

**From information to intelligence...**  
**...changing thrust in patent data management**

**222nd ACS Fall National Annual meeting  
Chicago, August 29, 2001  
Sue Cullen**

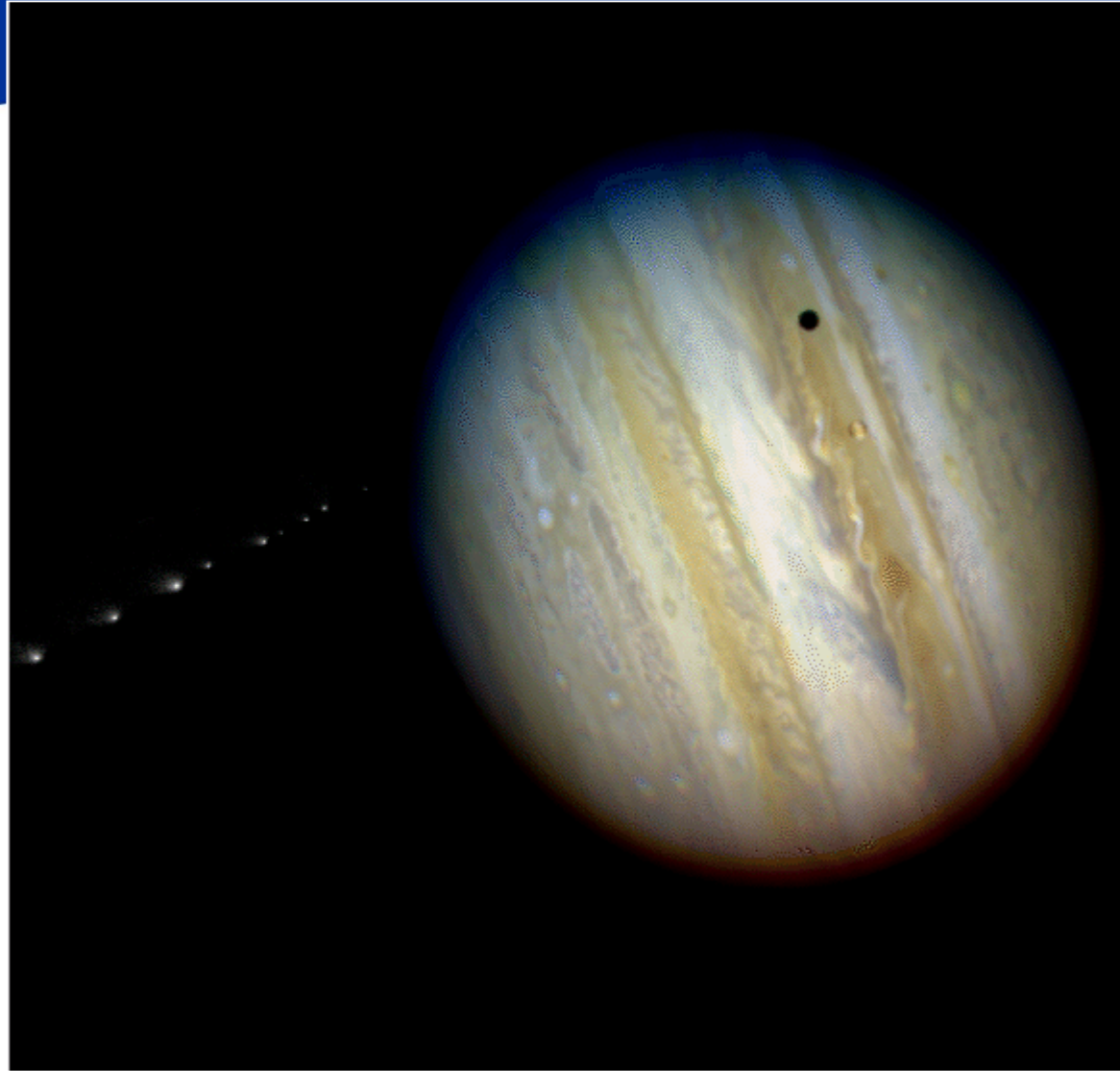
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# Turning Information into Knowledge

**“..let me remind you that information is not knowledge, knowledge is not wisdom, and wisdom is not foresight. Each grows out of the other and we need them all”.**

Arthur C. Clarke  
Author of 2001

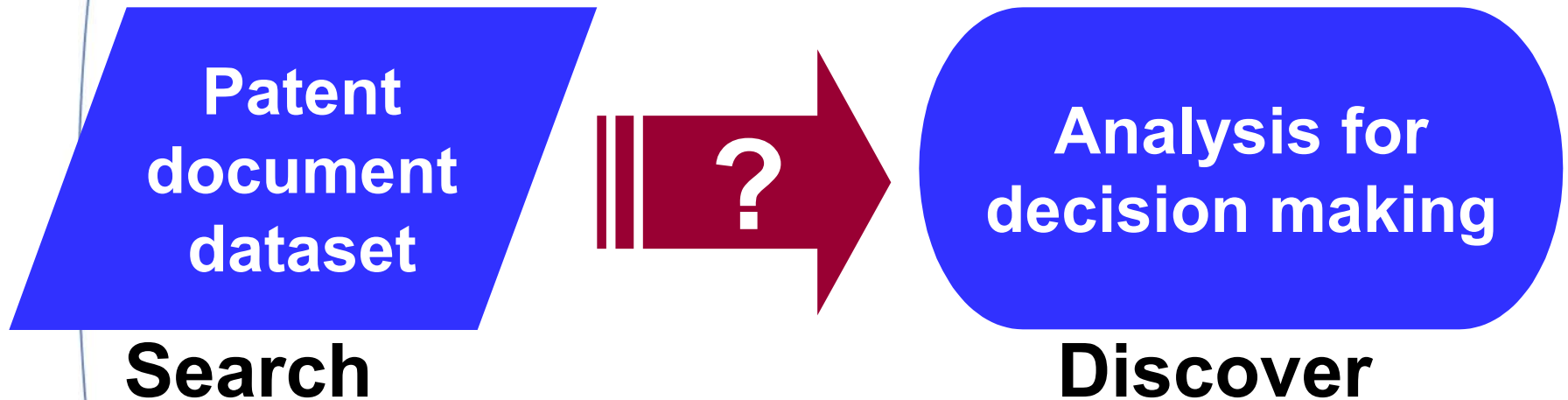


Jupiter-Comet SL9 composite by WFPC/Hubble 5/94 NASA

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# Searching for data is only the first step



