECHNICAL SESSIONS

| # | TS 1 - Long Term operation & Construction | TS 2 - SMRs | TS 3 - Fuel Development and fuel cycle efficiency | TS 4 - Innovative and perspective materials solutions |
|-------|--|---|---|---|
| | Moderators: Pavel Kral (UJV) + Luis Herranz (CIEMAT) | Moderators: Eric Hanus (CEA) & Rob Arnold (BEIS) | Moderators: Steve Napier (NIRO) & Bruno Michel (CEA) | Moderators: Lorenzo Malerba (CIEMAT) + Karl-Fredrik Nilsson (JRC) |
| 09:00 | Implementation of new safety requirements in post-Fukushima period (including LTO considerations) J. Misak (UJV) | Micro-reactors - an overview Mark Davies (USNC) | Developments in Advanced Recycle and Sustainability for Future Fuel Cycle Options Robin Taylor (UK NNL) | Additive manufacturing for nuclear applications P. Aubry (CEA) |
| 09:20 | Hydrogen Management Chaumeix, CNRS / Bentaib, IRSN | NUWARD TM Eric Hanus (CEA) | Thorium cycle Franck Carré (CEA) | Ceramic coatings for nuclear applications F. Di Fonzo (IIT) |
| 09:40 | Progress towards simulation of passive safety systems Michael Montout (EdF) | EnergyWell - SMR under development in the Czech Republic Marek Ruščák (CVR) | Update on the nuclear data for Advanced Fuel Cycle Programme Allan Simpson (UK NNL) | High Entropy Alloys for nuclear applications A. Weisenburger (KIT) |
| 10:00 | Presentation of results from the PANAS project Frances Viereckl (TU Dresden) | Execution of first privately funded EU SMR deployment Kalev Kallemets (Fermi Energia) | Benchmark and improvement of fuel performance codes” Lelio Luzzi (Politecnico MILANO) | Alumina forming steels for ATF and GenIV cladding P. Szakalos (KTH) |
| 10:20 | Material research for LTO Concetta Fazio (JRC) | ELSMOR Ville Tulkki (VTT) | Fully Ceramic Microencapsulated Fuel fuel Mark Davies (USNC) | SiC/SiC joining for cladding applications M. Ferraris (Polito) |
| 10:40 | Coffee Break | | | |
| 11:10 | Fluid Structure Interaction: A Multi-Physics Application for Design and LTO Support F. Roelofs (NRG) | Passive safety in SMR Christophe Herer (IRSN) | Future prospects in Framatome Fuel development and related R&D needs Guy Gentet (FRAMATOME) | Advanced online monitoring and NDE for nuclear systems M. Rabung (FhG IZFP) |
| 11:30 | Perspectives and opportunities for LTO in Europe Andrei Goicea (Foratom) | Experimental support for SMR passive safety systems Roberta Ferri (SIET) | Using a basic research approach to improve fuel performance codes Marjorie Bertolus (CEA) | Innovation on concrete structures Miguel Ferreira (VTT) & Edgar Bohner (VTT) |
| 11:50 | Leveraging Research and Operational Experience for Plant Upgrades and LTO at Loviisa NPP Harri Tuomisto (Fortum) | Lessons-learned from approval of NuScale SMR Dom Claudio (NuScale) | IRSN FUEL+ software platform to simulate fuel behaviour in accidental conditions Gaétan GUILLARD (IRSN) | A way to innovative polymers for nuclear applications: the MAGAPOL initiative Marc Kuntz (EDF) |
| 12:10 | On-going” and/or planned research in the present Spanish context L.E. Herranz (CIEMAT) | Nuclear: the need for radical innovation Jacopo Buongiorno (MIT) | “Spent fuel characterization and evolution until disposal (SFC)” Peter Jansson (UPPSALA) | How to introduce new materials in design codes C. Petesch (CEA) |
| 12:30 | | Advanced Modular Reactors for UK Zara Hodgson (NIRO) | | Round-table discussion - Realistic priorities concerning innovative and perspective nuclear materials solutions |

