

Radiation Therapy Projects in IAEA/RCA



- **RCA: Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology**
- Inter-governmental agreement **established in 1972**
- **17 countries in Asia and the Pacific region**
- **Purpose:** to promote regional cooperation in the peaceful utilization of nuclear technology for national development in the region



- **Australia, Bangladesh, China, India**
- **Indonesia, Japan, Korea, Malaysia, Mongolia**
- **Myanmar, New Zealand, Pakistan, Philippines**
- **Singapore, Sri Lanka, Thailand, Vietnam**



RT in IAEA/RCA T.Nakano,

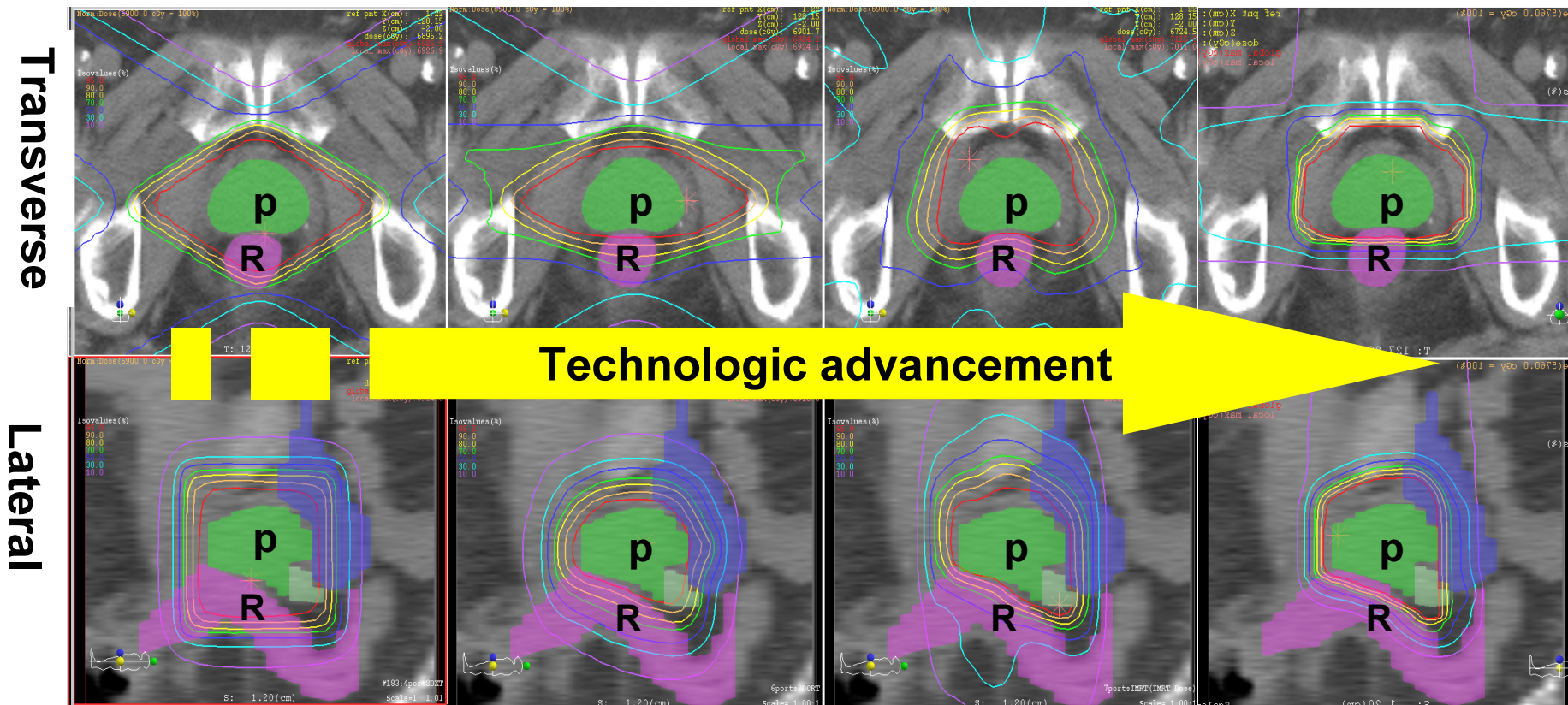
Dose Distributions and Survivals in Prostate Cancer by RT Technology

