

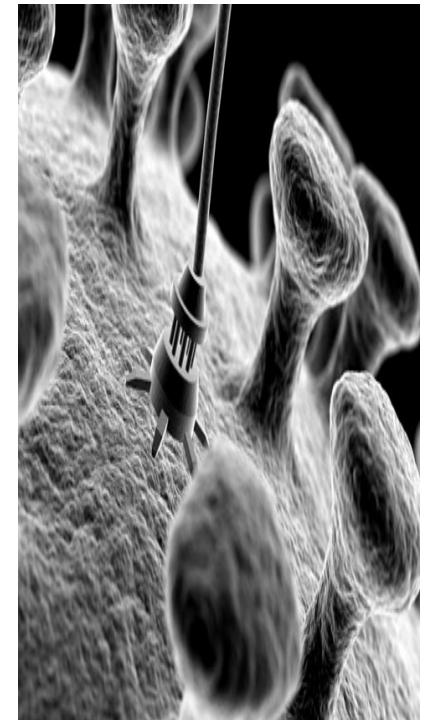


# University–Industry Collaboration

**Yumiko Hamano**  
**Partner**  
**ET Cube International**

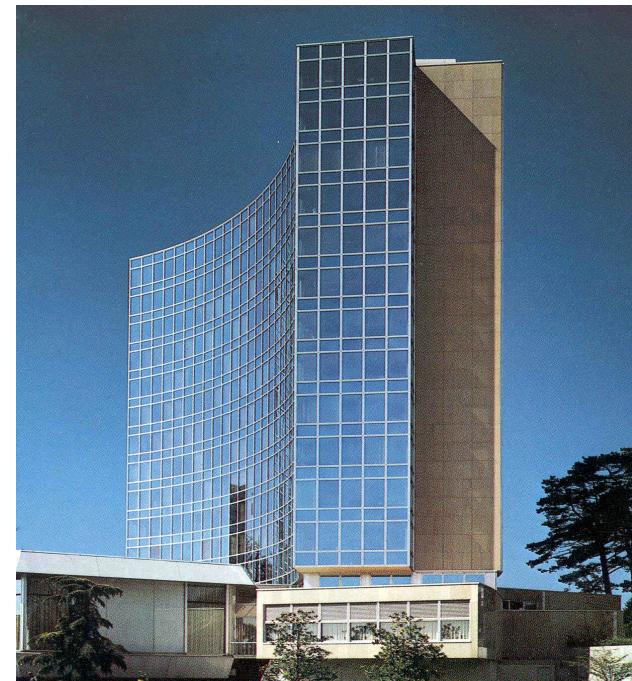
# Topics

- WIPO
- Today's business trends
- IP: Patent, TM, Industrial Design, Copyrights
- University-Industry



*“Dedicated to developing balanced intellectual property systems that encourage creativity and contribute to the economic/cultural/social development”*

- One of 17 United Nations Specialized Agencies
- Headquarters located in Geneva, Switzerland
- 189 Member States
- Administration of 25 international treaties
- Some 1,500 employees



# What is IP?

## Creations of the mind:

### 1. Industrial property

- **patents (inventions)**
- **utility models**
- **trade secret**
- **Trademarks (TM)**
- **industrial designs**
- **geographic indications (GI)**
- **new plant varieties**
- **Traditional Knowledge (TK)**

