



# University–Industry Collaboration

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

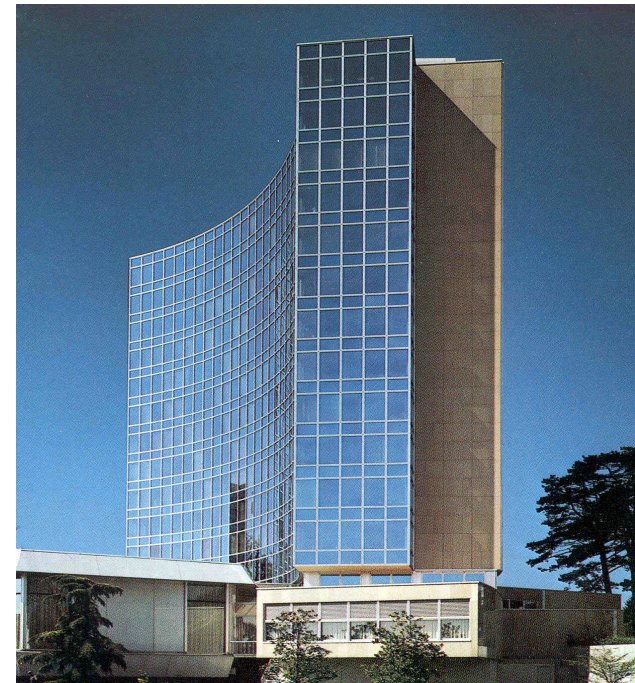
# Topics

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



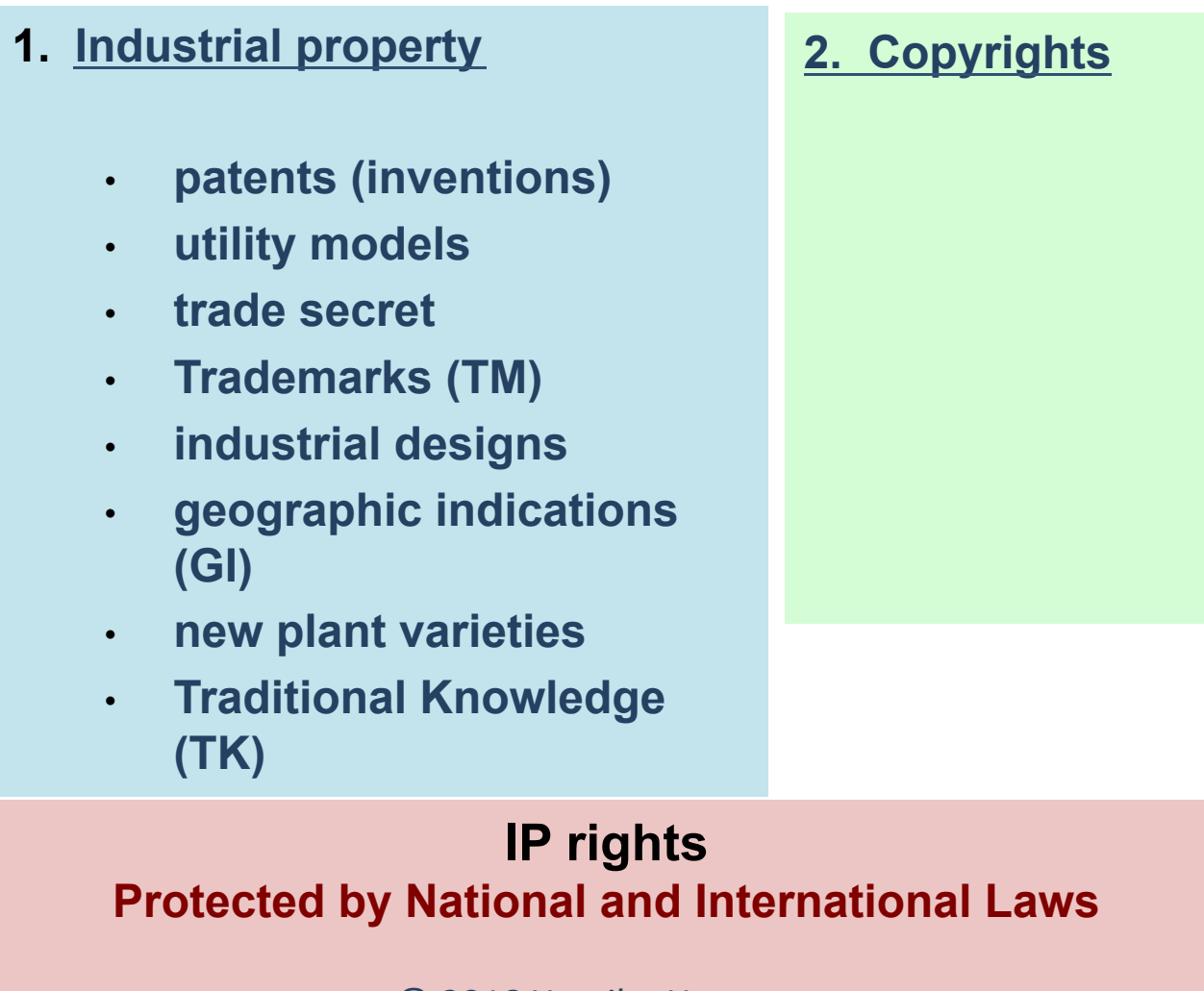
***“Dedicated to developing balanced intellectual property systems that encourage creativity and contribute to the economic/cultural/social development”***

