

SESSION 3: NUCLEAR SCIENCE AND TECHNOLOGY APPLICATIONS: SUSTAINING, ENABLING AND EMPOWERING

PANEL 3.2: Sustaining nuclear technology through capacity building



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From Post-Chernobyl to Nuclear Country: Belarus Experience and Importance of Radiation Safety in All Things Nuclear

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Chernobyl consequences for Belarus.

General information

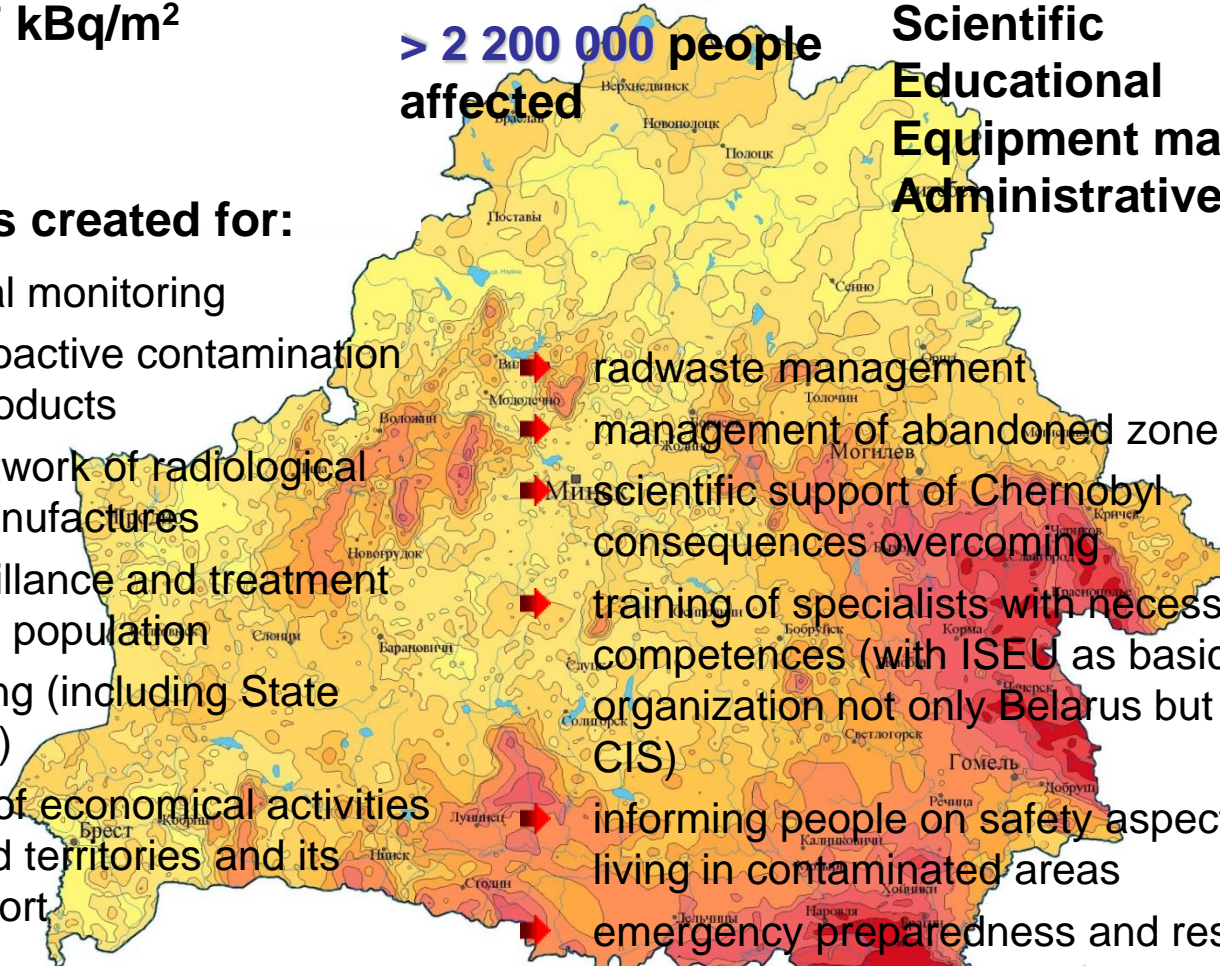
23% of the territory
contaminated by cesium-137
higher than 37 kBq/m²
46 500 km²

