



РОСАТОМ

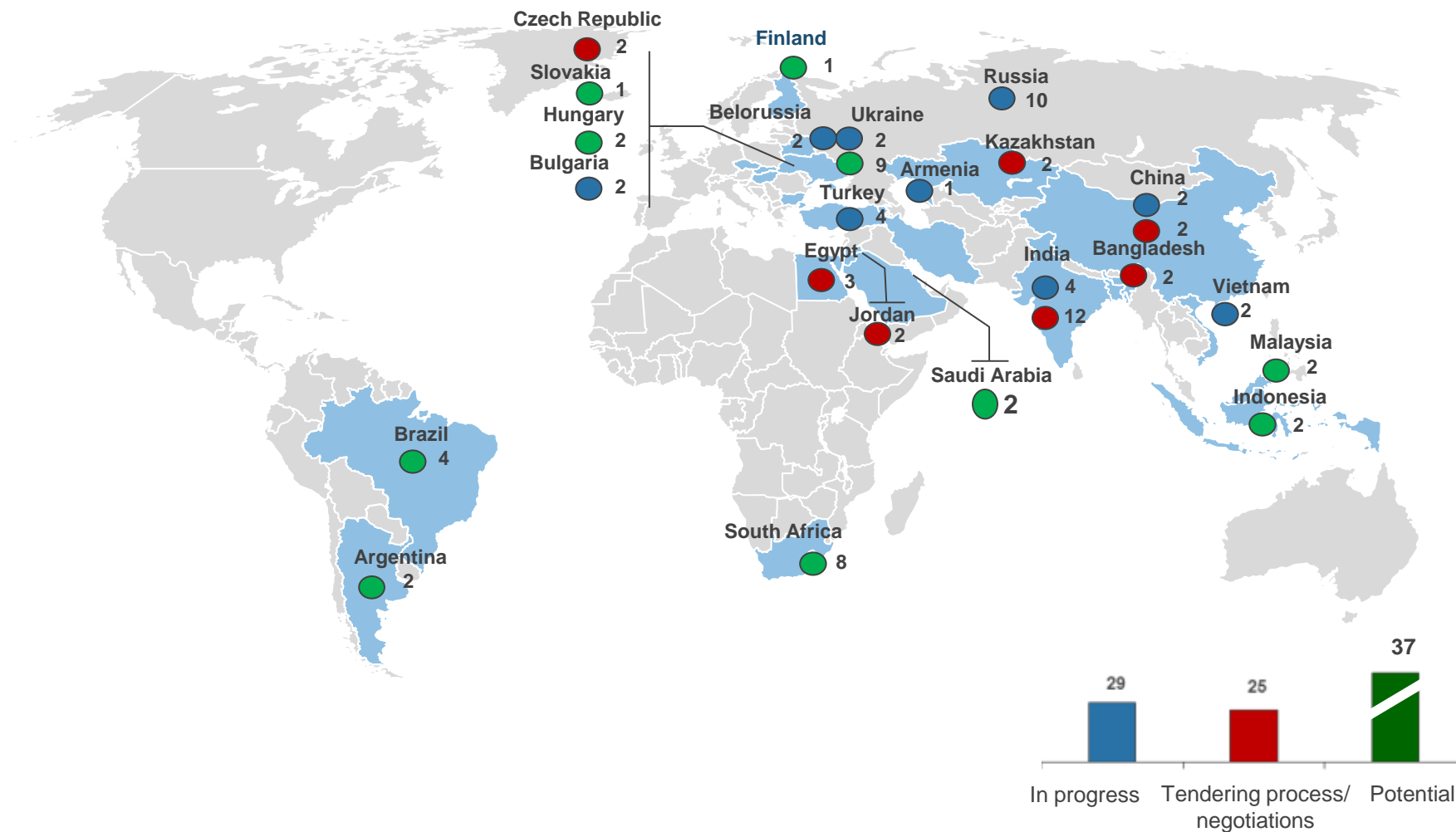
ГОСУДАРСТВЕННАЯ КОРПОРАЦИЯ ПО АТОМНОЙ ЭНЕРГИИ «РОСАТОМ»

