

# Navigate the Ocean of Big Data

Harness the power of Panoramic View Analytics

資料 2 - 4

知的財産戦略本部 御中

知財のビジネス価値評価検討タスクフォース(第2回)

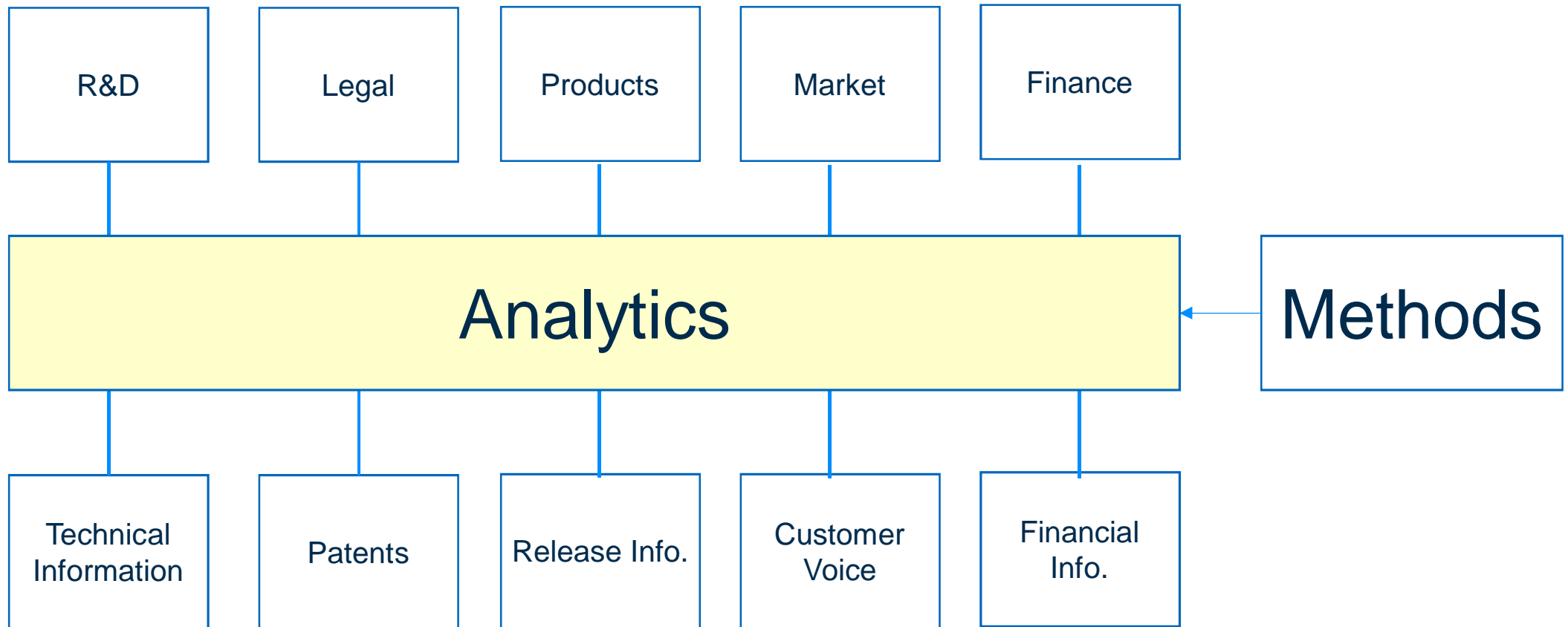
2017/12/19

## サステイナブルM&Aを実現するには？ 俯瞰解析指標を用いた最適投資額の推計モデルの構築

Tatsuo Nakamura  
CEO & Founder  
VALUENEX, Inc.

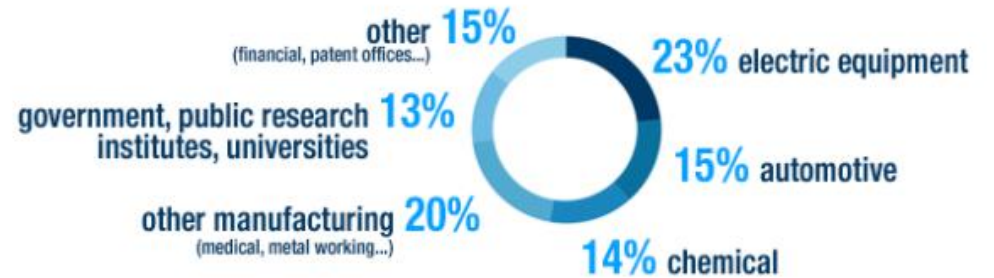


# Data Fusion and Chemistry



# What is VALUENEX?

Valuenex is a data analytics company focusing on strategy development and decision guidance, performing 100+ consultation projects per year to leading companies and public institutions, and analytics platform licensor.

