



**ROSATOM**

**Rosatom State Atomic Energy Corporation**

# **International O&M offer of Rosenergoatom. LTO projects. Challenges and solutions.**

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**Atomexpo 2015**

**03.06.2015**



**RUSATOMSERVICE**





## ROSENERGOATOM

ELECTRIC POWER DIVISION OF ROSATOM



1

### EPC projects services

- Nuclear infrastructure
- Technical customer services
- Personnel training
- Commissioning

2

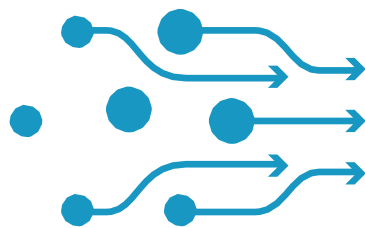
### BOO projects services

- Nuclear infrastructure
- Technical customer services
- Personnel training
- Commissioning
- Operation
- Service

3

### Services for foreign customers

- Technical customer services, Consultant, architect-engineer
- Operation and service services
- Security services, licensing, environmental protection
- Customer's consultant
- Contractor for certain types of work



**Suppliers**



**Service Package**



**Clients**

Rusatom Service was created in 2011 by a board decision of Rosatom State Corporation in order to centralize service delivery for foreign nuclear power plants by Russian nuclear companies and to coordinate the activities of Russian contractors as part of Rosatom's long-term international activities strategy. The company serves as a single point of contact integrating the service offer of all Rosatom companies.



The best practice consists in signing long-term service contracts for the entire life cycle of the power plant:

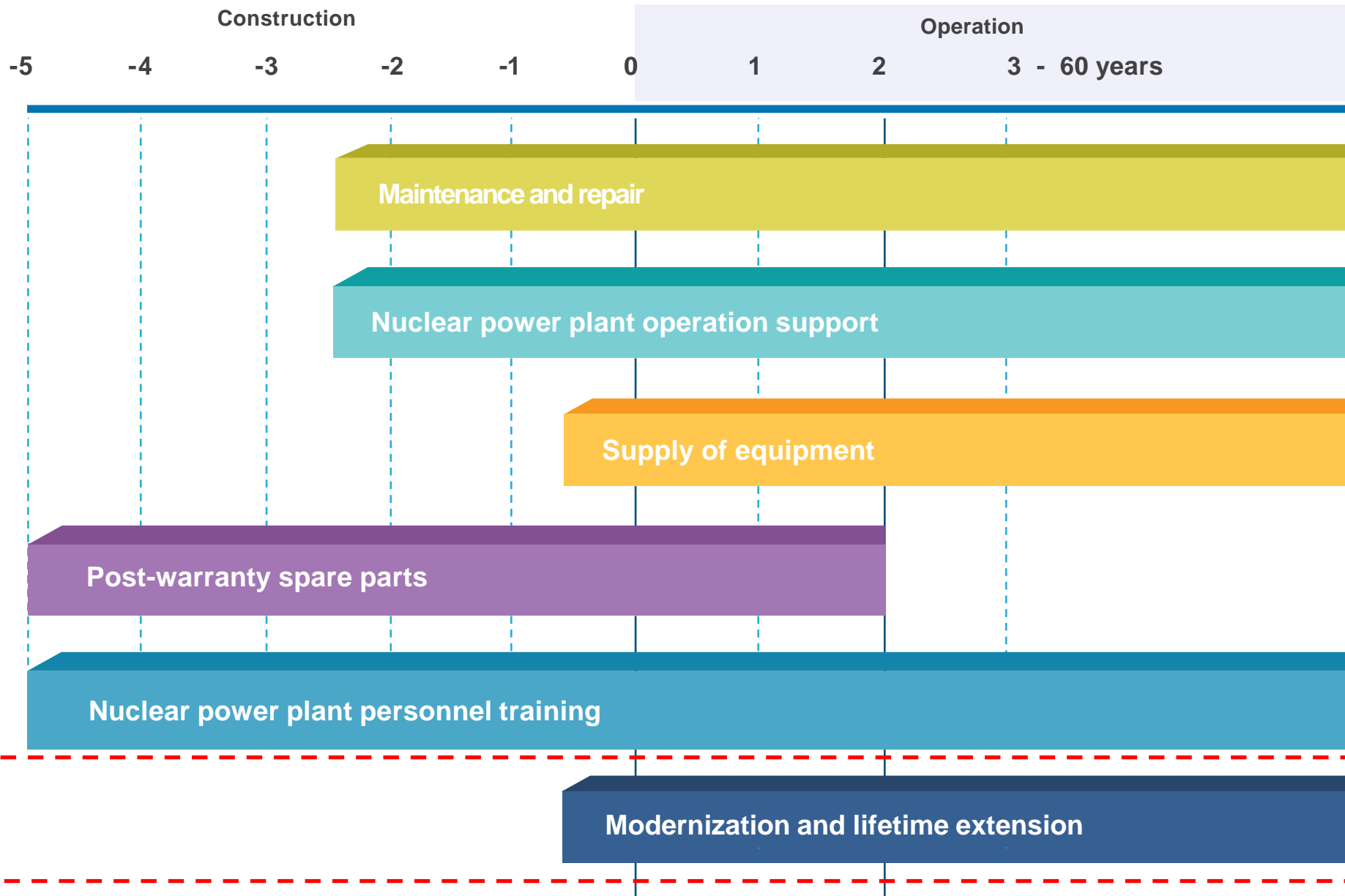
- Ability to provide long-term planning
- Bringing of service costs in line with revenues and maintenance of equipment
- Optimization of expenses for spare parts stock
- Use of the service company's experience in other facilities
- Reduction of costs in case of underutilization of own service departments