479 settlements
abandoned
> 2 200 000 people
affected

**New institutions &
organisations**
Scientific
Educational
Equipment manufactures
Administrative

State systems created for:

- ➡ radioecological monitoring
- ➡ control of radioactive contamination in food and products
- ➡ creation of network of radiological equipment manufactures
- ➡ medical surveillance and treatment of the affected population
- ➡ dose monitoring (including State Dose Registry)
- ➡ management of economical activities on the affected territories and its scientific support
- ➡ radwaste management
- ➡ management of abandoned zones
- ➡ scientific support of Chernobyl consequences overcoming
- ➡ training of specialists with necessary competences (with ISEU as basic organization not only Belarus but for CIS)
- ➡ informing people on safety aspects of living in contaminated areas
- ➡ emergency preparedness and response for radiological accidents (as a part of EPR for all emergency situations)



Radiation & Nuclear Applications in Belarus

IRS Use:

1,4 thousand organizations

23 thousands IRS:

- ➡ industrial gamma installations
- ➡ gamma diagnostic and therapy devices
- ➡ gamma flaw detectors
- ➡ radioisotope devices, including radioisotope fire smoke detectors
- ➡ X-ray diagnostic and therapy devices
- ➡ X-ray flaw detectors
- ➡ neutron generators
- ➡ electron accelerators,
- ➡ etc.

Nuclear applications:

- ➡ Research done by the Joint Institute of Power and Nuclear Research “Sosny” of the National Academy of Science of Belarus.

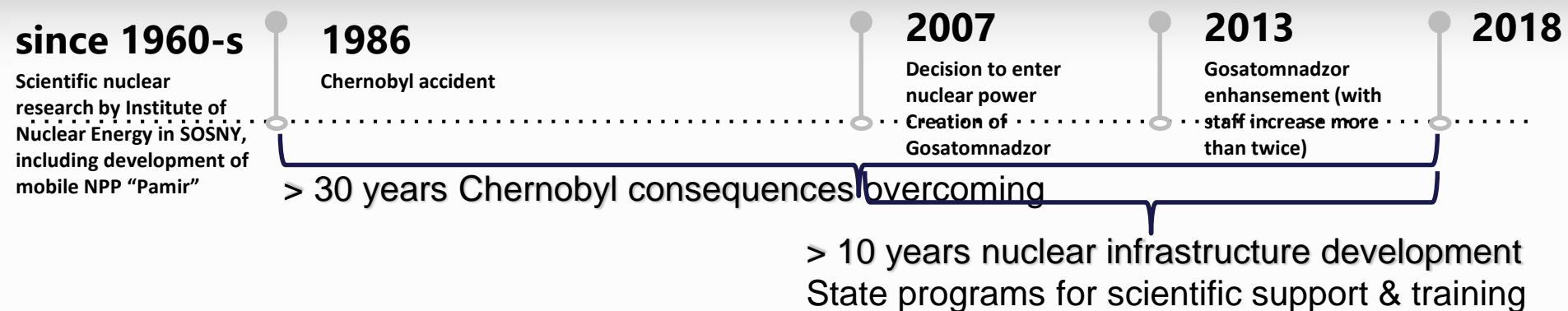
Radwaste facilities:

- ➡ “Ekores” for medical and industrial waste
- ➡ “Sosny” Institute facility for liquid radioactive waste processing
- ➡ Chernobyl decontamination waste disposal facilities

