Agneta Rising
Director General

In 2014, I have focused the Secretariat’s efforts on strengthening the foundations of the World Nuclear Association in the key areas of industry cooperation, nuclear information and strategic communication, centred on a clear vision for the Association agreed with the Board.

There are many signs of optimism for the future of our nuclear industry. New nuclear build is at a global high not seen for two decades. Nevertheless, business conditions remain complex and increasingly competitive. Deregulated markets around the world are not delivering the long-term low-carbon investments that society needs, and that nuclear can help deliver. Meanwhile, our industry continues to be blighted by over-regulation that raises costs without delivering tangible benefits.

The World Nuclear Association is committed to: ensuring that the nuclear industry is best represented in all forums where its interests are at stake; enabling co-operation between its members; and communicating the benefits of nuclear energy in order to improve the market environment and secure greater support from key stakeholders.

To help achieve these aims, the Association has strengthened its relationships with key energy policy bodies, such as the International Energy Agency and the World Energy Council, and is collaborating with fellow nuclear associations and societies.

I am committed to ensuring that the World Nuclear Association continues to provide value and excellence to its members, and look forward to a great year ahead.

Jean-Jacques Gautrot
Chairman

I am proud to have taken on the role of Chairman of the World Nuclear Association Board in 2014. The Secretariat, in its new offices in Covent Garden, has benefited from the changes introduced last year in the development of an association that is more accountable to its members and more focused on delivering value.

We have seen the benefits of the Association’s actions in promoting the case for nuclear energy through contribution to major international publications, increased press interaction, and greater nuclear industry cooperation, including the recent successful World Nuclear Spotlight event in China.

This World Nuclear Association At Work report is a testimony of the work done by the Secretariat in these areas, and I would like to thank Agneta and her team for their dedication.
Introducing World Nuclear Association

The World Nuclear Association is the international organisation that represents the global nuclear industry.

Our Mission

The Association’s mission is to promote a wider understanding of nuclear energy among key international influencers by producing authoritative information, developing common industry positions, and contributing to the energy debate.

Who we are

The World Nuclear Association is a network of the world’s leading nuclear companies in over 35 countries and represents all aspects of the global nuclear industry:

- Virtually all of the world’s uranium mining, conversion, enrichment and fuel fabrication companies.
- All major reactor vendors.
- Nuclear utilities providing 70% of world nuclear generation.
- Major nuclear engineering, construction, and waste management companies; and research and development organisations.
- Companies providing international services in nuclear transport, law, insurance, brokerage, industry analysis and finance.

A global network of member companies

43 Americas
Argentina, Brazil, Canada, USA

53 Europe
Belgium, Bulgaria, Czech Republic, Finland, France, Germany, Italy, Lithuania, Luxembourg, Netherlands, Poland, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom

13 Russia and Central Asia
Kazakhstan, Russia, Uzbekistan

8 Africa and Middle East
Israel, Jordan, Namibia, South Africa, United Arab Emirates

54 Asia-Pacific
Australia, China mainland and Taiwan, India, Japan, Singapore, South Korea
What we do

The World Nuclear Association is the only industry organisation with a global mandate to communicate about nuclear energy. It is in a unique position to share and advance best practice and common messages globally, working alongside partner organisations: the IAEA, the inter-governmental body for technical and scientific cooperation in nuclear energy; WANO, the industry’s reactor safety organisation; and other regional and national nuclear associations around the world.

All of our activities revolve around three strategic areas:

1: Nuclear Industry Cooperation

We act as a global forum and commercial meeting place for leaders and specialists representing all aspects of the nuclear industry. The Association provides a vehicle for members to shape joint positions on economic, safety, and environmental issues. We represent the industry in key world forums that influence the nuclear industry’s regulatory and policy environment.

We also work in partnership with the IAEA, WANO, and the OECD-NEA to enhance nuclear education and build nuclear leadership, through the World Nuclear University.

2: Nuclear Information Management

We provide trustworthy, comprehensive and easily accessible information on nuclear power via the website, which serves as the world’s baseload nuclear information source, and via World Nuclear News, the leading online news service on developments related to nuclear power.

3: Nuclear Energy Communication

With a goal to increase global support for nuclear energy among key stakeholders, our role is to represent the nuclear industry’s interests where the energy debate is taking place. By coordinating on key messages with our partners, we deliver targeted information to decision-makers and influencers, including the media and international organisations that have an interest in energy-related issues.
Highlights of 2014

February

The Loop
The members newsletter is now sent bimonthly to 4300 member company representatives and is available on the new members website.

March

At Work
The first annual review of the World Nuclear Association’s activities is published.

Radiation Technology School
60 fellows from 30 countries attend the World Nuclear University’s Radiation Technology School in Qatar on 7-20 March.

Nuclear Industry Summit
The World Nuclear Association calls for performance-based regulation at the Nuclear Industry Summit in Amsterdam, 23-24 March.

April

WNFC
World Nuclear Association and the Nuclear Energy Institute jointly organise the World Nuclear Fuel Cycle conference on 8-10 April.

New Chairman
At the Board meeting, Jean-Jacques Gautrot of AREVA takes over as Chairman from Tim Gitzel of Cameco, who becomes Vice-Chair.

Vision, Mission, Values
The Board adopts the Vision, Mission, and Values for the Association.

Radiological Protection
Agneta Rising talks about “putting radiological protection into context” at the Japan Atomic industrial Forum conference in Tokyo on 15-16 April, and calls for transparency and public awareness through clear, consistent messages.

May

World Nuclear News
World Nuclear News receives over 100,000 ‘likes’ on Facebook.

