

# Three Key Steps

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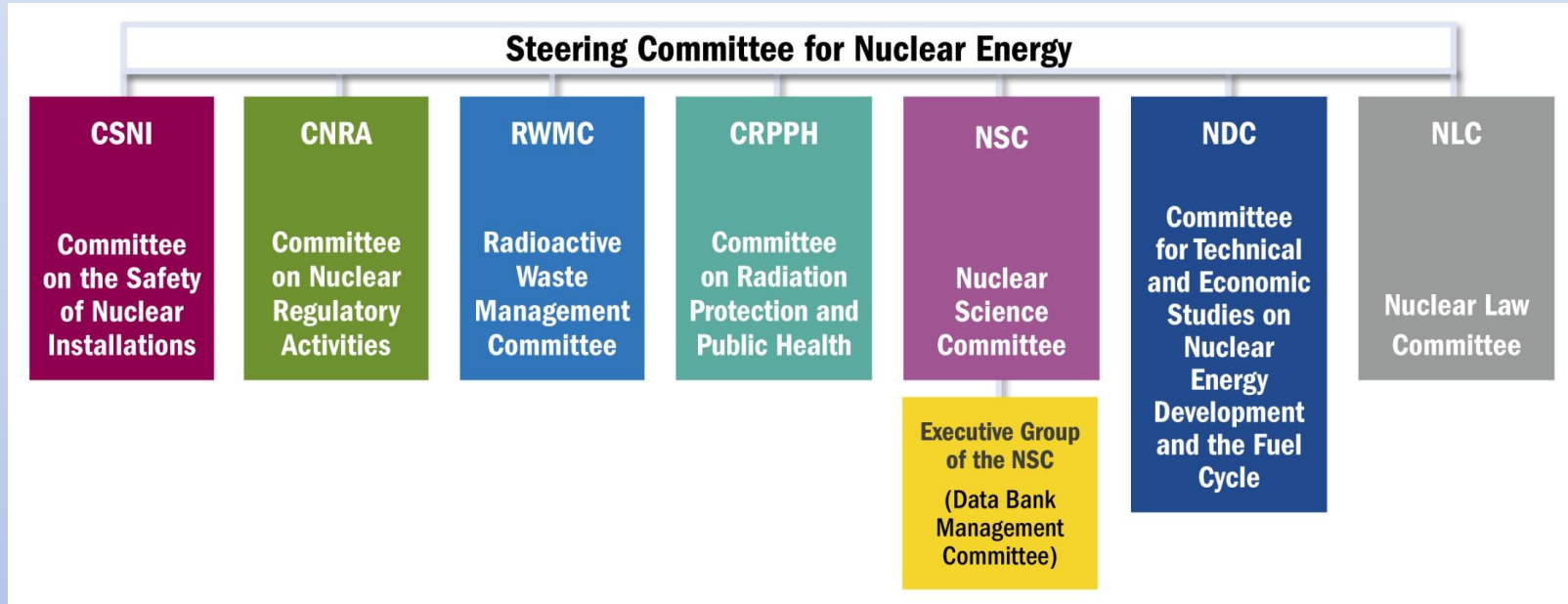
JAIF Conference, Tokyo, 13 April 2015

## The NEA: A Forum for Cooperation

- Founded in 1958
- 31 member countries
- 7 standing technical committees
- 78 working parties and expert groups
- 21 international joint projects



## NEA Committee Structure



*The NEA's Committees bring together top governmental officials and technical specialists from NEA member countries and strategic partners to solve difficult problems, establish best practices, and to promote international collaboration*

# Major NEA Separately Funded Activities

## Major Joint Projects

- Nuclear safety research and experimental data (thermal-hydraulics, fuel behaviour, severe accidents).
- Nuclear safety databases (fire, common-cause failures).
- Nuclear science (thermodynamics of advanced fuels).
- Radioactive waste management (thermochemical database).
- Radiological protection (occupational exposure).

