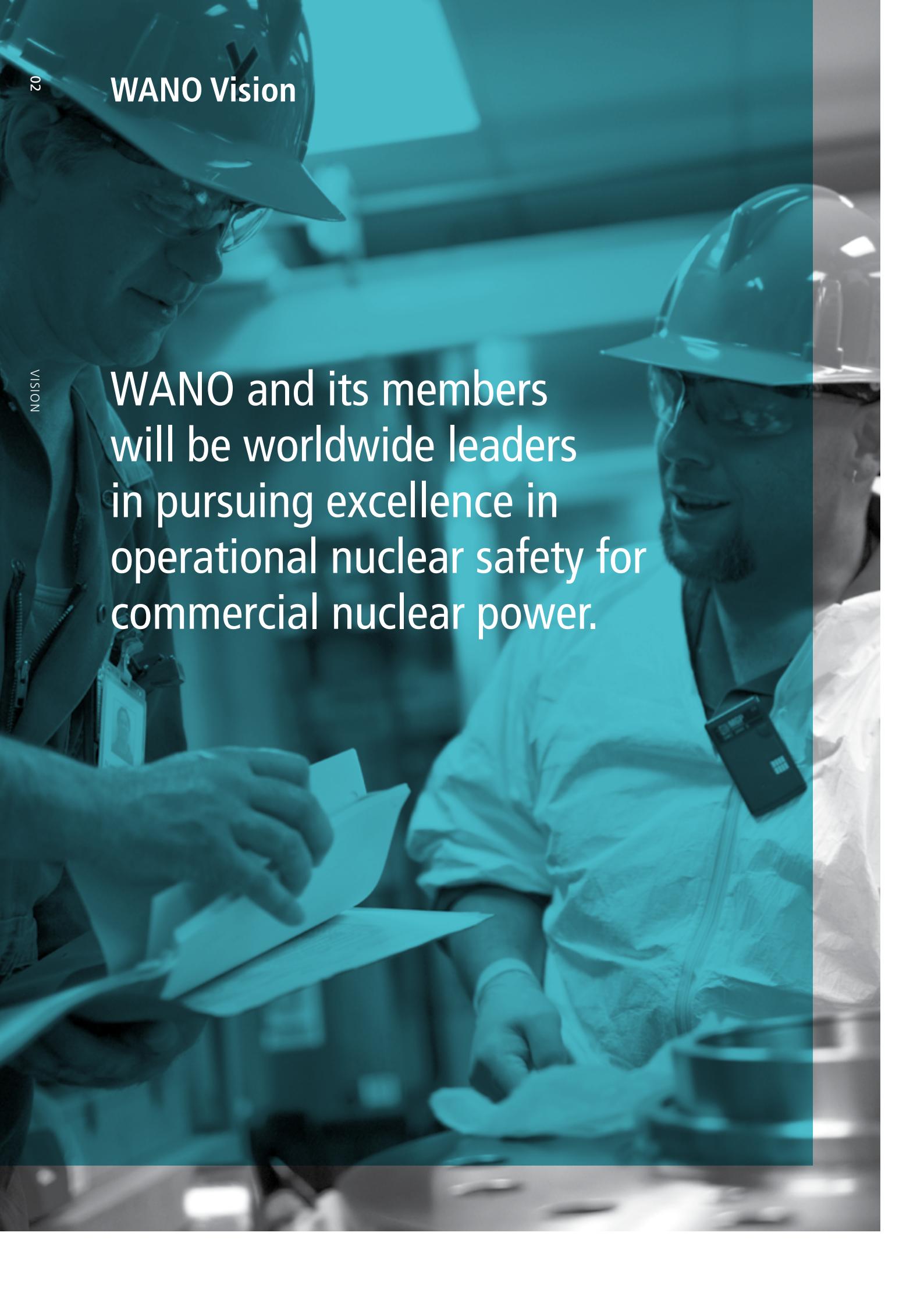




## WANO Vision

VISION



WANO and its members  
will be worldwide leaders  
in pursuing excellence in  
operational nuclear safety for  
commercial nuclear power.

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WANO REVIEW 2015



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**FEATURE: Compass – WANO's  
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(various languages and additional information)



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**WANO Governance**

## WANO Mission

To maximise the safety and reliability of nuclear power plants worldwide by working together to assess, benchmark and improve performance through mutual support, exchange of information and emulation of best practice.



A message from the Chief Executive Officer

# Welcome to WANO Review 2015



*"Our organisation has a rich history of change and adaptation in response to the needs of the industry. It is my expectation that this year's BGM on the topic of *Shaping the Future of the Nuclear Industry*, and our new long-term plan will help us to take further strides in anticipation of the changing needs and requirements of the global community of nuclear operators."*

**This Review provides an opportunity to reflect on the progress WANO has made, and also a look at where we are headed and how we will get there.**

On 31 March 2011, following the Great East Japan Earthquake and subsequent impact on the Fukushima Daiichi nuclear power plant, the WANO Post-Fukushima Commission (PFC) was established. As has been well documented, the purpose of the PFC was to determine the lessons learned for the organisation as a result of the events at Fukushima. At the WANO Biennial General Meeting (BGM) of October 2011, in Shenzhen, China, the PFC reported its recommendations to members who voted unanimously in support of them. Twelve projects were established with a clear goal of the 2015 BGM to have reached all objectives set. You can read a breakdown of each project on pages 8 and 9.

With the closing of these 12 projects comes the opening of a new chapter for WANO and a new strategic plan to guide us over the next few years. *Compass*, WANO's new long-term plan was approved in April of this year and communicated across the WANO staff, governing boards and membership. In keeping with the intention to make WANO more visible to the wider industry, this open distribution document has now also been made available on the WANO public website.

It consists of four focus areas which will guide the work of WANO; supporting existing activities while aiding WANO in becoming more effective in areas such as new build and end of life, life-extensions and decommissioning of plants.

More information about *Compass* can be found on pages 10 and 11, with translations into Chinese, French, German, Japanese, Korean, Russian and Spanish available on pages 12 to 18.

This is an exciting year for WANO, and an important turning point for our organisation and its membership.

Our organisation has a rich history of change and adaptation in response to the needs of the industry. It is my expectation that this year's BGM on the topic of *Shaping the Future of the Nuclear Industry*, and our new long-term plan will help us to take further strides in anticipation of the changing needs and requirements of the global community of nuclear operators.

A handwritten signature in black ink, appearing to read "Ken Ellis".

**Ken Ellis**  
Chief Executive Officer

#WeAreWANO

# Highlights Timeline

2011-2015

## Key

	2011
	2012
	2013
	2014
	2015

### 23-25 October

The 11th BGM, *Strengthening Global Nuclear Safety*, takes place in Shenzhen, China. Vladimir Asmolov, JSC "Concern Rosenergoatom", is elected to be the new WANO President, succeeding He Yu of CGNPC.

WANO Post-Fukushima Commission reports its recommendations to members who unanimously vote in support of them. The recommendations include expanding the scope of WANO activities; developing a worldwide integrated event response strategy, improving WANO's credibility, including changes to WANO's peer reviews and corporate peer reviews; improving visibility; and improving the quality and consistency of WANO's products and services worldwide.

### 11 March

The first anniversary of the Great East Japan earthquake and the accident at Fukushima Daiichi is marked across the world.



ATL

### 26-30 March

The first of the WANO internal assessments, called for by the Post-Fukushima Commission, takes place at the WANO Atlanta Centre.



TKO

### 21-26 May

The second WANO internal assessment takes place at the WANO Paris Centre.