### 2. Copyrights

**IP rights**  
**Protected by National and International Laws**

# S&P 500 Companies

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

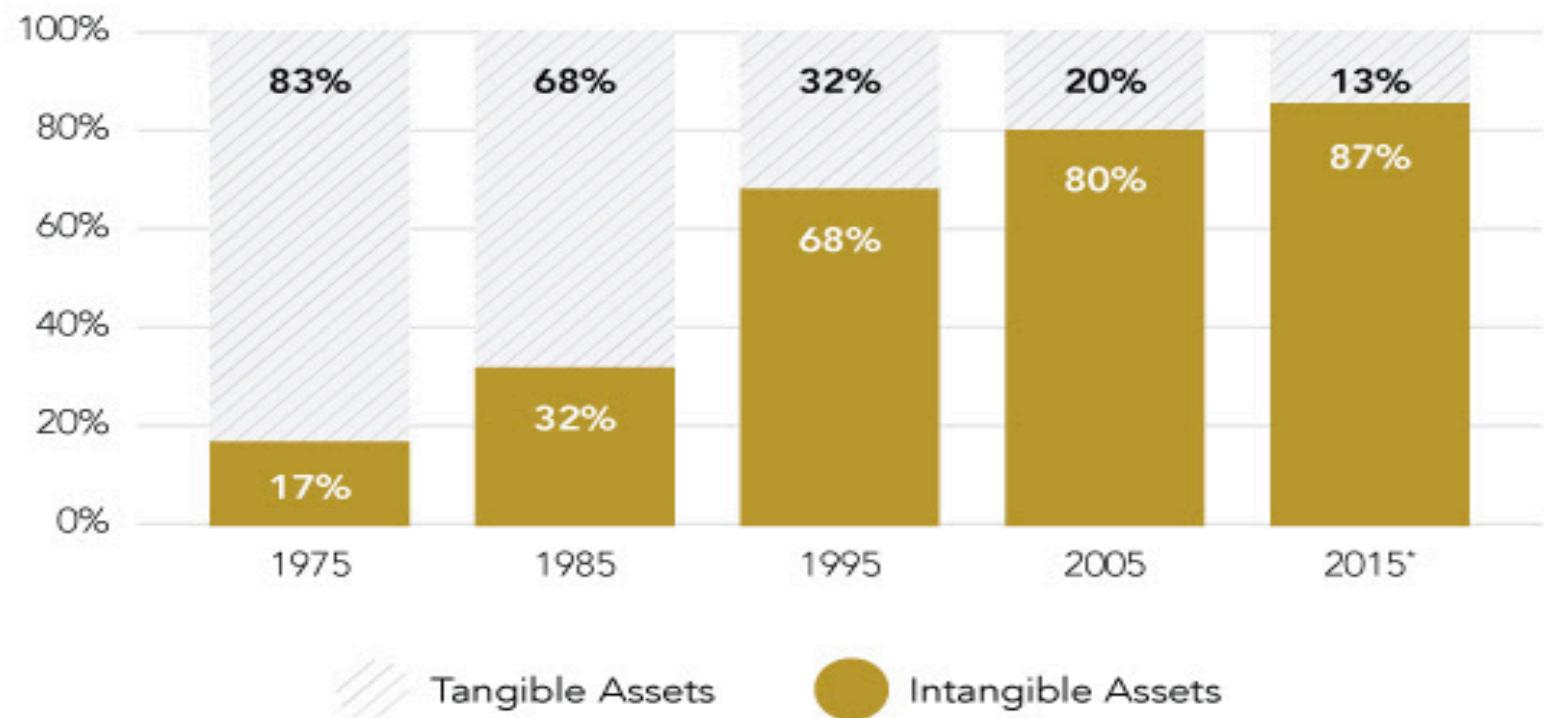
(physical assets)

e.g.

