



**GIF International Workshops with Nuclear Industry
including SMR vendors and supply chain SMEs: Workshop on
R&D Infrastructures needs and opportunities**

Speakers' Biographies



LYNDON EDWARDS

Lyndon Edwards is currently National Director, Australian Generation IV International Forum Research at the Australian Nuclear Science & Technology Organisation (ANSTO).

In this capacity **Lyndon Edwards** led Australia's application for membership of the Generation IV International Forum (GIF) and its subsequent relevant research activities.

Prior to his present position he was Head of the Institute of Materials Engineering at ANSTO for 10 years. Previously a UK academic he held a Personal Chair in Structural Integrity at the Open University and is currently Adjunct Professor of Materials Engineering at Monash University.

With over 250 publications Professor Lyndon Edwards has a long-standing international reputation in structural integrity particularly of nuclear, aerospace and defence related materials and has been one of the leading proponents of engineering stress measurement using neutron diffraction.

Lyndon Edwards studied for both his undergraduate and postgraduate degrees at Oxford University (MA, DPhil (Oxon) FIMMM, CEng).



ROGER GARBIL

Roger Garbil is Head of Euratom Research Fission sector within the Directorate General for Research and Innovation of the European Commission (Brussels, BE).

Trained as a Nuclear Physicist from the University of Saint Etienne, in France, **Roger Garbil** gained extensive knowledge while being responsible for and operating on unique large-scale international fusion research infrastructures for almost 10 years, first at the JET Joint Undertaking (Culham, Oxfordshire, UK) and later at CEA Tore Supra (Cadarache, FR). They are both today key infrastructures in support to the construction of ITER in Cadarache, FR.

In 2003 he joined the European Commission as a Scientific and Technical Project Officer and Leader of the Engineering and Maintenance Group, within the Nuclear Decommissioning Unit of the Joint Research Centre (Ispra, IT).

During the last 16 years, he has gained relevant multi-disciplinary competences in promoting successful nuclear safety research and training activities, fission and fusion innovative reactor systems, pan-European collaborative research, transnational access to infrastructures, education and training and international cooperation. He is a true promoter, among others, of successful European Technology Platforms such as the Sustainable Nuclear Energy Technology Platform (SNETP, its 3 pillars NUGENIA, ESNII and NC2I), the European Energy Research Alliance Joint Programme in Nuclear Materials (EERA JPNM), and the European Nuclear Education and Training Network (ENEN). He is also closely involved within several EU International Fora (ENEF, ENSREG, WENRA, ETSON, FORATOM), OECD/NEA, IAEA, and Generation-IV International Forum (GIF) as member of the Experts' group and Chair of the Task Force on R&D Infrastructures. Promoting international multi-disciplinary science diplomacy to tackle today's global Energy and Climate challenges is also his daily motto.



FAUSTO FRANCESCHINI

Dr. Franceschini is a Director at Mangiarotti and a Consulting Engineer at Westinghouse.

Fausto Franceschini has been engaged in advanced reactor and fuel development for Westinghouse for his entire career. He is now a technical leader in the Westinghouse Lead Fast Reactor program, responsible for fuel and core design aspects. He is the leader of the Advanced Modeling and Application Focus Area in the Consortium for Advanced Simulation of Light Water Reactors (CASL). Dr. Franceschini is a Fellow of the American Nuclear Society (ANS) and the past Chair of both the Technical and Executive Committee of the Reactor Physics Division (RPD) of the ANS. He is the author of over 100 peer-reviewed published papers on Journals and Conference Proceedings.



MARKÉTA KRYKOVÁ

MSc & MSc, PhD, Deputy section director, Centrum výzkumu Řež, Czech Republic.

