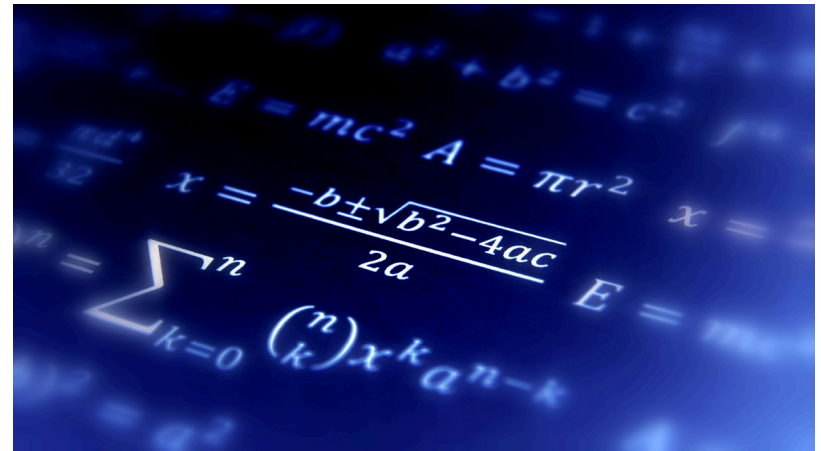


Increasing the Capacity and Pace for Technology Scouting, Absorption, Adaptation through a “Hub and Spoke” Structure (Intellectual Property Hub)

Chiang Mai, Thailand
March 14, 2016

Roles of the University in the Innovation Ecosystem and in Building a Sustainable and Effective IP Hub

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ET Cube International



Outline

- Today's economic trends
- University Technology Mgt.
- Roles of University in IP Hub Project



Over 80% of market value of S&P500 companies today is based on their intangible assets

Intangible assets

(knowledge based assets)

e.g.

