# Technology cooperation of global companies

**ROSATOM** and Schneider Electric

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#### Basic preconditions for global cooperation

- 2020 Russian Federation innovation strategy
  - Innovative products development and production for domestic and **overseas** markets
- ROASTOM international NPP projects portfolio rapid growth
- 2020 ROSATOM's innovation and technological modernization program
  - Innovations development
  - ROSATOM subsidiaries efficiency improvement
- Innovations deployment system for NPP construction

Preconditions

- Construction cost and time reduction
- Efficient, safe and worldwide recognized technology implementation

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Benefits

#### Current trends on nuclear NPP construction market

- End-to-end technological responsibility
- · Elimination of technology conflicts and common cause failure
- Reduction of project cycle due to typical design application
- Integrated engineering teams for system solution
- NPP certified equipment/systems manufacturers technological alliances
- Close cooperation of the End-User, EPC and suppliers during the whole project cycle



Schneider Electric – Global Specialist in Energy Management

### **25 Bln** sales in 2014

**43 %** of sales in fast-growing economies

**160 000+** employees in over 100 counties



**4-5%** of the annual turnover invested in R&D

Large company with balanced geographical presence and focus on sustainable development







#### Schneider Electric in Hungary

We are in the TOP 50 companies of the Hungarian Economy.

- 1400+ employees
- 1 Commercial team
  - 4 Factories

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- 1 Logistics center serving 18 countries
  - 4 Teams with regional scope

Strategic partnership agreement with Hungarian government (2013)

- Schnieder Electric committed to increase its presence in Hungary
- Schneider Electric committed to bring also high value added activities to Hungary
- The goverment named Schneider Electric as a strategic Energy Advisor for Energy Management projects



#### Scope of technological cooperation

Technological partnership with Rosatom's subsidiaries Modes of cooperation

- Licensed manufacturing
- Technology transfer
- Joint venture

#### New opportunities for Rosatom subsidiaries

- Products and systems with proven international recognition complying to both Rosatom and IAEA norms
- Enhancement of Rosatom's offer for international NPP construction projects
- Compatibility with Rosatom and IAEA norms



Startegic MoU signature at SPIEF 2015





#### Schneider Electric's added value for NPP construction market

- About 30 types of equipment/systems for I&C and electrical applications at NPP. International references Advanced solutions
- Typical design and delivery for the proposed scope by SE own dedicated NPP market engineering centers (Grenoble (France), Lake Forest (USA). Reduction of design and construction cycle, as well as TCO. Proven references for different geographies Tailor made logistics and manufacturing
- Equipment qualification & certification. Elaboration of complete documentation regarding to quality related items in accordance with a country regulator's requirements.



#### Ongoing technological cooperation projects for NPP

Projects in progress

- 6 10 kV MCSET switchgear licensed production
- 0,4 kV OKKEN switchgear
- GUTOR based secure power system
- ESMI fire alarm system
- Altivar 1200 MV VSD controlled pumping units

Projects in preparation phase

• Normal operation I&C systems











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