

# Practical Implications of **Patent Families** on **Patent Analytics** and **Competitive Intelligence**

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CEPIUG 10<sup>th</sup> YAC Milan, Sept 2018

# IP Analysis contributes to Philips and IP&S **business** and **strategy** with filtered, **analyzed** information

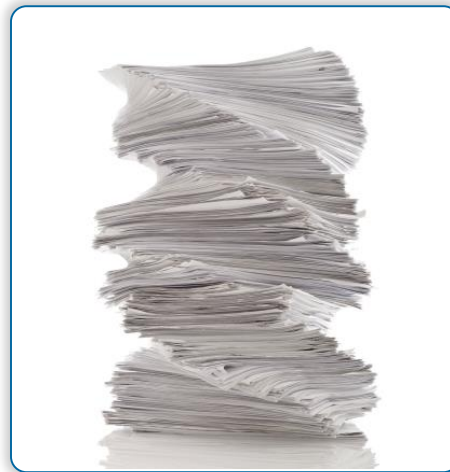


Patents, Trademarks, Designs  
Scientific papers  
Market data  
Company data  
Litigation data  
...

Patent and other IP data is an excellent source of information for insights and predictions regarding technologies and competitors



Competitors **invest** to protect their **innovation**



**Right to exclude** others comes at the price of making the **information public**

How is this analysis impacted by **Families**?



**Technology intelligence**  
**Competitive intelligence**



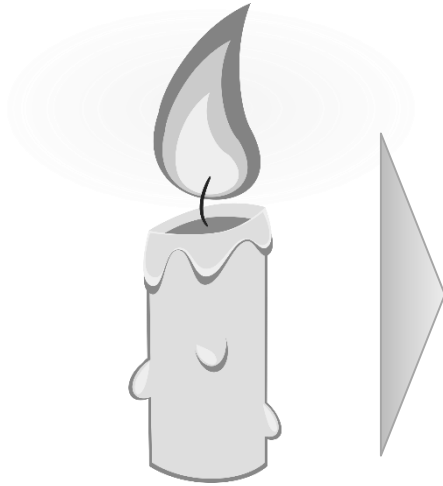
Introduction

Technology  
Fields

3 Use Cases

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# Why Analyze on the Patent Family level?



# Patent Families

## Simple

- **Single invention**
- Identical **technical content**
- Family members **all priorities** in common
- **Continuations and divisions** in one patent family



## INPADOC (extended)

- Collection that covers **similar technology**
- At least **one priority in common**



## FamPat

- Similar to **simple family**
- Exactly **same priority**
- Some **additions**, e.g. for Japanese applications



## DWPI

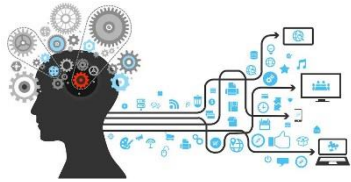
- Describing **one invention**
- Same **technical content and classification**
- Includes **non-convention** patents



