



June 2015

Research funding in Japan - Update

Patterns of research funding to universities and science agencies in Japan continue to change, with increasing concentration in top institutions and priority areas. Science, technology and innovation are key aspects of the government's "Abenomics" agenda to revitalise the economy and respond to demographic challenges.

2014 saw the implementation of three major new research programs in Japan (see previous briefs [here](#)), led by the Cabinet Office [\[link\]](#):

- the "SIP" program for cross-ministerial coordination of research in priority areas
- the "ImPACT" program for high-risk/high-reward R&D in priority areas
- the establishment of a new coordinated national health and medical R&D agency, "A-Med", which began operation on 1 April 2015 (see funding priorities below).

This update provides further information on research funding through other Japanese government programs to specific universities and science agencies, to help guide institutional strategies and decision-making.

In addition, the Japanese government is currently drafting its 5th Basic Science and Technology Plan, which will be finalised by December and guide policy and funding for the period 2016-2020. Current priority areas in the draft for government investment include:

- space science
- artificial intelligence
- robotics
- information security
- marine resource development
- biotechnology
- natural disasters
- high-performance computing.

For more information contact Paul Harris, Counsellor (Education and Science) at the Australian Embassy in Tokyo. Other policy updates and contact details are available [here](#).

1. World Premier International Research Centre (WPI) Initiative [\[link\]](#)

Nine centres funded by the Japanese government to build “globally visible” research centres of the highest quality. Annual budget up to \$14 million per centre.

- Kyoto University: cell-material sciences
- Kyushu University: carbon-neutral energy research
- Nagoya University: transformative bio-molecules
- National Institute of Materials Science: materials nanoarchitectonics
- Osaka University: immunology
- Tohoku University: materials research
- Tokyo Institute of Technology: earth-life sciences
- Tokyo University: physics and mathematics of the universe
- Tsukuba: integrative sleep medicine.

2. Centres of Innovation (Col) initiative [\[link\]](#)

12 Centres funded in 2013 to strengthen research-industry collaboration in priority areas (see Appendix 2). The Japan Agency for Science and Technology (JST) manages the program, with priority areas decided through a “back-casting” process designed to highlight key societal challenges for Japan’s future. The three priority “visions” are:

- Smart life care, ageless society
- Smart Japan
- Active sustainability.

In 2015, six new centres have been funded:

- Hokkaido University: food and health
- Keio University: digital fabrication
- Ritsumeikan University: health innovation/exercise
- Tokyo Institute of Technology: intelligent communications
- Tokyo University of the Arts: “synesensory” – art and science and technology
- Yamagata University: organic system innovation/additive manufacturing.

3. Research funding for regenerative medicine

In addition to the establishment of A-Med, the Japanese government has also targeted funding for regenerative medicine research in the following universities and agencies:

- Keio University: spinal injuries
- Kyoto University: Parkinson’s disease and iPS cell research
- Osaka University: heart disease
- RIKEN: retinal disorders.

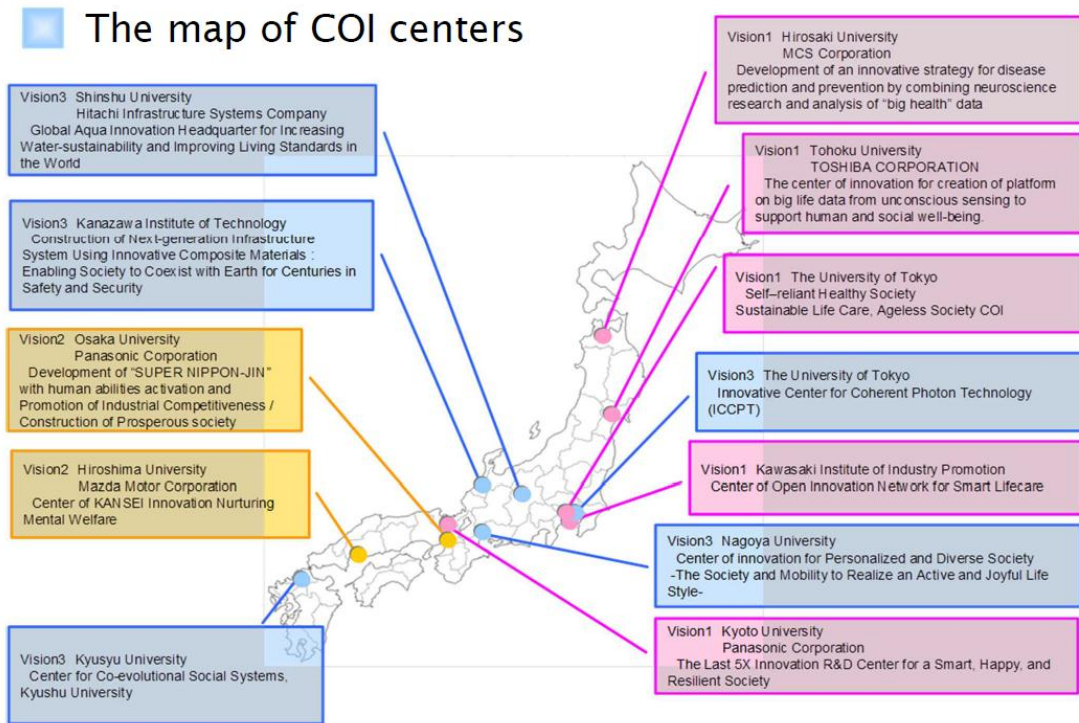
Other examples and emerging trends:

- Industry investment in Japanese universities rising – the most recent MEXT survey of industry partnerships with Japanese universities (2013) showed an increase to record levels (up 6.7 billion yen)
- Hitachi has announced (May 2015) that it will increase research funding by 30%, spending 500 billion yen annually from 2015 to 2018, with a focus on sensors, robotics and artificial intelligence
- Focus on international strategies and collaboration – the 5th Basic Plan for Science and Technology will emphasise the importance of increasing international collaboration. RIKEN, for example, has announced that it will boost collaboration as one of its four priorities under new President Hiroshi Matsumoto
- The Japanese government is easing regulation governing the importation of cells for research in regenerative medicine and drug development
- Focus on research integrity – universities and science agencies are instituting new training programs and management systems to strengthen research integrity
- Toyota announced in early 2015 that it will give away its IP in hydrogen fuel cells to stimulate the further development of the market internationally.

Appendix 1: A-Med funding priorities for 2015

① Drug Discovery	21.1 B Yen
② Medical Devices	14.5 B Yen
③ For Clinical Research and Clinical Trial	10.6 B Yen
④ Regenerative Medicine	14.3 B Yen
⑤ Genomic Medicine	5.9 B Yen
⑥ Cancer	16.2 B Yen
⑦ Psychiatric and Neurological Disorders	6.8 B Yen
⑧ Emerging and Re-emerging Infectious Diseases	4.1 B Yen
⑨ Intractable Diseases	9.6 B Yen

Appendix 2: The 12 original COI centres (funded in 2013)



Appendix 3: Japanese government funding for Regional Innovation Strategy Support (aligned with Special Economic Zones)