Integrated management systems of Rosatom organizations: Some aspects of implementation abroad

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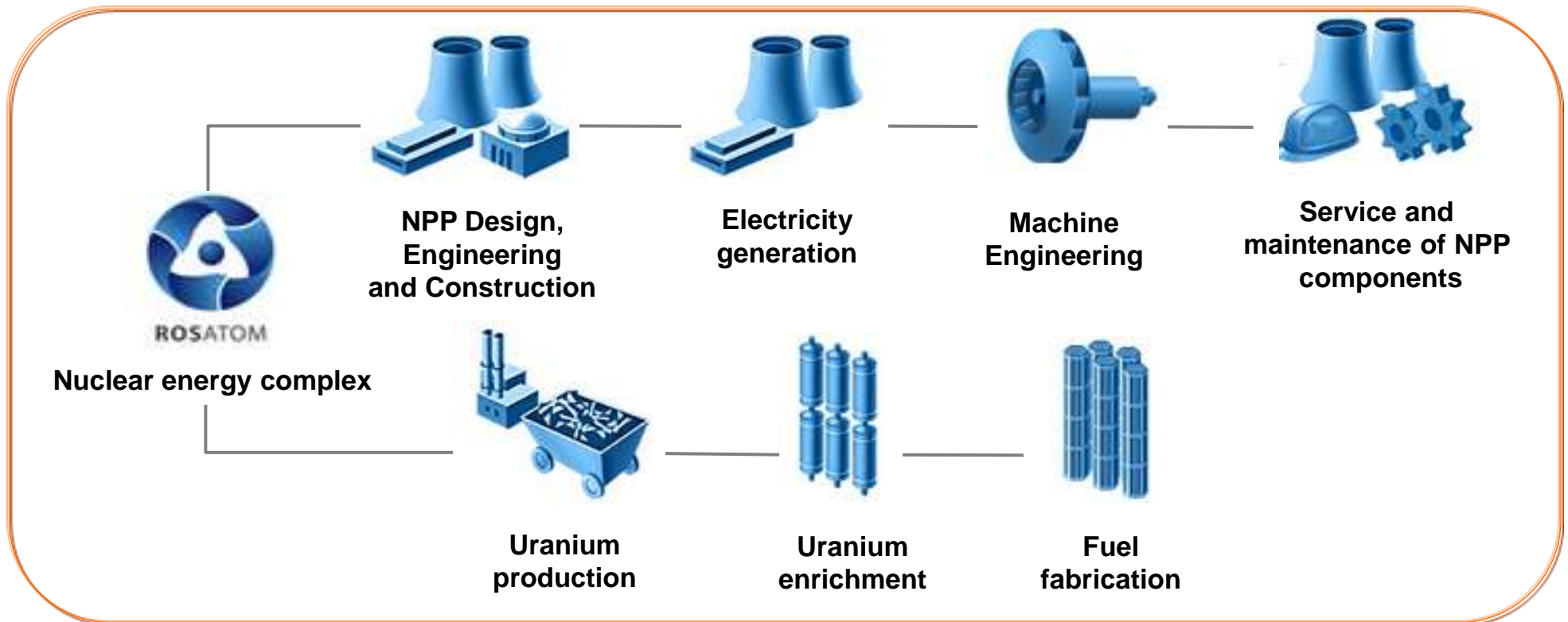
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Rosatom is planning to build more than 80 nuclear power units worldwide



ROSATOM INTEGRATED COMPANY

State Atomic Energy Corporation ROSATOM is the only company in the world integrating full nuclear cycle from mining to power generation, which enables it to construct, operate facilities and sell electricity in emerging nuclear countries



INTEGRATED MANAGEMENT SYSTEMS

Almost all integrated management systems (IMS) are built on the basis of Quality management systems. This is justified with the logic “Quality is a degree to which a set of inherent characteristics fulfills requirements”. Inherent means existing in something, especially as a permanent characteristics.

