



Development of Systems for SNF and RW Management in the Russian Federation

Conceptual approaches
and formation principles

Igor Gusakov-Stanukovich, Rosatom

2009



Development Program for Atomic Industry in the Russian Federation

Program objectives -

To provide for an increased production by the atomic industry ...

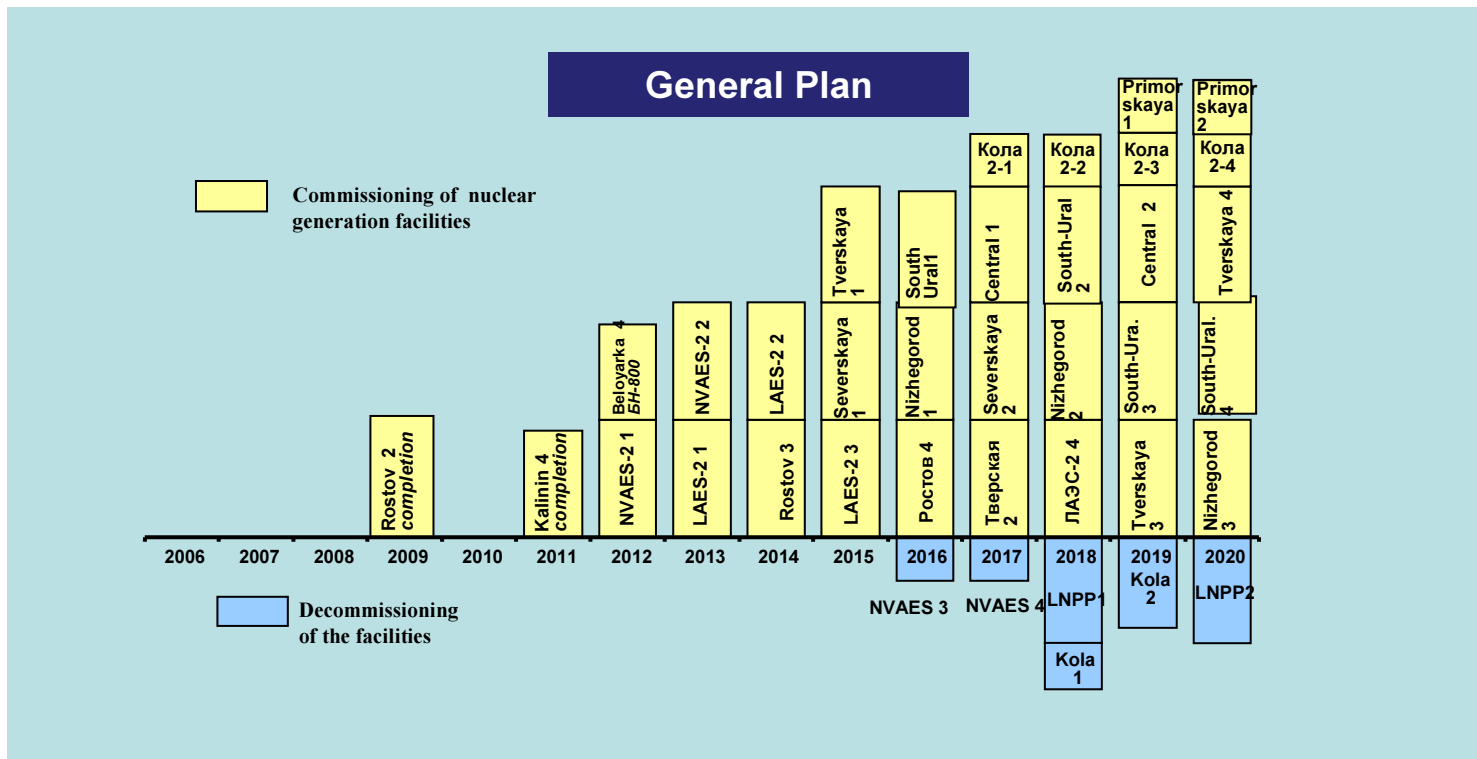
Program tasks –

... establishment of the system for state safety guarantees for using nuclear energy by means of:

... establishment of the unified state system for SNF and RW management.



