

# **Effective Utilization of Patent Information in Japanese global companies**

ATIS (Association of Technical Information Services)

Member: IHI Corporation

Intellectual property Dept.

IP STRATEGY G.

ATSUSHI SHIMIZU

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# Overview of ATIS

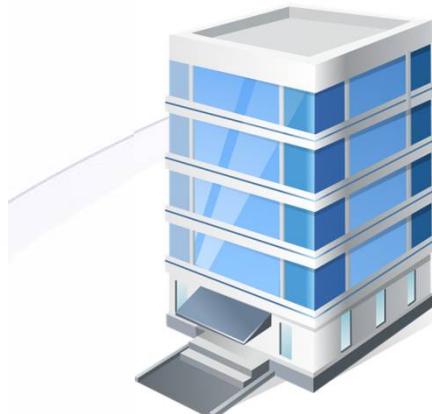


**(Association of Technical Information Services)**

- Established: 1981(Started with 8 companies)
- Number of member entities: about 40
  - The members are companies which provide technical information services (including Patent information) and mainly subsidiaries of Japanese major companies, and some of the members are the companies' division providing the services.
- Purpose
  - As for the technical information, advancement of ATIS members' knowledge and skills, and contribution to Japanese industries evolution through various activities about the technical information services.

# Parent company and subsidiary for intellectual property job

ATIS



(Intellectual Property Division in Parent Company)

- Intellectual Property Strategy
- Intellectual Property Management
- Patent License
- Litigation
- Patent Search
- Procedure of Patent Application

(Subsidiary for Intellectual Property)

- Patent Search
- Procedure of Patent Application

# Activities 2017

ATIS

## Panel Discussion



# Purpose of making use of PI data

**IHI**  
Realize your dreams

## **1) Patentability Search**

To confirm the patentability of the invention by investigating prior art.  
This will reduce useless patent applications.

## **2) Freedom-to-Operate Search**

To confirm that own products may not infringe patent rights of other companies.

## **3) Validity/Invalidity Search**

To find prior art that can invalidate a patent when finding a patent that obstructs own business or receiving a warning of patent infringement.

On the contrary, to confirm the validity of own patent when warning other companies with patent infringement.

## **4) Patent application technical trends analysis**

To survey the activities of other companies by investigating patent applications in a given field of business.

# Patent application technical trends analysis

## General Information Analysis

- Market, Regulations ; External environment
- Key company's Business environment and feature
- Product features

## PI data Macro Analysis

- Each company's Technology trend
- Domestic and foreign patent application trend
- Main keywords, Classification

## PI data Micro Analysis

- Applying own patent classification
- Detailed analysis (Specialty, Core technology)

## PI data Core Analysis

- Identification of flagged patents on main products

# Patent application technical trends analysis

## Case Study

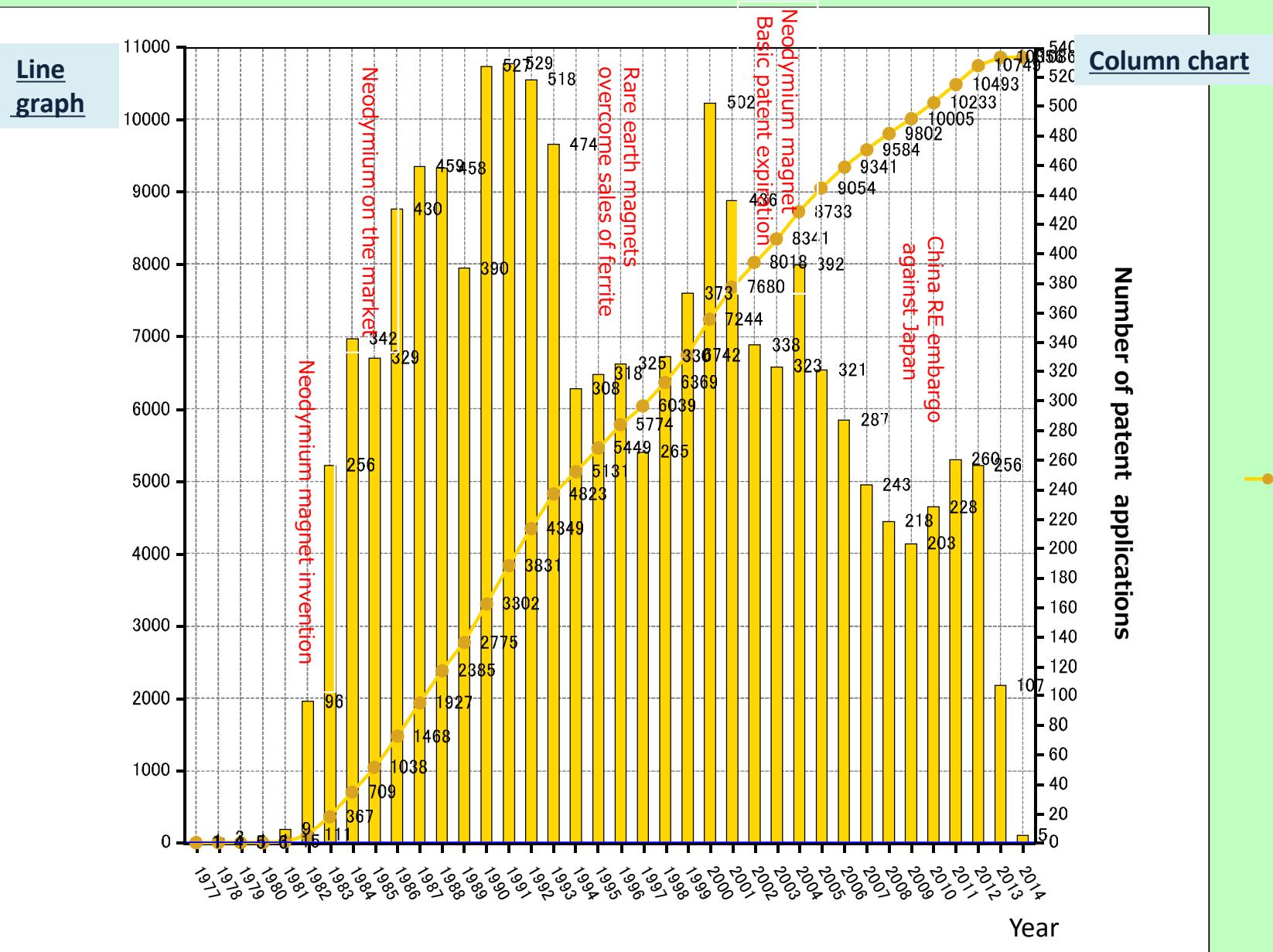
### 1) Rare earth magnet

Neodymium magnet is a powerful rare earth magnet invented in Japan.