- Real estate
- Equipment
- Cash

# Tangible vs. Intangible Assets

## COMPONENTS *of* S&P 500 MARKET VALUE



SOURCE: OCEAN TOMO, LLC

# Industry Strategies

**R&D Budget Increase**

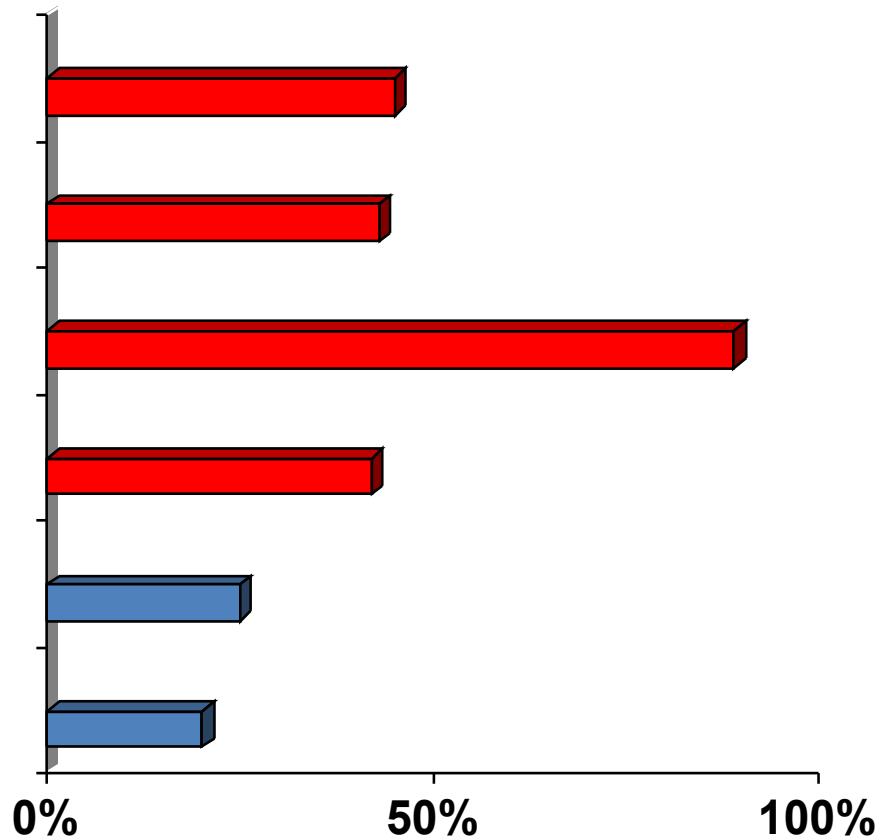
**R&D Staff Increase**

**Joint R&D with JP Univ.**

**Joint R&D with Overseas Univ.**

**Joint Venture**

**Others**



# 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



# Patent

- A right granted by a state to the owner of an invention, to exclude others from making, using, selling or importing in the territory without the inventor's consent
- Granted to an invention of process, method, device, machine, compound, composition, and improvements thereof
- In exchange for a disclosure of specification of the invention
- Limited period, 20 years in many countries
- Territorial

# Patent: Legal Requirements

1. Novelty
2. Inventive Step
3. Industrial Applicability

# How Many Patents Are there in an Apple iPhone4 ?



**1298 Apple Mobile Patents (2002 - 2012)**

- iPhone, Smartphone General 416
- Camera 279
- User Interface 232
- Image Display/ Screen 149
- Battery/ Power Control 88
- Antenna 75
- Calendar 31
- Contact Management 15
- Voice Control 5

Trademarks: 292

Copyright

Industrial Design

Apple Market value: 800+ B

**In the Ultra Competitive Marketplace: Apple Revenue expected \$200+ Billion in 2015!!!**

# Why do you need IP?

- Intellectual property (IP) rights are valuable assets for your business – possibly the most important it possesses.
- IP can be key to your business success

# Why do you need IP?

IP can:

- set your business ahead of competitors
- be sold or licensed, providing an important revenue stream
- offer customers something of high quality (new, better and different)
- form an essential part of your marketing or branding
- be used as security for loans
- be used as bargaining chips for license/ acquisition negotiation

# How are inventions invented?

- Identifying a need or problem
- Through finding a creative way to solve a specific technical problem
- Improving existing technologies
- Applying a better understanding of nature

« Necessity is the mother of  
invention »



Baby Mop

# Benefits of Patents

## Patents:

- Provide **incentives** by **recognizing** for the **creativity** and reward exclusive right
- Provide strong competitive advantages (high quality and profitable products, revenue, licensing royalty)
- Encourage **innovation**
- **Stimulate** fair competition in the **market**
- Contribute to **economic development**
- Foster **technological advancement**



TOYOTA

amazon.com®

Nintendo®



Pfizer

Microsoft

HUAWEI

twitter



NOKIA  
Connecting People



intel inside



# Patent is certainly important for big companies....



But patent is even more important for small businesses and start-ups, because:

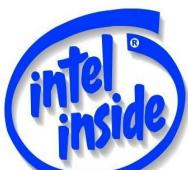
- The patent may be the only **competitive advantage**
- Essential **to find investors and commercialization partners or obtain access to enabling technologies**
- Investors typically view **patents as insurance** for their investment
- The value of a small company's patents may therefore be a **crucial factor** in the decision of a venture capitalist or other investor to invest in a company.
- Strong patents may also be used as **bargaining chips** for licensing, sales and business collaboration opportunities

# Trademarks



- Type of IP in the form of a word, name, symbol, or device used to identify goods
- Indicates the origin of the goods
- Provides public assurance
- Distinguishes the goods from those of others
- Used to prevent others from using a similar mark that would likely confuse consumers
- Cannot prevent others from making, using, or selling same type of goods
- Only protects the mark (e.g., a name) that identifies the good or services and not the goods themselves
- Strong and effective tool for branding

# Known Trademarks



TOYOTA



NOKIA  
Connecting People



Mercedes-Benz

# Industrial Designs

- Protection for ornamental features associated with articles used in commerce
- Limited uniformity world-wide in requirements and scope of protection available
- Design patents in some countries
- Protection of industrial design and patent protection not mutually exclusive in some countries



# Copyrights



- Protection provided to the creators of “original works of authorship”
- Literary, dramatic, photographic, musical, artistic, and other works, both published and unpublished
- Protects expression of ideas rather than idea itself
- Right arises automatically at creation

# Copyrights

Important IP right for protecting computer software and algorithms

- When patenting is not available, then copyright often becomes the strongest form of protection that can be obtained in the information technology field
- A piece of software might not rise to a sufficient degree of novelty and inventive step for patent protection
- In many jurisdictions computer software is not patentable “per se”

# Benefits of IP

## Micro level

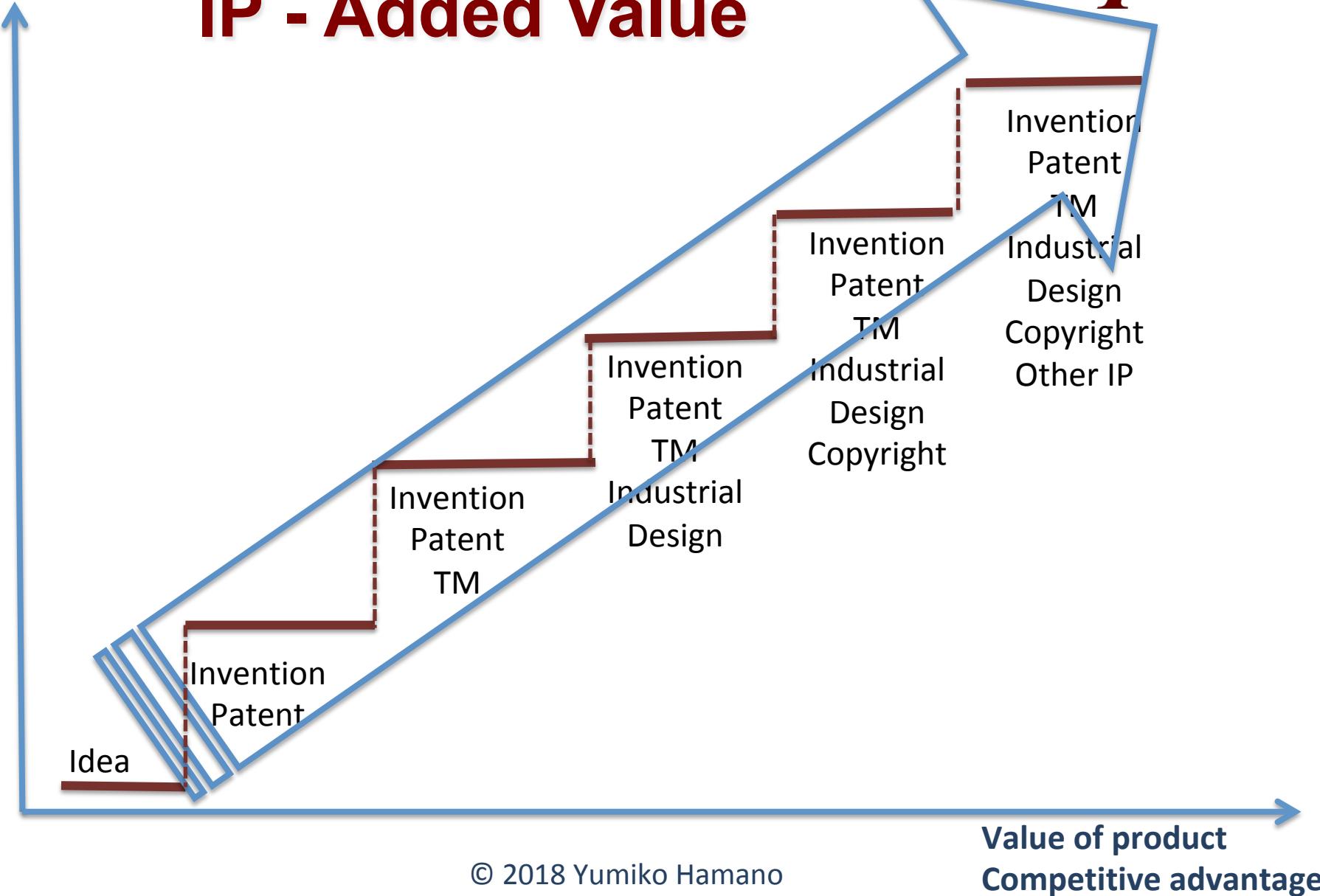
- Build strong portfolios of IP as a source of competitive advantage
- Strong and effective tool for branding and marketing
- Enhance corporate value
- Provide incentives and recognition of creativity
- Enables to distinguish your products from others (products/services of high value)
- Avoid and defend against litigation

