

NUCLEAR DAYS 2018



PRAGUE
Czech Republic



10-12
April
2018

ANNUAL FORUM 2018

Industrial perspective for nuclear energy production



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NUCLEAR DAYS 2018 – NUGENIA ANNUAL FORUM

DRAFT PROGRAMME

	Morning	Afternoon
Day 0 – Side project sessions	X	<ul style="list-style-type: none"> Soteria Workshop TeaM Cables Project Meeting ATLAS + Advisory Board NUGENIA TA 3 meeting
Day 1: Nuclear Days	NUGENIA General Assembly	NUGENIA Forum Plenary Session
Day 2: Nuclear Days	<ul style="list-style-type: none"> Technical Session I – Safety Assessment & Severe Accidents Technical Session II – Reactor Performance & System reliability (including materials and components) Technical Session III – Advanced fission reactor – Design / Safety / R&D / Licensing Technical Session IV – Fuel Innovation, decommissioning and SMRs 	<ul style="list-style-type: none"> Technical Session V – Digitalisation modelling and simulation Technical Session VI – New project ideas in nuclear fission technology Technical Session VII – Common vision towards more sustainable nuclear energy Technical Session VIII (part A) : Nuclear Cogeneration Technical Session Technical Session VIII (Part B): Coordinator’s session on best practices
Day 3: Nuclear Days	<ul style="list-style-type: none"> Nuclear Days Plenary Session GEMINI + Parallel Sessions 	<ul style="list-style-type: none"> R&D on materials for GEN IV reactors (ESNII, NC2I, EERA-JPNM) NUGENIA TA4 Projects Joint Session (SOTERIA, ADVISE, NOMAD, MEACTOS, INCEFA +, Atlas+) NUGENIA TA1 Meeting NUGENIA TA6 Meeting GEMINI + Sessions & NC2I TF Meeting
Day 4: Side project session	GEMINI + Project Meeting	X

DAY 0: Side Project Meetings

9 April, Monday – Afternoon (14:00 – 18:00)

DAY 0 AFTERNOON – PROJECT SESSIONS				
Timing	Session title	Envisaged participation	Room	Max. capacity
14:00 – 18:00	SOTERIA Workshop I			
This session is open to the general public. Please register at no cost here .				
14:00 – 18:00	TeaM CABLES Project Meeting			
This session is limited to the H2020-TeaM Cables project.				
14:00 – 18:00	ATLAS + Advisory Board			
This session is limited to the H2020-Atlas + project.				
14:00 – 18:00	NUGENIA TA 3 Meeting			
This session is limited to the members of the TA3.				

PRELIMINARY

DAY 1

10 April, Tuesday – Morning (9:00 – 12:30)

DAY 1 MORNING – NUGENIA GENERAL ASSEMBLY (upon invitation only)	
Timing	Session title
09:00 – 12:30	NUGENIA General Assembly
This session is limited to the legal representatives of each member of NUGENIA association and special invitees.	
09:00 – 12:30	SOTERIA Workshop II
This session is open to the general public. Please register at no cost here .	
09:00 – 12:30	TeaM Cables meeting
This session is limited to the H2020-TeaM Cables project.	
12:30 – 14:00	LUNCH

PRELIMINARY

DAY 1

10 April, Tuesday – Afternoon (14:00 – 18:00)

DAY 1 AFTERNOON – NUGENIA FORUM PLENARY SESSION		
Timing	Session title	
14:00 – 18:00	Plenary session	
14:00 – 14:15	Welcome & Introduction	Michel Maschi – NUGENIA President
14:15 – 14:30	Nuclear Energy Development in the Czech Republic	Jano Štuller – Special Commissioner of the Government for Nuclear Energy Development in the Czech Republic
14:30 – 14:45	TBD	Bohdan Zronek – ČEZ, Member of the Board, Director of the Nuclear Power Division
14:45 – 15:00	EURATOM Status	Rita Lečbychová – Head of Unit, G.4 Fission Energy, DG Research and Innovation
15:00 – 15:15	Presentation of the International Framework for Research on Ageing Management (IFRAM)	Il Soon Hwang , Professor of Nuclear materials engineering, Seoul National University
15:15 - 15:30	Feedback from PLiM 2017	K.S. Kang – IAEA
15:30 – 16:00	Coffee Break	
16:00 – 16:30	Long-term Operation of Instrumentation and Control Systems - The Key Success Factors	M. Lamm – Framatome
16:30 – 17:00	Long-term Operation for piping systems and components in Finland	Paul Smeekes – TVO
17:00 – 17:30	Long-term Operation Borssele	André de Jong – EPZ
17:30 – 18:00	Concrete Civil Engineering for Nuclear Applications	J. Lepape – ORNL (TBC)
18:00 – 18:15	Practical information	NUGENIA Secretariat