## Organization of Support Services Hanhikivi NPP (Finland)

Coordination of the integrated service proposal within 5 years of the entry of the power unit into operation

## Organization of Support Services Hanhikivi NPP (Finland)

Coordination of the integrated service proposal within 10 years of the entry of the power unit into operation according to the contract



Provisional acceptance of the power unit

Final acceptance of the power unit

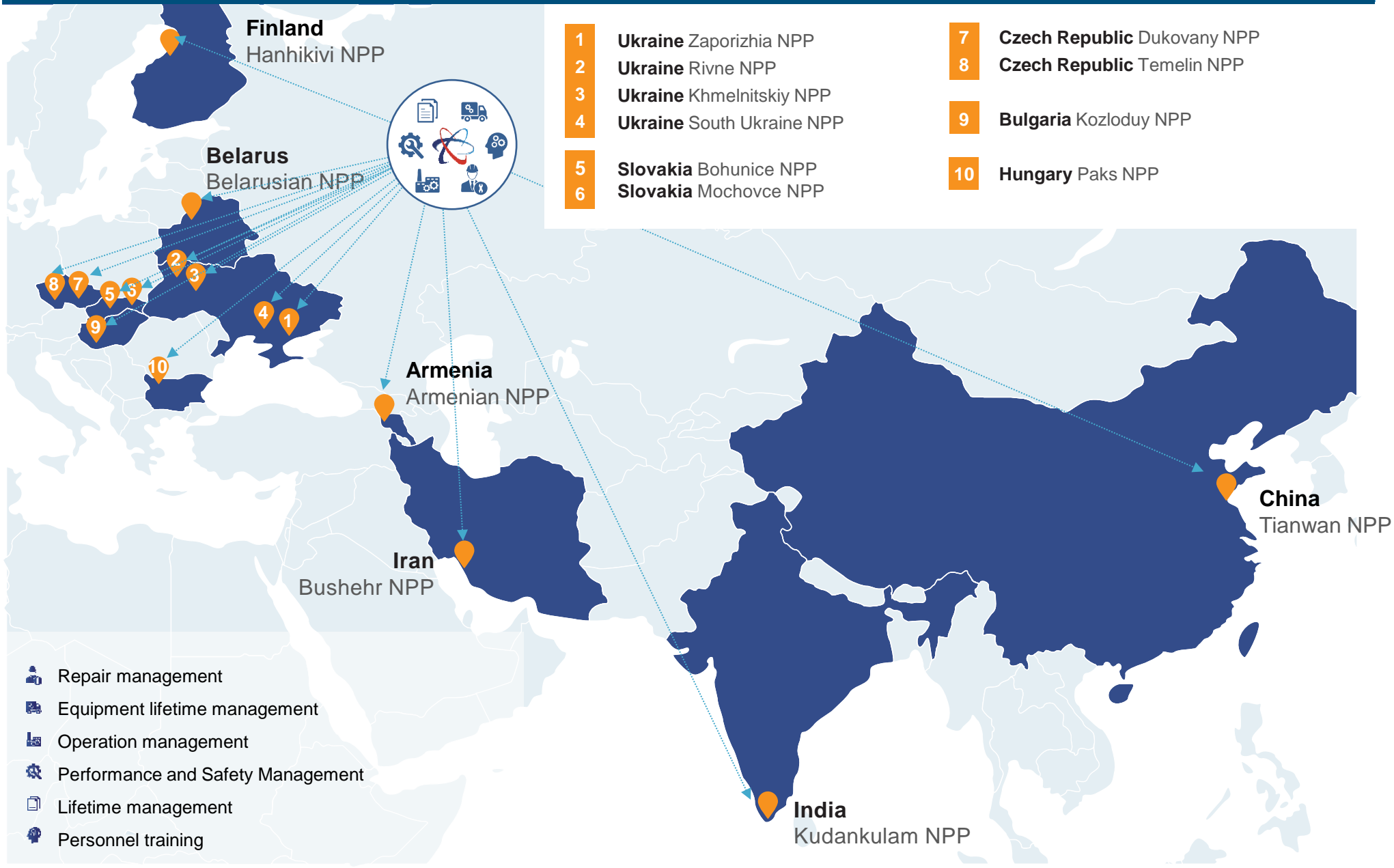


# PROJECTS MAP

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«...we need to do this project quicker, because...»

