



International Framework for Nuclear Energy Cooperation (IFNEC)

IFNEC activities related to Global Supply Chain and Localization, Issues and Opportunities

Presented by Dr. Henri Paillère, OECD/NEA
Head of IFNEC Technical Secretariat, on behalf of

Fumikazu Sato, Japan, and Amb. Rafael Grossi, Argentina,
Co-chairs of the Nuclear Supplier & Customer Countries Engagement Group

**2018 Nuclear Supply Chain Management Workshop,
5-6 November 2018 organised by
OECD/NEA CNRA and MDEP**



International Framework for Nuclear Energy Cooperation (IFNEC)

www.ifnec.org

IFNEC Members

34 Participant countries

- | | | |
|-----------|-------------|----------------------|
| Argentina | Japan | Russia |
| Armenia | Jordan | Senegal |
| Australia | Kazakhstan | Sierra Leone |
| Bahrain | Kenya | Slovenia |
| Bulgaria | Korea | Ukraine |
| Canada | Kuwait | United Arab Emirates |
| China | Lithuania | United Kingdom |
| Estonia | Morocco | United States |
| France | Netherlands | |
| Germany | Niger | |
| Ghana | Oman | |
| Hungary | Poland | |
| Italy | Romania | |

31 Observer countries

- | | | |
|----------------|-----------------|----------|
| Algeria | Mexico | Tanzania |
| Bangladesh | Moldova | Tunisia |
| Belgium | Mongolia | Turkey |
| Brazil | Nigeria | Uganda |
| Chile | Philippines | Viet Nam |
| Czech Republic | Qatar | |
| Egypt | Saudi Arabia | |
| Finland | Singapore | |
| Georgia | Slovak Republic | |
| Greece | South Africa | |
| Indonesia | Spain | |
| Latvia | Sweden | |
| Malaysia | Switzerland | |

4 Observer organisations





IFNEC Statement of Mission

“The International Framework for Nuclear Energy Cooperation provides a **forum for cooperation** among participating states to explore mutually beneficial approaches to **ensure the use of nuclear energy for peaceful purposes proceeds in a manner that is efficient and meets the highest standards of safety, security and non-proliferation.** Participating states would not give up any rights and voluntarily engage to share the effort and gain the benefits of economical, peaceful nuclear energy.”

- Adopted June 16, 2010 in Accra, Ghana



Organisational Structure

EXECUTIVE COMMITTEE
Ministerial-level Officials or Designees
Chair 2018: Japan

STEERING GROUP

Chair
Julián GADANO
(Argentina)

Vice-Chair
Anne LAZAR-SURY
(France)

Vice-Chair
Gou FENG
(China)

Vice-Chair
Fumikazu SATO
(Japan)

**INFRASTRUCTURE DEVELOPMENT
WORKING GROUP (IDWG)**

Co-Chair
Alex BURKART
(United States)

**RELIABLE NUCLEAR FUEL SERVICES
WORKING GROUP (RNFSWG)**

Co-Chair
Sean TYSON
(United States)

Co-Chair
Tomaž ŽAGAR
(Slovenia)

**Ad Hoc NUCLEAR SUPPLIER and CUSTOMER
COUNTRIES ENGAGEMENT GROUP**

Co-Chair
Fumikazu SATO
(Japan)

Co-Chair
Rafael GROSSI
(Argentina)

NEA Technical Secretariat (funded by IFNEC members)



IFNEC Output (available on www.ifnec.org)

INTERNATIONAL FRAMEWORK FOR NUCLEAR ENERGY COOPERATION
FINANCE WORKSHOPS AND PANEL SESSION

Mar 9-20, 2012 • London, United Kingdom October 22, 2013 • Abu Dhabi, UAE Mar 8, 2014 • Bucharest, Romania

Financing Nuclear Power Projects

New and Emerging Models

Finance and Project Structuring Approaches Based on IFNEC Finance Workshops and Panel Session

2014

INTERNATIONAL FRAMEWORK FOR NUCLEAR ENERGY COOPERATION
SMALL MODULAR REACTOR WORKSHOP

June 11-12, 2014 • Dead Sea, Jordan

Report of the Small Modular Reactor Workshop: Practical Deployment Issues and Approaches

Including several potential deployment models based on workshop scenario discussions



INTERNATIONAL FRAMEWORK FOR NUCLEAR ENERGY COOPERATION
NUCLEAR ENERGY'S ROLE IN THE 21st CENTURY – FINANCE CONFERENCE

11-12 May 2016 – Paris, France

Nuclear Energy's Role in the 21st Century: Addressing the Challenge of Financing

2016

Conference Proceedings
11-12 May 2016
Paris, France

INTERNATIONAL FRAMEWORK FOR NUCLEAR ENERGY COOPERATION
RELIABLE NUCLEAR FUEL SERVICES WORKING GROUP

Practical Considerations to Begin Resolving the Final Spent Fuel Disposal Pathway for Countries with Small Nuclear Programs

October 2016

INTERNATIONAL FRAMEWORK FOR NUCLEAR ENERGY COOPERATION
GLOBAL SUPPLY CHAIN AND LOCALIZATION, ISSUES AND OPPORTUNITIES

7-8 November 2017 – Paris, France

Global Supply Chain and Localization, Issues and Opportunities: A Conference on the Customer Dialogue