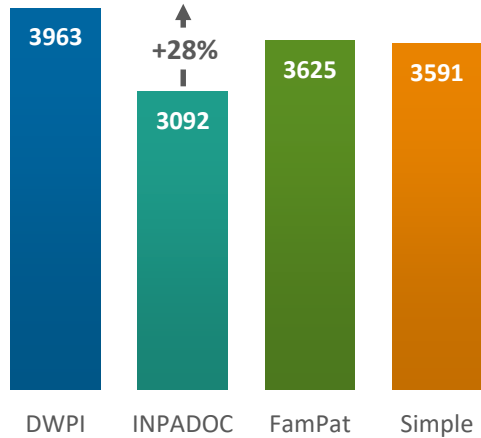


# Delta between Family Definitions depends on Technology Field

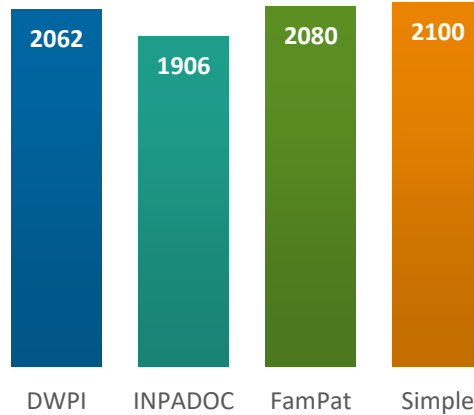
# Patent Families



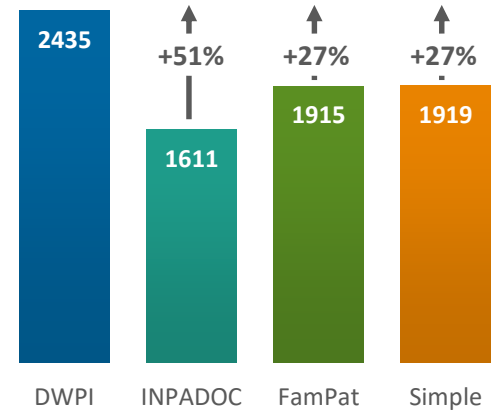
Medical Expert Systems



X-ray Tubes



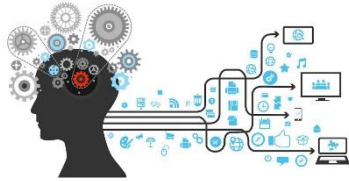
Activity Tracking



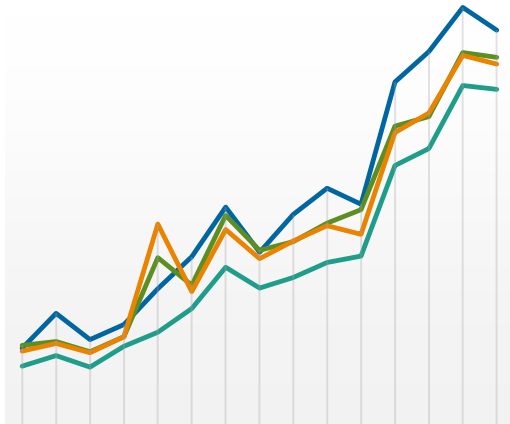


# Delta between Family Definitions depends on Technology Field

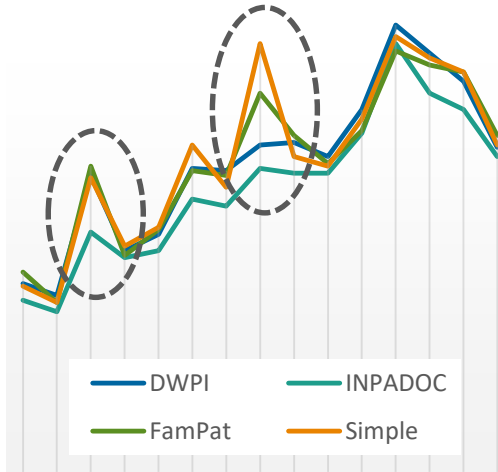