«only best experts for our project...»

«...we don't have enough budget for this...»

«...we've never done LTE projects before and we don't have enough qualified personnel for this purpose.»

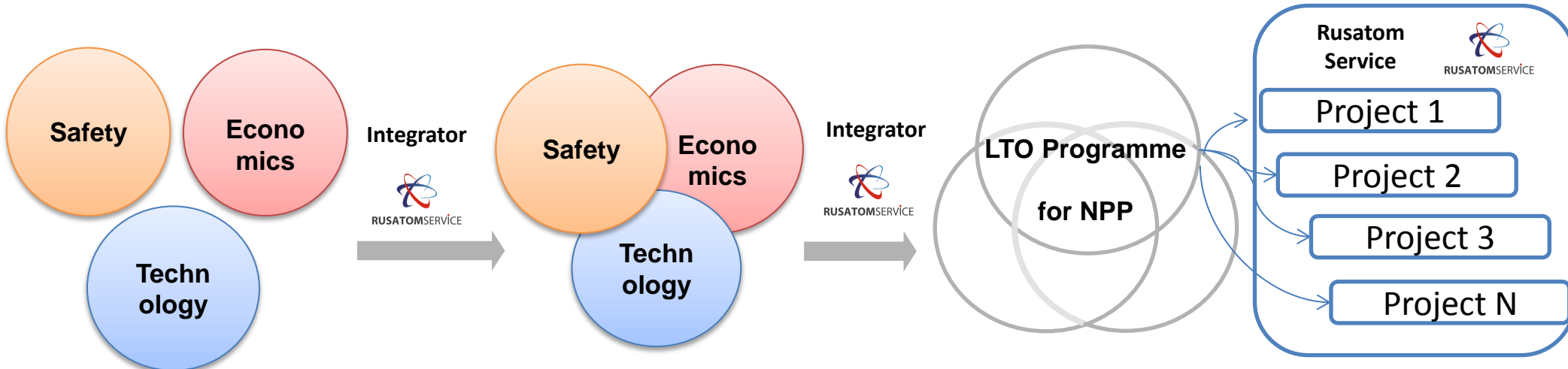
«...to develop optimal conditions for safety and performance in accordance with the last requirements of regulators and technology»

«...What is the fair price for this units?»

«...you take too much personnel for this project. Its overstaffed.»

«Who is responsible for the whole project?»

