



Patent Intelligence As An Effective Strategic Decision Support Tool For Universities

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September 24, 2020



WEBINAR: PATENT INTELLIGENCE AS AN EFFECTIVE STRATEGIC DECISION SUPPORT TOOL FOR UNIVERSITIES



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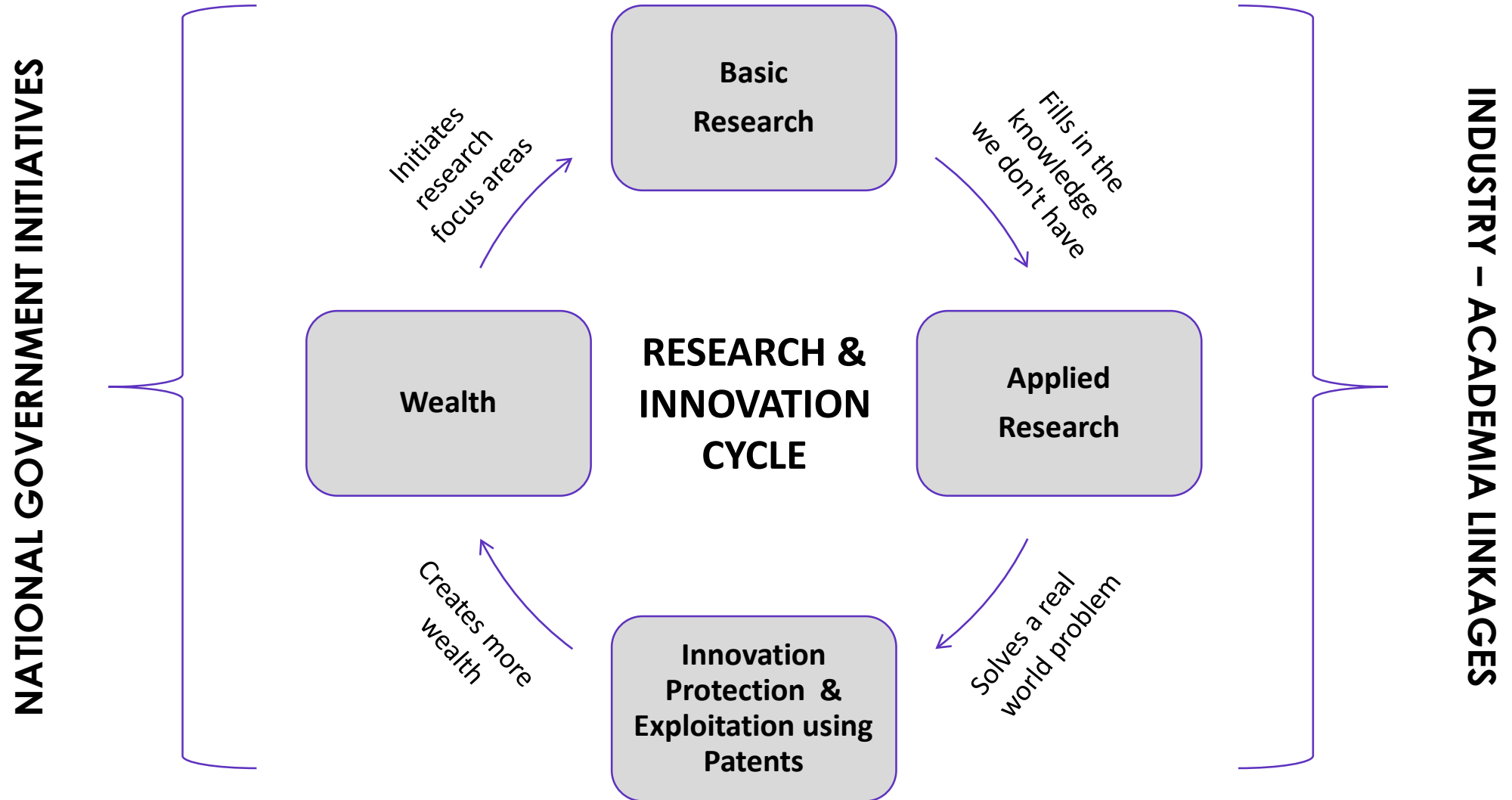
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ROLE OF PATENTS IN ACADEMIA

Research & Innovation Eco-system



Traditional View of Research



BASIC RESEARCH

APPLIED RESEARCH

SCIENTIFIC APPLICATION

COMMERCIAL APPLICATION

IMPROVE SCIENCE

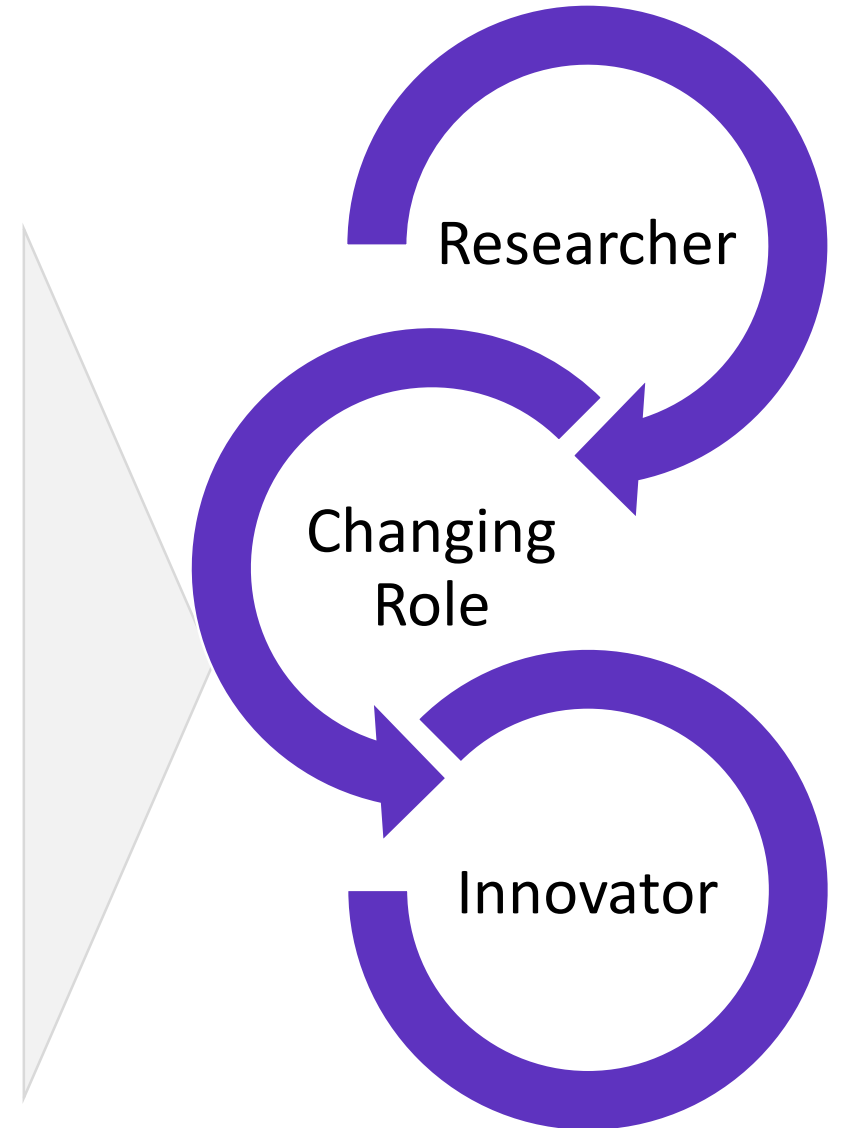
IMPROVE COMMERCIAL VALUE

OPEN (PEER REVIEW)