**2DCRT
(4 ports)**

**3DCRT
(6 ports)**

**IMRT
(7 ports)**

**C-ion Tx
(3 ports)**



**5 y survival
51%**

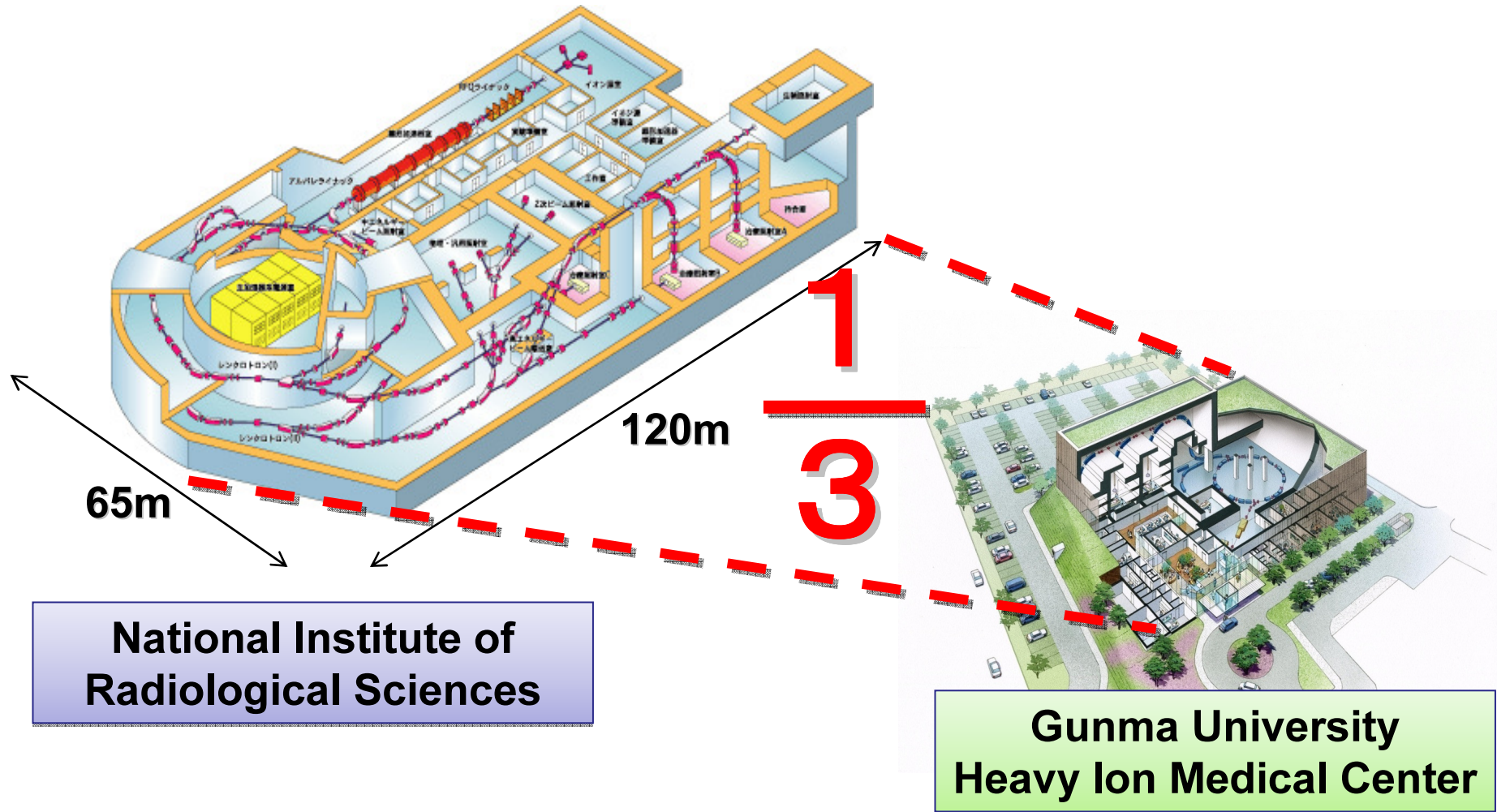
**P:prostate, R:rectum
63%**

72%

87%

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Gunma University: Down-Sizing the Carbon Ion Therapy Facility