Markéta Kryková is deputy Research and development section director at Centrum výzkumu Řež, Czech Republic. She is a member of the Steering Committee of the Joint programme of Nuclear Materials (JPNM) - European Energy Research Alliance (EERA), member of the IAEA Technical Working Group for Supercritical Water Cooled Reactor, co-chair of the GIF SCWR SSC and EURATOM representative. She was research programme “Technological experimental circuits” leader in the framework of the SUSEN project and participated in the EC funded projects Matisse, EFDA grants and EUROfusion. She coordinated industry-based national research projects focused on development of materials and material technologies for fossil fueled supercritical water cooled units, preparation of F4E tenders and preparation of the H2020 proposals E-SMART (2016), MACHETE (2018) and ECC-SMART (2019).



DAVID LEBLANC

**Dr. David LeBlanc – CTO and
President Terrestrial Energy.**

David LeBlanc is a globally recognized authority on MSR technologies and has dedicated his career to the improvement and realization of advanced nuclear power systems, in particular Molten Salt Reactor technologies. His work has focused on the simplification of design and reduction of R&D requirements to realize this goal. He obtained his Ph.D. in Physics from University of Ottawa in 1998.

Dr. LeBlanc has published numerous times in academic journals in conference proceedings and is extensively cited. He is a frequent speaker at international nuclear industry conferences on Molten Salt Reactor design concepts.

In early 2013 Dr. LeBlanc helped found Terrestrial Energy Inc. whose mission is to bring its Integral Molten Salt Reactor (IMSR) to commercialization.



LOU MARTINEZ SANCHO

Lou Martinez Sancho is the Vice President of Strategy and Innovation for Kairos Power.

Lou Martinez Sancho has over 20 years of progressive experience managing teams in an array of industries including bio-tech, energy, automotive, and architecture, engineering and construction (AEC).

Martinez Sancho has focused on accelerating the innovation of the nuclear industry by developing strategic integration of technologies as key solutions against climate change, guaranteeing energy supply security, and competitiveness of energy prices.

Martinez Sancho is the former Chief Innovation Officer of Spie Batignolles and also served as Vice President of Global Innovation at Framatome Groupe (formerly AREVA). Martinez Sancho earned a bachelor's degree from Ramon Llull University in Barcelona and obtained two Master of Science degrees in Physiology and Biomechanics at Pierre et Marie Curie-Paris VI University, and in Human Factors Engineering at René Descartes-Paris V University. Martinez Sancho is Master Black Belt Lean Six Sigma certified by The Ohio State University.



VIKTOR IGNATEV

Dr. Viktor Ignatev is Head of MSR laboratory, Kurchatov Complex for Innovative Nuclear Technologies, NRC “Kurchatov Institute”.

Viktor Ignatev is also Co-chair of the Generation IV International Forum pSSC on MSR.

His research interests are Molten salt reactor: (1) Combined materials compatibility & salt chemistry control in selected molten salt environments at parameters simulating GEN IV designs operation; (2) Physical & chemical properties for fuel and coolant salts; and (3) Flow sheet optimization, including reactor physics, thermal hydraulics, fuel cycle and safety related issues.

He holds degrees of the Russian Moscow Physical Engineering Institute and Kurchatov Institute of Atomic Energy.



ARKADY KARNEEV

**Marketing Manager, Rosatom
Western Europe.**

Arkady Karneev has been with Rosatom group since 2012. Before joining Rosatom Western Europe, Arkady Karneev held the position of Communications Manager in Rosatom Southeast Asia in Singapore. Prior to his involvement in the nuclear industry he worked as an analyst in the Sakhalin-1 project at ExxonMobil in Russia. He holds degrees of the Russian Foreign Trade Academy (Moscow) and Murdoch University (Perth, Australia).



RAJ IYENGAR

Raj Iyengar is currently the chief of Component Integrity Branch in the Office of Nuclear Regulatory Research, NRC.

