

Welcome from the International Atomic Energy Agency

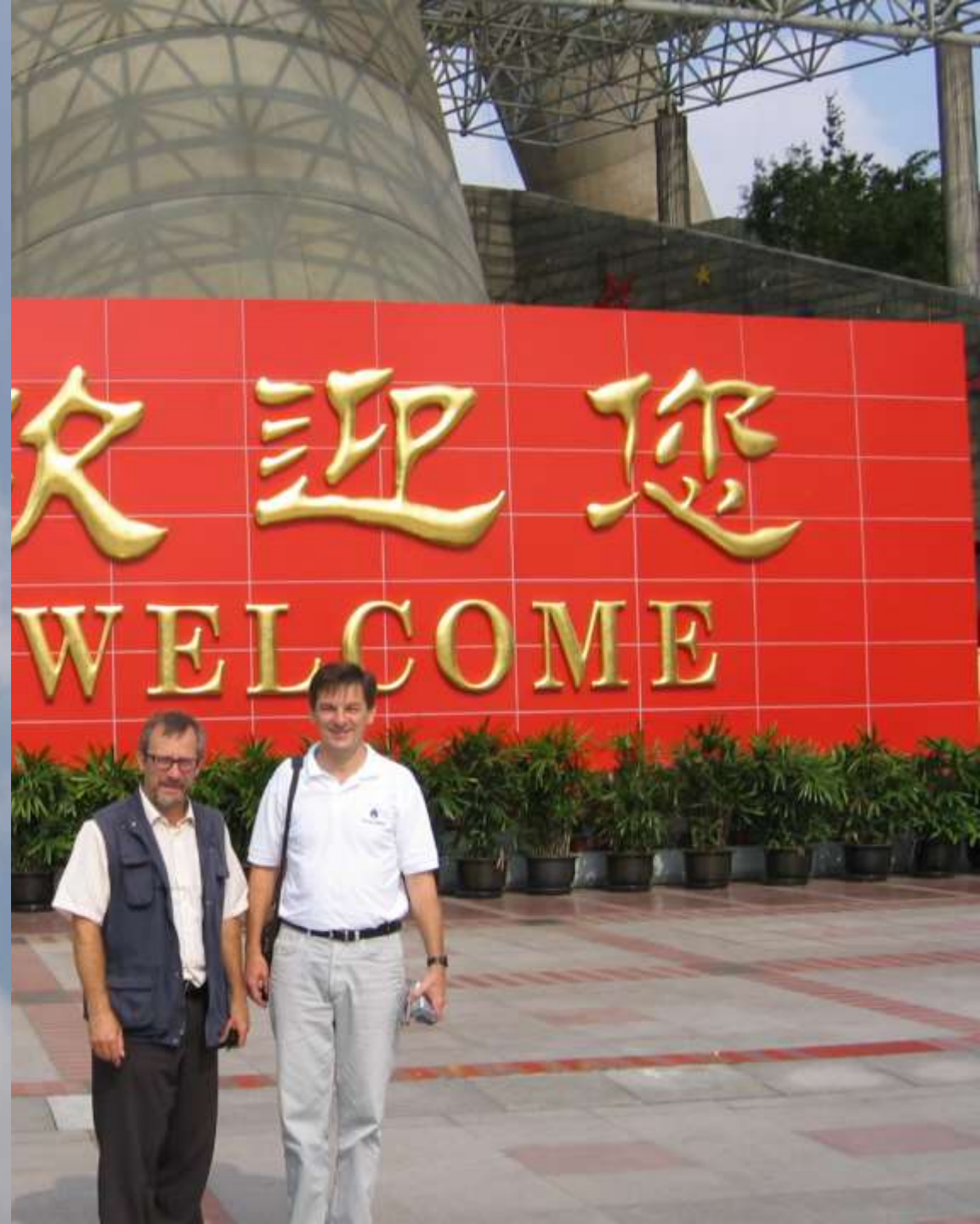
Janos Eiler

Shanghai, 13 October 2015



IAEA

International Atomic Energy Agency







Global nuclear power outlook

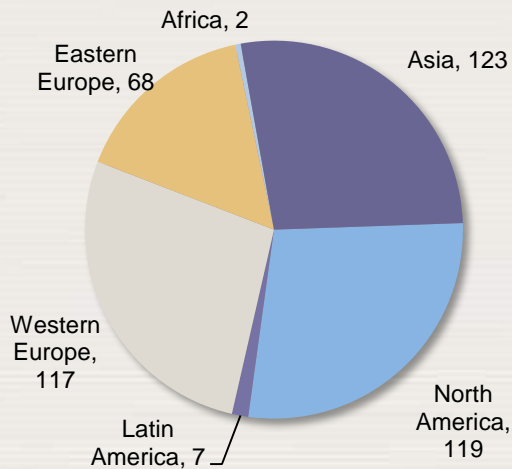


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Global nuclear power situation

Geographical distribution



438 reactors in operation (379 GW_e)

2 reactors in long-term shutdown

156 reactors in permanent shutdown

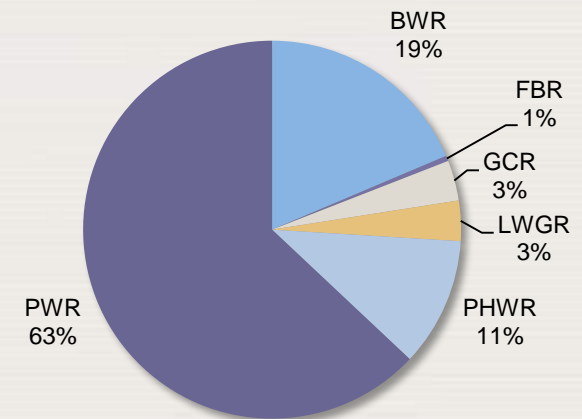
68 reactors under construction

As of October 2015

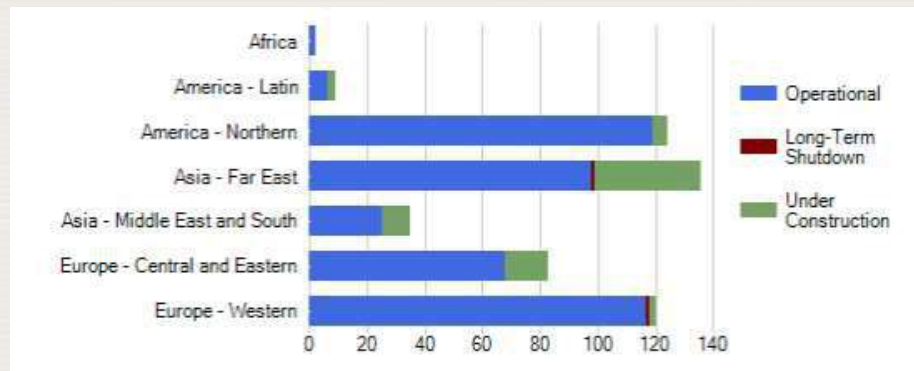
Latest connections to the grid:

- ❖ Five 1000 MW(e), PWR, China
- ❖ SHIN-WOLSONG-2, 960 MW(e), PWR, Korea

Reactor capacity by type



Website: <http://www.iaea.org/pris/>



Newcomers with 1st NPP under construction

**UAE – Unit 1, July 2012
Unit 2, May 2013**

Belarus – Unit 1, Nov 2013



As many as 5 countries may have their first reactors under construction in the next 5 years

Status in China

- Electricity production share in 2014: 2.39% nuclear



China, People's Republic of

SUMMARY

Nuclear Power Reactors

Under Construction	Operational	Long-Term Shutdown	Permanent Shutdown
24	28	0	0

Annual Electrical Power Production

Total Electricity Production (including Nuclear)