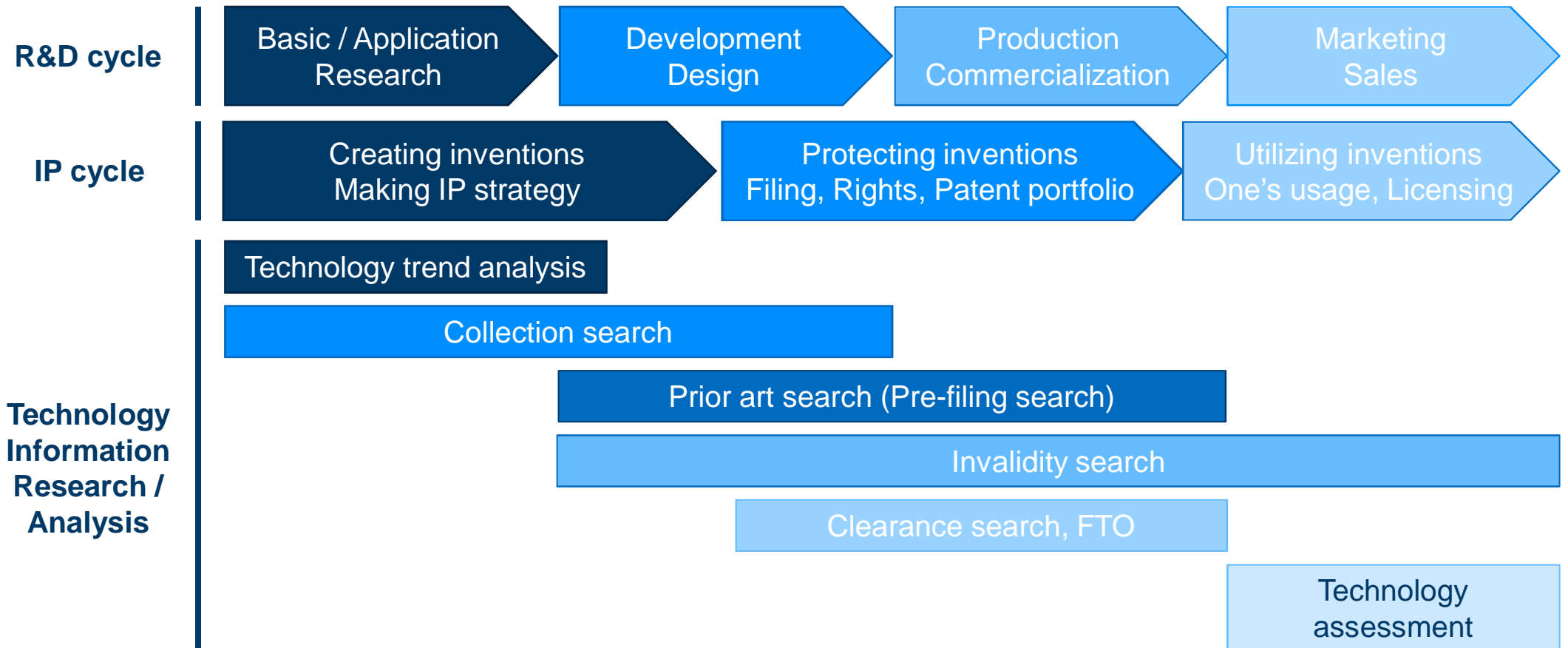


CUSTOMER'S VOICE: PANASONIC IP MANAGEMENT

PARTNER'S VOICE: PANASONIC SOLUTION TECHNOLOGIES

# Importance of Technology Information Analysis

There are various technology information analyses according R&D and IP cycles.



**Figure:** Relationship among IP, R&D and technology information research / analysis

Ref: Atsushi Nozaki: Patent Research and Search Technique (2015) [Japanese]

# What is Panoramic View Analytics?

Proven scientific methods that allow the user to “see and understand” the entirety of large amounts of data rather than “search and reading” of individual pieces of data.

BIG DATA

CLUSTERING

VISUALISATION

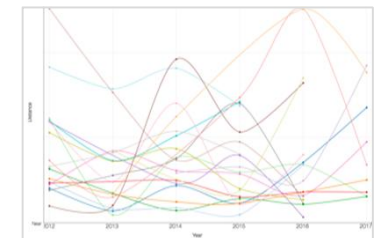
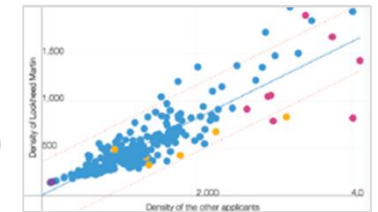
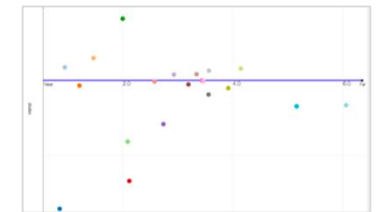
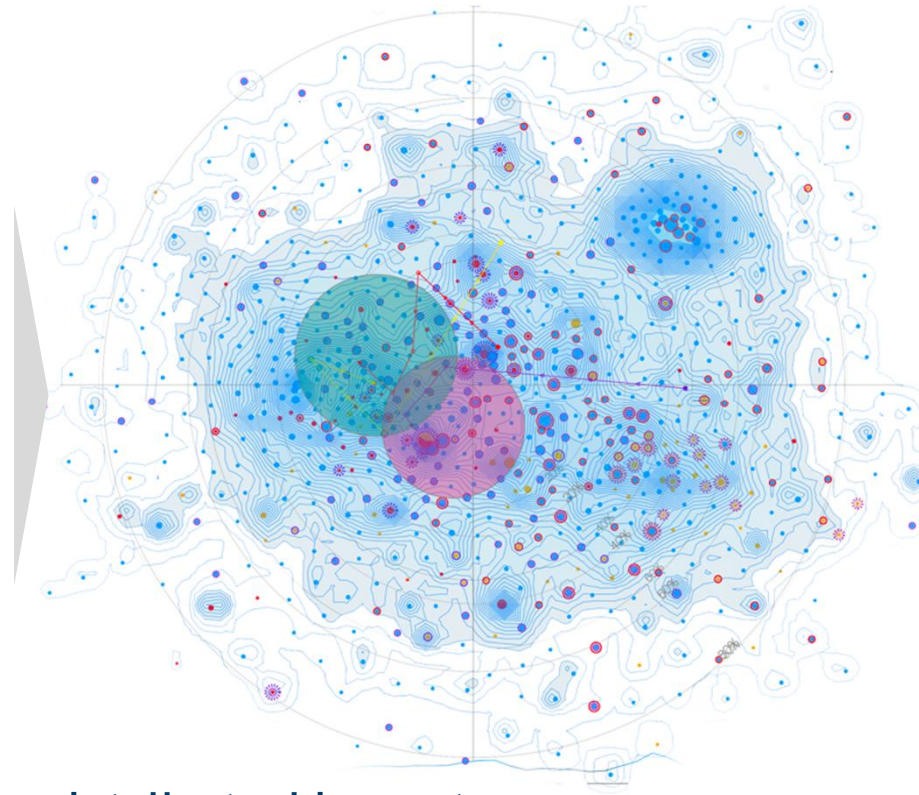
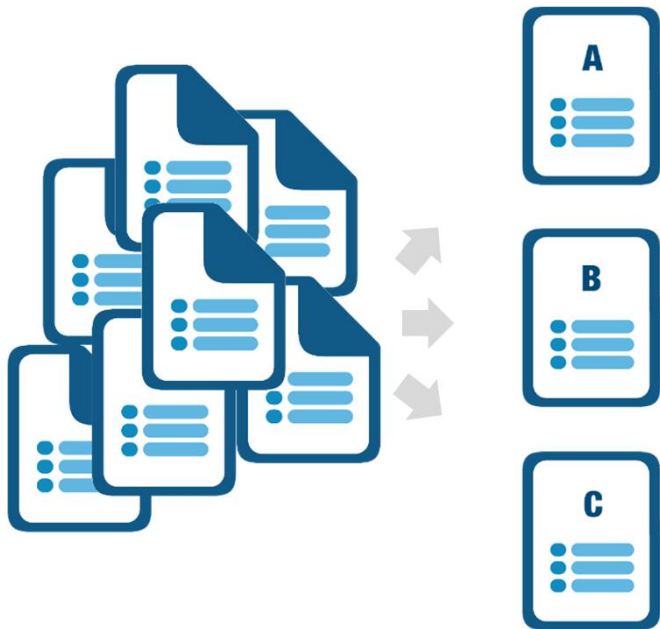
ANALYTICS