PROTECTED

PUBLISHING

PATENTING



Changing Landscape



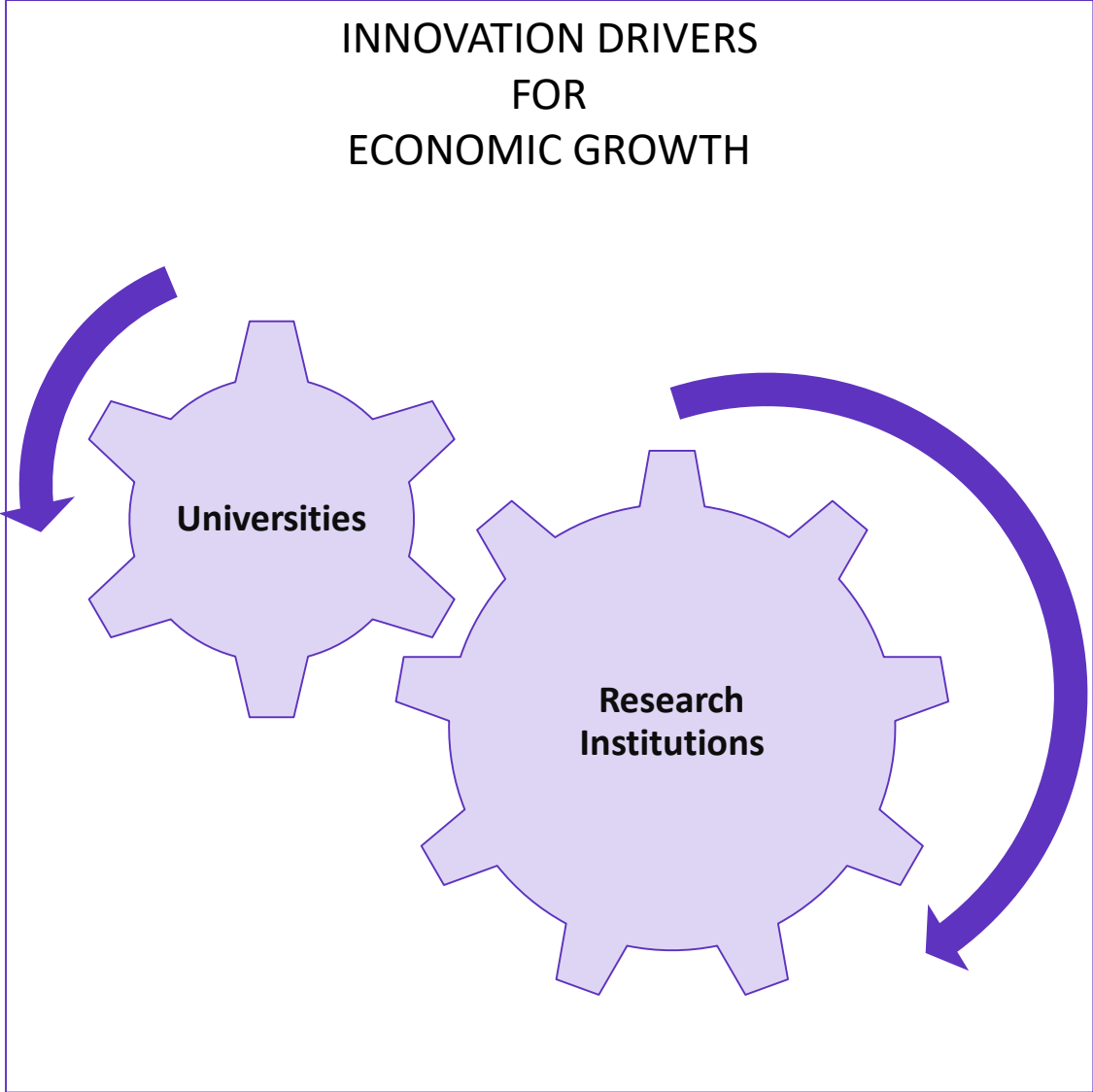
Boundaries between scientific & applied research are blurring

Creation & management of knowledge is changing fast



Industry-Academic collaboration is encouraged

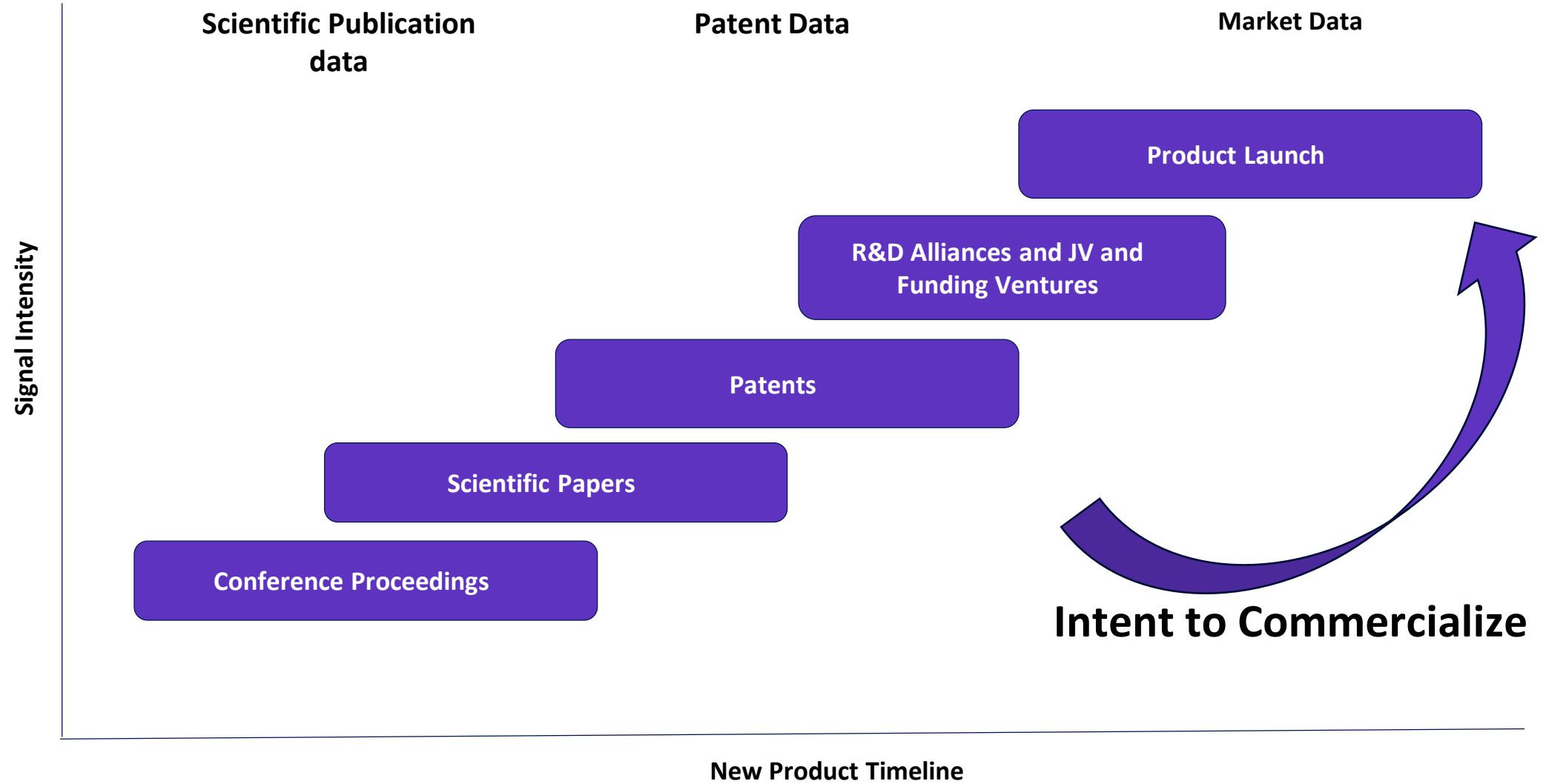
Extraction of value from IP is gaining traction



