



ROSATOM

STATE ATOMIC ENERGY CORPORATION "ROSATOM"

Radiopharmaceuticals manufacturing in Russia. Challenges and prospects

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Rosatom isotope complex overview



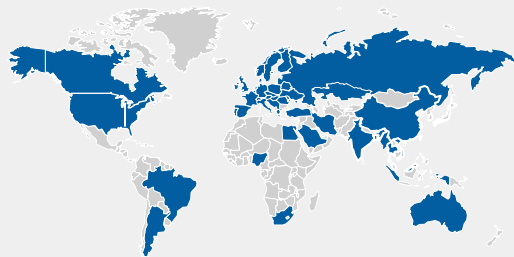
Provision of medical institutions with isotope products all around Russian Federation

Supplies of isotope products, generators, radiopharmaceutical, equipment etc. to more than 200 clinics.

Market share ~ 90%.

International distribution

Supplies of isotope products to major consumers in Europe, North and South America, Australia, South-East Asia and Middle East.



Supplies of isotope products to industrial and science centers in Russian Federation

Providing complex of services regarding supplies of products and equipment, as well as carrying out maintenance work.

Market share ~ 85%.

Logistics and service

Largest and the most equipped truck fleet for dangerous goods class 7 transportation, expert staff, industrial base of JSC Isotope.

Radiological threat reduction

Dismantled more than 500 RTG, transferred for storage more than 7000 sources based on isotopes Co-60 и Cs-137.

Rosatom competence in radiopharmaceuticals (PR) production



Several enterprises capable to produce radioisotope for medical purposes: Mo-99, I-131, I-125, Sm-153, Sr-89, W-188, Lu-177, Ru-106 and others.



Russian market key RP-supplier: Mo-99/Tc-99m gen., W-188/Re-188 gen., I-131, Sm-153, Sr-89 and others.



Short-lived products supplies to more than ~ 200 Russian medical institutions by “Isotope”, JSC. The market share ~ 90%.



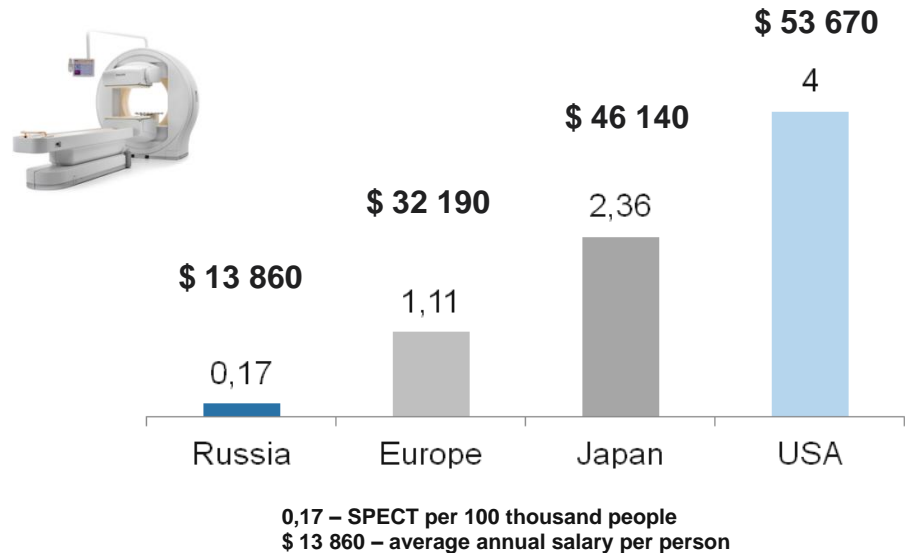
Required experience and competences in sphere of radioisotopes supply to the international market . Cooperation with ~100 customers annually in more than 40 countries around the world.

Russian RP-market challenges

Main challenges:

- Small RP market size.
- The range of pharmaceuticals produced in Russia is much narrower compared to RP used abroad.
- RP production does not meet international quality standards (GMP).