Raj Iyengar oversees the regulatory research activities in the areas of reactor vessel and piping integrity, probabilistic fracture mechanics, non-destructive evaluation and inspection, and advanced reactors materials. Since 2009, he has held various positions at the NRC, including Acting Deputy Director, Senior Materials Engineer and Technical Assistant in the Office of Nuclear Regulatory Research, as an Executive Technical Assistant at the Office of Executive Director of Operations, and as a Project Manager in Nuclear Materials Safety and Safeguards. Before joining NRC, Raj has held corporate management positions in the automotive industry, where he led product development and applications efforts, and research positions at Battelle - Columbus, and University of Pennsylvania.

Raj has authored or coauthored over 70 publications in reactor component integrity, materials degradation, development of steels, structural optimization, and computational mechanics. He has served as an associate editor for ASME Journal of Pressure Vessel Technology and currently serves as a peer reviewer for DOE's Nuclear Energy University Program and as a technical expert in the Structures Technical Discipline Team of NASA Engineering and Safety Center.

Raj holds a Ph.D. in Solid Mechanics and a Sc. M. in Applied Mathematics from Brown University, an M. S. in Mechanics and Materials Science from Rutgers University, and an M. S in Metallurgy from Indian Institute of Science.



ROBIN MANLEY

Robin Manley is the Vice-President of New Nuclear Development at Ontario Power Generation (OPG).

OPG is the largest and most diverse nuclear operator in Canada, operating 10 CANDU nuclear reactors (as well as owning 8 additional reactors) along with a diverse fleet of hydro-electric and gas generation units.

Robin Manley's education includes a B.Sc. (Hons) at Queen's in Physics and a Master's degree in Astrophysics.

Robin started his career in nuclear in 1988 in England, working for a consulting engineering company involved in public Hearings on Hinkley Pt C and other nuclear facilities in the UK. He joined Ontario Power Generation (then Ontario Hydro) in 1990 as a Health Physicist at Darlington. Robin worked through progressively more senior roles in Radiation Protection including Senior Health Physicist and Radiation Protection Manager. In 2011 he joined Nuclear Regulatory Affairs at OPG's Pickering Nuclear station and led the relicensing of the station, before becoming Director of Licensing and then VP. Robin assumed the role of VP of New Nuclear Development April 1, 2019, becoming accountable for the implementation of Small Modular Reactors and the Darlington New Nuclear Project on April 1, 2019.



GILLES RODRIGUEZ

Mr. Gilles Rodriguez is a senior expert engineer at the CEA/CADARACHE (French Atomic Energy Commission/Cadarache center) and the deputy head of the ASTRID Project team since 2016, working on Generation-IV Fast Reactor research program.

Gilles Rodriguez graduated from the University of Lyon, France in 1990 with an engineering degree in Chemical Engineering and a Master of Science in Process engineering from the Polytechnic University of Toulouse, France, in 1991. His areas of expertise are fast reactor technology (SFR, GFR - VHTR, LFR, MSR), liquid metal processes (all alkali metals, lead, lead-bismuth, molten salts), and process engineering.

He joined the CEA/CADARACHE research center in 1991 in support of Phénix and SUPERPHENIX operation (Fuel and Component Handling) and at the same time in support of RAPSODIE decommissioning. He moved to Japan for one year on the Monju reactor as CEA representative on the reactor site in 2004.

From 2005 to 2008 he worked on the coupling of Gen IV High Temperature Reactor with Hydrogen Production Process, and became Operating Agent for CEA at the International Energy Agency / Hydrogen Implementing Agreement (IEA/HIA) Division.

From 2008 to 2013, he was Project Leader of sodium technology and components, within the CEA SFR project organisation. During this period, he joined the Gen IV - Sodium Fast Reactor Project Management Board/Component Design and Balance Of Plant (CD&BOP) within which he initiated the co-development of the supercritical CO₂ Brayton Cycle amongst the participating countries.

Since 2013 he joined the CEA project on Sodium Fast Reactor: ASTRID (ASTRID for Advanced Sodium Technological Reactor for Industrial Demonstration), first as responsible of the ASTRID Nuclear Island, then as Deputy head of the ASTRID project team from 2016.

In May 2019, he was nominated Technical Director of the Generation IV International Forum (GIF).

