

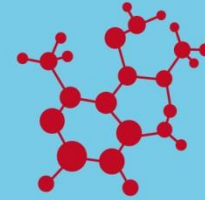
MINING



CHEMISTRY



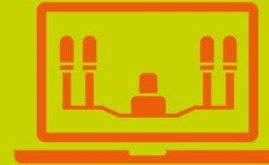
ENRICHMENT



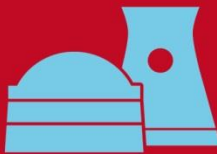
**FUEL
FABRICATION**



**REACTORS
DESIGN**



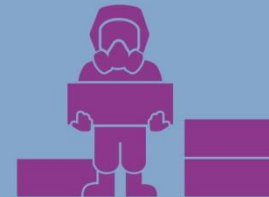
**REACTORS
MAINTENANCE AND
MODERNIZATION**

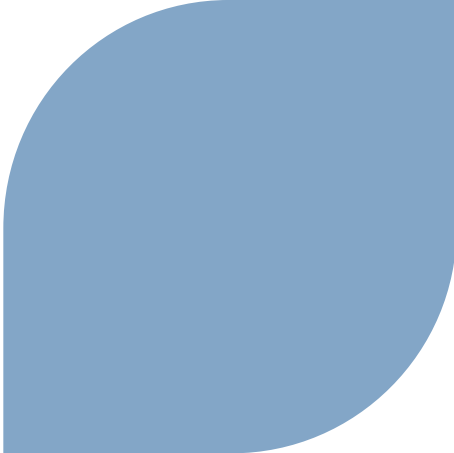


**USED FUEL
RECYCLING**



**NUCLEAR SITES
DISMANTLING**





How can we achieve that a NOAK (nth-of-a-kind) plant to be built for the first time in a given country still reaps the benefits of a NOAK instead of becoming a FOAK (first-of-a-kind) because it has to be adapted to this country's specific requirements and regulations?

Françoise De Bois,, VP Nuclear Safety & Licensing,
Reactors & Services, AREVA

April 21st, 2015



Reaping NOAK benefits

“

How can we achieve that a NOAK (nth-of-a-kind) plant to be built for the first time in a given country still reaps the benefits of a NOAK instead of becoming a FOAK (first-of-a-kind) because it has to be adapted to this country's specific requirements and regulations?

”

Design
Safety demonstration
Supply chain management
Construction & Project execution
Project management
Project organization
Etc.

Site requirements
Regulatory framework
Licensing Steps
Regulatory Body expectations
Laws
Etc.