# Annual Filings



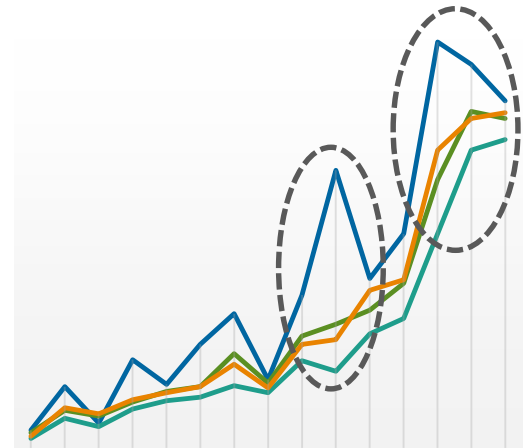
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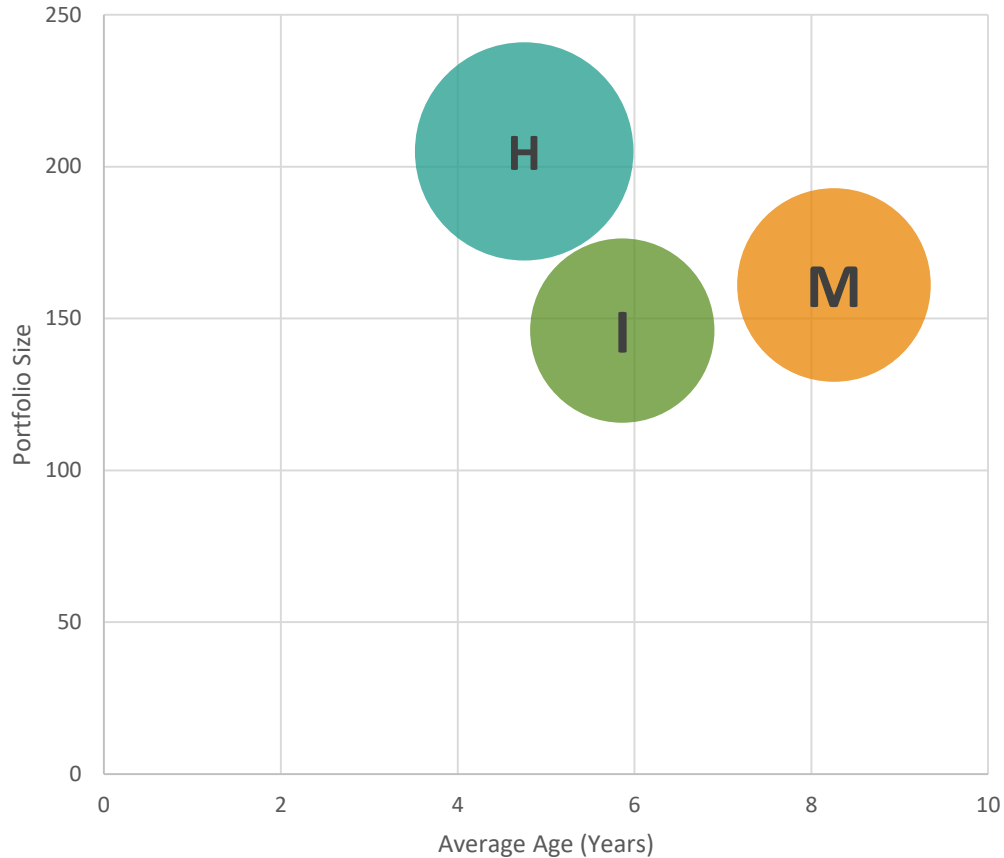
Use Case 1:  
**Partnering**



We need an overview of the patent landscape to **select a partner** for Project X.

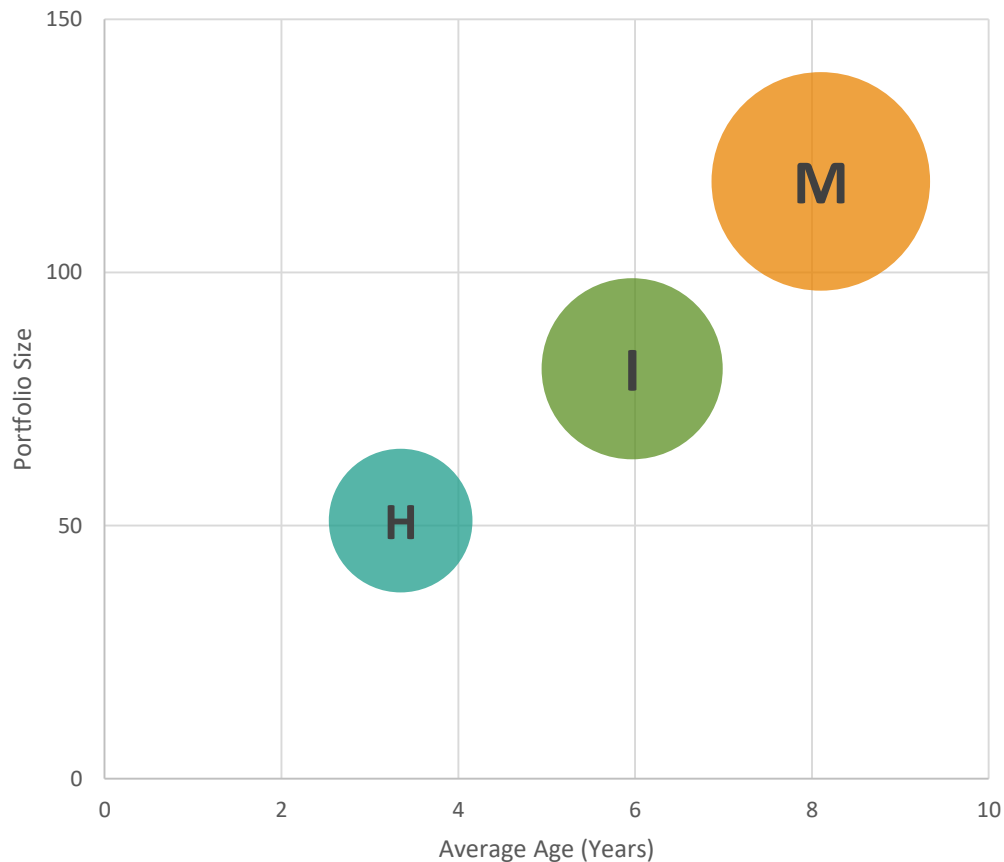
It's a simple question: **Who has the best patent position?**