Patents / Research Papers / SNS  
News / Annual Reports, etc.

Clustering docs by calculating  
similarities among them

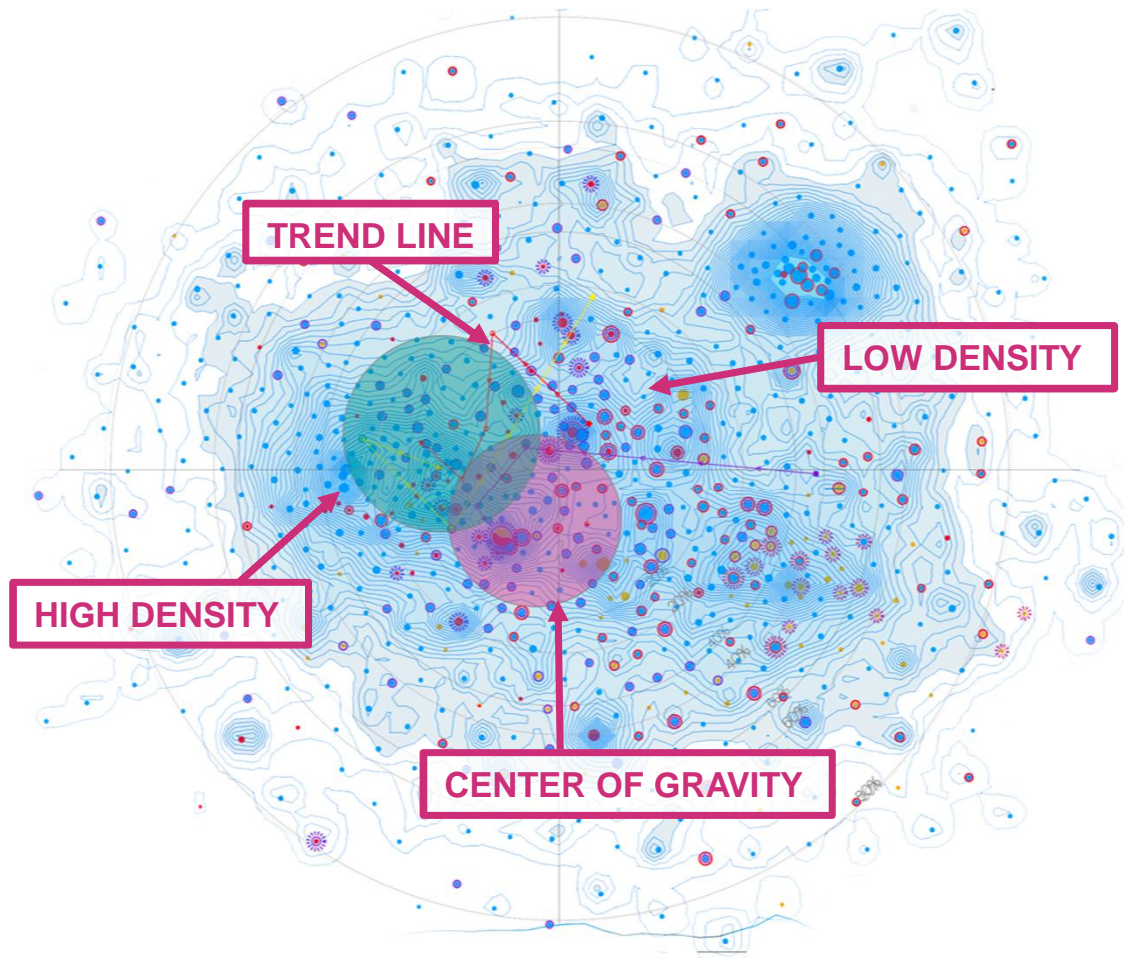
Visualization of the similarity  
among docs

Original indicators for mining  
and insight



# What is Panoramic View Analytics?

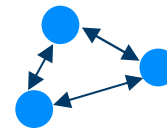
You can get insight for strategy-making by analyzing output (distance, density, white space, distribution, etc.) of the radar chart.



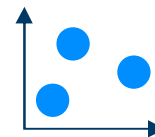
Each circle is called a **cluster**. They contain similar documents.



The **size** of each cluster is proportional to the number of documents in it.