New Tasks for the Atomic Industry in the Russian Federation

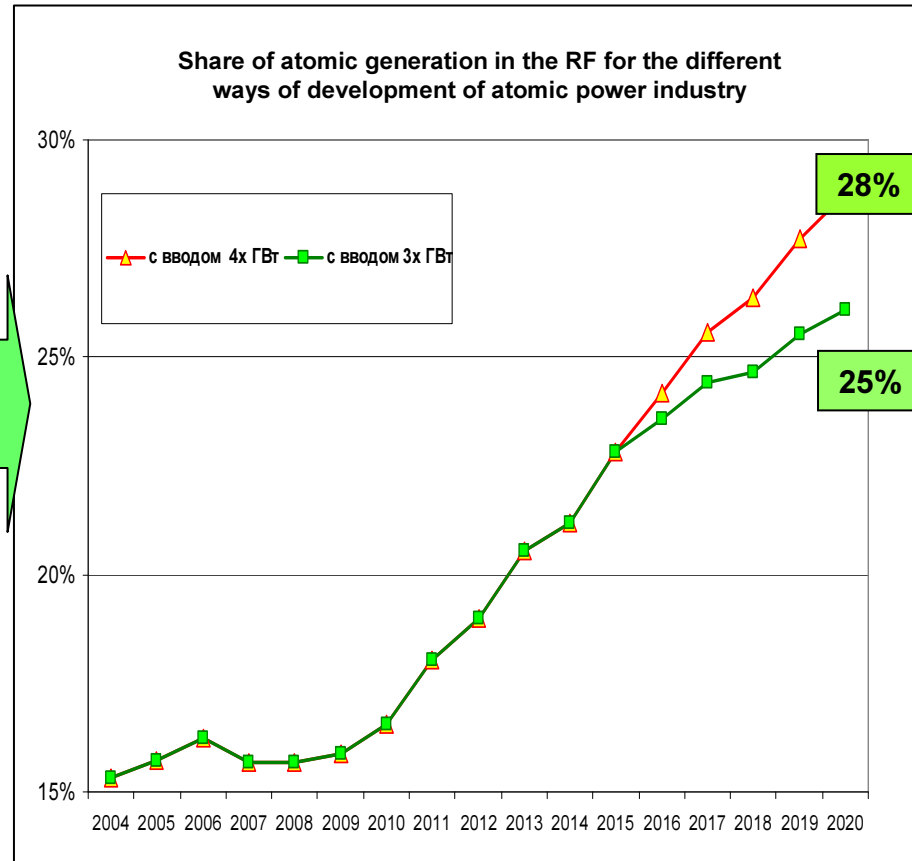
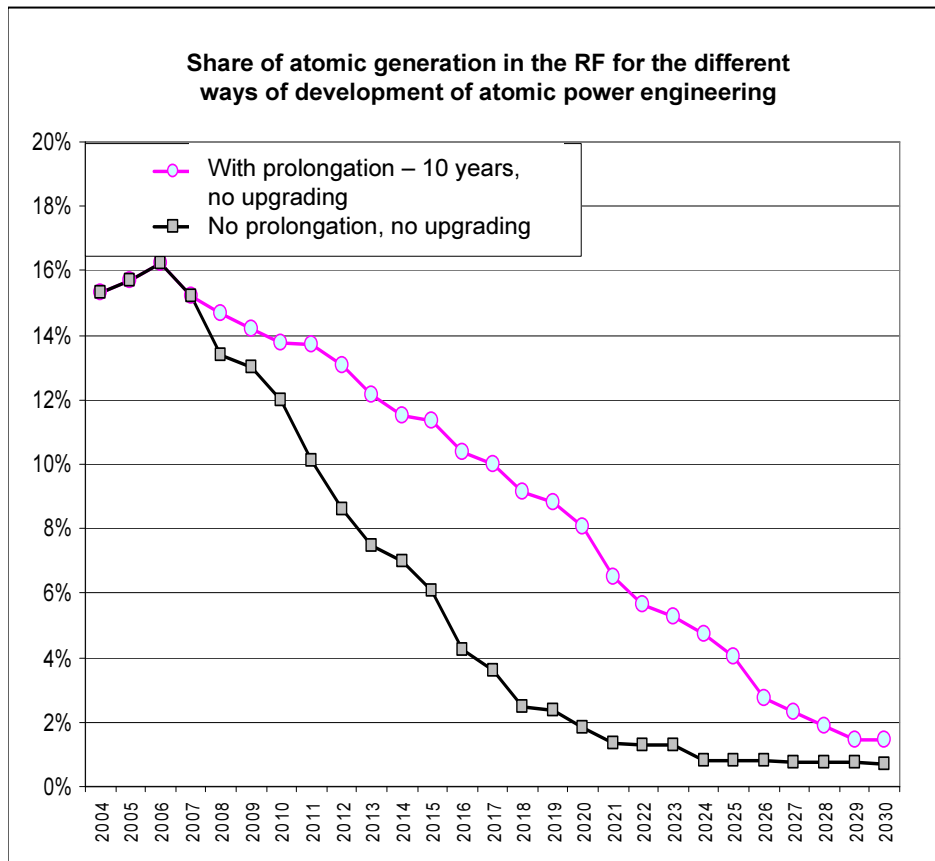


