

IP Strategies

for

Developing Products

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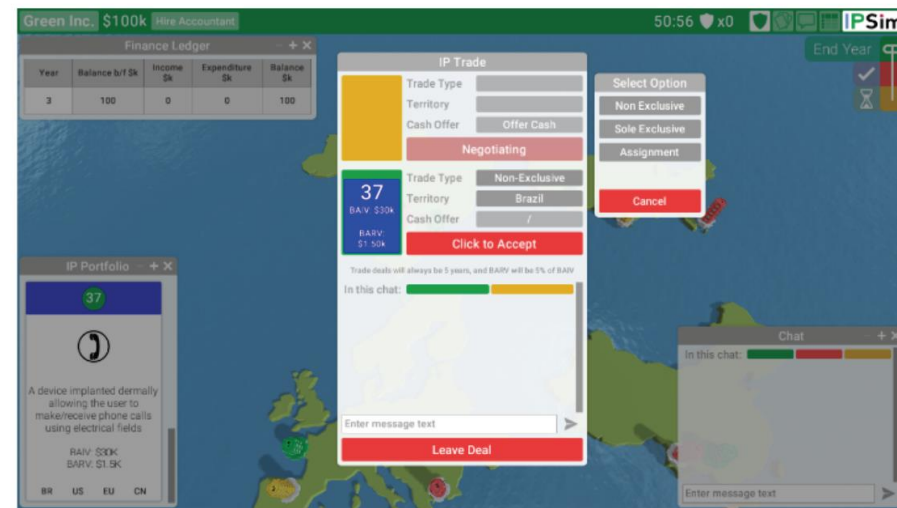
7 April 2017

**Vice-President,  
CityU Engineering Doctorate Society**

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# IP Strategy - Simulation game

- Try IPSIM <https://www.tacitsims.com/ipsim/>
- Invention → file a patent, priority period, patent territories
- Commercialization → patent, trade secret, open source
- IP Trading → licensing, assignment
- Court Case → IP claim, settlement



# IP Strategy ... simple or not?

You need different types of strategy at different processes

1. Time 2. Creativity 3. Ownership 4. Wealth 5. Product 6. Industry 7. Market 8. Competition

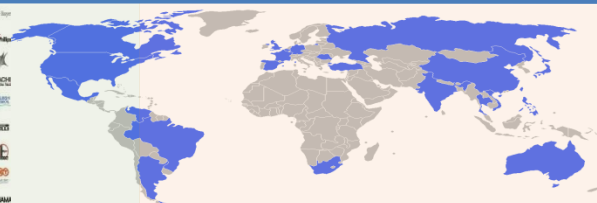
Copyright

Trademark  
Registration

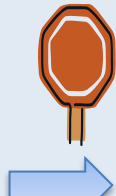
Trade Secret

Design  
Registration

IP Searches



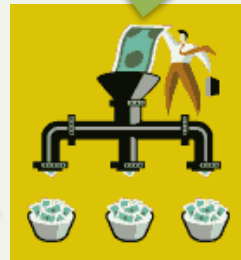
Idea



Prototyping &  
Testing



Patent  
Application



IP  
Commercialization



Litigation

Licensing



# IP Strategy - Use Patent Databases

- Google Patents

- <https://patents.google.com/>

- Espacenet of European Patent Office (EPO)

- [http://worldwide.espacenet.com/advancedSearch?locale=en\\_EP](http://worldwide.espacenet.com/advancedSearch?locale=en_EP)

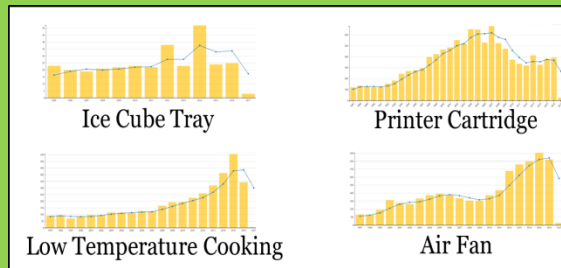
- Patent Inspiration

- <http://www.patentinspiration.com/>

- Format for Patent number :
  - country code + numbers + kind code
  - e.g. [US2008317448A1](#)
- Search queries:
  - [US2008317448A1](#) in the Patent Number field
- also click the “**download**” for original

- Search queries:
  - ice AND tray in the Title field
  - cube in the Abstract field
- 282 patents found