PAR

### 31 January

The Post-Fukushima Commission Oversight Committee is established for the purpose of monitoring, providing advice and challenging the ELT during the implementation of the Post-Fukushima Commission projects.

WANO carries out regular corporate peer reviews to examine how decisions made at a member's headquarters affect nuclear safety across the company. All WANO members will receive a corporate peer review by 2018.



MOS

### 5-9 November

The fourth WANO internal assessment takes place at the WANO Moscow Centre.



### 1 March

Jacques Régaldo, Electricité de France, becomes WANO Chairman, succeeding Laurent Stricker.



LON

### 26-30 November

The fifth WANO internal assessment takes place at the London Office.



### 1 April

Ken Ellis, Bruce Power, succeeds George Felgate as Managing Director.

### 25 September

WANO announces the opening of a pre-startup peer review team office in Hong Kong, so the team can be based in the region where the greatest number of pre-startup reviews will be conducted in the next few years.

### 24-26 September

WANO Site Vice Presidents' & Plant Managers' Conference takes place in Tokyo, Japan under the theme of *Building a Stronger Industry Post-Fukushima*.



2011

2012

2013



#### 19 May

The 12th WANO Biennial General Meeting is held in Moscow, Russia under the theme of *Global Safe Operation: WANO's Core Business*. Duncan Hawthorne was voted to succeed

Professor Vladimir Asmolov as President of WANO; and Ken Ellis, Managing Director of WANO, joined the WANO Governing Board.



#### 15 May

The 25th Anniversary of the creation of the World Association of Nuclear Operators (WANO) is marked.

WANO Nuclear Safety Scholarship announced to mark 25 years of WANO.

#### 1 September

WANO Assessment Policy came into effect, meaning that from this time forward all WANO members with a power reactor have a requirement to facilitate a WANO Assessment.



#### 22-25 September

WANO Site Vice Presidents' & Plant Managers' Conference was held in Düsseldorf, Germany, with theme *WANO: Strengthening Station Performance*.

#### September

Ken Ellis becomes the WANO Chief Executive Officer.



#### 1 February

Vasily Aksenov succeeds Mikhail Chudakov as Director of WANO Moscow Centre.



#### 14-17 July

WANO's first Pre-Startup Conference is held in Guangzhou, China.

2014

#### 21 November

David Garchow is announced as the new Director of WANO Atlanta Centre, succeeding David Farr.



#### 1 January

New WANO Performance Objectives and Criteria PO&C 2013-1 come into effect, superseding previous versions.



#### 1 July

Naoki Chigusa succeeds Harunobu Shirayanagi as Director of WANO Tokyo Centre.



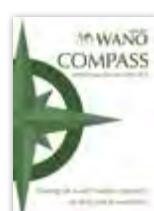
#### 31 January

*Summary Report for WANO Internal Assessment Follow-Up Review* was issued following the regional centre and London Office follow-up reviews in 2014.



#### 9 April

WANO's new long-term plan, *Compass*, was approved by the WANO Governing Board.



#### 4-7 October

13th WANO BGM, *Shaping the Future of the Nuclear Industry*, takes place in Toronto, Canada.

Membership updated on PFC project progress and findings.



2015

# WANO Post-Fukushima Commission Projects



Project complete



Project ongoing



1



2

*Image by TEPCO*



3



## Emergency Preparedness

Emergency preparedness is now included in the scope of WANO activities, and is a set of actions that allow a plant and parent nuclear operating organisation to respond safely and efficiently to an emergency. The implementation began on peer reviews in April 2013, and the process is now fully operational.

## Severe Accident Management

The Severe Accident Management project focuses on the management of onsite actions as well as contact with offsite organisations to mitigate the consequences of a severe accident. It ensures that appropriate resources, facilities, equipment and documentation at plants are in place in the event of a severe accident, and ensures that trained and knowledgeable personnel manage severe accidents efficiently.

## Onsite Fuel Storage

The Onsite Fuel Storage project helps each member station to increase its sensitivity to event response for spent fuel storage, including dry fuel storage. The project ensures that a station can respond quickly to events that challenge spent fuel pool, cooling or coolant inventory control. These recommendations are also now included in WANO peer review evaluations.



4



5



6



## Design Safety Fundamentals

The design project expands the scope of WANO activities to ensure that design features deemed necessary to ensure reactor safety are appropriately managed. This does not mean evaluating the design itself, but incorporating design information into reviews and analyses. Design-informed peer reviews enable WANO to more effectively identify areas for improvement (AFIs) in the context of the design features of the station. Implementation will take place over several years.

## Peer Review Equivalency

Peer Review Equivalency is a set of criteria which establishes the equivalency of activities conducted by other external organisations' reviews to those of a WANO peer review. This means that peer reviews conducted by JANSI or INPO could be equivalent to having a scheduled WANO peer review. WANO members are obliged to host a WANO peer review every four years, but Peer Review Equivalency means that JANSI and INPO peer reviews will potentially be included to help members meet this obligation.

## Emergency Support Plan

The Emergency Support Plan (ESP) provides members with assistance from WANO in an emergency. It allows members to request knowledge and technical expertise from other WANO members and ensures accurate information about the emergency is communicated. The plan integrates WANO's actions with other industry organisations such as the International Atomic Energy Agency (IAEA) and the World Nuclear Association. In the event of an emergency, the ESP will be activated and WANO will be capable of providing accurate event information to its members as well as co-ordinating requests for knowledge and technical expertise/support to members within 72 hours.

The WANO Post-Fukushima Commission (PFC) was established in April 2011 in response to the events at Fukushima Daiichi as a result of the Great East Japan Earthquake. The PFC was charged with determining the changes WANO should implement to help prevent or mitigate a similar occurrence in the future, and to close the gaps in WANO performance.

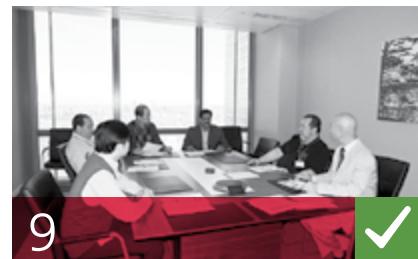
The PFC recommendations led to the creation of twelve distinct projects, which are explained in more detail below, along with the status of each.



7



8



9

### Early Event Notification

When a newsworthy event is identified, WANO gathers information and shares a concise report with member CEOs. The report provides an overview of the event, its cause, consequence and importance, providing CEOs with timely and factual information. Since 2012, 15 notifications have been sent.

### Visibility & Transparency

The Visibility and Transparency project is broken into two distinct areas. Visibility is about promoting WANO as the entity that collectively represents every nuclear power plant operator regarding nuclear safety, while transparency is about sharing information within the WANO membership. This is done through tailored communication products to WANO members, as well as social media campaigns, corporate videos, infographics and the public website.

### Internal Assessments

To make sure that WANO works more effectively and efficiently, and ensuring greater value for members, an assessment was conducted within the four WANO regional centres and the London Office in 2012, with follow-up assessments in 2014. The internal assessments of WANO will happen every four years, and corrective actions will be suggested, with a follow up assessment after two years.



10

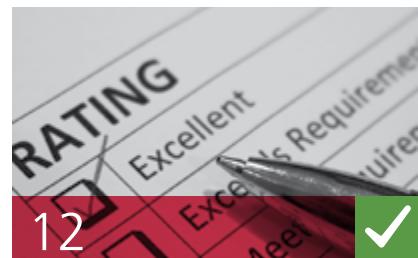


### Corporate Peer Review

Corporate peer reviews are similar to station peer reviews, but instead focus on the corporate organisation. These have been introduced with an initial frequency of once every six years and look at governance, oversight and monitoring, human resources and communications. Every member will have had their first corporate peer review by the end of 2017.