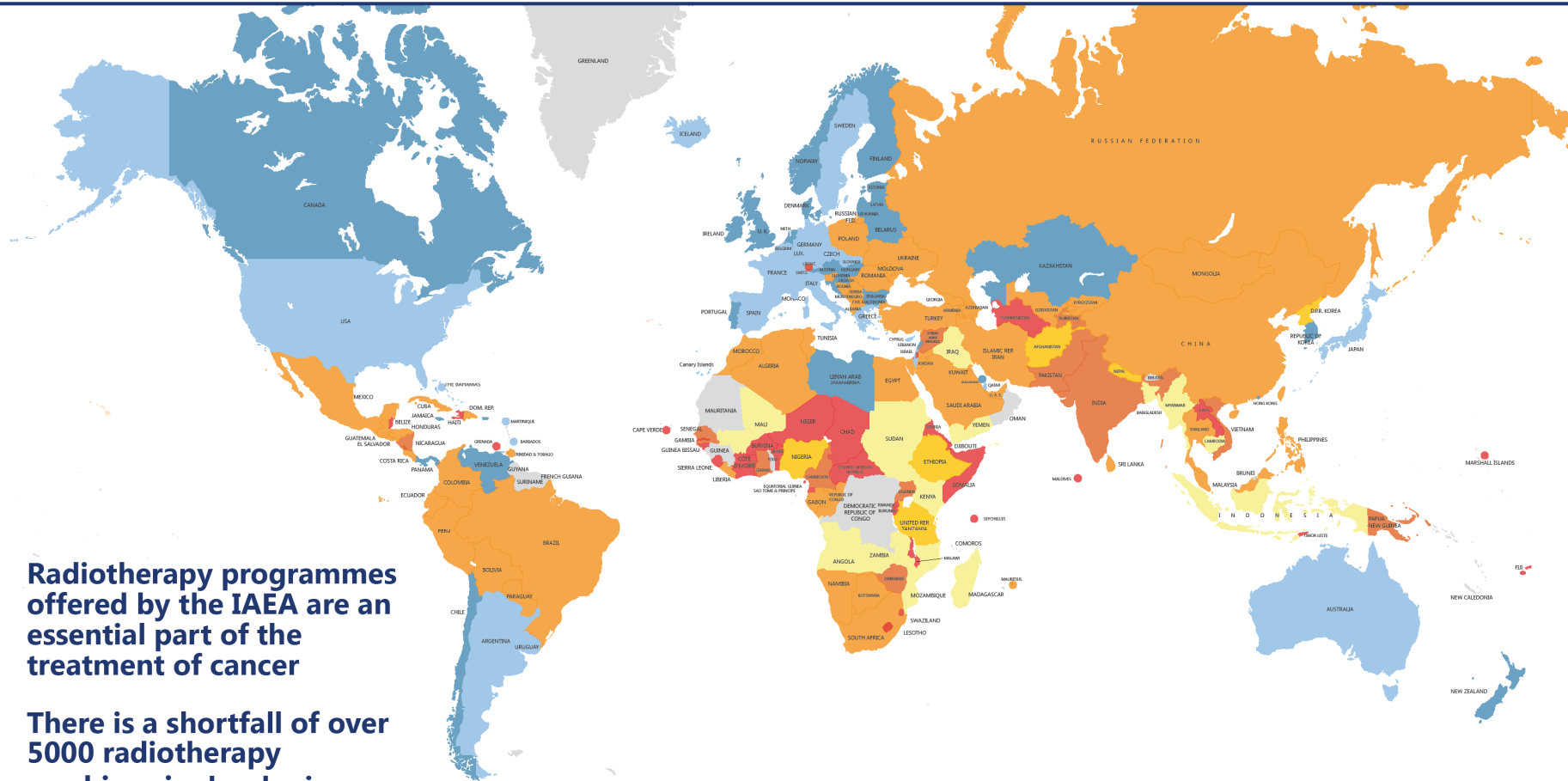




Programme of
Action for
Cancer
Therapy
PACT

The IAEA works to improve outcomes for
cancer patients in developing countries

ACCESS TO RADIOTHERAPY



Radiotherapy programmes offered by the IAEA are an essential part of the treatment of cancer

There is a shortfall of over 5000 radiotherapy machines in developing countries

IAEA's **PACT** builds partnerships to fight the global cancer epidemic

Availability of treatment

Number of people served by a single radiotherapy centre (latest available data 1995–2003)



