JAERI Status and View of J-PARC

1. Unification of JAERI and JNC
2. View from JAERI to J-PARC project
   - Neutron Science
   - ADS

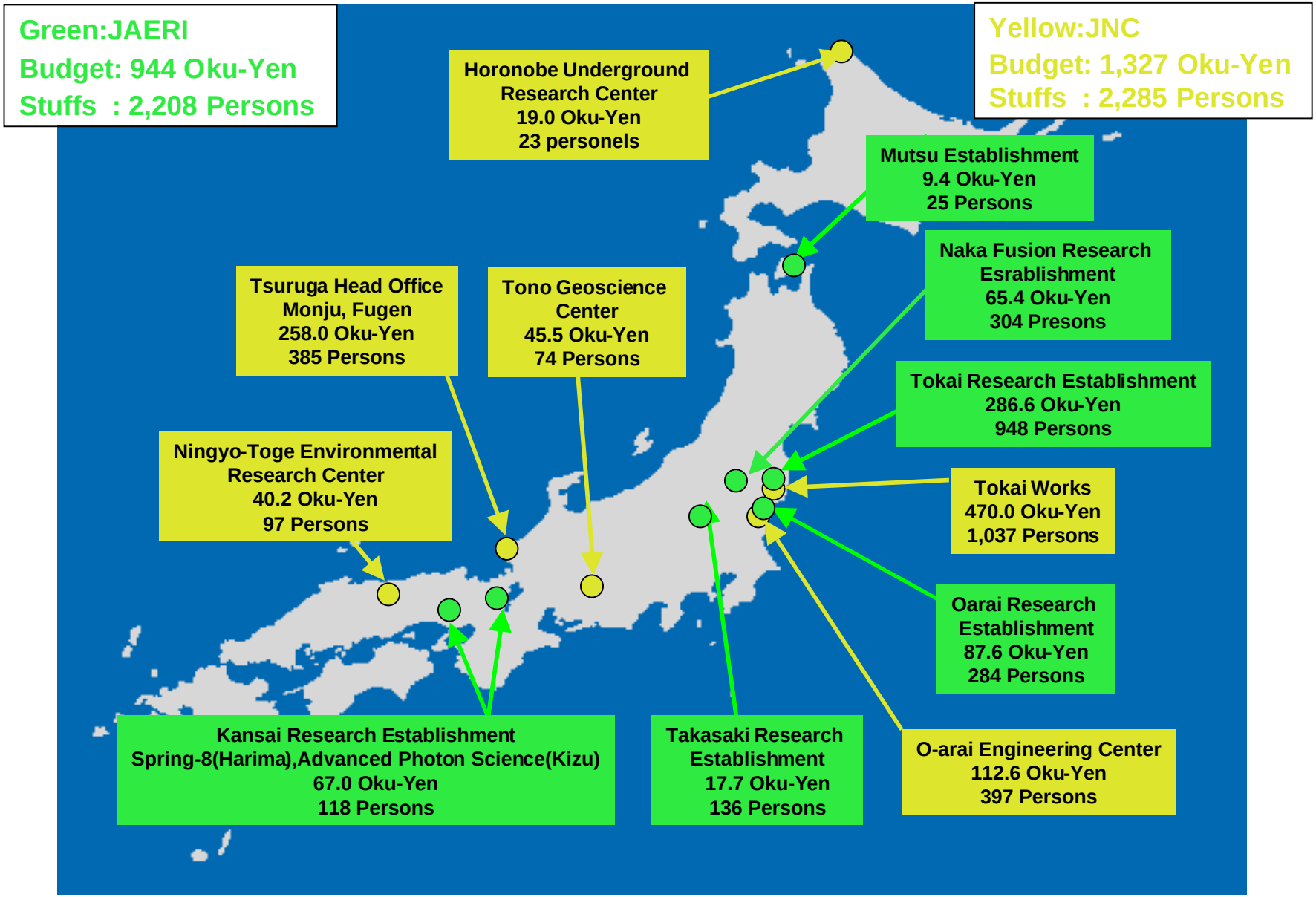
Shun-ichi Tanaka
Executive Director
Director General of Tokai Research Establishment
Japan Atomic Energy Research Institute

Unification of JAERI and JNC

- Schedule -

December 2001	Unification plan of JAERI & JNC were decided to make a research institute of nuclear science according to global reform plan of the government-funded organizations.
February 2002	A council, chaired by deputy minister of MEXT, was was set up for reviewing missions of the new institute.
August 2002	An interim report was prepared by the Council, and more detail review has been continued under the Council.
	(Schedule from now on)
Around June 2003	Final report" will be made.
April 2005 ?	New institute, hopefully name is JAERI, will be established.

Budget and Stuff of JAERI and JNC in JFY2003



Unification of JAERI and JNC

- Expected missions -

(1) To do comprehensively basic research of nuclear and technology.