During his career, Gilles Rodriguez contributed to over 100 scientific publications devoted to Generation IV systems in the field of Fast Reactor design technology and safety processes; hydrogen production processes; coolant performances comparison and technico-economy of nuclear reactors.

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STEPHEN BUSHBY

Stephen Bushby is Senior Director of S&T and Commercial Oversight at AECL, Chalk River Laboratories.

Since joining AECL 25 years ago, **Steve Bushby** has held a number of technical and management positions, including: Director of Advanced Reactor Development program; Program Director of Canada's Generation IV program; Director of the Reactor Safety Division; General Manager of Capital Projects; General Manager of Strategic Planning; and, most recently, Senior Director of Science and Technology, where he also chairs the Research Advisory Committee for the University Network of Excellence in Nuclear Engineering (UNENE).

Steve also spent 2.5 years on Executive Interchange with Natural Resources Canada (NRCAN) – the federal department responsible for nuclear energy in Canada.

Steve obtained his PhD in Chemistry/Surface Science from the University of Western Ontario in 1992.



STEFANO MONTI

Stefano Monti is the Head of the Nuclear Power Technology Development Section in the Department of Nuclear Energy of the IAEA.

The Nuclear Power Technology Development Section provides support to Member States and stakeholders for the technology development and deployment of evolutionary and innovative reactors, as well as non-electric applications of nuclear power.

For more than 35 years **Stefano Monti** has been working on and coordinating several national and international projects and programs on advanced nuclear systems and related fuel cycles. Before joining the IAEA, as Director of Research at the Italian ENEA, he was Head of the Division Reactor and Fuel Cycle Safety and Security Methods, and Scientific Coordinator of the Italian R&D program on nuclear fission.

From 2007 to 2013, he was President of the SIET company, an Italian SME carrying out safety tests to support the safety case of GEN-III, GEN-III+ and SMR reactors.

Dr Monti has been serving in a number of national and international nuclear committees, including the Board of Directors of the Italian National Institute for Nuclear Physics INFN and the Steering Committee of the OECD Nuclear Energy Agency.



FREDRIK VITABÄCK

Fredrik Vitabäck is the Sales Executive for Northern Europe at GE Hitachi Nuclear Energy International (LLC), based in Stockholm.

In his role, **Fredrik Vitabäck** brings innovation to the nuclear industry customers to enable a safer and more reliable performance of power producing assets. Fredrik has successfully introduced new products to the European regulated market as well as managed customer co-innovation programs internationally applicable for different reactor types.

Prior his role at GE Hitachi Fredrik worked as a manager and management consultant focusing on infrastructure and project financing.

Fredrik holds two bachelor's degrees, Power Engineering and Finance, from Mid-Sweden University.



ABDERRAHIM MAZOUZI

Dr. Abderrahim (Abdou) Al MAZOUZI is in charge of the European affairs of the R&D programme on energy production, at EDF.

Abderrahim Al Mazouzi is also in charge of the general secretariat of the sustainable nuclear energy technology platform (www.snetp.eu).

He joined EDF R&D in 2009 as project manager at the Department of Materials and Component Mechanics and became a senior research engineer of the R&D in 2015.

Abdou was acting as the general secretariat and member of the executive committee of the international association NUGENIA (www.nugenia.org) for 7 years.

After his PhD in materials science 1989, he spent 3 years as Post Doc at Hahn Meitner Institute in Berlin, Germany, followed by a position as visiting scientist at Kyoto University/ Japan 1993-1995.

In 1995 he joined the CRPP of the Ecole polytechnique fédérale of Lausanne/CH to work on fusion technology, then moved to Paul Scherrer Institute/CH to act as project manager at the hot-lab facility 1999-2001.

From 2002 to 2009, he was appointed as senior scientist then group leader at SCK.CEN, Belgium dealing with materials selection and characterisation for Myrrha project among others.

His main scientific activities are related to materials behaviour and performances under severe conditions especially the unclear ones (irradiation damage, mechanical behavior, corrosion, ...).