# Automation allows us to work with large datasets, but people are the drivers



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# Profile of an IP analyst

- **Technical background** ✓
- **Analytical skills** ✓
- **Knowledge of patents and of their uses in business**
- **Understanding of business transactions**
- **Searching skills**
- **Presentation skills**

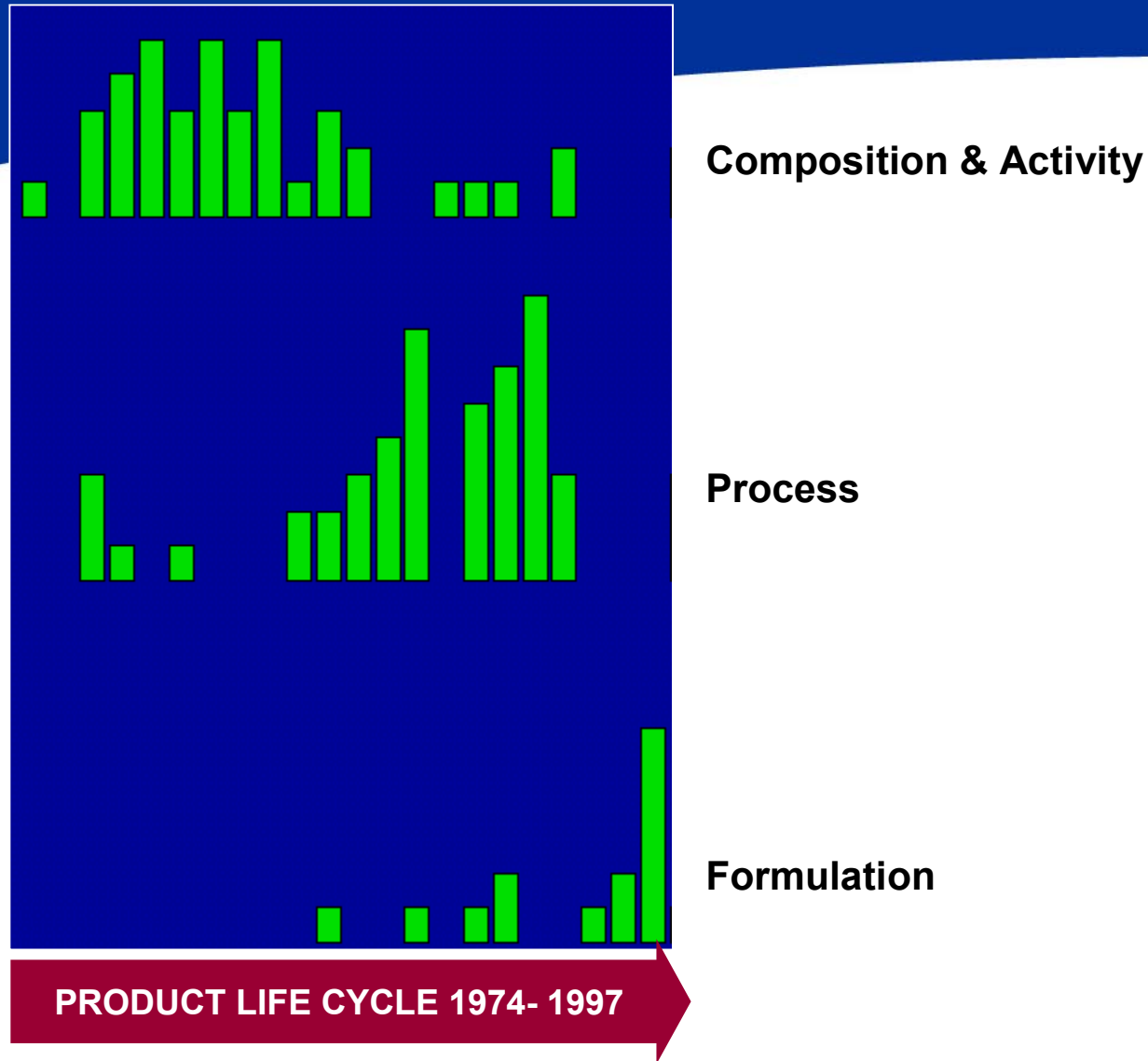
# Patent portfolio management trends

- **Managing IP Portfolios to Create Value**
- **Efficient In- and Out-Licensing**
- **Evaluating JV or M&A Deals**

# What are some underlying questions ?

- Managing IP Portfolios to Create Value  
**Does my portfolio protect my products?**
- Efficient In- and Out-Licensing  
**Is my portfolio doing all that it can?**
- Evaluating JV or M & A Deals  
**Can I partner to make progress?**

# A chemical product portfolio sorted by patent type



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# Use patents as a source of intelligence

**They are a surrogate measure for:**

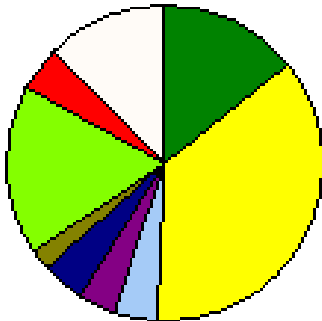
- **Research Capability**
- **Dominance**
- **Focus**
- **Staying Power**