Inventions that Changed Our World

INVENTIONS THAT CHANGED THE WORLD		
1922	Insulin	University of Toronto
1938	Electron Microscope	University of Toronto, Siemens
1939	Penicillin	Oxford University
1942	Ultrasound	University of Vienna
1943	Pap Smear	Cornell University
1958	Pacemaker	University of Minnesota
1963	Seatbelt	University of Minnesota
1989	Cystic Fibrosis Gene	The Hospital for Sick Children, Toronto University of Michigan
1996	Google	Stanford University
1996	HIV Anti-viral Therapies	Emory University
2000	Combination of PET/CT Scanner	University of Pittsburgh

From Lab to Market



Patents as an Important Indicator of Innovation

30

%

OF ALL EXPENDITURE IN R&D IS WASTED ON REDEVELOPING EXISTING INVENTIONS

80

%

OF CURRENT TECHNICAL KNOWLEDGE CAN BE FOUND IN PATENT DOCUMENTS

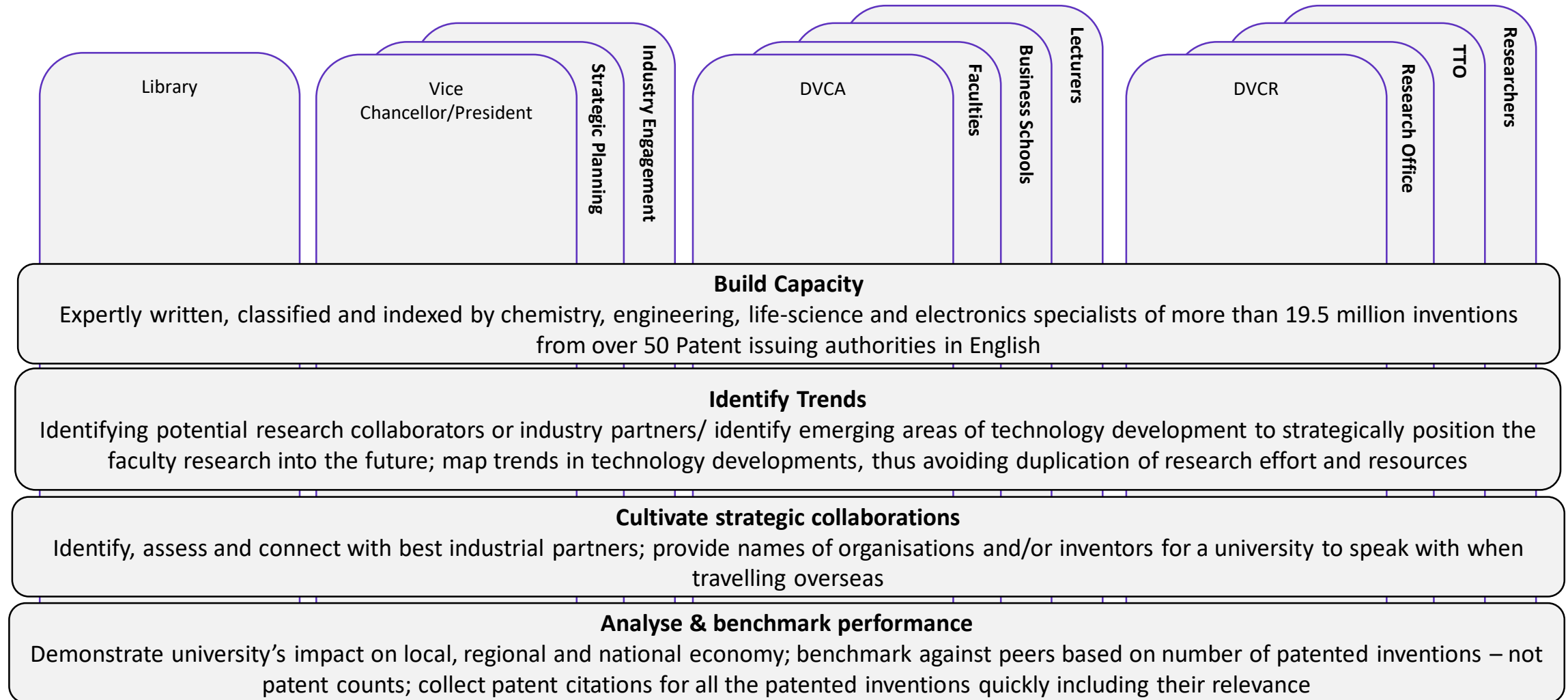
70

%

OF NEW (CHEMICAL) SUBSTANCES ADDED TO THE REGISTRY FROM THE LITERATURE COME FROM PATENTS

PATENTS ARE A VALUABLE SOURCE OF INFORMATION

University Eco-system Organization Structure



Looking for Answers

DVCR

Which technologies must be patent protected?

Scientific Diversity?

Measure output in the form of Patents/Products?

Identifying partners, licensees?



DVCA

How do we track new inventions?

Identifying overlapping technologies?

Map university patent volumes by categories?



VICE CHANCELLOR/PRESIDENT

Emerging Research?

How to link innovation to economic development?

Funding incentives?

Technology Trends?

How to measure impact of Government funding?



LIBRARY

Conduct comprehensive prior-art searches?

How to define invention disclosures?

Source of Technical Literature?



Effective Use of Patent Information across Departments

DVCR

1. Identify and Monitor Potential Research Partners & Collaborators
2. Map university patent volume and spin-out companies
3. Identify industry partners, licensees, adjacent and overlapping technology



DVCA

1. Prepare students with the skills and knowledge to extract intelligence from intellectual property analysis when shifting to industry in the knowledge-driven economy
2. Alerted when collaborators or competition patents a new inventions in a specific technology area



VICE CHANCELLOR/PRESIDENT

1. Track the flow of knowledge from universities scholarly output to the patent system
2. Patent Citation Analysis for impact and quality
3. Identifying Emerging Research & Technology Trends
4. Track the influence of a Researcher on Industry



LIBRARY

1. Identifying & Inform Researchers of additional technical literature associated with an area of research
2. Help define invention disclosures to the technology transfer office
3. Support Prior-Art Search



PATENTS ARE A SOURCE OF TECHNICAL & COMMERCIAL INSIGHT

Other Factors to Consider

- Due-diligence on proposals from universities and corporations
- Assessing proposed research against wider landscape (typically global in nature)

Informed Funding Decisions



- Measure the overall success of funding based on research output
- Measure impact of academic research Vs. country's economic growth

Assessing Research Output Periodically



- Benchmark Key Performance Indicators (KPI) at country level
- Explore linkage between innovation and economic development

Updating Policy Decisions



- Finding partners
- Finding licensing opportunities
- Finding markets for your technology