(2) To establish nuclear fuel cycle.

(3) To do nuclear research and development of nuclear safety, and support nation in nuclear emergency.

(4) To Promote industry-university collaboration and cooperation.

(5) To foster international cooperation in peaceful use of nuclear energy.

(6) To bring up human resources for nuclear application in Japan and Asian countries.

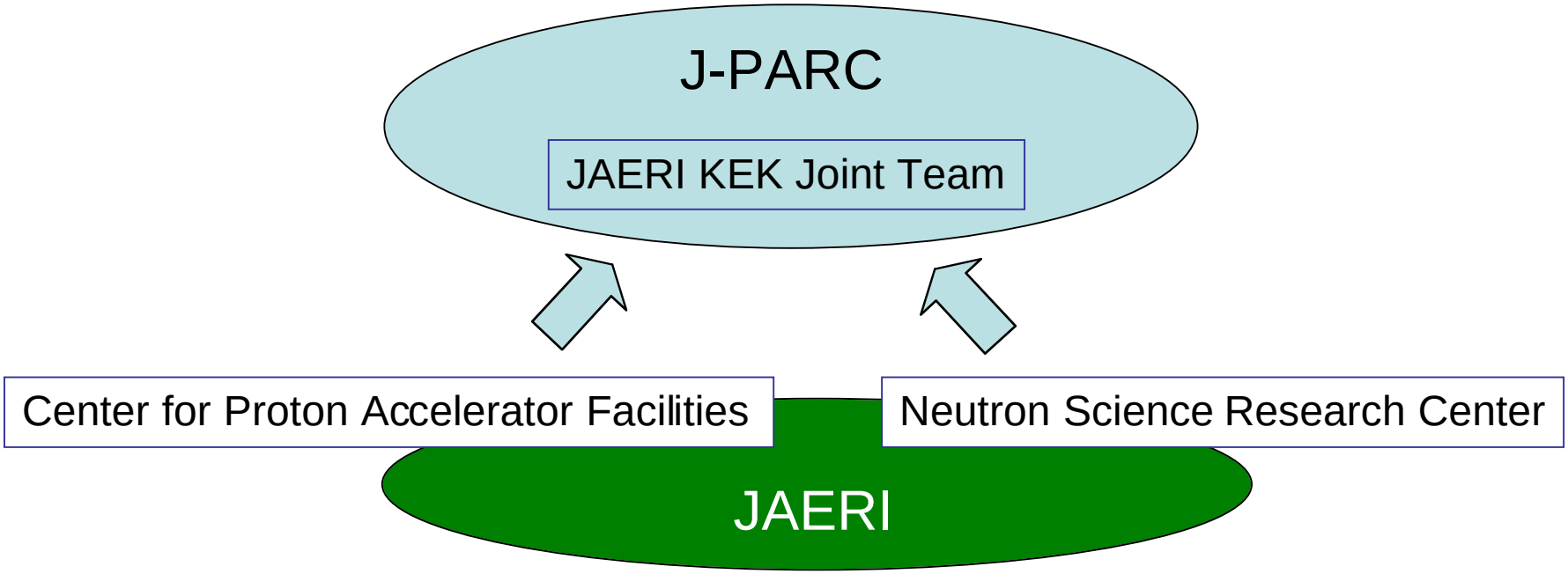
(7) To manage rad-waste from research facilities.

View from JAERI to J-PARC

- Neutron Science -

- To promote construction of neutron instruments.
- and to push on with the basic research of neutron science,

  ⇒ Establishing Neutron Science Research Center in JFY2003



Neutron Science Research Center

Establishment: April 1, 2003

Industrial Applications

Instrumentation R & D

Materials Science
Condensed matter physics
Polymer morphology
Chemical analysis
Material image technology

Life Science
Structural biology
Simulation of dynamics of biological polymer

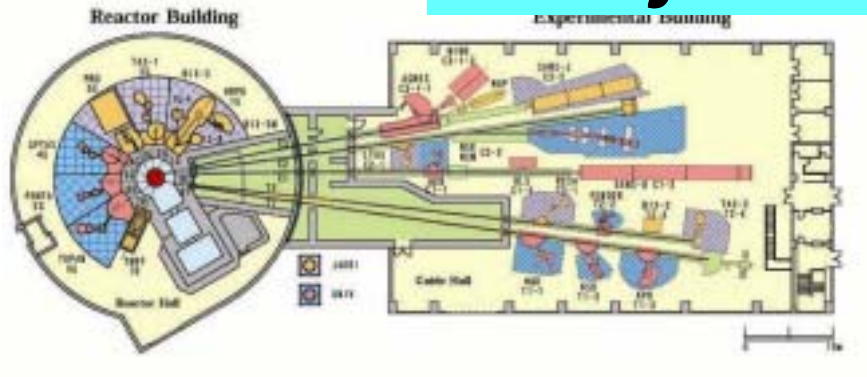
Neutron Scattering
Prompt Gamma-ray Analysis
Radiography