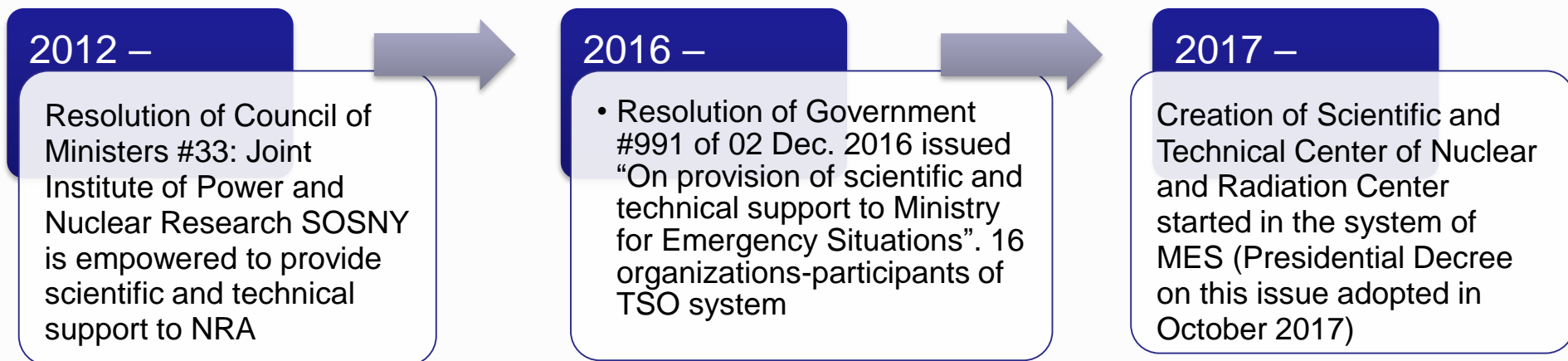
Key Aspects of Sustainability and Safety

- ➡ In-time implementation of modern safety standards into national legislation and regulatory documents as well as into regulatory practice
- ➡ Strong supervision focused not only on identification of violations and punishment, but consistent preventive work with operators
- ➡ Wide use of peer review services for getting recommendations for safety improvements from competent international experts
- ➡ Use and unite of all existing resources for radiation safety provision

Capacity building for nuclear power program



TSO system development:



The main tasks of the Center:

- provide scientific and technical support to the NRA
- coordinate TSO system
- conduct scientific research
- participate in safety review, etc.

Competence development is organized for all areas of GAN activities using

Resources

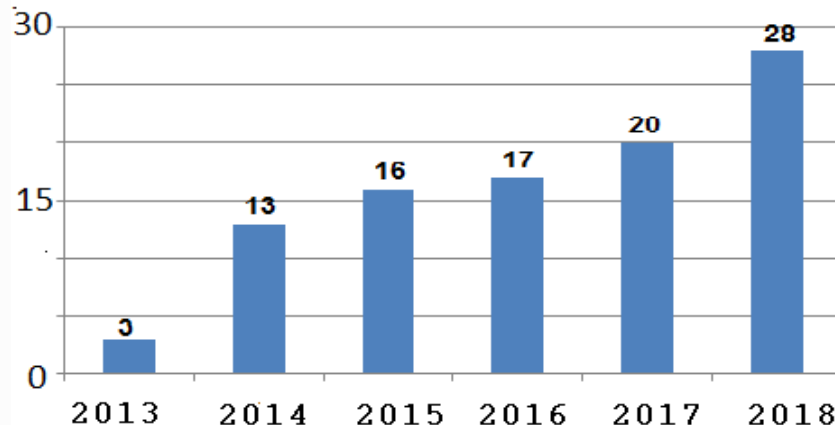
Internal

- State training program up to 2020
- Sharing of experience
- Information bases
- Library creation
- Internships/tutoring

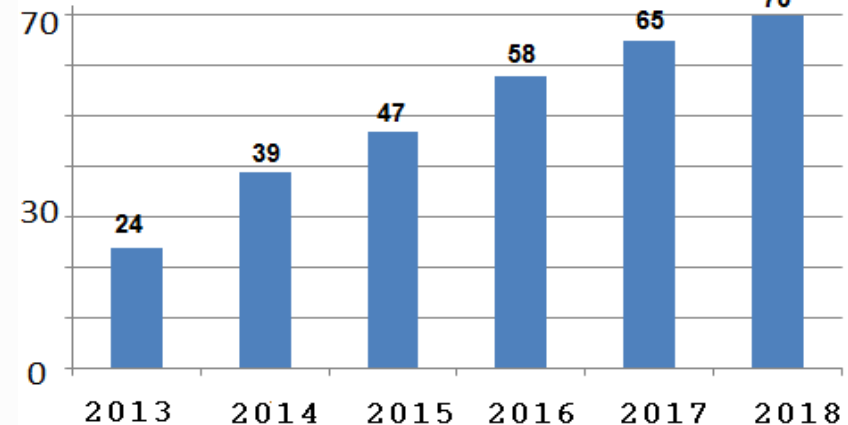
External *

- EC technical cooperation projects
- IAEA (national/regional projects)
- Bilateral cooperation (9+2 agreements)
- RCF (since 2012), Forum WWER (since 2015), WENRA (since 2015)