## Technical Secretariat

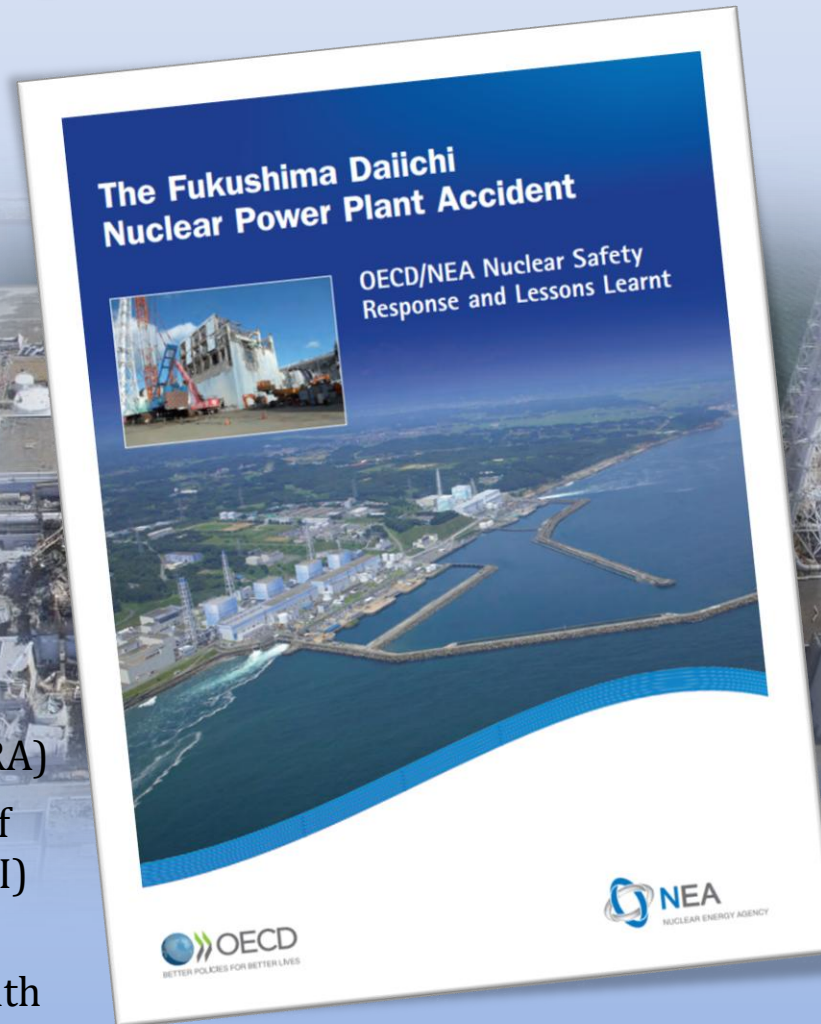
- **Generation IV International Forum**—with the goal to improve sustainability (including effective fuel utilisation and minimisation of waste), economics, safety and reliability, proliferation resistance and physical protection.
- **Multinational Design Evaluation Programme**—Initiative by national safety authorities to leverage their resources and knowledge for new reactor design reviews.
- **International Framework for Nuclear Energy Cooperation (*Proposed and under Consideration*)**—forum for international discussion on wide array of nuclear topics involving both developed and emerging economies.



## Moving Forward after Fukushima



## Moving Forward after Fukushima



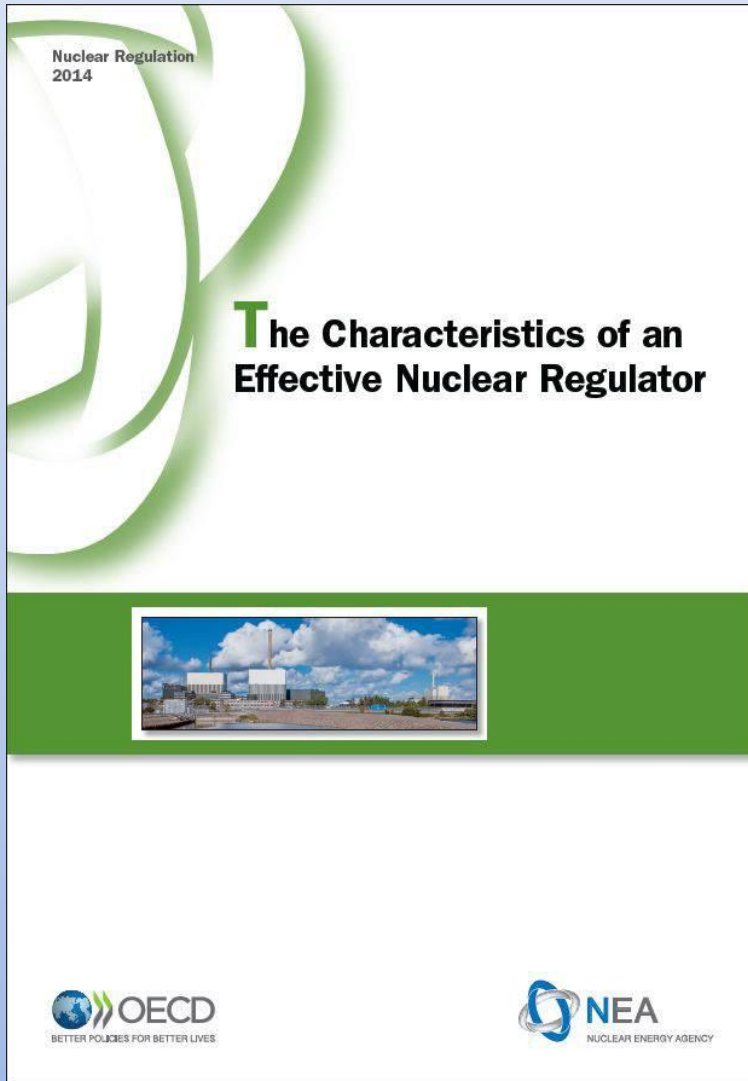
### Areas covered:

- Immediate response by NEA member countries, key messages and conclusions;
- NEA actions in follow-up to the Fukushima Daiichi accident;
- Direct support provided to Japan by the NEA.

### Involved 3 standing technical committees:

- Committee on Nuclear Regulatory Activities (CNRA)
- Committee on the Safety of Nuclear Installations (CSNI)
- Committee on Radiation Protection and Public Health (CRPPH).

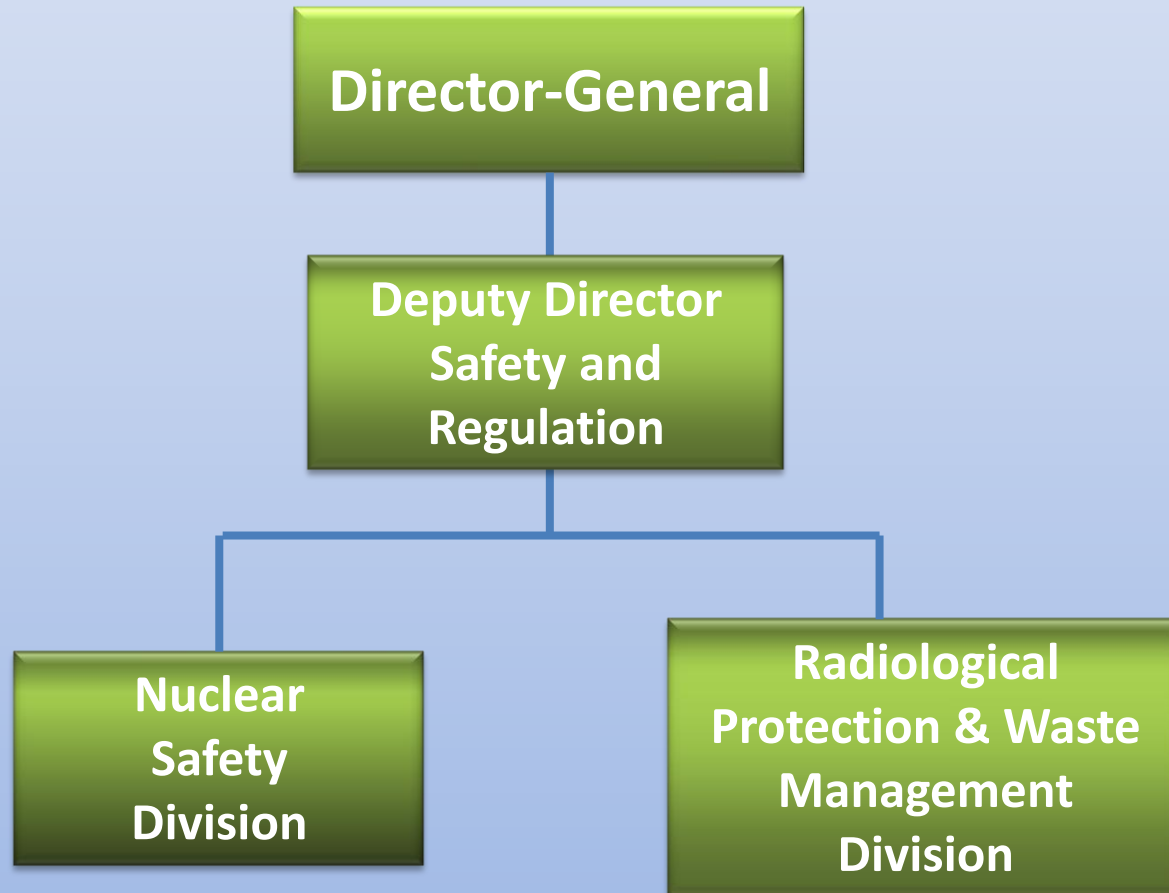




## The Characteristics of an Effective Nuclear Regulator

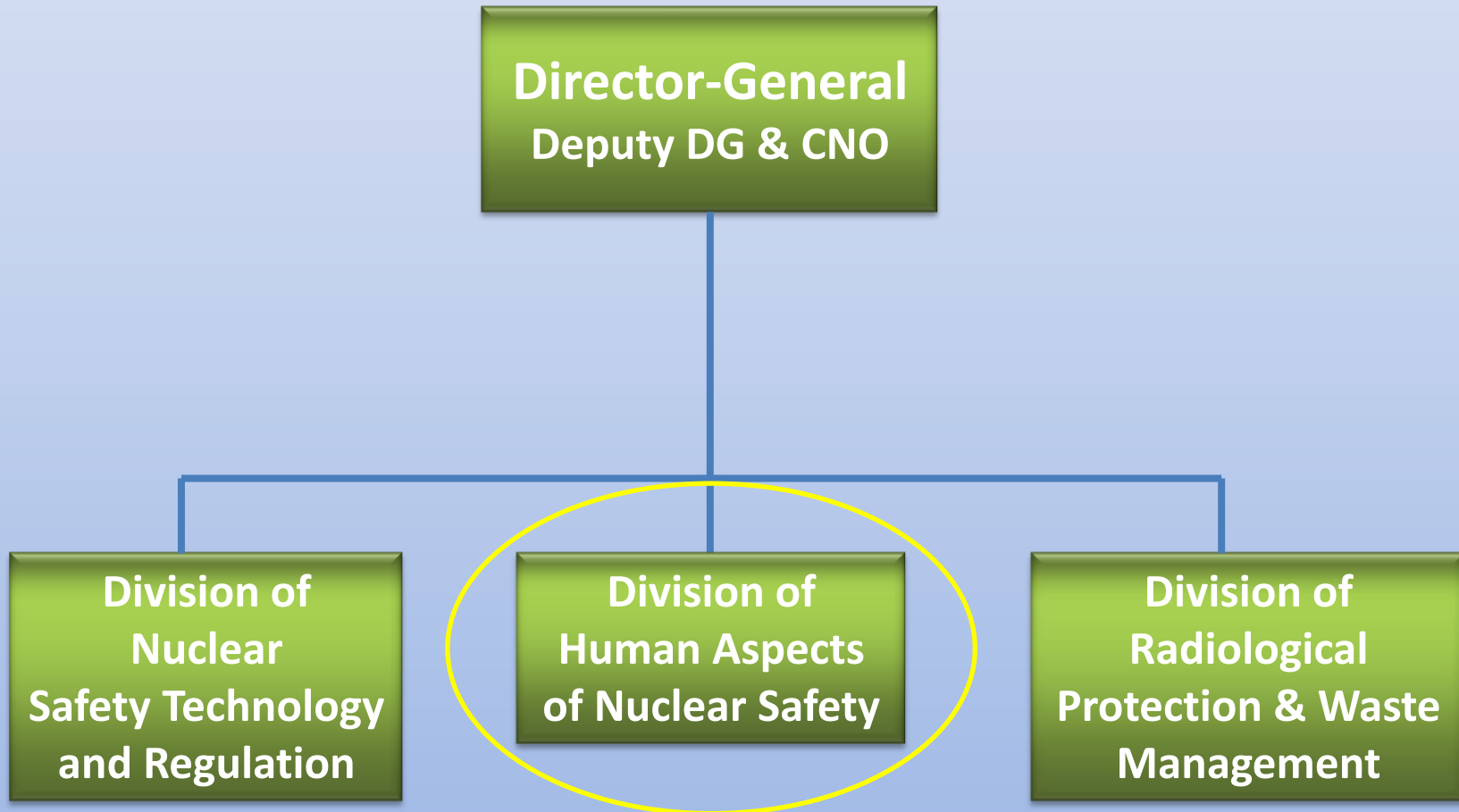
NEA Regulatory Guidance Booklets  
Volume 16, 2014, NEA/CNRA/R(2014)3