# Automation helps analyze on a broader scale

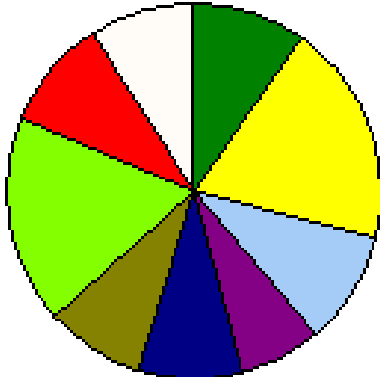
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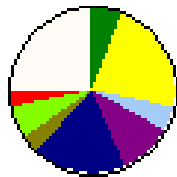
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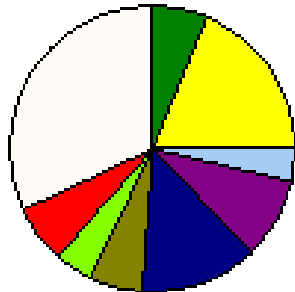
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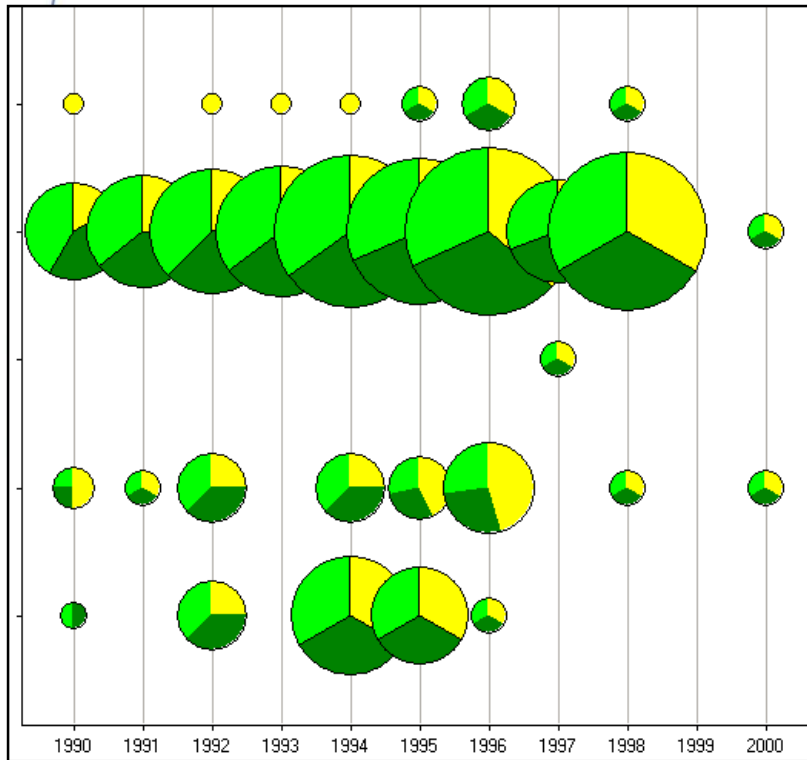


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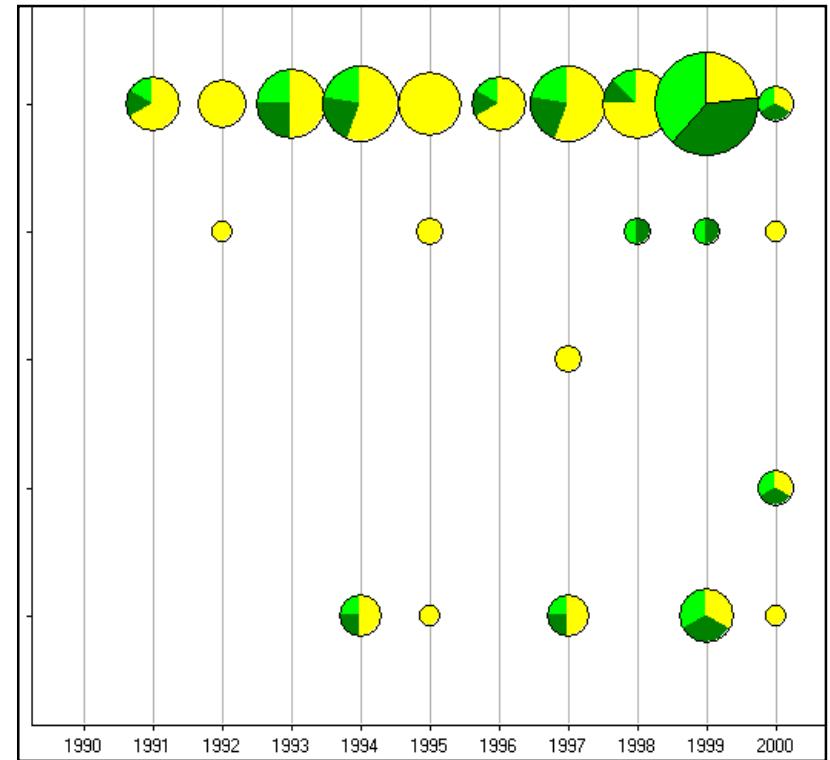


# Make broad comparisons with high levels of detail

## Company 1



## Company 2



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# Today citation analysis can be applied more broadly

