



РОСАТОМ

ГОСУДАРСТВЕННАЯ КОРПОРАЦИЯ ПО АТОМНОЙ ЭНЕРГИИ «РОСАТОМ»

Key Tools for Cost & Time Optimization When Developing Up-to-Date NPP I&C

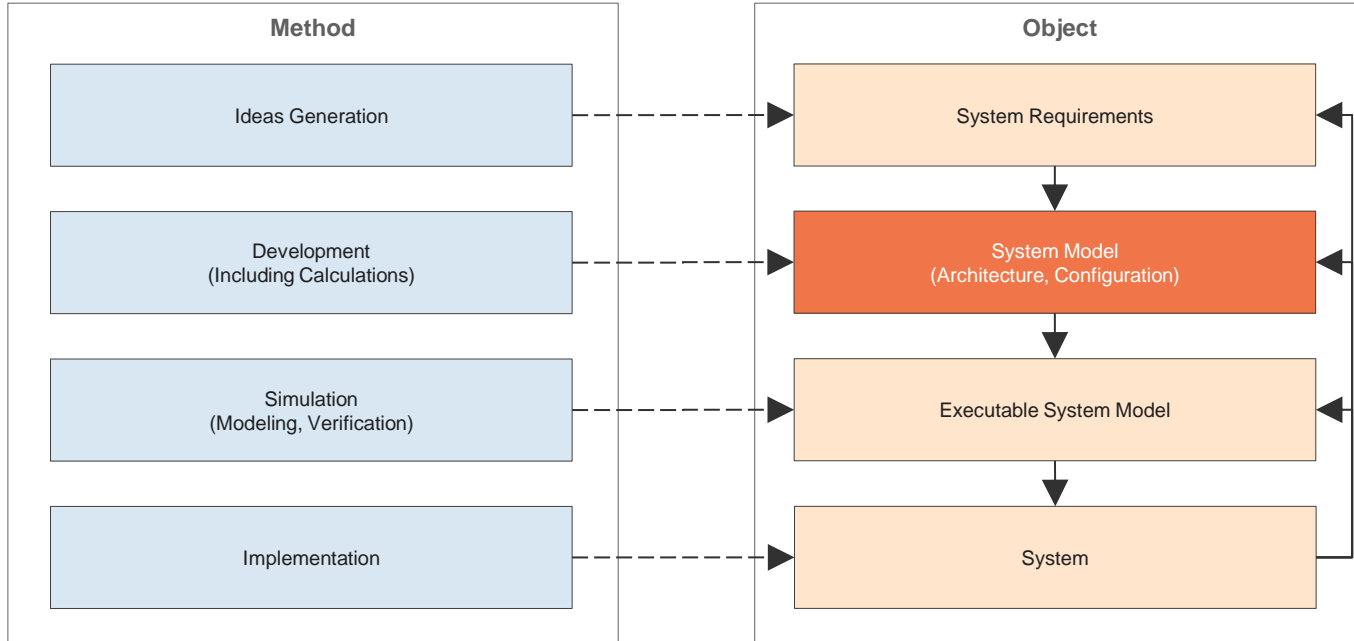
Eugene I. Khudobin

Chief Operational Excellence and Product Development Officer

Rusatom Instrumentation and Control (RASU)

Moscow, 2016

System Engineering Approach to Development of Complex Systems



Current Challenges of NPP I&C Development & Commissioning Projects – Objectives of JSC RASU



The need for a single responsibility center for I&C as one of the key products of Rosatom State Corporation