Exploring Industry-Science Linkages

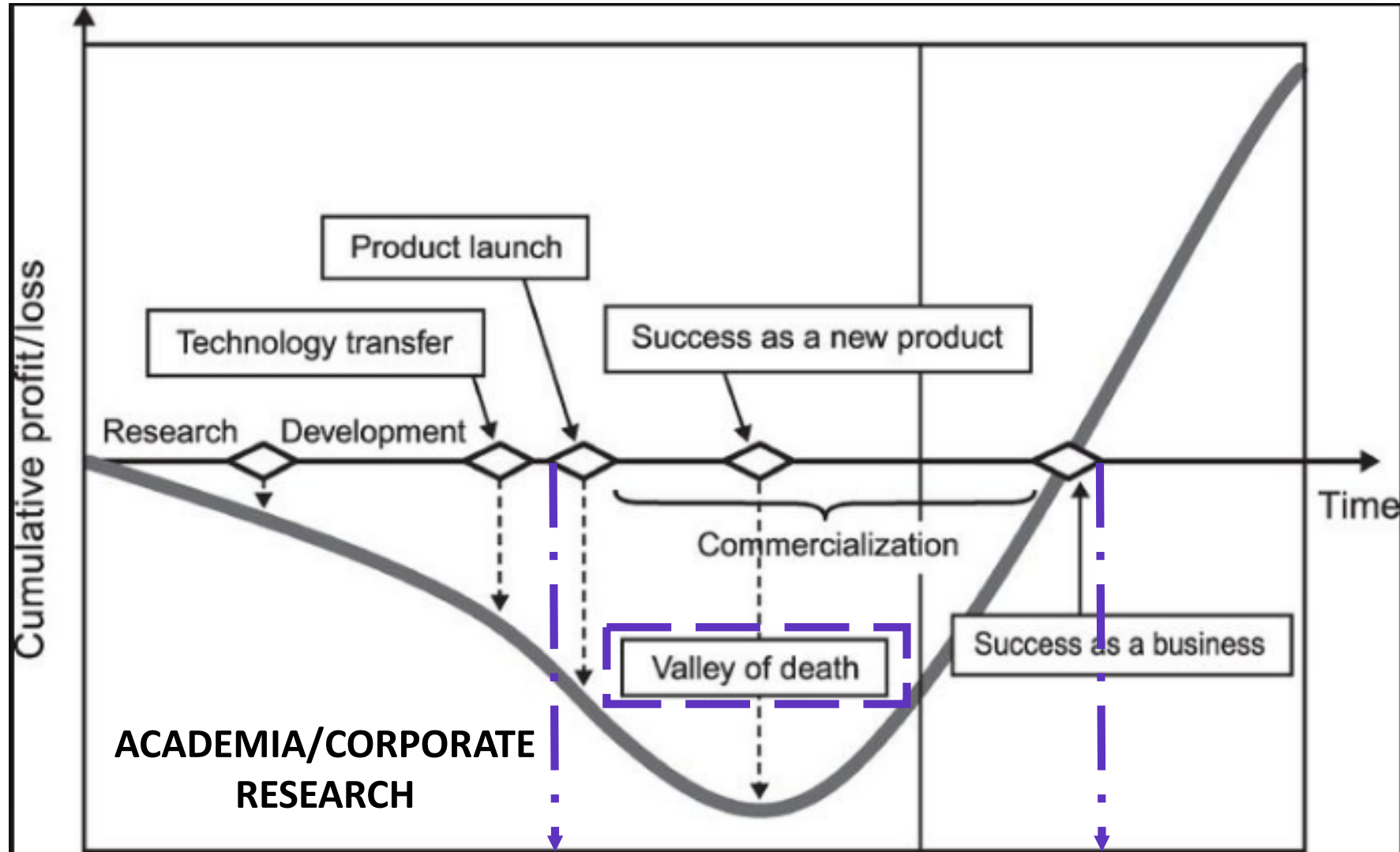


**EXPERTISE OF
RESEARCHERS**

TECHNOLOGY TRANSFER PROCESS

**NEEDS OF THE
INDUSTRY**

Valley of Death



IMPACT

Source: Osawa and Miyazaki (2006)

INDUSTRY



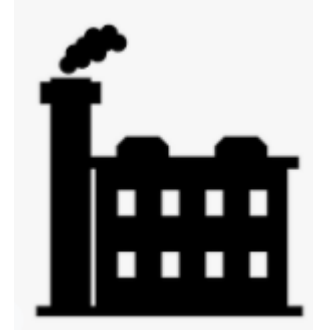
**MISMATCH
OF
EXPECTATIONS
BETWEEN
ACADEMIA & INDUSTRY**

Technology Development



Academia

- **PROOF OF CONCEPT**
- **PROTOTYPE**
- **LONG-TERM OPPORTUNITIES**



Industry

- **READY-MADE TECHNOLOGY**
- **NEAR TERM OPPORTUNITIES**

Market Readiness



Academia

- **EARLY STAGE TECHNOLOGY**
- **INSUFFICIENT MARKET DUE DILIGENCE**



Industry

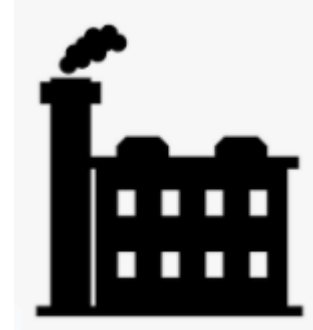
- **MARKET READY TECHNOLOGY**
- **CONSUMER DEMAND**