- 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:



# 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

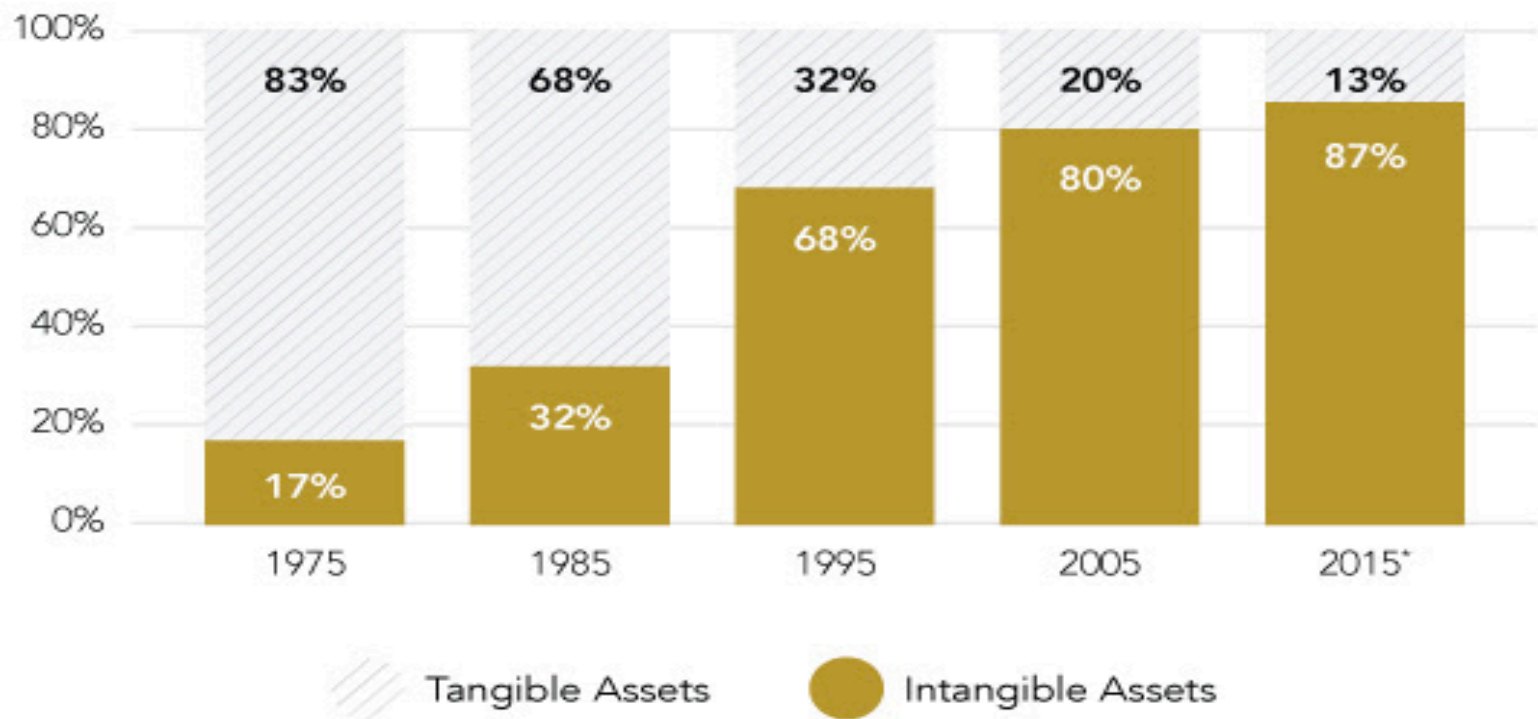
(physical assets)

e.g.