### Peer Review Frequency

Peer reviews help members compare themselves against standards of excellence through an in-depth, objective review of their operations by an independent team from outside their organisation. The frequency of peer reviews has now been increased to once every four years, with a follow-up at the two-year point.



11

### WANO Assessment

The WANO Assessment means that each WANO plant that receives a peer review will be assigned an assessment rating that captures its overall nuclear safety risk. The assessment rating provides CEOs with independent feedback, and came into effect on all peer reviews from September 2014.



# Compass

## WANO's Long-Term Plan 2015-2019

### Pointing WANO in the right direction

**Since 2011, WANO has been focusing on the activities and projects generated by the Post-Fukushima Commission (PFC) following the accident at Fukushima Daiichi. Four years on, the PFC projects are drawing to a close and we have a fresh approach to the challenges ahead: *Compass*.**

*Compass* is our long-term plan for the period 2015-2019, and will guide the organisation through the next five years in a manner that supports WANO's existing activities. It will pave the way for us to become more effective in key areas such as new build and end-of-life plants as well as life-extentions and decommissioning of plants.

We are one WANO and, in this spirit, this long-term plan consolidates and aligns WANO's activities across the world. By committing to a unified and consistent approach to our work, we will ensure WANO remains an invaluable resource for the world's fleet of operating reactors, while also adapting to a rapidly changing nuclear landscape.

Every member of WANO staff will be guided by *Compass* as they draft business plans and budgets for 2016 onwards. It also serves as a communication vehicle to inform staff members and external audiences about WANO's activities.

**The four focus areas of *Compass* outline the areas of work which WANO will focus attention and resources over the next five years.**

#### **① Continue to support and set the standards of high performance of the world's existing nuclear fleet.**

WANO's mission is to maximise the safety and reliability of the world's operating reactors. This remains our main focus and the basis for everything we do. WANO must take a strong stand on performance issues; we must behave and think independently of member influences to provide critical insight to issues affecting station and industry performance.

#### **② Build and maintain a highly-trained, professional workforce within WANO.**

As nuclear industry professionals retire, WANO will help transfer their knowledge and experience of nuclear safety culture to the next generation. Since the event at Fukushima Daiichi, the number of secondees and permanent staff within regional centres and the London Office has increased; WANO needs to ensure it continues to build expertise within the workforce.

#### **③ Forge a stronger WANO through more consistent, credible products and programmes, including providing nuclear leadership training for our members.**

We are an industry committed to common goals, principles and standards. While there may be minor differences based on regional traits, our first commitment is to WANO as a whole. To build a stronger WANO, internal peer reviews of each regional centre and the London Office were conducted in 2012 to measure the quality, effectiveness, efficiency and consistency of implementation of all WANO programmes, with follow-up reviews in 2014.

#### **④ Instil superior standards among new industry entrants and maintain them for end-of-life, life extensions and decommissioning.**

The evolving nuclear landscape is seeing many new countries entering the global nuclear community for the first time and existing nuclear countries looking to expand their programmes. The more mature nuclear nations face fresh challenges that come with plants nearing the end of their operational lives, so WANO needs to adjust its current suite of products and services accordingly. We need to be involved earlier in the new build process to instil high standards of safety and performance from day one.

For more information on where to access *Compass* support documents, or who to contact for further details, turn to page 19.

WANO CEO Ken Ellis says:

***"The global nuclear landscape has changed drastically from the climate that existed when WANO was created 26 years ago. Our organisation has a rich history of change and adaptation in response to the needs of the industry. Compass now takes WANO a step further in terms of anticipating the changing needs and requirements of the global community of nuclear operators."***





# Compass

## 标题：指南-WANO远景规划2015-2019

### 副标题：指引WANO朝着正确的方向

自2011年以来，WANO一直聚焦于随福岛第一核电站事故而成立的福岛后委员会（PFC）所开发的活动和项目。4年过去，PFC项目正画上句号，面对未来的挑战，我们有了最新的方法：指南。

指南是我们针对2015-2019这段时期的一项远景规划，它将通过支持WANO现有的各项活动的方式来引导组织度过接下来的五年时间。在新建电站、寿期末电站、电站延寿及退役等关键领域方面，指南针将为我们铺平前进的道路而让我们变得更加高效。

我们WANO组织是一体的，本着这种精神，远景规划巩固、联合了WANO世界范围内的各项活动。通过致力于统一且始终如一的方法来完成我们的工作，我们将确保WANO对于世界运行反应堆来说依然是宝贵的资源，并同样适应于日新月异的核能图景。

从2016年开始，每一个WANO成员在起草运营计划和预算上都会由指南进行引导。指南也将起到传媒的作用，告知成员和外部受众关注WANO的各项活动。

指南所关注的四个领域概述了WANO将会在接下来整个五年里集中精力和资源的工作领域

#### ① 持续为世界现有核电站提供支持并设定高绩效标准。

WANO的使命是将最大限度的保障世界运行反应堆的安全和可靠性，这仍是我们主要的焦点和所有工作的基础。WANO必须在绩效问题上面采取坚定的立场；我们必须开展独立的行动和思考，以此在影响电站和行业绩效的问题上面提供批判的洞察力。

**② WANO内部组建并维系一个高度受训、专业化的工作团队**  
随着核能行业专业人才的退休，WANO将会帮助他们传承在核安全文化方面的知识和经验给下一代。自福岛第一核电站的事故以来，各区域中心和伦敦办公室的借调人员及固定人员数量得到增长；WANO需要确保在整个工作团队内部持续专业技能的构建。

#### ③ 通过更加始终如一的、可靠的产品及项目来打造一个更强大的WANO，包括为会员提供核能领导力培训。

我们是一个致力于共同目标、原则和标准的行业。虽然基于区域特性可能存在很小的差异，但我们首要承诺WANO是一个整体。为了打造一个更强大的WANO，我们在2012年实施了针对各区域中心和伦敦办公室的内部评估，并在2014年进行了跟踪回访评估，以衡量WANO所有实施项目的质量、效果、效率和一致性。

#### ④ 在行业新进者中灌输优秀标准，并将其持续至寿期末、延寿及退役

不断演变的核能版图见证着许多第一次进入国际核能社会的新国家，以及现有核能国家对扩展各自核能项目的期望。更多成熟的核能国家面对着核电厂临近运行寿期末带来的全新挑战，因此WANO需要相应地调整目前的产品和服务。我们需要更早地全心投入全新的构建过程以便从最开始灌输安全和绩效的高标准。

更多有关如何获取指南支持文件，或是详情联系人等信息，请转至19页。



WANO首席执行官Ken Ellis说：“自26年前WANO创立时所依存的行业环境以来，全球核能版图至今已有巨大的改变。我们的组织在响应行业需求方面有着丰富的历经改变和适应的历史。在预期国际社会中核电运营者变化的需求和要求方面，指南目前引领WANO取得了更大的进展”



# Compass

## La stratégie long terme 2015-2019 de WANO

### Indiquer à WANO la direction à prendre

Depuis 2011, WANO se concentre sur les activités et les projets générés par la Commission Post Fukushima (PFC) à la suite de l'accident à Fukushima Daiichi. Quatre années après, les projets PFC se concrétisent et nous avons une nouvelle approche vis-à-vis des défis qui nous attendent au-delà : *Compass*.

