Promotion of Industry-University-Government Cooperation at Tohoku University.

Shimoyama Tadao,
Director, Research Promotion Division
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Organization of Research Promotion

President

Executive Director for Research

Research Promotion Council

Promotion of Basic Research

Office for Strategic Promotion of Basic Research

Planning Committee of Research Strategy

Promotion of IUGC*

Office of Research Promotion & Intellectual Property

Research Cooperation Division

*IUGC: Industry-University-Government Cooperation
Mission of respective offices

Funds

- Big Project of Strategic Research Funds
- Special Coordination Funds
- Grant-in-Aid for Scientific Research
- NEDO Projects
- Joint Research with Industries
- IP License Fee

Office for Strategic Promotion of Basic Research
2005/4

Collaboration

Office of Research Promotion & Intellectual Property
2003/8
Tohoku University
Office of Research Promotion and Intellectual Property

NICHe Liaison Office
- Trial of IUGC
- Planning and Promoting large-sized IUGC project

Office of Research Promotion and Intellectual Property

Research Promotion Department

Coordination–Planning Division

Industry-University Cooperation Division

Intellectual Property Department

IP Management Division

IP Utilization Division

TOHOKU TECHNO- ARCH CO., LTD (TLO)

Promoting practical use of IPR

* IUGC : Industry-University-Government Cooperation

Tohoku University, Sendai, Japan
Goals of promotion framework for IUGC* at Tohoku University

- Enhancement of international competitiveness of Japanese industry.
- 1) Contribution to development of Japanese economy and society
   2) Contribution to advancement of local Industry
- Establishment of IUGC* comparable to that of major oversea Universities

- Shift from “Passive” approach to “Active” approach / Active acquisition of private research fund (Proposal of University planning and new cooperation model)
- Shift from dependence on “individual response” to dependence on “strategic/organizational response” (institutional responsibility)
- Exercise of strengths of University (combination of on-campus resources)

*IUGC: Industry-University-Government Cooperation
Intellectual Creation Cycle at Tohoku Univ.

Pursuit of total optimization

- Invention
- Research Activity
- Improvement of research environment
- Public research fund
- Private research fund
- Joint research and commissioned research

- Registering of invention
- Liaison activity
- Practical use of IPR
- Trust/Evaluation improvement
- Research fund increase
- Reception of consideration

- Company’s profit acquisition from utilizing research results and technology transfer

Promotion model for Industrial-University-Government Cooperation:
By Practical use of research results / Maintenance of research environment
Enhancement of promotive and supportive structure of IUGC*

- **One-stop service for IUGC* activities**
  Research promotion division takes over part of NICHe liaison activities, such as technology consultation service and regional partnership service, and unify several on-campus contact services regarding IUGC in order for one-stop service to appropriately correspond to internal/external needs.

- **Establishment and offering of a wide range of IUGC* Model satisfactory to company needs**
  Joint research with company falls into three categories: i) company-designating-university-faculty contract; ii) Research cooperation agreement; iii) University [company]-proposing research consortium.

- **Enhancement of R&D Management**
  IUGC coordinator makes proper research development managements: i) organization of optimized research project; ii) establishment of research development plan (including milestone); iii) establishment of research development funding plan; iv) assistance to research development evaluation.

- **Enhancement of Incubation Facility**
  From the aspect of enhancement of practical application research and setting-up of ventures through IUGC activities, Tohoku University (plan to) operates following two incubation facilities, Hatchery Square, and University-cooperating Incubator(2006).

*IUGC: Industry-University-Government Cooperation*
IUGC* Model

① Company-designating-university-faculty contract

Company → University → Contact between university faculty and company → Research theme → Research contract

② Research cooperation agreement

Company → University → Research cooperation agreement → Research theme → Research contracts for respective themes

③ University-proposing research consortium

Company → Company → Company → University → Formation of consortium → Research theme based on fundamental research results → Basic research contract for shared interests

Applied research contract for company’s needs

*IUGC: Industry-University-Government Cooperation
Tohoku University, Sendai, Japan

IUGC* R&D Management

Picking up university seeds
- University-orienting plan

Investigation on company needs
- Company-orienting plan

Matching
- Comprehensive agreement
- Consortium joint research

Innovation
- Basic research

Confidentiality (NDA)

R&D management
- Formation of Optimized project
- R&D plan (including Milestone)
- R&D fund
- Evaluation of R & D

Utilization and management of IPR

Incubation

Productization / university venture

Technology risk

Venture capital

* IUGC: Industry-University-Government Cooperation
University operating revenue FY2004

- Operating grant: ¥22.4 billion, €1.7 billion
- Equipment servicing grant: ¥4.3 billion
- Tuition income: ¥21.7 billion, €2.6 billion
- Hospital income: ¥9.3 billion
- Miscellaneous income: ¥3.5 billion
- External research grant and fund: ¥2.6 billion, €837 million
- Long-term debt: ¥54.3 billion, €4.3 billion

External research grant and fund (FY2004: billion)

- Grant-in-aid for scientific research: ¥22.4 billion, €1.7 billion
- External fund from company: ¥8.4 billion, €837 million
- Other competitive fund: ¥2.6 billion, €2.6 billion
- Long-term debt: ¥117.2 billion, €837 million
Income by promoting IUGC* (FY2001-2004)

- Contract Research
- Joint Research
- Donation

<table>
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<tr>
<th>Year</th>
<th>Contract Research</th>
<th>Joint Research</th>
<th>Donation</th>
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<tr>
<td>FY2001</td>
<td>2,386</td>
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<td>2,517</td>
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<td>FY2002</td>
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<td>889</td>
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<td>FY2003</td>
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<td>FY2004</td>
<td>3,592</td>
<td>1,675</td>
<td>6,149</td>
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*Income figures in million yen.
IPR Policy and Rules

**Employment Regulations**: Employee’s invention should be assigned to the University.

**IPR Policy**:
1. IPR Committee decides employee’s invention and assignment to University.
2. Inventors and the University enter into an assignment agreement of the invention.
3. The University seeks income from IPR and returns it to the inventor.
Categories of invention

- Electronics, information, communication (154) 32%
- Machine control, measurement (49) 10%
- Environment, energy (39) 8%
- Material (101) 21%
- Medicine, healthcare, welfare equipment (82) 17%
- Chemistry, agriculture, food (48) 10%
- Other (10) 2%

Number of Invention: 483
Attribution to University: 404
AOBA-yama New Campus Plan at TOHOKU University

Tohoku University Science Park (2007~)
Techno-business Incubator (2006~)
A cluster of moved-into companies (2007~)
Thank you very much for your kind attention to a talk.

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