Fact-based  
decision-making

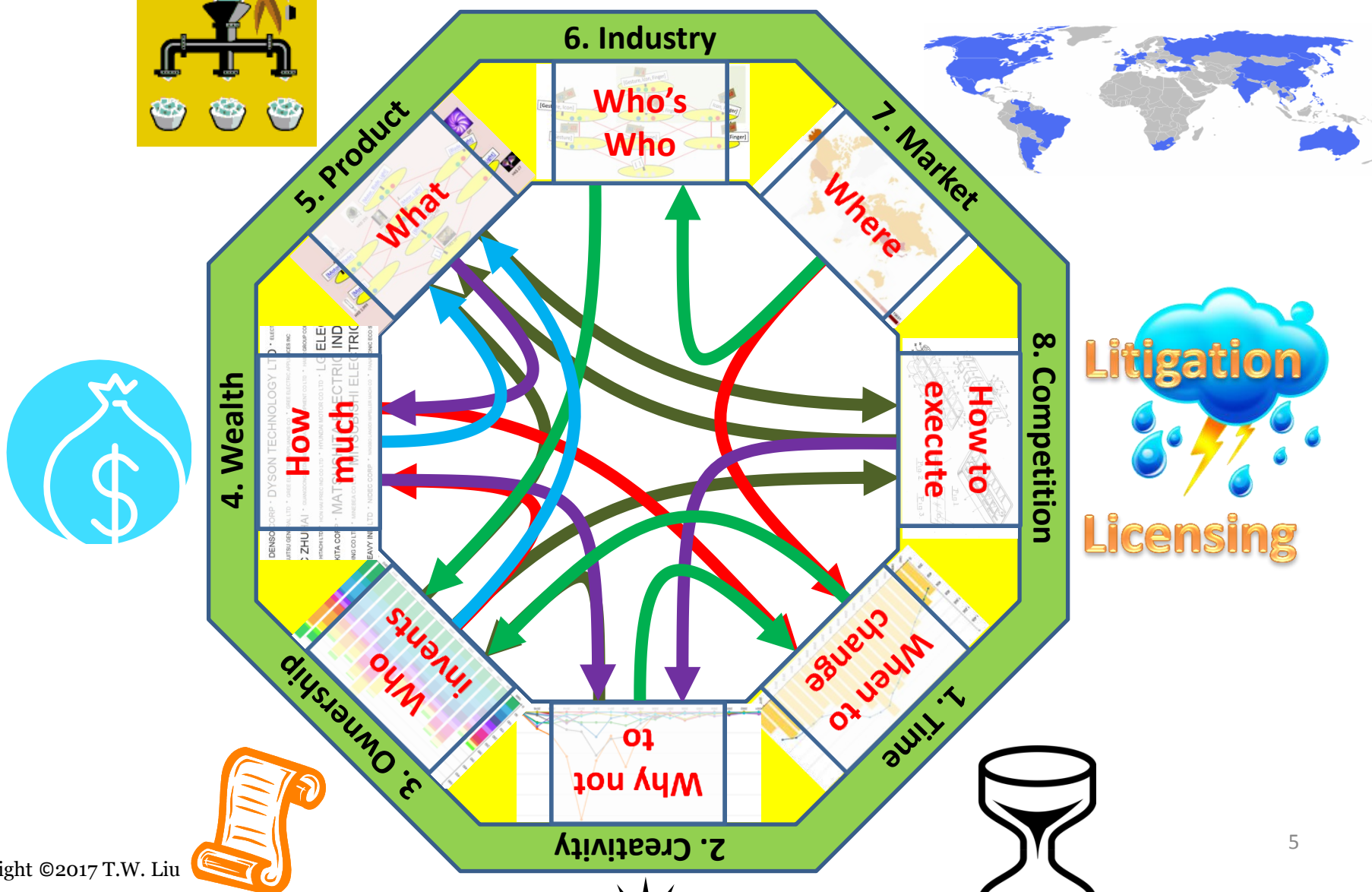


**Espacenet search results on 11-11-2016 00:52**

More than 10,000 results found in the Worldwide database for:  
ink cartridge in the title  
Displaying selected publications

Publication	Title	Page
US2016311213 (A1)	Cartridge and tubular container trimm...	2
US2016312032 (A1)	COMPOUND, COLORING COMPOSITION, INK J...	3
USD769966 (S)	Cap for an ink cartridge	4
US2016297912 (A1)	PHOTOPOLYMERIZABLE COMPOSITION, PHOT...	5
US2016289476 (A1)	Water-Based Ink for Ink-Jet Recording...	6
US2016289472 (A1)	Water-Based Ink for Ink-Jet Recording...	7
US2016288561 (A1)	Writing Instrument and Ink Cartridge	8
US2016289475 (A1)	Water-Based Ink for Ink-Jet Recording...	9
US2016288513 (A1)	INK CARTRIDGE, INK CARTRIDGE CHIP, AN...	10
US2016288486 (A1)	AUTOMATIC INK CARTRIDGE DISPENSER	11
TWM525281 (U)	Ink cartridge for continuous ink supp...	12
TWM525280 (U)	Ink cartridge	13
CA167204 (S)	INK CARTRIDGE	14
CA167203 (S)	INK CARTRIDGE	15
CA167202 (S)	INK CARTRIDGE	16
CA167201 (S)	INK CARTRIDGE	17
US2016280944 (A1)	Water-Based Ink for Ink-Jet Recording...	18
US2016280945 (A1)	INK JET INK, INK JET RECORDING METHOD...	19
US2016280941 (A1)	INK, INK CARTRIDGE, INK DISCHARGE APP...	20
US2016272828 (A1)	INK, INK CARTRIDGE, INKJET RECORDING...	21
US2016271958 (A1)	INKJET PRINTING APPARATUS AND INK CAR...	22
US2016250874 (A1)	INK RIBBON CASSETTE, INK RIBBON CARTR...	23
WO2016136562 (A1)	AZO COMPOUND, COLORING COMPOSITION, I...	24
CA138620 (S)	INK RIBBON CARTRIDGE	25
US2016243843 (A1)	INK CARTRIDGE AND INK-JET PRINTER HAV...	26