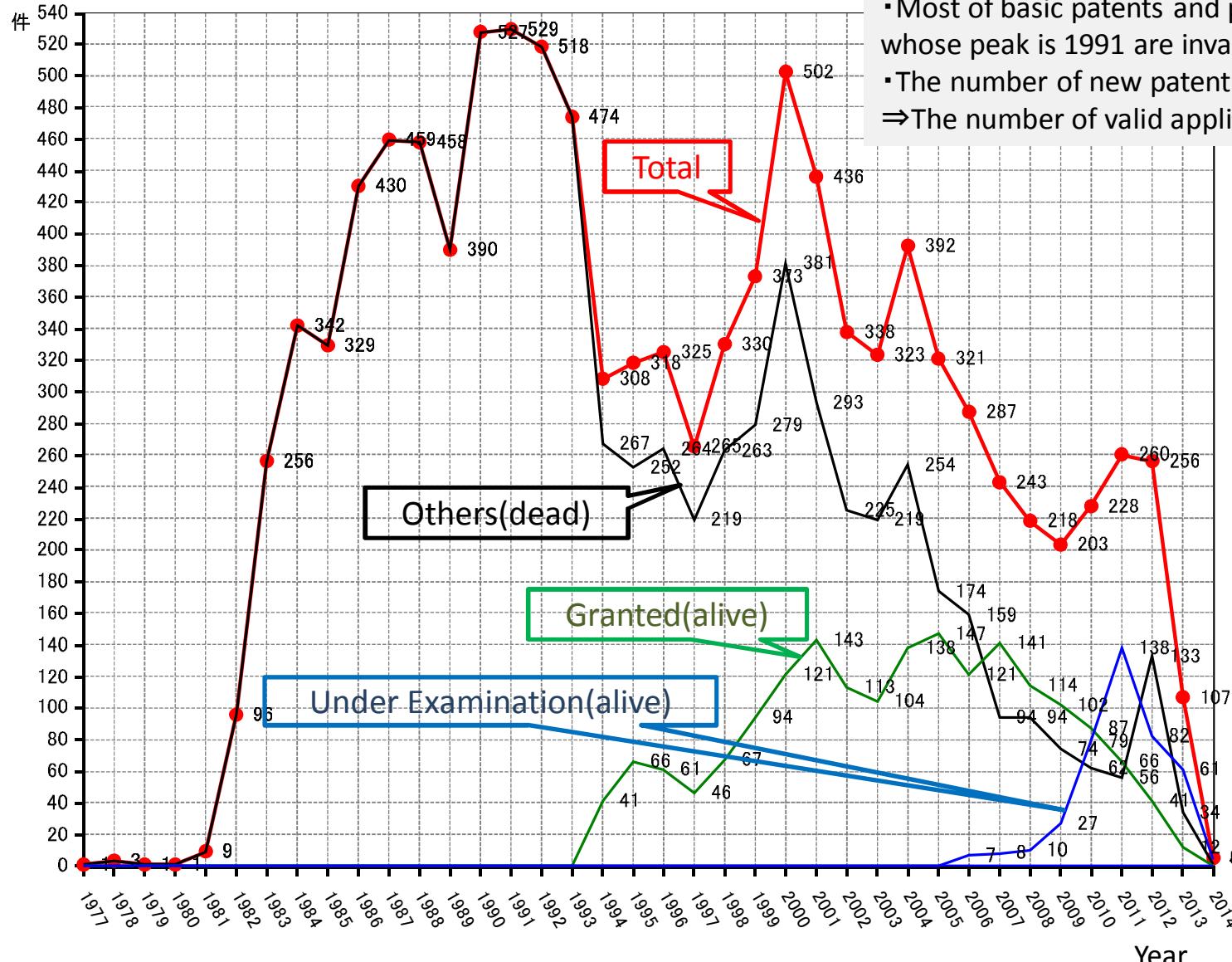
### 2) dyson

NOTE: These case studies were investigated in 2016 and are not up-to-date.

# Number of patent applications by filing year



# Legal status of patent applications by filing year



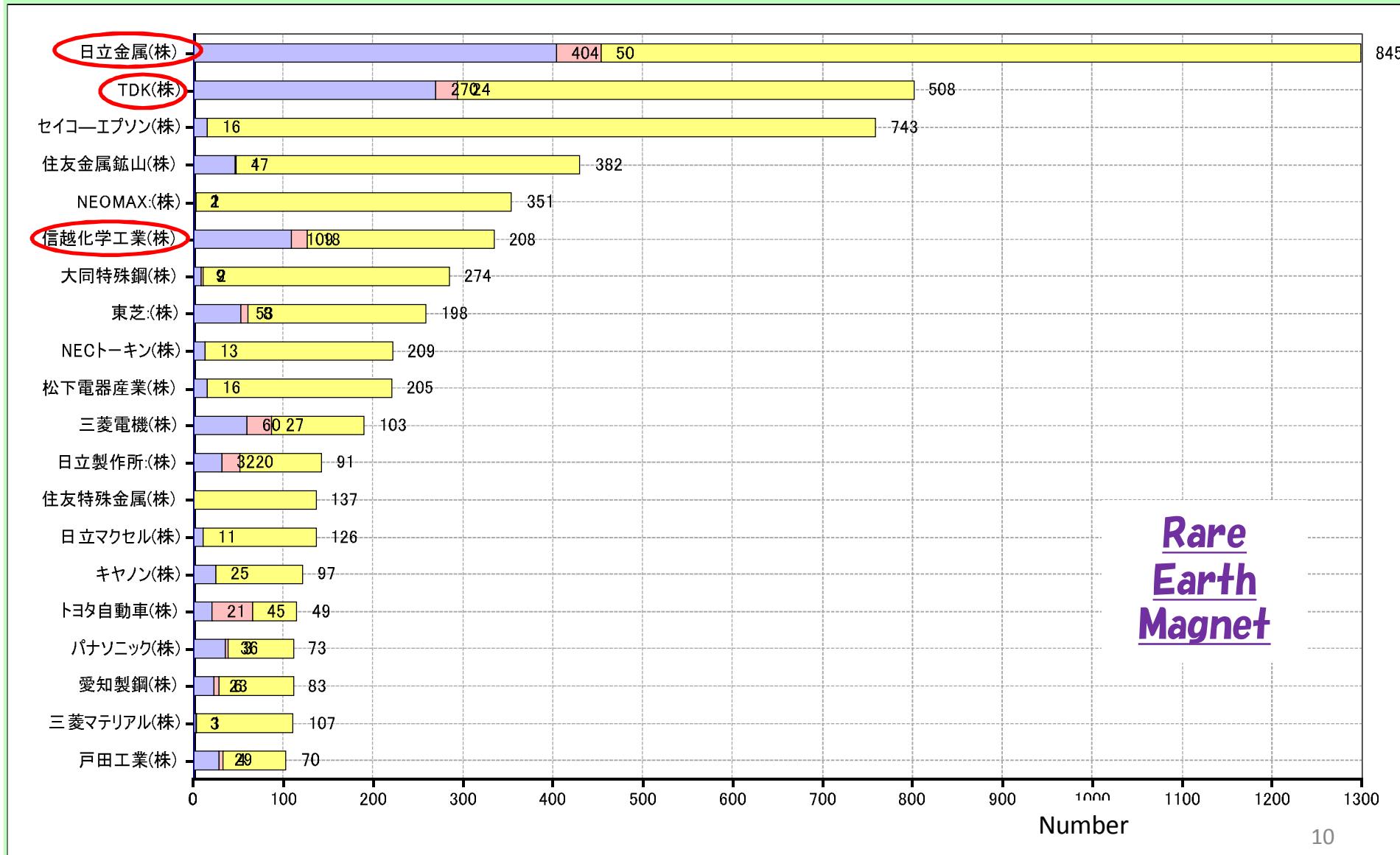
- Most of basic patents and peripheral patents whose peak is 1991 are invalid.
- The number of new patent application is few.  
⇒ The number of valid application will not increase.