Abdou is the author or co-author of more than 100 peer reviewed papers.



Taiju SHIBATA

Dr. Taiju Shibata is Leader of the International Cooperation Group, in the Sector of Fast Reactor and Advanced Reactor Research and Development at Japan Atomic Energy Agency (JAEA).

Dr. Taiju Shibata is the Leader of International Cooperation Group, Sector of Fast Reactor and Advanced Reactor Research and Development of JAEA.

He is in charge of promotion of international cooperation related to R&D and deployment of advanced reactors. His research background is application of graphite material to HTGR. He had worked as a member of Materials Project Management Board of VHTR system in GIF for a several years and currently he is a member of GIF Expert Group from 2018.

He is engaged in the activities of TWG-GCR and TWG-SMR in the IAEA as a member of Japan. In the last September, he played a key role to organize the JAEA's Side Event concerning the near-term SMR deployment based on Japan's HTGR technologies in the IAEA General Conference.



JEAN-MICHEL RUGGIERI

**Dr. Jean-Michel Ruggieri is
Manager of SMR Program of
Nuclear Energy Division at CEA.**

Jean-Michel Ruggieri graduated from Marseille University with a PhD in Applied Mathematics on numerical resolution of the Boltzmann neutron transport equation in 1995 and joined CEA in 1999.

He held laboratory head positions on core physics for 6 years as well as severe accident studies for LWRs and SFRs for 4 years. During this period, he has also been head of a common CEA- China laboratory on severe accident mastering.

During the last 10 years, he was Head of Innovative System Studies Section in the Reactor Studies Department in CEA Cadarache. During this period, he was involved in design activities on SMR.

He was also the French representative in OECD/GIF, co-chairman of Sodium Fast Reactor System Steering Comity and has been strongly involved in the ASTRID Project.

He is now Manager of the SMR Program of the Nuclear Energy Division at CEA and specially involved in the Nuward initiative.



IULIIA KUZINA

Ms. Iuliia Kuzina is the Deputy General Director - Director of Nuclear Power Department in the State Scientific Center of the Russian Federation - Institute for Physics and Power Engineering named after A.I. Leypunsky (IPPE).

Since 2000, **Iuliia Kuzina** has been involved in heat transfer studies in liquid metal coolants. In 2003 Ms. Kuzina earned her PhD degree. In 2014, she became the Head of the Laboratory of numerical and experimental studies of thermal hydraulics in different types of coolants loops. Since 2016, Ms. Kuzina is the Director of the Department which is responsible for the SFR, LFR and light-water reactors project justification.

Ms. Kuzina is nominated as an expert from Rosatom in SSC LFR in GIF.



ILIA PAKHOMOV

Mr. Ilia Pakhomov is Laboratory Head in the State Scientific Center of the Russian Federation - Institute for Physics and Power Engineering named after A.I. Leypunsky (IPPE).

Since 2006, **Ilia Pakhomov** has been charged with developing advanced sodium fast reactors as an engineer, junior researcher and head of laboratory. In 2014, he became a member of the working group on scientific and technical support of the BN-1200 project in IPPE.

Currently, he is head of laboratory - management of experiments and engineering safety of fast sodium reactors. He is responsible for research of operability elements of the core, safety issues of sodium fires and safety during interloop leaks in the sodium-water steam generators.

He is also involved in the formation of an R&D plan for the Fast Sodium Reactors.



JEAN-MARIE HAMY

Jean-Marie Hamy is Department Manager at the Advanced Reactors & Design School, Framatome in Lyon, France.

Jean-Marie Hamy was also Technical Project Manager ASTRID, SFR R&D & Innovation between 2011 and 2019.

He has over 25 years of experience in Nuclear Engineering in the frame of advanced projects and Fast Reactor technology in particular.