*Compass* est notre plan à long terme couvrant la période 2015-2019 qui orientera notre organisation pour les cinq années à venir tout en soutenant les activités existantes de WANO. Il ouvrira la voie nous permettant d'être plus efficaces dans des domaines clés tels que les centrales nouvellement construites ou en fin de vie, ainsi que la prolongation de la durée de vie, ou la mise hors service définitif de centrales.

Il n'y a qu'un WANO et, dans cet esprit, ce plan à long terme renforce et oriente les activités de WANO à travers le monde. En nous engageant dans une approche coordonnée et cohérente de notre travail, nous garantirons que WANO demeure une ressource inestimable pour le parc mondial de réacteurs en exploitation, tout en s'adaptant également au paysage nucléaire en perpétuelle et rapide évolution.

Chaque membre du personnel de WANO sera guidé par *Compass* pour la préparation des plans d'activités et des budgets à partir de 2016. C'est également un moyen de communication permettant d'informer les membres du personnel et les publics extérieurs sur les activités de WANO.

Les quatre domaines cibles de *Compass* esquisSENT les domaines d'intervention sur lesquels WANO concentrera son attention et ses moyens au cours des cinq années à venir.

#### 1 Continuer à soutenir et à établir les normes de performances élevées du parc nucléaire mondial existant.

La mission de WANO est de maximiser la sûreté et la fiabilité des réacteurs en exploitation à travers le monde. Il s'agit-là de notre objectif principal et du fondement de chacune de nos actions. WANO se doit de prendre une position ferme sur les questions de performances ; nous devons nous comporter et réfléchir indépendamment des influences des membres afin d'apporter une vision critique aux questions concernant les performances des centrales et de l'industrie nucléaire.

Selon Ken Ellis, PDG de WANO :

«Le paysage nucléaire mondial a considérablement évolué depuis la situation qui prévalait lors de la création de WANO voici 26 ans. Notre organisation possède une riche histoire de changement et d'adaptation aux besoins de l'industrie nucléaire. *Compass* fait avancer WANO d'un cran supplémentaire en termes d'anticipation des besoins et des exigences en évolution de la communauté mondiale des exploitants nucléaires.

#### 2 Mettre en place et maintenir une main d'œuvre hautement qualifiée et professionnelle au sein de WANO.

Alors que les professionnels de l'industrie nucléaire prennent leur retraite, WANO va aider au transfert de leurs connaissances et de leur expérience de la culture sûreté nucléaire à la génération suivante. Depuis l'événement de Fukushima Daiichi, le nombre de personnels détachés et de personnels permanents dans les centres régionaux et le Bureau de Londres a augmenté ; WANO se doit de poursuivre le développement de son expertise au sein de ces effectifs.

#### 3 Construire un WANO plus fort par le biais de produits et de programmes plus cohérents et plus crédibles, parmi lesquels l'apport à nos membres d'une formation au leadership nucléaire.

Nous sommes une industrie ayant des obligations vis-à-vis d'objectifs, de principes et de normes communs. S'il peut y avoir des différences mineures liées aux caractéristiques régionales, notre tout premier engagement est pour WANO dans son intégralité. Afin de construire un WANO plus fort, nous avons réalisé en 2012 des peer reviews internes de chaque centre régional et du Bureau de Londres afin de mesurer la qualité, l'efficacité et la cohérence de la mise en œuvre de l'ensemble des programmes de WANO, avec des revues de suivi en 2014.

#### 4 Inculquer des normes plus élevées aux nouveaux arrivants dans l'industrie nucléaire et les maintenir jusqu'à la fin de vie des centrales, jusqu'aux prolongations de leur durée de vie et à leurs mises à l'arrêt définitif.

Le paysage nucléaire en évolution montre de nombreux nouveaux pays qui arrivent pour la première fois dans la communauté nucléaire mondiale et des pays nucléaires existants cherchant à étendre leurs programmes. Les nations nucléaires les plus mûres se trouvent confrontées à de nouveaux défis dus à des centrales qui approchent de leur fin de vie opérationnelle, WANO doit par conséquent adapter sa gamme existante de produits et de services. Nous devons nous engager plus en amont dans le processus des constructions nouvelles afin d'inculquer des normes élevées de sûreté et de fiabilité dès le premier jour.

Pour de plus amples renseignements sur comment accéder aux documents de support *Compass*, ou sur qui contacter pour davantage de détails, reportez-vous à la page 19.



# Compass

## WANOs Langzeitplanung für 2015-2019

### Der WANO den richtigen Weg weisen

**Nach dem Unfall von Fukushima Daiichi hat sich die WANO seit 2011 auf die Maßnahmen und Projekte konzentriert, die die Post-Fukushima Commission (PFC) als wichtig erachtet hat. Vier Jahre später gehen diese Projekte der Kommission nun zu Ende und wir können die vor uns liegenden Herausforderungen, die in der Langzeitplanung *Compass* aufgelistet sind, mit neuem Schwung angehen.**

*Compass* ist unser langfristig ausgelegter Zeitplan für die Jahre 2015-2019. Er wird die Organisation durch die nächsten fünf Jahre geleiten und dabei die laufenden Maßnahmen unterstützen. *Compass* wird uns den Weg ebnen, damit wir in den Kernbereichen der Neuanlagen, der Anlagen mit Restlaufzeit oder Laufzeitverlängerung und der im Rückbau befindlichen Anlagen wirkungsvoller werden.

Wir sind eine WANO und in diesem Sinne dient der langfristig ausgelegte Zeitplan dazu, die Maßnahmen und Aktivitäten der Organisation in der ganzen Welt zusammenzufassen und ihnen eine Richtung zu geben. Durch den einheitlichen und konsequenten Ansatz für unsere Tätigkeit stellen wir sicher, dass die WANO von unschätzbarem Wert für die weltweite Flotte der laufenden Kraftwerke ist und dass diese sich rasch auf Änderungen in der nuklearen Landschaft anpassen können.

Für alle Mitarbeiter der WANO ist der *Compass* der Leitfaden für die Business-Pläne und die Finanzplanungen über das Jahr 2016 hinaus. Er stellt außerdem ein Kommunikationsmittel dar, durch das sowohl die Mitarbeiter als auch Außenstehende über die Maßnahmen der WANO informiert werden.

**Der *Compass* ist in vier Kernbereiche aufgeteilt, die die Tätigkeitsfelder der Maßnahmen und Ressourcen der WANO für die nächsten fünf Jahren beschreiben.**

#### ① Unterstützung und Festlegung der Standards für Hochleistungen in der Flotte der weltweiten Kernkraftwerke.

Die Mission der WANO lautet wie folgt: Maximierung der Sicherheit und Zuverlässigkeit der weltweiten laufenden kerntechnischen Reaktoren. Dies ist unsere Hauptaufgabe und die Grundlage für unser gesamtes Tun. Die WANO muss einen Schwerpunkt auf Performancefragen und -probleme legen, wir müssen unabhängig von den Einflüssen der Mitglieder handeln und denken, damit wir in der Lage sind, kritische Stellungnahmen zu den Fragen und Problemen geben zu können, die die Performance der Anlagen und der Branche beeinflussen.