5463800.00 GW.h

(Gross, 2014)

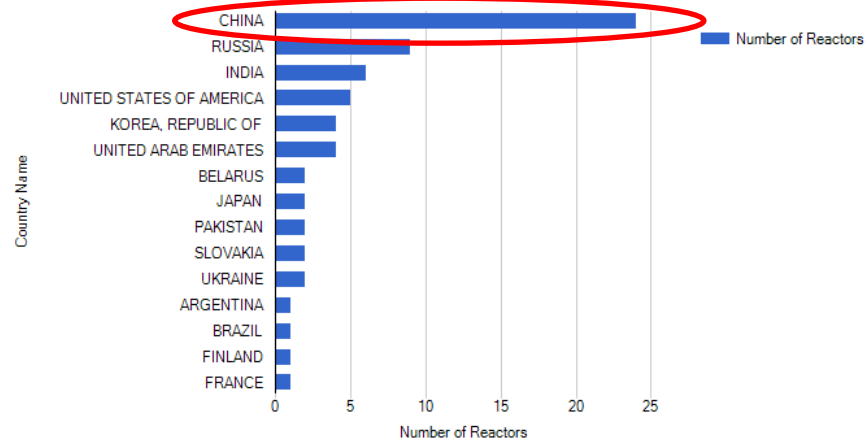
Nuclear Electricity Production

130580.00 GW.h

(Gross, 2014)