| 4 FEBRUARY 2021 SNETP FORUM TECHNICAL SESSIONS | | | | |
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| # | TS 5 - Energy Systems, new applications, economy, licensing | TS 6 - Decommissioning & Waste Treatment* | TS 7 - Advanced reactor systems | TS 8 - Digitalisation - Modelling and Simulation |
| | Moderators: Marc Deffrennes (weCARE) & Franck Carré (CEA) | Moderators: Erika Holt (VTT), Anthony Banford (NNL) | Moderators: Paul Schuurmans (SCK-CEN) & Nathan Paterson (Foratom) | Moderators: Ferry Roelofs (NRG), Didier Banner (EDF) |
| 09:00 | Role of nuclear in future energy mixes Kirsty GOGAN (TerraPraxis) | Fuel cycle closure, D&RDWM Massimo Sepielli (ENEA, Italy) with Sogin and ISIN Regulator views | Overview of Gen-IV developments and GIF Kamil Tucek (JRC) | IAEA-EPFL activities on open-source software development Carlo Fiorina (EPFL, Switzerland) |
| 09:20 | Beyond electrification: ways to tackle difficult to decarbonise sectors Aiden PEAKMAN (NIRO) | Decom waste characterization and tools: MICADO project Massimo Morichi (CAEN, Italy) and CHANCE project, Denise Richard (Andra, France) | Development of Advanced reactor systems : The MYRRHA Project Didier De Bruyn SCK•CEN | SALOME-MECA: A structural mechanics open-source simulation platform Dominique Geoffroy (EDF, France) |
| 09:40 | Industrial applications of high temperature reactors and the Horizon 2020 GEMINI+ project Dominique HITTNER / Michael FÜTTERER (NCZI) | Decommissioning and pre-disposal waste handling needs, a French perspective Clement Bosquier (EDF, France) | Status and next activities related to the ALFRED project. Michele Frignani (Ansaldo) | The role of high fidelity numerical simulations, complementary to experiments, for nuclear reactor safety analyses Ed Komen (NRG, the Netherlands) |
| 10:00 | Enabling industrial carbon capture using green hydrogen Ted MORYTO (CNL) | Decom dismantling PLEIADES project and industry SRA within SHARE project Christine Georges (CEA, France) | HLM reactor research Paul Schuurmans (SCK•CEN) | Qualification of System Codes for New Builds - Code requirements and model improvement Thorsten Hollands (GRS, Germany) |
| 10:20 | Green Ammonia Tobias BIRWE (ThyssenKrupp) | Decommissioning of Ignalina NPP Dmitrij Ekaterinicev & Jurij Sapoval (INPP, Lithuania) | H2020 ESFR-SMART project Konstantin Mikityuk (PSI) | Uncertainty Quantification Celine Lascar (Framatome, Germany) |
| 10:40 | Coffee Break | | | |
| 11:10 | Hybrid Energy Systems Shannon BRAGG-SITTON (INL) | Roundtable discussion - Priorities for Decom R&D cooperative projects (Banford moderator) | Allegro Project and update on Gas cooled fast reactor (GFR) technology Branislav Hatala, (VUJE, a.s.) and Petr Vácha (ÚJV Řež, a. s) | Multi-scale Analysis Antoine Gerschenfeld (CEA, France) |
| 11:30 | Potential of SMR technologies for cogeneration and hybrid energy systems Jean-Michel RUGGIERI (CEA) | Sweden's decommissioning and radwaste perspectives Andreas Knutsson (Vattenfall, Sweden) | New challenges for the SCWR development Marketa Krykova (CVR) | Modelling the effect of stationary perturbations onto the neutron flux in nuclear reactors Christophe Demaziere (Chalmers, Sweden) |
| 11:50 | HTTR licensing experience and commercial modular HTGR safety design requirements including coupling of process heat applications Hirofumi OHASHI (JAEA) | Decom waste minimization: INSIDER project, Daniele Roudil (CEA, France) and THERAMIN project on thermal treatments Matti Nieminen (VTT, Finland) | Support to MSR technology Ralph Hania (NRG) | The digital nuclear reactor initiative Chai Koren (EDF, France) |
| 12:10 | Economics of SMRs in cogeneration systems Alexandre BREDIMAS / Blazej CHMIELARZ (USNC) | Sellafield Challenges: Steering the Supertanker, David Connelly (Sellafield, UK) | Converter of actinides in a molten salt reactor Paul Gauthé (CEA) & Bertrand Morel (Orano) | UK VRD initiative Albrecht Kyrieleis (Jacobs, UK) |
| 12:30 | Tractebel's vision on Small Modular Reactors - Technical due diligence and market studies Anicet TOURÉ (Tractebel) | Radwaste joint programs: EURAD ROUTES waste streams and WAC, Elisa Leoni (IRSN, France), PREDIS project predisposal waste treatment needs Erika Holt (VTT, Finland) | | |
| | | Small inventory program needs in decom and waste management Andrea Rapić (Krško NPP, Slovakia) | | |
| | | Roundtable discussion - Priorities for Radwaste R&D cooperative projects (Holt moderator) | | |

* Timing and format of TS6 is different compared with the other sessions