...and Joakim - it's urgent.  
Just high level, **no need for details**

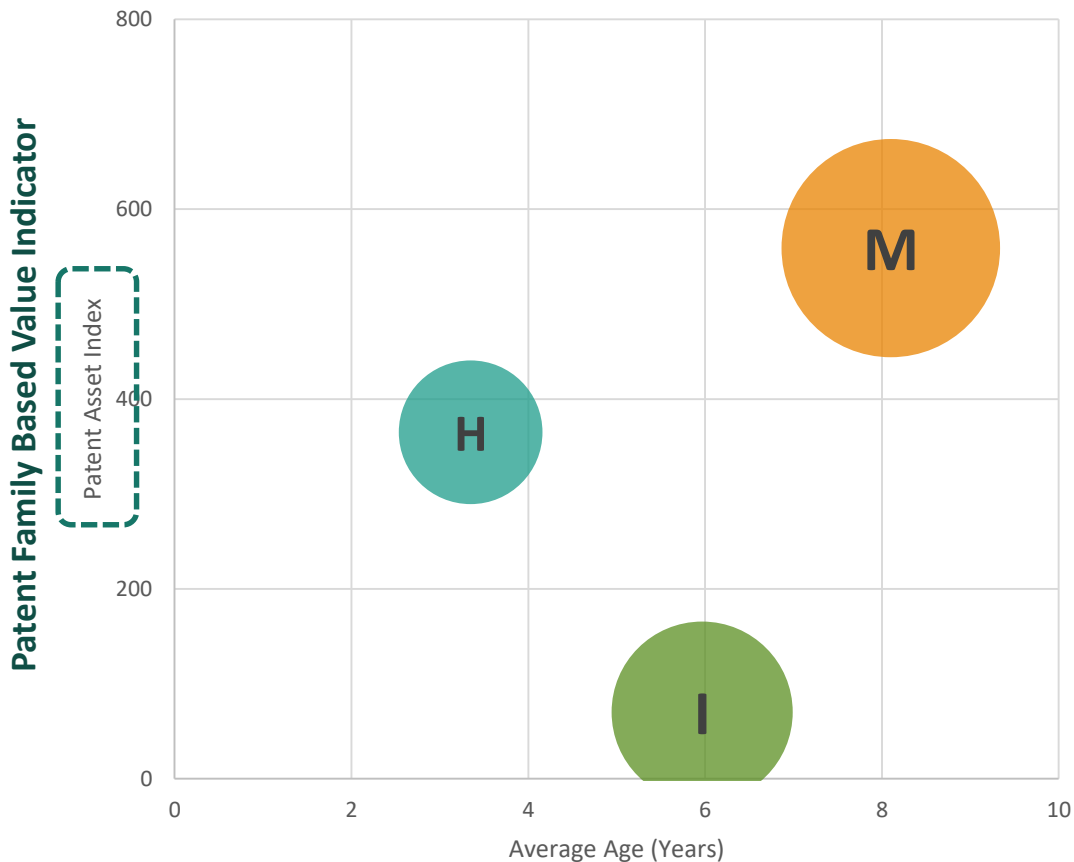


**Company H** is a clear **leader** with a large and relatively young portfolio. **Company M** has the second largest portfolio and **Company I** follows closely on third place

**Company M** is the clear **leader** with a large and mature portfolio. **Company I** follows in second place. **Company H** has a small portfolio.