#### ② Aufbau und Erhalt von hochqualifizierten und professionellen Mitarbeitern innerhalb der WANO.

Wenn Mitarbeiter der kerntechnischen Branche in den Ruhestand gehen, soll die WANO dabei behilflich sein, deren Kenntnisse und Erfahrungen im Bereich der nuklearen Sicherheitskultur auf die nächste Generation zu übertragen. Seit dem Ereignis von Fukushima Daiichi hat sich die Zahl der Secondees und der festangestellten Mitarbeiter innerhalb der Regionalzentren und des London Office erhöht. Die WANO muss nun sicherstellen, dass das Fachwissen bei den Mitarbeitern weiterhin ausgebaut wird.

#### ③ Stärkung der WANO durch einheitlichere und zuverlässige Produkte und Programme sowie Ausbildung des kerntechnischen Führungspersonals unserer Mitglieder in der Mitarbeiterführung.

Wir sind eine Branche, die sich gemeinsamen Zielen, Grundsätzen und Standards verschrieben hat. Trotz möglicherweise bestehender geringfügiger Differenzen auf Grund regionaler Eigenarten gilt doch unser vorrangiges Engagement der WANO als Ganzes. Für eine stärkere WANO fanden 2012 interne Peer Reviews in den einzelnen Regionalzentren und dem London Office statt, um die Qualität,

Wirksamkeit, Effizienz und Einheitlichkeit bei der Umsetzung aller WANO Programme zu überprüfen, 2014 werden die entsprechenden Follow-up Reviews stattfinden.

#### ④ Implantierung hoher Standards bei den Neulingen der Branche und Aufrechterhaltung dieser Standards bei den Mitarbeitern von Anlagen mit Restlaufzeit, Laufzeitverlängerung und den im Rückbau befindlichen Anlagen.

Durch den Beitritt neuer Länder in die globale nukleare Gemeinschaft und das Bestreben der Länder mit bestehenden kerntechnischen Anlagen, ihre Programme auszuweiten, unterliegt die nukleare Landschaft stetigen Veränderungen. Die erfahrenen Nuklear-Nationen stehen durch die Anlagen, die sich dem Ende ihrer Laufzeit nähern, vor neuen Herausforderungen und daher müssen wir bei der WANO unsere aktuellen Produkte und Dienstleistungen entsprechend anpassen. Außerdem müssen wir früher in den Prozess zum Bau einer neuen kerntechnischen Anlage einbezogen werden, damit wir die hohen geltenden Standards für die Sicherheit und Performance vom ersten Tag an vermitteln können.

Weitere Informationen zum Zugang zu weiterführenden Dokumenten zu *Compass* oder zu den Ansprechpartnern für weitere Einzelheiten finden Sie auf Seite 19.



**Der WANO CEO Ken Ellis sagt:**

„Die globale nukleare Landschaft hat sich gegenüber dem Klima, das vor 26 Jahren herrschte, drastisch verändert. Unsere Organisation kann auf eine lange Geschichte der Veränderungen und Anpassungen auf die Anforderungen der Branche zurückblicken. Durch *Compass* gelingt es der WANO einen Schritt weiter zu gehen beim Vorhersehen von sich ändernden Bedürfnissen und Anforderungen der globalen Gemeinschaft von Kraftwerksbetreibern.“



# コンパス – WANO長期計画 2015-2019

## サブタイトル : WANOを正しい方向に向ける

2011年以降、WANOは福島事故を受けて結成されたポスト福島委員会（PFC）によって作成された活動やプロジェクトに集中してきました。4年が経過し、このPFCのプロジェクトは幕を閉じつつあり、我々はこれから先に進むためにこれに変わる新たなアプローチを備えています。それがコンパスです。

コンパスは2015年から2019年までの期間の長期計画です。WANOの現在の活動を支援する形でこれから5年間にわたってWANOを導いてくれるものです。我々が重要な分野でより効果的に進めるよう道を切り開いてくれます。例えば、新規建設プラントや寿命末期プラント、プラントの寿命延長や廃止措置などの分野です。

我々は一つのWANOです。この精神にのっとり、この長期計画は世界中を通じてWANOの活動を一つの強固なものにし、同じ方向に向けさせます。我々の活動に対して統一された、一貫したアプローチを傾けることによって、WANOが世界中の運転中の原子力発電所群にとって計り知れない資源となり続けることを確かなものにするのです。それはまた急速に変化し続ける原子力の世界に対しても言えるのです。

WANOの職員ひとりひとりが、2016年以降の業務計画や予算を策定するにあたって、このコンパスによって導かれます。このコンパスはまた、職員や外部の関係者の方々にWANOの活動について知らせるコミュニケーションの手段としても利用できます。

コンパスの4つの焦点分野が、今後5年間にわたってWANOが焦点を当て、資源を集中していく活動分野の概要を示しています。

世界中の運転中の原子力発電所群の高いパフォーマンスを支援し、その標準を設定し続ける。  
WANOのミッションは世界中の運転中の原子炉の安全性と信頼性を最大限に引き上げることである。これは我々の主要な焦点であり続け、我々の一つ一つの活動の原点でもある。WANOは強い姿勢でパフォーマンスの課題に立ち向かわなければならない；発電所や業界のパフォーマンスに影響するような課題に批判的な目で洞察を与えるために、我々は会員の影響から独立した立場で行動し、考えなければならぬ。

**WANOに高度に訓練された専門家集団を形成し、維持する。**  
原子力業界の専門家たちが退役していく中で、WANOは彼らが持つ原子力安全文化の知識や経験を次の世代に引き継いでいく手助けをする。福島事故以降、各地域センターやロンドン事務所に所属する出向者や専属スタッフの数が上昇してきた；WANOはこの集団の中に専門能力を構築させ続けなければならない。

**会員への原子力のリーダシップ訓練の提供など、より一貫した、信憑性ある成果物、プログラムを通じて更に強固なWANOを構築する。**

我々は共通の目標、原則、標準を必死で目指すことを誓った一つの業界である。地域の特性により多少異なることがあるかもしれないが、我々の第一の誓いは全員が一つのWANOであることである。より強いWANOを作るために、各地域センターとロンドン事務所の内部ピアレビューを2012年に実施した。これは、すべてのWANOのプログラムの実施状況の質、有効性、効率性、一貫性を測るもので、2014年にはそのフォローアップレビューも実施した。

**原子力への新規参入者の間に高度な標準を浸透させ、発電所が寿命末期、寿命延伸、廃止措置を迎えるまでその標準を維持する。**

進化を続ける原子力の世界では、新たに世界の原子力の仲間に入ってくる国もあれば、既に原子力を抱える国がそのプログラムを拡張しようとしている国もある。より成熟した原子力を抱える国では、運転寿命の末期に近づきつつあるプラントを抱え新たな課題に直面している。従ってWANOは現状の成果物やサービス式をこのような状況に合うよう調整していく必要がある。

どこでコンパスの関連資料を入手できるのか、あるいは更に詳細を知るのに誰に問い合わせればいいのかなどの詳細情報をお知りになりたい方は19ページを御覧ください。



WANOのCEOのケン・エリス氏はこう語っている：“世界の原子力の状況はWANOが設立された26年前の状況から劇的に変化しました。我々の組織には豊かな変化の歴史があり、業界のニーズに応えてきた順応性があります。今、コンパスは、世界の原子力事業者の仲間の変わりつつあるニーズと要求を予測するということでWANOを更に一步先へ進めてくれるので。”



# 제목: *Compass – 2015~2019*

## WANO 장기 계획

### 부제: WANO 를 올바른 방향으로 이끌며

WANO는 2011년 이후 후쿠시마 후속 위원회(Post-Fukushima Commission, 이하 PFC)가 주축이 된 활동 및 프로젝트에 초점을 맞춰왔다. 4년 동안 진행된 PFC 프로젝트는 이제 마무리 단계이며, 우리는 향후 직면할 도전과제에 새롭게 다가서고자 한다.