**Customers expectations are: less time , less money, higher performance**



- Experienced team
- Structured and transparent procurement processes
- Strong links with manufacturers and business partners
- Knowledge base of products and innovations
- Price base for the equipment by suppliers





**1 step-**  
Documentation

Comprehensive survey

Safety assessment

Volume and types of LTO preparation works

Definition of the LTO investment project

**2 step –**  
Modernization

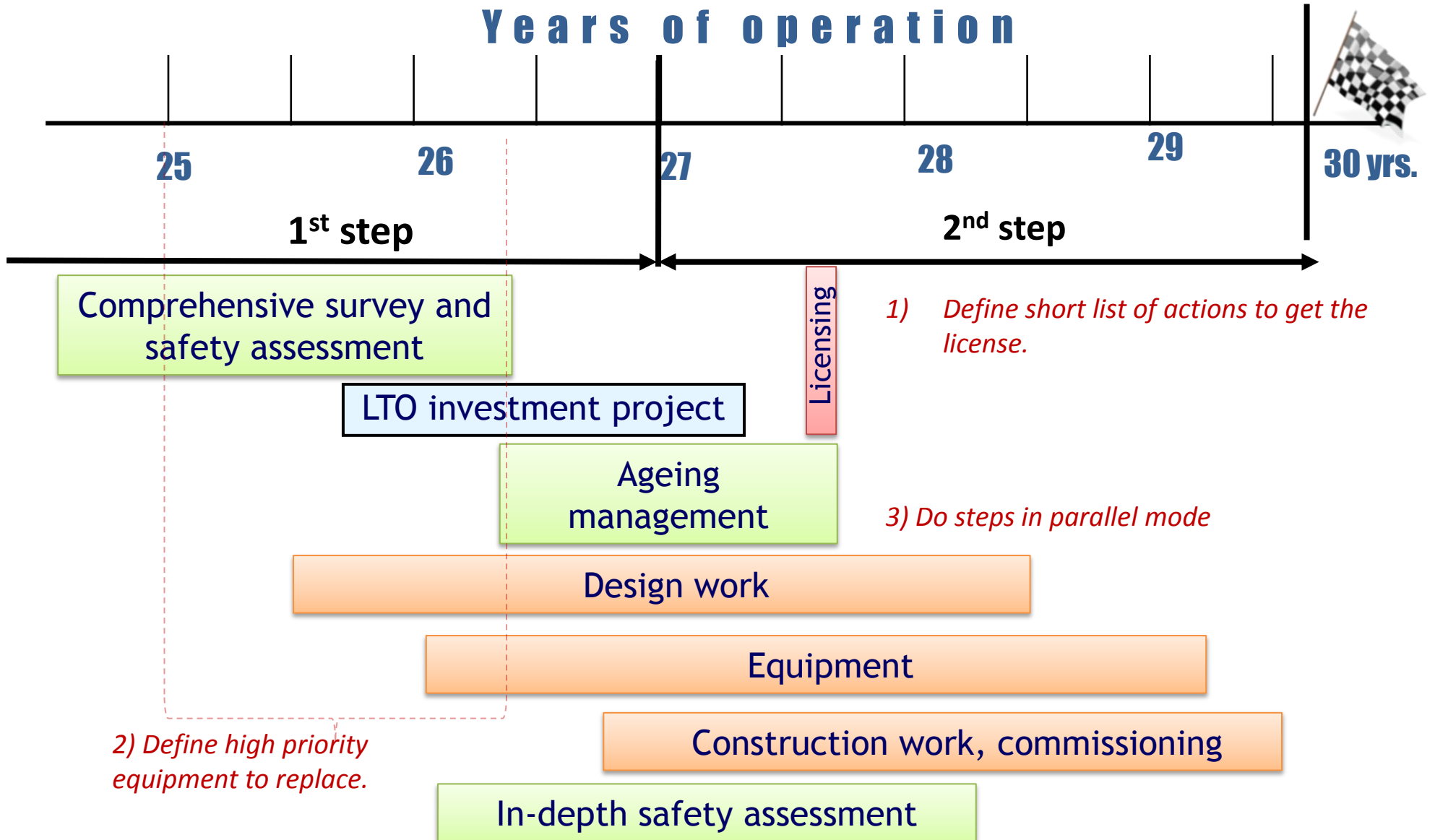
Modernization

Ageing management

In-depth safety assessment

Submission of the documents to the regulator in order to obtain a license for continued operation of the NPP unit

