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Regulatory Effectiveness from operator's view point

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- ▶ **Nuclear Safety : a prerequisite for Sustainable development**
- ▶ **Regulatory system needed by an operator**
 - ◆ View from the operator's facility
 - ◆ View from future operator of an imported technology
- ▶ **What kind of safety standards**
- ▶ **Prerequisite & key factors that make an effective regulatory system**

Nuclear Safety : a prerequisite for Sustainable Development

- ▶ **Nuclear safety : a prerequisite & a long term commitment towards sustainable development of the industry**
- ▶ **The operator is the prime responsible for Nuclear safety**

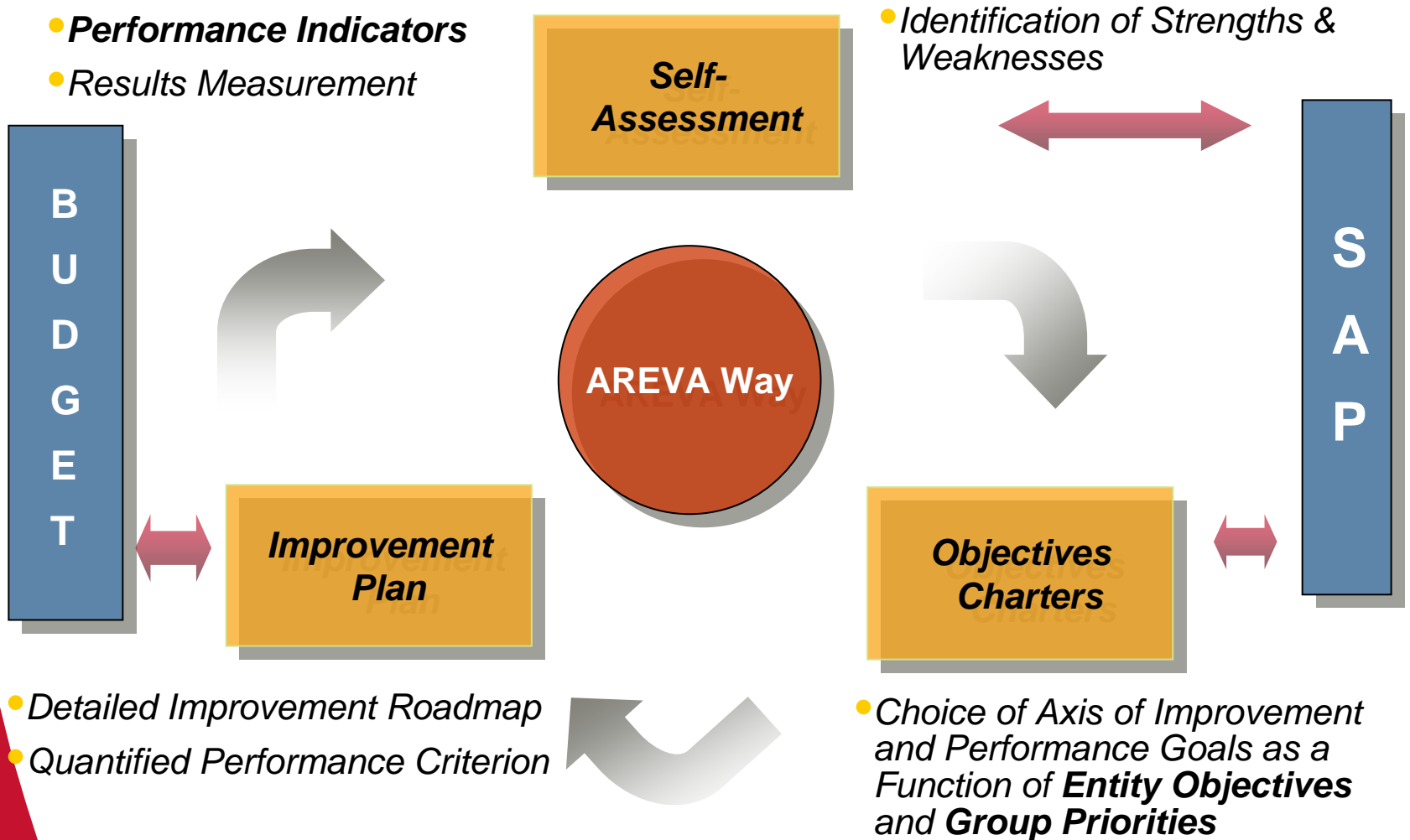
Sustainable Development

AREVA's Commitments



► **Risk management & prevention : embedded in AREVA's commitments towards Sustainable Development**

