



RUSATOM
HEALTHCARE

STATE ATOMIC ENERGY CORPORATION

ROSATOM State Corporation: Vision and Experience in Radiopharmaceuticals

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ROSATOM Overview



ROSATOM
HEALTHCARE

ROSATOM State Corporation is a vertically integrated and the world's only company of a complete nuclear power cycle.



 Theoretical and Applied Science

 Education

 Nuclear Infrastructure and Regulation

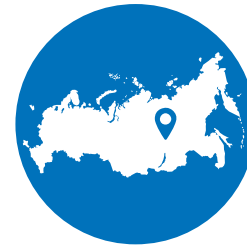
ROSATOM overview



RUSATOM
HEALTHCARE



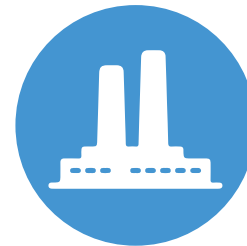
336 enterprises incl.
16 science institutes



10 offices
globally

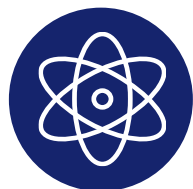


250,000 employees



120 research reactors
based on ROSATOM technologies

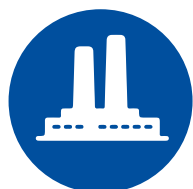
RUSATOM HEALTHCARE



27 existing and promising projects

4

businesses



14 organizations in the management loop

~1 500 division employees



24 projects and initiatives on Russian and foreign markets



20 industry enterprises collaborate to achieve business objectives



- OOO «TPD»
- LLC «YAMT-Snezhinsk»
- LLC «Atomic Technodji-Far East»
- LLC «R2MED»
- JSC «NIFHI M. L.Y. Karpov»
- AO «B/O «Isotope»
- AO «Isotope»
- RAIMS limited
- AO «NIITFA»
- AO «Sterion»
- OOO «TURQUOISE-M»
- JSC «UK IP «Lower boilers»
- LLC «OIC»
- AO «Rusreactor»

Pharmaceuticals, isotopes and radiopharmaceuticals – 11 partner companies

Medical equipment – 1 partner companies

Nuclear medicine centers – 2 partner companies

Multi-purpose irradiation centers – 3 partner companies

In several directions – 3 partner companies

Collaborations

Key markets and products we focus on



**Nuclear Medical
Centers and
Radionuclide
therapy units**

**Industrial
and medical
isotope
production**



**RUSATOM
HEALTHCARE
BUSINESS**

**Diagnostic and
therapeutic
equipment**

**Multi-purpose
irradiation and
sterilization
centers**



Nuclear Medicine



KEY PRODUCTS

Integrated solutions for Therapy & Diagnostics

Integrated solutions for NMCC-centers

TARGET

Over 50,000 patients per year



Isotope production

Isotope production line

2020



2030

Radionuclides: Mo-99, Lu-177 CA/NCA, I-131, Ac-225, Sm-153, Sr-89

Stable isotopes: Yb-176, Lu-176, Mo-100, Mo-98, Tl-203

Generators: Tc-99m, Re-188

Sources: Co-60, Ir-192, Se-75, Cs-137, Am-241

Microsources: I-125, Ru-106

API & Radiopharm: Lu-177 CA/NCA, Ac-225, Ra-223

Stable isotopes: O-18, C-13, B-10

Generators: Ga-68, Rb-82

Microsources: Y-90, Ho-166, Cs-131, Sr-90, Ra-224

KEY PRODUCTS

Radiopharmaceuticals (Lu-177, Ra-223, Ac-225, I-131)

Tc-99m generators

TARGET

World's top 10 producer of radiopharmaceuticals



Equipment

Equipment production line:

Diagnostics

- SPECT
- X-ray equipment
- MRI
- Cyclotrons

Therapy

- Linear accelerator
- Equipment for brachytherapy
- Nitrogen oxide inhalator

KEY PRODUCTS

SPECT

Cyclotrons

Linear accelerators

Brachytherapy equipment

2020

construction of production facilities;
manufacturing of cyclotrons and linacs

2022

launch of 6 MeV linacs and brachytherapy equipment;
localization of equipment for Diagnostics and Therapy

2024

equipment clinical studies;
partnerships with leading European companies

2030

worldwide contracts with CIS, BRICS, SCO



Multifunctional Irradiation Centers – sterilization services

Possible center configuration: Gamma-facility or E-Beam as well as steam and low temperature sterilization



KEY PRODUCTS

- Integrated solution for multifunctional irradiation centers
- Treatment of disposable medical equipment and agricultural goods
- Integrated intrahospital sterilization

TARGET

2nd World's largest service operator



Areas of cooperation

COOPERATION with leading scientific and medical centers in the field of application of innovative radiopharmaceuticals



JOINT PROJECTS to create centers for sterilization of medical devices and food processing



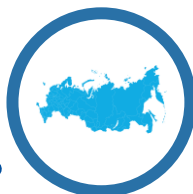
JOINT SITES for API production according to GMP standard



JOINT PROJECTS in the field of telemedicine



LOCALIZATION of innovative medical products and equipment in the Russian Federation



R&D - collaborative research in innovative radiopharmaceuticals (Sofie)

