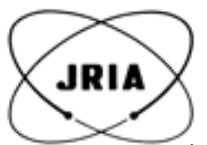


医療用アイソトープ原料の安定供給にかかる 現状と取組むべき対応

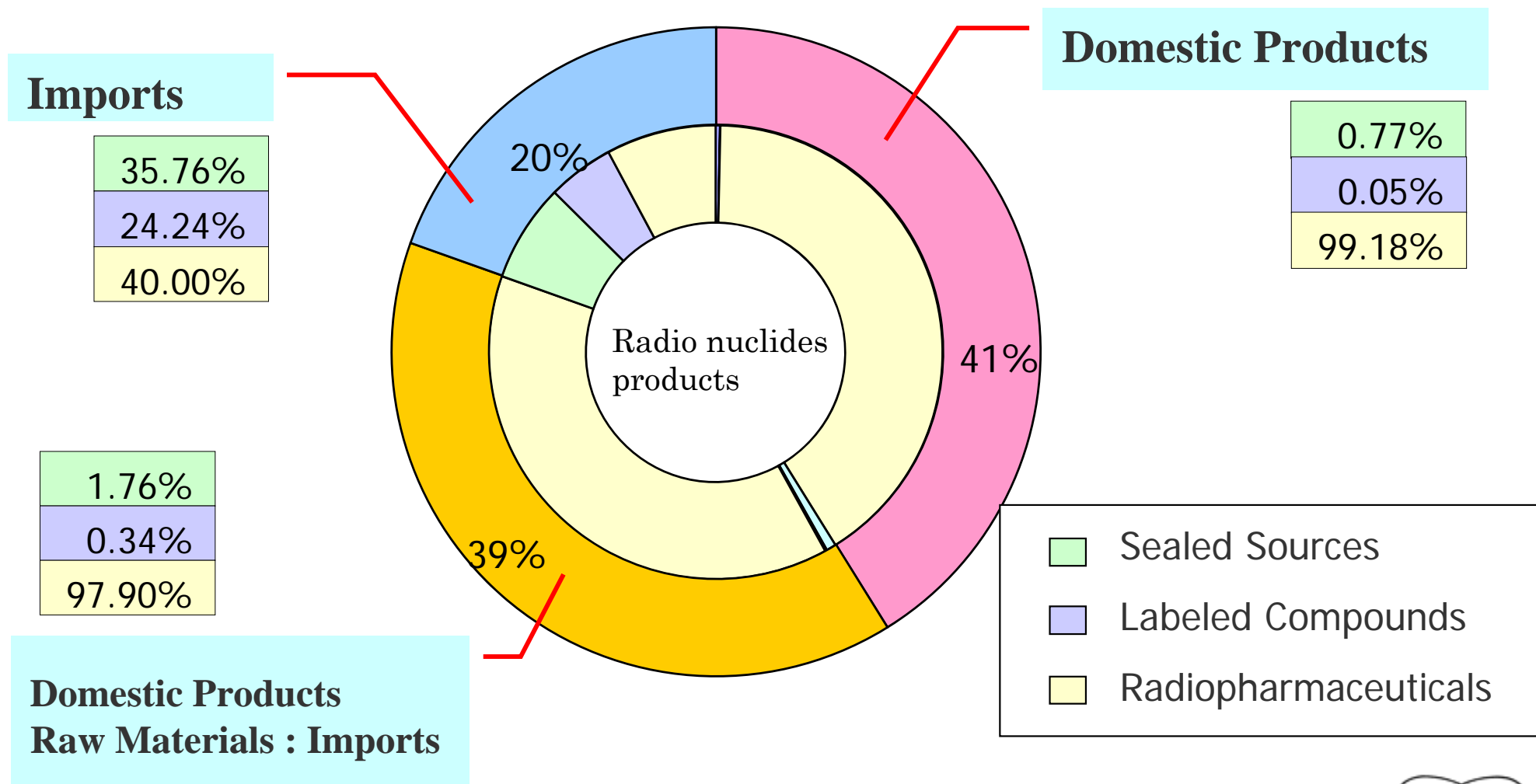
2009年5月19日

社団法人日本アイソトープ協会

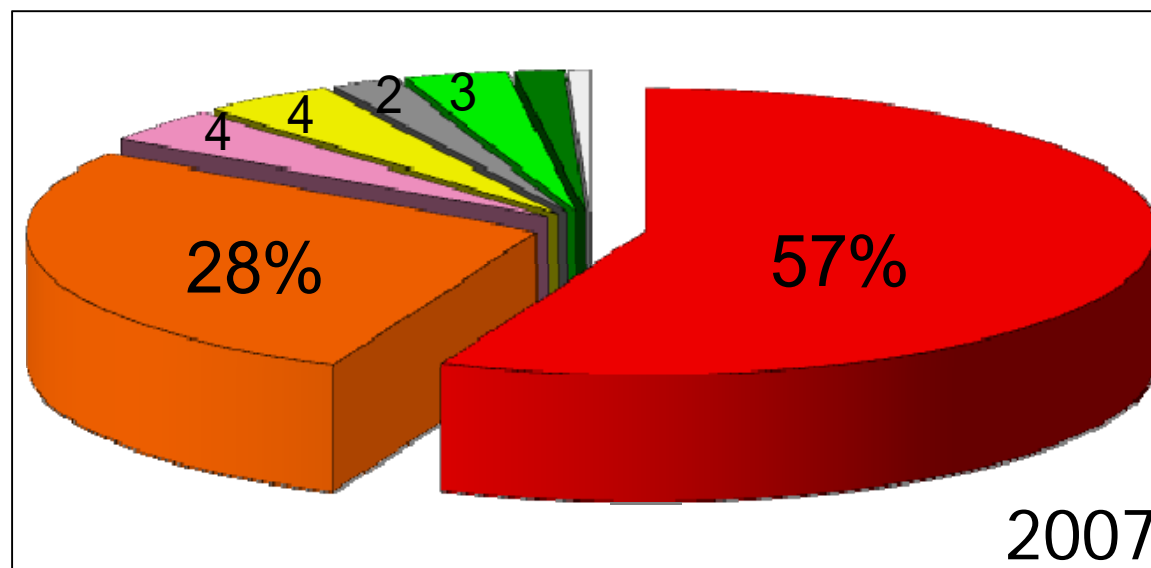