# Years of operation



**Practical approach is more complex and risky but it corresponds to customer expectations**



# 16 LEADING PARTNERS ARE INVOLVED IN OUR PROJECTS



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**LMIP**  
CMIR  
RUSSIAN RESEARCH CENTRE  
KURCHATOV INSTITUTE

**OKB «GIDROPRESS»**

**CRISM "Prometey"**

**ROSENERGOATOM**  
ELECTRIC POWER DIVISION OF ROSATOM

**CKBA**

**ОАО «ЦКБМ»**  
CKBM

**Atomtechenergo**

**RUSATOMSERVICE**

**OKBM AFRIKANTOV**  
A SC «ROSATOM» COMPANY

**RISK engineering**

**РЕСУРС**  
RESOURCE

**edf**

**НПО СКТИ**

**VNIIAES**

**АТОММАШЭКСПОРТ**  
Atommasheport



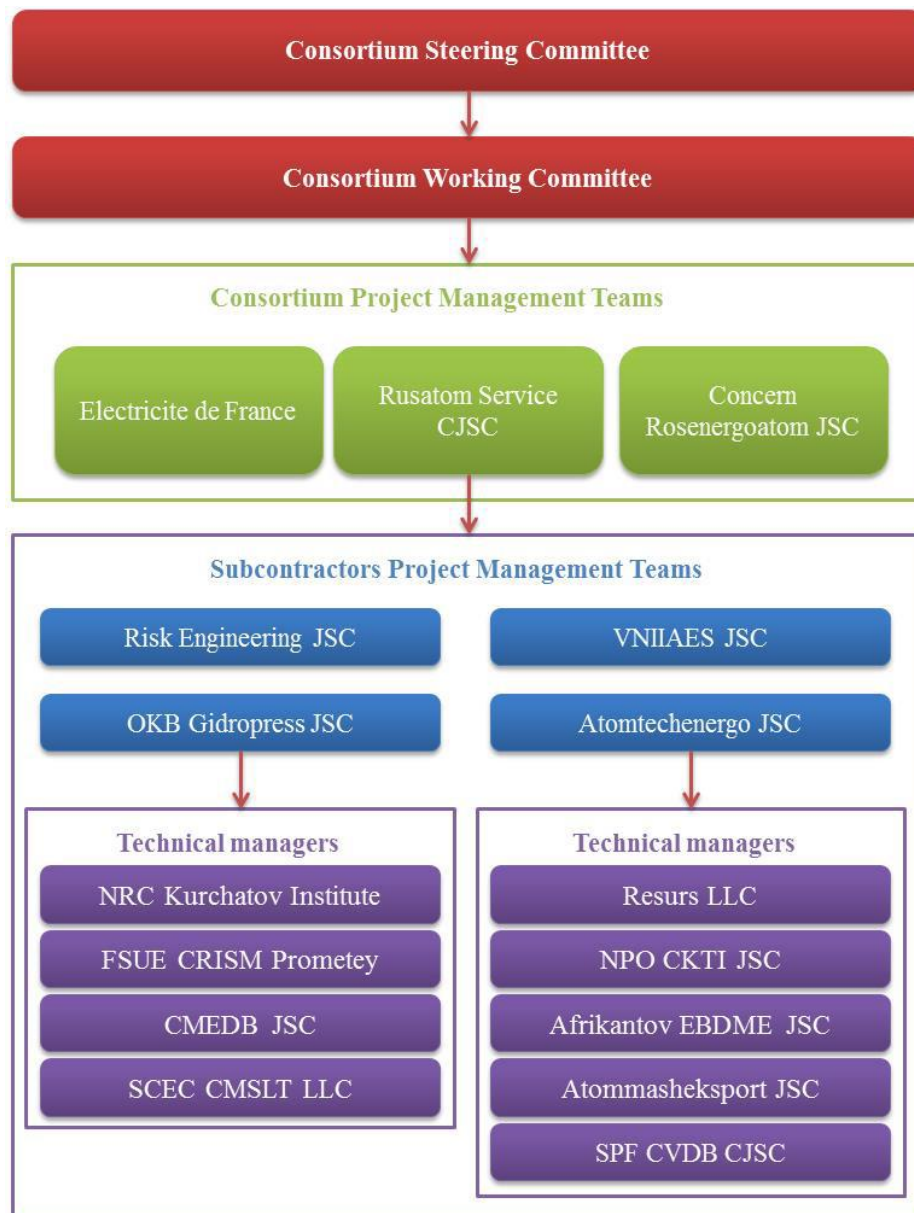
**KOZLODUY NPP**

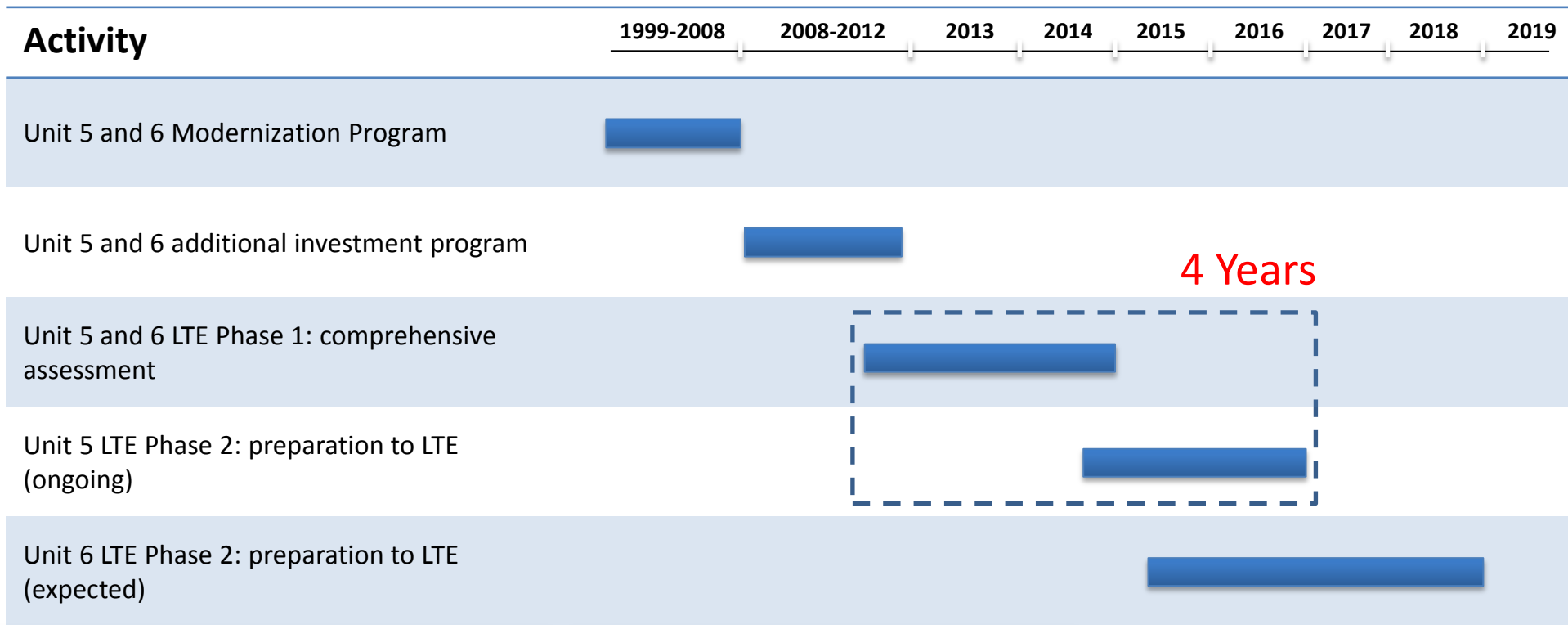


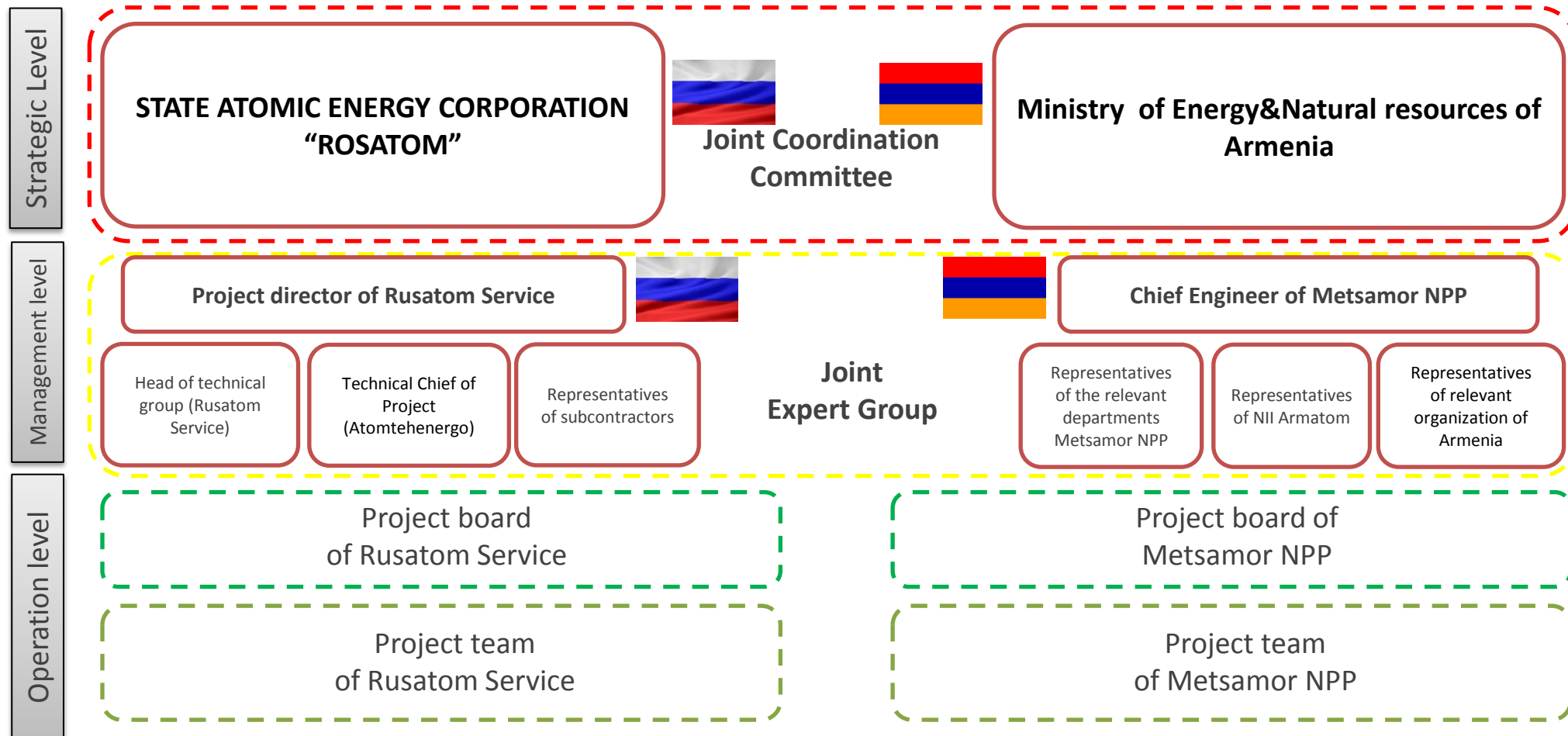