- Patents
- Trademarks
- Design
- Brand Value



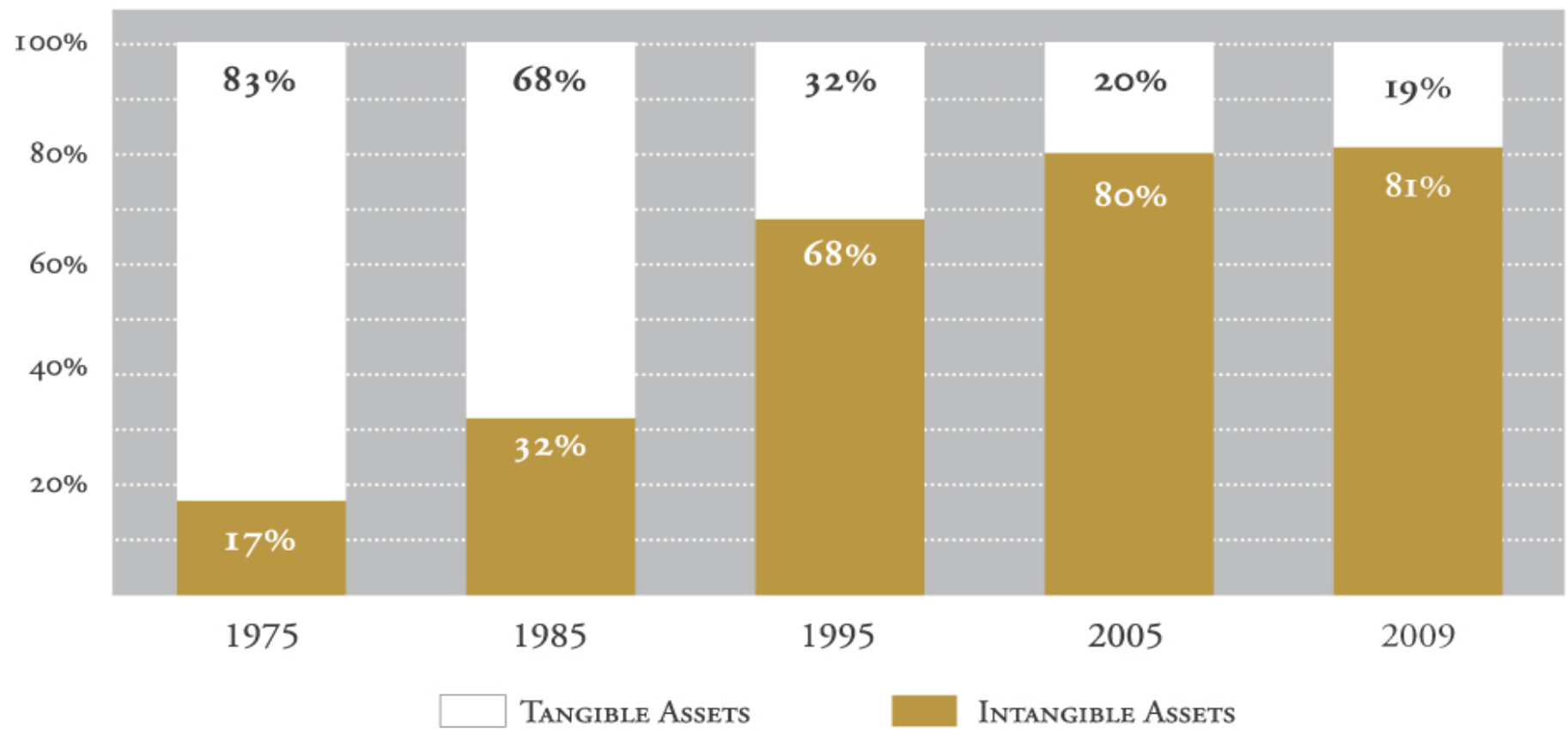
Tangible assets

(physical assets)

e.g.

- Real estate
- Equipment
- Cash

COMPONENTS OF S&P 500 MARKET VALUE



Source: Ocean Tomo

Business Paradigm Shift - Globalization

- **Internet/ Social media/ Smartphone → Easy access to information/ Easier communication**
- **Limited geographic barriers**
- **Global market**
- **Competitive market**
- **Need to improve efficiency**
- **Need to improve quality**
- **Constant generation of new technologies**
- **Fast technology cycle**
- **Technology interdependency → Need to collaborate**
- **Highly knowledge/technology driven economy**

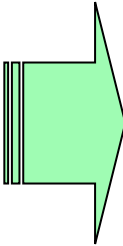


 **NEED TO INNOVATE !!!!**

Roles of University

In the past.....

- Education
- Generate new knowledge through research
- Transfer the knowledge generated to the public for the benefit of society

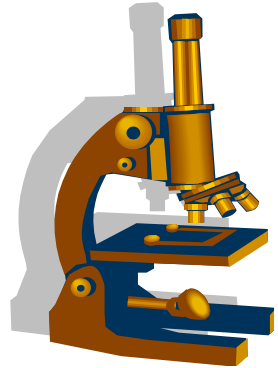


Today, additional roles of university include....

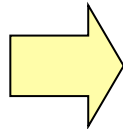
- Research funds management
- Strategic R&D
- Evaluation of technology
- IP training for researchers
- IP (Patent) protection
- Due diligence
- Technology marketing
- Licensing negotiation
- Increased collaboration with industry
- Entrepreneurship development
- Incubation of spin-offs/start-ups
- Administration of institutional IP policy
- Monitoring contract deals etc.