*Compass*는 2015-2019년 기간 동안 추진되는 장기 계획으로, 향후 5년간 WANO의 기존 활동을 지원하도록 인도할 것이다. 이는 신규 건설 및 설계수명 만료, 발전소의 계속 운전과 폐로에 관련한 주요 분야를 더 효과적으로 운영하는 데 초석이 된다.

우리는 하나의 WANO라는 정신을 기반으로, 이 장기 계획은 전 세계에 걸쳐 이루어지는 WANO의 활동을 공고히 하고 WANO 활동과 정합성을 유지한다. 우리는 단합되고 일관된 방식으로 주어진 업무에 임함으로써, WANO가 계속해서 전 세계 가동중인 원자력발전소에 중요한 자원이 되도록 하며, 동시에 빠르게 변화하는 원자력 환경에 확실히 적응하도록 한다. WANO의 모든 직원은 *Compass*에 따라 2016년 이후 사업 계획 및 예산안을 마련하게 된다. 또한, *Compass*는 WANO 활동에 대해 WANO내·외부에 정보를 제공하는 커뮤니케이션 수단의 역할을 한다.

*Compass*의 네 개 중점분야를 통해 WANO가 향후 5년간 관심과 지원을 쏟을 업무에 대해 간략히 기술한다.

1. 전 세계 기존 원자력 발전소의 높은 성능 기준을 마련하고 지속적으로 지원한다.

WANO의 미션은 전 세계 가동 원전의 안전과 신뢰성을 최대화하는 것이다. 우리는 계속해서 여기에 초점을 맞추며, 이는 우리가 하는 모든 일의 근간이 된다. WANO는 성능과 관련된 이슈에 대해 강경한 입장을 취해야 하며, 회원사의 영향에서 벗어나 독립적으로 행동하고 생각하여 발전소 및 업계 성과에 영향을 끼치는 문제에 대해 비판적인 통찰력을 제공한다.

2. WANO 내부에 매우 속련된 전문인력을 구축하고 유지한다.

WANO는 원자력 업계 전문가가 퇴직한 후 그들의 원자력 안전문학에 대한 지식과 경험이 다음 세대에 전달되도록 돋는다. 후쿠시마 다이치 원전 사고 이후 지역센터와 런던본부 내에 파견 근무자와 정규직원 수가 증가했으며, WANO는 조직 내에서 지속적으로 전문지식을 갖출 수 있도록 확인해야 한다.

3. 회원사를 대상으로 하는 원자력 리더십 트레이닝 제공을 포함해 더 일관되고 신뢰할 수 있는 결과물과 프로그램을 통해 더 강한 WANO로 만든다.

우리는 공통의 목표, 원칙, 기준을 준수하는 산업이다. 지역적 특성에 따라 약간의 차이는 있을 수 있지만, 하나의 WANO가 되는 것에 최우선 결의를 보인다. 더 강력한 WANO를 만들기 위해 지역센터와 런던본부는 2012년에 자체 피어 리뷰를 실시해 모든 WANO 프로그램에 대한 품질, 효과성, 효율성 및 일관성을 점검했으며 2014년에 후속점검을 마쳤다.

4. 신규 진입 회원사에 우수한 기준을 전파하고, 이를 설계수명 만료, 계속 운전 및 폐로 시에도 유지한다.

진화하는 원자력 환경을 보면 많은 국가들이 신규로 원자력 업계에 진입하고 있으며, 기존의 원자력 국가들도 자신의 프로그램 확대를 추구하고 있다. 원자력 역사가 긴 국가들은 발전소의 설계수명 만료가 도달함에 따라 새로운 도전과제에 직면하고 있다. 따라서 WANO는 현재 상태의 결과물과 서비스를 그에 맞게 적절히 조정할 필요가 있다. 우리는 신규 건설 시 좀 더 조기에 관여하여 안전과 성능에 대한 높은 기준을 세우도록 할 필요가 있다.

*Compass* 문서 열람 방법에 대해 더 많은 내용을 알고 싶거나 세부 내용에 대해 담당자를 연락하고자 하면 19 페이지를 참고한다.



肯 앤리스(Ken Ellis) WANO CEO는 “세계 원자력 환경은 WANO가 26년 전 창설된 이후 상당히 변화했다. 우리 조직은 산업계의 요구에 맞춰 변화하고 적응한 유구한 역사를 가지고 있다. *Compass*는 이제 WANO가 원자력 사업자 커뮤니티의 변화하는 요구과 요구사항에 부응할 수 있도록 한 걸음 더 나아가도록 한다.”라고 말한다.



# Компас – долгосрочный план ВАО АЭС на 2015-2019 гг.

## Направляя ВАО АЭС по правильному пути

С 2011 года ВАО АЭС уделяла основное внимание мероприятиям и проектам, разработанным в соответствии с требованиями и рекомендациями Постфукусимской комиссии, созданной после аварии на АЭС «Фукусима – Дайichi». Сегодня, четыре года спустя, эти проекты уже вошли в завершающую стадию, и мы заходим на новый виток – Компас.

Компас – это наш долгосрочный план на период с 1015 по 1029 гг.; он будет определять направление деятельности организации на протяжении ближайших пяти лет, одновременно поддерживая уже существующие проекты. Компас укажет путь, следуя которому мы добьемся большей эффективности в ключевых областях, в частности, касающихся новых станций и станций, срок эксплуатации которых подходит к концу, продления срока службы АЭС и вывода станции из эксплуатации.

Мы – единая Всемирная ассоциация операторов АЭС, и в этом смысле наш новый долгосрочный проект консолидирует деятельность и объединяет усилия, предпринимаемые ВАО АЭС по всему миру. Подтверждая свою приверженность единому согласованному подходу к нашей работе, мы тем самым укрепляем позиции ВАО АЭС как бесценного ресурса для мирового парка действующих реакторов – ресурса, который способен адаптироваться к быстро меняющемуся ядерному ландшафту.

Каждый работник ВАО АЭС должен при разработке производственных планов и бюджетов на 2016 год и последующие годы руководствоваться Компасом. Новый пятилетний план станет также средством коммуникации, с помощью которого персонал станций и внешняя аудитория будут получать информацию о деятельности ВАО АЭС.

В фокус Компасса попали четыре направления деятельности, на которых ВАО АЭС сосредоточит свое внимание и ресурсы в ближайшие пять лет.

**1** Продолжать оказывать поддержку и устанавливать стандарты высоких производственных показателей для существующего в мире ядерного парка.

Миссия ВАО АЭС заключается в том, чтобы максимально повысить безопасность и надежность мировых действующих реакторов. Эта миссия по-прежнему остается нашим главным ориентиром и основой всей нашей деятельности. ВАО АЭС должна занять жесткую позицию в отношении вопросов, касающихся работы станций; мы должны поступать и мыслить независимо, и уметь противостоять силе авторитета отдельных членов организации, чтобы взглянуть беспристрастного критика проникнуть в самую суть проблем, способных повлиять на работу станции и всей отрасли.

**2** Создавать и поддерживать хорошо обученные, профессиональные трудовые ресурсы в рамках ВАО АЭС.

Поскольку по мере того, как профессиональные работники ядерной отрасли уходят на пенсию, ВАО АЭС будет помогать передавать их знания и опыт в области культуры ядерной безопасности следующему поколению. Со времени аварии на АЭС «Фукусима – Дайichi» количество прикомандированных и штатных сотрудников, как в региональных центрах, так и в Лондонском офисе, возросло; ВАО АЭС должна и впредь содействовать приобретению профессиональных знаний и практических навыков трудовым коллективом.