# IP Strategy - Circular Playing Board Game



1

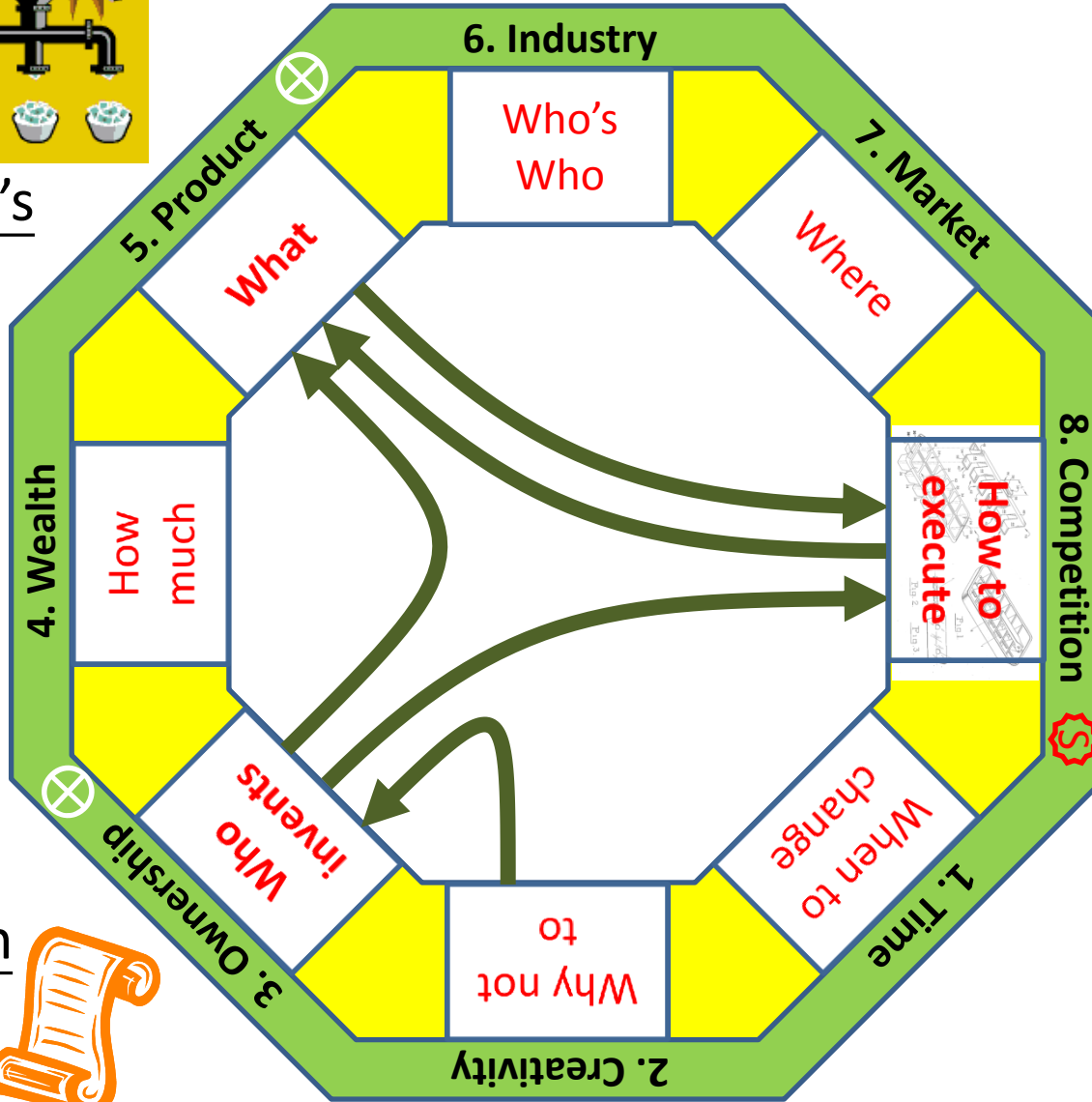
# If you want to defense/offense

- Tie up your company's flagship products with IP protection portfolios
- *An example?*
  - *Innovation-oriented company*
- *How do you do the analysis?*

1



Company's  
flagship  
products



defense/  
offense

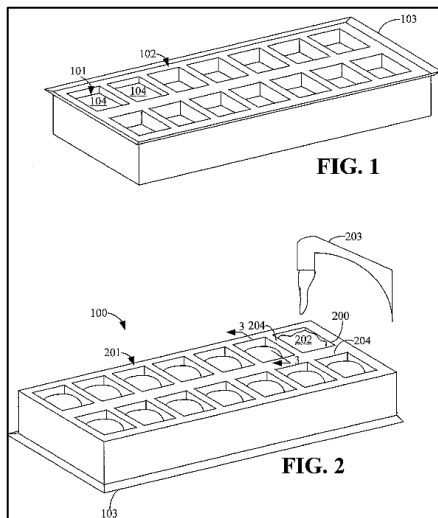


IP protection  
portfolios

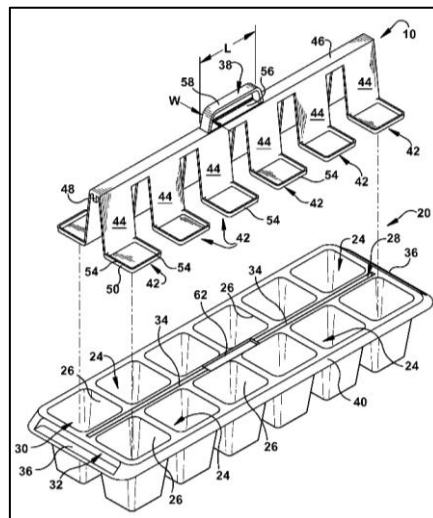


# Exploitation of Creative Solutions

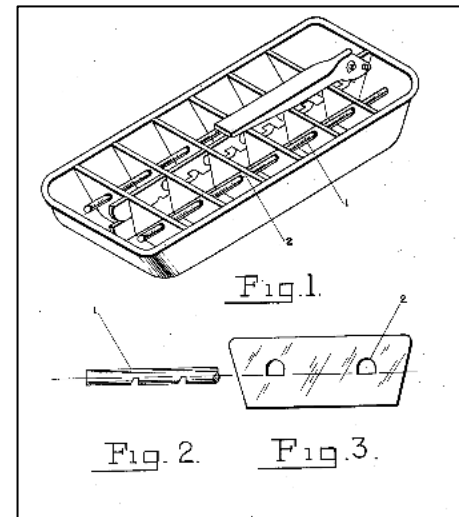
- Patent Search queries:
  - ice AND tray in the Title field
  - cube in the Abstract field
- 282 patents found