Others: Invalid patent due to expiration of duration of right and so on.

Rare  
Earth  
Magnet

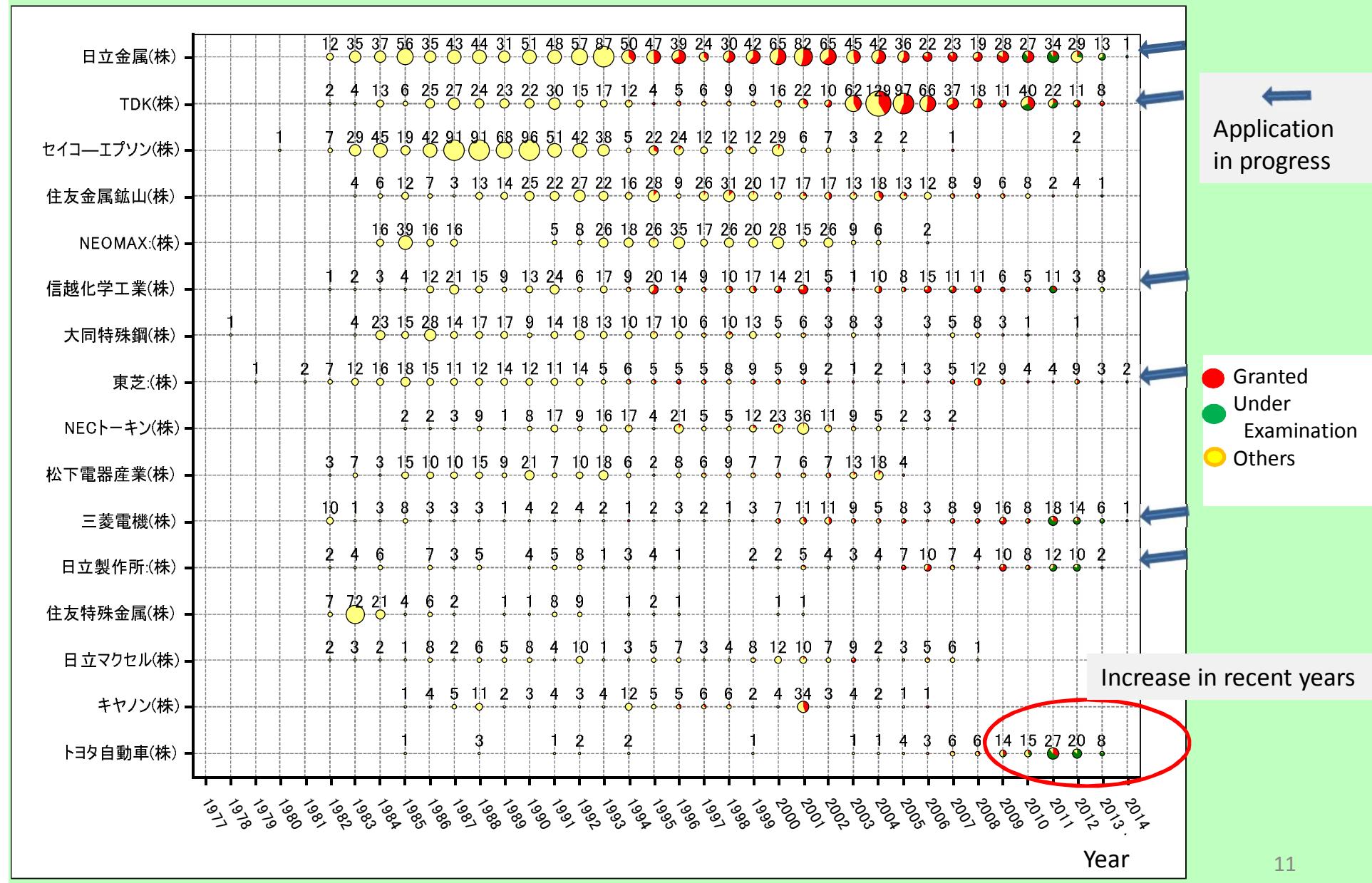
# Top 20 companies with the most number of patent applications