WNU Short Courses
One-week World Nuclear University courses are held in Malaysia and Korea.

July

Summer Institute
The 10th edition of the WNU Summer Institute takes place in Oxford, gathering 70 fellows from 29 countries.

WNN Viewpoint
WNN launches a Viewpoint section where industry experts provide an insight on nuclear news and topical issues.
September

New Members Website
A new members website with improved functionalities is launched just ahead of the Working Group meetings in September.

Symposium 2014
Over 600 executives from around the world attend the Symposium in London, which also celebrates the 60th anniversary of the first supplies of nuclear generated electricity to the general public.

Communication Group
A new members group is created with communication experts from member companies.

New Offices
The Secretariat moves to new offices in London’s Covent Garden.

October

World Energy Council
Agneta Rising attends the World Energy Council Executive Assembly and other meetings in Columbia on 20-23 October.

November

World Energy Outlook
The 2014 edition of the International Energy Agency’s World Energy Outlook is released, featuring three chapters on the outlook for nuclear power, which we contributed to through a stakeholder process initiated by the IEA.

Members Satisfaction Survey
226 member company representatives respond to the members satisfaction survey.

Nuclear Quality Standard Association
World Nuclear Association joins the Nuclear Quality Standard Association as an observer and participates in its technical working group developing the NSQ-100 standard and associated guidance for suppliers.

December

Supply Chain Report
The second edition of The World Nuclear Supply Chain: Outlook 2030 is published.

WNU Short Course
WNU holds a one-week course in China attended by 174 participants.

Position on Radiation

January 2015

World Nuclear Spotlight
The World Nuclear Spotlight conference, organised in collaboration with Chinese companies CNS, CNNC, SNPTC and CGN, takes place in Beijing on 15 January 2015.

Nuclear Energy Technology Roadmap
The Nuclear Energy Technology Roadmap is published on 29 January 2015 by the IEA and OECD NEA, stating that “nuclear global capacity must more than double by 2050”. We participated in 2014 to the stakeholder engagement for input to the Roadmap.

International Chamber of Commerce
World Nuclear Association aims to serve its membership better by joining the global business network.
Membership

Membership is open to all companies involved in nuclear energy: generators, suppliers, uranium producers, fuel cycle and other nuclear supply chain companies. The Association also welcomes members such as banks and financial institutions, law firms and government and research agencies.

Members who joined in 2014

- National Nuclear Laboratory, United Kingdom
- New World Consulting, United States
- Price Forbes & Partners, United Kingdom
- Ingerop et Conseil Ingenierie, France
- Fluor B&W Portsmouth, United States
- Shearman & Sterling LLP, United States
- KGHM Polska Miedz S.A., Poland
- Thomas Thor Associates, Netherlands
- Global Nuclear Associates, United States
- MZ Consulting Inc., Canada
- Jordan Atomic Energy Commission, Jordan
- Amec Foster Wheeler Nuclear UK Ltd, United Kingdom
- Pandit Deendayal Petroleum University, India

All members must agree to the Charter of Ethics upon joining the Association. This Charter is an affirmation of values and principles, summarising the responsibilities of the nuclear industry and the surrounding legal and institutional framework.

Member demographic

- 55% General (legal, transport, insurance, etc.)
- 23% Generators (operators)
- 22% Suppliers (vendors, engineering, construction, mining, enrichment, conversion, fuel fabrication, etc.)
There were many helpful comments that will guide the Secretariat to improve the service offered to members further, including:

- Building on the success of the World Nuclear Spotlight conference in Beijing, a stronger focus on increasing participation from Asia at our events, which would also benefit from having a wider range of speakers, including from outside the industry.
- More effective promotion of members tools, such as the members website, which was only used by 65% of respondents, and The Loop newsletter.
- Improved overall quality of Working Group outputs, including better coordination between groups.

What we offer our members

The World Nuclear Association influences the energy debate and opens up business opportunities.

We support the nuclear industry

- We promote nuclear energy by engaging with key global stakeholders on topics of strategic importance to nuclear development.
- We represent the global nuclear industry in key international forums.
- We provide the latest and most reliable nuclear information, including the public information library of our website and World Nuclear News, the daily news service.
- We develop industry positions and reports on the issues that matter through our Working Groups.

We open up opportunities for your company

- We offer you unique opportunities to interact and network with experts, industry leaders, customers and suppliers.
- We support your capacity building and nuclear skills development through the World Nuclear University.
- We collaborate with you and national associations to make smart and effective contributions to national dialogue.
- We give you privileged on-line access to industry reports, presentations and contact directories, and free printed copies of the biennial Global Nuclear Fuel Market report and World Nuclear Supply Chain report.
- We offer you heavily discounted rates to our conferences and opportunities to exhibit or sponsor to increase your company’s visibility.

Member satisfaction

We are keen to hear the views of our members and carry out an annual opinion survey using an anonymised online questionnaire. There were 226 respondents to the 2014 survey, representing a big increase in response rate from the previous year.

The three top purposes of World Nuclear Association membership

1. Opportunities for international networking (66.5%)
2. Support World Nuclear Association’s role in promoting nuclear energy internationally (58.40%)
3. Support for World Nuclear Association’s role in public information (46.60%)
Governance and Organisation

The Director General is responsible for governing the Association and is ultimately accountable to the Board of Management. The Board holds final approval on proposals made by the Director General, including strategic and budgetary decisions.

In 2014, Jean-Jacques Gautrot of AREVA replaced Tim Gitzel of Cameco as Chairman of the Board.

The Board of Management

The Board is composed of senior executives from member companies who meet twice a year and serve for two years. The Chairman of the Board is also appointed for a two-year term, after serving as Vice-Chairman in the preceding year.