Risk Management



Academia

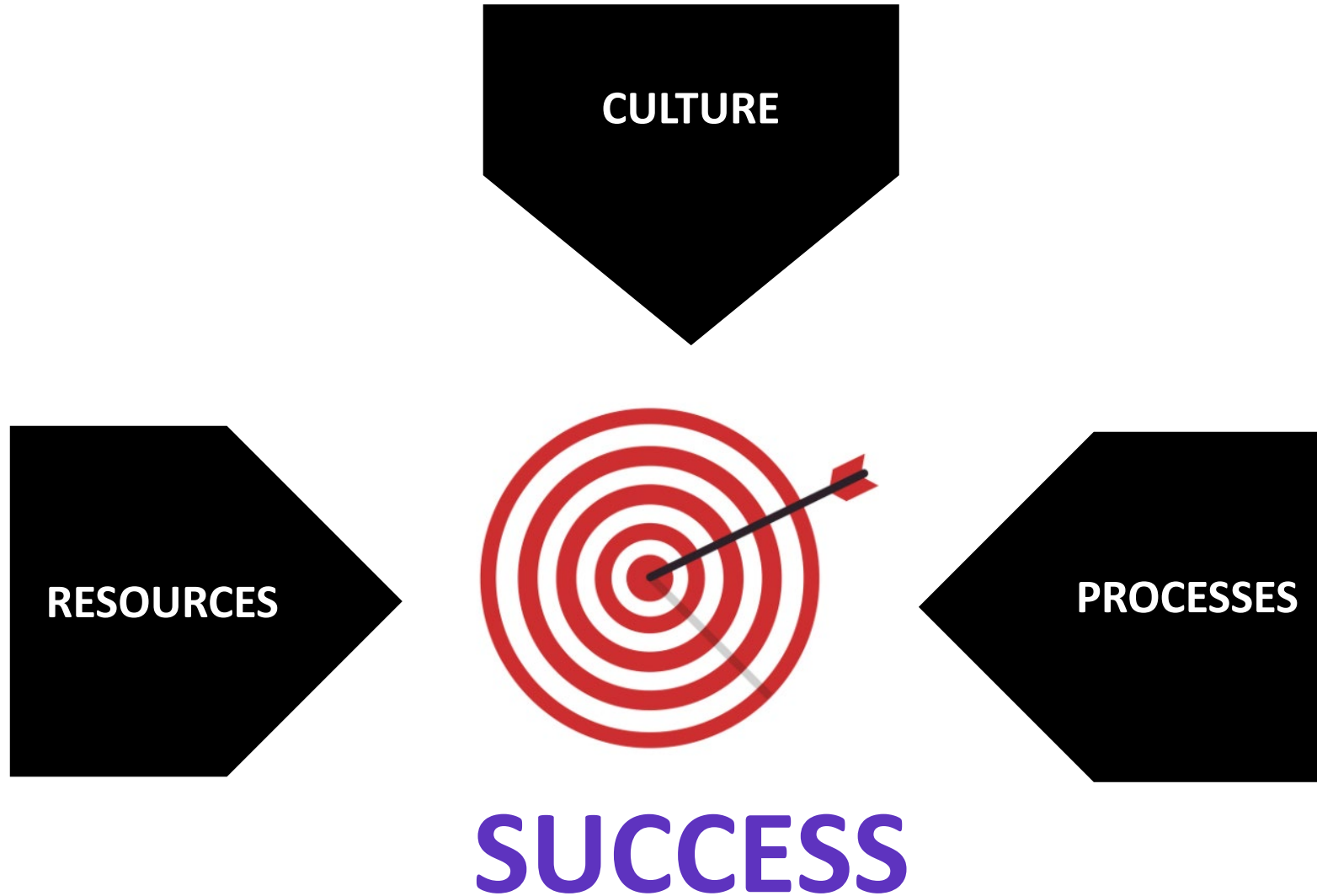
- LIMITED WARRANTY TO LICENSEES
- LIMITED CONTROL OVER END PRODUCT



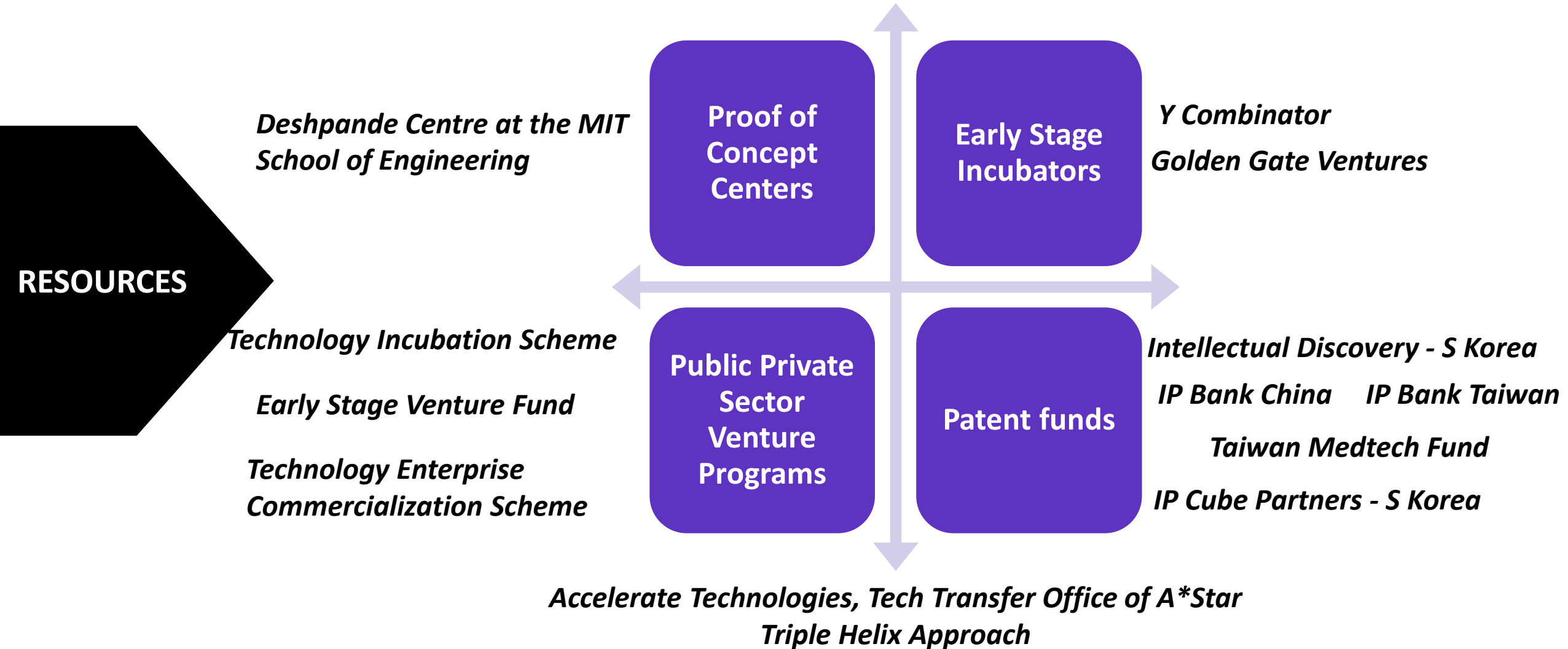
Industry

- LACK OF WARRANTY = SIGNIFICANT COST & HIGH RISK

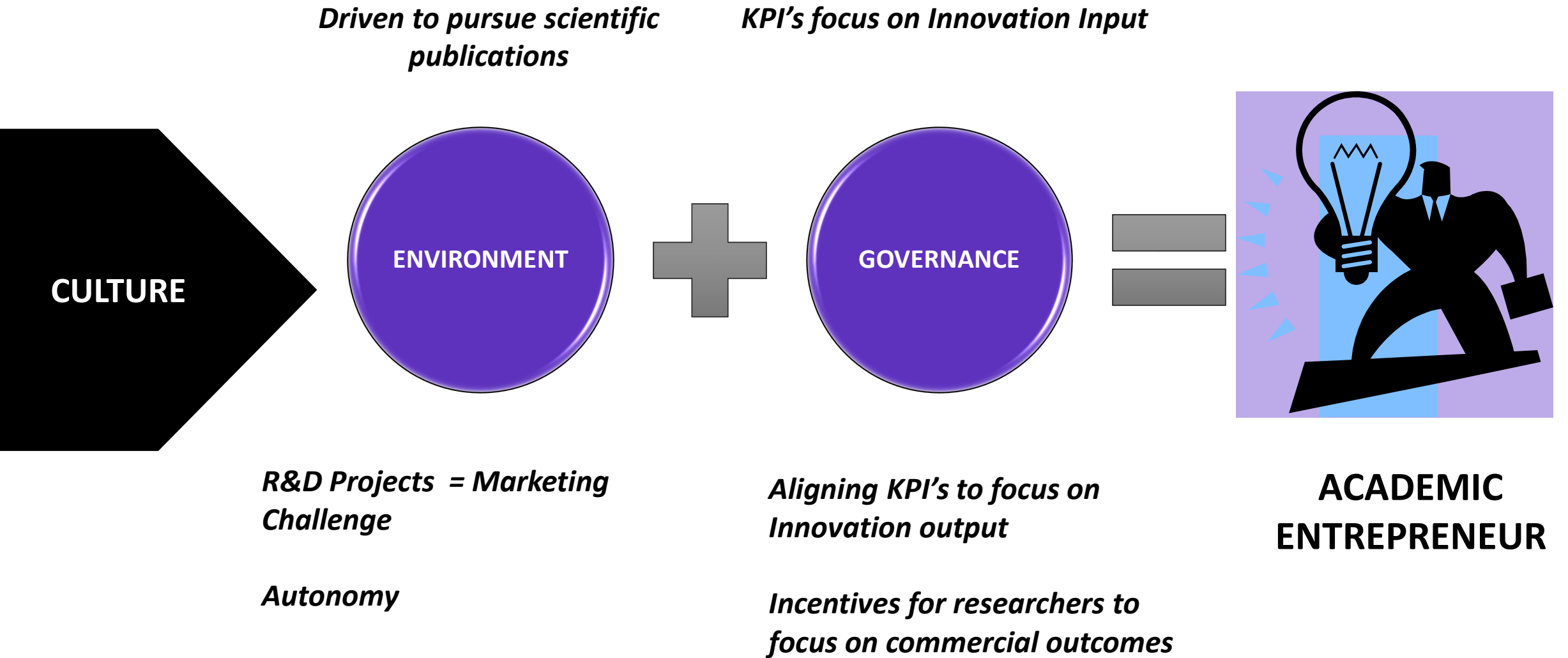
Key Success Factors



Resources



Culture



Process

PROCESSES

IP STRATEGY

WHAT ?

Critical IP's to be developed during R&D Phase

HOW?

1. Internally develop
2. In-Licensed from External sources
3. Co-Developed with a Third Party

MARKET STRATEGY

WHAT ?