**Company M** stands out with statistically **strongest** portfolio. **Company H** is second with a very high average **competitive impact**. Company I is far behind



# Conclusion

## Use Case 1: Partnering

	 Derwent Innovation Portfolio Size	 PATENTSIGHT Portfolio Size	 PATENTSIGHT Patent Asset Index
M	2	<b>1</b>	<b>1</b>
H	<b>1</b>	3	2
I	3	2	3

Patent portfolio size comparisons can be sensitive to choice of patent family definition

Using e.g. statistical value indicator next to simple count gives additional insights

Beware of huge patent families e.g. from small focused companies filing many continuations and divisions

Use Case 2:

# Filing Benchmark

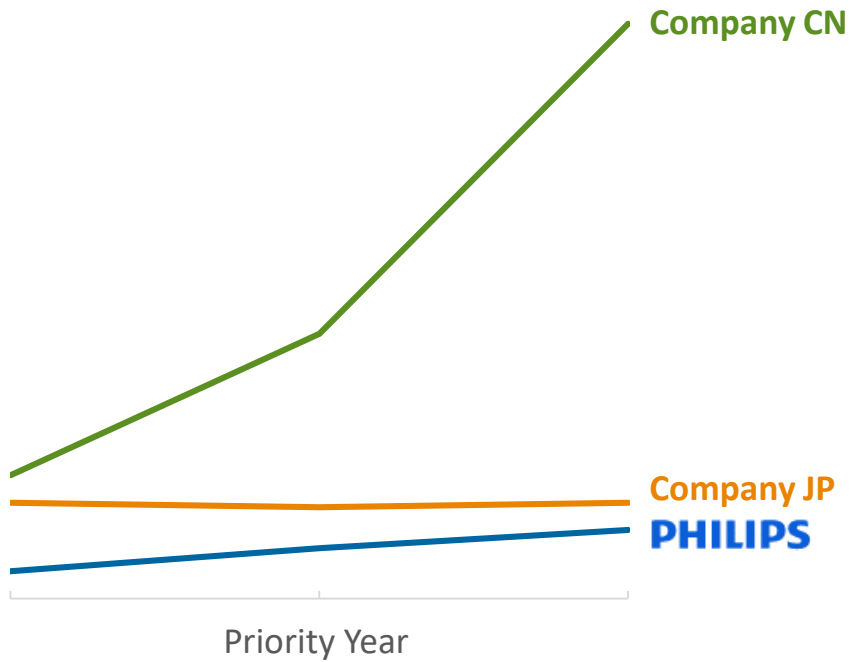




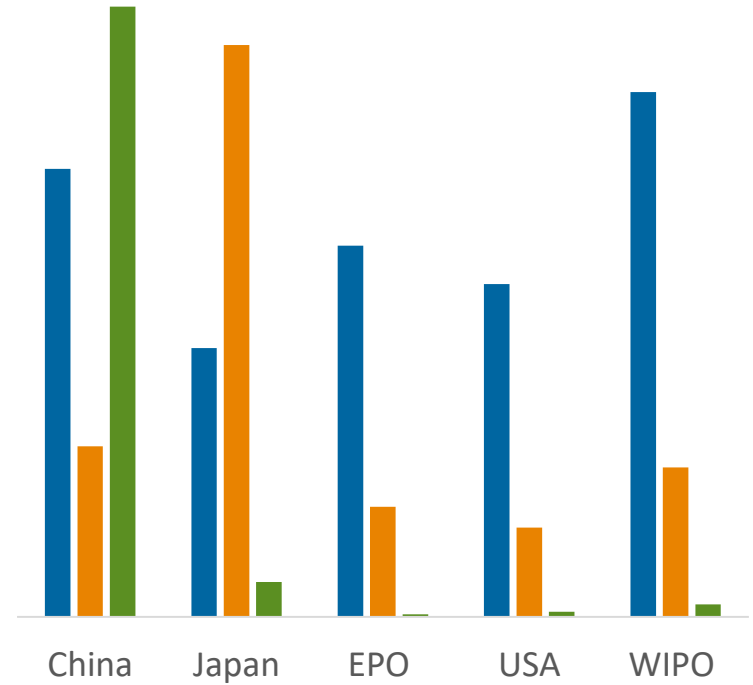
For patent portfolio planning and  
AOP we need to **benchmark** our  
**annual filings** with key  
competitors