The Board fulfils all statutory duties pertaining to the organisation’s governance, sets policies and strategic objectives acting on proposals from the Director General.

To ensure balance among the elected members of the Board, each of the three categories of institutional membership – suppliers, generators and general – must be represented by at least two members.

Board members act as mentors for the various Working Groups. This enables the Board to monitor the activities of the Groups and to shape their overall agenda.

In 2014 the Board met on 8 April and 10 September, in San Francisco and London.

There are also two Board sub-committees, whose members serve two-year terms and report directly to the Chairman of the Board:

- The Governance and Nominations sub-committee oversees appointments to the Board and handles Director General and senior staff succession planning.
- The Audit and Finance sub-committee carries out a regular review of the financial health of the Association, assesses fee levels and guidelines, and holds in-depth dialogue with the auditor during the preparation of the annual accounts.

These two sub-committees did not sit in 2014. A temporary sub-committee was set up to oversee and provide support for the move of the Secretariat to its new offices.

Membership meetings

There are two annual meetings where the whole membership is called and can vote, as well as ask questions to the Chairman and the Director General about operations of the Association. At the Annual General Meeting the accounts are presented for approval, and any alterations to the fee structure or fee changes are put to the vote. Immediately after the AGM, the Members Council takes place, during which significant developments in the Association are presented to the member company executives in attendance.

Audit

In 2014, the Board decided to carry out an independent review. The external auditor Moore Stephens LLP was re-appointed.

The 2013 accounts were signed by the Board of Management on 8 April 2014, having been prepared in accordance with applicable accounting standards and given a clean opinion by the external auditor. The financial statements were then presented at the Annual General Meeting, held on 10 September 2014.
The World Nuclear Association is made up of an international Secretariat of 30 people, covering a broad range of expertise and experience, who are responsible for coordinating the work that the Association does on behalf of its members. Most of the Secretariat work from the offices in London, with representatives also based in India, China and Australia.

The Secretariat is led by Agneta Rising and composed of five departments each headed up by a manager: Industry Cooperation, Information Management, Strategic Communication, Administration and Finance, and World Nuclear University.

In 2014, the Secretariat moved to new offices in London’s Covent Garden. The new office contract secures long-term economical, modern and fit-for-purpose premises for the next ten years. The Board agreed to the move at the beginning of April 2014, the contract was signed by the end of May, and the move took place over a week-end at the end of September.
The World Nuclear Association is a membership organisation, providing opportunities for its members to interact and collaborate. Advisory Groups are designed to support the Secretariat in identifying opportunities and challenges for the Association, and Working Groups are forums for industry cooperation on topics of common interest.

Each Group is chaired by an expert from a member company and has a mentor assigned to it from the Board. Administrative and technical support is provided by the Secretariat.
At the beginning of the year, the Working Groups underwent a restructuring with groups now falling into one of three categories (see diagram). This has helped to manage Secretariat resources effectively without compromising the delivery of services to members. The attendance at the September Working Group events in London was 313, a 12.5% increase over the previous year.

Staffing of Working Group activities has been assisted by the arrival of four secondees from our members: Henri Pelin (EDF); Yulin Huang (CGN-URC); Kenji Matsuo (Kansai); and Jikon Ryu (KEPCO).

The main achievements of the Working Groups in 2014 include:

- The Radiological Protection Working Group delivered the industry position on the contribution of radiation to cardiovascular and cerebrovascular disease, as well as its effects on the lens of the eye, at the International Commission on Radiological Protection (ICRP) Special Liaison Organisation meeting in November.
- The Vendor Oversight and Control of Suppliers Task Force organised the World Nuclear Association Nuclear Supplier Forum to open up a dialogue on procurement, quality and product realisation.
- The Economics Working Group contributed to the IEA/NEA publications Technology Roadmap – Nuclear Energy to 2050 and World Energy Outlook 2014, as well as to the European Commission consultation on state aid and nuclear power.
- Several Working Group publications were issued, including the second edition of The World Nuclear Supply Chain: Outlook 2030 and a report on Certification of NDE Personnel.
Fuel Cycle Working Groups

Fuel Market Report

Co-Chairs: Hendrik de Baenst (Synatom); Pierre Durante (AREVA)
Staff Director: Ian Emsley

Published since the 1970s, the biennial Global Nuclear Fuel Market report compiles data from companies, national sources and international agencies to produce an authoritative projection of global supply and demand. The Fuel Market Report Working Group is broken down into sub-groups, which focus on different areas of the fuel cycle. The participation of experts from all areas of our membership (buyers, producers, consultants) in its compilation gives the report its unique authority.
Sustainable Used Fuel Management

Chair: Henri Zaccai (AREVA)  Staff Director: Isis Leslie

The Sustainable Used Fuel Management Working Group aims to gather the views of the nuclear industry and stakeholders on current and best practice in sustainable used fuel management, to produce a report presenting the status of used fuel management worldwide, and to produce guidelines for the industry to use in its communication.

In 2015, the Group plans to:
- Complete a survey on national used fuel management practices.
- Identify the most important topic areas on sustainable used fuel management and begin developing key messages.
- Define and promote the main success factors in establishing a sustainable used fuel management programme.
- Prepare a report on the status of worldwide used fuel management.
- Further contribute to the IAEA work on sustainable used fuel management, including presenting at the IAEA International Conference on Management of Spent Fuel from Nuclear Power Reactors in June.