- Real estate
- Equipment
- Cash

# Tangible vs. Intangible Assets

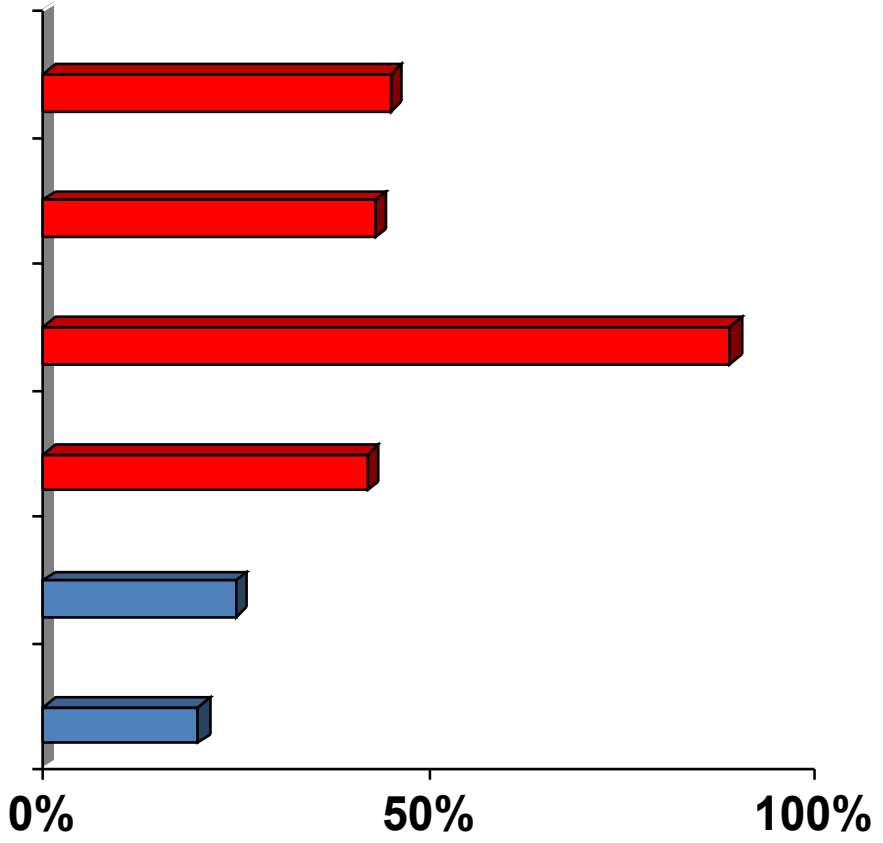
## COMPONENTS *of* S&P 500 MARKET VALUE



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**



 **NEED TO INNOVATE !!!!**



# 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 – possible 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:

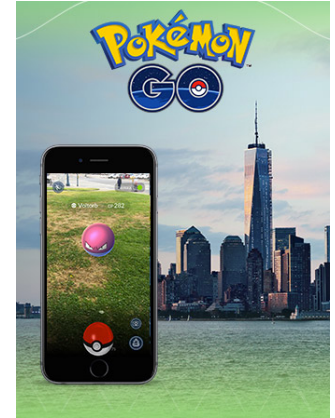
- Provide **incentives** by **recognizing** for the **creativity** and reward exclusive right
- Provide strong competitive advantages (high quality and profitable products, revenue, licensing royalty)
- Encourage **innovation**
- **Stimulate** fair competition in the **market**
- Contribute to **economic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



WATCH



Google



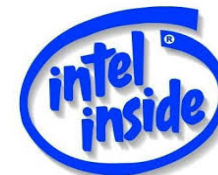
amazon.com



Nintendo



NOKIA  
Connecting People





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



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

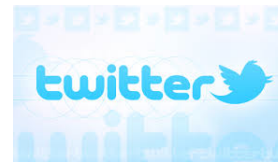
- The patent may be the only **competitive advantage**
- Essential **to find investors and commercialization partners or obtain access to enabling technologies**
- Investors typically view **patents as insurance** for their investment
- The value of a small company's patents may therefore be **a crucial 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