Market needs
Identify right partners

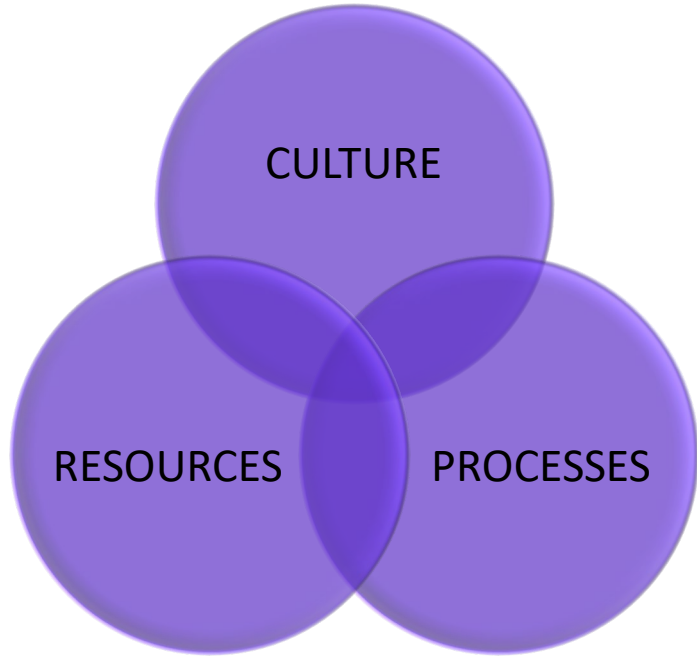
HOW?

1. Market and competitive landscape
2. Primary research
3. Secondary research



Framework for Success

- 1. Researchers/Scientists
- 2. IP Licensing Professionals



Funding Budget

- 1. IP Assessment / Protection
- 2. Commercial Evaluation
- 3. Market Engagement



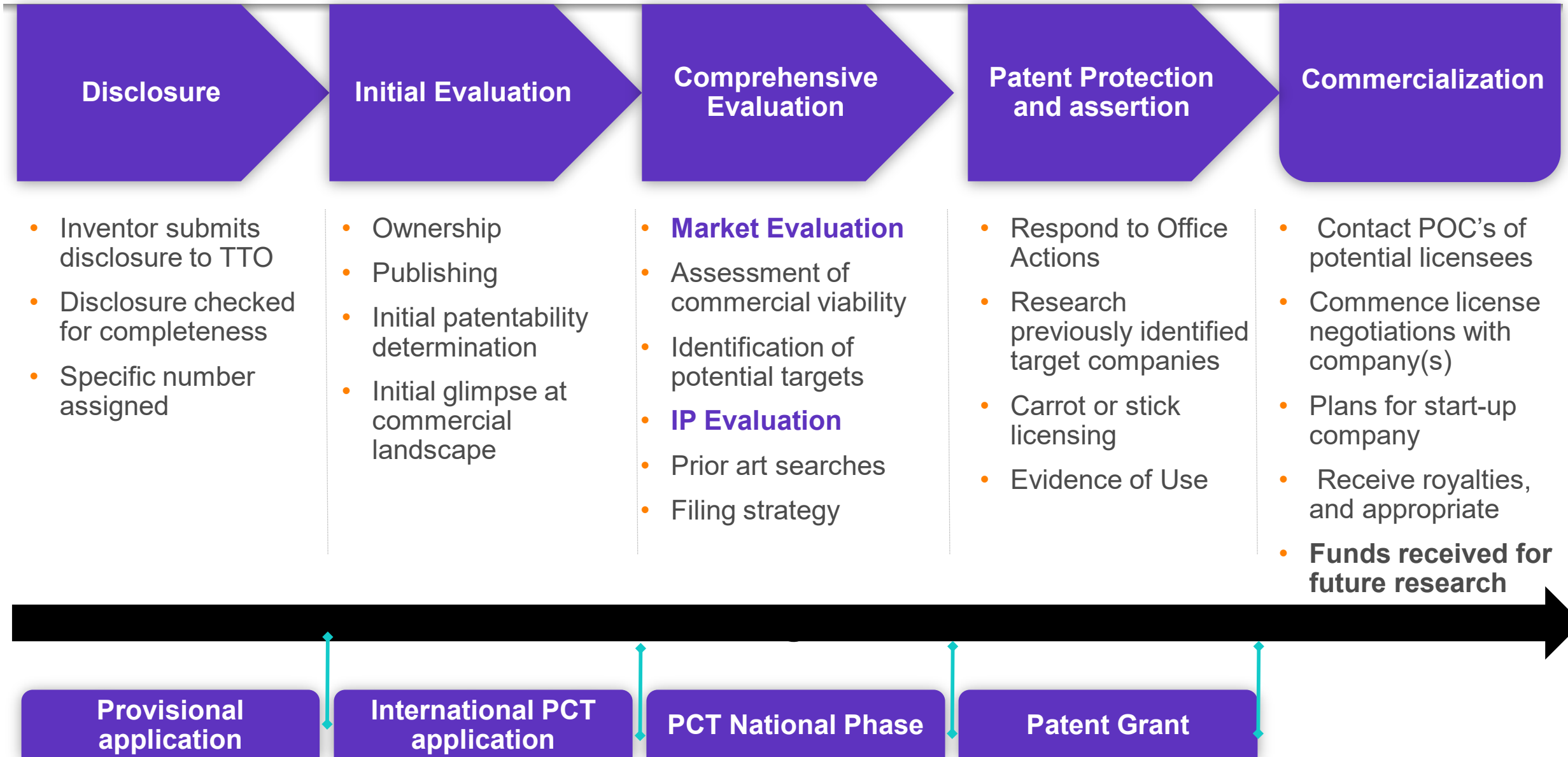
Meeting Market Needs is the Key



- 1. New Products / Services
- 2. New Start-ups



Effective Technology Transfer Process



PATENT INTELLIGENCE VIA A DECISION SUPPORT TOOL



Derwent World Patents Index (DWPI)

What makes DWPI different?

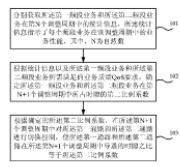
- Enhanced titles
- Comprehensive abstracts
 - Novelty
 - Use
 - Advantage
- Error-corrected bibliographic information
- Editorially enhanced and accurate data
- Global coverage in English

(19) 中华人民共和国国家知识产权局
(12) 发明专利申请
(10) 申请公布号 CN 104125615 A
(43) 申请公布日 2014.10.29

(21) 申请号 201410387978.8
(22) 申请日 2014.08.07
(71) 申请人 华为技术有限公司
地址 518129 广东省深圳市龙岗区坂田华为总部办公楼
(72) 发明人 高林 李文俊 周元
(74) 专利代理机构 北京同立钧成知识产权代理有限公司 11205
代理人 刘芳
(51) Int. Cl.
H04W 36/14 (2009.01)

(54) 发明名称
双频自适应并发的处理方法和装置

(57) 摘要
本发明实施例提供一种双频自适应并发的处理方法和装置。本发明实施例中,通过采用第一频段业务和所述第二频段业务在第N个调整周期中的统计信息,可以获取每个频段业务在该调整周期中的业务性能,基于该统计信息以及两个频段业务所需满足的QoS需求,可以确定两个频段业务在第N+1个调整周期中所占时间的第二比例系数,从而可以根据确定的该第二比例系数,在所述第N+1个调整周期中对所述第一频段和所述第二通路进行切换控制,进而尽可能满足两个频段业务的质量需求,提高业务质量。



Understanding a Techno-Legal Document Easily

Record View: CN104125615A
Add to Work File | Mark Record | Watch Record | Download | Print

QUICK VIEW

DWPI Title ?
Double-frequency self-adaption concurrent processing method, involves connecting WLAN device with passage unit, obtaining first proportion coefficient and second proportion coefficient, and determining threshold value

Original Title ?
double-frequency adaptive processing method and device (Translation from Clarivate Analytics)

DWPI Abstract

Novelty: The method involves connecting WLAN device with a passage unit. A first service frequency band is equipped with a second service frequency band. Statistical information is transmitted according to an adjusting period unit. A frequency section is determined. A first proportion coefficient and a second proportion coefficient are obtained, where the second service frequency band is a voice service. Counting information is determined. Delay time of the first service frequency band is calculated. Threshold value is determined.

Use: Double-frequency self-adaption concurrent processing method.