SPECT availability comparison

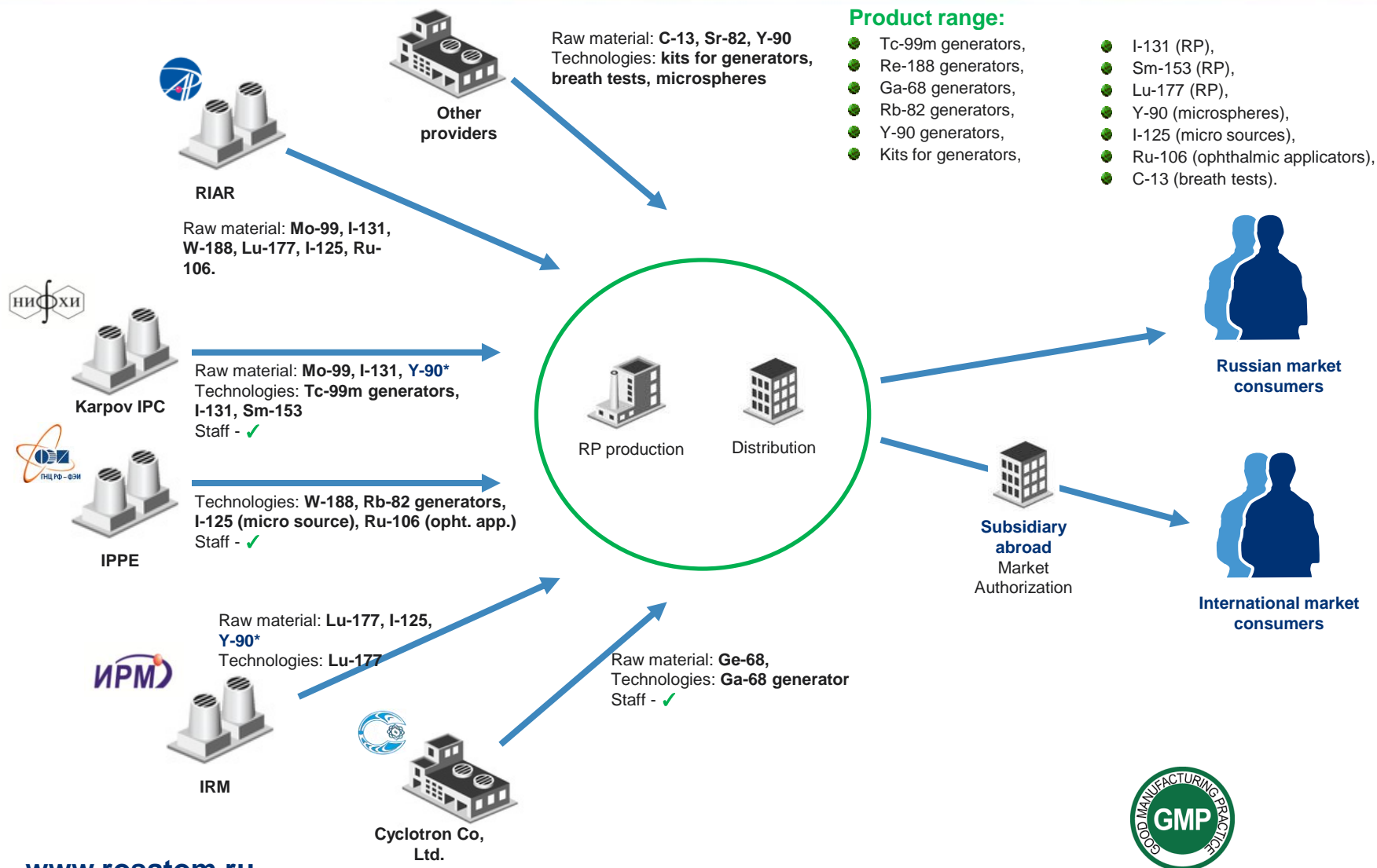


Plans:

Organization of modern production with wide range of RP meet international quality standards (GMP).

- To solve the problem of Russian PR market development it is necessary to organize the production in volume significantly exceeding the Russian market needs.
- To create such an enterprise today, spare capacity should be oriented on production output to foreign markets.
- These measures will ensure the enterprise effectiveness. Quality and price of produced production will always meet international level.

RP production organization



Thank you for your attention!