Moreover, Jean-Marie Hamy has over 20 years of experience in the management of engineering teams and projects covering a wide technical scope: mechanical engineering, physics, nuclear safety, Human Factor Engineering; and concerning various types of nuclear facilities: new reactors (HTR, EPR), fast breeder reactors (Creys-Malville, Phenix, EFR, ASTRID), fusion (ITER), fuel cycle facilities, refurbishment and dismantling projects.

Finally he also has 10 years of experience performing thermal-hydraulics and CFD studies.

Jean-Marie Hamy graduated from Ecole Centrale de Lyon as Engineer and has a Master degree in Fluid Mechanics and Numerical Simulation.



SANG Ji KIM

Sang Ji Kim is Project Leader for Printed Circuit Heat Changer Development for SFR and PWR Applications and Molten Salt Reactor Pre-Conceptual Design in the Multipurpose NSSS Technology Development Division at Korea Atomic Energy Research Institute (KAERI).

Sang Ji Kim has worked on PWR Nuclear Design as Researcher/Senior Researcher and was Principal Researcher on SFR Nuclear Design.

He obtained his Ph.D. in Nuclear Engineering from Korea Advanced Institute of Science and Technology (KAIST).



DOMINIQUE HITTNER

Dominique Hittner is USNC Director for MMR™ Technology Development. He also operates his own consulting company, Hit Tech Relay, and is Technical Coordinator of the Euratom project GEMINI+.

Dominique Hittner worked during 37 years in Framatome/Areva group with different responsibilities, in particular in advanced PWR design, management of HTGR Technology development and management of the Reactor and Services R&D.

He joined USNC in 2017.

Dominique Hittner graduated from Ecole Polytechnique (Paris) and obtained a PhD in physics from Orsay University.



JAN UHLÍŘ

Dr. Jan Uhlíř is Senior Researcher of the Nuclear Fuel Cycle Program at the Research Centre Řež, Czech Republic.

Prior to that, **Jan Uhlíř** worked for more than 30 years for the ÚJV Řež - Nuclear Research Institute, which is the mother company of the Research Centre Řež. Since 1990 to 2012 his positions were the Head of Fluorine Chemistry Department and the Deputy Director of Fuel Cycle Division.

His long-term practice is mainly in the development of Fluoride volatility reprocessing method and other fluoride pyrochemical partitioning technologies, recently of those devoted to MSR fuel cycle. Jan Uhlíř has been a leader of several national projects devoted to the nuclear fuel cycle, pyrochemistry and molten salt technology granted mainly by the Ministry of Industry and Trade of the Czech Republic. He was also responsible for the chemical part of the national project SPHINX devoted to the experimental development of MSR technology. He also participated in several European projects devoted mainly to pyrochemical partitioning and MSR technology.

Jan is a representative of the Czech Republic in the Working Party on Scientific Issues of the Fuel Cycle of the OECD-Nuclear Energy Agency, a member of the MSR Provisional System Steering Committee of the Generation Four International Forum as a representative of EURATOM and a member of the High Scientific Council of the European Nuclear Society.

Jan obtained his M.S. in Chemical Engineering and PhD. in Nuclear Fuel Technology at the University of Chemistry and Technology in Prague.



RICHARD J. WAIN

Richard Wain is Chief Development Engineer – SMR Engineering Associate Fellow in Chemistry and Corrosion at Rolls-Royce PLC, UK.

Richard Wain has over 20 years' experience working in advanced power and propulsion engineering projects across Rolls-Royce's Civil Nuclear, Defence and Aerospace businesses. He has held a number of senior engineering leadership roles within Rolls-Royce and is currently the Chief Development Engineer for the company's SMR design programme. He has also worked extensively as a technical specialist on topics as diverse as radiochemistry, corrosion product transport, fuel performance, structural integrity and gas turbine component environmental degradation. His experience covers all aspects of the nuclear reactor life-cycle from fundamental research through operations and maintenance to decommissioning.

Richard has an MChem from the University of Sheffield and an MSc in Nuclear Science and Technology from the University of Manchester. He is a Fellow of the Royal Society of Chemistry.