## Former Structure of NEA Nuclear Safety Organisations





## New Structure: Effective 1 March, 2015



## Fukushima Waste Management: A First-of-a-Kind Challenge



## 2015 NEA/IEA Technology Roadmap

*This Roadmap recommends the following actions:*

Governmental recognition of value of low-carbon capacity

R&D to support long-term operation

Optimise constructability of Gen III designs

Accelerate development of SMRs

Support development of 1 or 2 Gen IV FBRs

Demonstrate nuclear desalination or hydrogen production

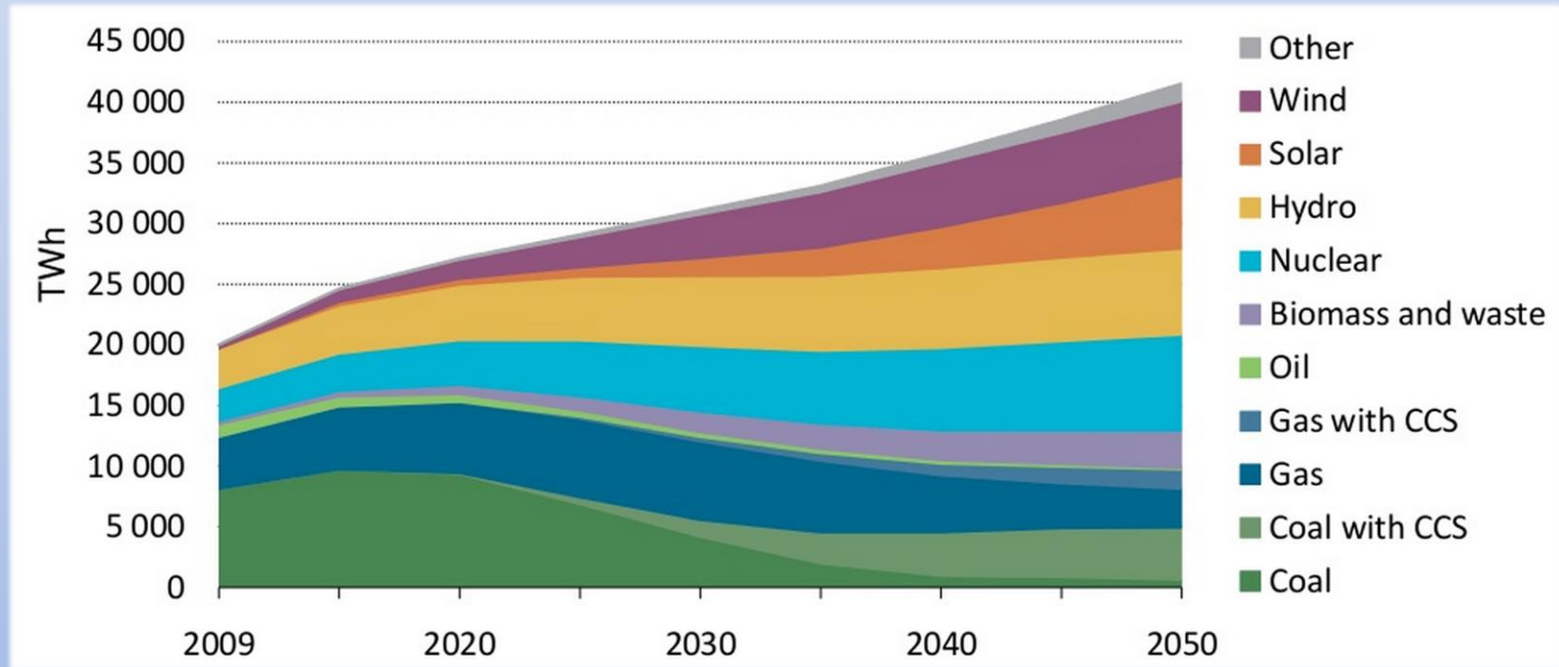
Incorporate feed-back from Gen IV prototypes into FOAK Gen IV commercial plants

### Technology Roadmap

Nuclear Energy

2015 edition

## IEA 2 Degrees C Scenario: Nuclear Provides the Largest Contribution to Global Electricity in 2050





## International Nuclear Innovation Roadmap: Looking Forward



- What technologies will be needed in 30 years? 50 years? 100 years?
- What research and development is needed to make these technologies available?
- Is the global community doing the R&D needed to prepare for the future?

## Thank you for your attention



More information @ <http://www.oecd-nea.org/>

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