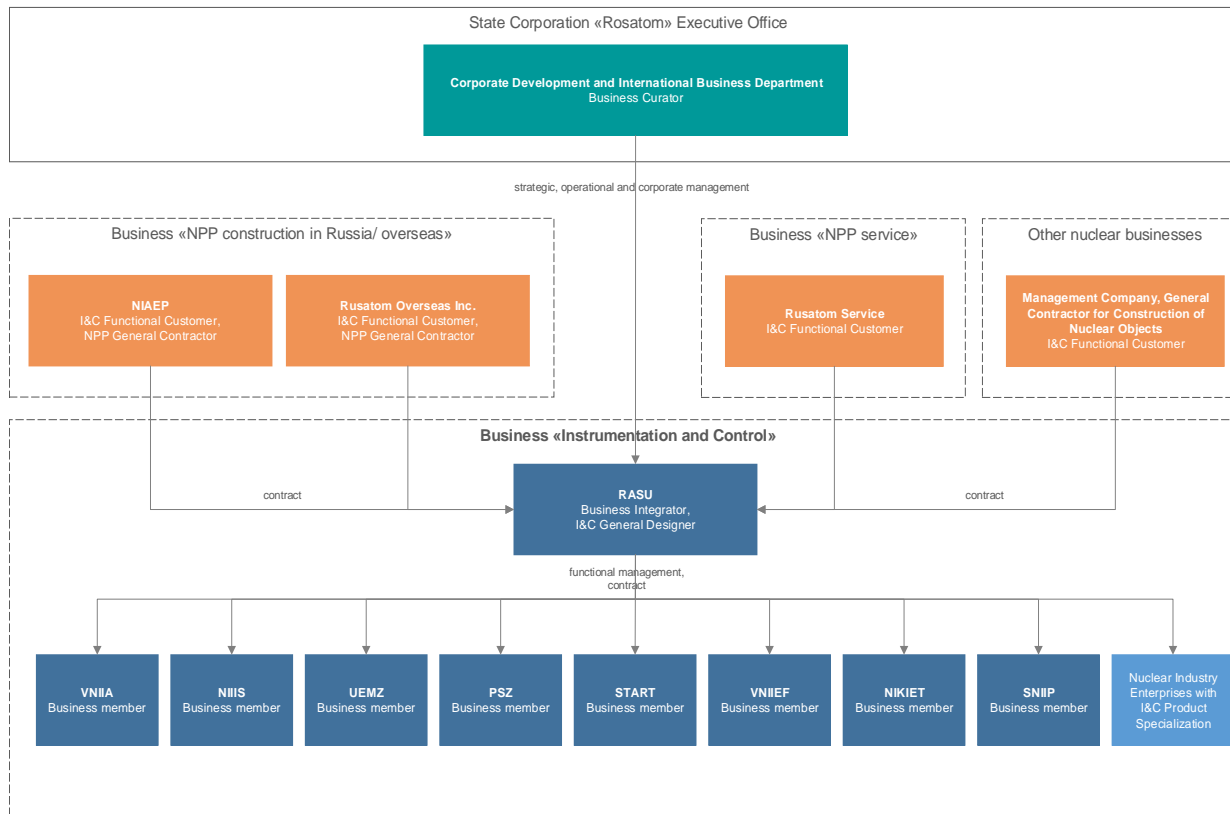
Key Objectives of JSC RASU

Cost and time reduction in I&C development processes

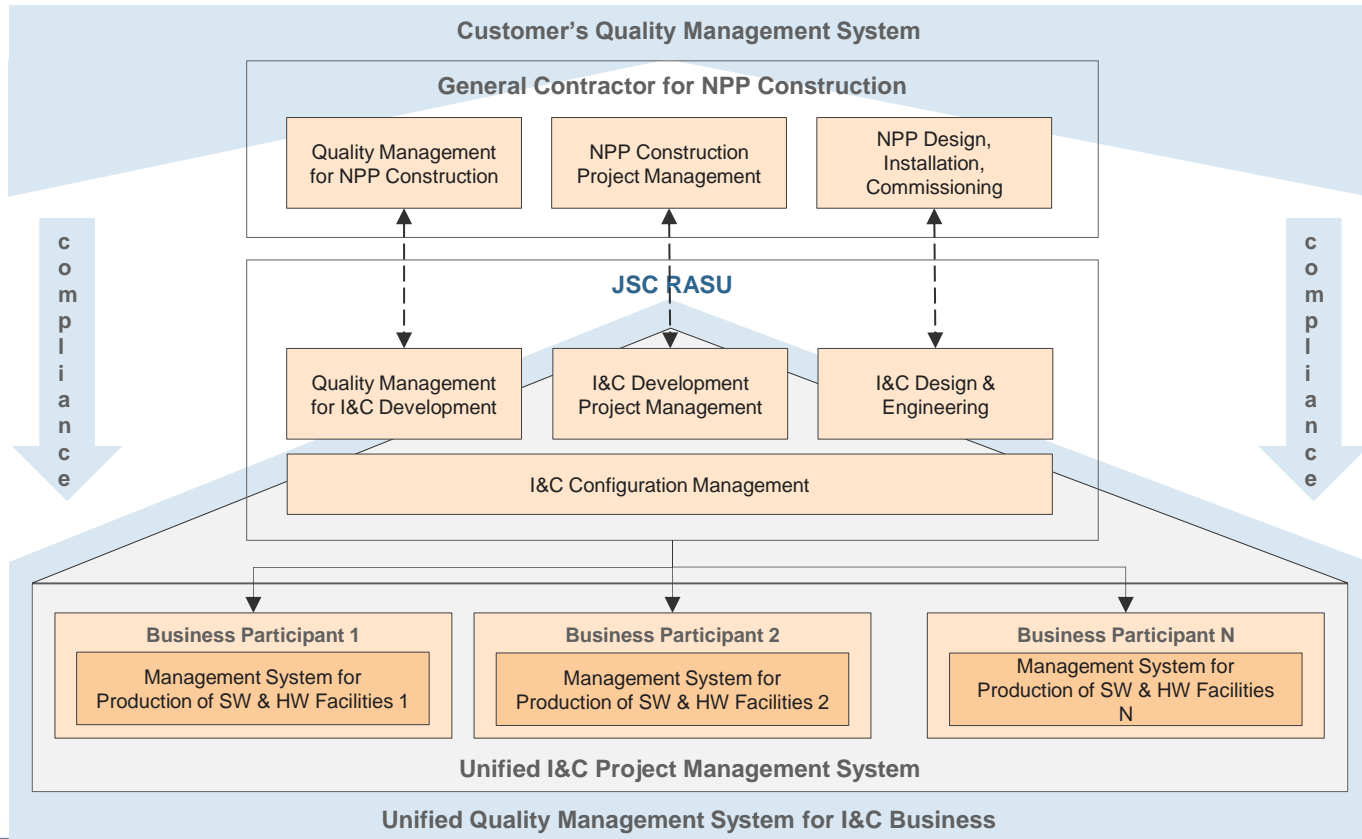
Compliance of I&C product with requirements of foreign customers

Development of new I&C products (also in external markets)