DAY 2

11 April, Wednesday – Morning (9:00 – 12:30)

DAY 2 MORNING – NUCLEAR DAYS 2018 – TECHNICAL SESSIONS & PROJECT PORTFOLIO		
Timing	Session title	
09:00 – 12:30	Technical Session I – Safety Assessment & Severe Accidents Moderators: P. Kral (UJV), J-P Van Dorsselaere (IRSN)	
9:00 – 9:20	SARNET R&D activities	J-P. Van Doersselaere (IRSN)
9:20 – 9:40	Implementation of a global Knowledge Management system at IRSN – Some insights	F. Blardat (IRSN)
9:40 – 10:00	ASAMPSA-NET: A network of excellence for extended PSAs development and applications	Y. Guigueno (IRSN)
10:00 – 10:20	The IRSN PROGRES Program: experimental Investigation on Debris and Corium Coolability	P. March (IRSN)
10:20 – 10:30	GENERAL DISCUSSION	
10:30 – 11:00	COFFEE BREAK	
11:00 – 11:20	CoreSOAR Update of the Core Degradation State-of-the-Art Report	T. Haste (IRSN)
11:20 – 11:40	Validation Study of Fuel Assembly Model	J. Vojackova (Brno University of Technology)
11:40 – 12:00	IPRESCA: Integration of Pool scrubbing Research to Enhance Source-term Calculations	S. Gupta (Becker Technologies)
12:00 – 12:20	H2020 ESRF-SMART project: status after 6 months	K. Mikityuk (PSI)
12:20 – 12:30	GENERAL DISCUSSION	
09:00 – 12:30	Technical Session II – Reactor Performance & System reliability (including materials and components) Moderators: L. Malerba and R-W Bosch (SCK-CEN)	
9:00 – 9:20	ATLAS + : (advanced structural integrity assessment tools for safe long-term operation)	K. Wallin (VTT)
9:20 – 9:40	INCEFA-PLUS (INcreasing Safety in NPPs by Covering gaps in Environmental Fatigue Assessment) – April 2018 Update	K. Mottershead (WOOD)
9:40 – 10:00	Merging microstructural and micromechanical testing towards standardization	D. Terentyev (SCK-CEN)

10:00 – 10:20	Small punch tests: International standardization activities	M. Serrano (CIEMAT)
10:20 – 10:30	GENERAL DISCUSSION	
10:30 – 11:00	COFFEE BREAK	
11:00 – 11:20	CEN WS064 Phase 2: Design and Construction Codes for Gen II to IV nuclear facilities (pilot case for process for evolution of AFCEN codes)	K-F. Nilsson (JRC)
11:20 – 11:40	ADVISE – H2020 Project	A. Schumm (Framatome GmbH)
11:40 – 12:00	Memorandum of Understanding between SNETP and EERAJPNM on structural integrity and materials performance and ageing	C. Pareige (GPM/CNRS)
12:00 – 12:20	TeaM Cables – H2020 Project	G. Marque (EDF)
12:20 – 12:30	GENERAL DISCUSSION	
09:00 – 12:30	Technical Session III – Advanced fission reactor – Design / Safety / R&D / Licensing Moderator: N. Camarcat (EDF, ESNII chair)	
9:00 – 9:10	Introduction of the Technical session	N. Camarcat (EDF)
9:10 – 9:30	The ASTRID Project	E. Abonneau (CEA)
9:30 – 9:50	R&D in support to the ASTRID project	E. Abonneau (CEA)
9:50 – 10:10	The Alfred Project	M. Frignani (ANSALDO)
10:10 – 10:30	R&D In support to the ALFRED project	G. Grasso (ENEA)
10:30 – 11:00	COFFEE BREAK	
11:00 – 11:20	The MYRRHA Project	P. Baeten (SCK-CEN)
11:20 – 11:40	R&D In support to the MYRRHA project	M. Schyns (SCK-CEN)
11:40 – 12:00	The ALLEGRO Project	B. Hatala (VUJE)
12:00 – 12:20	R&D In support to ALLEGRO project	L. Belovsky (UJV)
12:20 – 12:45	EU projects and initiatives related to ESNII	R. Garbil (EC-RTD)
09:00 – 12:30	Technical Session IV – Fuel Innovation, decommissioning and SMRs Moderator: E. Hanus (CEA)	
9:00 – 9:30	US programme of qualification of HTGR fuel	F. Southworth (Framatome, US)