Commissioning of new facilities:

- 33 power-generating units of NPP
- 2-3 research reactors



Development of Atomic Power Industry in the Russian Federation



President and the Government's executive decision on the General Plan on the location of electrical power facilities up to the year 2020 provides for the decrease of gas volume in the fuel balance and increase of atomic-, hydro- and coal generation.



IMORTANT!

Development of the State system for SNF and RW management is an **infrastructural project** with respect to the program for development of the atomic power complex in the Russian Federation.

The infrastructure for **solutions to accumulated and postponed problems, decommissioning of nuclear power facilities must be used** for further development of the atomic power complex.



Preconditions for State Status for SNF and RW Management System

Obligations assumed by the Russian Federation within «Unified Convention on SNF and RW safe management» - the final responsibility for safe management with SNF and RW rests with the state.

The state status of the development program for atomic power industry and necessity for its infrastructure.

The state responsibility for solving problems of «historical legacy» SNF and RW, decommissioned nuclear- and radiation-hazardous sites.

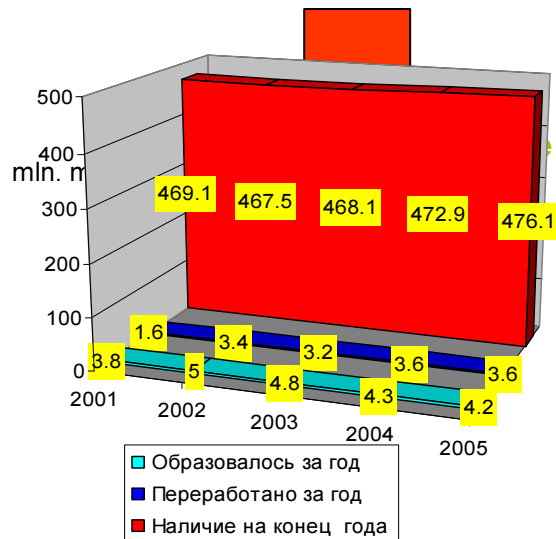


Spheres of Postponed Solutions and Accumulated Problems

- **Radioactive waste disposal**
- **SNF management – reprocessing and disposal of radioactive waste, recycling of nuclear materials;**
- **Decommissioning of nuclear facilities**