The **distance** between clusters indicates the similarities between them.

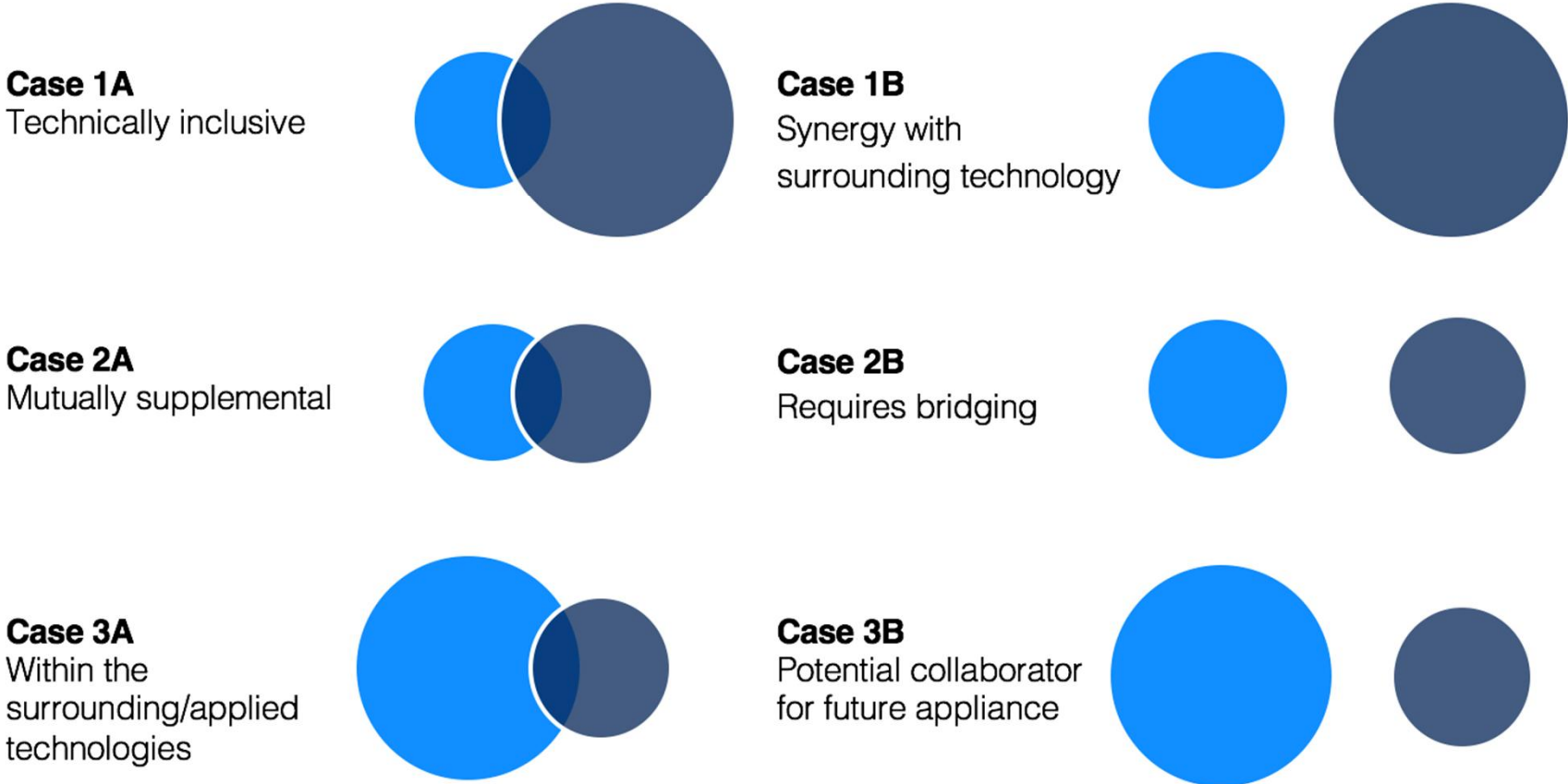


The axes have no particular meaning.