9:30 – 9:50	Lessons learned from decommissioning a research reactor translated into decommissioning research subjects	R. de Vos (NRG)
9:50 – 10:10	The SALIENT molten salt fuel irradiations	R. Hania (NRG)
10:10 – 10:30	Basic research investigation of the properties of defects and rare gases in uranium dioxide	M. Bertolus (CEA)
10:30 – 11:00	COFFEE BREAK	
11:00 – 12:30	To be Determined	
12:30 – 14:00	LUNCH	

PRELIMINARY

DAY 2

11 April, Wednesday – Afternoon (14:00 – 18:00)

DAY 2 AFTERNOON – NUCLEAR DAYS 2018 – PROJECT IDEAS & STRATEGY		
Timing	Session title	
14:00 – 18:00	Technical Session V – Digitalisation modelling and simulation Moderators: F. Roelofs	
14:00 – 14:20	Materials Ageing Platform (MAP) : a toolbox to predict material ageing mechanisms	C. Toulemonde (EDF)
14:20 – 14:40	European Progress in Thermal Hydraulic Simulation Tools for Liquid Metal Reactors	F. Roelofs (NRG)
14:40 – 15:00	SOTERIA	C. Robertson (CEA)
15:00 – 15:20	Status of the Horizon 2020 project on CORTEX	C. Demazière (Chalmers)
15:20 – 15:30	GENERAL DISCUSSION	
15:30 – 16:00	COFFEE BREAK	
16:00 – 16:20	McSAFE – High Performance Monte Carlo Methods for SAFETY Analysis	R. Vocka (UJV)
16:20 – 16:40	PANAS project	W. Lippmann (TUD)
16:40 – 18:00	To be determined	
14:00 – 18:30	Technical Session VI – New project ideas in nuclear fission technology Moderators: E. Keim (Framatome GmbH, NUGENIA), M. Serrano (Ciemat, EERA-JPNM)	
14:00 – 14:20	Experimental in-situ creep measurements on UO₂ and (U,Pu)O₂ during neutron irradiation in the High Flux Reactor	S. van Til (NRG)
14:20 – 14:40	New Pilot Project Proposals in the EERA-JPNM Fuel Sub Programmes	M. Cologna (EC-JRC)
14:40 – 15:00	Reduction of Radiological Consequence in design basis Accident (R2CA)	O. Marchand (IRSN)
15:00 – 15:20	EERA JPNM pilot projects related to innovative metallic materials (SP2)	M. Serrano, CIEMAT
15:20 – 15:30	GENERAL DISCUSSION	
15:30 – 16:00	COFFEE BREAK	

16:00 – 16:20	In-Situ experiments for nuclear applications	M. Hernández-Mayoral (CIEMAT)
16:20 – 16:40	BOLTS: Probabilistic assessment of baffle bolt cracking	M. J. Konstantinovic & R-W. Bosch (SCK.CEN)
16:40 – 17:00	Ageing of structural steels related to spectrum effect: representatively of experiments in MTRs	G. Bignan, B. Tanguy, T. Lejelou, Ch. Blandin, (CEA), S. Ortner (NNL), A. Al Mazouzi (EDF)
17:00 – 17:20	CEN WS064 Phase 2: Design Life 60 years & welded components	K-F. Nilsson (JRC)
17:20 – 17:40	VR_PLATFORM; Virtual and augmented training platform for maintenance of nuclear power plant components and working in an operating plant	R. Beleznai (BZ)
17:40 – 18:30	General discussion	
14:00 – 18:20	Technical Session VII – Common vision towards more sustainable nuclear energy Moderator: S. Napier (NNL) ; A. Laciok (CV Rez)	
This session will provide the opportunity to present the vision/ plans /roadmap of European platforms/associations dealing with nuclear and to discuss the future of nuclear energy on the long term.		
14:00 – 14:20	Introduction: SET Plan	EC RTD
14:20 – 14:40	TBD	MM. Ramos (EC JRC)
14:40 – 15:00	Nuclear Innovations 2050 – results and follow-up	M. Defrennes (OECD)
15:00 – 15:20	EERA JPNM SRA: Presentation	L. Malerba (SCK-CEN, EERA JPNM)
15:20 – 15:30	GENERAL DISCUSSIONS	
15:30 – 16:00	COFFEE BREAK	
16:00 – 16:20	NUGENIA Roadmap: Presentation	E-K Puska (VTT, NUGENIA)
16:20 – 16:40	The first 15 years of the ENEN Association: the motivation for the next 15 years	L. Cizelj (JSI, President of ENEN)
16:40 – 17:00	Development of a Joint Roadmap for Radiation Protection Research: NUGENIA as a stakeholder”.	N. Impens (SCK-CEN)
17:00 – 17:20	IGD-TP	
14:00 – 16:00	Technical Session VIII (part A) : Nuclear Cogeneration Technical Session Moderator: G. Wrochna (NCBJ)	
14:00 – 14:15	Towards HTGR Deployment in Poland	G. Wrochna (NCBJ)