# 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

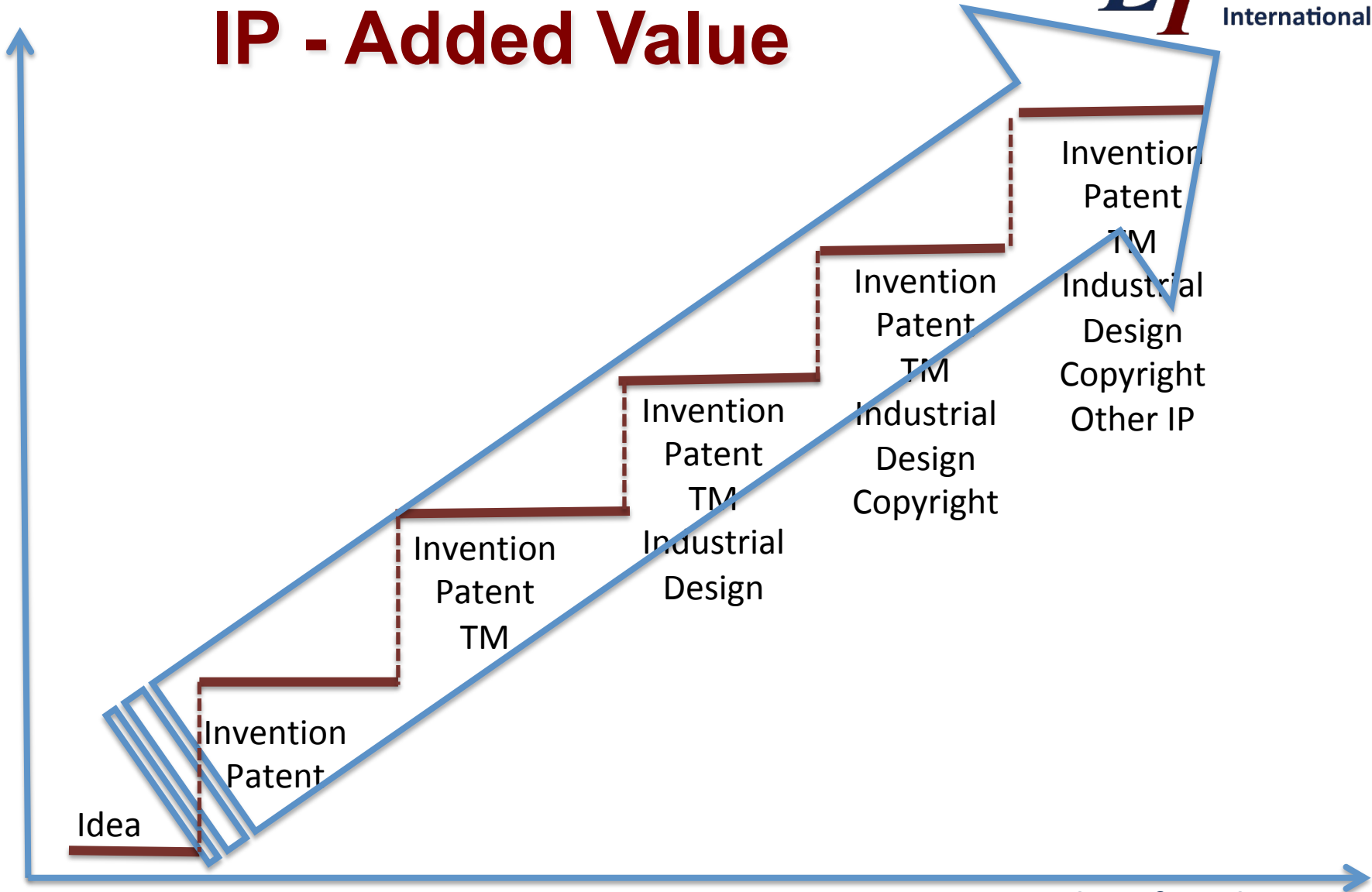
- Build strong portfolios of IP as a source of competitive advantage
- Strong and effective tool for branding and marketing
- Enhance corporate value
- Provide incentives and recognition of creativity
- Enables to distinguish your products from others (products/services of high value)
- Avoid and defend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