IMS have to comply also with the requirements of IAEA GS-R-3 “The management systems for facilities and activities”, which focuses on safety in its widest understanding (radiation, nuclear, fire, industrial, labor, etc.).

Safety shall be paramount within the management system, overriding all other demands. Safety culture is assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, protection and safety issues receive the attention warranted by their significance.

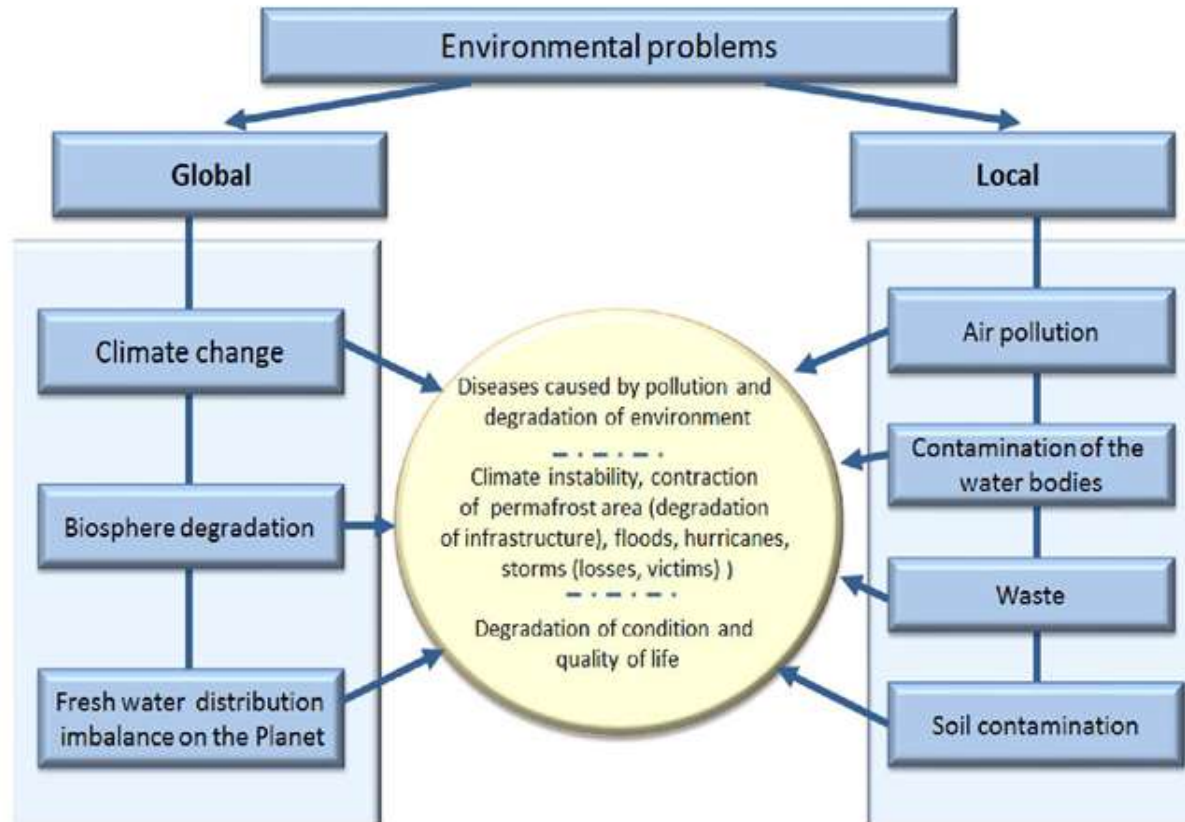
SAFETY CULTURE IS THE KEY TO SAFE AND RELIABLE OPERATION

Organizations involved into nuclear facility lifecycle have to establish their management system for to promote and support a strong safety culture by:

- Ensuring a common understanding of the key aspects of safety culture within the organization;
- Providing the means by which the organization supports individuals and teams in carrying out their tasks safely and successfully, taking into account the interaction between individuals, technology and the organization;
- Reinforcing a learning and questioning attitude at all levels of the organization;
- Providing the means by which the organization continually seeks to develop and improve its safety culture.