14:15 – 14:30	Introduction of the Session: News on nuclear cogeneration worldwide	M. Fuetterer (EC-JRC)
14:30 – 14:45	UK SMR Competition	R. Arnold (BEIS)
14:45 – 15:00	Cogeneration and HTGR related activities at IAEA	F. Reitsma (IAEA)
15:00 – 15:20	The GEMINI + Project and its first results	J. Lillington (Wood)
15:20 – 15:40	R&D needs for HTGR licensing and construction	D. Hittner (LGI)
16:00 – 18:00	Technical Session VIII (Part B): Coordinator’s session on best practices Moderator: A. Al-Mazouzi (EDF, NUGENIA)	
<p>This session intends to create an “exchange Hub” between all coordinators of the EURTOM projects with the objectives to:</p> <ul style="list-style-type: none"> • Exchange feedback and experiences on the difficulties to coordinate an European project • Discuss the best practices towards an efficient coordination • ... 		
20:00	Gala dinner	

PRELIMINARY

DAY 3

12 April, Thursday – Morning (9:00 – 12:30)

DAY 3 MORNING – NUCLEAR DAYS – PLENARY SESSION		
Timing	Session title	
9:00 – 10:00	Keynote Presentations	
9:00 – 9:30	Passive safety systems	G. Bruna (IRSN)
9:30 – 10:00	SMR Regulation & Licensing in the UK	Colette Grundy (BEIS, UK)
10:00 – 11:20	Outcomes of the Morning Technical Sessions on on-going Projects	
11:20 – 11:30	Q & A Session	
11:30 – 11:40	Coffee Break	
11:20 – 12:30	Outcomes of the afternoon technical sessions on future ideas	
12:30 – 12:40	General conclusion	

DAY 3 MORNING – SIDE PROJECT SESSIONS		
Session title		
9:00 – 12:30	GEMINI + Parallel Sessions	

DAY 3

12 April, Thursday – Afternoon (14:00 – 18:00)

DAY 3 AFTERNOON – NUCLEAR DAYS – TA & PROJECT SESSIONS		
14:00 – 17:00	R&D on materials for GEN IV reactors (ESNII, NC2I, EERA-JPNM)	
14:00 – 14:05	Welcome	ESNII Chair / Vice Chair
14:05 – 14:15	MoU SNETP and EERA JPNM: Objectives & Opportunities	L. Malerba (SCK-CEN)
14:15 – 14:30	ASTRID material issues	E. Abonneau (CEA)
14:20 – 14:40	MYRRHA material issues	M.Schyns (SCK-CEN)
14:40 – 15:00	ALFRED material issues	M.Frignani (Ansaldo)
15:00 – 15:15	JPNM/SP1 activities: GEMMA project and pilot on 60yrs design lifetime	K-F.Nilsson (JRC)
15:15 – 15:30	JPNM/SP5/6: INSPYRE project and issue of exchange of deliverables	M. Bertolus (CEA)/M. Cologna (JRC)
15:30 – 15:45	Discussion	All
15:45 – 16:00	COFFEE BREAK	
16:00 – 16:15	ALLEGRO material issues	L. Belovsky (VUJE)
16:15 – 16:30	NC2I/HTR material issues	NC2I
16:30 – 16:45	X-cutting issues GFR/HTR materials	J. Kalivodová (with M. Serrano & M. Angiolini)
16:45 – 17:00	Open Discussion	
14:00 – 16:00	NUGENIA TA4 Projects Joint Session (SOTERIA, ADVISE, NOMAD, MEACTOS, INCEFA +, Atlas+)	
This session is open to the general public. Please register at no cost here .”		
14:00 – 18:00	NUGENIA TA1 Meeting – P. Kral (UJV)	
14:00 – 18:00	NUGENIA TA6 Meeting – E. Hanus (CEA)	
14:00 – 18:00	GEMINI + Parallel Sessions & NC2I TF Meeting	

DAY 4 : Side Project meeting

DAY 4 MORNING – GEMINI + PROJECT MEETING	
9:00 – 15:30	GEMINI + Project Meeting
This session is limited to the H2020-GEMINI + project	

PRELIMINARY