Transport

Chair: Francisco Tarin (ENUSA)  Staff Director: Serge Gorlin

The Transport Working Group acts as a forum for communicating industry developments, exchanging best practice, as well as for identifying and resolving issues relating to the shipment of nuclear material. The primary focus of the Group is to address commercial issues affecting the transport of front-end nuclear materials.

The Group is represented on the IAEA’s Transport Safety Standards Committee (TRANSSEC) and works closely with relevant transport organisations such as the World Nuclear Transport Institute.

The Group is also represented on the Transport Facilitation Working Group, a multi-stakeholder initiative to preserve and open up new routes for the transport of radioactive and nuclear material, ensuring they can be delivered in a timely and efficient way.

In 2015, the Group plans to:
- Conduct a meeting in Beijing, China focused on local regulatory and facilitation issues.
- Spearhead a TFWG survey designed to determine trends in the transport area.

Security of the International Fuel Cycle

Chair: TBD  Staff Director: Isis Leslie

The original mission of the Security of the International Fuel Cycle Working Group, set up in 2005, was to produce a report on the policy debate surrounding sensitive fuel cycle technologies, with particular reference to the IAEA initiative on multilateral approaches to the nuclear fuel cycle. The Group’s mission was extended in 2013 to include security standards and best practice.

The Group is represented on the IAEA’s Nuclear Security Guidance Committee (NSGC) as an observer. NSGC’s role is to review and approve draft IAEA guidelines relating to security.

In 2015 the Group plans to:
- Increase its feedback to NSGC on draft IAEA security guidance, drawing upon the expertise of other Working Groups.
- Produce a report based on a 2014 survey conducted across member companies on security policy and governance.
- Contribute to preparations for the fourth Nuclear Industry Summit to be held in 2016 in the US.
- Continue to promote the industry’s views on the importance of a robust fuel supply market as a contributor to non-proliferation.

Fuel Cycle Plenary

Chair: Emmanuelle Verger (EDF)  Staff Director: Stephen Tarlton

The Plenary is the largest members’ forum, typically attracting an audience of 80-90 people, and focuses on developments in nuclear fuel and trade. Sessions consist of formal presentations and panel discussions, as well as reports from interest groups in the areas of primary uranium supply, conversion, enrichment, fuel fabrication, secondary supply and demand. To serve as a practical means for keeping members informed about all activities in the fuel cycle area, the Plenary receives periodic reports from relevant Working Groups.
CORDEL’s mission is to promote the standardisation of nuclear reactor designs. This can be achieved by the development of a worldwide nuclear regulatory environment where internationally accepted standardised reactor designs, certified and approved by a recognised competent authority in the country of origin, can be widely deployed without major design changes at the national level.

In practice, this would mean that generic design certification and safety evaluations approved by a recognised competent authority in the country of origin would be acceptable in other countries without the need to duplicate or repeat the entire design certification process.

In 2014, CORDEL started implementing its Strategic Plan. This effort saw an increase in member participation both in the Working Group and in its numerous Task Forces. Key successes included issuance of reports on the Certification of NDE Personnel by the Codes and Standards Task Force, and 2014-16 Outlook by the Digital I&C Task Force.

Sub-groups

The Codes and Standards Task Force focuses on publishing detailed international design code comparisons with the aim of promoting the international convergence of code requirements. The Task Force is currently finalising the comparison of “non-linear analysis methodology” requirements between nuclear design codes, as well as initiating work to define industry best practice and convergence proposals between these codes. It is also initiating a comparison of fatigue analysis methodologies as well as on welding and welders’ qualification and quality assurance.

The Design Change Management Task Force completed revising its report on Design Knowledge and Design Change Management in the Operation of Nuclear Fleets. The Task Force also plans to complete a design authority report.

The Joint Law - CORDEL Licensing and Permitting Task Force will hold an International New Build Licensing Conference in April 2015. The main theme of the conference will be on how to best manage regulatory risk in the licensing of a nuclear new build project.

The IAEA Nuclear Safety Standards and Probabilistic Safety Goals Task Force will continue its oversight of the work being performed by the IAEA Nuclear Safety Standards Committee (NUSSC) to ensure that proper input related to industry concerns is provided. The Task Force will perform benchmarking of the IAEA Safety Goals framework to provide a means of comparing national/company approaches, with a view to identifying opportunities for harmonisation.

The Digital Instrumentation & Control Task Force, created in 2013, is continuing to develop its report on safety classification. It will also continue to expand membership within CORDEL and develop relations with codes and standards organisations.

The Small Modular Reactors Ad-hoc Group plans to publish its report on International Licensing of Small Modular Reactors. This will be part of a larger corpus of position papers on SMR licensing to be worked on jointly with the Law Working Group. It will also establish a consensus definition for ‘small modular reactor’.
The Capacity Optimization Working Group identifies means by which nuclear power plant operators worldwide can improve the performance of their plants. The Group focuses on areas relevant to plant economics such as availability, reliability, flexibility and capacity. In 2014, the Group hosted a three-day IAEA Technical Meeting on Maintenance Optimization to Improve Nuclear Power Plant Performance, which attracted 40 participants from utilities worldwide.

In 2015, the Group plans to:
- Create a Long-Term Operation Task Force as a forum for: documenting and comparing the licensing processes for different countries; sharing experience of long-term operation in terms of asset management, engineering and technical challenges (e.g. safety modifications, heavy component replacement, obsolescence management and ageing monitoring); and exchanging and defining best practice.
- Support a seminar on industry-government cooperation in enhanced export controls with Pacific Northwest National Laboratory around the Nuclear Suppliers Group meeting in Vienna in March.
- Deepen the dialogue with nuclear component suppliers to develop ideas for addressing issues in procurement, surveillance and product realisation.
- Research employment along the nuclear supply chain.
- Continue to represent the Association at the Nuclear Quality Standard Association.