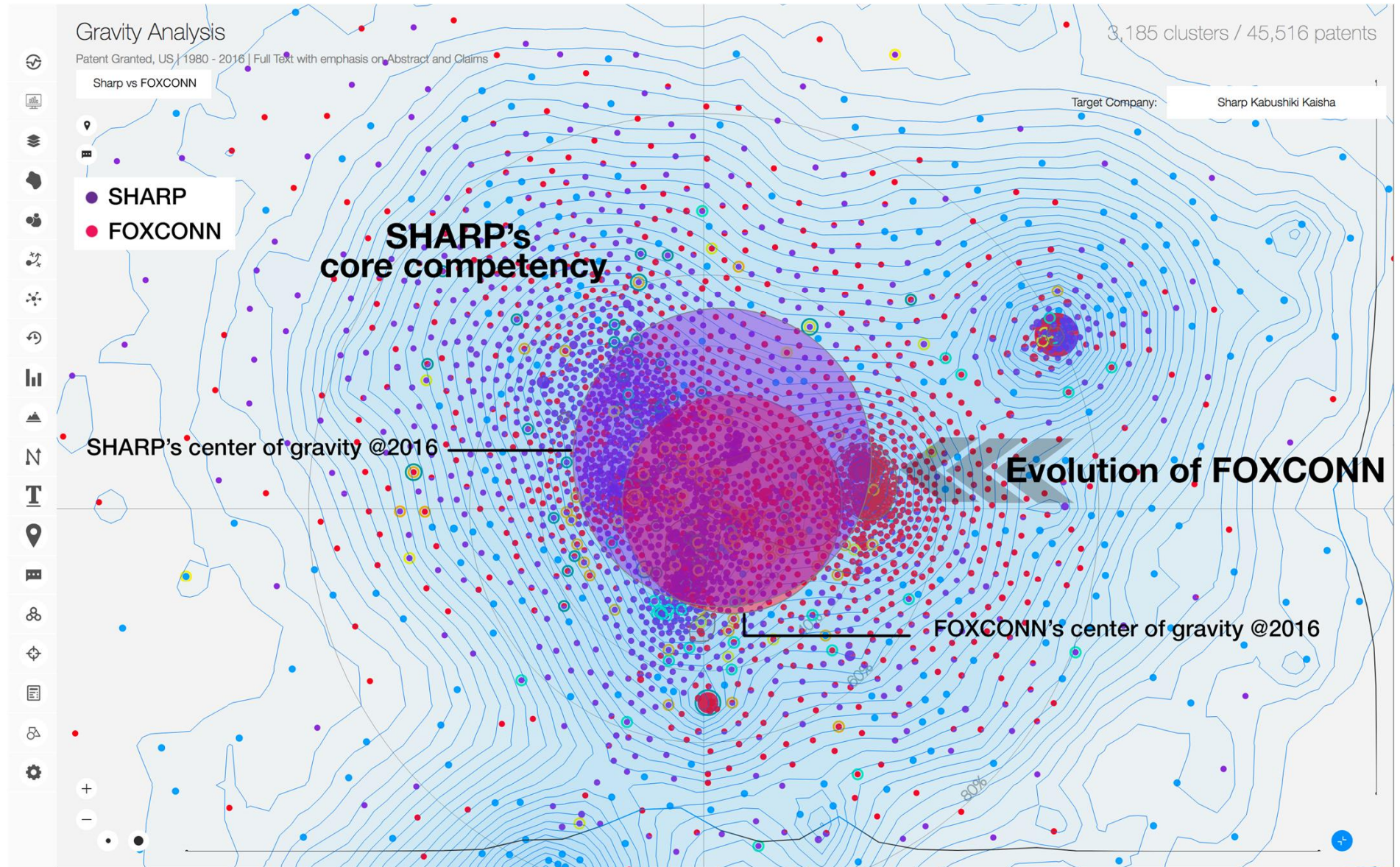
# From IP Panoramic View Analytics to Strategy

Quantitative evaluation and visualization of technical affinity (relationship) between companies are highly valuable.