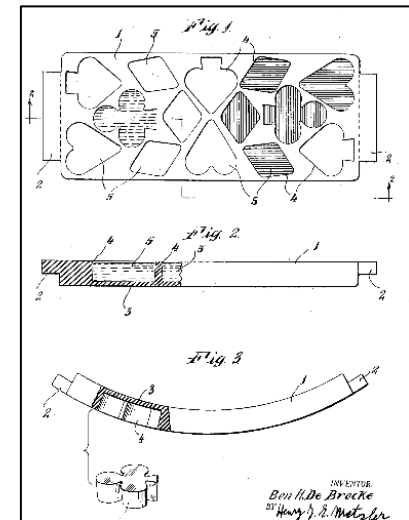
[US 8516835 B2](#)  
Published 2013



[US 20120055188 A1](#)  
Published 2012



[US 2783619 A](#)  
Published 1957



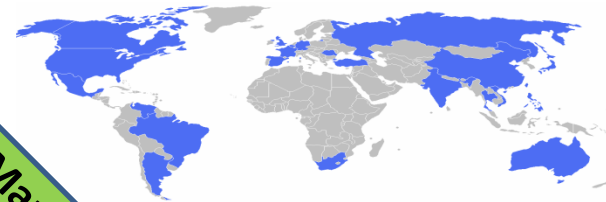
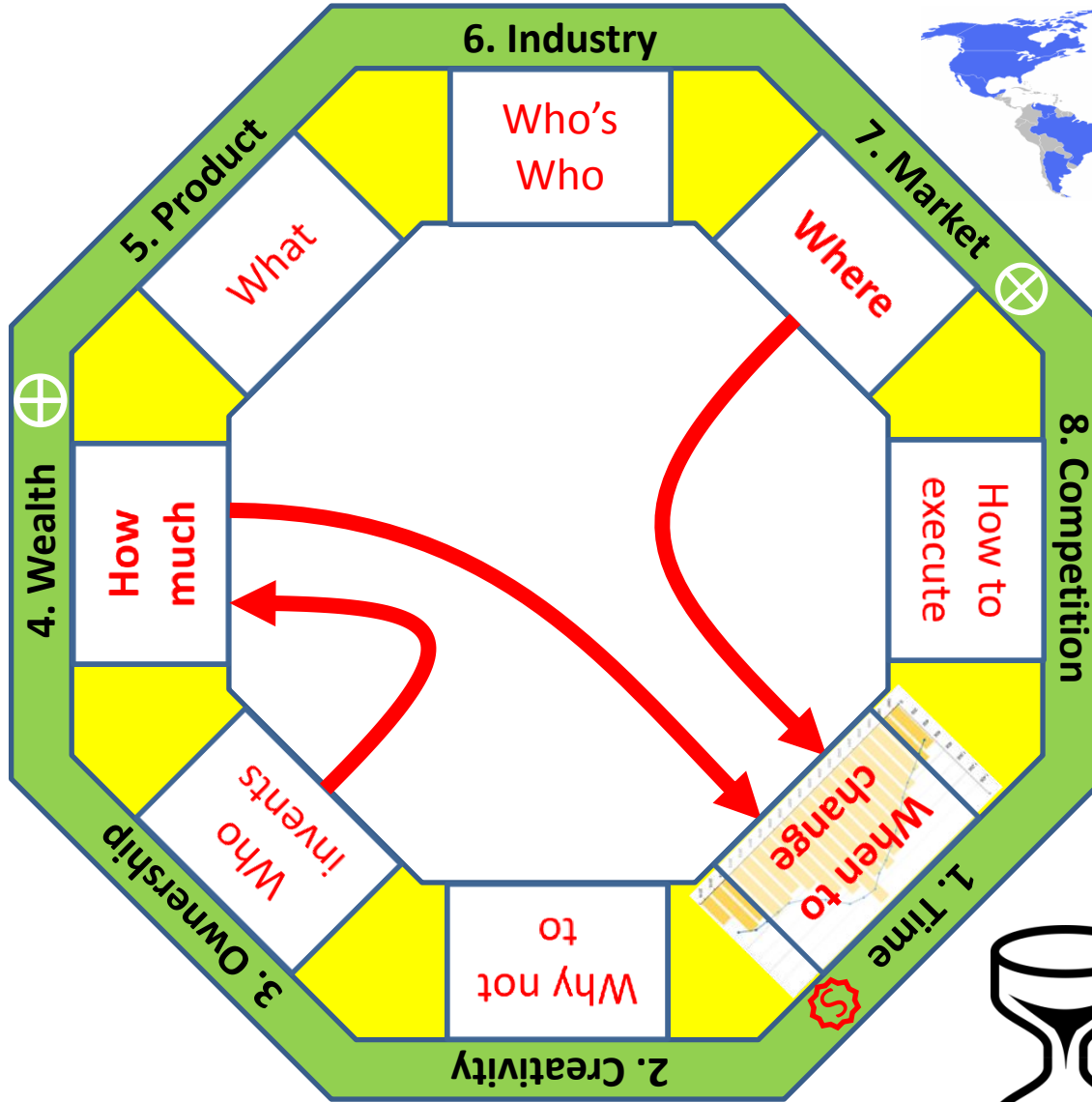
[US 2505947 A](#)  
Published 1950



# If you want to **build barrier to entry**

- Spend large amount of money while creating the barrier to enter a trendy market
- *An example?*
  - *Large-scale and technology-oriented-companies like Brother, Canon, HP, Epson*
- *How do you do the analysis?*

2



A trendy market



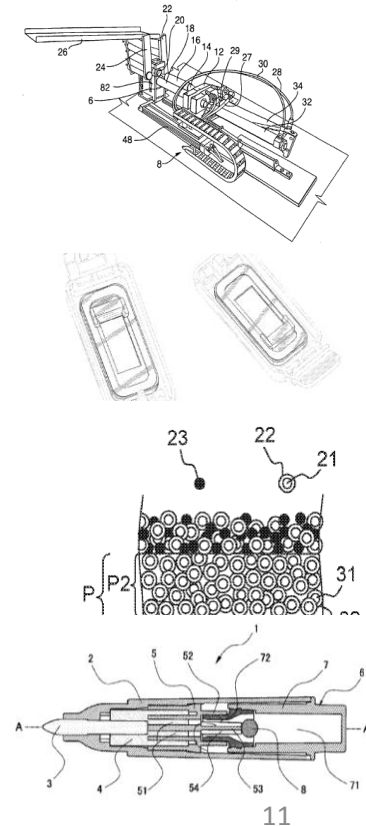
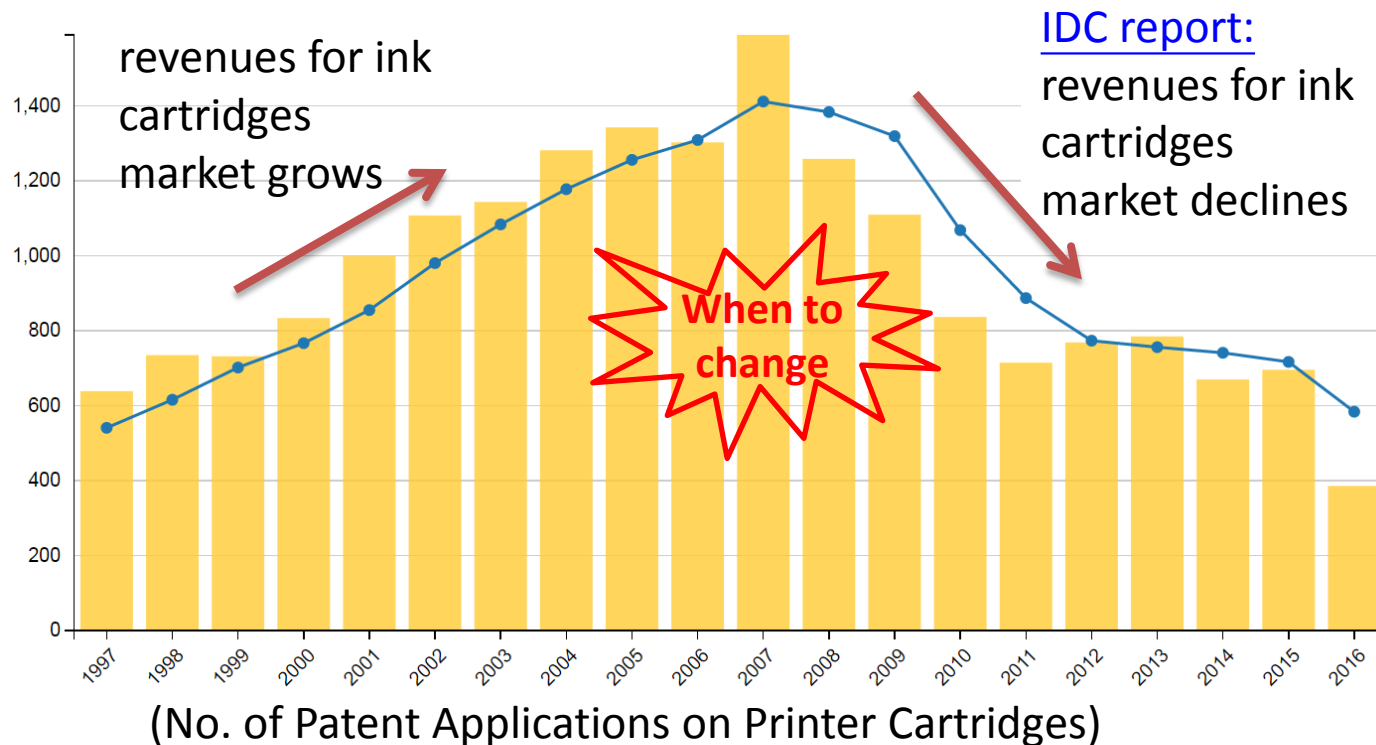
Spend large amount of money