This features should be cultivated not only inside organizations, but among all stakeholders, as they are focus of all nuclear power development and are those in whose interest nuclear power has to be maintained and improved.

GLOBAL AND LOCAL



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Global problems are tightly connected with the local ones. These imposes strict requirements from the point of view of the public and governmental acceptance of nuclear power at making decision on nuclear facility construction.

Globalization, greater ease of mobility and accessibility, and the growing availability of instant communications mean that individuals and organizations around the world are finding it easier to know about the decisions and activities of organizations in both nearby and distant locations. These factors provide the opportunity for organizations to benefit from learning new ways of doing things and solving problems.

This also means that organizations' decisions and activities have to seek, gain and maintain the public support, both local and global.

NUCLEAR POWER PLANT EXPORTERS' PRINCIPLES OF CONDUCT

Vendors adopting these Principles of Conduct will undertake good faith efforts to implement the best practices described in six principles: Safety, Security, Environmental Protection, Compensation for Nuclear Damage, Nonproliferation, and Ethics.

These principles are based upon best practices derived from the experience of nuclear power plant vendors and operators and the guidelines of the International Atomic Energy Agency. They were developed for the public good over several years through a nongovernmental consensus process facilitated by the Carnegie Endowment for International Peace, with input and advice from regulators, operators, and internationally recognized experts.

These Principles have been and will be reviewed and revised as appropriate, including to reflect the lessons learned from the Fukushima nuclear accident following the earthquake and tsunami.

Participating Vendors express their intention to follow these principles in designing nuclear power Plants and in performing their activities. Participating Vendors will inform their customers, suppliers, subcontractors, and other participants in the nuclear power plant industry about the nature, purposes, and benefits of these Principles of Conduct, and recommend their cooperation in applying them.

These Principles are voluntary, create no legal duty, and are not legally binding, but nevertheless reflect the genuine aspiration of the participants to apply these principles and make a good faith effort to achieve these goals.

NUCLEAR POWER PLANT EXPORTERS' PRINCIPLES OF CONDUCT

PRINCIPLE 3: ENVIRONMENTAL PROTECTION AND THE HANDLING OF SPENT FUEL AND NUCLEAR WASTE

Before entering into a contract to supply a nuclear power plant to a Customer, the Vendor will have made a reasonable judgment that the Customer State either has or will have in a timely manner:

3.1 Enacted national nuclear laws or developed a regulatory framework that:

3.1.1 Formalizes and keeps current a credible national strategy and/or a plan to, in a safe, secure and environmentally sound manner:

3.1.1.1 Store, treat/recycle, or otherwise manage spent fuel and radioactive waste;

3.1.1.2. Decommission closed-down nuclear facilities; and

3.1.1.3. Dispose of all radioactive wastes;

3.1.2 Addresses safeguards obligations, safety, national and international security, human health, effective management of radioactive releases at all times, and environmental stewardship; and

3.2 Ratified, accepted, or otherwise applied the principles of the IAEA's Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

Vendors will seek to design plants that:

3.3 Enhance environmental benefits and minimize environmental impact in operations, including waste production, by applying relevant best practices such as

Organization and the IAEA (including ALARA principle)
3.4 Provide for safe and secure on-site storage of spent fuel; and

3.5 Facilitate ultimate plant decommissioning.

In contracting to sell nuclear power plants, Vendors will seek to:

3.6 Address the responsible management by Customers of spent fuel and other radioactive materials and waste.

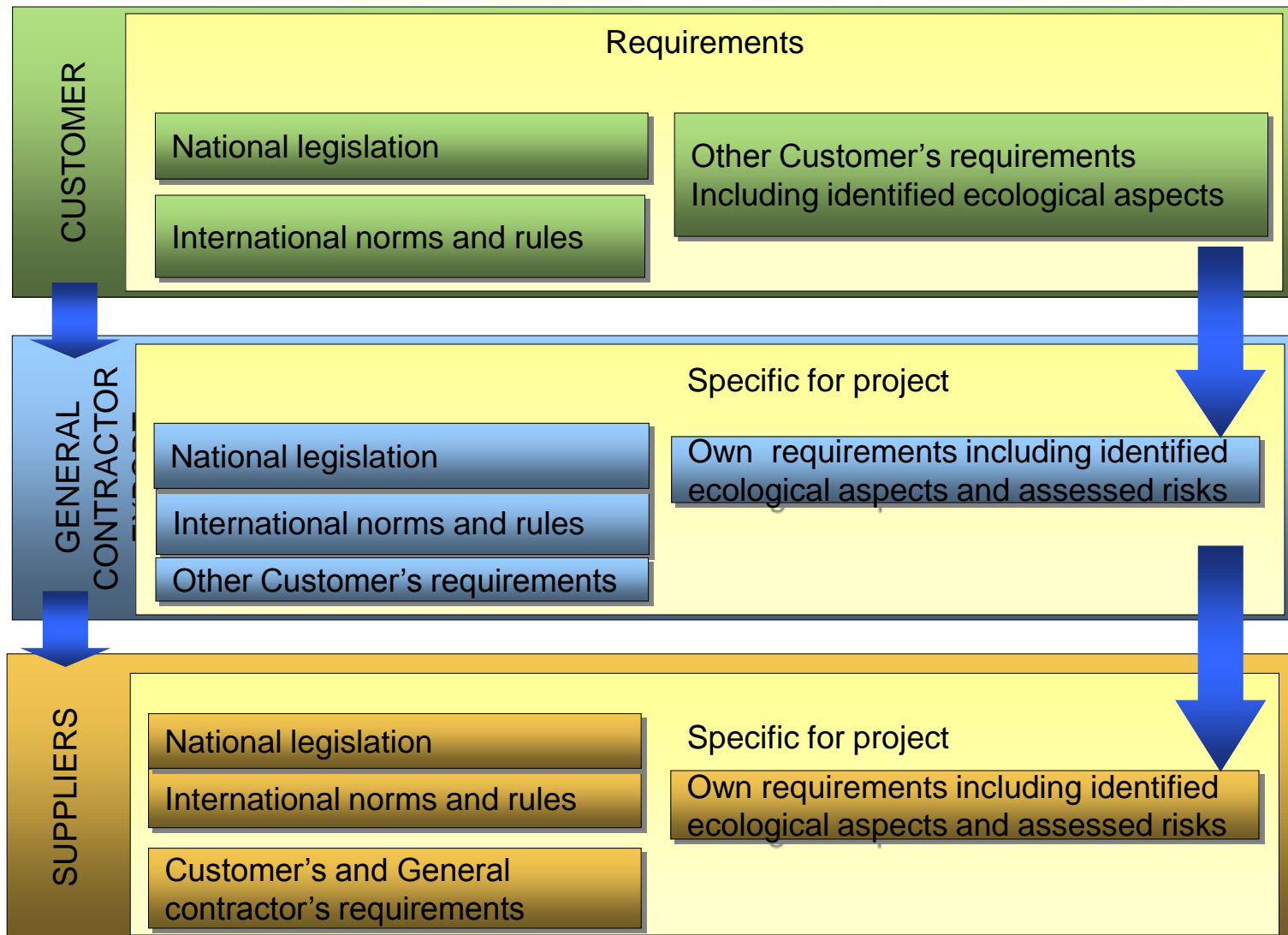
Recognizing their unique expertise, Vendors will undertake, as specifically agreed, to cooperate with and provide relevant information to pertinent governments and Customers to help promote:

3.7 Protection of the environment through the responsible use of natural resources, the reduction of waste and emissions, and the minimization of harmful impacts to the environment, in accordance with the best technically and economically sound practices of the worldwide nuclear power industry;

3.8 A precautionary approach to the environment consistent with the definition provided in the United Nations Global Compact and the Rio Declaration; and

3.9 Development in Customer States of systems for the long-term management of spent fuel and/or radioactive waste that are rational, economic, safe, secure, and consistent with Customer States' safeguards obligations.

