Innovation System through Industry-University Collaboration in Japan

- 1st S&T Basic Plan (1996) mentioned the importance of systematic industry-university collaboration.
  → From “researcher-company” collaboration to “university-company” collaboration

- TLO (1998) and Japanese “Bayh-Dole act” (1999) was introduced.

- The reform of national university system was conducted in 2004.

- “Contribution to society” became one of the missions of national universities in the Fundamental Law of Education in 2006.

- Japanese universities established their industry-university collaboration system.
  - Over 200 universities have their own offices for industry-university collaboration.
  - 42 TLOs are working with universities.
  - 67 universities have been supported by MEXT programs for their activities on industry-university collaboration.
Amount of funds received from the private sector totally increases over 5 years from ¥50,123M (FY2005) to ¥57,988M (FY2010).

However, licensing income stays almost same.

<Amount of funds received by Universities from the private sector>

(Million Yen)

[Survey by MEXT]
Why is Industry-University Collaboration Important?

- To create innovation and to make the Japanese economy more competitive
- To transfer the outcome of university research to society
- To develop new and/or interdisciplinary research areas
- To develop human resources for the economy and society
- etc.
Mext Programs for Industry-University Collaboration

- **Regional Innovation Strategy Support Program**
  Effectively support a high-quality locally led scheme to encourage regional innovation.

- **Creating an environment conducive to beefing up support for commercialization**
  Set up a system to encourage innovation by creating a team at universities and similar institutions to work on commercialization beginning at the invention phase and by promoting unified R&D and business development.

- **Support for collaborative research (ideas-push)**
  - **A-STEP** Adaptable and Seamless Technology Transfer Program through Target-Driven R&D

- **Support for top-down collaborative projects**
  1. Large-scale and long-term R&D projects with consortiums
  2. Development of systems and technology for advanced measurement and analysis
  3. Cooperative basic research projects to solve problems in industry
Industry-University-Government Collaboration Strategy for Innovation (1)

- Target: To establish an Innovation Ecosystem
  
  * Innovation Ecosystem:
    
    A sustainable system where the private sector, universities/research institutes and (national and local) government collaborate and compete with each other to produce innovation.

- MEXT advisory committee on industry-university-government collaboration issued a report on measures to establish an Innovation Ecosystem in Japan on Sept. 7, 2010.
Industry-University-Government Collaboration Strategy for Innovation (2)

3 sub-targets;

1. To create a knowledge circulation system through industry-university-government collaboration

2. To strengthen capacity of universities to collaborate with the private sector

3. To develop human resources for industry-university-government collaboration
Industry-University-Government Cooperation Strategy for Innovation (3)

1. To create a knowledge circulation system through industry-university-government cooperation

(1) Platform for knowledge creation
   - Universities and the private sector collaborate from the basic research stage.
   - Promote “Open Innovation”.

(2) Collaborative support for start-ups
   - JST (Japan Science and Technology Agency) and INCJ (Innovation Network Corporation of Japan) provide collaborative support for start-ups in the early stages of R&D.
Industry-University-Government Collaboration Strategy for Innovation (4)

2. To strengthen capacity of universities to collaborate with the private sector

(1) Network
- Universities strengthen networks with other universities, research institutes, banks, and local governments in the same region or research area.

(2) More practical joint research
- Universities and the private sector should improve their joint research methods (a clear shared image of the goal of the research; more flexible contracts; more flexible overheads, etc.).

(3) Promotion of university patents
- JST will support the bundling of unused university patents.
Industry-University-Government Collaboration Strategy for Innovation (5)

3. To develop human resources for industry-university-government collaboration

(1) Educational programs for human resources for commercial sector and technology transfer
   - Universities, the private sector and government should collaborate to develop useful educational programs to foster human resources for the commercial sector and technology transfer.

(2) University research administrator
   - MEXT should support the training of university administrators and the establishment of research administration systems in universities which cover research strategy, research management, outreach activities, technology transfer, etc.