Licensing angle: specific provisions to reap the full benefits of a series

Regulatory Body

Licensee

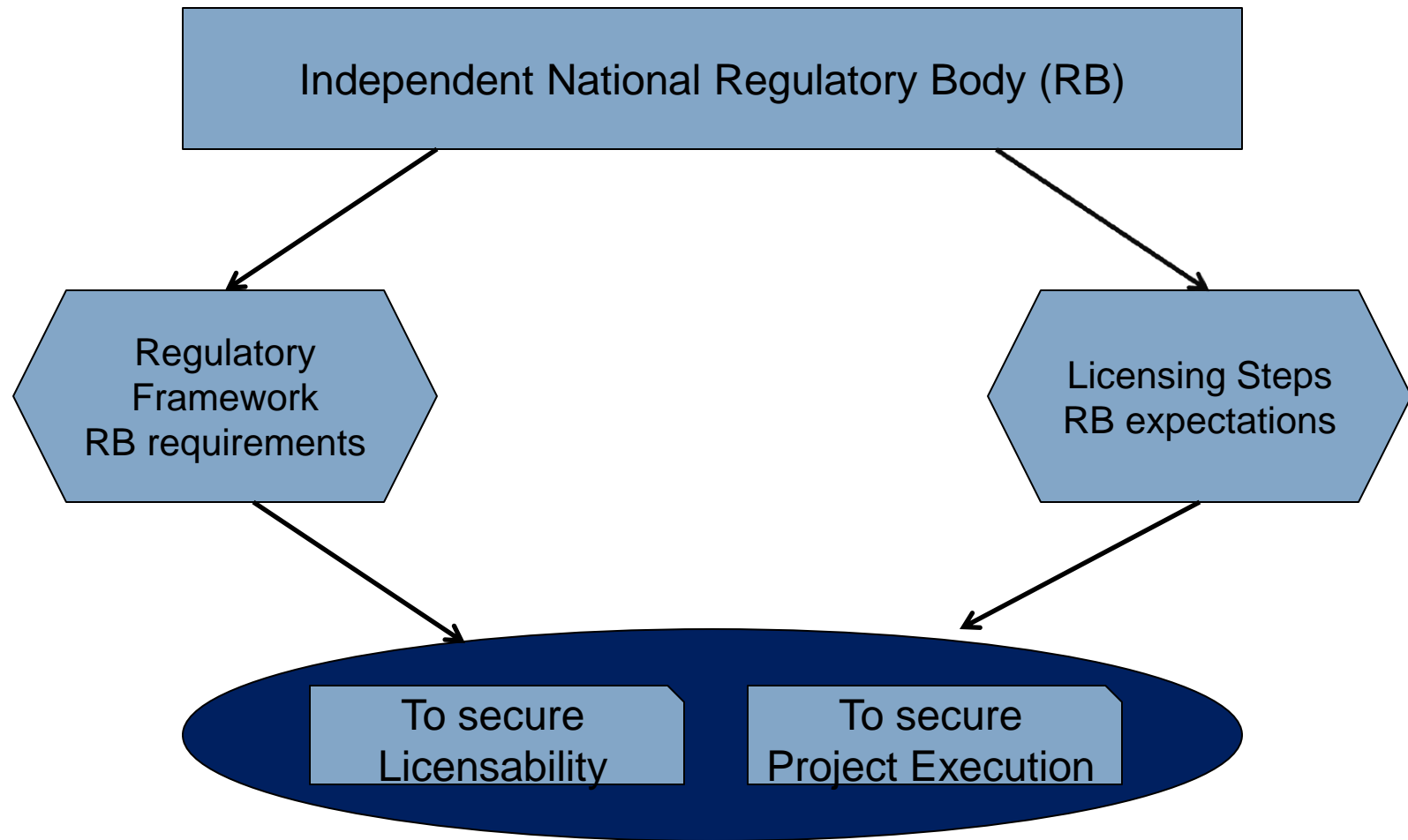
Vendor

Licensing process fundamentals 1/2

- ▶ Regulating nuclear and radiation safety is a national responsibility
- ▶ Regulatory bodies have to be independent bodies
- ▶ Every regulatory body is unique

- ▶ Licensing process is a major and essential project driver

Licensing process fundamentals 2/2



What is the part of the Regulatory Body?

- ▶ The Regulatory Body should:
 - ◆ Present the 1) up to date, 2) comprehensive, and 3) written regulatory framework
 - ◆ Present the Licensing Steps, including scope and extent of surveillance, acceptance criteria, hold points and clarity on the use of the licensing results of the country of origin and/or of the Reference Plant
 - ◆ Explain their decision making process
 - ◆ Review and comment the “Licensing Plan” prepared by the Licensee and the Vendor
 - ◆ In case of change of the regulatory requirements, declare it as soon as possible and recognize it is an evolution (to avoid “licensing creep”)
 - ◆ Use metrics to communicate on Licensing earned value



Predictability and stability of the regulatory system are key

What is the part of the Licensee?

▶ The Licensee should:

- ◆ Have a “NOAK attitude” and avoid additional non site-specific or non regulatory requirements
- ◆ Take advantage of the Vendor’s licensing experience in other countries
- ◆ Cascade all regulatory requirements, steps and needs in its requests
- ◆ Clearly define / assign licensing tasks and responsibilities for each party
- ◆ Include the Vendor in the exchanges with the Regulatory Body to ease mutual understanding
- ◆ Recognize the importance of the licensing tasks and their impact on the project time schedule from the very beginning
- ◆ Prepare the “Licensing Plan” with the Vendor



A “NOAK attitude” from the Licensee is key

What is the part of the Vendor?

- ▶ The Vendor should:
 - ◆ Always have a “Regulatory Body-focus” attitude
 - ◆ Identify and bridge differences of understanding between each country’s licensing approach
 - ◆ Advise the Licensee accordingly
 - ◆ Recognize the possible need to adapt some of the processes, the architecture and contents of some deliverables to meet regulatory requirements and / or ease licensing
 - ◆ Prepare the “Licensing Plan” with the Licensee



**The capacity of the Vendor to adapt
and meet other country’s requirements is key**

Key Take Aways

Licensing angle: specific provisions to reap the full benefits of a series

Regulatory Body

**Predictability
and
stability
of
the regulatory
system
are key**

Licensee

**A “NOAK attitude”
from
the Licensee
is key**

Vendor

**The capacity of the
Vendor
to adapt
and meet
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