HIERARCHY OF ECOLOGICAL ASPECTS



ENVIRONMENTAL ASPECTS DURING DESIGN

During design the following major areas of possible environmental risks occurrence are defined:

- **Management of construction wastes**
- **Management of chemical pollutions**
- **Management of releases and discharges**
- **Management of radioactive wastes.**

These risks have to be assessed and design must provide for mitigation measures giving possibility to adjust IMS of the Project participants and facilitating regulatory acceptance of design and the Project on the whole.

ROSATOM ECOLOGICAL POLICY

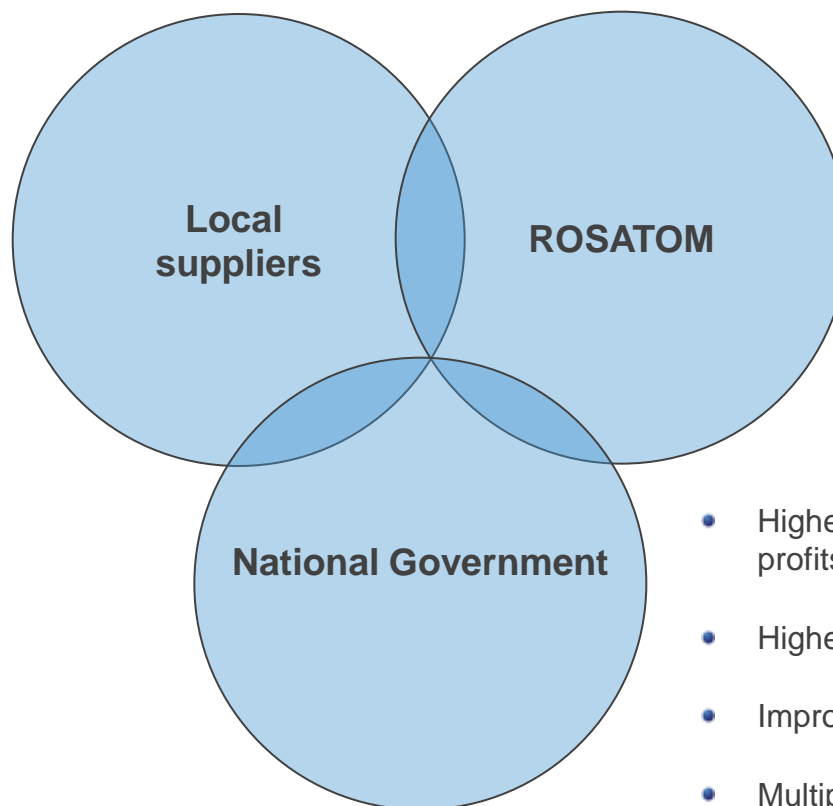
The State Atomic Energy Corporation ROSATOM in the frames of national legislation and with accounting international standards requirements has elaborated its Ecological policy in force since 2010. Implementation of this Policy is under keen control of Rosatom management at all the administrative levels.

This Policy is also taken into account while developing policies of Rosatom organizations abroad.