■ Your company      ■ Other players in the market

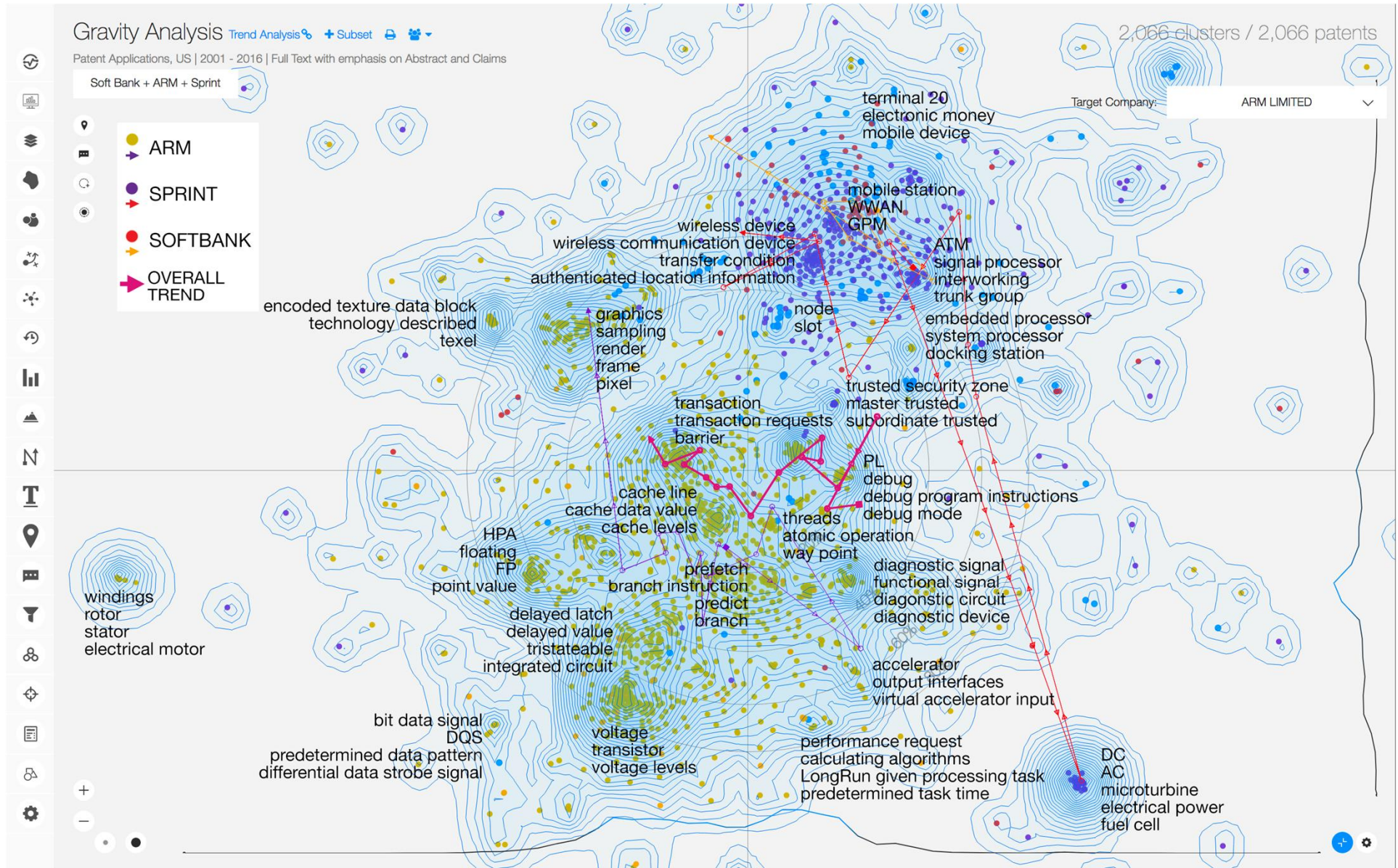


# Evolution of Foxconn into Sharp's Tech Arena

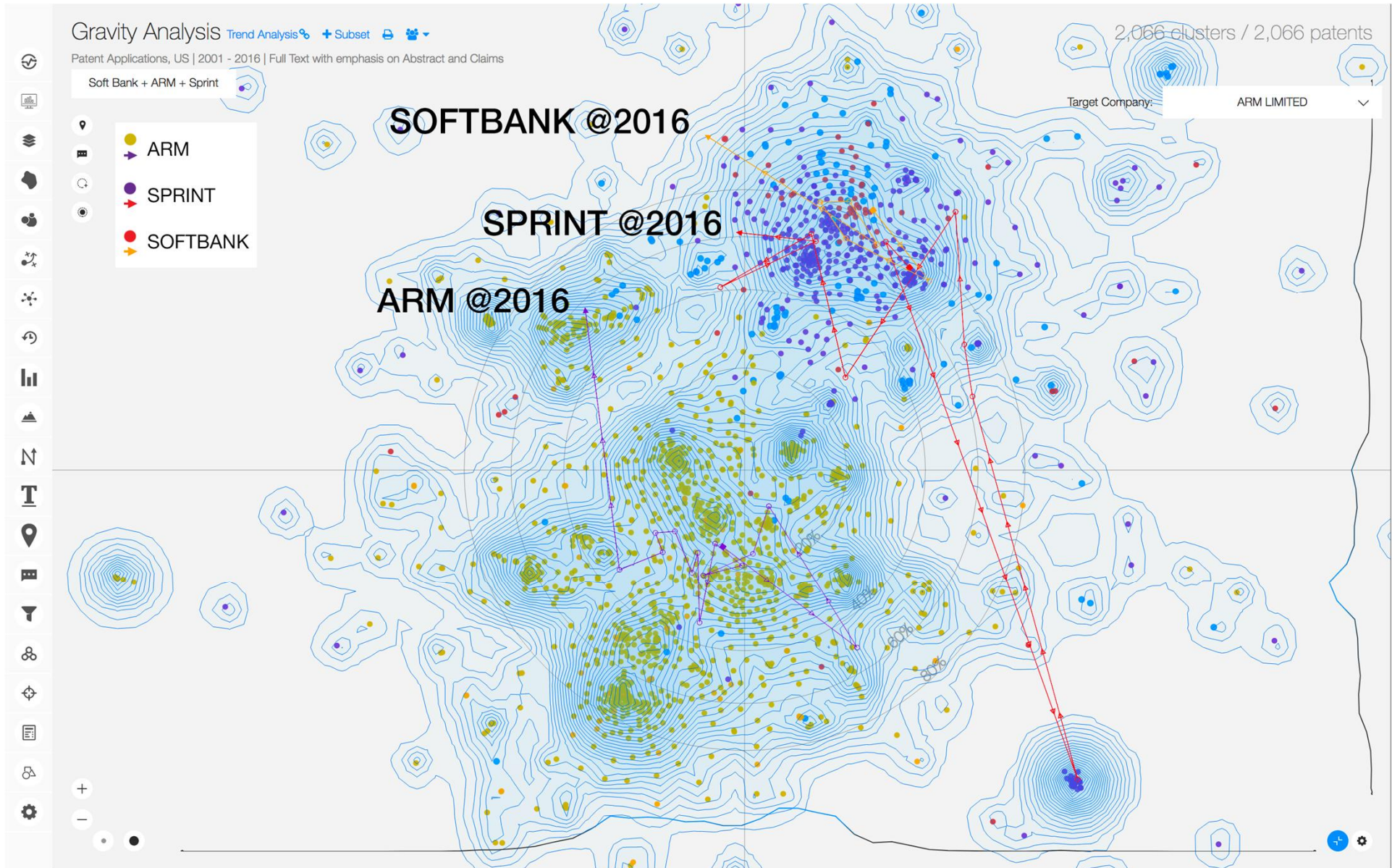




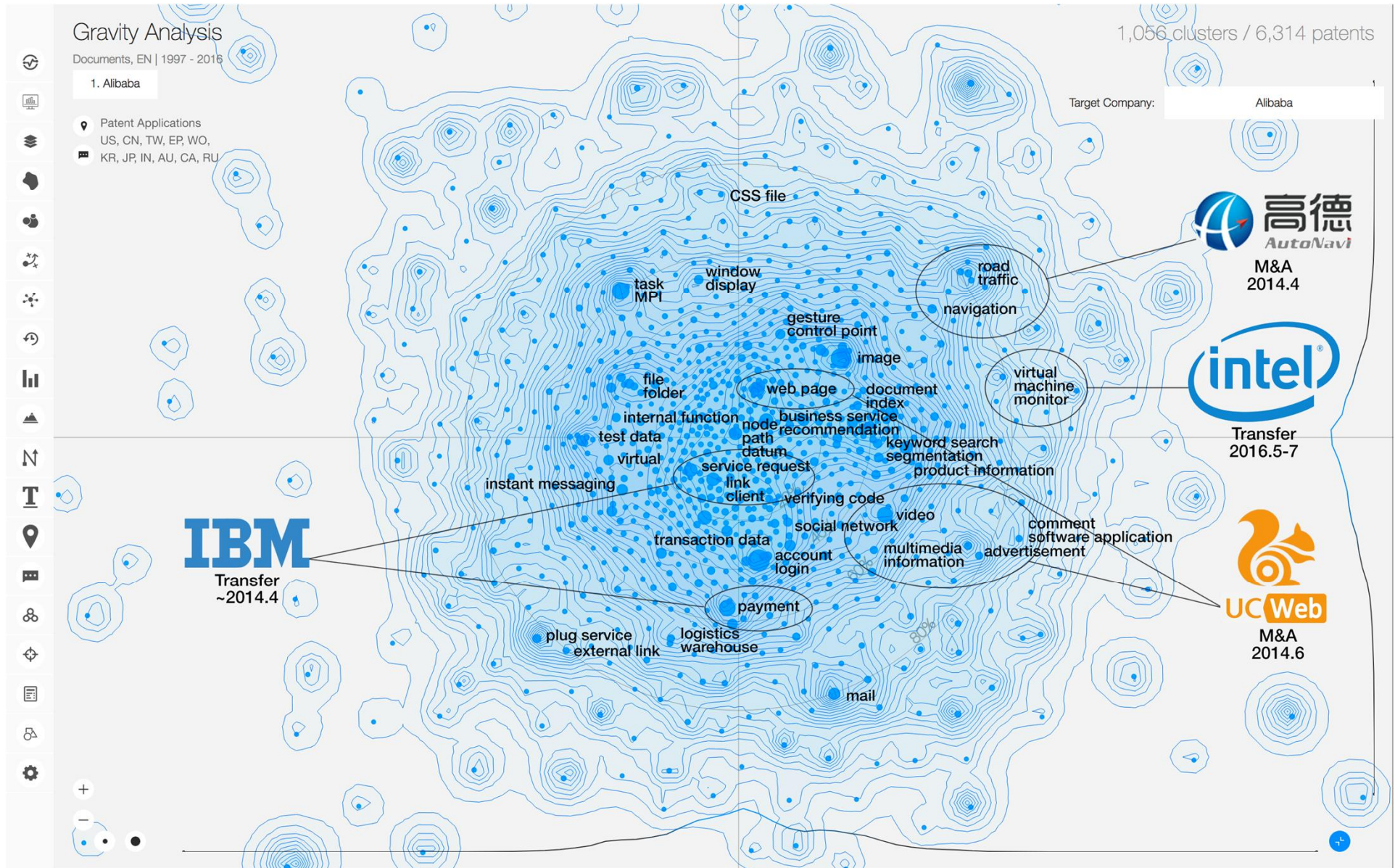
# Insight into Softbank's IP Strategy



# Predictive