NUCLEAR AND RADIATION SAFETY

**Current situation:
Significant number of postponed problems
waiting for an integrated solution**

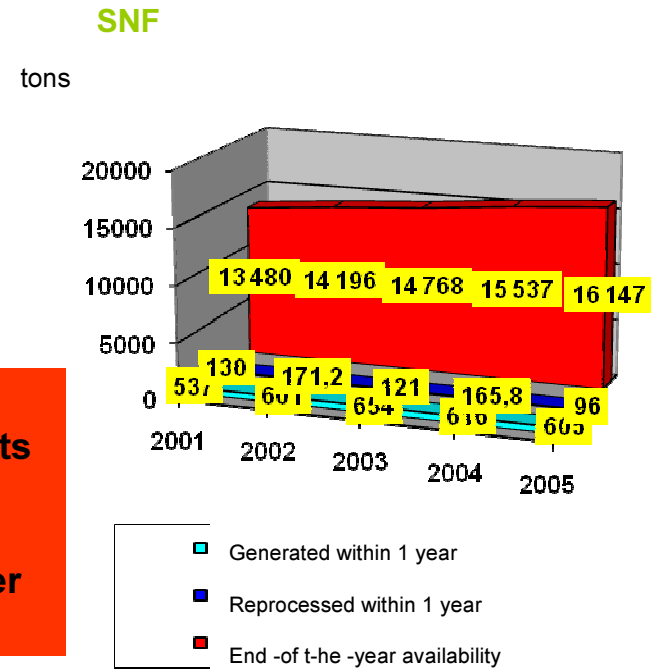


•Generated within 1 year

•Reprocessed within 1 year

•End -of t-he -year availability

Shut down facilities :
 ✓ 5 power generating units
 ✓ 10 PUGR
 ✓ 17 research reactors
 ✓ critical stands and other installations



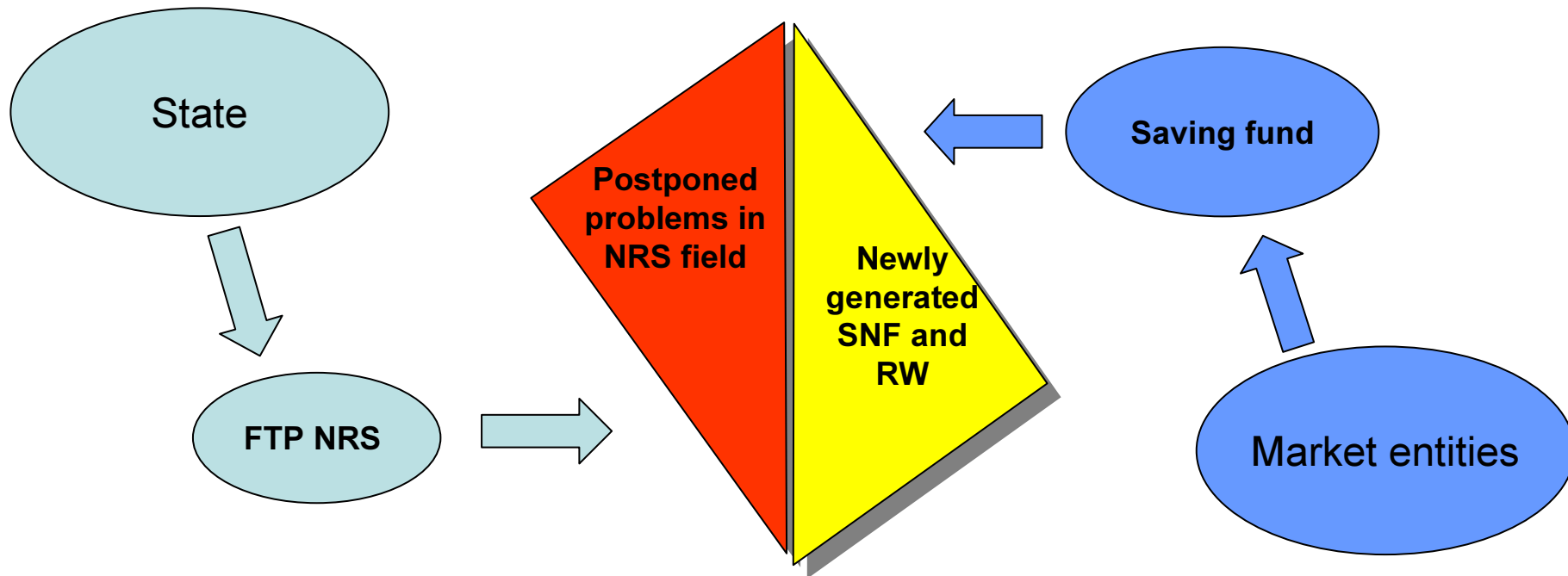


Principles for the establishment of SNF and RW Management

- **Minimization of problems that are passed for the future generations**
- **Financial support for the postponed solutions by the establishment of the future generations fund**
- **Preserving necessary information (knowledge, data) for the future generations**