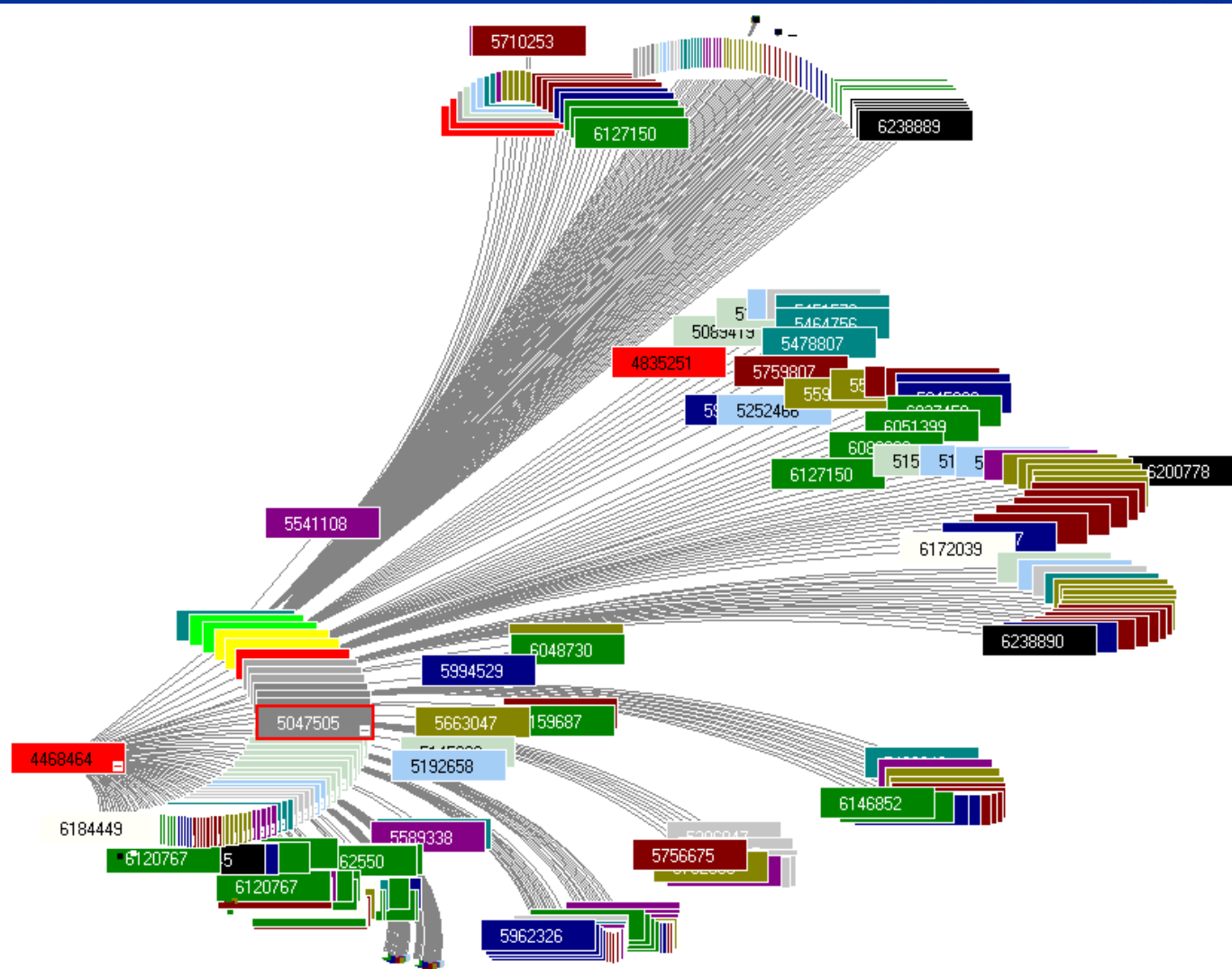
- One or a few patents
- An assignee portfolio ✓
- A technology portfolio
- An industry portfolio

**Premise: frequently cited patents are important**

**“This patent is frequently cited” ...**

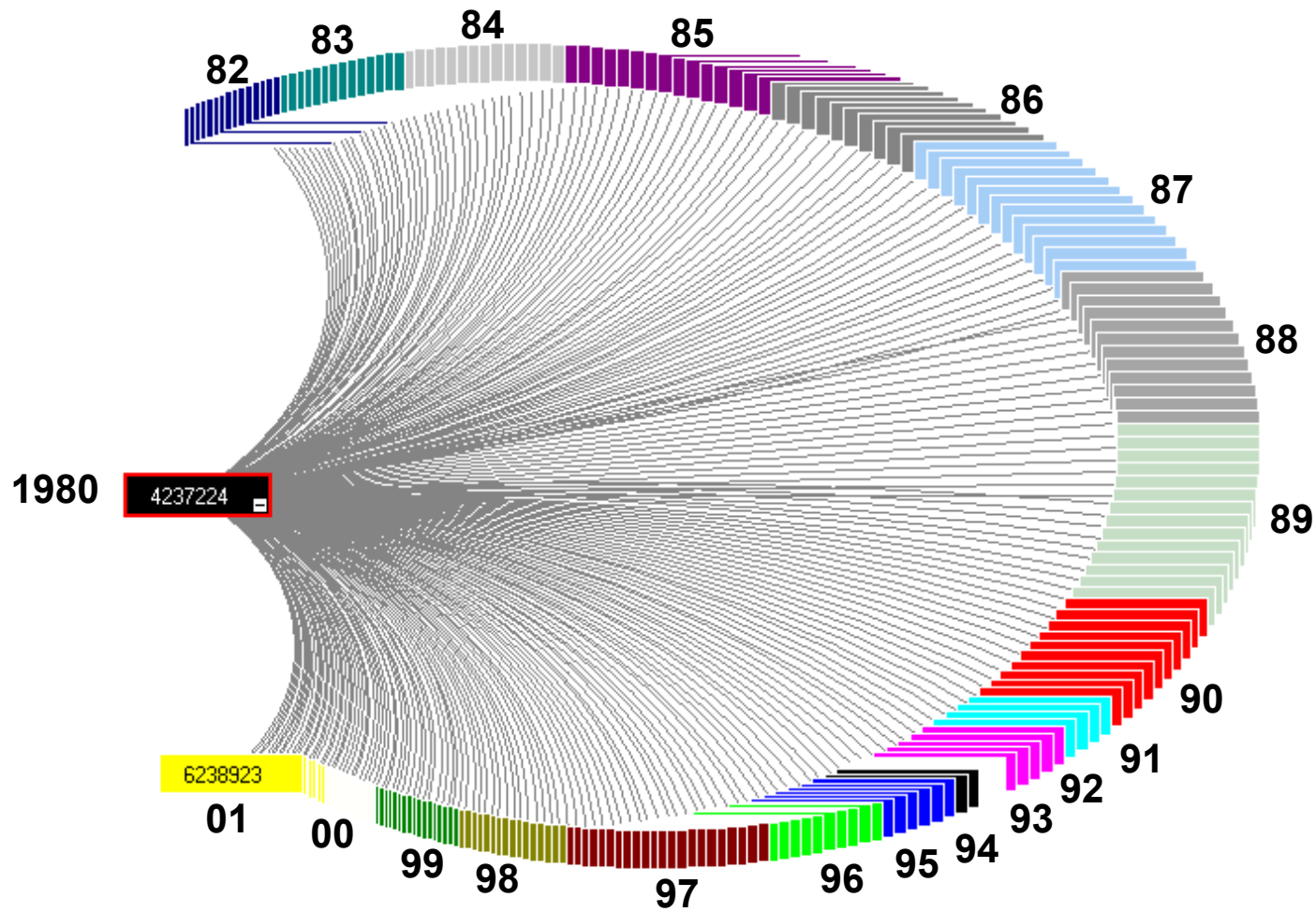
**Question: Compared to what?**

# Enabling technology may be extensively cited



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# Persistent citation means continued development