Granted      Under Exam.      Others

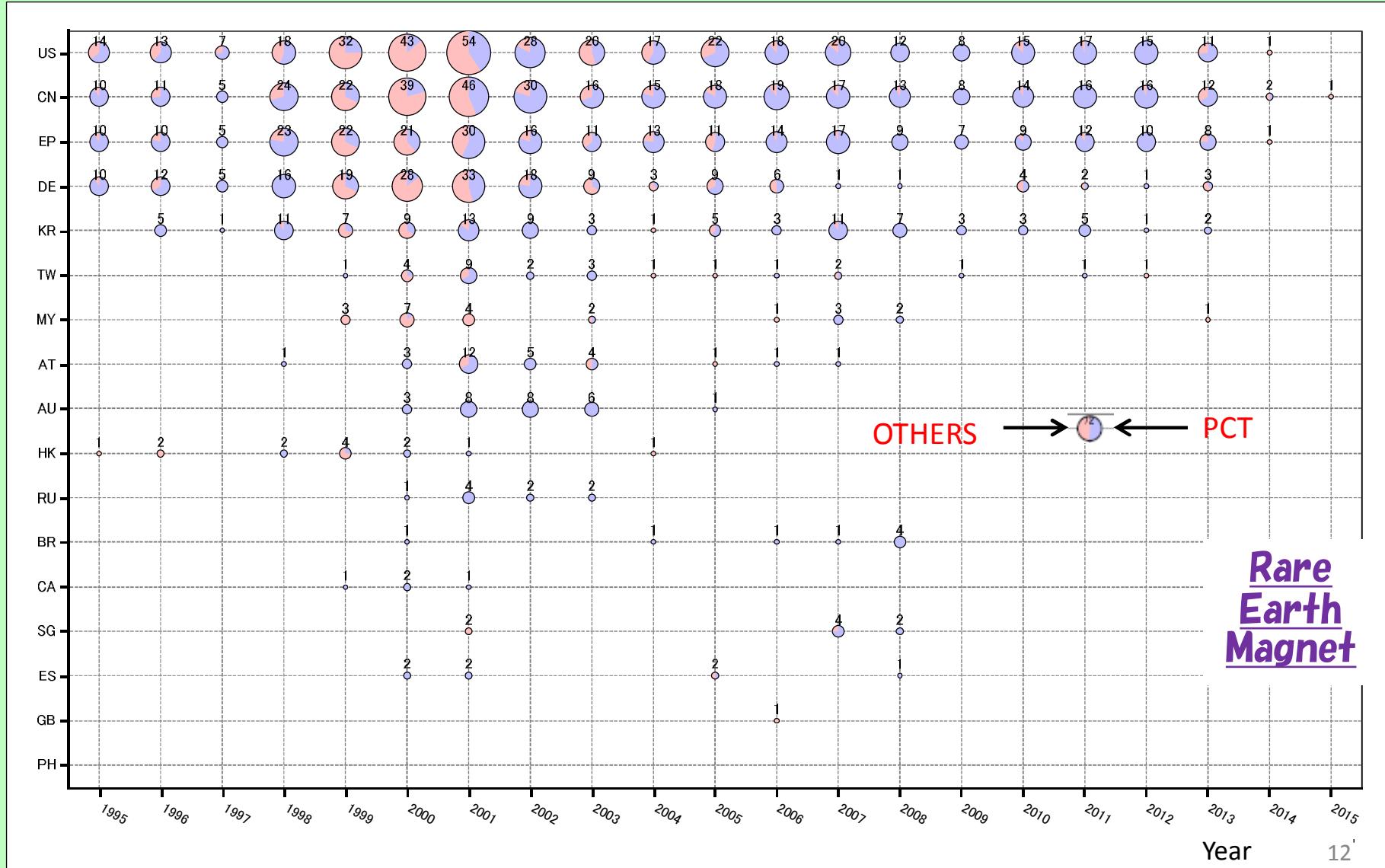


# Top 16 companies' patent applications by filing year

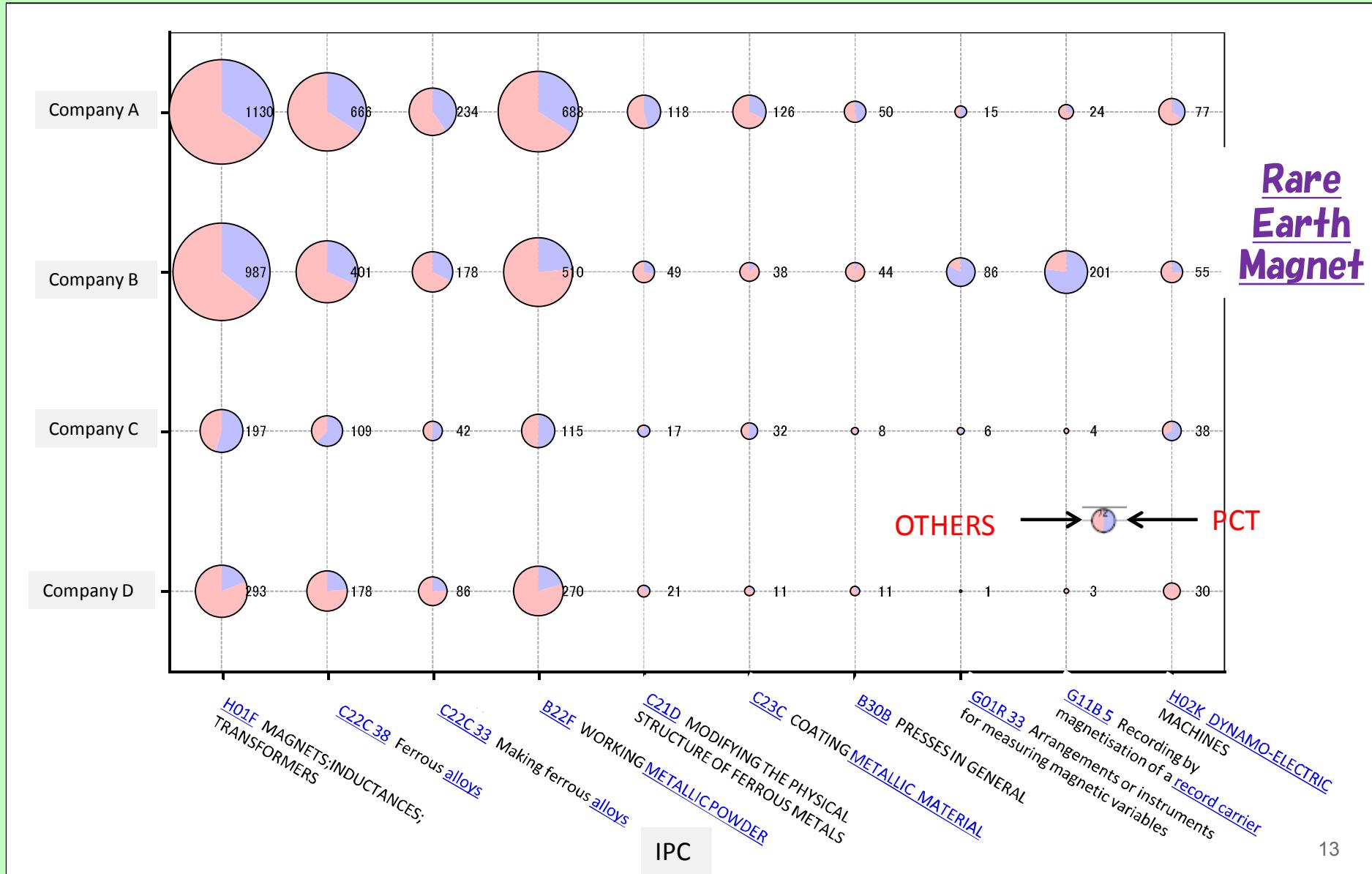
Rare  
Earth  
Magnet



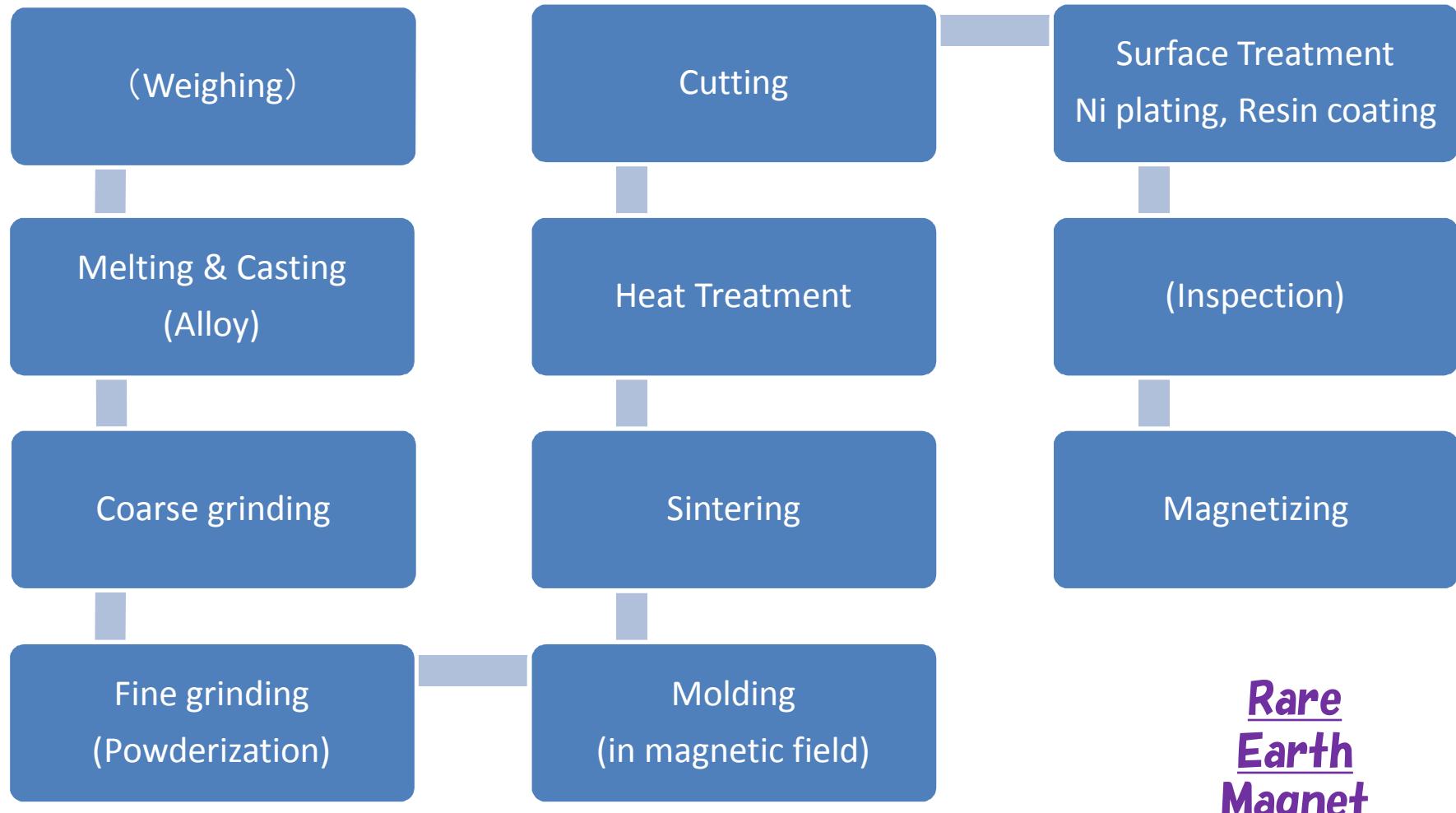
# Number of patent applications in the world IP offices by filing year (company A)