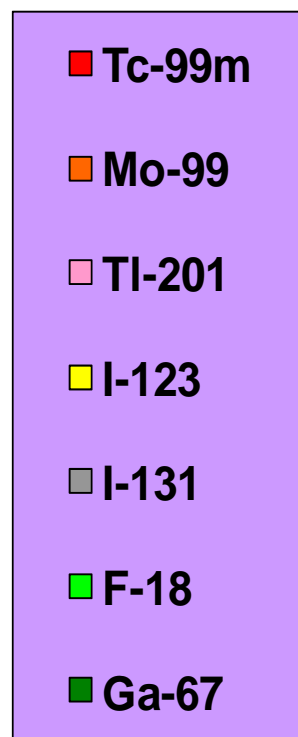
井戸達雄



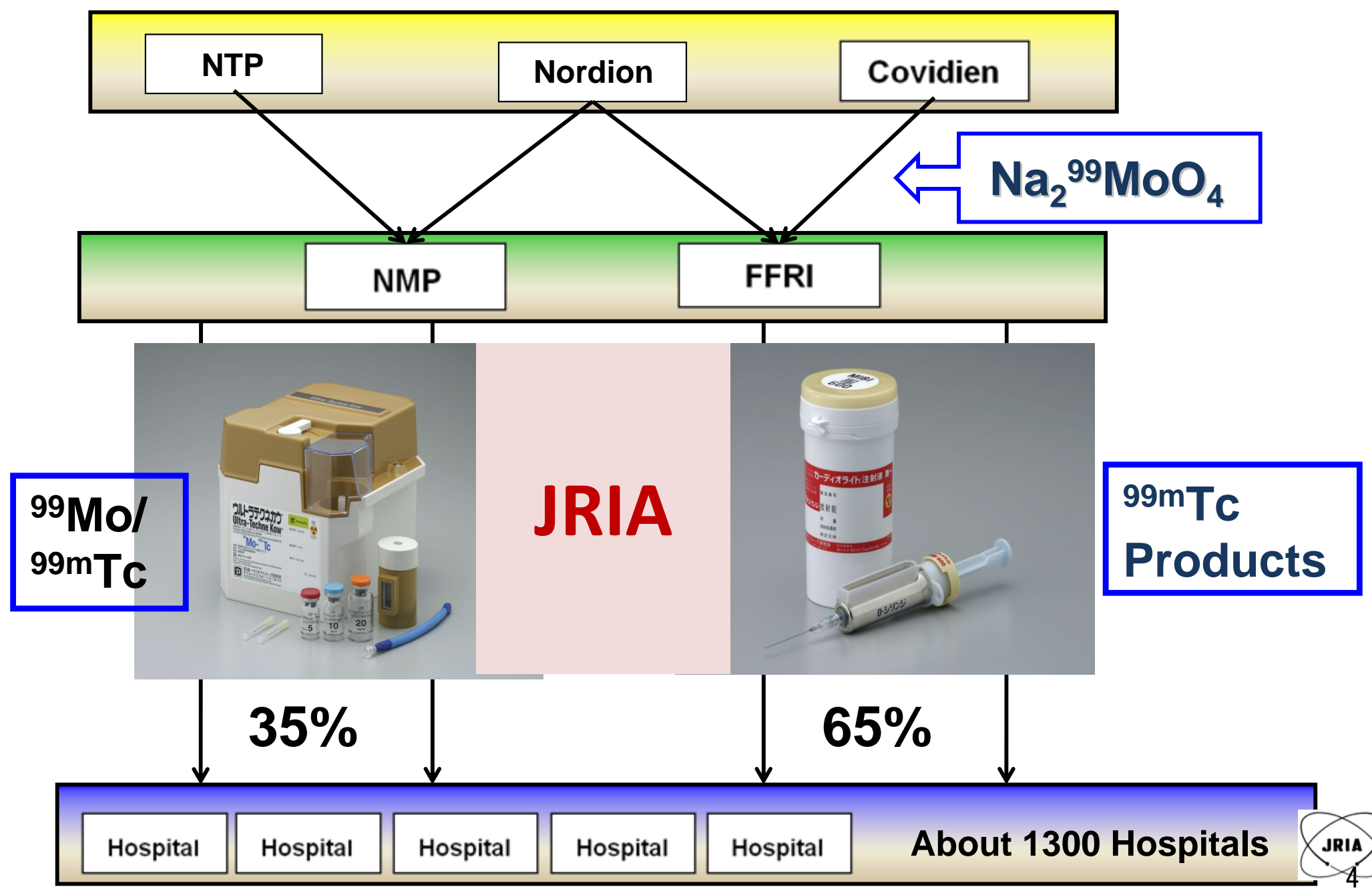
The Ratio of Sales between Imported and Domestic Products - 2007 -