## Macro level

- Increase national competitiveness and GDP
- Enhance exports of high value
- Stimulate R&D and Promote S&T
- Reduce brain drain by providing incentives
- Help address national/global issues
- Develop national brand, cultural identity and reputation
- Attract FDI and local investment
- Job creation

IP rights

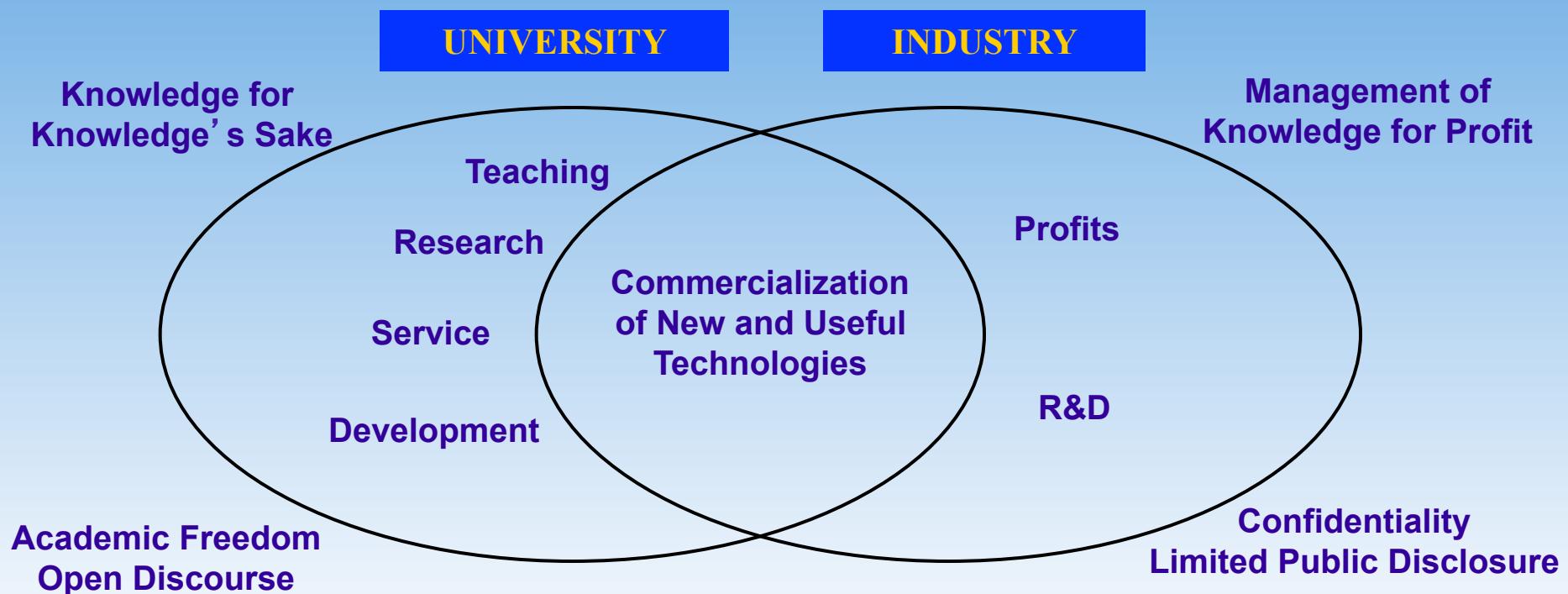
# IP - Added Value



# Industry's Perspectives

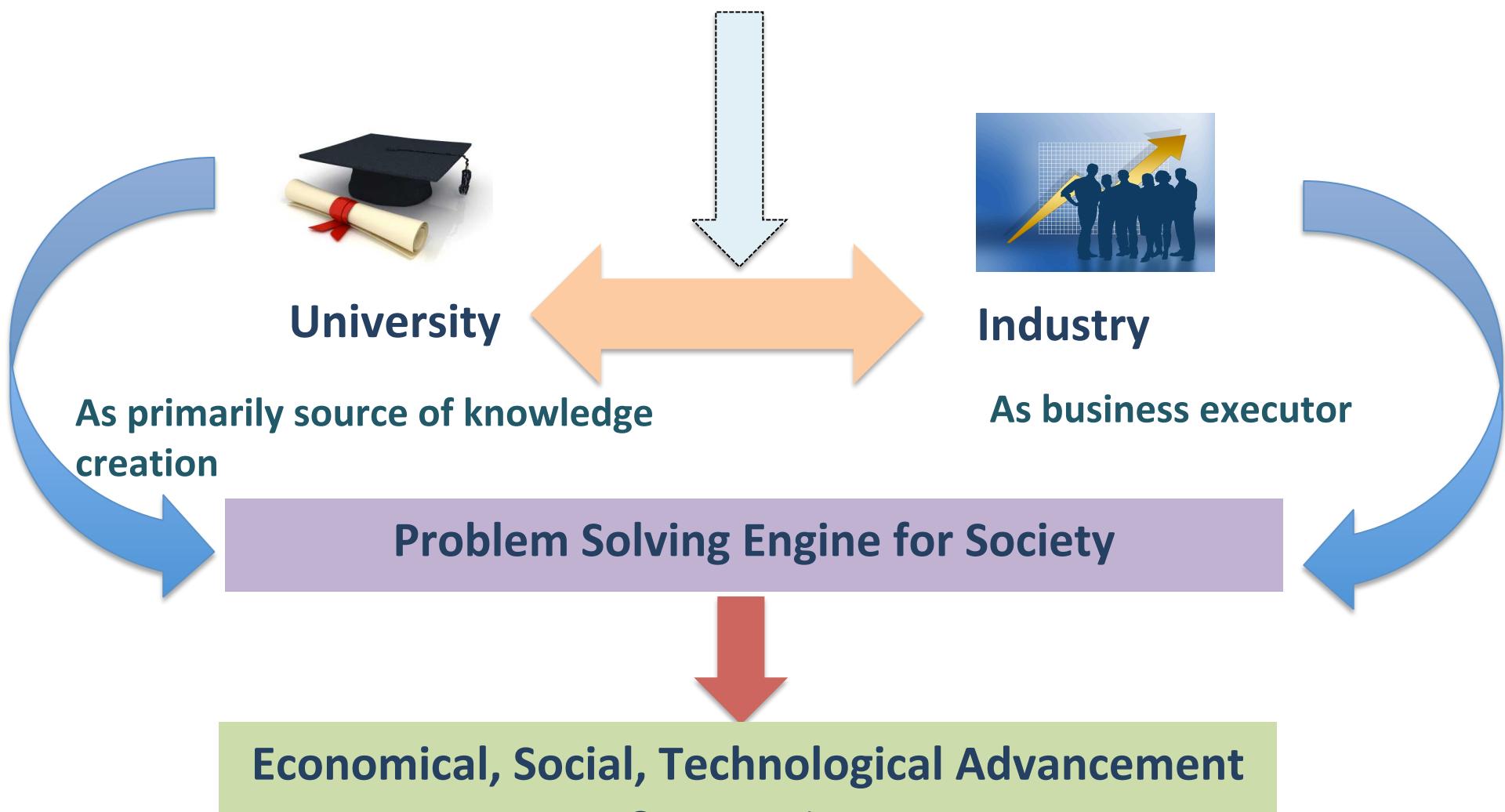
- Universities are so naïve
- Universities are so slow
- Poor understanding of market needs
- We need to keep it confidential as much as possible (academics incentives are very much associated with publish or perish)
- University's procedures are so cumbersome and not flexible
- Universities propose unrealistic royalties
- Universities do not understand that industries need to take high risk and significant investment to bring the technology to the market
- Universities business plan is poorly done (market assessment)
- Universities lack a realistic assessment of our circumstances, need to build on evidence
- Lack of long term goals