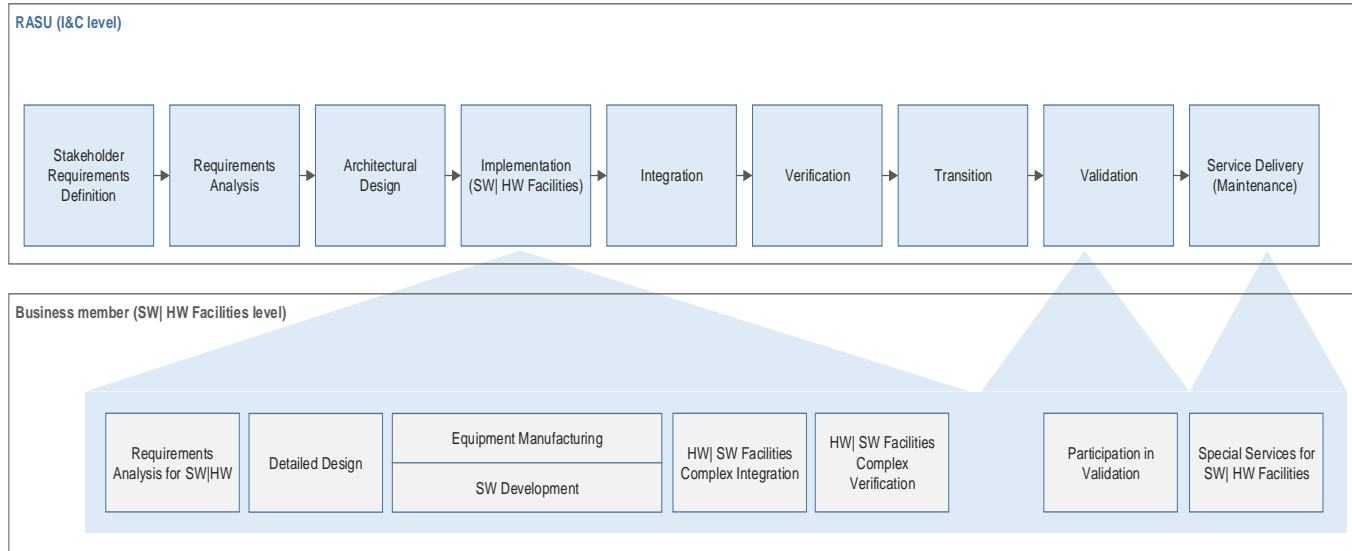
I&C Business Management Model



I&C Project Management Model



End-to-End Industrial I&C Development Process (According to ISO/IEC 15288)