Ratio of radiopharmaceuticals used in Japan



Supply system of $^{99}\text{Mo}/^{99\text{m}}\text{Tc}$ Radiopharmaceuticals in Japan

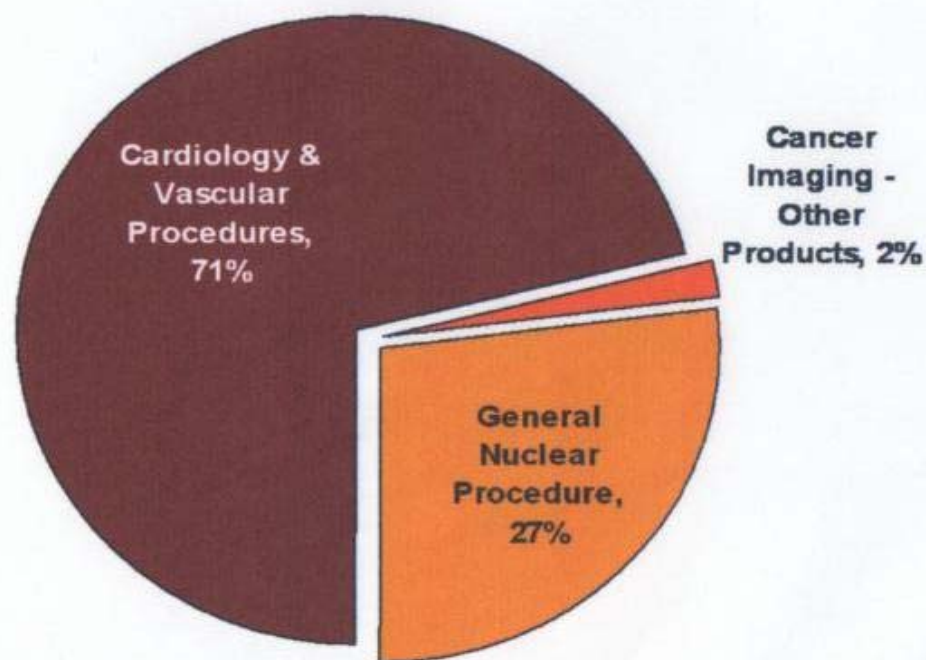


Molybdenum-99 is critical to nuclear medicine globally

Tc-99m (daughter isotope of Mo-99) is used in 80% of nuclear medicine procedures for critical diagnosis procedures in cardiology and oncology