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# Citation practises are variable

## Extent of citation may vary by:

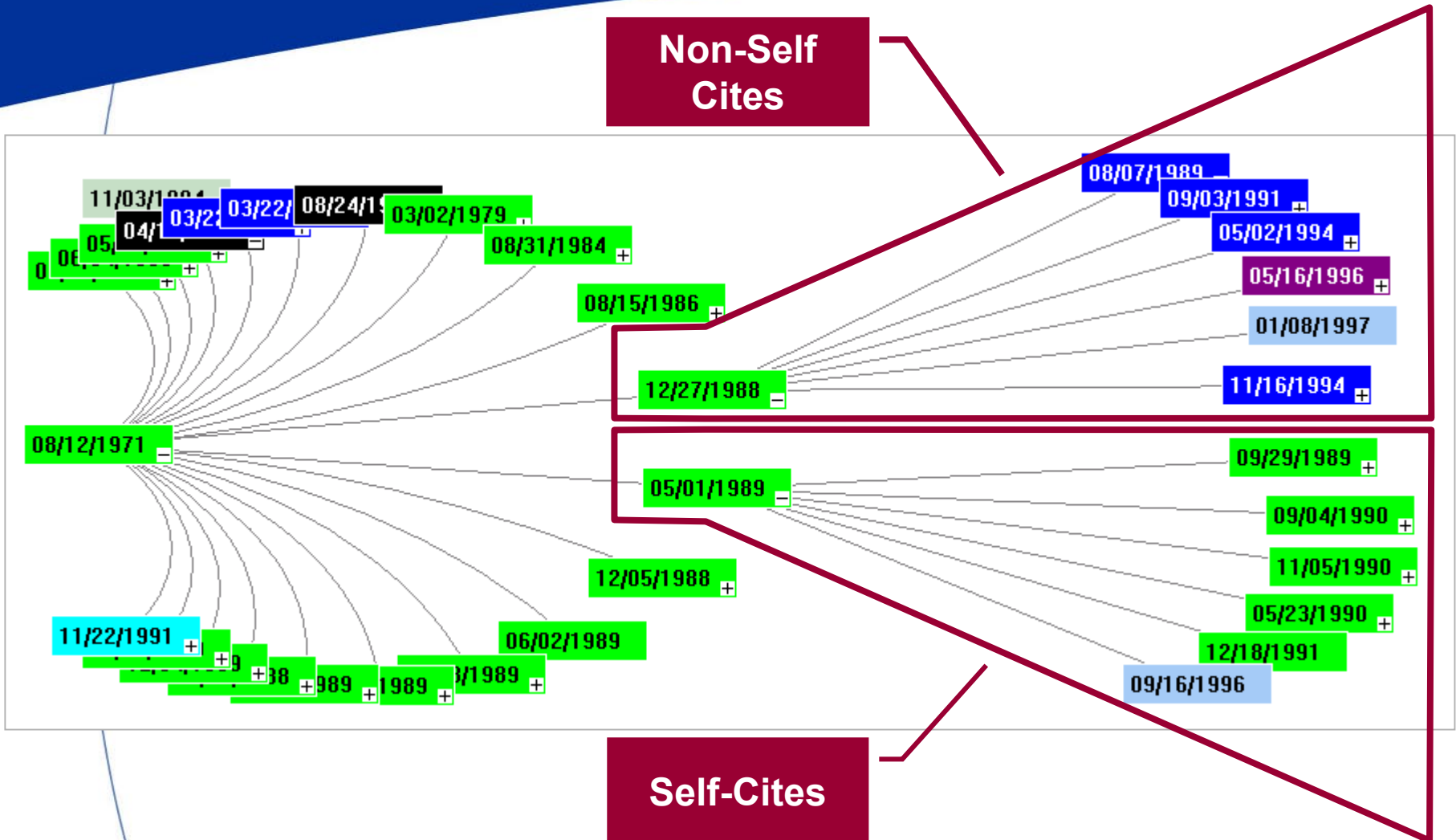
- **technology**
- **maturity of field**
- **commercial-to-academic mix**
- **industry practices**
- **art group practices (PTO)**



# Citation analysis to analyze competitors

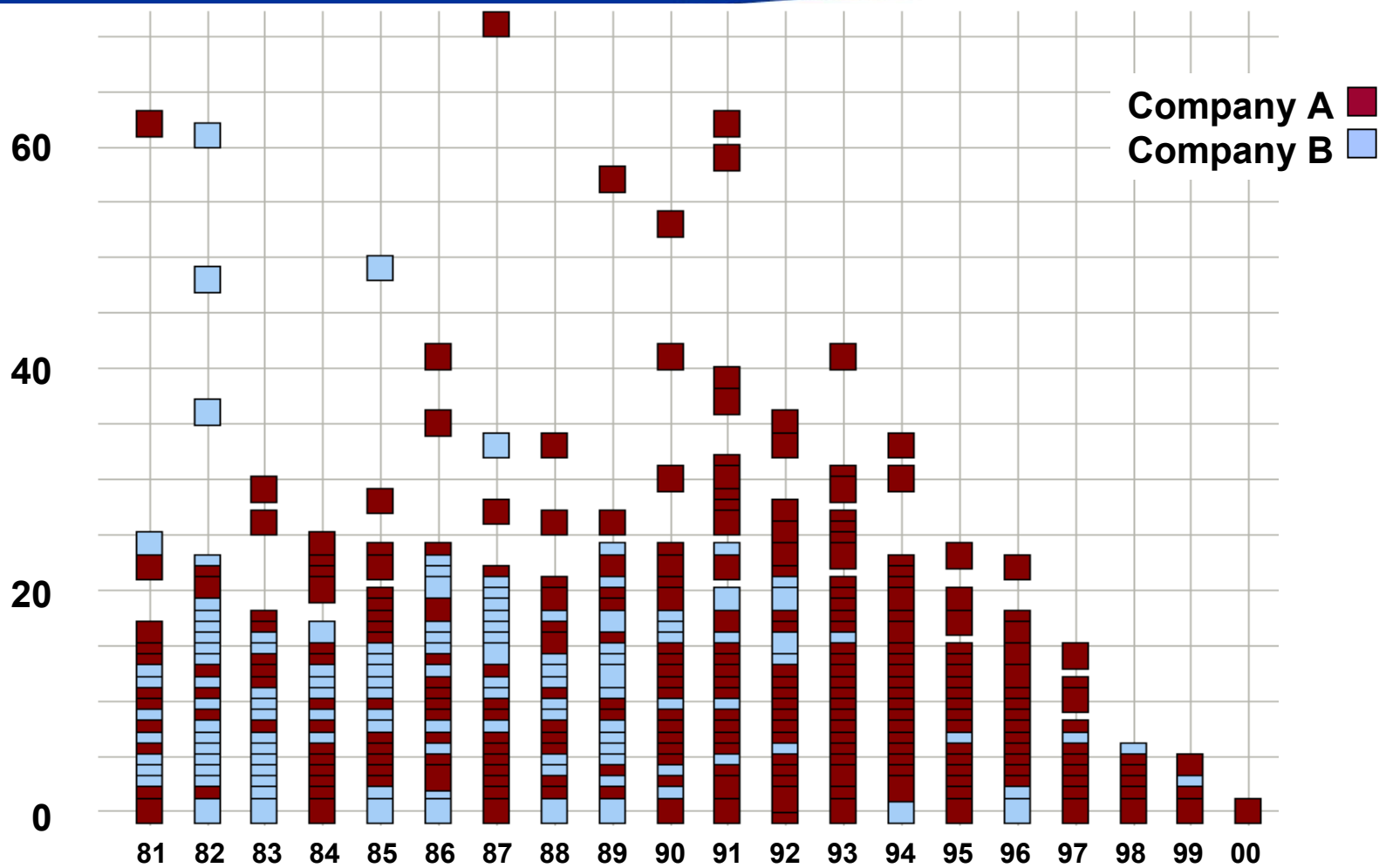
- **Citations of your technology by others:**
  - Find potential licensees for your technology
  - Discover developing applications for a technology - are you in it or closed out of it?
  - Identify potential development partners
  - Uncover potential infringers
- **Self-citation by others:**
  - Evaluate extent and direction of competitor R&D