Continuous Improvement Process



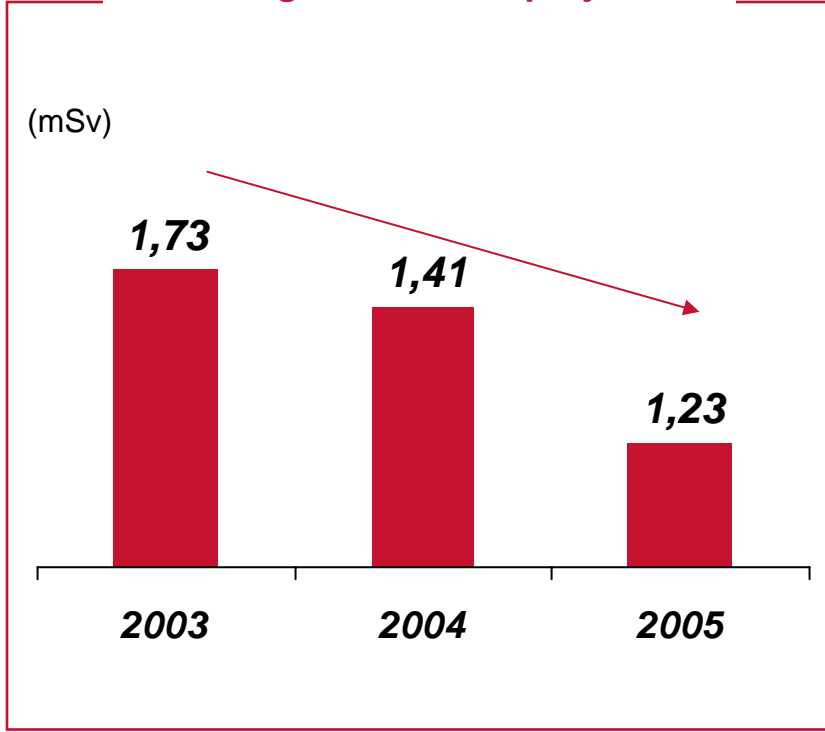
An AREVA Nuclear Safety Charter

- ▶ **Reaffirm** the priority that we give to the requirement for a very high level of nuclear safety and radiation protection
- ▶ Make those commitments public to answer demands from stakeholders
- ▶ Standardize the group's practices in the sensitive domains of nuclear safety and radiation protection
- ▶ Increase awareness of all personnel working in the nuclear field to the necessary implication of all personnel
- ▶ and promote transparency