IP & Tech. Management

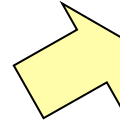
From Laboratory to Market



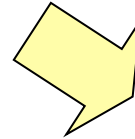
R&D



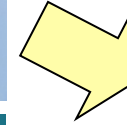
Patent application



Licensing



Start-up/ Spin-off



Commercialization



Technology Transfer

CREATION

PROTECTION

EXPLOITATION

University IP rights

Universities should identify, protect, manage, utilize and profit from IP rights in the fields of :

- Patents
- Copyrights
- Computer programs
- New biological materials
- Designs
- Trademarks
- New plant variety

- Trade secrets (some cases)



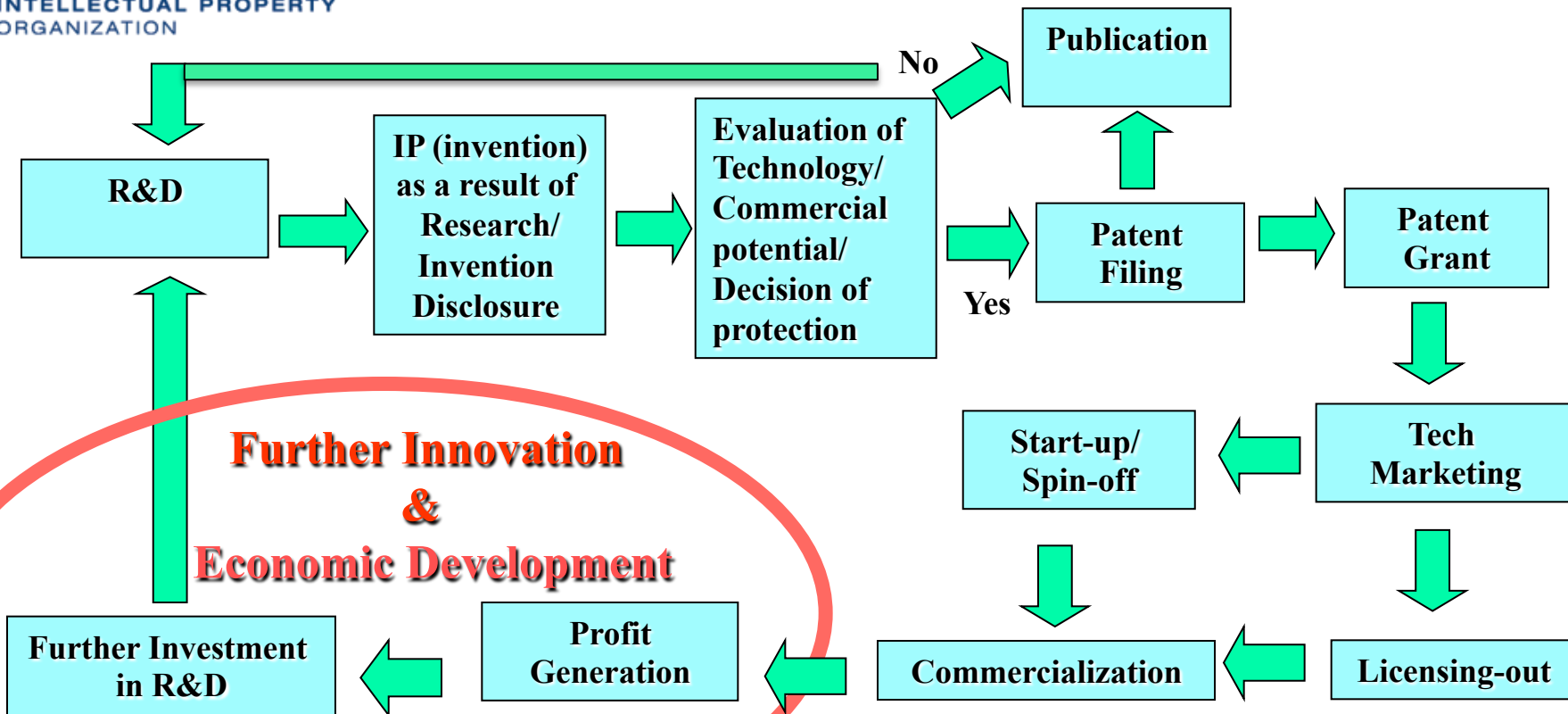


WIPO