2018

Summary Conference Report
7-8 November 2017
Paris, France

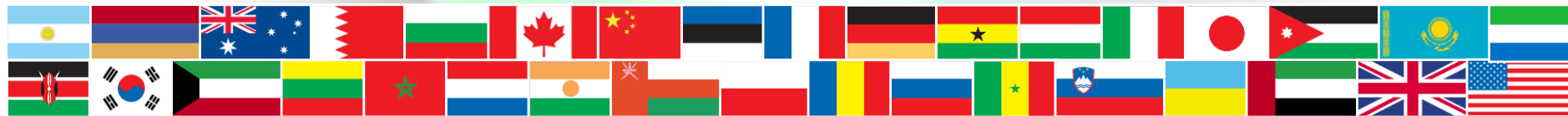
Nuclear Supplier and Customer Countries Engagement Group (NSCCG)



Nuclear Supplier and Customer Countries Engagement Group

IFNEC set up an ad hoc group entitled “Nuclear Supplier and Customer Countries Engagement Group” (NSCCEG) in October 2016.

Argentina (Amb. Rafael Grossi) and Japan (Hideo Shindo) were approved as co-chairs. The ToR of NSCCEG were approved at the IFNEC Steering Group meeting in June 2017. 4 areas of work are identified: (i) safety; (ii) project development; (iii) financing and (iv) public acceptance and accountability. Area of work (ii) (project development) includes: *the development of skilled human resources and infrastructure, including the global and local supply chain supporting projects...*





Nuclear Supplier and Customer Countries Engagement Group

- On 7-8 November 2017, NSCCEG organised the following event: “**Global Supply Chain and Localization, Issues and Opportunities, A Conference on the Customer Dialogue Conference**”.
 - Speakers: government representatives, international organisations (IAEA, NEA, WNA), industry (vendors, supply chain), regulators
 - Presentations and conference report are available here:
https://www.ifnec.org/ifnec/jcms/g_9673/ifnec-global-supply-chain-and-localization-issues-and-opportunities-november-7-8-2017
- On 6 March 2018, NSCCEG sponsored a session in the V. Int. Nuclear Power Plants Summit in Istanbul – on supply chain issues.
 - Strong focus on training activities





Nuclear Supplier and Customer Countries Engagement Group

Brief overview of issues addressed in the Nov. 2017 Conference

Customer views on localization:

- Localization represents expectations: create jobs / boost the economy / improve public support for nuclear projects.
- Communications are needed to assure that Customer expectations align with Supplier commitments
- A significant part of localization involved Customer investment in preparations to support local content: training, local business development assistance, understanding requirements





Nuclear Supplier and Customer Countries Engagement Group

Brief overview of issues addressed in the Nov. 2017 Conference

Supplier views on the supply chain and localization:

- Localization can increase costs & risks but can make sense if the Customer is willing to invest to increase local content
- Suppliers vary widely in approach from “we buy where we build” (localization), to global sourcing strategies that can include local content
- Supplier favor a diverse supply chain that promotes competition and supports efficiency
- Quality Assurance is a critical issue in selecting sources
- Customers can increase local content by investing and assuming some of the risk





Nuclear Supplier and Customer Countries Engagement Group

Brief overview of issues addressed in the Nov. 2017 Conference

Regulators views on supply chain and localization:

- The regulators operate with a variety of relationships with other regulatory bodies and are directly involved in inspections to monitor the quality programs of vendors and the many sources of supply
- There remains an important role for industry bodies to promote qualification / self assessment [see other industrial sectors, eg aeronautics]

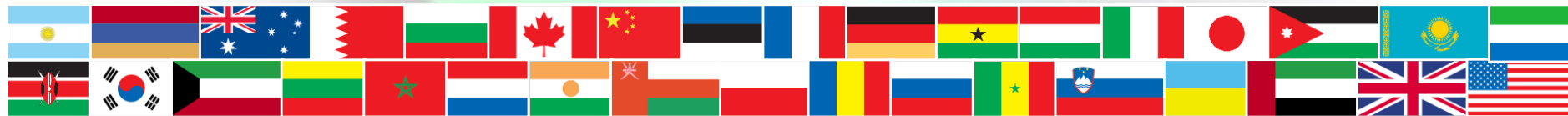




Nuclear Supplier and Customer Countries Engagement Group

IFNEC NSCCEG conclusions on supply chain issues

- Suppliers have robust procurement and qualification programs with multi-step processes that involve pre-selection, pre-qualification and qualification. Vendors invest their own resources both during the qualification process as well as in maintaining the supply chain. Because of this investment, suppliers are looking for long-term relationships.
- Best practices for suppliers
 - long-term relationships;
 - well-tested process for qualification;
 - appropriate level of oversight;
 - establishing and growing local presence;





Nuclear Supplier and Customer Countries Engagement Group

IFNEC NSCCEG conclusions on supply chain issues

- What can customer countries do to help?
 - assist vendors with their early investment in the customer country – consultancy contracts;
 - invest in local supplier education and qualification;
 - invest in overall nuclear infrastructure development, including regulatory infrastructure;
 - understand vendor qualification requirements, communication with vendors on areas where localization can be of benefit to the project





**Next IFNEC meetings:
Tokyo, 12-15 November 2018, including
WG meeting on safety & safety culture**

Thank you for your attention!

Questions in IFNEC can be addressed to the
Secretariat: secretariat@ifnc.org
www.ifnec.org