**3** Укреплять ВАО АЭС путем создания более согласованных, заслуживающих доверия результатов работы и программ, включая обучение руководящих кадров для организаций-членов ВАО АЭС.

Мы – отрасль промышленности, приверженная общим целям, принципам и стандартам. Даже если между нами и бывают небольшие разногласия, обусловленные региональными особенностями, наше главное обязательство – это обязательство перед ВАО АЭС в целом. Чтобы построить более сильную Всемирную ассоциацию операторов АЭС, в 2012 году в каждом региональном центре и в Лондонском офисе были проведены внутренние партнерские проверки, цель которых

- оценить качество, эффективность и последовательность осуществления программ ВАО АЭС, за ними в 2014 году последовали повторные проверки.

**4** Внедрять более высокие стандарты производства на новых предприятиях отрасли и поддерживать их на станциях, приближающихся к окончанию срока эксплуатации, к продлению срока службы и выводу из эксплуатации.

Главная особенность сегодняшнего быстро меняющегося ландшафта – это вступление в ядерное сообщество большого количества новых стран, которые впервые очтились в незнакомой обстановке, в то время как старожилы уже осматриваются в поисках путей для расширения своих ядерных программ. Более зрелые ядерные державы столкнулись с новыми проблемами, вызванными тем, что эксплуатационный срок службы их станций подходит к концу; поэтому, чтобы приспособиться к ситуации, ВАО АЭС должна внести изменения в настоящий пакет производимой продукции и услуг. Мы должны на более ранней стадии подключиться к процессу строительства новой ВАО АЭС, чтобы с первого дня начать прививать высокие стандарты безопасности и производительности.

Для получения более полной информации о том, где можно найти документы по Компасу или к кому следует обращаться за дальнейшими разъяснениями, перейдите на страницу 19.



Говорит Исполнительный директор ВАО АЭС Кен Эллис: «Глобальный ядерный ландшафт радикально изменился по сравнению с тем, какой климат царил на нем 26 лет назад, когда была создана ВАО АЭС. Наша организация имеет богатую историю; она не стояла на месте, а постоянно менялась, подстраиваясь под нужды отрасли. Теперь Компас должен продвинуть ВАО АЭС еще на один шаг вперед, чтобы она могла действовать с опережением, предвосхищая нужды и потребности глобального сообщества ядерных операторов».



# Compass

## El plan a largo plazo de WANO 2015-2019

### Poner a WANO en la dirección correcta

**Desde 2011, WANO ha volcado gran parte de su atención en las actividades y proyectos generados por la Comisión Post-Fukushima (PFC) a raíz del accidente de Fukushima Daiichi. Cuatro años después y los proyectos PFC próximos a su fin, partimos con un nuevo enfoque para los retos que tenemos por delante: *Compass*.**

*Compass* es nuestro plan a largo plazo para el período 2015-2019 y durante los próximos cinco años servirá de guía a la organización para facilitar el desarrollo de sus actividades. Asimismo nos permitirá ser más efectivos en áreas clave como centrales de nueva construcción y al final de su vida de servicio, además de la prolongación de la vida útil y clausura de las instalaciones.

Somos una única organización y con ese espíritu este plan a largo plazo consolida y alinea las actividades de WANO en todo el mundo. Comprometiéndonos con un enfoque unificado y consistente en nuestro trabajo lograremos que WANO continúe siendo un recurso de inestimable valor para la flota mundial de reactores en operación y adaptarnos a un panorama nuclear en rápida evolución.

Todos los miembros del personal de WANO usarán *Compass* como guía para la redacción de sus planes de negocio y presupuestos para 2016 en adelante. También servirá de vehículo de comunicación para informar al personal y a colectivos externos de las actividades de WANO.

**Las cuatro áreas constitutivas de *Compass* son las áreas de trabajo en las que WANO centrará su atención y sus recursos a lo largo de los próximos cinco años.**

**1 Seguir apoyando la flota nuclear mundial y establecer normas que garanticen una excelencia operativa.**

La misión de WANO es maximizar la seguridad y fiabilidad de los reactores operativos del mundo. Este sigue siendo el principal objetivo de nuestra actividad y la base de todo lo que hacemos. WANO debe tener un planteamiento muy firme en todo lo relacionado con la operación, y actuar y pensar sin dejarse influir por ninguno de los miembros para poder ofrecer un análisis crítico en cuestiones que afectan al funcionamiento de las centrales y la actuación de la industria.



**Según Ken Ellis, CEO de WANO:** “El panorama nuclear mundial ha cambiado drásticamente desde que se creara WANO hace 26 años. Nuestra organización atesora una larga historia de cambio y adaptación en respuesta a las necesidades de la industria. *Compass* lleva ahora a WANO un paso más allá en términos de anticipación de los requisitos y necesidades cambiantes de la comunidad mundial de operadores nucleares.”

**2 Formar y mantener una plantilla profesional altamente cualificada dentro de WANO.**

Conforme vayan jubilándose los profesionales del sector, WANO ayudará a trasmisir a la siguiente generación sus conocimientos y experiencia de la cultura de seguridad nuclear. Desde el suceso de Fukushima Daiichi, el número de personas cedidas y de personal permanente en los centros regionales y la Oficina de Londres ha continuado aumentando, y WANO tiene que asegurarse de seguir desarrollando los conocimientos expertos de su plantilla.

**3 Forjar una WANO más fuerte gracias a unos productos y unos programas más consistentes y creíbles, incluida la formación en liderazgo nuclear para nuestros miembros.**

Somos una industria comprometida con una serie de objetivos, principios y normas comunes. Aunque pueda haber pequeñas diferencias de índole regional, nuestro principal compromiso es con WANO en su globalidad. Para conseguir una WANO más fuerte, en 2012 se realizaron peer reviews internos de cada centro regional y de la Oficina de Londres para medir la calidad, efectividad, eficiencia y consistencia de la implementación de todos los programas de WANO, con revisiones de seguimiento en 2014.

**4 Inculcar unos estándares superiores entre los recién incorporados al sector y mantenerlos en todas las actividades relacionadas con el fin de la vida de servicio, ampliación de la vida útil y clausura de instalaciones.**

El cambiante panorama nuclear supone la irrupción de muchos países nuevos en la comunidad nuclear global y la decisión de países ya integrados en esta de ampliar sus programas. Las naciones nucleares más maduras se enfrentan a los nuevos retos que plantea la aproximación al final de las vidas operativas de sus instalaciones, y WANO debe ajustar su actual línea de productos y servicios en consonancia con ello. Tenemos que implicarnos más desde el principio en el proceso de nueva construcción, para poder inculcar unos altos estándares de seguridad y rendimiento desde el primer día.

Para más información sobre cómo acceder a documentos de apoyo de *Compass* o a quién contactar para obtener más datos, remitirse a la página 19.