# Self-citing is a sign of healthy R&D



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# Portfolios of head-to-head competitors

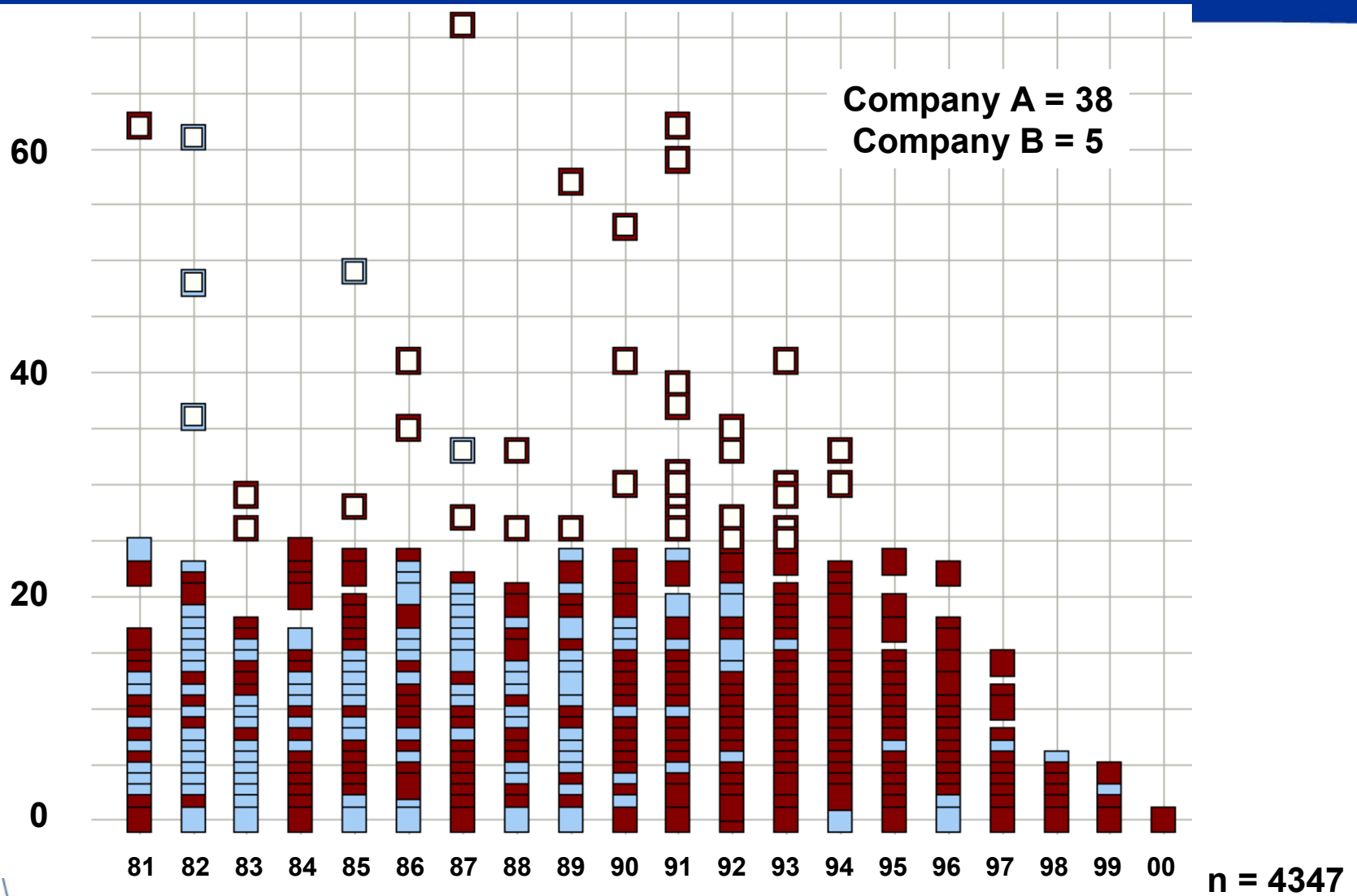


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# Cases of choice are isolated for review