Advantage: The method enables satisfying quality requirement of a service frequency band and improving service quality.

First Claim ?

1. A double-frequency adaptive and processing method, it is applied to wireless broadband WLAN device, wherein the WLAN device comprises: transmitting the first band traffic of the first passage and the second passage for transmitting second frequency service; the method comprises the following steps: respectively obtaining the first frequency band service and service statistic information of the second frequency in the N-th adjusting period, the statistical information indicates each frequency space service performance in the adjusting period. wherein, N is a natural number, according to the statistic information and the first frequency band service and the second band needed by the service to satisfy the service quality QoS requirement, determining the first frequency band service and said second frequency band service occupied time slot in the (N + 1) th adjusting period; the second ratio coefficient, the second ratio coefficient according to the determined, for switching control of the first path and the second path in the (N + 1) th adjusting period, the first path and the second path than the slot in the (N + 1) th adjusting period is equal to the second ratio coefficient.

(Translation from Clarivate Analytics)

DWPI Assignee / Applicant ?
HUAWEI TECHNOLOGIES CO LTD, (HUAW-C)

DWPI Inventor ?
GAO L; LI W; ZHOU Y

Publication Number / Date ?
CN104125615A / 2014-10-29

Application Number / Date ?
CN201410387978A / 2014-08-07

Smart Search

Smart Search significantly reduces the time taken to get to relevant results for any patent activity

1. Take any block of text that describes what you are looking for :

- Product Description from a website
- Invention Disclosure
- Claims from a Patent

2. The algorithm will use the “Smart Themes” (converted from the text)

3. Results are returned in relevance ranked order

Job done in five minutes!

Overcome the Biggest Barrier to Patents for a Researcher

Smart Search-Topic

Publication Date To

Assignee/Applicant Include blank fields

_Inventor-Original



"EVAPORATOR" "REFRIGERANT" "REFRIGERATING" "COOLING SPACE" "COMPRESSOR" "REFRIGERATOR" "HEAT EXCHANGE" "BETWEEN EVAPORATORS" "HEAT EXCHANGING" "AIR CONDITIONER" "COOL COOLING" "EFFECTIVELY COOLS"

SEARCH RESULTS

1,000 record(s) found out of 114,213,483 searched (display limit 1,000) 0 record(s) selected

Displaying 1 - 10 of 1000 Go to page:

Item	Publication Number	Inventor	DWPI Assignee/Applicant	Publication Date	DWPI Assignee Code	Relevancy	Co
1	US8978410B2	Oh Min-Kyu	LG ELECTRONICS INC	2015-03-17	GLDS	100	2
	Title: Refrigerator system having two evaporators performing heat exchange DWPI Title: Refrigerator system for e.g. refrigerator , has cycle circulating refrigerant discharged from compressor , and heat exchanging unit performing heat exchange evaporator , where evaporators are provided to cool cooling spaces						
2	KR102456668B1	LEE NAM GYO	LG ELECTRONICS INC	2013-12-30	GLDS	100	0
	Title: SYSTEM CAPABLE OF REDUCING THE POWER CONSUMPTION OF THE PUMP DOWN OPERATION DWPI Title: Refrigerator system for e.g. refrigerator , has cycle circulating refrigerant discharged from compressor , and heat exchanging unit performing heat exchange evaporator , where evaporators are provided to cool cooling spaces						
3	CN1573263A	YAMAZAKI HARUHISA	SANYO ELECTRIC CO LTD	2005-02-02	SAOL	100	1
	Title: Cooling apparatus DWPI Title: Cooling apparatus for use as e.g. store showcase, has control device to change continuous running time of compressor after compressor runs for specific time t compressor based on temperature of detected cooled space						
4	CN100359262C	YAMAZAKI HARUHISA	SANYO ELECTRIC CO LTD	2008-01-02	SAOL	100	0
	Title: Cooling apparatus DWPI Title: Cooling apparatus for use as e.g. store showcase, has control device to change continuous running time of compressor after compressor runs for specific time t compressor based on temperature of detected cooled space						

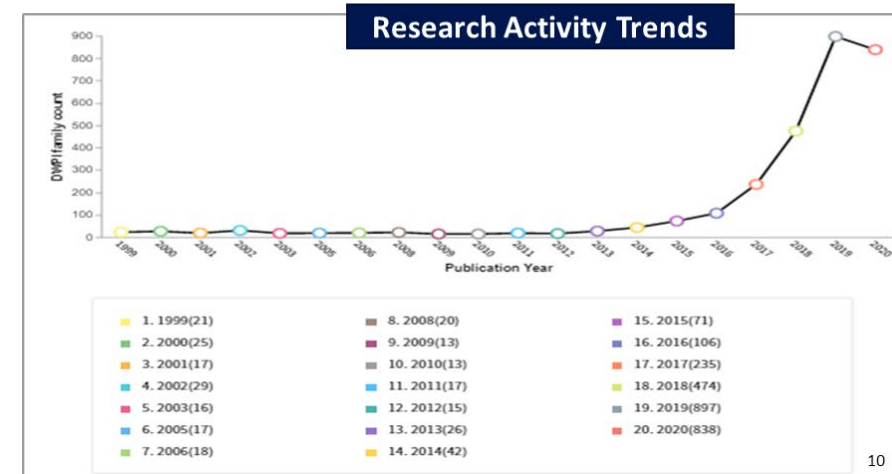
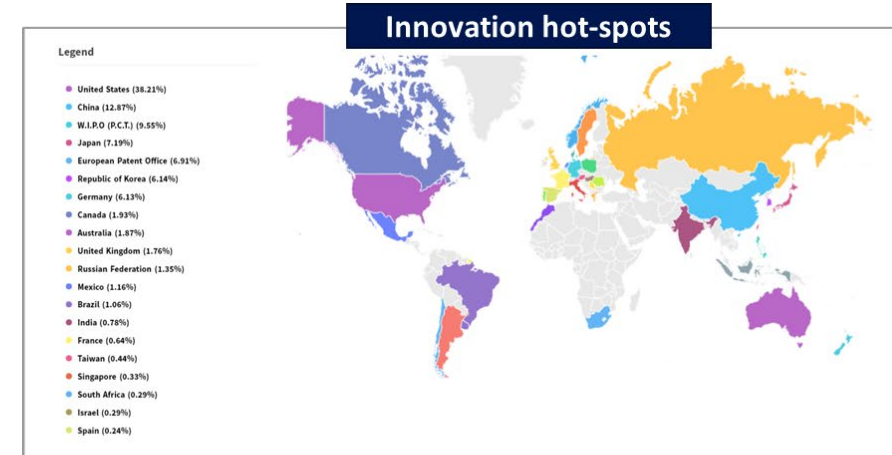
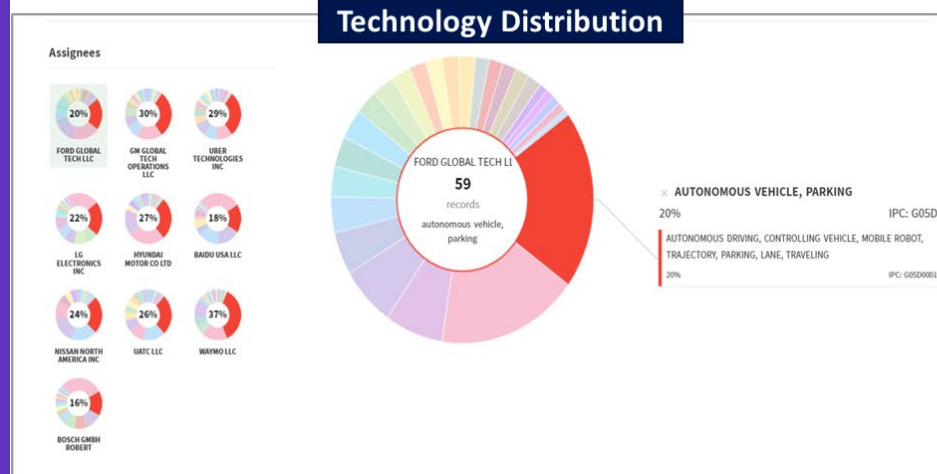
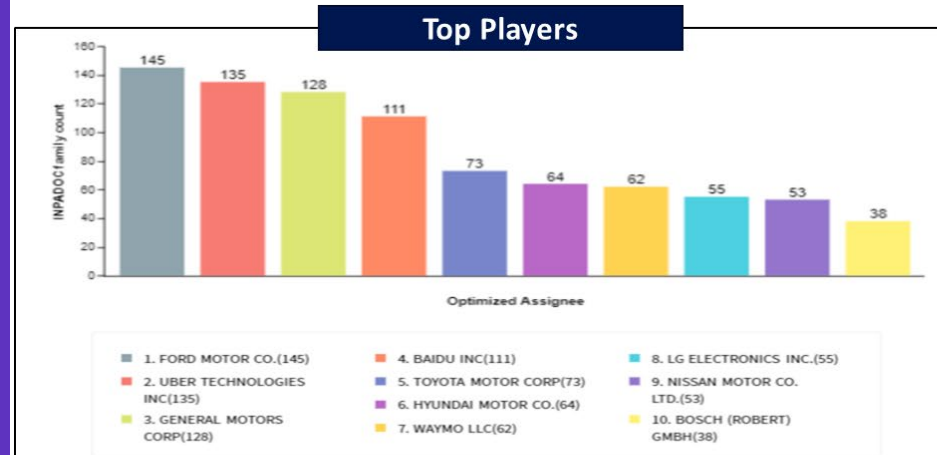
Insights Dashboard