In 2015, the Group plans to:
- Publish a report on good practice in compliance and licensing of nuclear exports.
- Provide a ‘rough guide’ to export controls on the website.

The Supply Chain Working Group supports members in monitoring and identifying market trends, promoting timely, consistent and efficient plant construction and in communicating with stakeholders on industrial developments. At the end of 2014, the Group published the second edition of its authoritative report, The World Nuclear Supply Chain: Outlook 2030.

In 2013, the Group established a Task Force on Vendor Oversight and Control of Suppliers (VOCS) to develop a concept for an industry-wide approach to strengthening capability along the supply chain that enhances safety and offers a common approach to quality control. In September 2014, it held the World Nuclear Association Nuclear Supplier Forum in London, the objectives of which were to foster an industry-wide dialogue on achieving product realisation and demonstrating that regulatory and licensee requirements are met.

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The Waste Management & Decommissioning Working Group monitors developments and shapes industry positions with a view to improving the system of waste management and decommissioning. It promotes the appropriate re-use and recycling of material – and safe disposal of wastes – from nuclear sites. It also represents industry interests on the IAEA Waste Safety Standards Committee (WASSC).

At its meetings in 2015, the Group will develop its longer-term strategy. It will also continue to facilitate exchange between those companies with experience of decommissioning and those new to the field or planning for the future. In addition, it will share practical lessons learned on the optimal radiological protection of workers during nuclear power station decommissioning, and during the transition period following cessation of generation.
Cross-Cutting Working Groups

Radiological Protection

Co-Chairs: Willie Harris (Exelon); Marcel Lips (Kernkraftwerk Goesgen-Daeniken AG)  Staff Director: Binika Shah

The Radiological Protection Working Group (RPWG) aims to promote improvements in the international system of radiological protection by developing and advocating scientifically sound, understandable and implementable positions of policy and practice. The Group has Special Liaison Organisation status with the International Commission on Radiological Protection (ICRP), and has observer status on the Radiation Safety Standards Committee (RASSC) of the IAEA.

In 2014 the RPWG completed a review of the latest available scientific evidence surrounding the contribution of radiation to cardiovascular and cerebrovascular disease, as well as to lens of the eye effects. The review provided the foundation for an informed and credible industry position on how to incorporate such effects into the international system of protection. The industry view on this topic was delivered at the ICRP Special Liaison Organisation meeting, which the World Nuclear Association hosted in London in November 2014.

In 2015, the RPWG will continue developing its longer-term strategy. The impact of the accident at Fukushima and the ongoing lessons to be drawn, particularly around preparing for emergencies and the transition from the emergency phase, will feature prominently in the Group’s work. There will be further consideration of RP in the fields of environmental protection, radon and naturally occurring radioactive material (NORM) management. The RPWG will also monitor and coordinate industry participation in the work of international organisations on radiological protection such as the IAEA, ICRP and OSPAR, with particular emphasis on participation in the ICRP Symposium in South Korea in 2015 and the International Radiation Protection Association meeting in Cape Town in 2016 (IRPA14).

Law

Chair: Christian Lawerentz (NUKEM)  Deputy Chair: Helen Cook (Shearman and Sterling)  Staff Director: Marie Cletienne

The Law Working Group was established with a mandate to raise awareness among membership on the legal issues facing the nuclear industry. It also liaises with other Working Groups to assist when necessary on ways to respond to specific legal challenges.

In 2015, the Group plans to:

- Provide a forum to discuss and learn about key legal developments affecting the nuclear industry, including the entry into force of the Convention on Supplementary Compensation, and update on the status of the 2004 Protocols to Amend the Paris and Brussels Conventions as well as the 1997 Vienna Convention.
- Prepare and circulate legal issue briefing notes providing international, national, legal and regulatory and case law updates
- Organise jointly with the CORDEL WG an International New Build Licensing Conference in Prague in April 2015.
- Complete and publish the Swaps in the International Nuclear Fuel Market report.
- Produce a series of reports on legal issues surrounding the development of SMRs, including on licensing and liability.

Economics

Chair: Milton Caplan (MZ Consulting)  Staff Directors: Greg Kaser and Ian Emsley

The Economics Working Group focuses on developing a better understanding of the capital costs of new nuclear plants and comparing projections showing the potential role of nuclear power in the 21st Century.

In 2015, the Group plans to:

- Support the Strategic Communication team’s efforts to engage with development banks on the financing of nuclear projects.
- Compile evidence for a report on the economic challenges to nuclear energy.
The Communication Group was created in September 2014 and is open to communication experts from member companies. Its role is to give strategic communication support to the Association. This includes: identifying communications opportunities and challenges facing the nuclear industry, and ways to address these challenges; providing member support and involvement for specific projects identified by the Group; and helping disseminate key messages to the wider industry and beyond.

In 2015, the Group started work in three areas: issues management, nuclear advocacy and crisis communication.

Advisory Groups

Communication Group
Chair: James Scongack (Bruce Power)  Deputy Chair: Jayne Hallet (Urenco)  Staff Director: Virginie Ryan-Taix

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Advisory Panel
Chair: Bob Van Namen (Centrus Energy)  Staff Director: Virginie Ryan-Taix

The Advisory Panel has a brainstorming and consultative function. It replaced the Strategic Advisory Group early 2015. This Panel seeks to identify challenges facing the global nuclear industry, opportunities to advance its position in international, regional and national policy arenas, and ways to improve the public acceptance of nuclear energy. It provides recommendations on how the Association should position itself in addressing these challenges.
The unique training programmes of the WNU help develop the essential skills and knowledge needed by the industry’s future leaders. Since its inception, WNU courses have been attracting increasing numbers: by the end of 2014, over 4000 participants from 80 countries had attended WNU programmes.