Modeling of Tech Convergence



# Alibaba's pre-IPO Portfolio Boost




# **Determining Adequate INVESTMENT values for m&As**

# View Points for Successful M&As

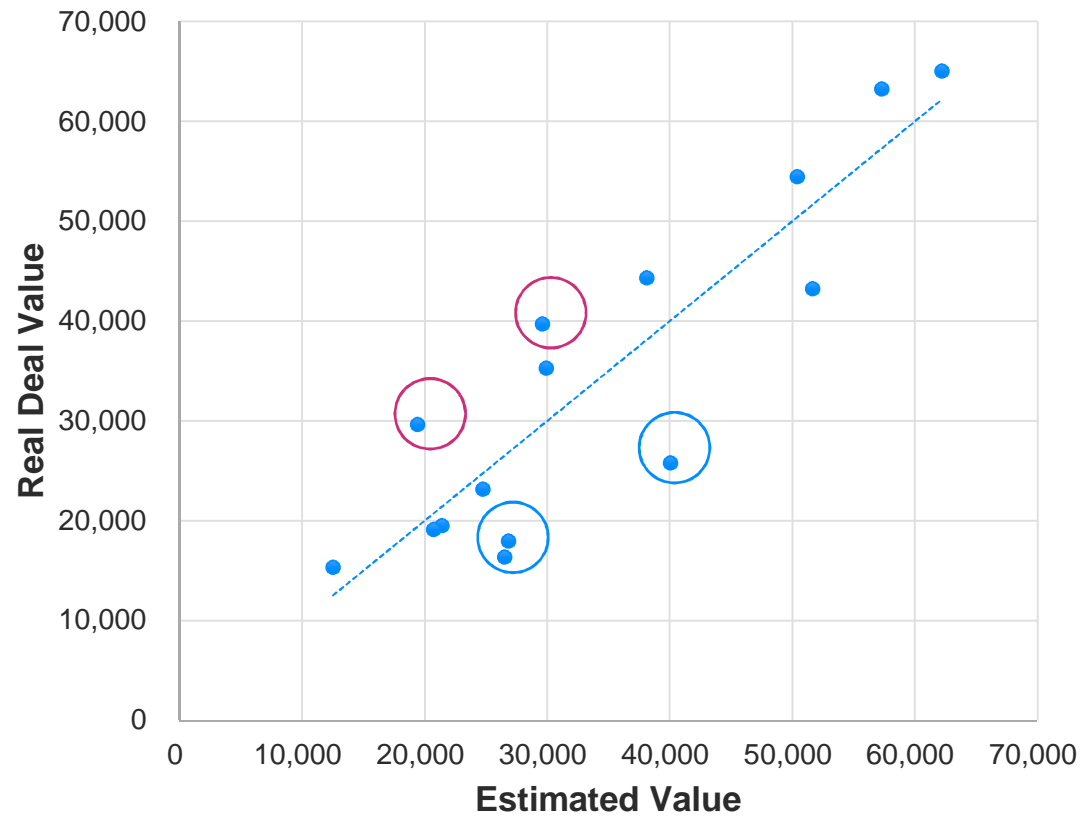
Investing in Tech Companies requires thorough evaluation of technological synergy.