UNDER CONSTRUCTION REACTORS

Total Number of Reactors: 68



As of October 2015



The total Number of Reactors includes also 2 reactors in Taiwan, China

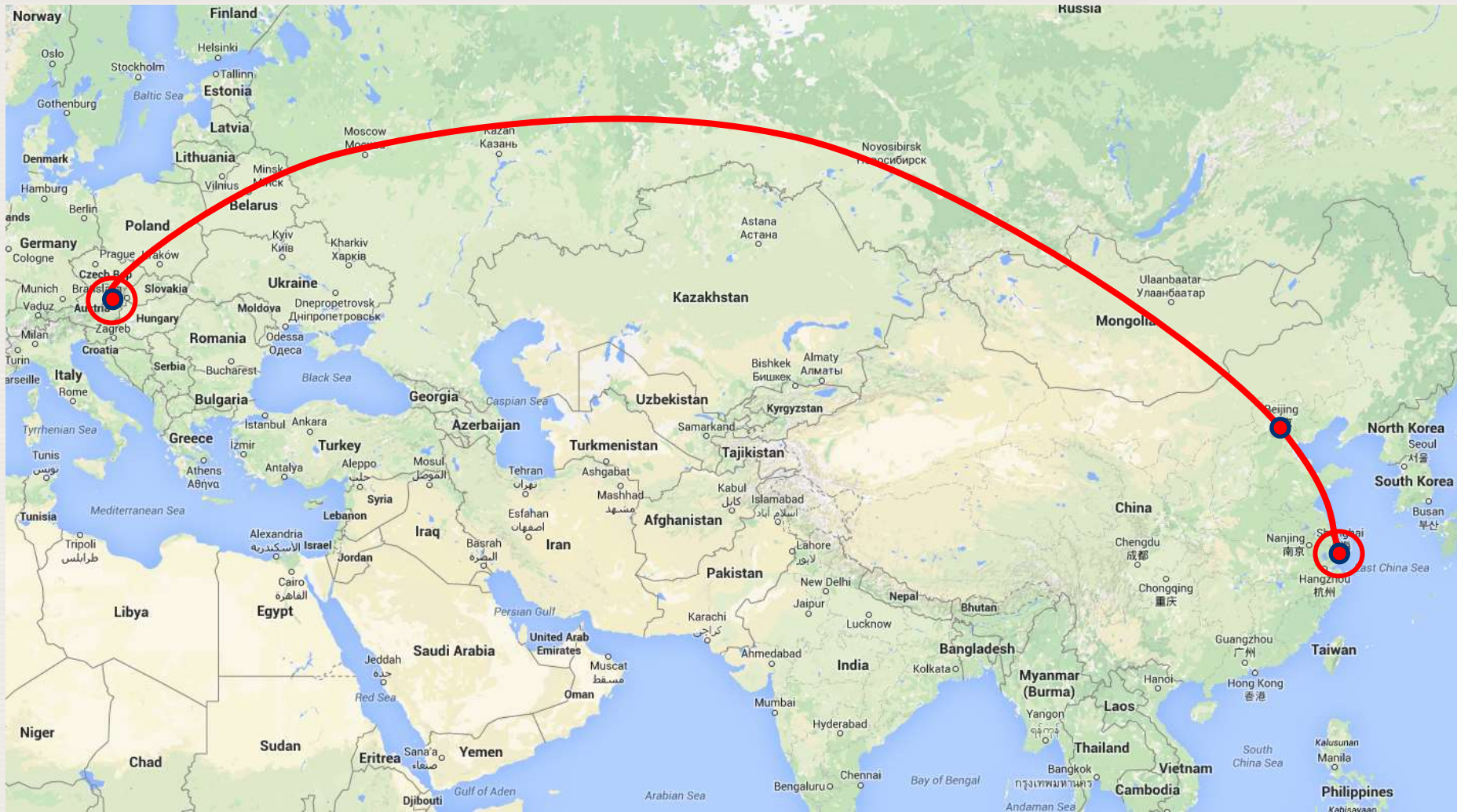
Introduction to the IAEA



IAEA

International Atomic Energy Agency

Vienna - Shanghai







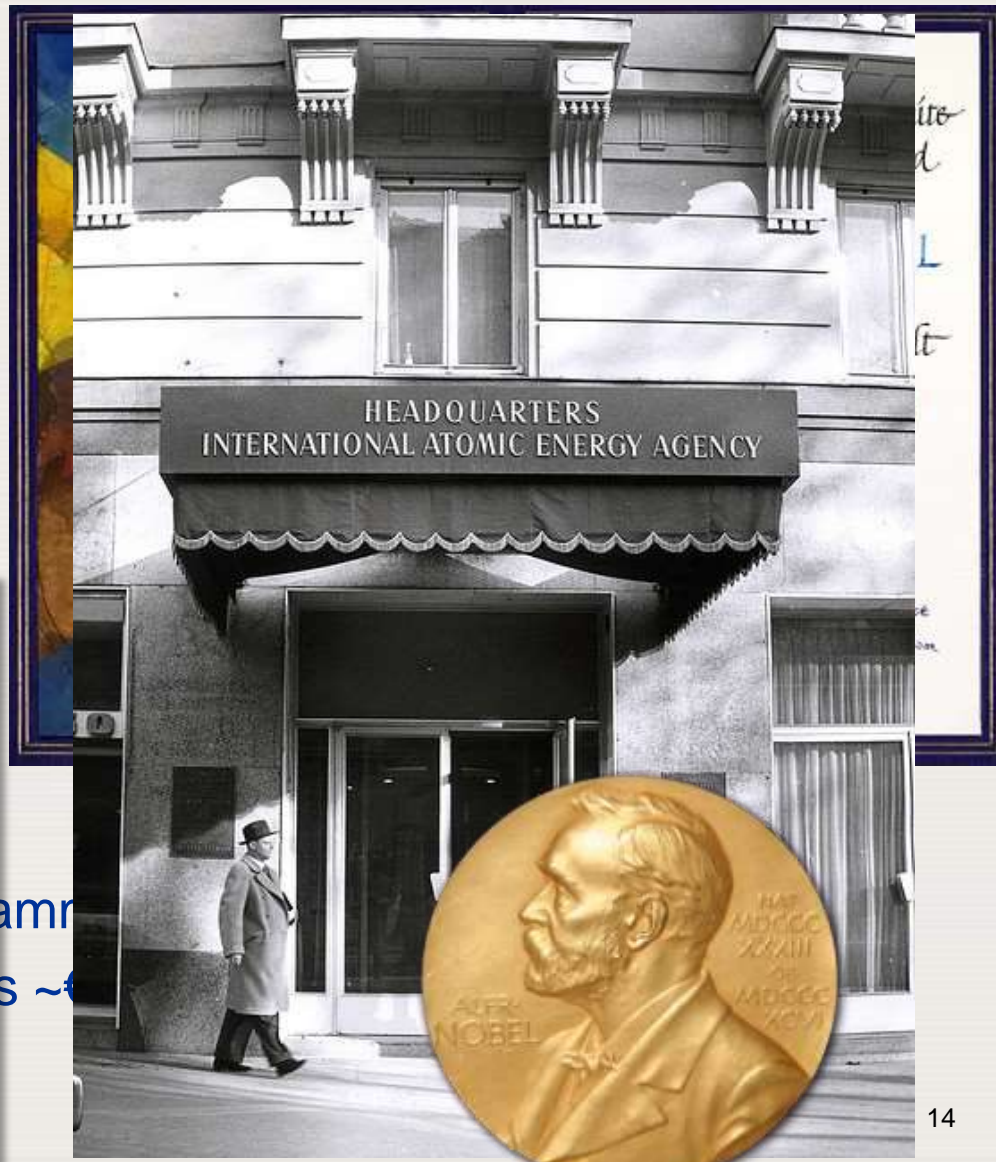
The IAEA and its mission

- President Dwight D. Eisenhower's *Atoms for Peace* speech to the UN General Assembly in New York on December 8, 1953
- IAEA is the UN's **scientific forum for cooperation** in the nuclear field
- Maximizing the contribution of nuclear technology to the world, while **verifying its peaceful use**