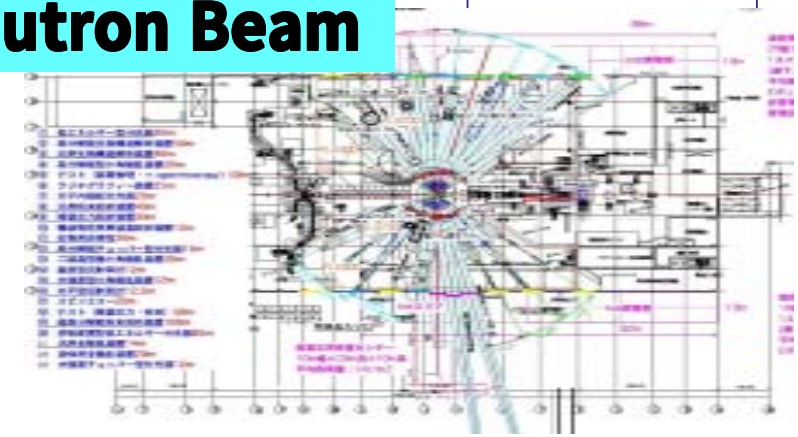
6 groups,
about 40 scientists in total

JRR-3M

J-PARC

Steady and Pulsed Neutron Beam

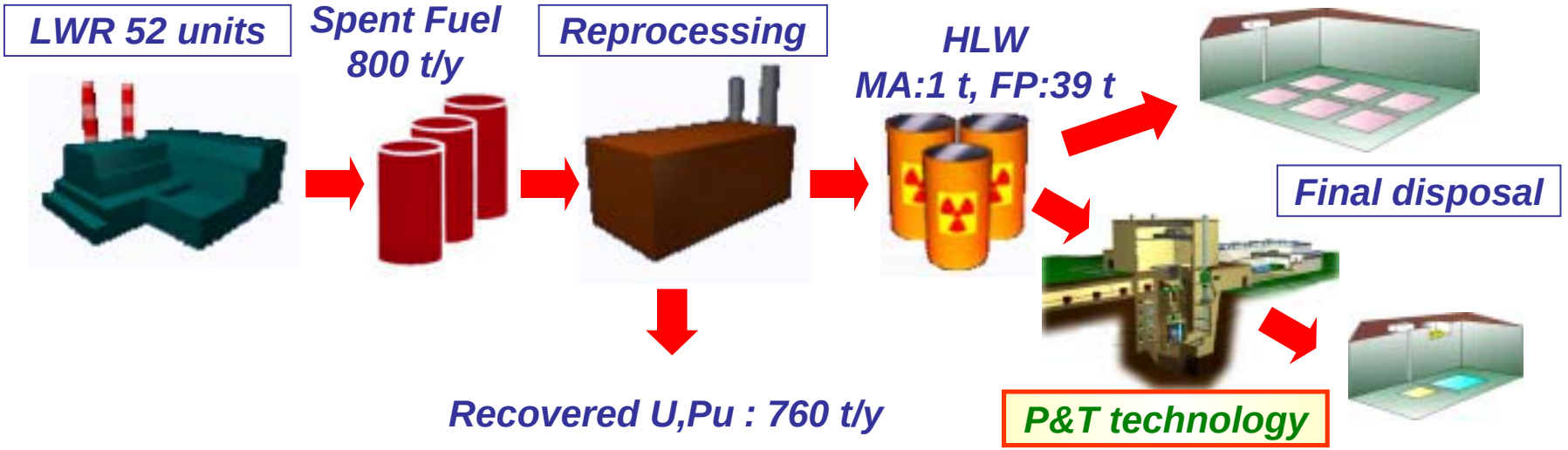




View from JAERI to J-PARC

- Accelerator Driven Transmutation System (ADS) -

- Backend of Nuclear Power Utilization



- ✓ **Rokkasho reprocessing plant will start 2005.**
- ✓ **Nomination of geological disposal site has started since last year.**

Accelerator Driven Transmutation System (ADS)

- continued -

- **Partitioning and Transmutation (P&T)** will be key technology to reduce the environmental burden of High Level Waste (HLW).

- **ADS** will play an important role to reduce the long-term toxicity of HLW by incinerating minor actinides and long-lived FPs.

View of J-PARC

- **The Transmutation Experimental Facility (TEF)** is indispensable step to carry forward the R&D of transmutation technology.

- At least 400MeV proton is essential to the ADS experiment.

JAERI View

- summary -

- To complete accelerator (linac & 3GeV ring) and neutron facilities(MLF).
  - To start preparation of neutron instruments.

2) Next Step

  - To start ADS with full energy of linac.

I hope to hear fruitful advices and suggestions from the committee.