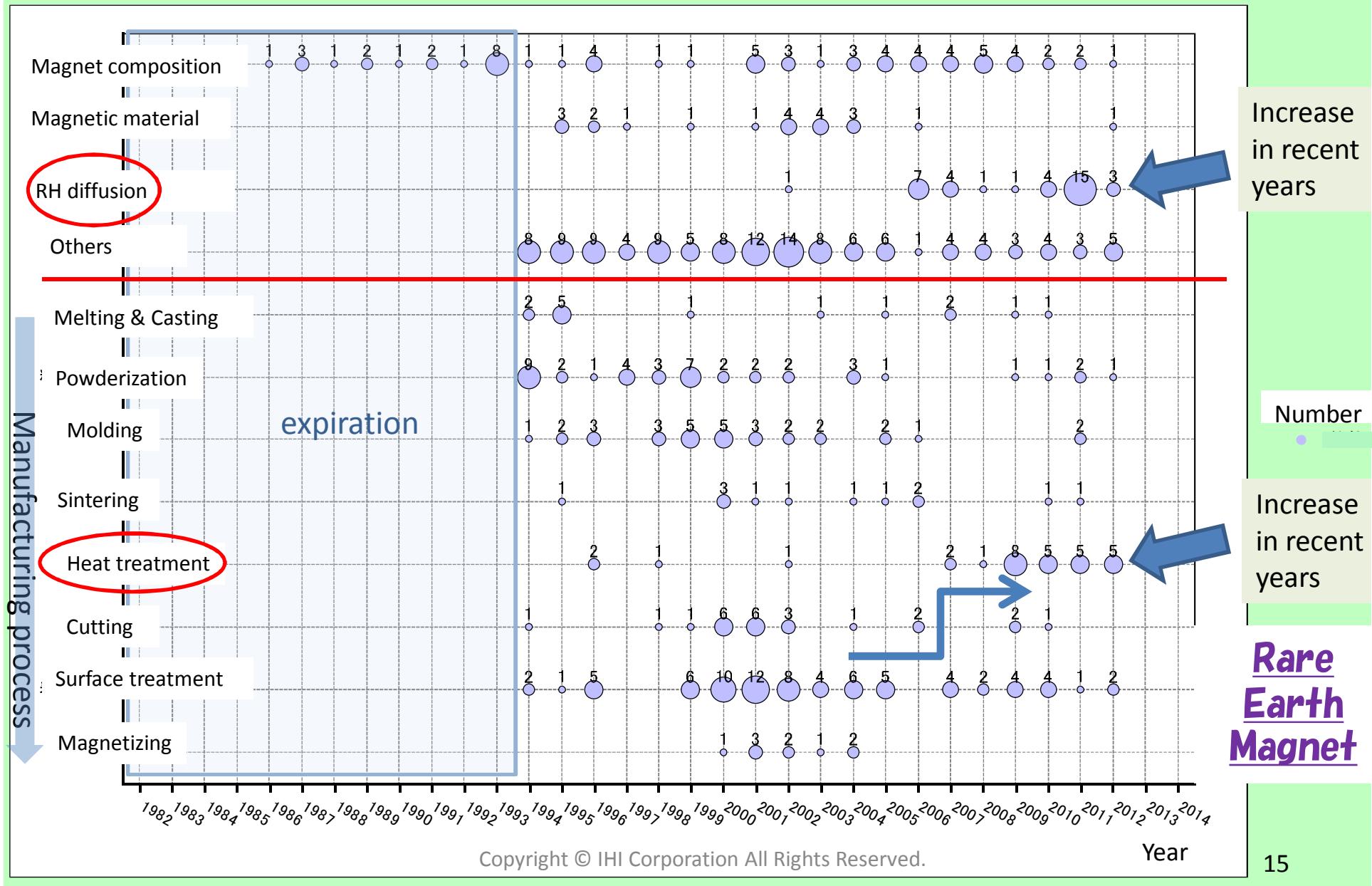
# Worldwide Patent Applications by International Patent Classification (4 major companies)