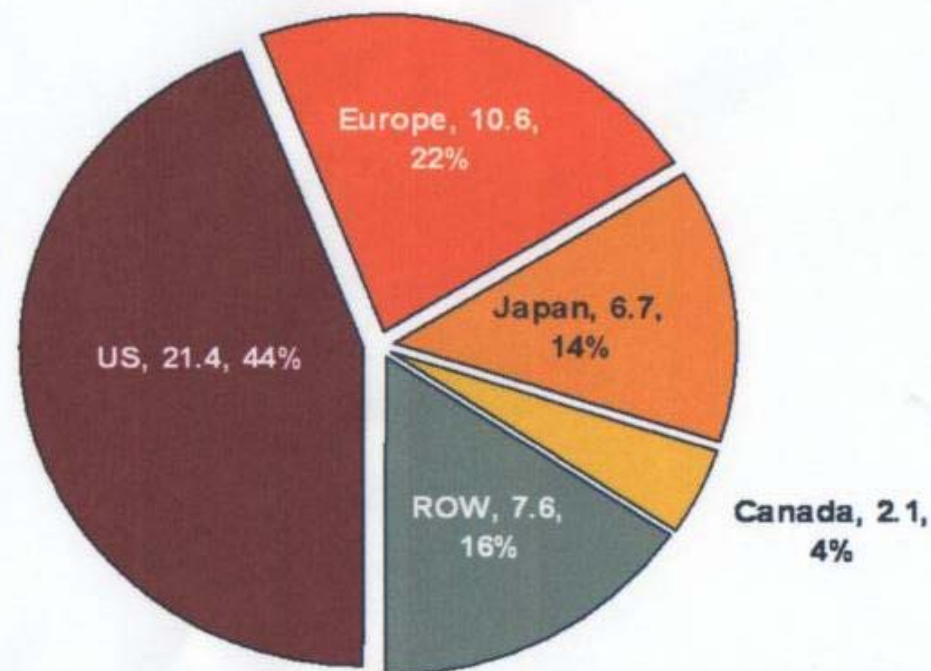
US Tc-99m Sales by Nuclear Procedure Category

(% of US 2007 Sales, Total sales of \$166 M)



Tc-99m Demand

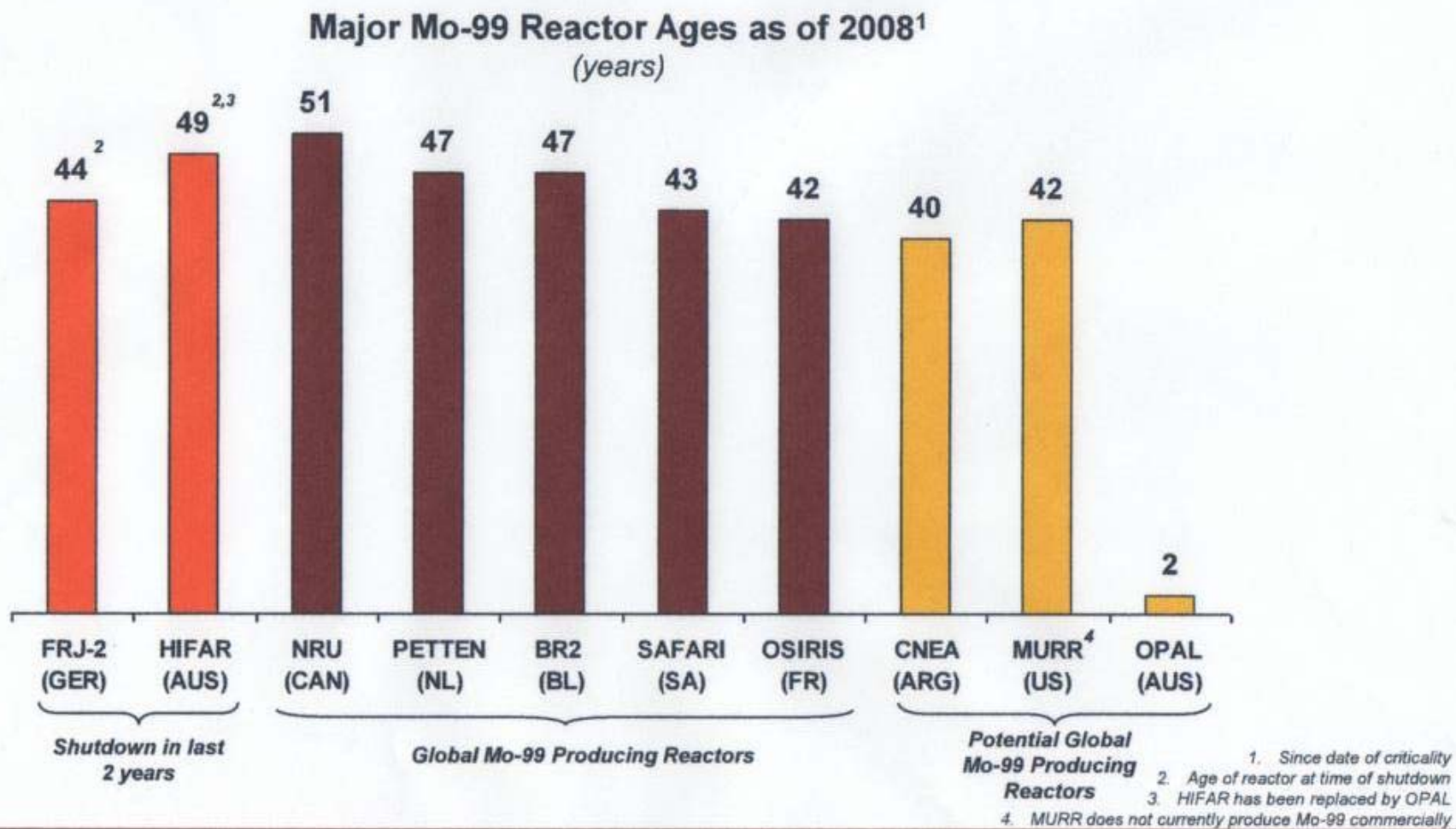
(2007; Millions of doses and % of Global Market)