IAEA at a glance

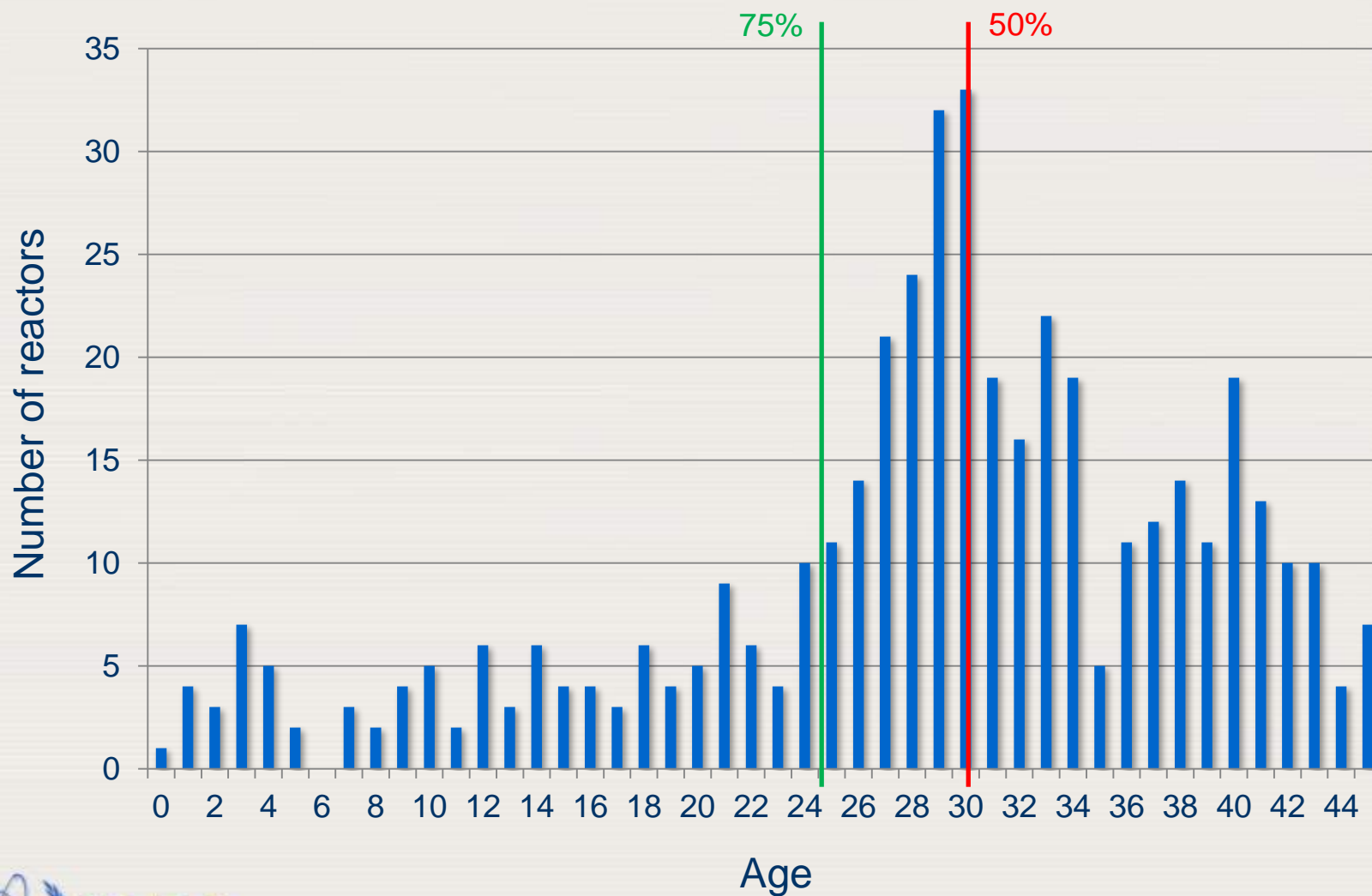
- Founded in 1957
- 165 member states
- New members in 2015
 - Djibouti, Guyana and Republic of Vanuatu
- 2398 staff
- Nobel Peace Prize – 2005
- Annual budget
 - Regular budget
 - Technical cooperation
 - Extra-budgetary



Location of the IAEA



Age of operating reactors



Support for operation, expansion and newcomers



**Operating NPP
Programme**



**Expansion NPP
Programme**



**New Comers
Programme**



IAEA assistance to global nuclear power

- Meetings, workshops and conferences
 - Consultants' Meetings
 - Technical Meetings
 - Technical Cooperation Workshops / Training Courses / Expert missions
 - International Conferences and Symposia
 - International Expert's Meetings (new)
- Review missions
- Coordinated research projects
- Technical Cooperation (TC) projects
- Publications (standards, guidance, and other documents)
- Mobilization of international experts

IAEA response to the Fukushima accident



IAEA draft report on FPGAs

IAEA NUCLEAR ENERGY SERIES No. D-NP-T-3.17

APPLICATION OF FIELD PROGRAMMABLE GATE ARRAYS IN INSTRUMENTATION AND CONTROL SYSTEMS OF NUCLEAR POWER PLANTS

INTERNATIONAL ATOMIC ENERGY AGENCY
VIENNA, 2015

A wide-angle photograph of the Terracotta Army site in Xi'an, China. The image shows multiple long, parallel rows of terracotta soldiers and horses, arranged in a grid-like pattern within a large, excavated pit. The figures are made of light-colored clay and are dressed in traditional Chinese armor and robes. In the background, a modern building with a glass facade and a walkway with people can be seen. Overlaid on the image is the text "Thank you for your attention!" in a large, white, sans-serif font at the top. Below it, in the center, is the text "I wish all of you a very successful workshop" in a similar font. A small yellow sign with the number "4" is visible in the lower-left foreground. A red rope barrier is visible in the bottom-left corner.

Thank you for your attention!

**I wish all of you a
very successful workshop**