# Own classification by manufacturing process



# Applied own classification to valid patents for company A



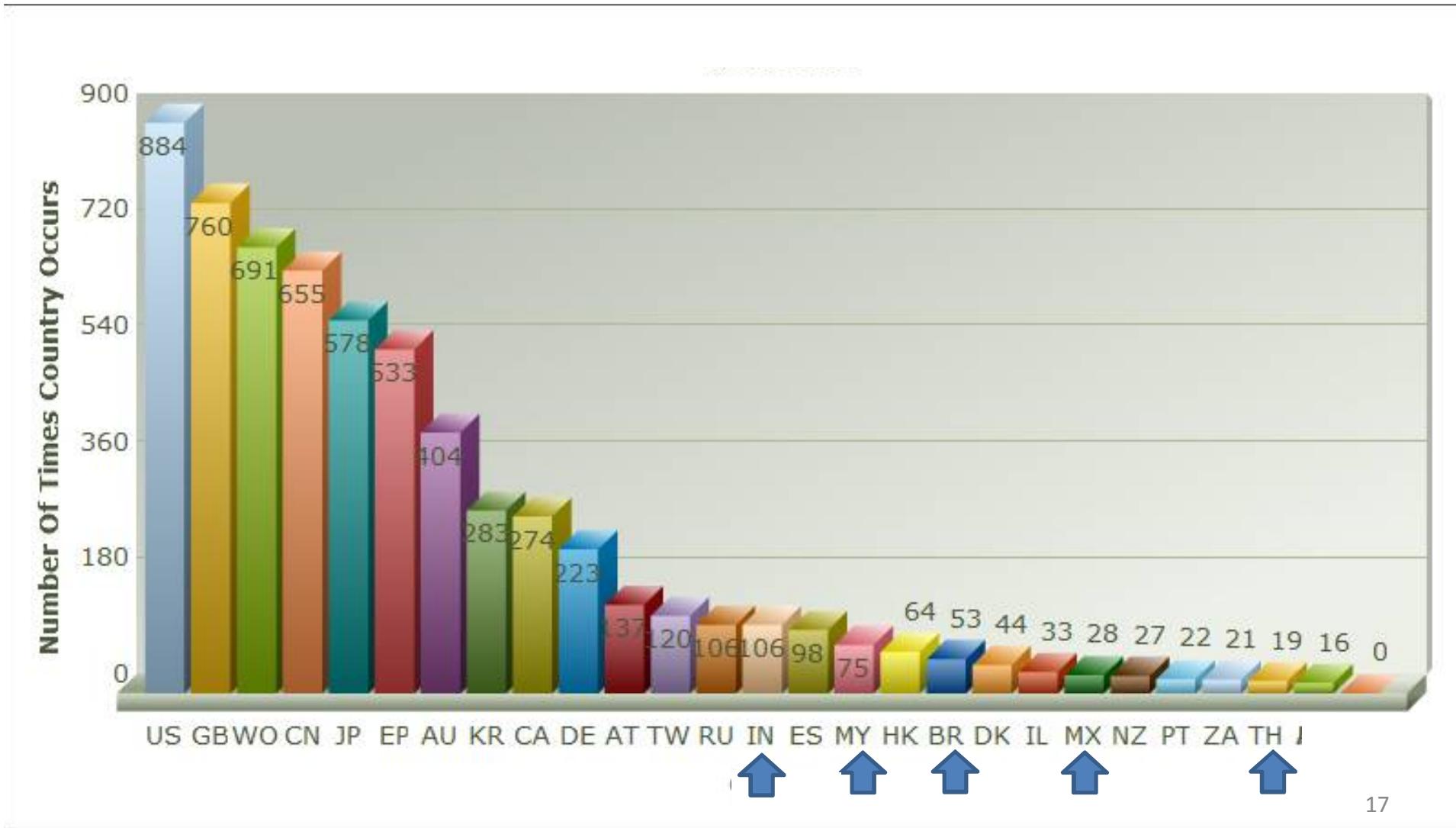
## 2) dyson

World's first Dyson flagship shop in Omotesando

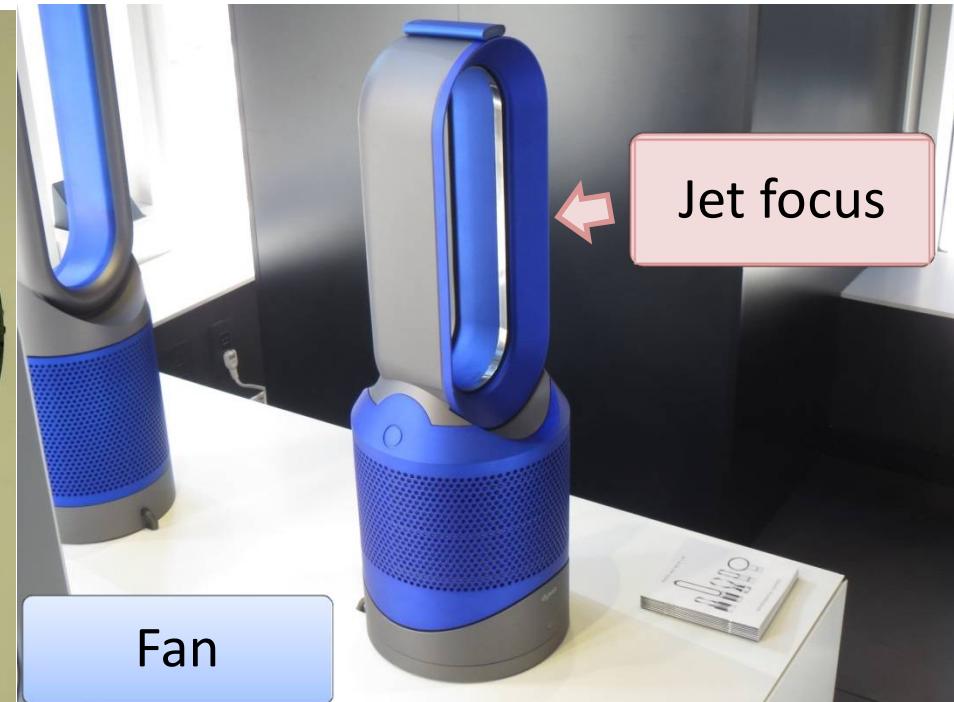
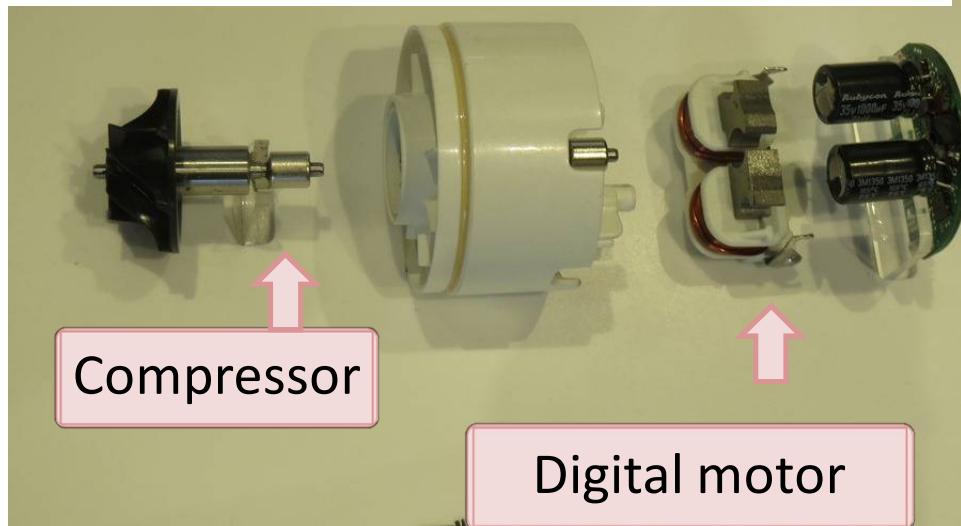