In view of the international cooperation which is at the heart of the WNU, the coordinating centre is now looking to reach out to new institutions and education centres interested in joining this partnership. This would, in turn, contribute towards creating a harmonised standard of training, recognised throughout the industry.

In 2014, an Advisory Panel consisting of representatives of the founding supporters IAEA, WANO, OECD/NEA, World Nuclear Association and programme committees, were established. The coordinating team in London welcomed a new Project Officer to help the Head of WNU in its mission to continuously review and improve the quality of its programmes.

**Nuclear English course**

The Nuclear English course is designed for English learners and covers topics related to nuclear science and technology, using the book by Serge Gorlin, *Nuclear English: Language Skills for a Globalizing Industry*. In 2014, the course was held in Brazil from 5 to 16 May for two groups of Angra nuclear plant personnel (shown above).
Summer Institute

70 participants from 29 countries attended the Summer Institute (SI) in Oxford, UK from 5 July to 16 August 2014. The SI provides an intensive six-week educational experience for promising young professionals. The fellows of this programme benefit from an array of leading-edge presentations on a range of topics relevant to the future of nuclear technology, providing them with an international perspective, first-hand experience and an insight into current nuclear applications.

The Summer Institute 2015 will be held in Sweden, after a six-year stay in Oxford and previously in Canada, Korea, Sweden and the USA.

Summer Institute Alumni

The Summer Institute Alumni Assembly gathered 55 participants in Oak Ridge, Tennessee, from 31 March to 4 April 2014. This event is part of WNU efforts to foster the alumni network and communities.

“"You don’t realize how much you’ve learned in six weeks until you return to your day-to-day life with a different perspective and increased energy.”"  

2013 Summer Institute fellow

One-week courses

The Overview and Key Topics in the World Nuclear Industry Today short course covers the application of nuclear science and technology around the world, and looks at where it is likely to go in the future. The curriculum of the course is matched to the needs and the phase of nuclear development of the host country. It was shortlisted for best training course under two weeks’ duration in Nuclear Engineering International magazine’s 2014 Nuclear Training Awards.

In 2014, courses were held in Putrajaya, Malaysia (22-25 April); Seoul, South Korea (21-23 May); and Beijing, China (8-11 December).

School on Radiation Technologies

The 3rd WNU School on Radiation Technologies (RT School) was organised in Doha, Qatar from 7 to 20 March 2014 in collaboration with Hamad Medical Corporation (HMC) and the Qatar University Department of Physics. The school, which explored the medical and industrial uses of nuclear technology, was attended by 60 fellows representing 30 nationalities.

96%
Reported an improved understanding of nuclear topics that could be incorporated into their daily lives.

89%
Identified a positive consequence due to their participation in the Summer Institute.

76%
Were more motivated as a result of attending the course.

65%
Were promoted following the course.

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One-week courses

The Overview and Key Topics in the World Nuclear Industry Today short course covers the application of nuclear science and technology around the world, and looks at where it is likely to go in the future. The curriculum of the course is matched to the needs and the phase of nuclear development of the host country. It was shortlisted for best training course under two weeks’ duration in Nuclear Engineering International magazine’s 2014 Nuclear Training Awards.

In 2014, courses were held in Putrajaya, Malaysia (22-25 April); Seoul, South Korea (21-23 May); and Beijing, China (8-11 December).
Information Services

The World Nuclear Association provides a valuable and unique range of information services that foster greater acceptance and support for nuclear power while presenting a credible and trustworthy face for the global industry. These are the baseload information suppliers of the global nuclear industry.

- **10.6**
  Number of page views (millions) on our websites per year, an increase of 22%

- **20**
  Average number of updates per week to the Information Library on the website.

The World Nuclear Association website serves as the premier nuclear information resource, while World Nuclear News (WNN) represents the leading news service on developments related to nuclear power. They are indispensable tools for industry, government, media, and academia who value reliable and contextualised information on the real-world nuclear industry. Furthermore, the daily research work to constantly update these key services supports the Secretariat’s awareness of global issues and helps it to further the Association’s overall goals.

**World Nuclear Association website**

As a whole, the website usage has grown significantly over the past five years, with 4.9 million visits to the site in 2014 (up from 4.0 million in 2013). The number of page views was 7.5 million in 2014, a 22% increase from 2013. The website now has an average of 19,000 visits per working day.

**Information Library**

The library section of the website features 182 detailed pages covering every aspect of the nuclear industry including current projects, future prospects, technology, policy issues and country-by-country briefings. All of these are constantly maintained and updated an average of 20 updates per week. These pages were viewed a total of 7.1 million times in 2014.

**Publications**

The World Nuclear Association also publishes reports on industry topics and Working Group related activities. 2014 publications include:

- The World Nuclear Supply Chain: Outlook 2030
- CORDEL: Strategic Plan 2014-2018
- CORDEL: Certification of NDE Personnel
- COWG Presents
- RPWG internal report on the relationship between non-cancer effects and low dose radiation

**World Nuclear News**

WNN publishes news researched from original source every working day and in 2014 its own separate website had 3.1 million page views. During 2014, WNN’s daily and weekly emails were reformatted for mobile devices and the service was expanded to include a Viewpoint section with the personal views of industry players. This popular addition led to some of the highest viewing figures. WNN continued to reach new readers on social media, with its following on Facebook doubling during 2014 to more than 120,000. The number of WNN’s Twitter followers now equals WNN’s daily and weekly email distribution of around 20,000.
Strategic Outreach

In 2014, World Nuclear Association continued to reach out to key stakeholders who have an impact on energy issues. For greater efficiency, we are collaborating with industry and partner organisations on relevant topics.