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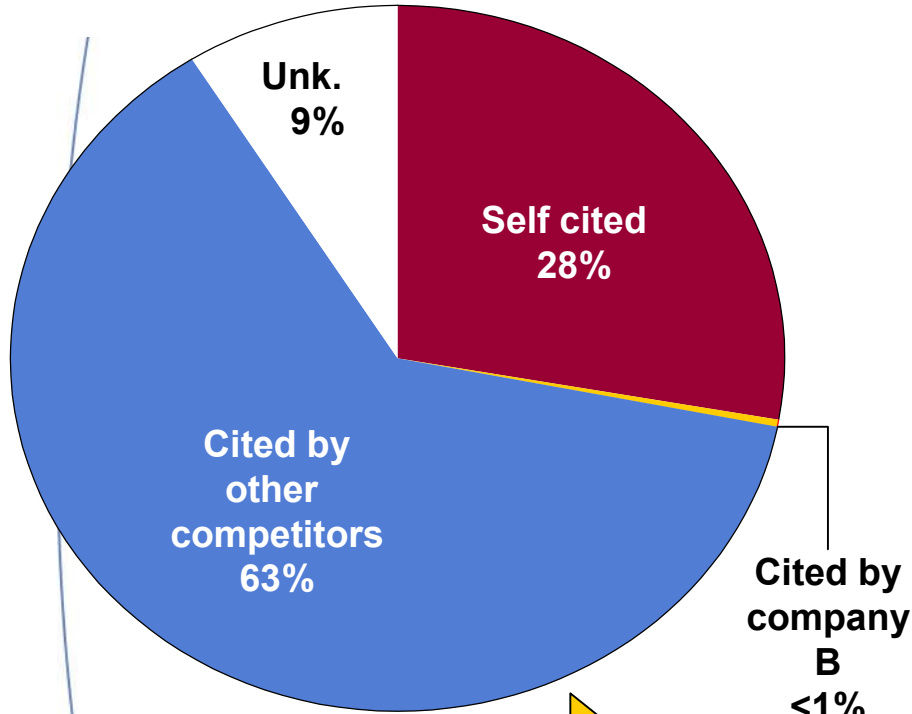


# Analysis of the citing cases:

- **self vs. not-self**
- **main competitor vs. other competitors**

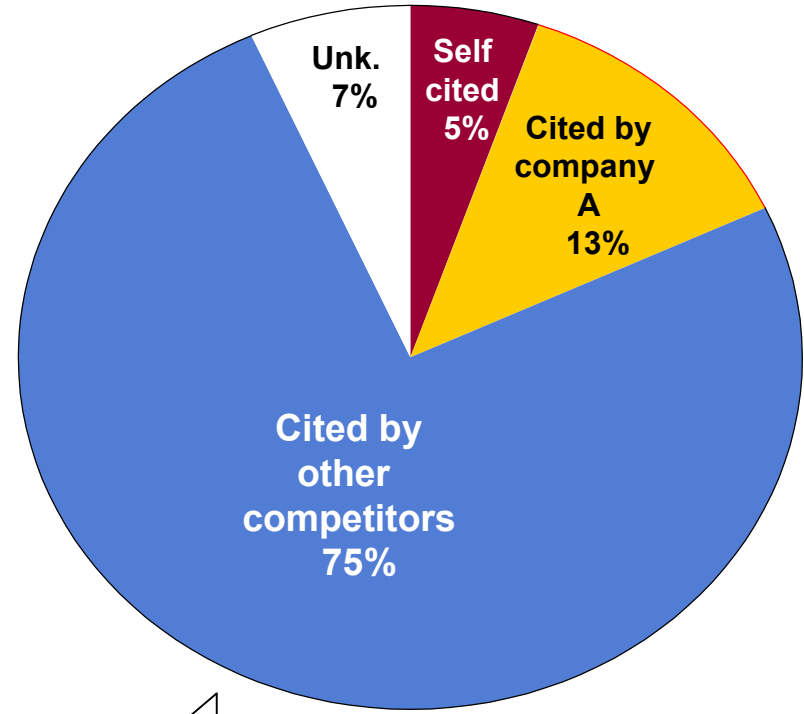
# These competitors have different R&D behaviors

38 highly cited patents  
of Company A



**Company A  
cites company B  
and vigorously self-cites**

5 highly cited patents  
of Company B



**Company B  
does not cite company A,  
has fewer self cites**

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# Traditional uses of patent information

- **Are highly specific to a particular technology**
- **Address questions like:**
  - **freedom-to-operate**
  - **enforcement**
  - **patentability**