**Metsamor NPP**



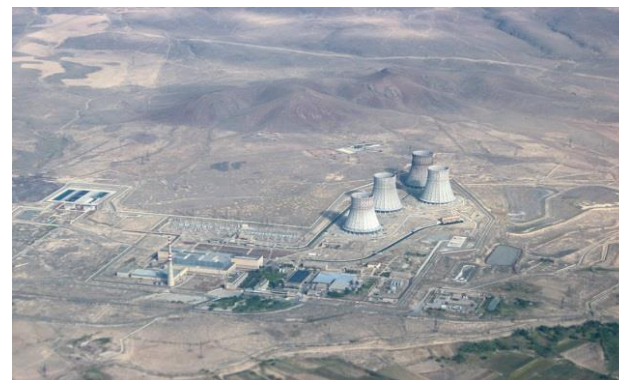
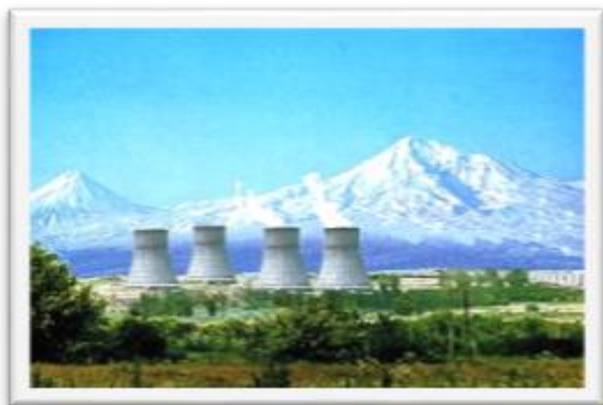
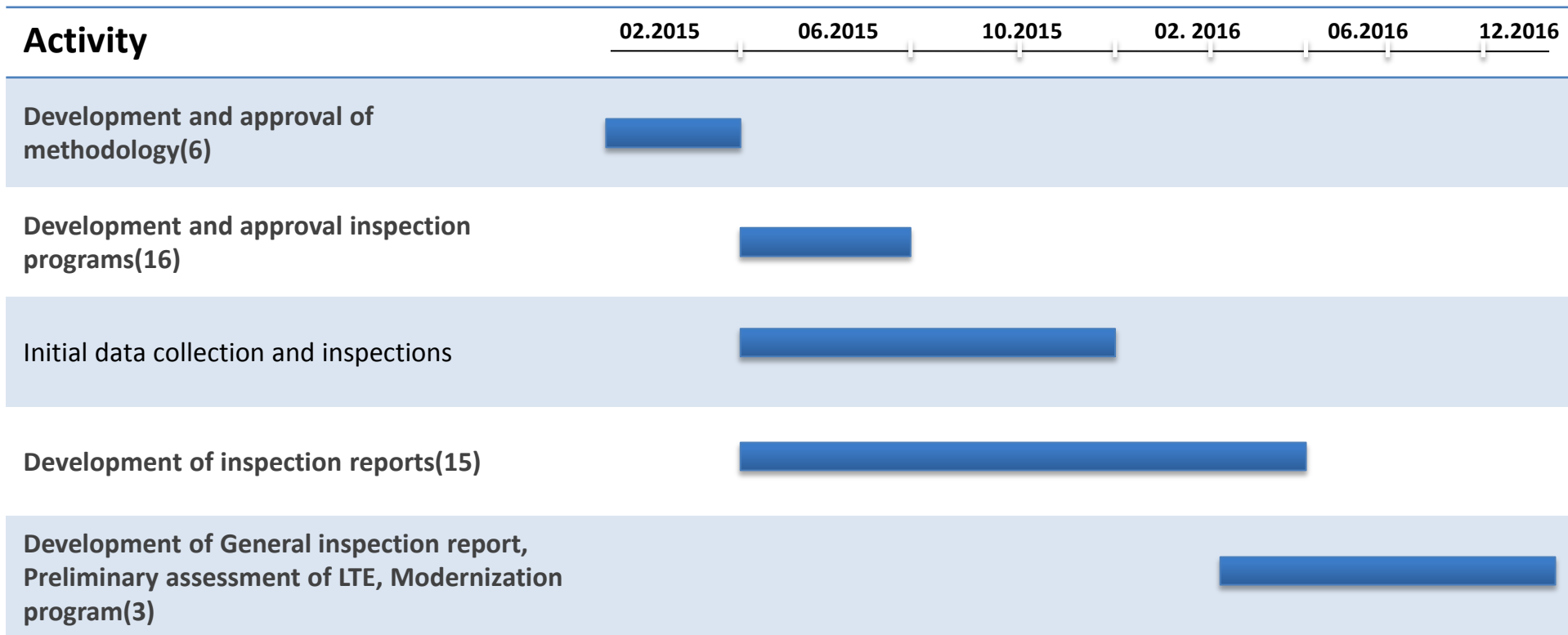
- Lifetime extension for Kozloduy NPP is performed by international Consortium Rusatom Service (leader of the Consortium) – Concern Rosenergoatom – EDF
- Consortium establishes elaborated project management structure with multiple layers of management:
  - Consortium Steering Committee;
  - Consortium Working Committee;
  - Project management teams of Consortium;
  - Project management teams of subcontracting organizations.







- STATE FINANCING OF THE PROJECT
- MANAGEMENT WITH THE PARTICIPATION OF THE MINISTRY OF ENERGY & NATURAL RESOURCES OF ARMENIA





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