...and Joakim - it's urgent.  
Just high level, **no need**  
**for details**

## Filings per Year

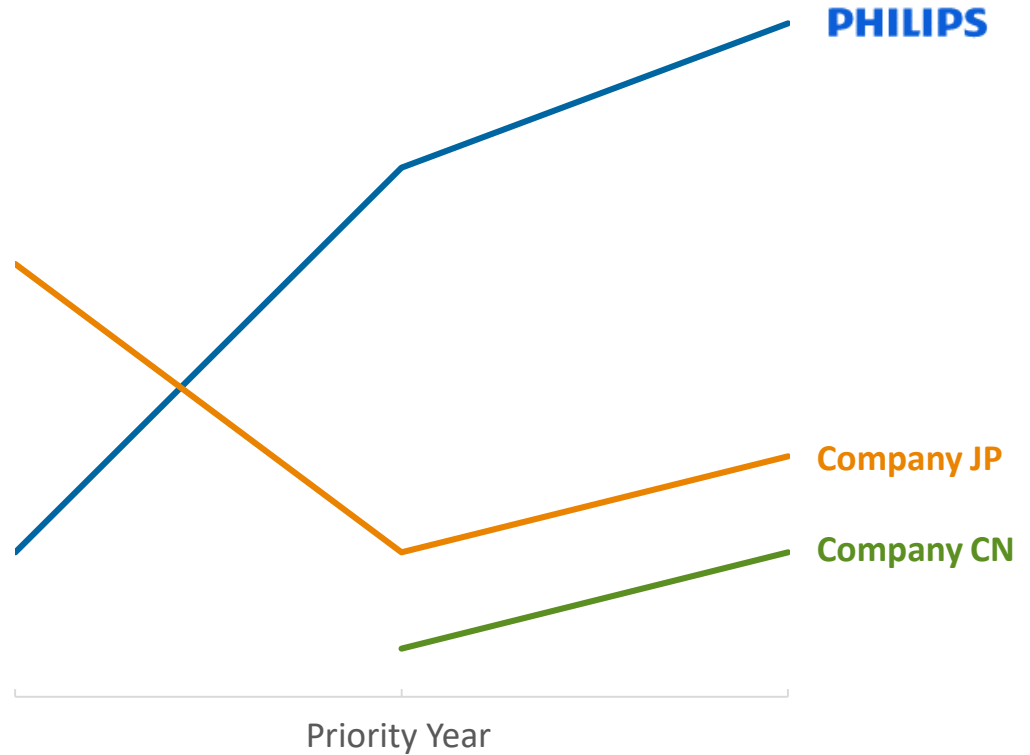


## Relative Country Coverage



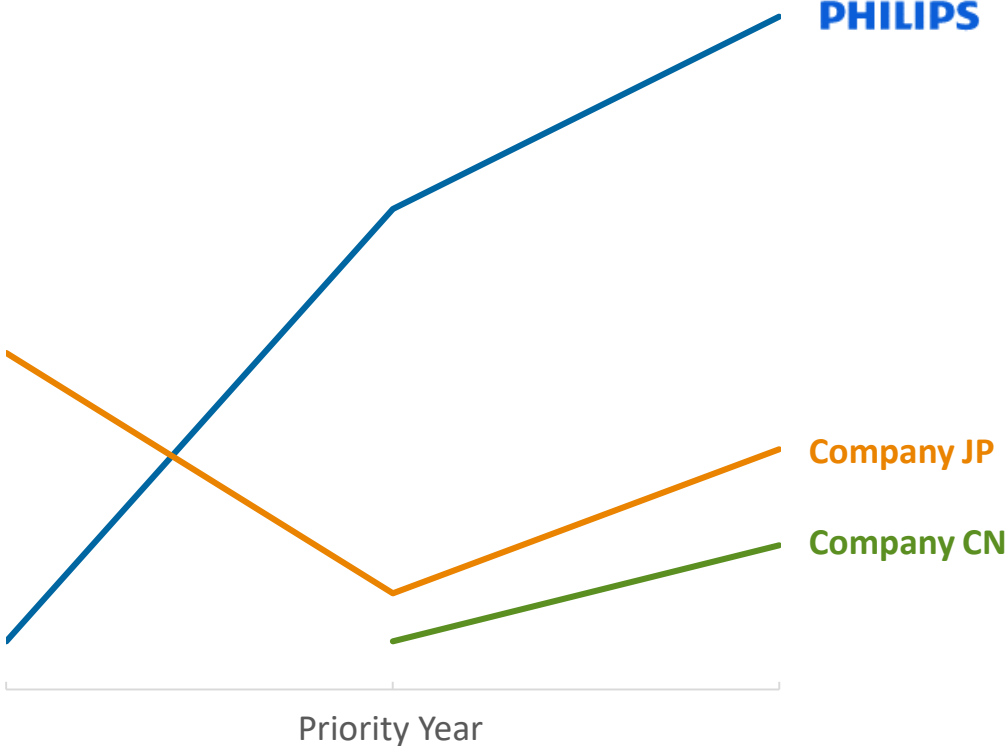
## Excluding Japan & China Single-Country Patent Families

Considering the comparative product revenues, our level of annual filings is **HIGH**



# Market Coverage Threshold (MC ≥ 0.7)

Considering the comparative product revenues, our level of annual filings is **HIGH**