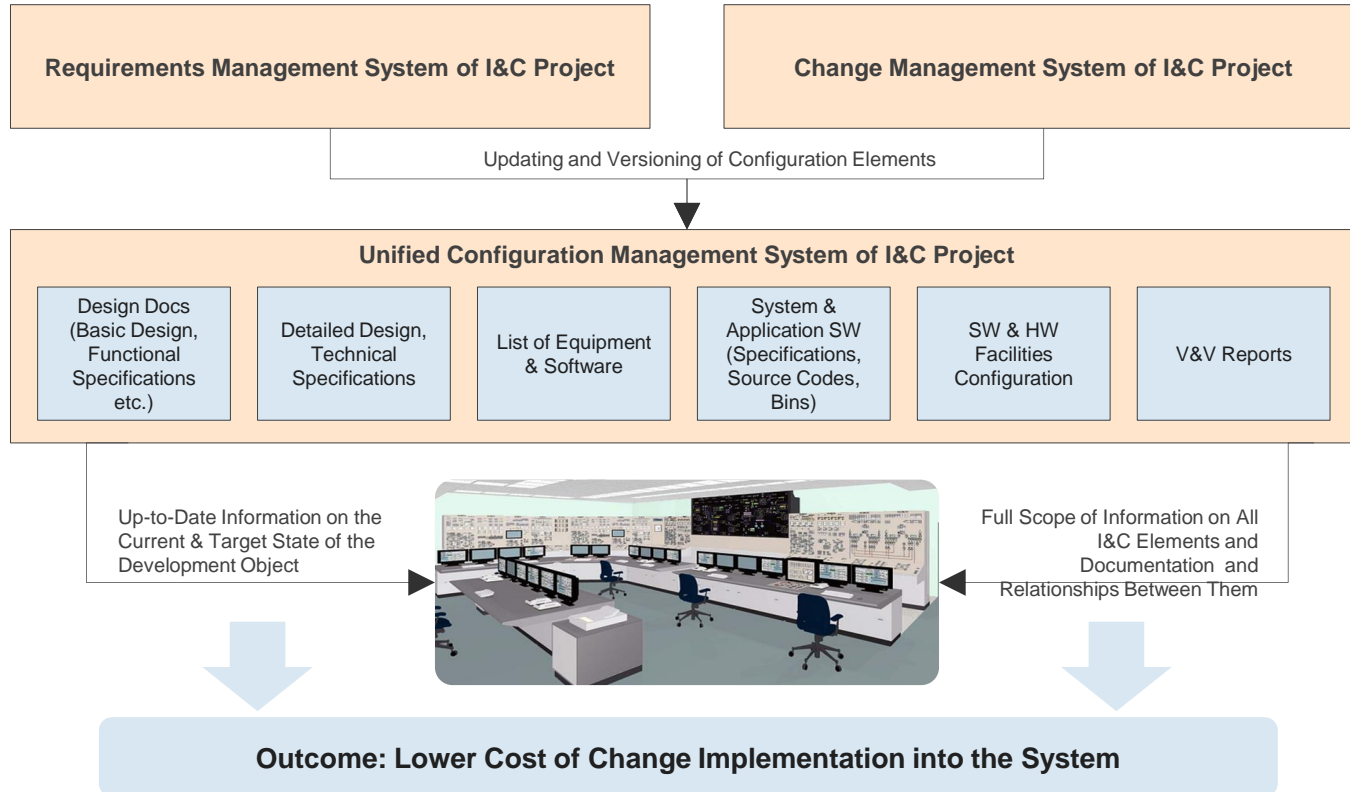


Application of Value Engineering at All Stages of I&C Product Value Chain



I&C Product Value Chain				
	Product Development	Presale	Contracting	Project Execution
Cost Management	Price Formula Standard Prices Cost Drivers Product Development Cost	Product price for specific customer	Initial Maximum Price Contract Price	Cost of Changes
Terms Management	Time-to-market	Sales Funnel Terms	Contracting Terms	Procurement and Key Events Terms
Quality Management	Product and product development process compliance with international standards (prequalification)	Compliance with specific customer requirements Quality of commercial proposal	Compliance with quality requirements listed in tender