Innovation and Economic Development Cycle



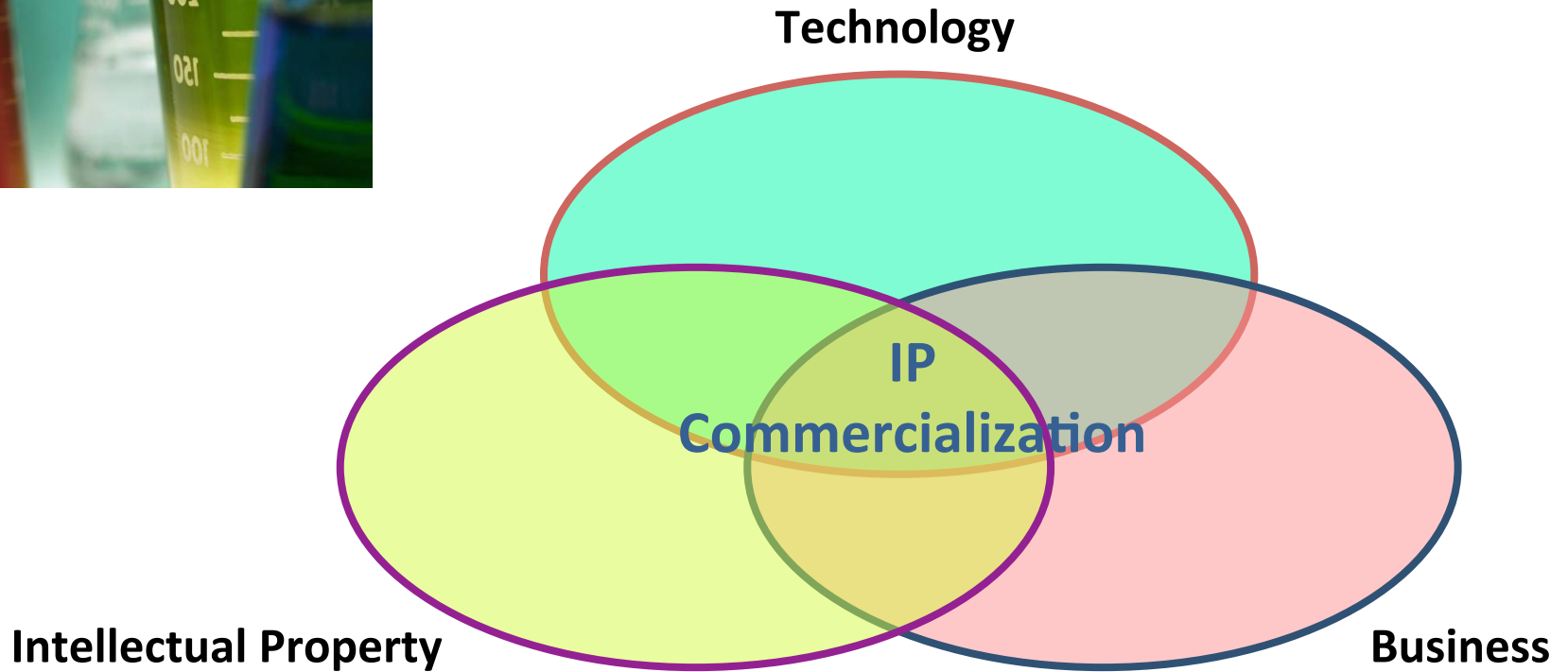
WORLD INTELLECTUAL PROPERTY ORGANIZATION



Source: Yumiko Hamano, "Innovation and Economic Growth Cycle"



IP and Technology Management



University Technology/ Innovation Mgt.



Infrastructure

- Setting-up TTO
- Staff
- Development and administration of IP Policies

R&D Mgt.

- R&D Project Planning/Strategy
- Research Funding
- Patent Information Search
- Research Contracts and Agreements

Capacity Building

Training: IP, Patent Filing, Patent Drafting, Tech. Transfer, Licensing, Patent Information Search, Tech. Valuation, Tech. Marketing, Entrepreneurship, Business Plan Etc.