Internal events

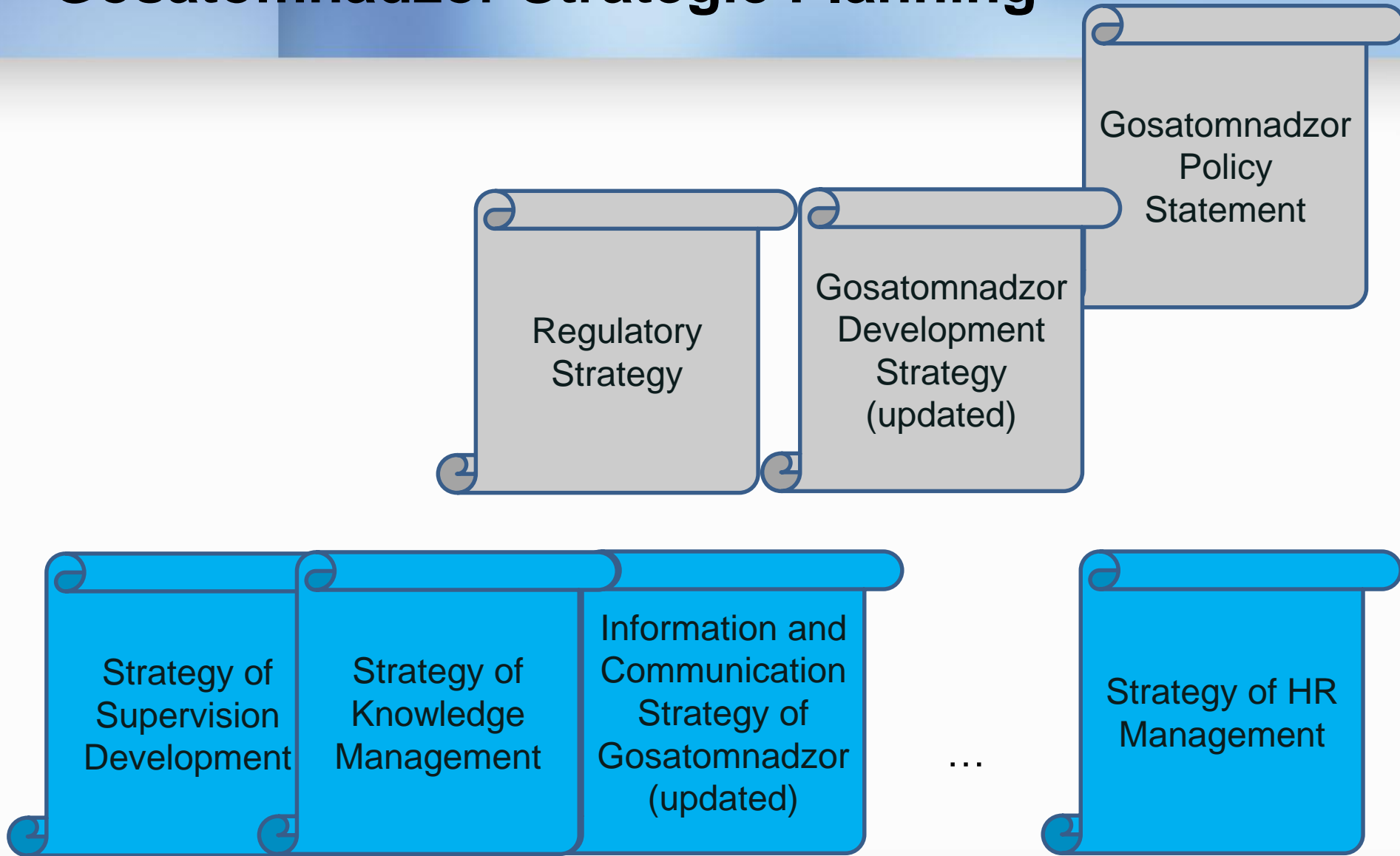


External events



* **CNS CRR, Area of Good Performance 1:** “81 regulatory employees have studied abroad in the framework of IAEA and EU international cooperation projects and bilateral basis” **initially proposed by USA**

Gosatomnadzor Strategic Planning



Strategic Plan for 2016-2020

THANK YOU FOR THE ATTENTION

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