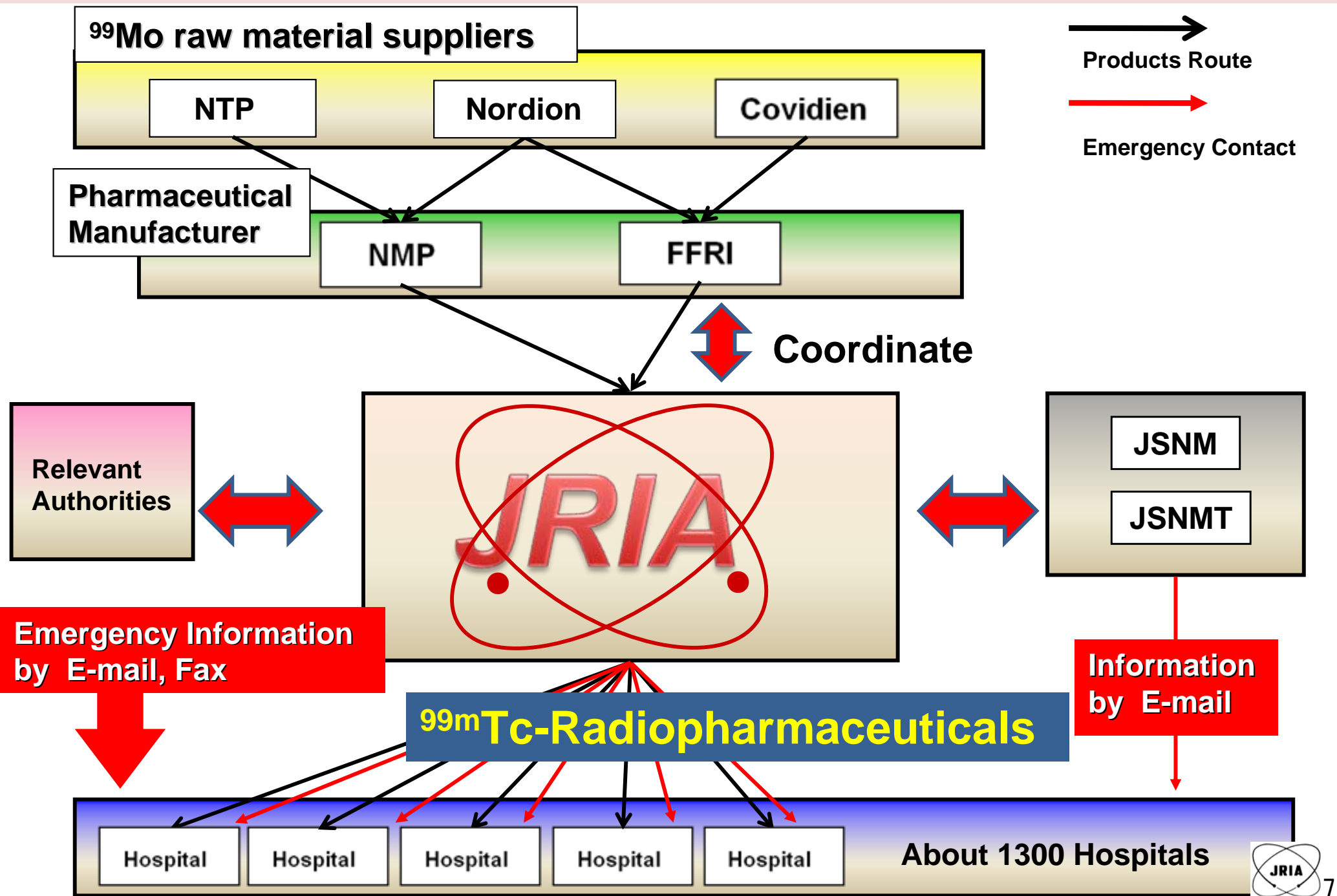
Source: Bio-Tech Systems 2007 Report 270