# Conclusion

## Use Case 2: Filing Benchmark

	All Patent Families	<i>Excluding</i> CN & JP-only Patent Families	Market Coverage Threshold
Philips	3	<b>1</b>	<b>1</b>
Company JP	2	2	2
Company CN	<b>1</b>	3	3

Not all families are of equal value or required equal investment

When comparing filing activity per year consider e.g.

- Limiting to families with filings in key market countries (or WO)
- Excluding less relevant 'Single Country patent families'
- Use value indicator threshold

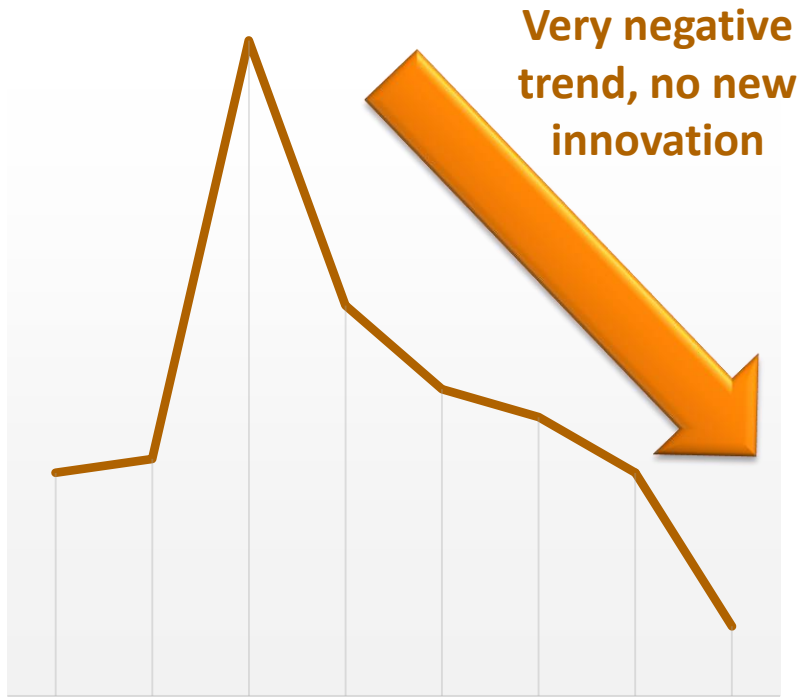
Use Case 3:

# **Detailed Competitor Analysis**



For the business **strategy** we need insights to the **innovation roadmap** of **Competitor X**

...and Joakim - it's urgent. However, we **need a detailed analysis**




'Innovation Year' (Earliest Priority Year)

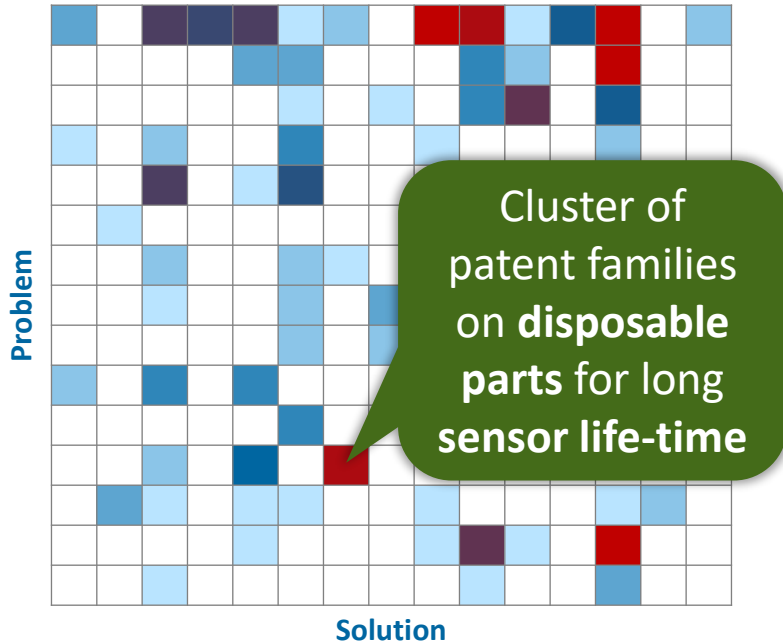


New DWPI Families per Year  
New US Applications per Year

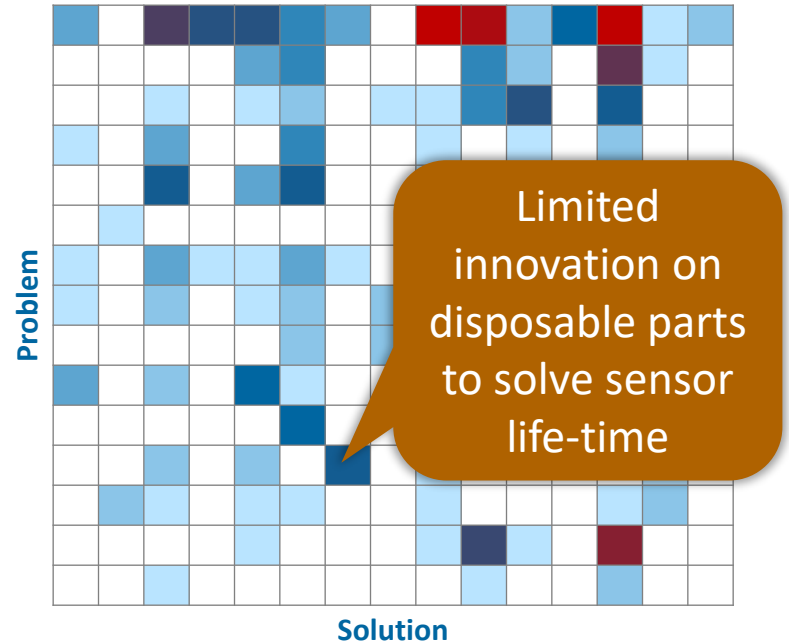


# Detailed Problem – Solution Matrix

 Clarivate Analytics  
Derwent Innovation




 PATENTSIGHT



# Conclusion

## Use Case 3: Detailed Competitor Analysis



**Innovation roadmap prediction may be influenced by the choice of patent families for analysis**

If portfolio is built on complex US patent families, consider analyzing all US publications instead of one per family

Check if clusters of patent families are due to innovation or 'patent family effects'

Make query from corporate tree and search also reassignments. Don't 100% trust e.g. automatic family level ownership data



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