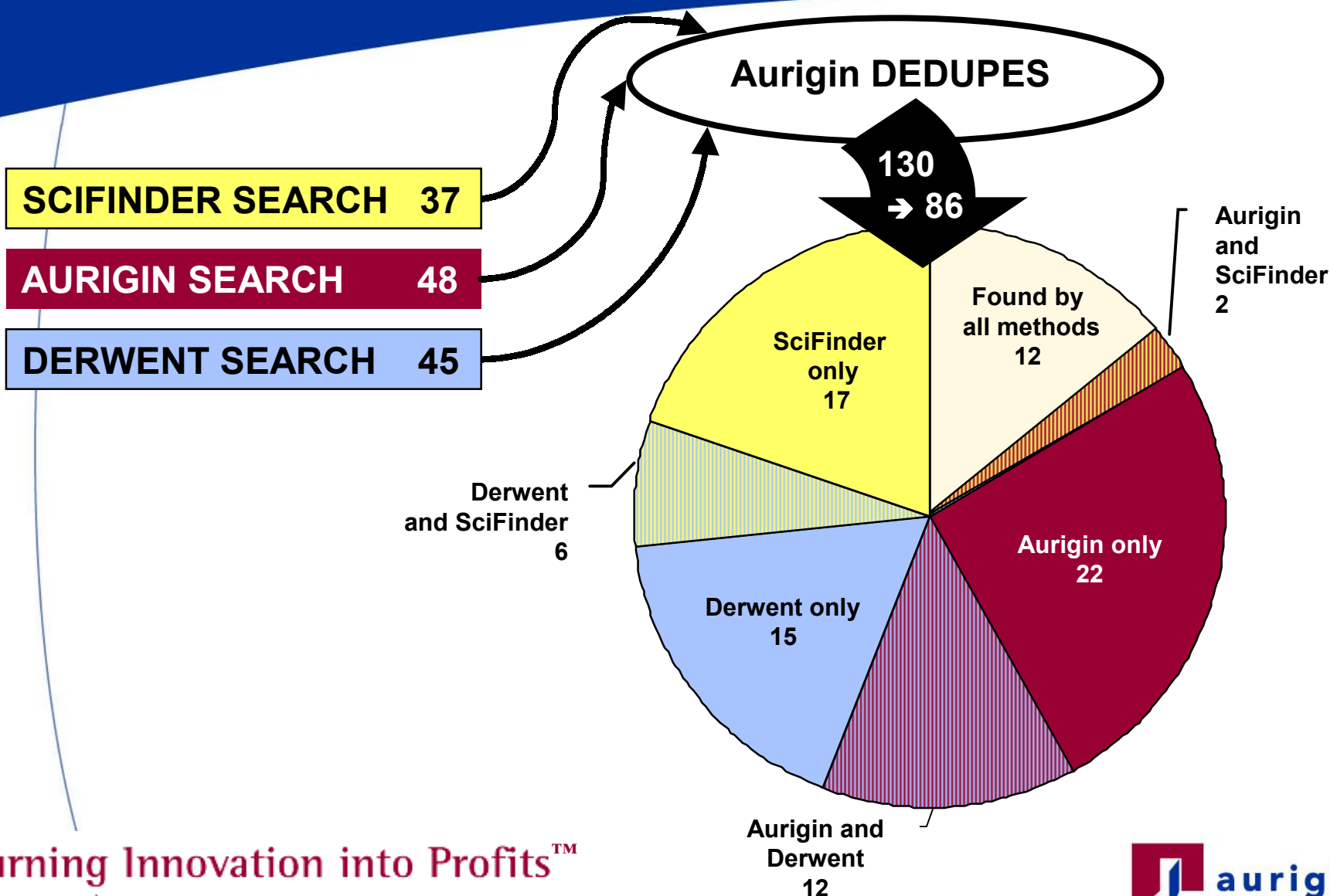
# New uses of patent information are being added

- **To provide higher level views of:**
  - entire companies
  - broad technology areas or
  - entire industries
- **To address questions like:**
  - Health of R&D program
  - Acquisition value
  - Post-merger portfolio rationalization



**Thank you!**

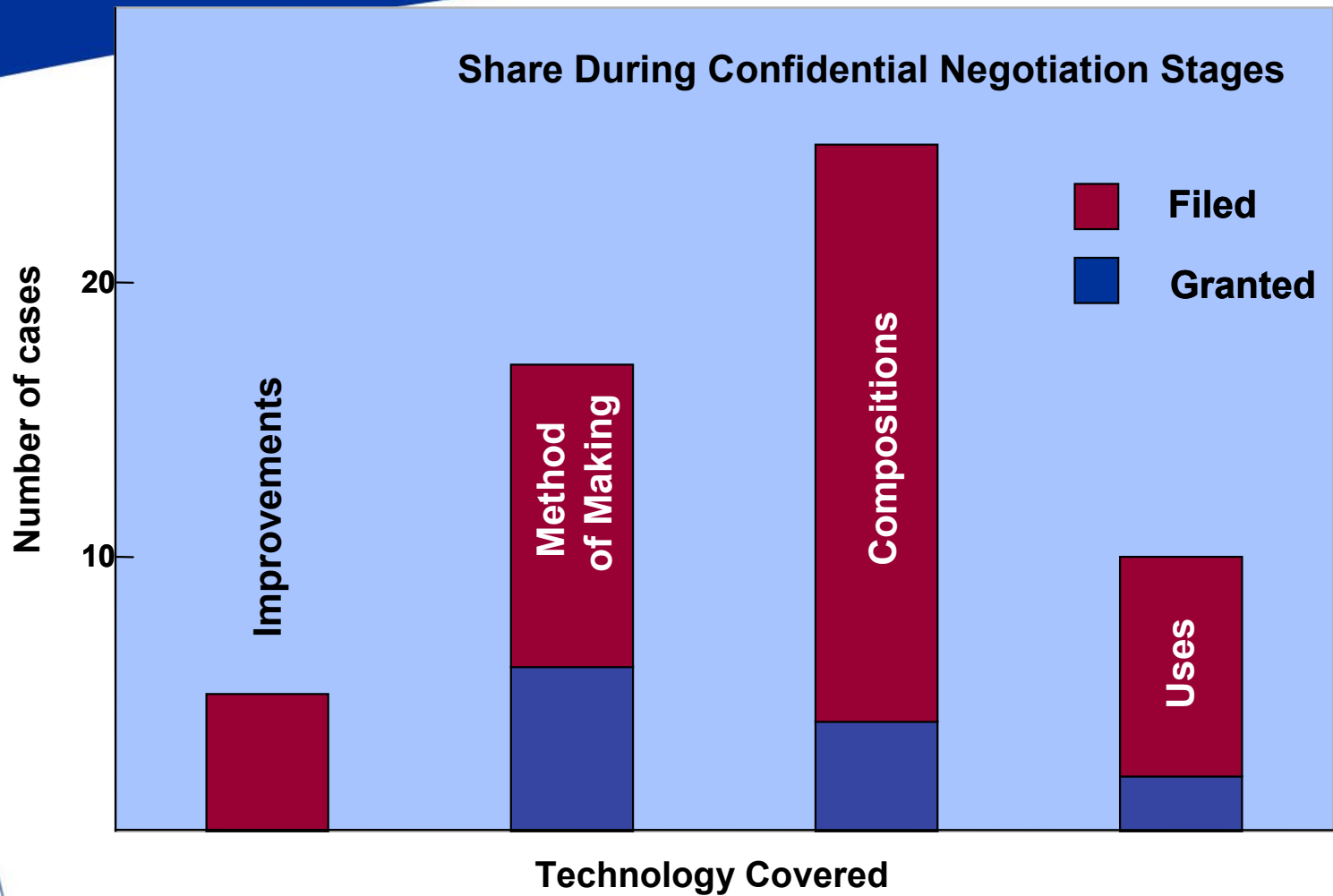
# Data from different engines analyzed on a single platform



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# P/I Ratio can show portfolio depth and vigor



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