“LEGACY” and Economics of Nuclear and Radiation Safety

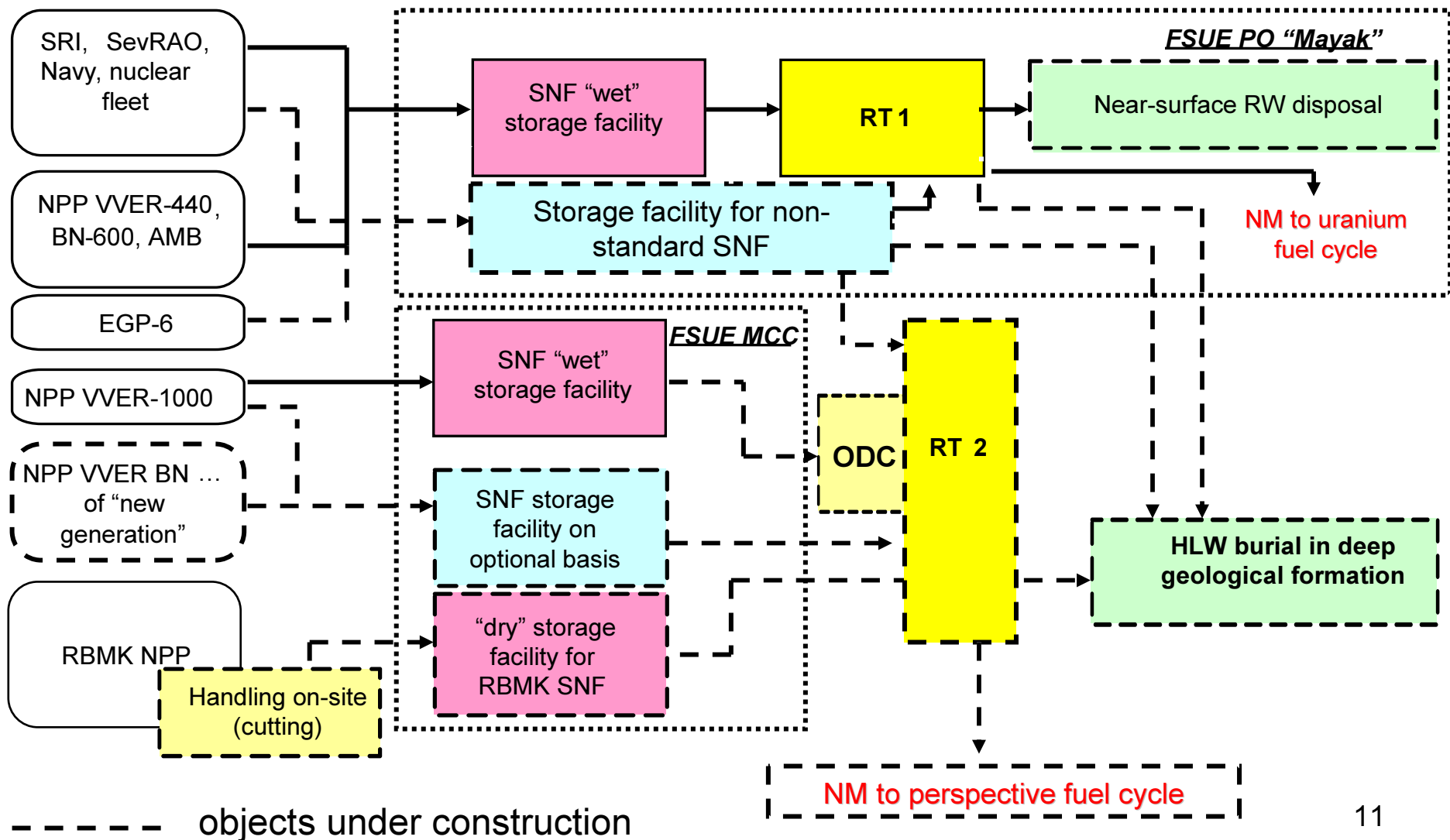


Key task: creation of a system for NRS management:

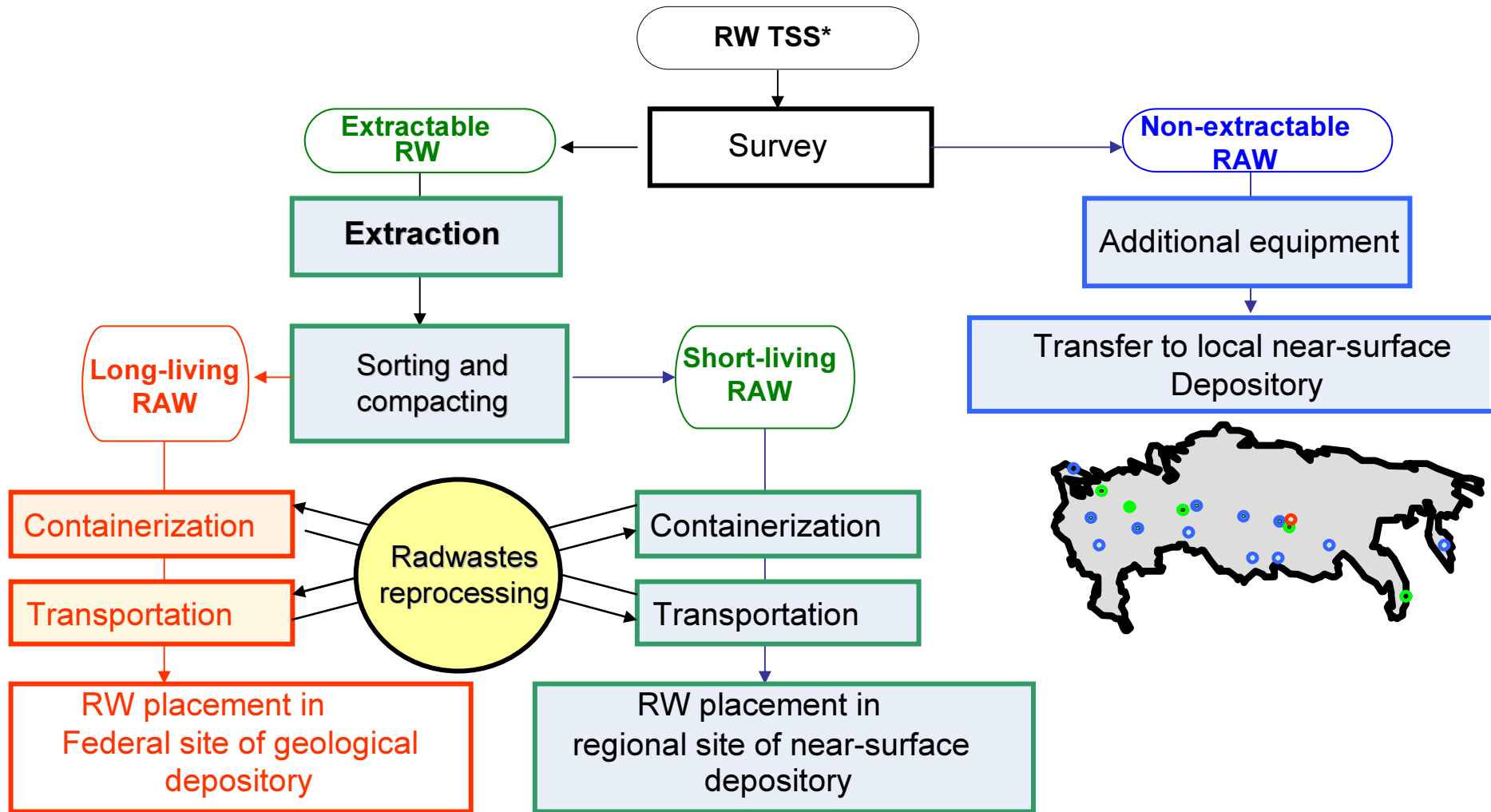
- concept within logic of a full life cycle
- institutional model (split of responsibilities between the state and market entities)
- financing mechanism (including the saving fund)
- national engineering infrastructure of SNF and RW management and decommissioning



Strategy for Creation of Infrastructure for SNF and RW Management in the RF



Strategy for RW Management in the RF



*** Temporary storage site TSS . Currently 69 enterprises located in 33 Russian regions have 1 170 TSS**



Practical Steps towards the Solution of Accumulated and Postponed Problems in the Atomic Industry in the RF

Federal target program «Assurance of nuclear and radiation safety in the year 2008 and for the period up to the year 2015»

Federal target program «Industrial utilization of military equipment during the period since 2005 up to 2010».



Under-development documents on Creation of Unified State Systems of SNF and RW Management