5 minutes walk from this UN University to  
Tokyo Metro Omotesando station

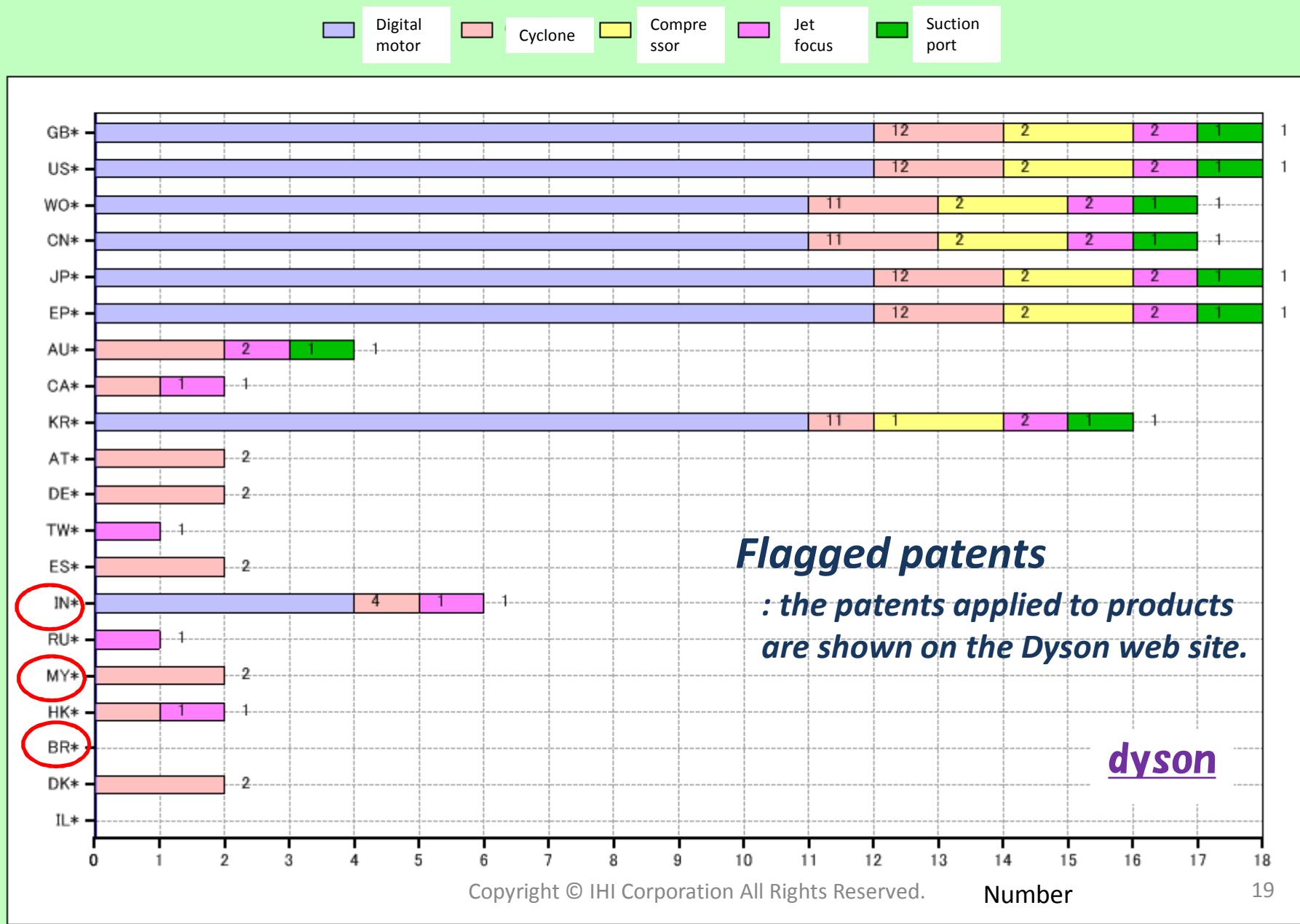
# Number of patent applications in the world IP offices by dyson