documentation Quality of tender documentation	Product and product procurement process compliance with specific customer requirements
Risk Management	Proactive risk management at all stages of I&C Value Chain: <ol style="list-style-type: none"> 1. Risk identification during regular project reporting and review 2. Risk elaboration, inc. influence on project KPIs (value, cost, terms, quality) 3. Root cause analysis, initiation of compensatory measures, «help chain» of SC «Rosatom» 			

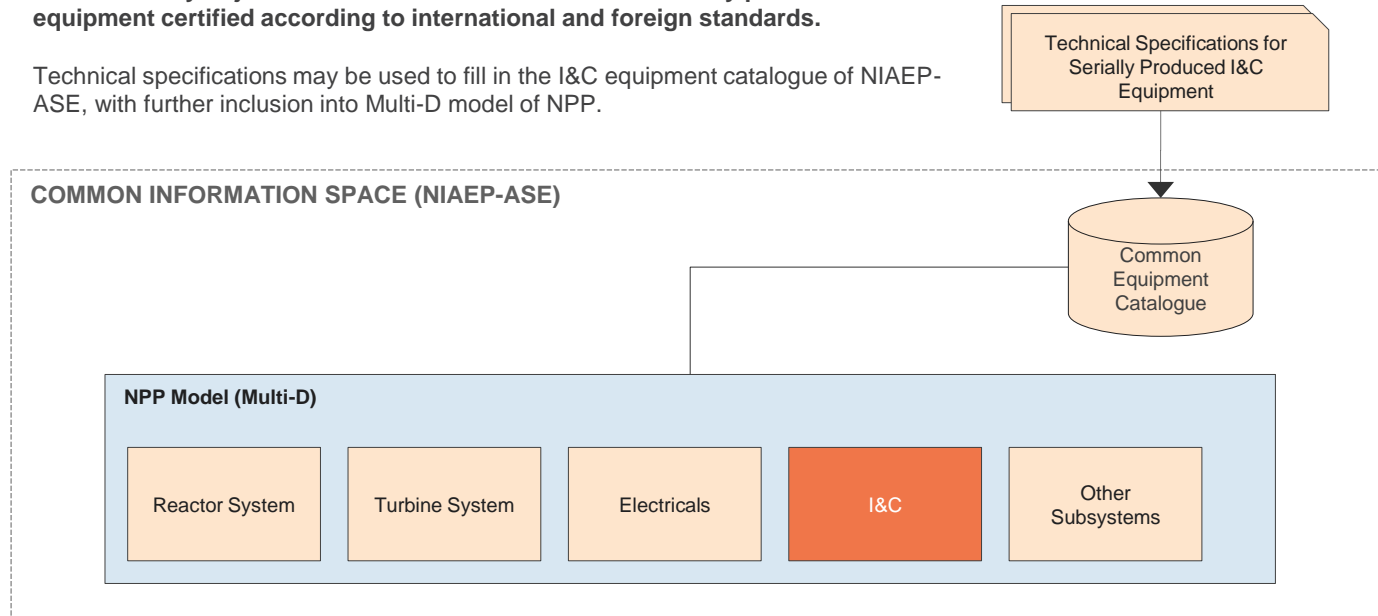
Integrated Management of Requirements, Changes & Configuration as a Basis for I&C Information Management



Transfer to Serially Produced Equipment as Unified Configuration Elements of I&C Design (1/2)