CATEGORY	VIEW POINT	CURRENT DUE DILIGENCE	NEW MODEL WITH PANORAMIC VIEW ANALYSIS
Management Synergy	Management Policy Corporate culture	●	
Business Synergy	Business size Market field Market share	●	●
Technological Synergy	R&D size Technological field Technological portfolio	○	●



# Estimating Investment Amount in Pharma M&As

Multiple Correlation Coefficient: **R = 0.893**



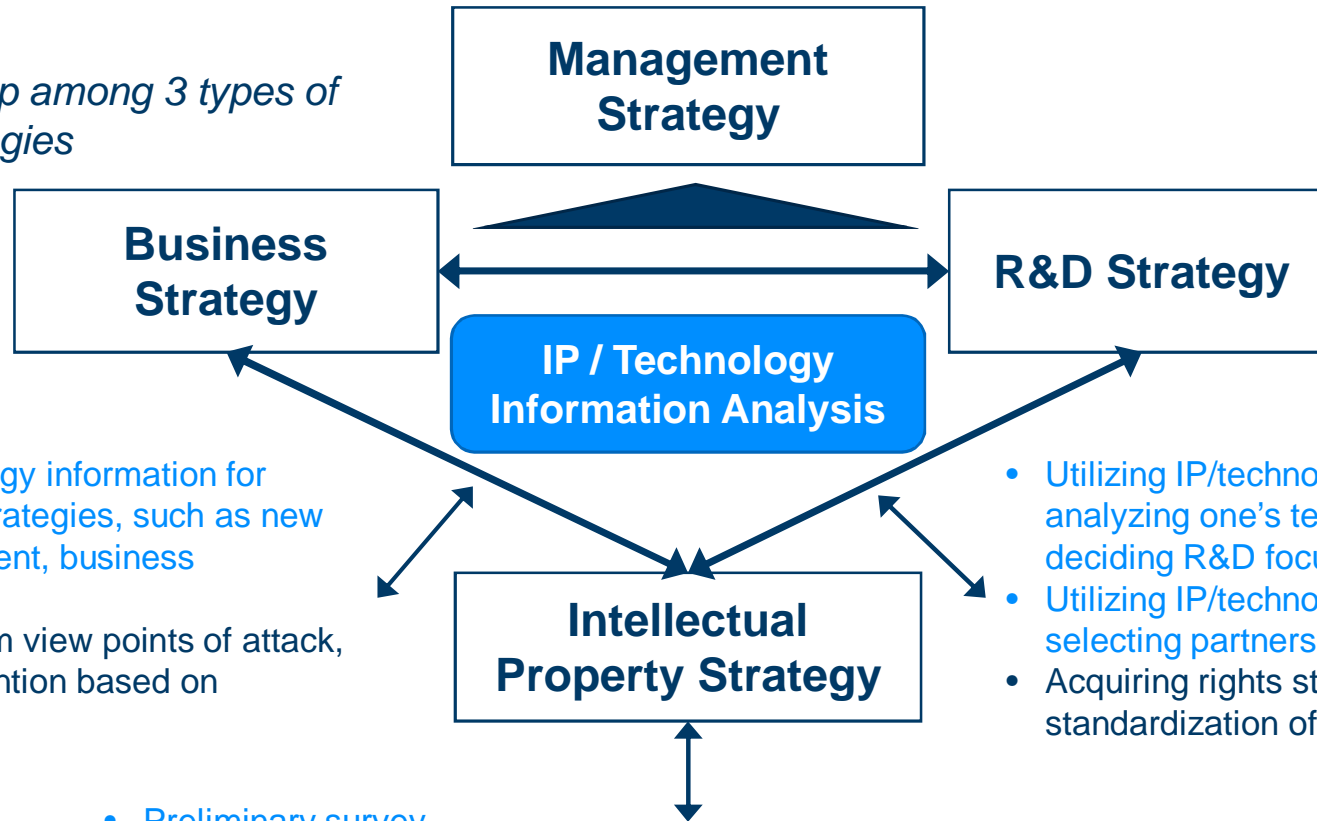
○ Over-valued      ○ Under-valued

# Actual Deal Value vs. Estimated Value

NO.	NAME	DEAL VALUE (USD M)	ESTIMATED VALUE	DIFFERENCE	
1	Merck & Co/Schering-Plough	43,198	51,657	-8,459	
2	Pfizer/Wyeth	65,016	62,193	2,823	
3	Roche/Genentech (44.2% Stake)	44,291	38,106	6,185	
4	Novartis/Alcon (52% Stake)	25,750	40,067	-14,317	under valued
5	Sanofi/Genzyme	19,479	21,397	-1,918	
6	Abbott Laboratories/AbbVie	54,376	50,383	3,993	
7	Actavis/Allergan	63,199	57,308	5,891	
8	Allergan/Forest Laboratories	23,126	24,767	-1,641	
9	AbbVie/Pharmacyclics	19,045	20,741	-1,696	
10	Baxter International/Baxalta (80.5% Stake)	17,895	26,820	-8,925	
11	Pfizer/Hospira	16,323	26,536	-10,213	under valued
12	Teva/Allergan (generics)	39,633	29,602	10,031	over valued
13	Valeant Pharmaceuticals/Salix Pharmaceuticals	15,302	12,527	2,775	
14	Shire/Baxalta	35,219	29,920	5,299	
15	Johnson & Johnson/Actelion	29,592	19,421	10,171	over valued

# Importance of Technology Information Analysis

*Figure: Relationship among 3 types of management strategies*



- Utilizing IP/technology information for making business strategies, such as new business development, business collaboration, etc.
- Acquiring rights from view points of attack, defense, and prevention based on business strategy.

- Utilizing IP/technology information for analyzing one's technology capabilities and deciding R&D focus.
- Utilizing IP/technology information for selecting partners for R&D collaboration.
- Acquiring rights strategically for standardization of one's technology.

- Preliminary survey
  - Prior art search (R&D, filing, application for examination, etc.)
  - Other company trend survey (Making patent map etc.)
- Acquiring rights (filing patent, trade secret)
- Protection and utilization of rights (own monopoly, license, measures against counterfeit products and management of technology / know-how in foreign markets)

Ref: [http://www.jpo.go.jp/shiryoutoushin/nenji/nenpou2004\\_pdf/honbun/3-1-2.pdf](http://www.jpo.go.jp/shiryoutoushin/nenji/nenpou2004_pdf/honbun/3-1-2.pdf)



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