Existing Mo-99 producing reactors are ageing

There is no clear plan for replacing reactors; significant investment will be required for both maintenance and replacement



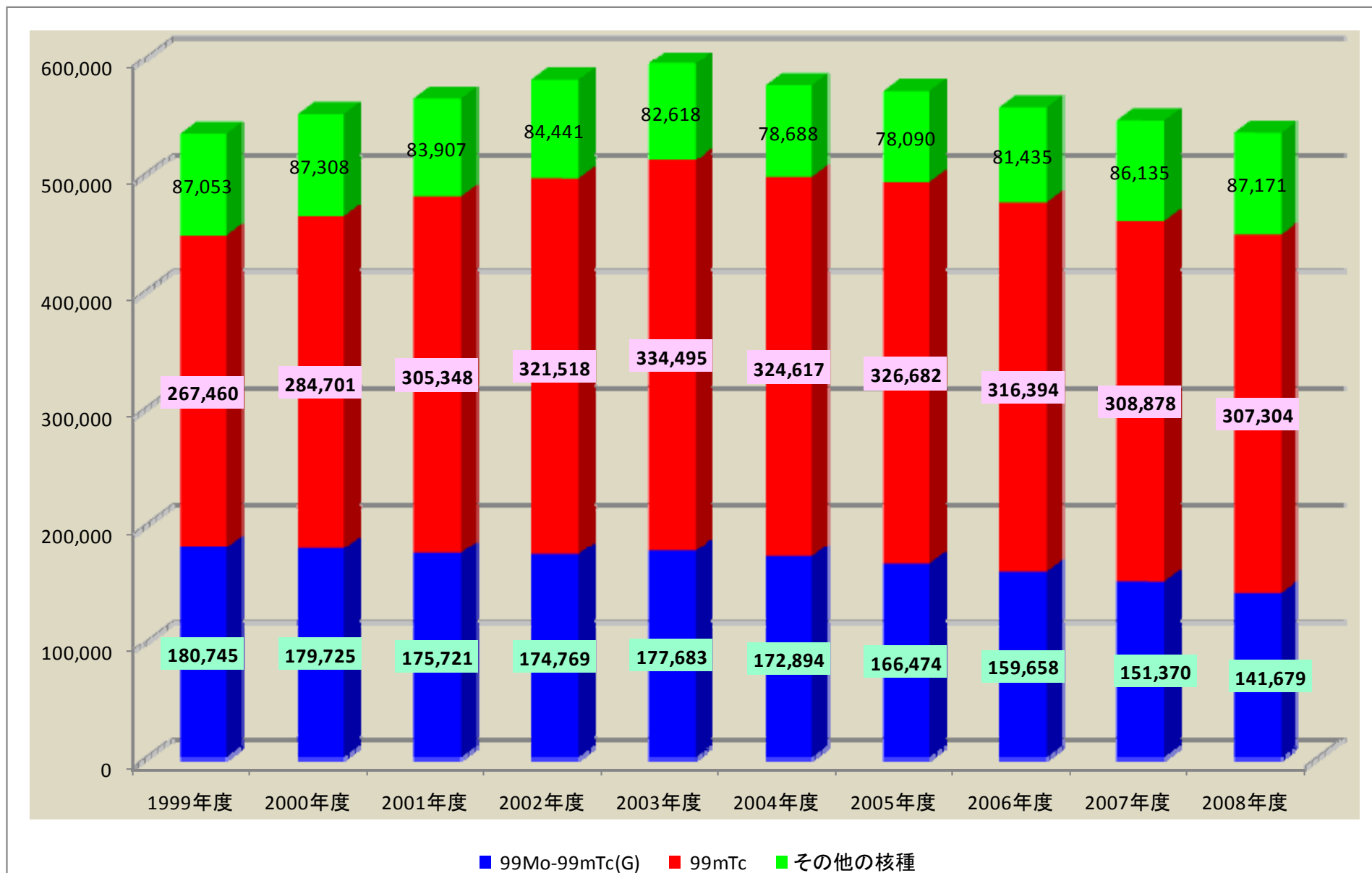
Emergency Supplying ^{99m}Tc radiopharmaceuticals in Japan