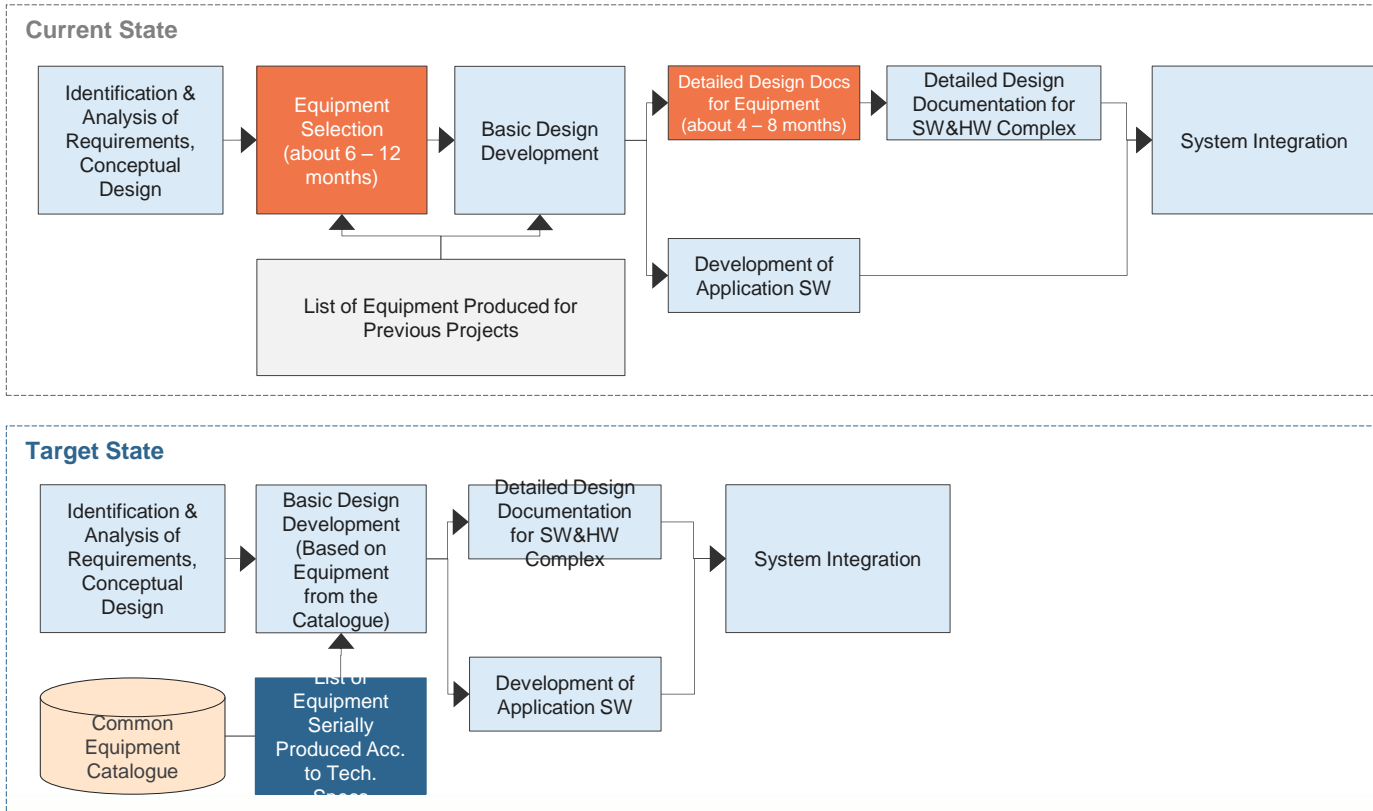
One of the key objectives of JSC RASU is to use more serially produced I&C equipment certified according to international and foreign standards.

Technical specifications may be used to fill in the I&C equipment catalogue of NIAEP-ASE, with further inclusion into Multi-D model of NPP.



Outcome: Reduction of I&C Design & Engineering Time (Possibility to Use Standard Equipment for Different Projects)

Transfer to Serially Produced Equipment as Unified Configuration Elements of I&C Design (2/2)





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Thank you for your tome!