Overview of Standard University IP / Technology Transfer and Commercialization Process in Japan

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One of the important missions of a university: Commercializing science and technology to create impacts in society and the economy.

Advancing university research based on the feedback received from society.
Summary of university science / technology commercialization in Japan: FY 2017 [1]

1,791 staff at Tech. Transfer Office or University-Industry Collaboration Office

USD 24b academic research expenditure on science & technology

8,141 disclosures

6,574 national patent applications

USD 48m adjusted gross licensing income received

3,430 licenses/options newly executed

8,390 licenses/options currently active

250 IP licensed product commercialized

77 companies newly formed

Typical functions of university TTO (Tech. Transfer Organization) or UIC (University Industry Collaboration office) to commercialize science and technology.
Typical process followed from invention to patent application at Japanese universities

1 – 2 months

1. **Invention**
   - Inventors, TTO / UIC staffs, and patent attorneys work together.

2. **Meeting**
   - TTO / UIC assesses Patentability & Marketability

3. **Disclosure**
   - University Regulations Pertaining to Inventions
     - Employee shall notify The President by submitting the designated invention disclosure form through the manager of Employee’s department.
     - The notification mentioned in the foregoing item shall be performed prior to announcement at academic conference, etc.

4. **Meeting**

5. **Evaluation**

6. **Application**
   - 75-80% patent applications filed / invention disclosures received
Typical process for licensing university IP / technology to companies

- **Research**
  - **University Faculty**
  - **IP**

- **Compensation**

- **Internal TTO/UIC**
  - Finding licensees
  - Matchmaking
  - Negotiation
  - Agreement

- **Licensing**
  - **Companies**
  - **Licensing income**

- **External TTO**
  - 34% to inventors
  - 16% to inventors’ lab. (case of Osaka Univ.)
Promoting joint research & matchmaking with companies & supporting research funds acquisition

Promoting joint research

University
- Facilities
- Researchers

Company
- Researchers
- Research fund

Matchmaking with companies

Using industry-university matchmaking events to understand industry/market’s expectations from university IP & research..

- Innovation Japan
- SEMICON JAPAN
- Bio Japan

* Some university TTOs / UICs also supports faculty members’ public research fund acquisition / management to accelerate science / technology commercialization.
Typical functions of TTO / UIC to launch / promote university science / technology-based startups

- Supporting market research
- Matchmaking with VCs (Venture Capital firms)
- Providing entrepreneurship education programs
- Supporting patent search and patent application
- Providing IP expenses
- Lending facilities and incubation laboratories
- Supporting acquisition of government’s gap funds
- Implementing own institutional gap fund program
**Gap fund program to promote startups:** toward effective development of science / technology-based projects that enables them to raise an initial investment from VCs (case of Osaka Univ.)

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<thead>
<tr>
<th></th>
<th>Proof of concept/Prototyping program</th>
<th>Startup formation program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Bridging the gap: <em>the last two miles</em> toward raising an initial investment from VCs</td>
<td>Bridging the gap: <em>the last one mile</em> toward raising an initial investment from VCs</td>
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<tr>
<td><strong>Term</strong></td>
<td>&lt; 1 year</td>
<td>&lt; 2 years</td>
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<td><strong>Fund size</strong></td>
<td>&lt; 50K US$/project</td>
<td>&lt; 400K US$/project, year</td>
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<td><strong>Typical use of funds</strong></td>
<td>• Proof of concept&lt;br&gt;• Prototype development&lt;br&gt;• IP expenses&lt;br&gt;• Marketing and customer development</td>
<td>• Labor costs for researchers and management teams&lt;br&gt;• Prototype development&lt;br&gt;• IP expenses&lt;br&gt;• Marketing and customer development&lt;br&gt;• Facilities: negotiable</td>
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Bridging the gap: the last one mile toward raising an initial investment from VCs

Bridging the gap: the last two miles toward raising an initial investment from VCs
Important note on distribution of TTO / UIC’s missions: different among universities[2]

- Multiple success models can be designed for a university TTO / UIC.
- How can you maximize your TTO / UIC’s reputation?

Thank you for listening. Questions?
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