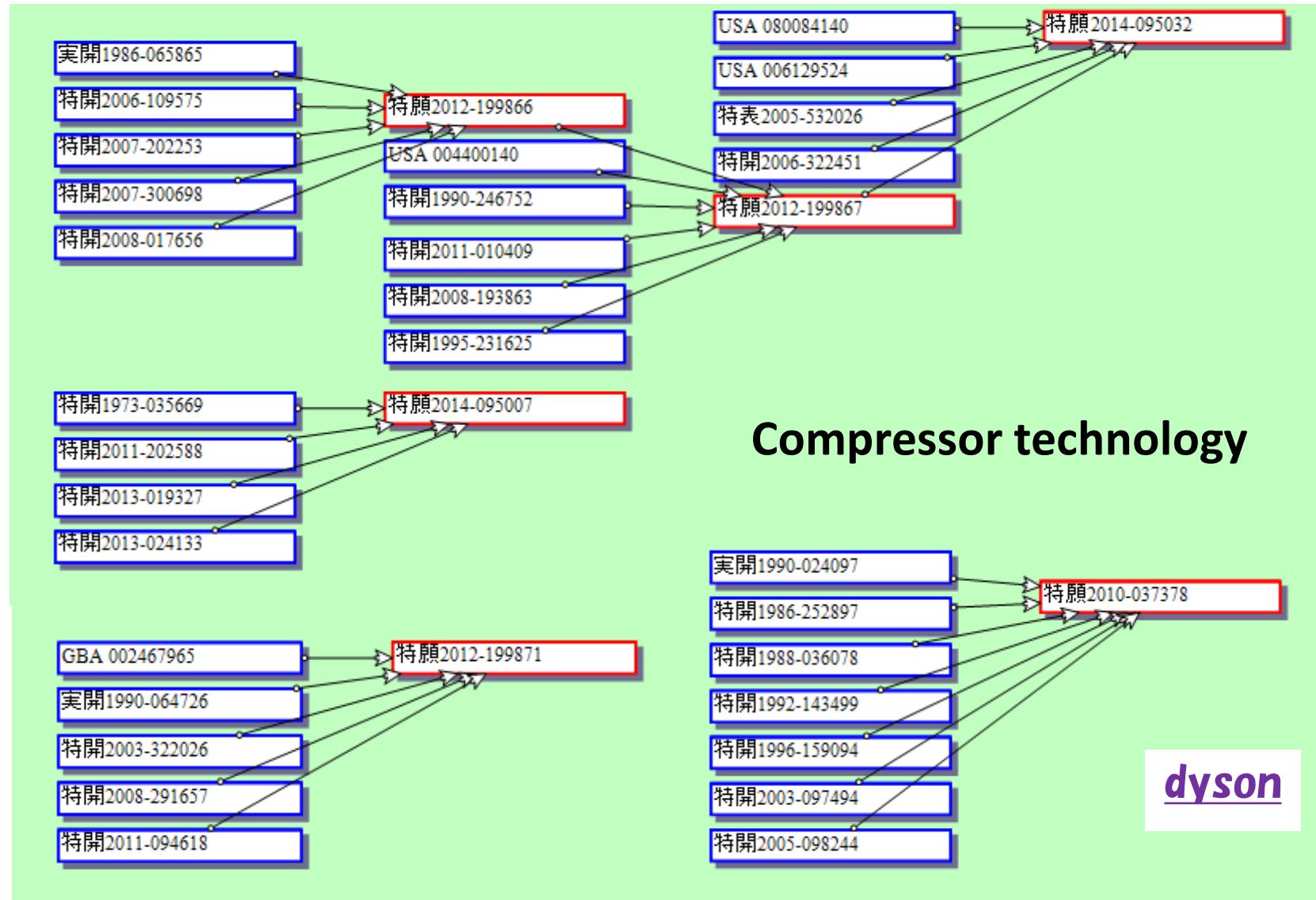
# Dyson core technologies and products



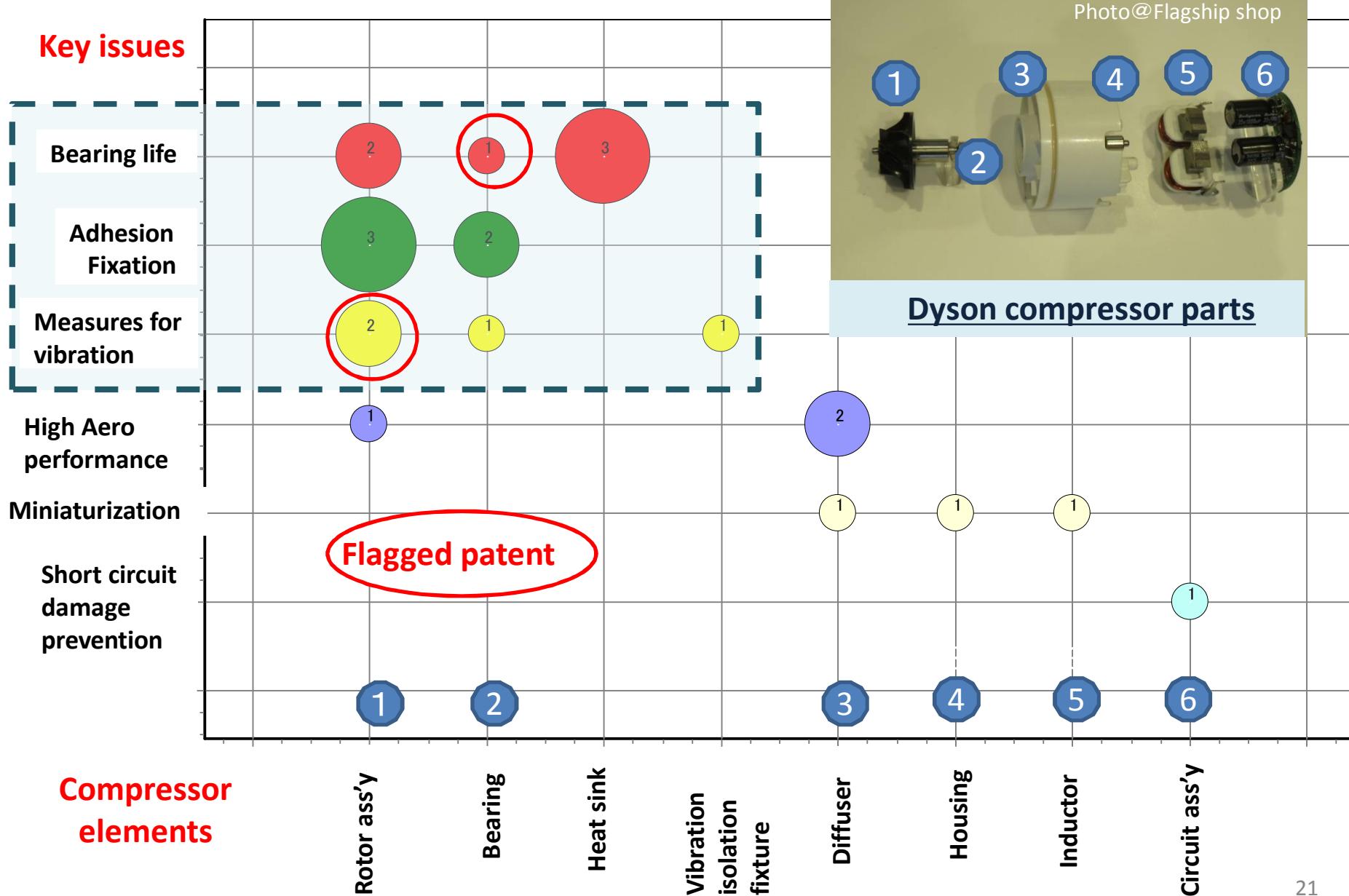
# The patent application strategy to each country



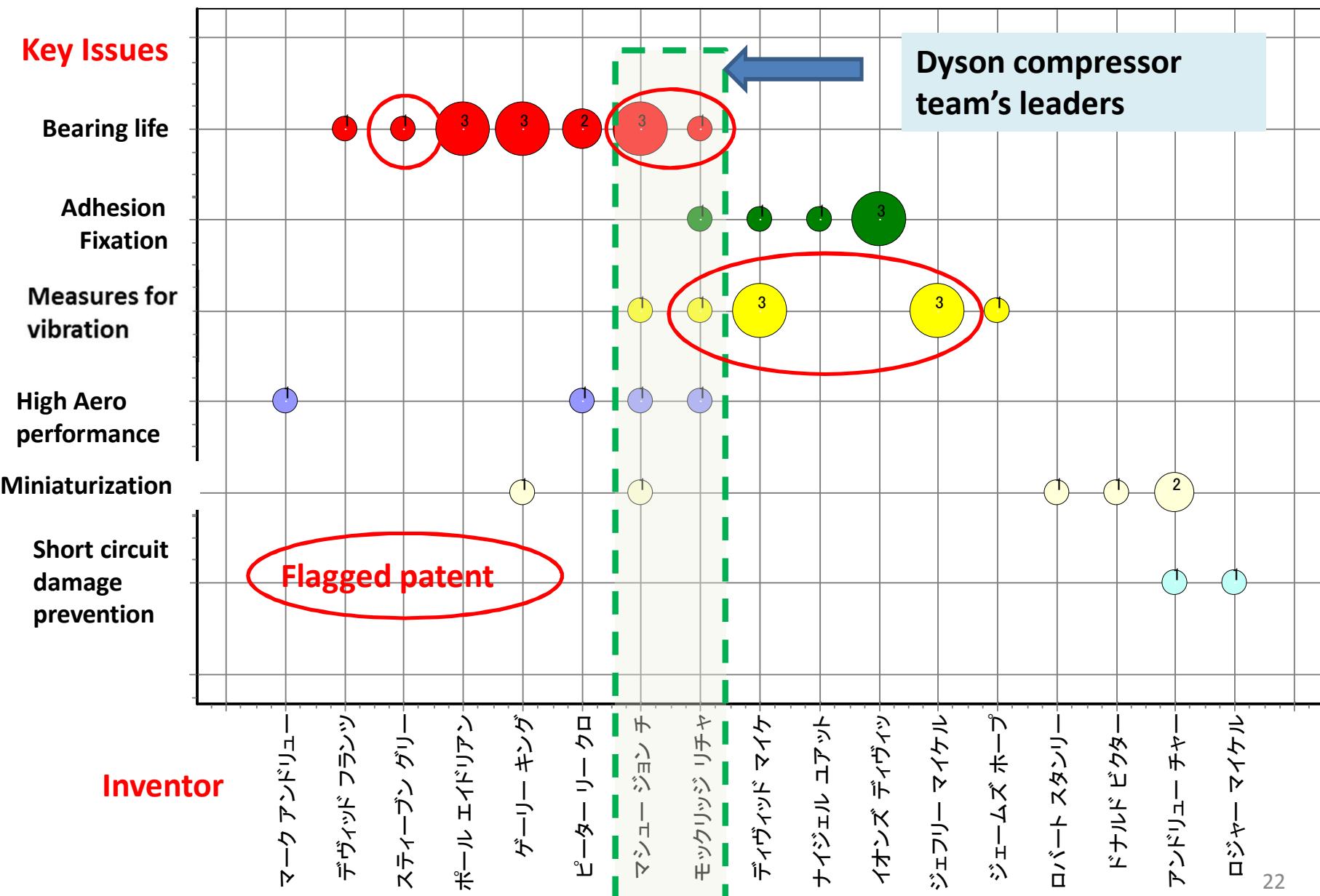
# Interpatent relation (Citation data used in patent examination)



# Extract key issues from official gazettes



# Identify the compressor technology team by categorizing inventors with the same key issue



# Conclusion

- Japanese companies are utilizing the patent information actively for global business strategy.
- The purposes of using the information are as follows:
  - To recognize the strengths and weaknesses of companies in each country
  - To confirm the affects of Competitors' patents in each country
  - To search the co-creating companies from each country

# Requests from companies

ATIS

Patent Information data should be recorded and published in a timely manner, completely, without loss.

## Importance of accurate PI data

- 1)Have a major influence on the search results and accurate analysis.
- 2)Prevent duplicated research, investment and filing.
- 3)Help make use of invention as technical literature.