インビボ放射性医薬品 核種別頒布推移 (1999-2008年度)



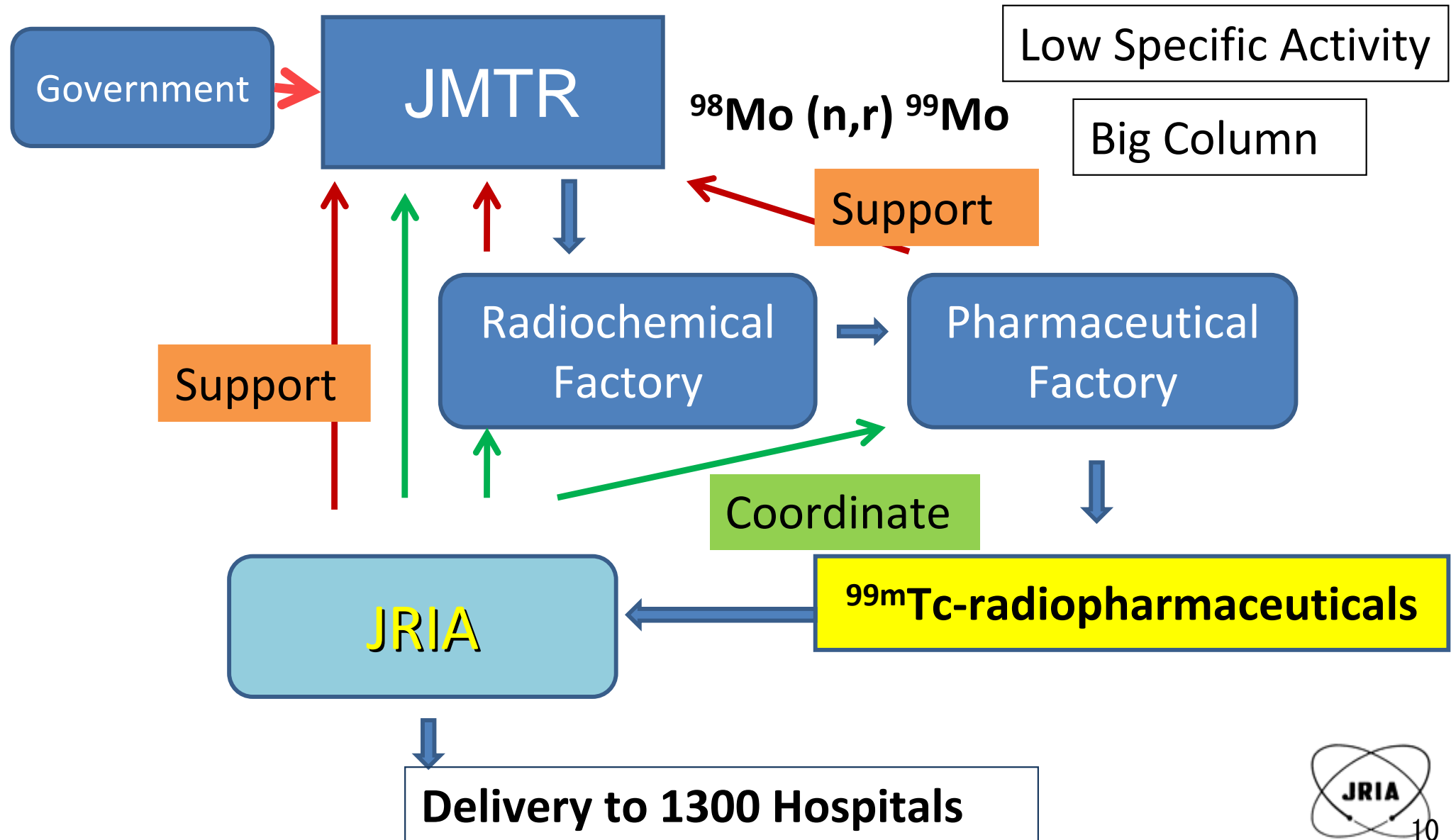
単位: GBq



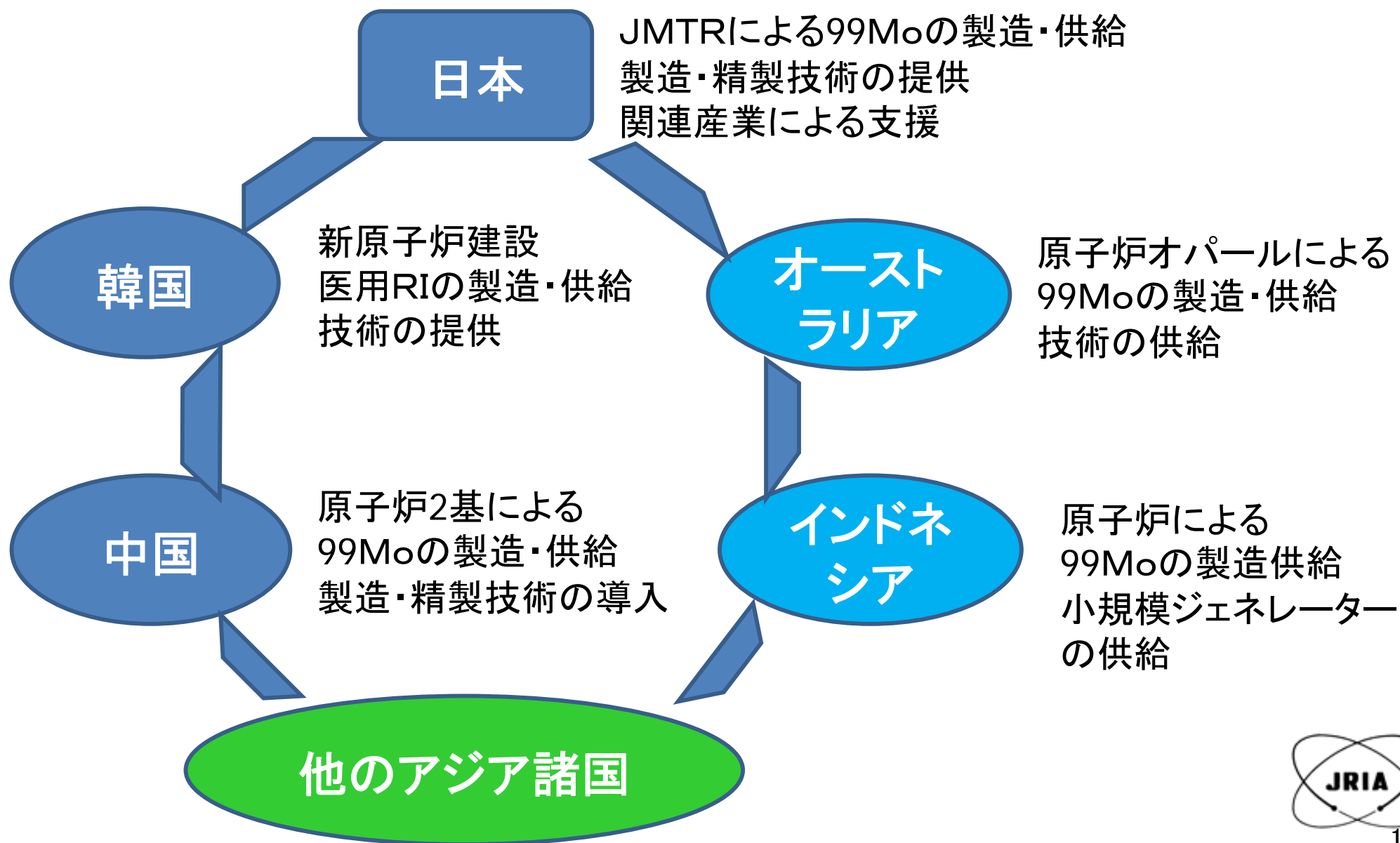
Future plan on Security of Supply of $^{99}\text{Mo}/^{99\text{m}}\text{Tc}$ in Japan

- JMTR has the production plan of ^{99}Mo by (n,r)reaction.
- JMTR will supply up to 20% of Japanese demand (2013).
- Radiopharmaceutical factory will supply $^{99\text{m}}\text{Tc}$ -radiopharmaceuticals by use of these low materials.
- **Asia-Oceania Network**
- **CJK-congress (China Isotope –radiation Association, Japan Radioisotope Association and Korea Radioisotope Association) will have a working group meeting at Tokyo (Oct.2009) to analysis of challenges of stable supply of ^{99}Mo in Asia and exchange the technical information .**

^{99}Mo production by JMTR in Japan



アジア・オセアニア圏におけるネットワークの構築



世界のネットワーク連携