While building barrier to entry

# Beware of barriers to entry

- Patent-thicket of ink cartridges (22,843 patents)
- High patent density for the market
- Can fail for the reason of disruptive business model that shakes up the industry

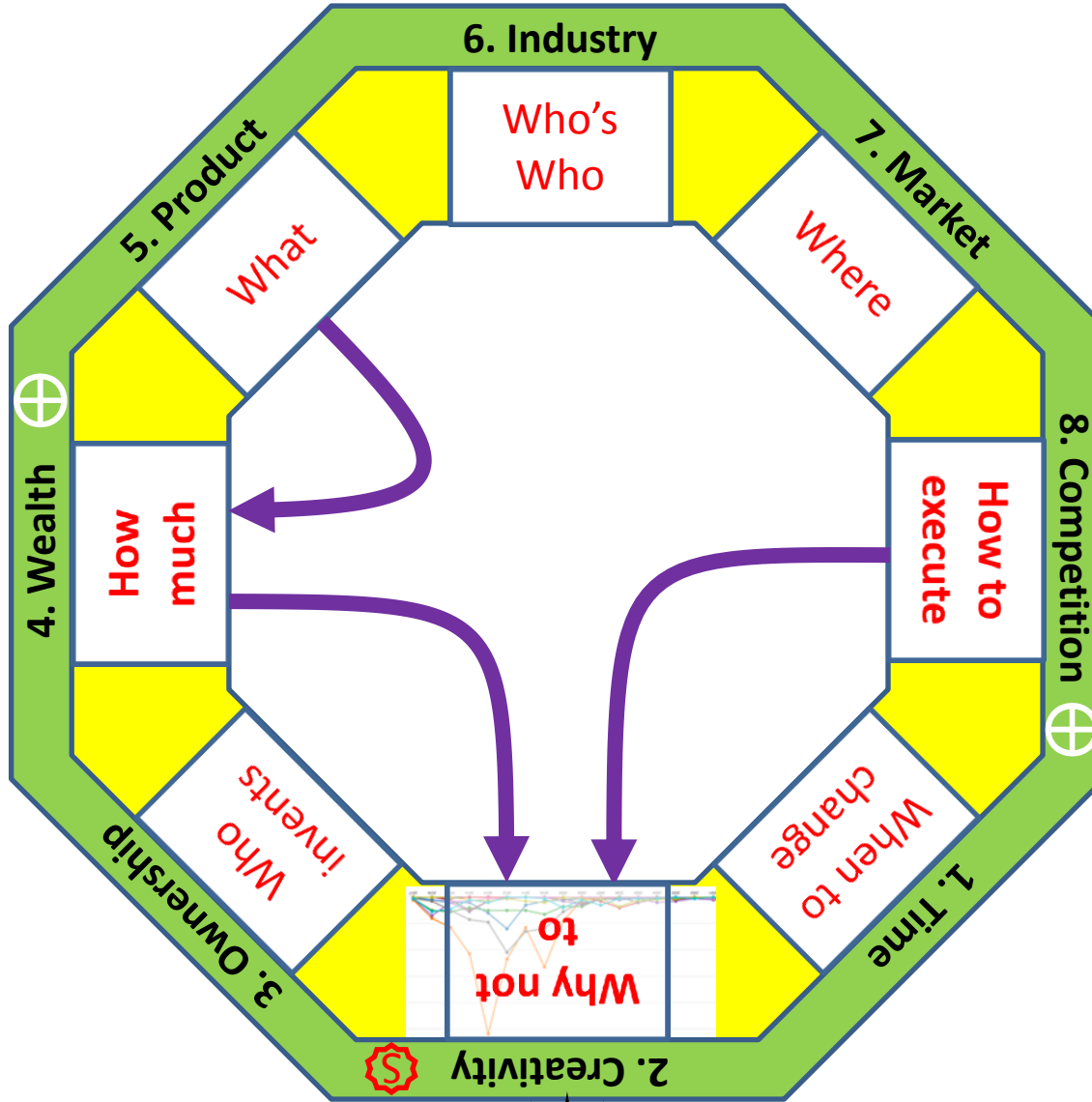


## If you want to overcome barrier to entry

- Blue ocean strategy is so powerful to open up a new market space
- Competition is less and profit potential is high
  
- *An example?*
  - *Breakthrough-oriented company like Dyson*
  
- *How do you do the analysis?*

3

Profit potential is high !



Competition is less !



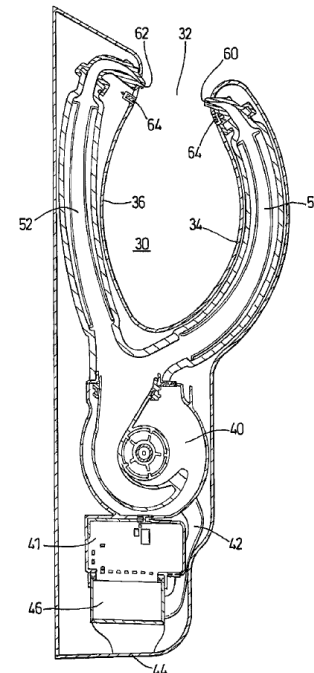
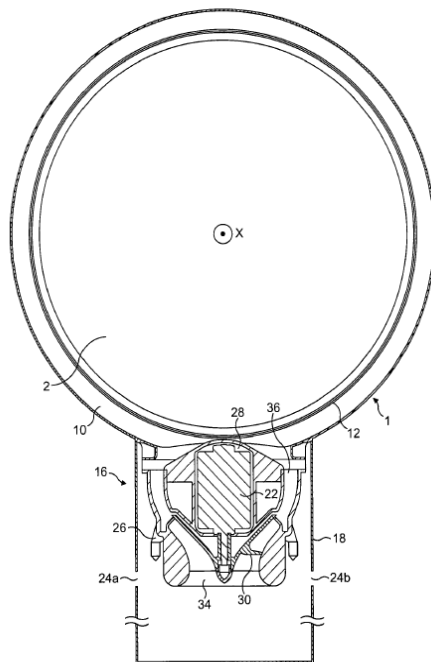
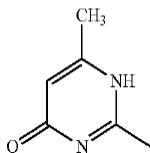
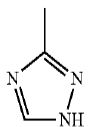
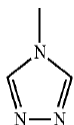
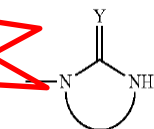
Overcome barrier to entry