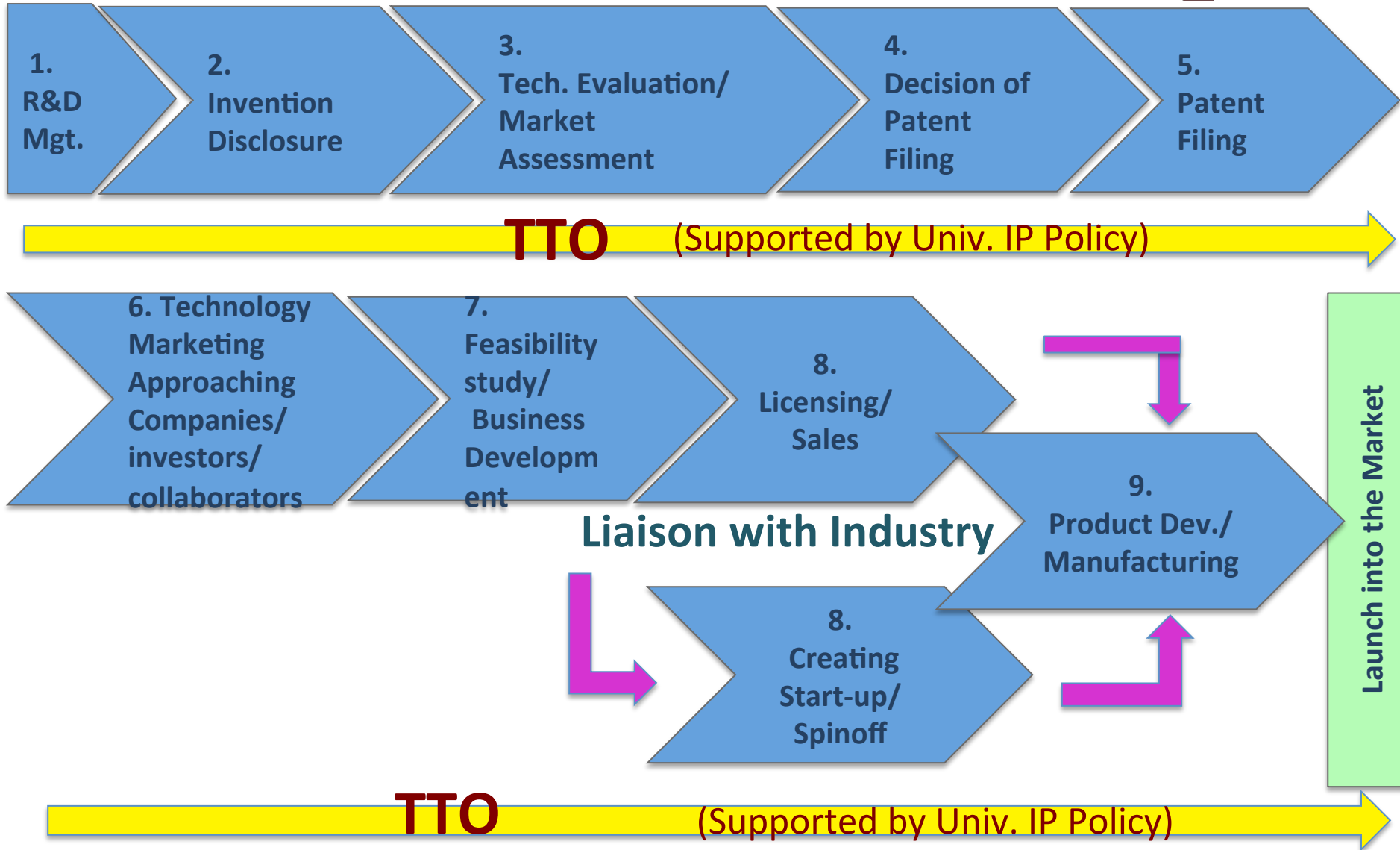
Protection of IPR

- Identification Of IP
- Invention Disclosure
- Technology Evaluation
- Patent Application Procedures
- Patent Maintenance
- Patent Information Search
- IP Legal Matters