2014 saw a major expansion of the Secretariat’s press activities, and participation in several international consultations to shape key publications on energy. To assist the Secretariat, a group of nuclear communicators from member companies was established in September 2014. This Communication Group has started its work on three workstreams: nuclear advocacy, issues management, and crisis communication.

Reaching out to the nuclear industry

- The first World Nuclear Spotlight event was held in China.
- A new members website was launched with improved functionalities.
- The members newsletter The Loop was sent bi-monthly to over 4000 company representatives.
- A new Viewpoint section in World Nuclear News was launched.

Projects

- Produce a booklet for members with our current positions on topical nuclear issues.
Reaching out to decision-makers

- We took part in the consultation exercise for the International Energy Agency’s World Energy Outlook, the IEA-Nuclear Energy Agency’s Nuclear Energy Technology Roadmap, and the World Bank’s new Environmental and Social Framework.
- The Director General was invited to the World Energy Council Executive Assembly.

Projects
- Work with the International Chamber of Commerce to enable effective participation as part of the business delegation at the COP 21 climate change meeting in Paris later this year.
- Reach out to financial institutions that have a vital role in the financing of new nuclear projects.

Reaching out to nuclear organisations

- The annual gathering of nuclear representatives around the world was organised in September in London.
- The Secretariat worked with Foratom on the response to the Ecofys consultancy report on subsidies and costs of EU energy.
- The annual World Nuclear Fuel Cycle conference was organised with the Nuclear Energy Institute in San Francisco in April.

Projects
- Pursue cooperation with nuclear societies and associations in the Nuclear for Climate initiative aimed at promoting nuclear as a solution to tackle climate change.

Reaching out to media

- A media contact and monitoring system was acquired to enable more effective dissemination of our media messages and improve monitoring of nuclear issues in the media.
- Commentary from experts and representatives from the Association featured in a large number of media reports on nuclear energy, including Reuters, Bloomberg, BBC News, Nuclear Energy Insider, CCTV (China) and Bloomberg Africa.
- Articles were published in a number of independent energy magazines, including an article for the official publication of the G20 meeting.
- Targeted press announcements on key industry issues such as the launch of the IEA World Energy Outlook, the World Nuclear Supply Chain Report, the IPCC Synthesis Report, and EU approval for Hinkley Point C investment contract.
- Growing social media presence with Twitter followers rising from 5,000 to 8,100 and the number of ‘likes’ on the Facebook page rising from 6,500 to 8,200 in 2014.

Projects
- Launch a press and events section on the world-nuclear.org website to increase engagement with the press as well as encourage media presence at our events.
- Publish more opinion pieces in energy-related media outlets on nuclear energy.
Events

The World Nuclear Association acts as a global forum and business meeting place for leaders and specialists in the nuclear industry. It runs its own events, but also co-hosts and partners other conferences, to reach out to various regions, organisations and people worldwide.

World Nuclear Association Symposium

The Symposium in September in London is the place where senior executives from the global nuclear industry meet every year. A two-day conference is held alongside Working Group meetings and a large exhibition.

The highlight of the 2014 conference was the final panel where leaders from the industry and a representative of the Finnish government debated how to ensure the success of the global nuclear industry for the next decades. Of key importance was delivering on time and to budget, as well as investing in the training and development of nuclear employees.

Delegates can also network at meetings and social events in London’s famous venues, such as the 2014 welcome reception at Westminster Abbey Cloisters and the gala dinner at the Natural History Museum, during which the 60th anniversary of the first nuclear power plant providing electricity to the general public was celebrated with first class entertainment from the Bolshoi Theatre, Moscow.

Delegates can also interact with over 30 exhibiting companies including vendors, suppliers, brokers, services, generators.

Delegates’ positions

- 50% CEO/MD/VP/GM/Director
- 29% Senior Manager, Manager & Executive
- 4% Engineer & Analyst
- 7% Press
- 10% Other

International speakers: 40
Countries represented: 38
Delegates: 603
**World Nuclear Association Symposium** is an important opportunity for high-level networking and to get updates on the latest information. I am highly likely to attend next year.”

Yoshinori Kondo, Director, Paris Office, Kansai Electric Power

“A fantastic networking opportunity and a great forum to catch up with the latest developments in the industry.”

Michael Goldsworthy, CEO, Silex Systems

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**World Nuclear Fuel Cycle**

Every April, the World Nuclear Association runs the WNFC conference jointly with the Nuclear Energy Institute. The conference provides an international forum to discuss issues affecting the nuclear fuel cycle. Leading industry experts provide information and insights to help the industry navigate through the complex and changing fuel marketplace.

The conference rotates each year around the world enabling people from all continents to attend. WNFC 2014 was held in San Francisco, allowing more representatives from the US to come. WNFC also offers a technical tour alongside the conference. In 2014, participants visited the Nuclear Engineering Laboratories at the University of California, Berkeley.

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**World Nuclear Spotlight**

World Nuclear Spotlight builds upon the World Nuclear Association’s membership base in countries developing nuclear to present the scope of their nuclear power programmes to global nuclear industry leaders and other key stakeholders. It is a unique opportunity for a large overview of global nuclear trends as well as for high level business networking.