3

# Seemingly Contradictory Features

Why  
not to



[US2015125646A1](#)

- published 2015
- Self-Healing Thermally Conductive Polymer Materials

[US2009060711A1](#)

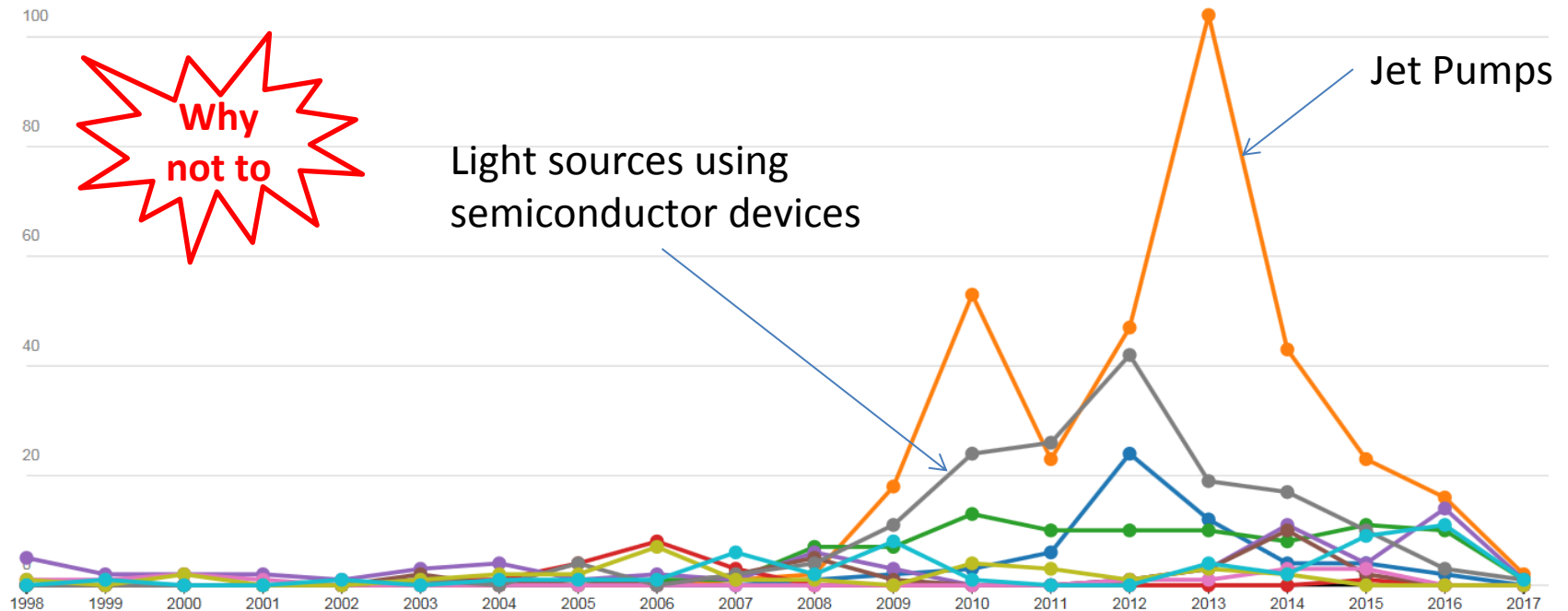
- published 2009
- bladeless fan

[US2008317448A1](#)

- published 2008
- heaterless hand dryer

# Success depends on your ambitions

- Starts searching patent databases (25,230 patents of air fans)
- Be more creative to improve the existing design
- Can fail for the reasons of high cost and competition



## If you want to **stay atop** creative rankings

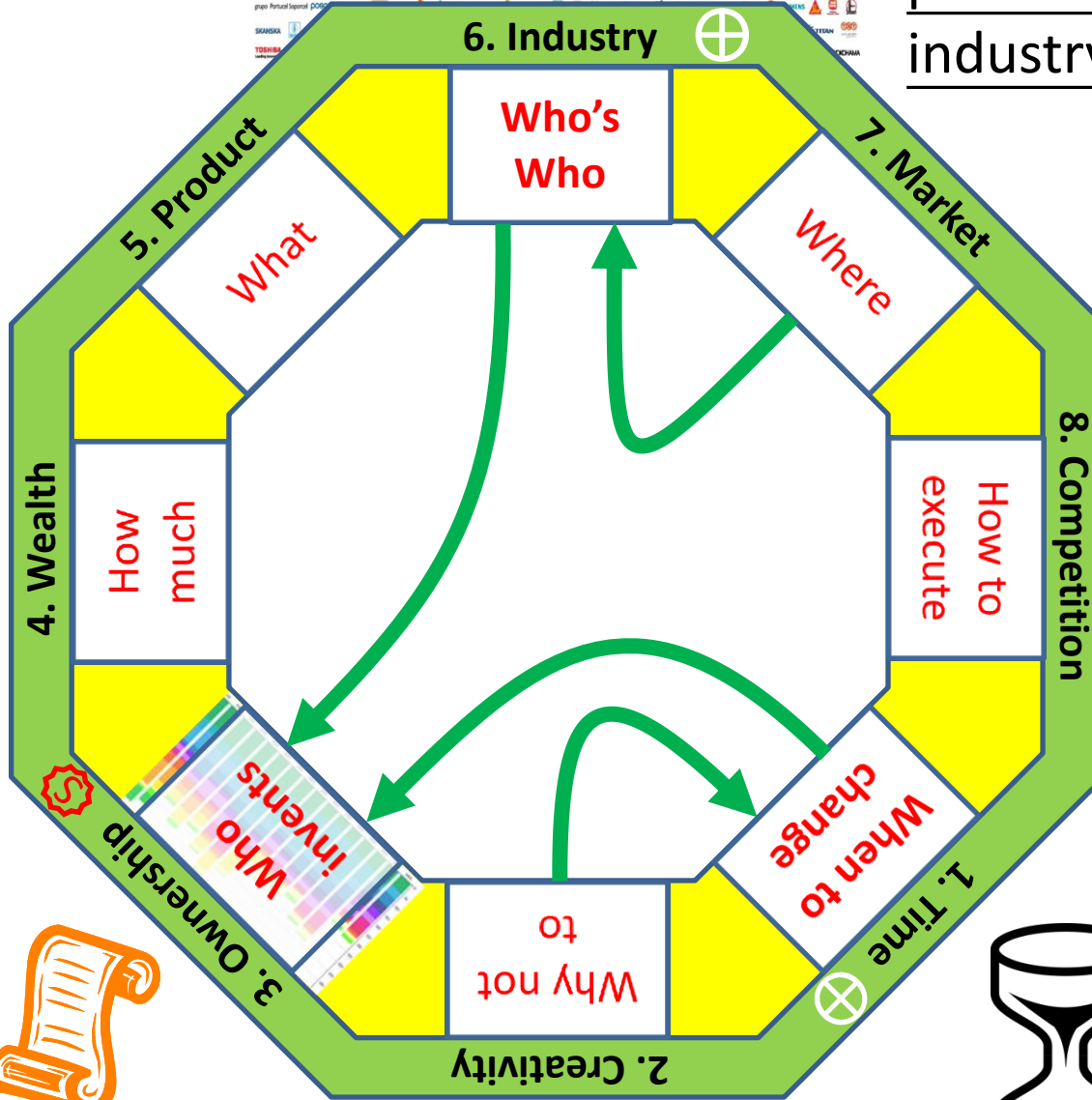
- Understand your creative position within industry while your profitable business rises
- *An example?*
  - *Growth-oriented company*
- *How do you do the analysis?*