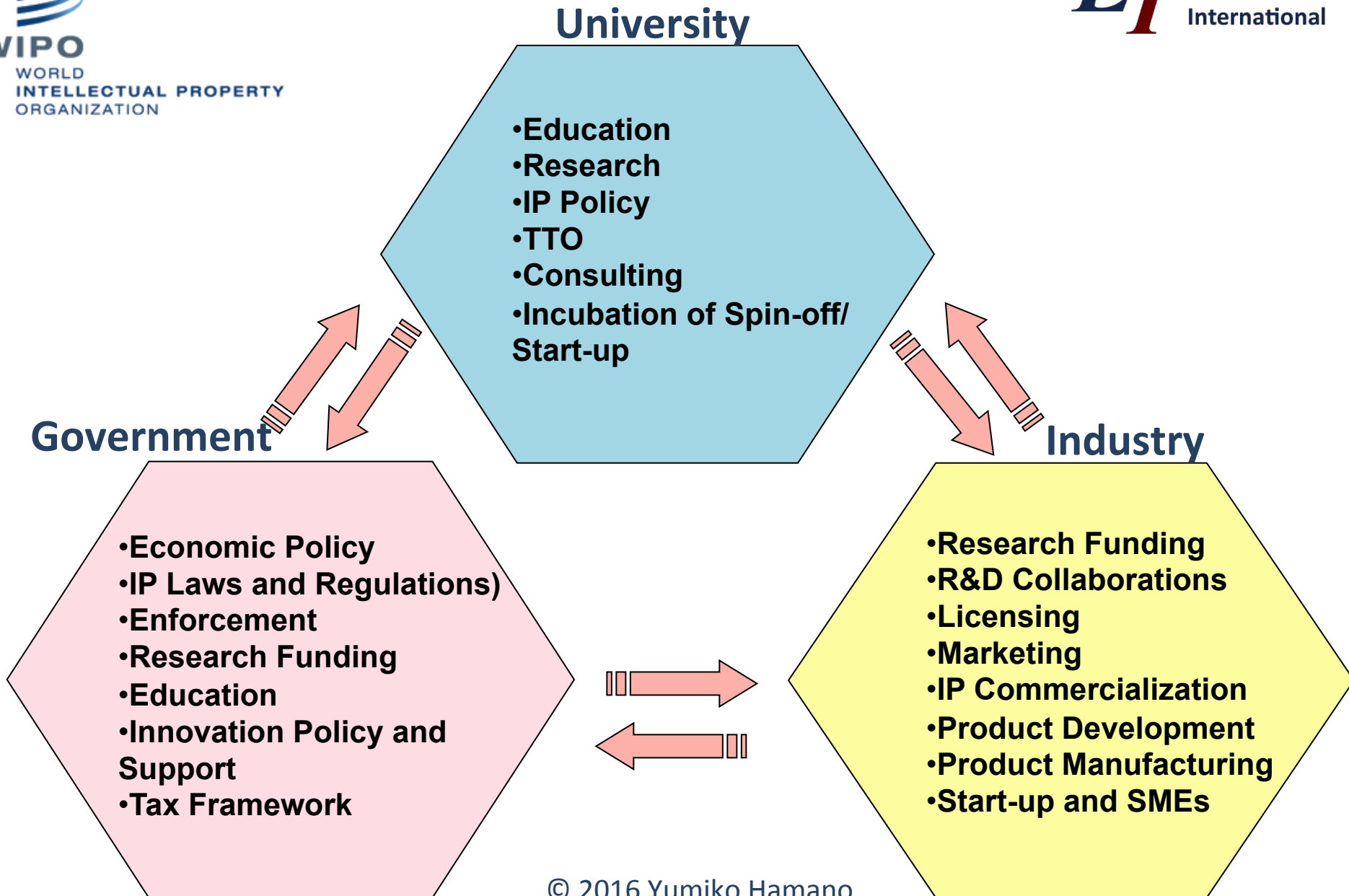
Commercialization of IPR

- Market Assessment
- Tech. Marketing
- Technology Valuation
- Licensing Negotiation and Monitoring Deals
- Licensing Agreement
- Liaison with Industry
- Incorporation Of Start-up/Spin-off
- Incubation Of Start-up/ Spin-off
- Product Design and Manufacturing
- Sales Of Products