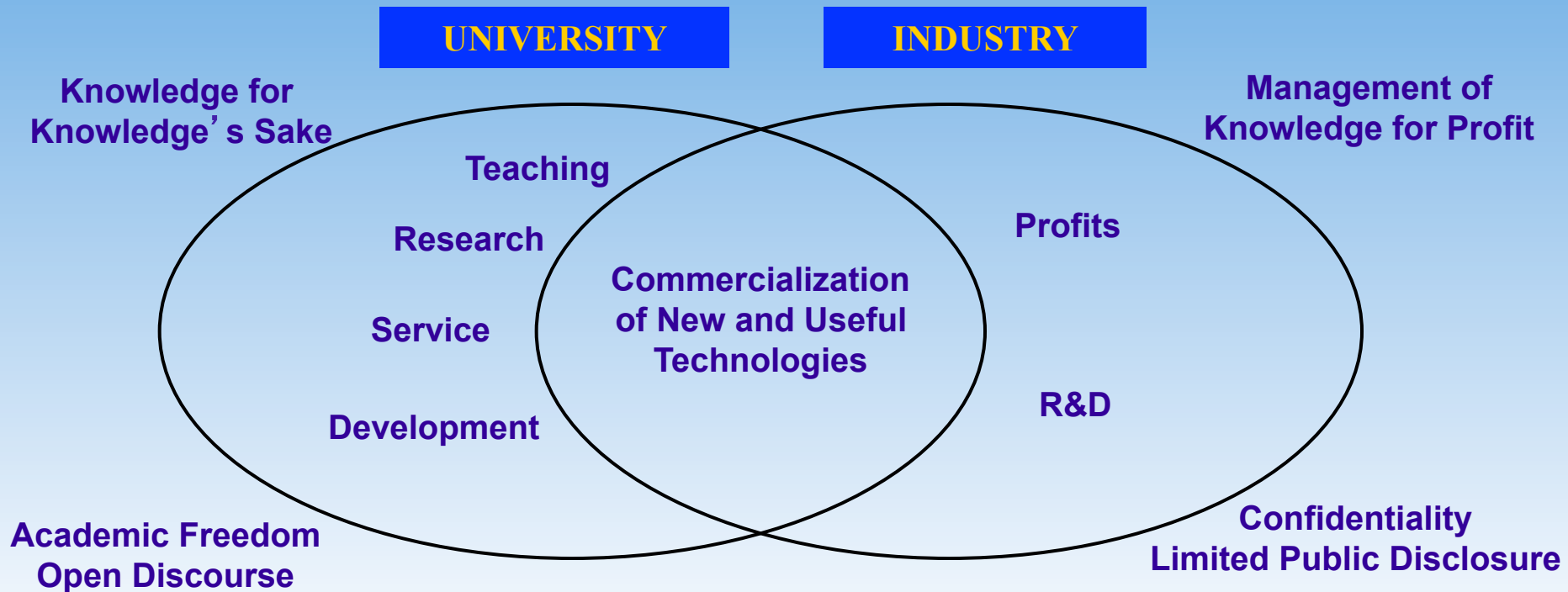




# Industry's Perspectives

- 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

**Government**



**University**

As primarily source of knowledge creation



**Industry**

As business executor



**Problem Solving Engine for Society**



**Economical, Social, Technological Advancement**

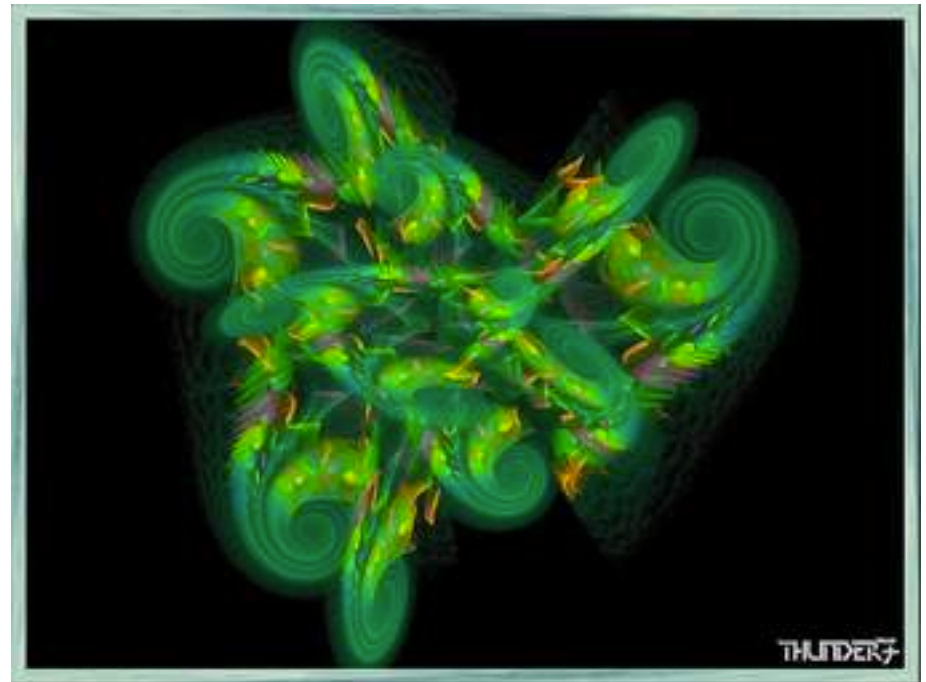
# WIPO EIE Project

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)