4



Your creative position within industry



Stay atop creative rankings

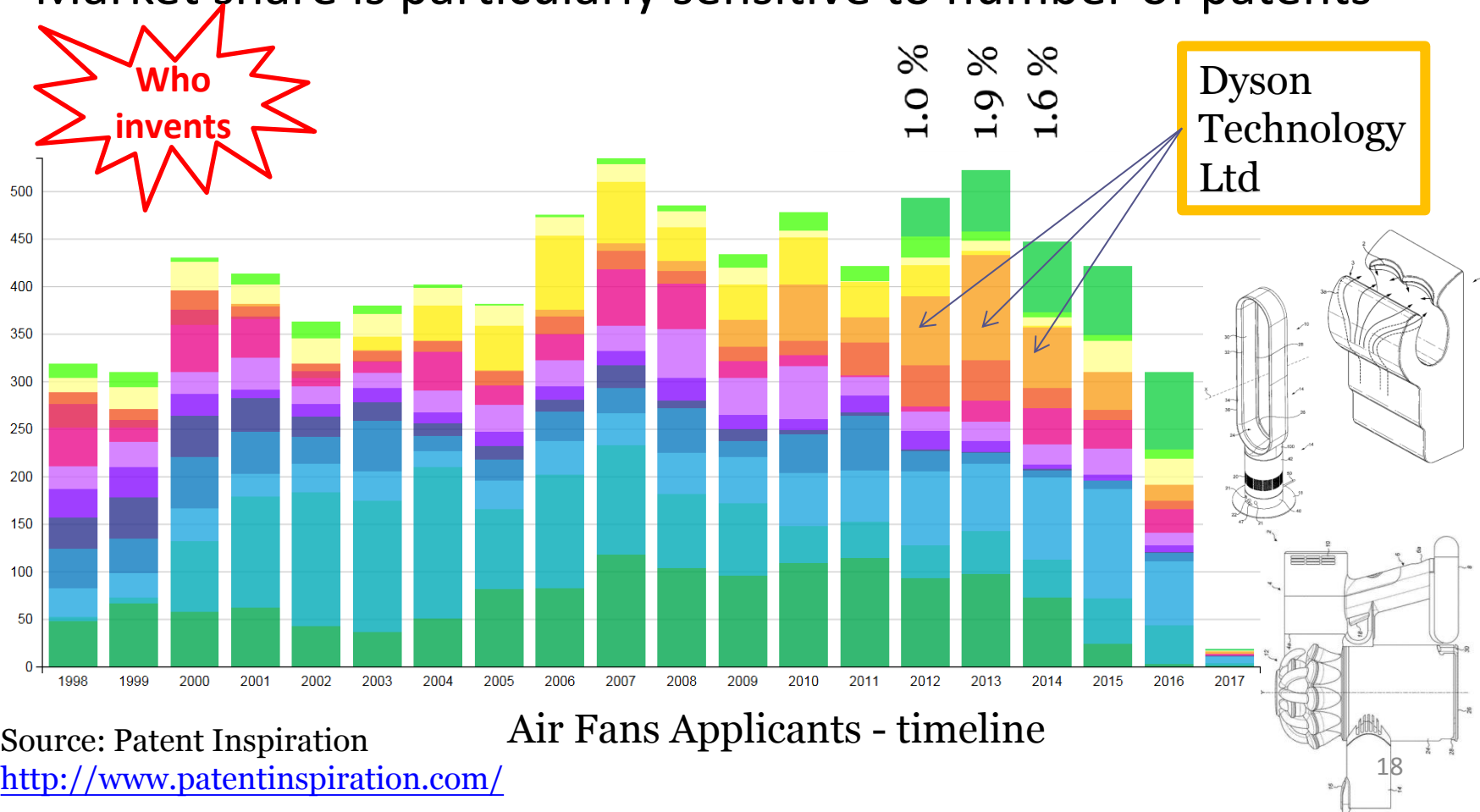


While your profitable business rises



# Count your patents within industry

- Patent-sensitive market
- Market share is particularly sensitive to number of patents



# If you want to commercialize your IPs

- 95% of market value is owned by 5% of patents
- 5% of market value is owned by 95% of patents
- Stay at the top of the value creation curve
- Customers often ignored the long tail
  