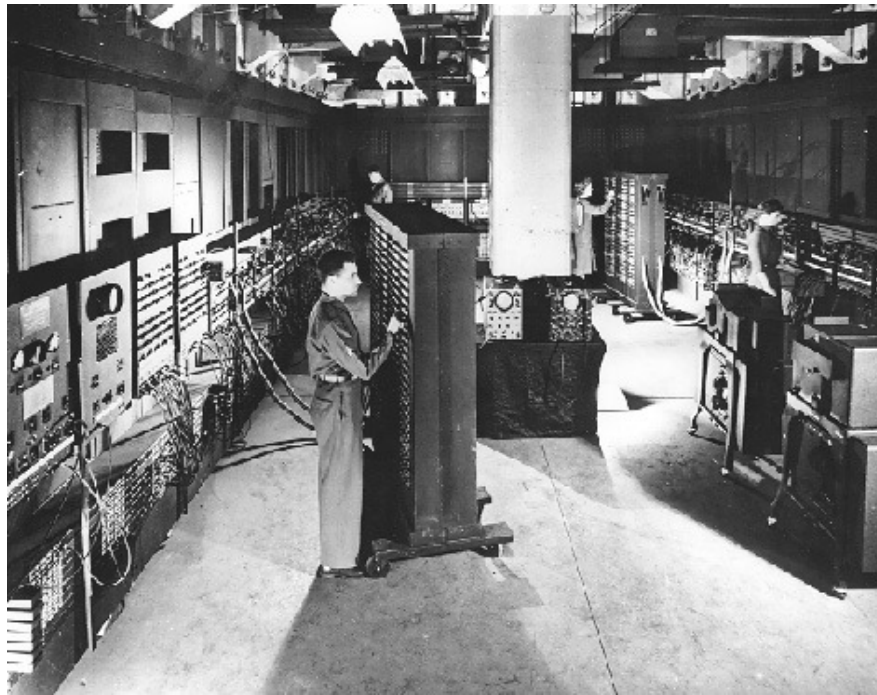
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Recent RCA Projects relating the Issue of Cancer Control in the Region

- **RAS/6/040: Improvement in Quality of Brachytherapy for Frequent Cancers in the Region**
 - 2005-2008, 130 professionals were trained
- **RAS/6/048: Application of 3D Radiotherapy for Predominant Cancers in the RCA region**
 - 2007-2009, 71 professionals were trained more by National Training Courses
- **RAS/6/053: Improving Image Based Radiation Therapy for Common Cancers in the RCA Region**
 - 2010-2014 (**On-going**), Just started
- **RAS/6/042: Tumour Imaging Using Radioisotopes**
 - 2005-2007, 88 professionals trained in the RTCs, and at least 3340 by National Training Courses.
- **RAS/6/038: Strengthening Medical Physics through Education and Training**
 - 2003-2012 (**On-going**), training modules developed

The World's First "Computer" (1946)



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In 2010

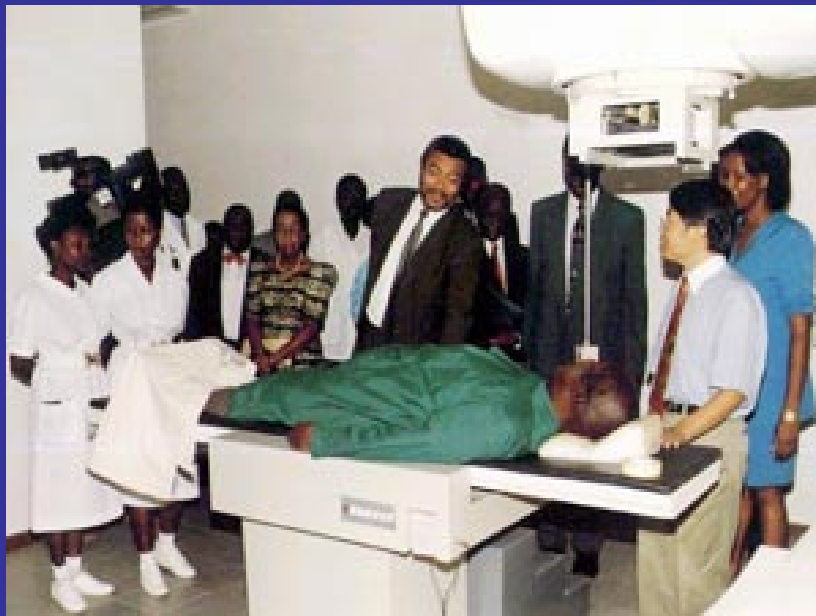


summary

- ✚ The radiotherapy technology will continue to improve.
- ✚ It is important to continue training personnel as well as providing infrastructure for developing countries.
- ✚ The radiation therapy is the most economical and effective solution of cancer problems in developing countries.
- ✚ IAEA/RCA will continue trying its best to contribute significantly for fighting against cancer



Thank you for your attention!



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