ROSATOM LOCALIZATION PROGRAM

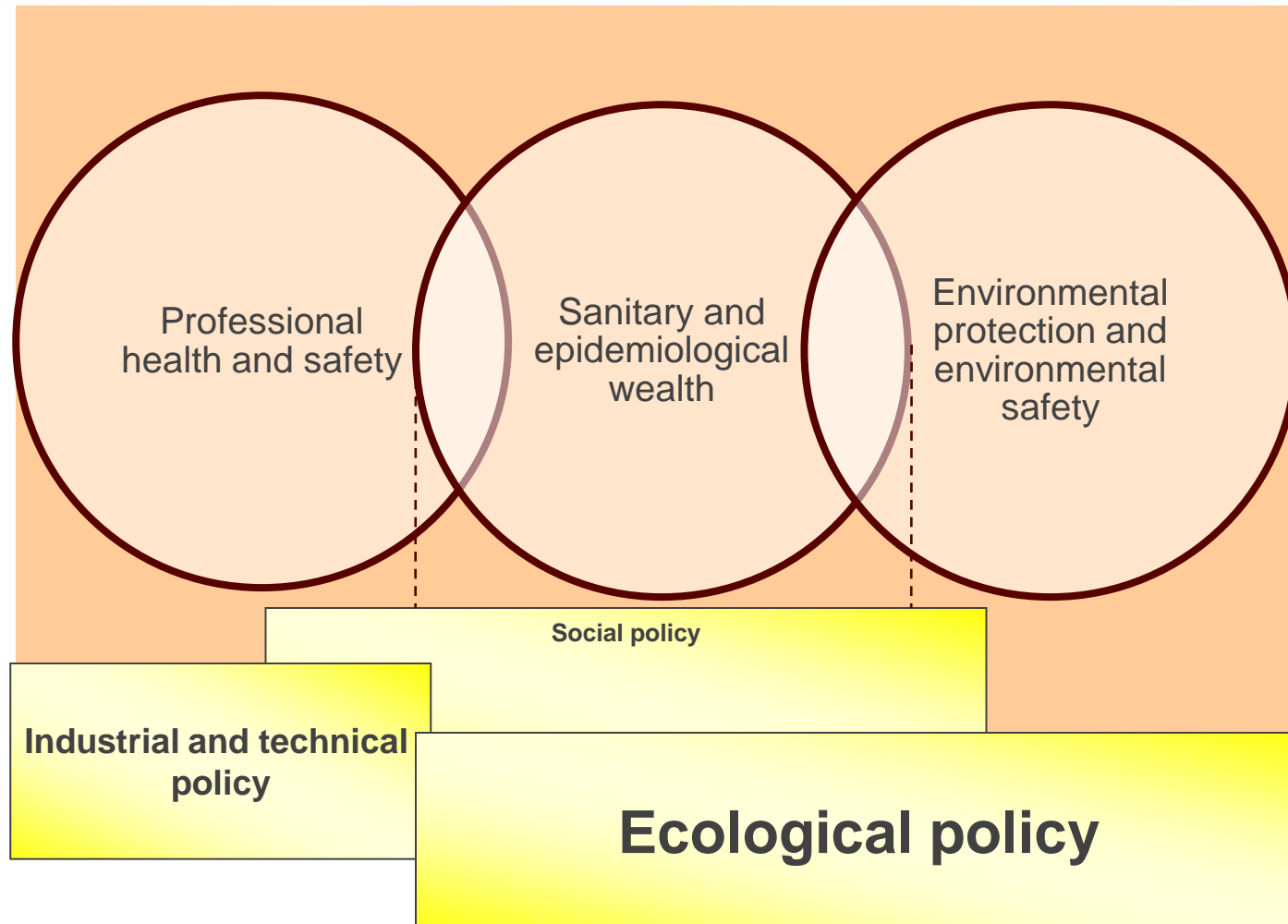
Benefits of localization program

- Revenue generation
- Technology transfer
- Profits



- Savings from local deliveries
- Improved chances to win nuclear facility construction contract
- Development a basis for nuclear facility safe operation
- Diversification of supplies
- Higher taxes from salaries & companies profits
- Higher employment
- Improved GDP per capita
- Multiplication effects!

INTERACTIONS OF ECOLOGICAL POLICY WITH PROFESSIONAL HEALTH AND SAFETY, SANITARY AND EPIDEMIOLOGICAL WEALTH, SANITARY AND EPIDEMIOLOGICAL WEALTH AND ENVIRONMENTAL PROTECTION AND ENVIRONMENTAL SAFETY



Thank You for Attention!

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