- *An example?*
  - *Production-oriented company*
  
- *How do you do the analysis?*

5

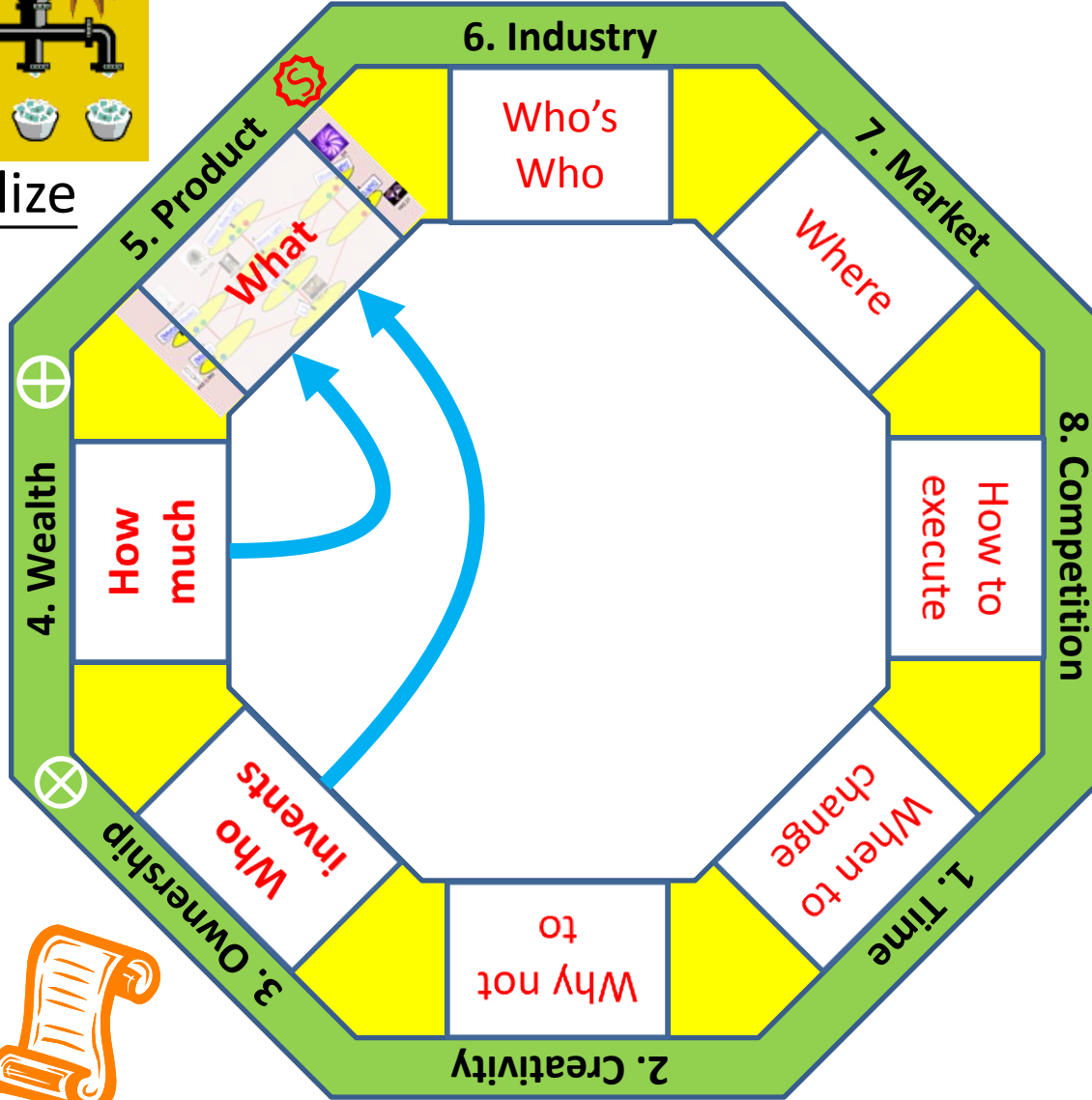


Commercialize  
your IPs



95% of  
value

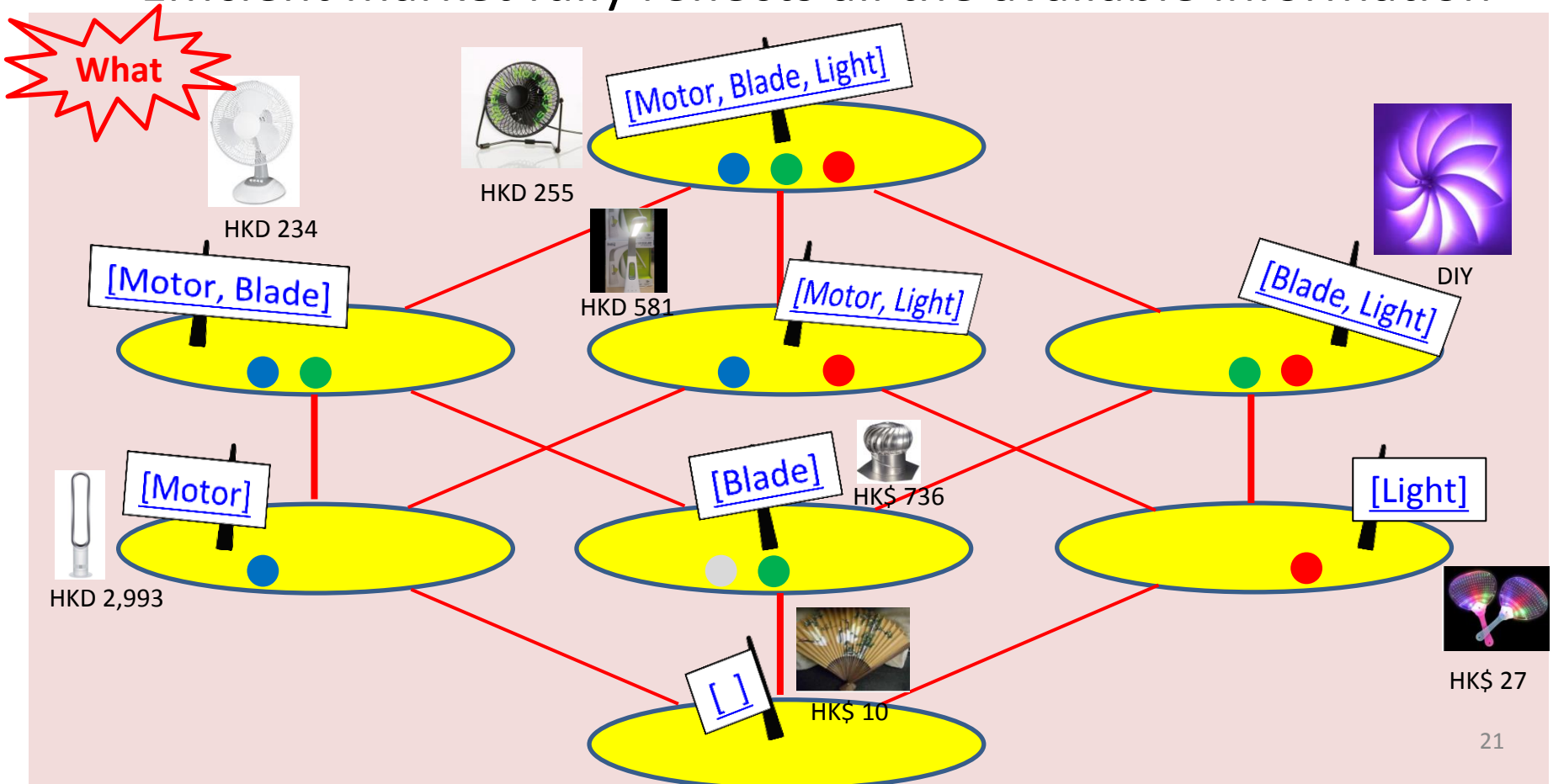
5% of  
patents



5

# Identify the commercialized products

- Starts searching on eBay
- Efficient market fully reflects all the available information



THANK YOU !