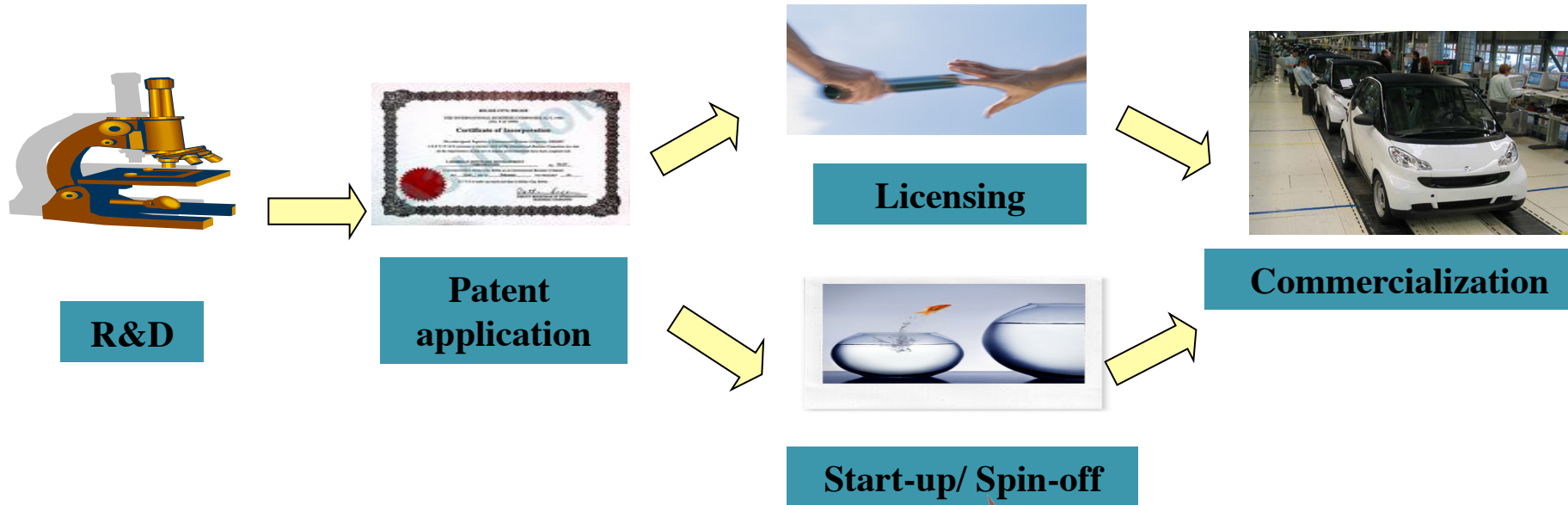
TTO & Commercialization Process



Key Players and Collaboration



University-Industry Collaboration



CREATION

PROTECTION

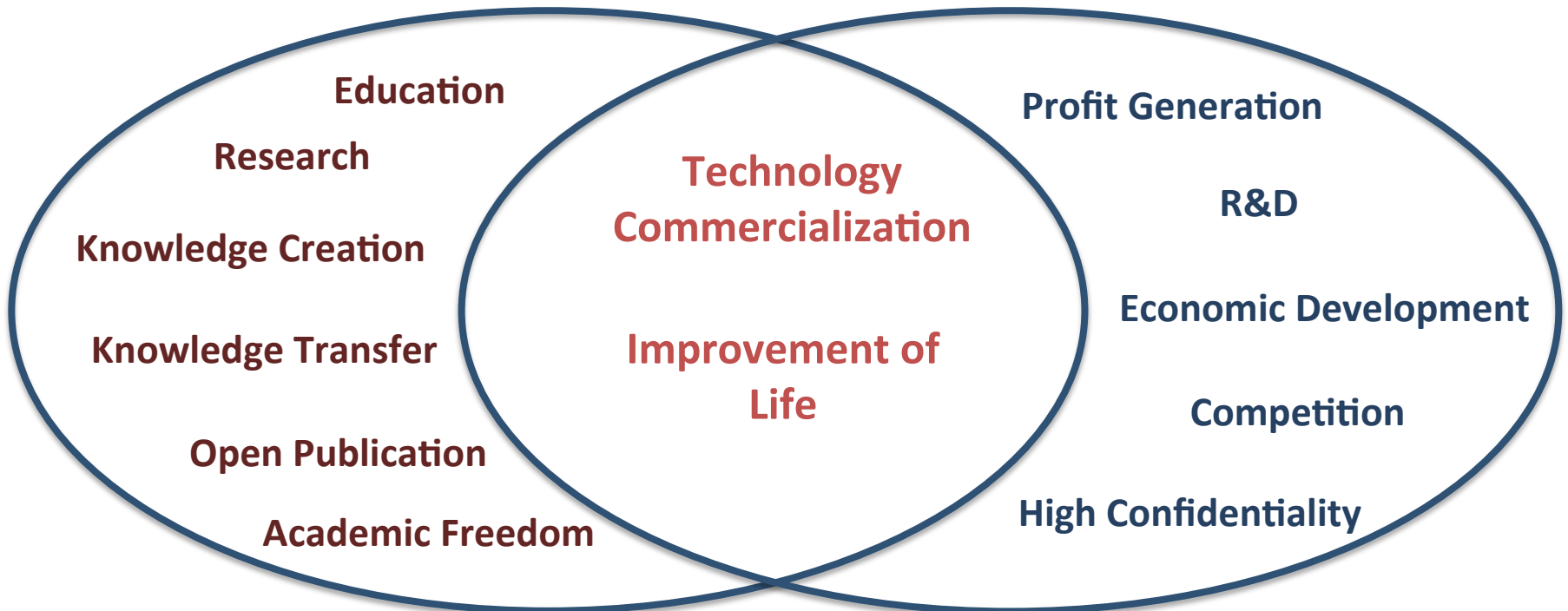
EXPLOITATION



University



Industry



Necessary Ingredients

Infrastructure



Funds



**Marketable
Technologies**



**HR with
Right Skills**

**Network/
Collaboration**



**Political Will
IP Legal System
Market Conditions**

University Challenges to commercialize R&D results

- **Lack of IP management infrastructure**
- **Weak technologies due to lack of R&D funds and research skills**
- **Lack of strategic research planning**
- **Gap between basic research and market needs**
- **Lack of skills of patent information search**
- **Lack of funds for IP protection/ business activities**
- **Lack of IP knowledge**
- **Lack of expertise to manage TT and commercialization process**
- **Lack of entrepreneurial culture among researchers**
- **Lack of business skills**
- **Lack of marketing skills**
- **Lack of support (Government, Senior managers) and incentive**
- **Lack of trust between University and Industry**

IP Hub Project

- Enhances innovation infrastructure in the country
- Creates a sustainable innovation value chain
- Builds innovation management capacity
- Develops HR competency
- Builds a strong innovation network including industries
- Facilitates communications between stakeholders

Through effective use of IP (Patent) systems

Creation of Innovation Ecosystem

Conclusion

University has crucial roles to play in the innovation process!!!

IP Hub Project aims to successfully commercialize IP and establish sustainable innovation system in the country through innovation Mgt. capacity building and creation of a strong network of all stakeholders.

Thank you for your attention



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