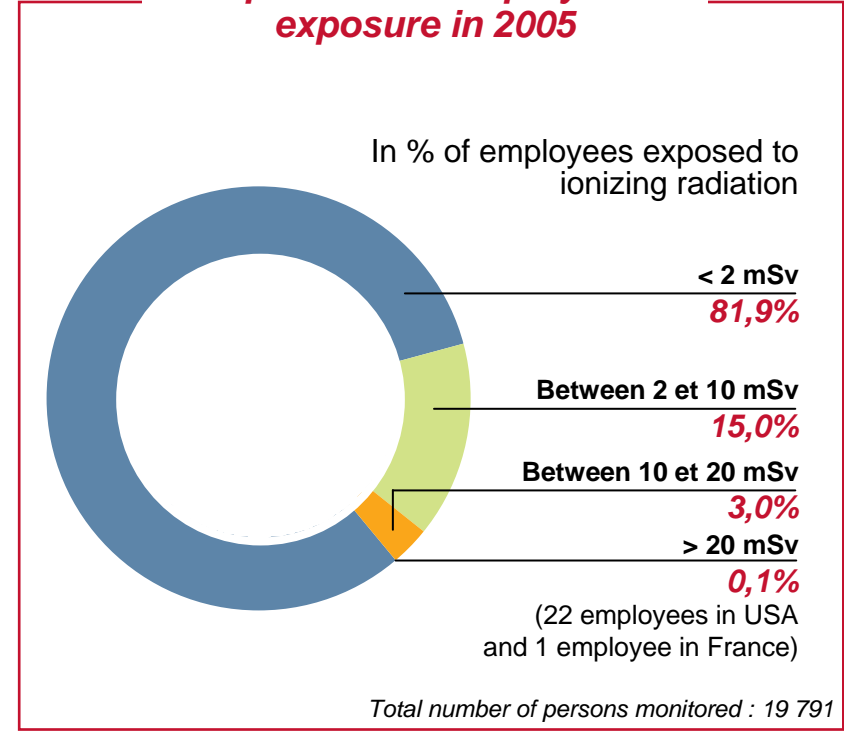


To set forth the Group's commitments in the field of nuclear safety and radiation protection, in all countries

Average dose to employees



Repartition of employees' exposure in 2005



- ▶ **The 20 mSv AREVA's standard is applicable throughout the Group, even in countries with less stringent regulation (for example 50 mSv in USA and in Niger)**

Operators need « strong » regulators

- ▶ **Nuclear activities have been regulated from the very beginning**
- ▶ **National regulatory systems existed before any necessity to share international standards**
- ▶ **We now evolve in an international environment, and we are challenged by stakeholders locally and abroad**
- ▶ **Differences in safety approaches weakens the whole community**

The Facility needs :

- ▶ **Timely individual licenses & authorizations**
 - ◆ **For initial licensing**
 - ◆ **For modification of the plant**
 - ◆ **For safety reevaluation of aging facilities**

- ▶ **Successful controls of compliance with regulation**

An effective regulatory system means :

▶ A local regulator

- ◆ The regulator is responsible of decisions and controls towards the national government

▶ Clear & stable rules

- ◆ Avoid different interpretations of the rules between operator & regulator
- ◆ Avoid change of rules with huge consequences in terms of cost

View from future operator of an imported technology (1)

The needs are :

- ▶ **To minimize & to secure the cost of the investment**
 - ◆ Consistency between licensing from native country & local licensing
 - ◆ Limit the implementation differences to those justified by local conditions such as siting (seismic, inundation ...)

- ▶ **To reach, on schedule & safely, the design capacity**
 - ◆ Dialog between regulator in charge of the control & operator rather than only administrative exchange of paperwork

View from future operator of an imported technology (2)

An effective regulatory system means :

- ▶ **International consistency in the safety evaluations & their findings**
 - ◆ Consistency of the safety standards
 - ◆ Consistency of the methods to evaluate the safety of the design
 - ◆ Proper consideration of the safety evaluation made elsewhere
- ▶ **An efficient dialog between the designer's country regulator & the licensee's country regulator**
- ▶ **Good knowledge by the designer of the licensee's regulatory system**

▶ A Fuel Cycle Facility is not a reactor

- ◆ The type of hazards to be evaluated are the same (fire, criticality ...)
- ◆ The technology & the type of potential accidents are different
- ◆ The databases coming from peer reviews and international feedback for sharing of best practices are wider for reactors than for fuel cycle facilities

▶ Fuel Cycle Facilities Safety Standards cannot be strictly derived from NPP safety standards

- ◆ As HTR and GEN IV cannot be designed and evaluated from NPP's safety standards
- ◆ FCF compliance to safety standards relies on individual safety demonstrations

- ▶ **Basis safety standards at the international level (reference levels)**
 - ◆ Role of ICRP, IAEA, experience of WENRA, to define what “safe” is
 - ◆ Must include feedback from operators
 - ◆ Implies a multinational work among national regulators
- ▶ **National regulations consistent between different countries for on site licensing, for control of compliance, for safety evaluation of aging facilities**
 - ◆ Implies common methods, defined at the international level by a network of regulators
 - ◆ Must consider the possible use, for a license application, of a safety analysis report made in an other country for licensing the same design abroad

Views of Prerequisite & key factors that make an effective regulatory system

▶ **Enabling factors**

- ◆ International reference of what is safe : set objectives not solutions
- ◆ International agreement on what is devoted to the national level and what is shared at the international level
- ◆ Common methods to derive national implementation of the control

▶ **Key factors**

- ◆ Dialogue industry / regulator /stakeholders to foster together towards improvement of safety,
 - **But each party should keep its role**
- ◆ Share regulators practices country to country to reinforce knowledge of each other
- ◆ Consistency and independence