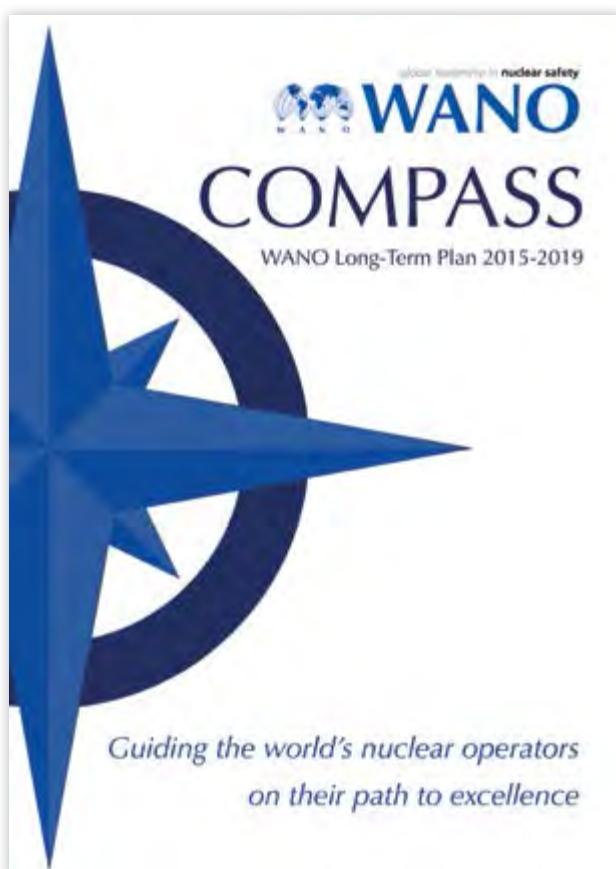
# Compass

## Additional information

### Support Documents

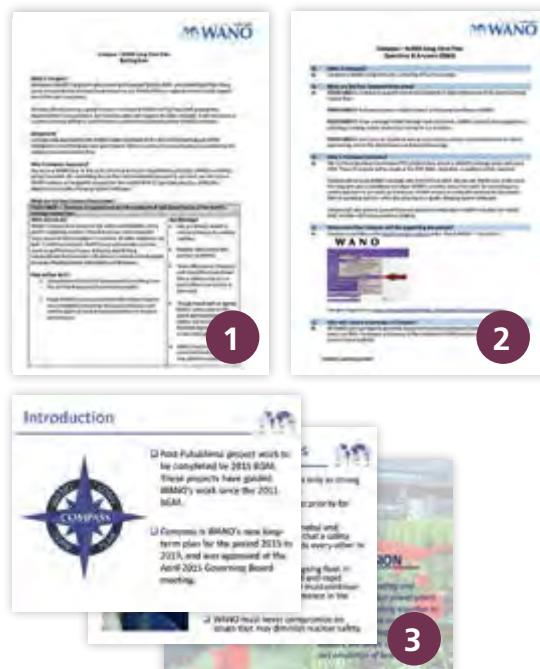
You can download a copy of *Compass* from both WANO's public and member websites:

[www.wano.info](http://www.wano.info) & [www.wano.org](http://www.wano.org)



You can also access our suite of support documents on the member website, including:

- 1 A briefing note which pulls out the key messages of each of the four focus areas
- 2 Question & answer (Q&A) sheet with all of the frequently asked questions
- 3 A selection of PowerPoint presentations to help communicate *Compass* to various audiences



To view these documents, please visit:  
[www.wano.org/WANO/WANO\\_Documents/Compass/Compass.asp](http://www.wano.org/WANO/WANO_Documents/Compass/Compass.asp)

### Contact

If you have any additional questions that are not answered in the *Compass* Q&A, please contact [communications@wano.org](mailto:communications@wano.org).

# WANO Governance

## CHAIRMAN



**Jacques Régaldo**  
WANO Chairman

## CEO



**Ken Ellis**  
WANO Chief  
Executive Officer

## PRESIDENT



**Duncan Hawthorne**  
WANO President

## WANO GOVERNING BOARD

WANO Governing Board as of 31 August 2015

### ATLANTA CENTRE GOVERNORS



**Thomas Mitchell**  
President and Chief  
Executive Officer  
Ontario Power  
Generation



**Robert Willard**  
President and Chief  
Executive Officer  
Institute of Nuclear  
Power Operations



**Christopher Crane**  
President and Chief  
Executive Officer  
Exelon Corporate

### MOSCOW CENTRE GOVERNORS



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Member of the Board  
and Chief Operating  
Officer, ČEZ, a.s.



**Evgeny Romanov**  
Director General  
Concern  
Rosenergoatom



**Yury Nedashkovsky**  
President  
NNEGC "Energoatom"

### PARIS CENTRE GOVERNORS



**Pedro José Diniz de  
Figueiredo**  
Operations and  
Commercialisations  
Director, Eletrobrás  
Termonuclear -  
Eletronuclear S.A.



**Jean Bernard Lévy**  
Chief Executive  
Officer EDF



**HE Yu**  
Chairman of the Board  
China Guangdong  
Nuclear Power Holding  
Co., Ltd (CGNPC)

### TOKYO CENTRE GOVERNORS



**Mitsuo Matsui**  
Advisor, Power  
Generation Division  
The Chugoku Electric  
Power Company, Inc.



**Makoto Yagi**  
President & Director  
The Kansai Electric  
Power Company Inc.



**CHEN Hua**  
President  
China National Nuclear  
Power Co. Ltd

### REGIONAL CENTRE DIRECTORS



**David Garchow**  
Atlanta Centre



**Vasily Aksenov**  
Moscow Centre

### PROGRAMME DIRECTORS



**Jo Byttebier**  
Operating Experience  
Programme



**David Crabtree**  
Peer Review Programme



**Stoyan Genov**  
Technical Support &  
Exchange Programme



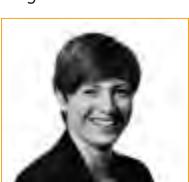
**Wade Green**  
Professional & Technical  
Development Programme



**Ignacio Araluce**  
Paris Centre



**Naoki Chigusa**  
Tokyo Centre



**Claire Newell**  
Communications  
Programme



**Joel Bohlmann**  
WANO Company  
Secretary



**Sandor Nagy**  
Director of London  
Office Services

# Available now...



## WANO Member World Map – 2015 Edition

The latest edition of the WANO Member World Map is available as a wall poster.

Print out your copy from the WANO website:  
[www.wano.info/en-gb/  
members/wanoworldmap](http://www.wano.info/en-gb/members/wanoworldmap)

Here, you can also find an interactive online WANO member world map with the most up-to-date information.

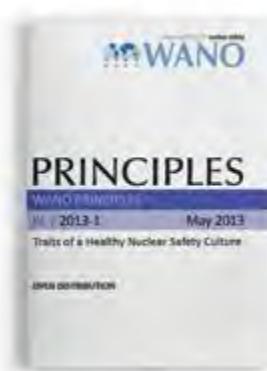


### This is WANO

We Review, We Support, We Connect,  
We Teach, We Share

What is WANO? What does it do?

This brand new leaflet aims to remove the jargon of the nuclear industry and explain in a concise and easy-to-read way, the work of the five WANO programmes.



### Pocketbook: WANO PL 2013-1

Traits of a Healthy Nuclear Safety Culture

This key WANO Principles document is now available in a pocketbook size. The small, lightweight format is incredibly handy, and the document is an invaluable reference for every individual in the nuclear industry.

For your own WANO PL 2013-1 pocketbook, please contact the WANO Communications team, [communications@wano.org](mailto:communications@wano.org).



Find all of these publications and much more on the WANO website: [www.wano.info](http://www.wano.info)





# Inside WANO

WANO's flagship publication is now online.

Visit [www.wano.info/en-gb/insidewano](http://www.wano.info/en-gb/insidewano) and subscribe to receive the latest editions direct to your inbox four times a year, for free!





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