# Addressing Conflicting Values and Common Interest



Source: Louis P. Berneman, 1999

# PPP in the Rise of Knowledge Economy

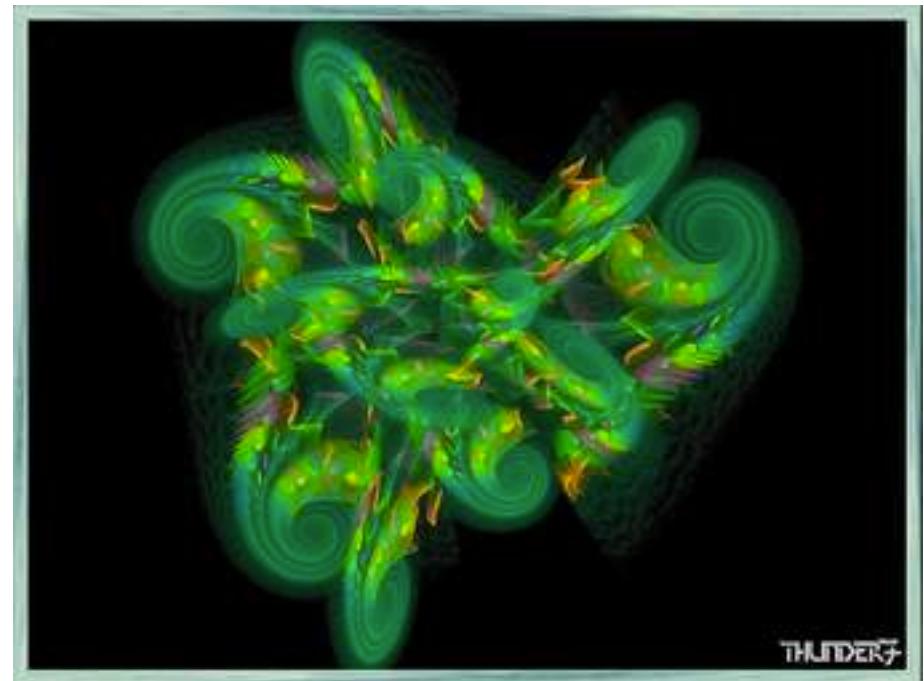


An enabling IP environment means having the *right innovation systems, institutional organization, efficient processes and people with adequate skills* to facilitate the process of knowledge creation, transfer and transform the knowledge into products and services made available to society.

## **FOCUS:**

- **TT and Innovation System**
- **Technology Development,**
- **IP Protection**
- **Capacity Building**
- **Technology Management and Commercialization**
- **Effective University-Industry Collaboration**
- **Engaging all stakeholders**

**Thank you for  
your attention**



[yhamano309@gmail.com](mailto:yhamano309@gmail.com)  
[Yumikoh@etcube.com](mailto:Yumikoh@etcube.com)