World Nuclear Spotlight 2015 took place in Beijing on 15 January. Speakers included top-level executives from the supporting Chinese organisations CNS, CNNC, SNPTC and CGN, as well as from international companies such as Cameco, Tenex and AREVA. The conference was a great success, attracting over 200 delegates from both Chinese and international companies. Agneta Rising was interviewed by China’s national broadcaster CCTV discussing prospects for nuclear energy in China, and China’s place in the global nuclear industry.

Two technical tours were held after the conference: China Experimental Fast Reactor and Tsinghua University’s Institute of Nuclear and New Energy Technology.

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**Meetings ahead**

**Events**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>21-23 April</td>
<td>World Nuclear Fuel Cycle conference, Prague, Czech Republic</td>
</tr>
<tr>
<td>9-11 September</td>
<td>World Nuclear Association Symposium, London, UK</td>
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<tr>
<td>11-13 January 2016</td>
<td>Meeting of all Working Groups, London, UK</td>
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**Working Groups**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>May</td>
<td>CORDEL DICTF meeting, United States</td>
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<td>17 May</td>
<td>CORDEL CSTF meeting, Chiba, Japan</td>
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<td>20-23 April</td>
<td>Meetings of all Working Groups, Prague, Czech Republic</td>
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<tr>
<td>7-9 September</td>
<td>Meetings of all Working Groups, London, UK</td>
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**World Nuclear University**

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<thead>
<tr>
<th>Date Range</th>
<th>Event</th>
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<tbody>
<tr>
<td>March-September</td>
<td>Nuclear Olympiad</td>
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<tr>
<td>2-6 March</td>
<td>Short courses, Pretoria/Port Elizabeth/Cape Town, South Africa</td>
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<tr>
<td>12-15 May</td>
<td>Short course, Kuala Lumpur, Malaysia</td>
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<tr>
<td>14-17 June</td>
<td>Short course, Amman, Jordan</td>
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<td>4 July-14 August</td>
<td>Summer Institute, Uppsala, Sweden</td>
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<td>7-10 July</td>
<td>Short course, Chengdu, China</td>
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<td>13-15 July</td>
<td>Short course, Seoul, South Korea</td>
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<td>Alpiq Suisse SA</td>
<td>EnLog Pacific Holdings Pty Ltd</td>
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<td>Amec Foster Wheeler Nuclear UK Ltd</td>
<td>EnLog USA</td>
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<td>AREVA</td>
<td>ENUSA Industrias Avanzadas S.A.</td>
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<td>ARMZ Uranium Holding Co. (JSC Atomredmetzoloto)</td>
<td>Eskom Holdings Limited</td>
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<td>Association for Regional and International</td>
<td>Euratom Supply Agency</td>
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<td>Underground Storage (ARIUS)</td>
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<td>Organisation (ANSTO)</td>
<td>EY Global Services Limited</td>
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<td>Berkeley Resources Ltd</td>
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<td>Borealis Infrastructure Management Inc.</td>
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<td>Bruce Power</td>
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<td>Burges Salmon LLP</td>
<td>Fuelco LLC</td>
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<td>Canadian Nuclear Laboratories Limited</td>
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<td>Candu Energy Inc.</td>
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<td>Global Atomic Fuels Corporation</td>
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<td>Global Nuclear Associates</td>
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<td>Centrus Energy Corp.</td>
<td>Gowlingss LLP</td>
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<td>CGN Global Uranium Ltd</td>
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<td>Hitachi-GE Nuclear Energy Ltd</td>
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<td>China National Nuclear Corporation</td>
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<td>CLP Power Hong Kong Limited</td>
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<td>Commonwealth Independent States Navigation Inc.</td>
<td>Imperial College London</td>
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<td>CONLAR</td>
<td>Industrias Nucleares do Brasil S.A. (INB)</td>
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<td>ConverDyn</td>
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<td>Daya Bay Nuclear Power Operations and Management Co Ltd</td>
<td>Intelligent Systems</td>
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<td>DMS s.r.o.</td>
<td>International Nuclear Services</td>
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<td>Doosan Heavy Industries &amp; Construction</td>
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<td>E.ON Nordic</td>
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<td>ITOCHU Corporation</td>
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<td>Electronics Corporation of India Limited</td>
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<td>Rio Tinto Uranium</td>
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As of 15 March 2015
World Nuclear Association Members
As of 15 March 2015

Risk Engineering Ltd
Rolls Royce plc
ROSATOM State Atomic Energy Corporation
Rosenergoatom Concern
RSB LOGISTIC Projektspedition GmbH
Rusatom Overseas
Rusatom Service
Shearman & Sterling LLP
Shikoku Electric Power Co Inc.
Shimizu Corporation
Silex Systems Limited
State Nuclear Power Technology Corporation (SNPTC)
Sogin S.p.A
Sojitz Corporation
South African Nuclear Energy Corporation (Necsa)
Southern Nuclear Operating Company
State Company Navoi Mining and Metallurgical Combinat
Sumitomo Corporation
Swedish Nuclear Fuel and Waste Management Co (SKB)
Taiwan Power Company
TAM International Inc.
Techsnabexport (TENEX)
Teollisuuden Voima Oyj (TVO)
Thomas Thor Associates
Tohoku Electric Power Co Inc.
Toshiba Corporation
Total
TradeTech Energy AG
TradeTech, LLC
TVEL Corporation
UAB „VAE SPB”
UCL Australia
Uranium Corporation of India Ltd (UCIL)
Uranium One Inc.
Uranium Solutions LLC
Urenco Limited
Ux Consulting Company LLC
Vattenfall
W M Mining Company
Westinghouse Electric Corporation
World Institute for Nuclear Safety
Worthington Industries