Insights Dashboard provides answers to your questions

1. Who are the major players?
2. Where is the technology being developed?
3. How is the technology trending?
4. What are my competitors working on?
5. Which are the most recent technologies?

[In Just one Click](#)

Gather Key Insights for a Research Area

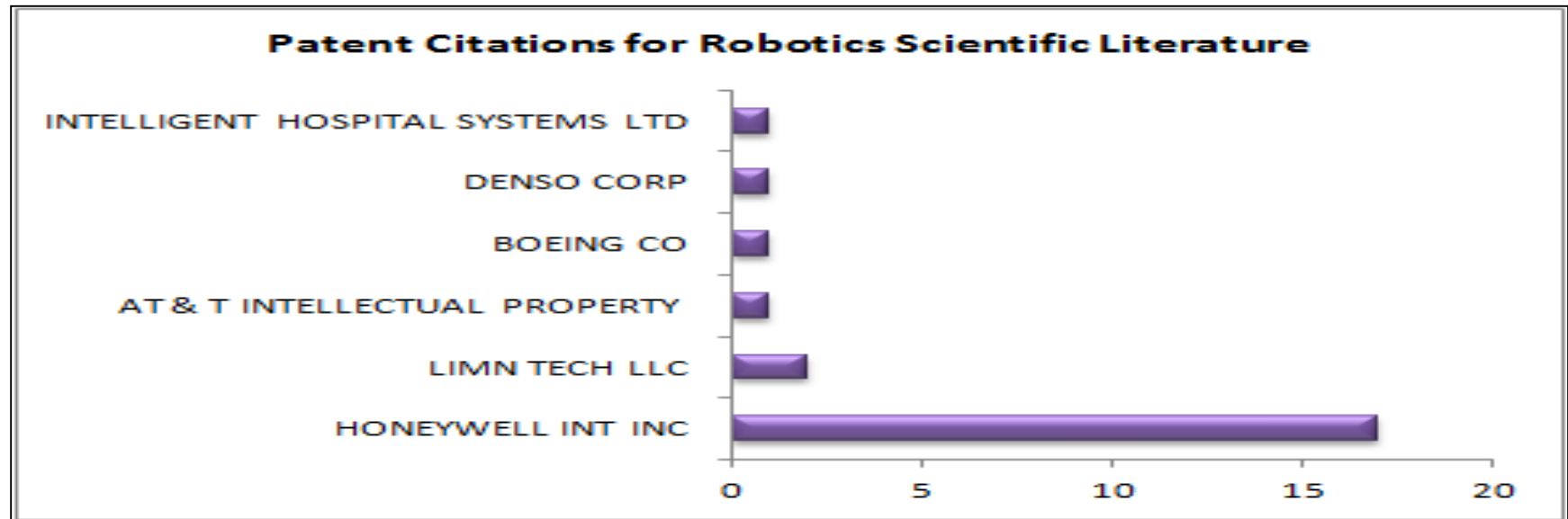
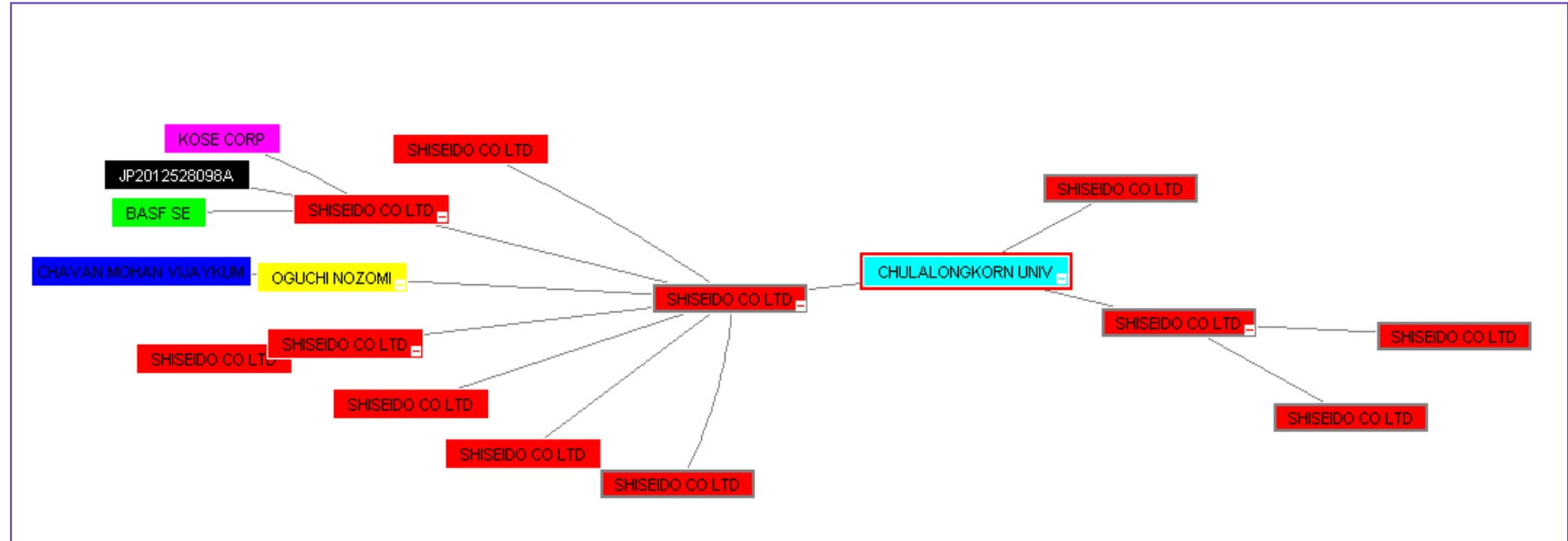


Derwent Patent Citation Index (DPCI)

DPCI is the only editorially enhanced database available focusing on patent citations – **Making it easy to find closely related patents**

- ❑ Shares the same editorial process as DWPI
- ❑ All citations are verified for accuracy, ensuring complete citation coverage at the invention level
- ❑ These citations cross disciplines to include all technologies and citations, **including citations from examiners, inventors, oppositions, and third parties**

Drive Industry-Academic Collaboration with Informed Insights



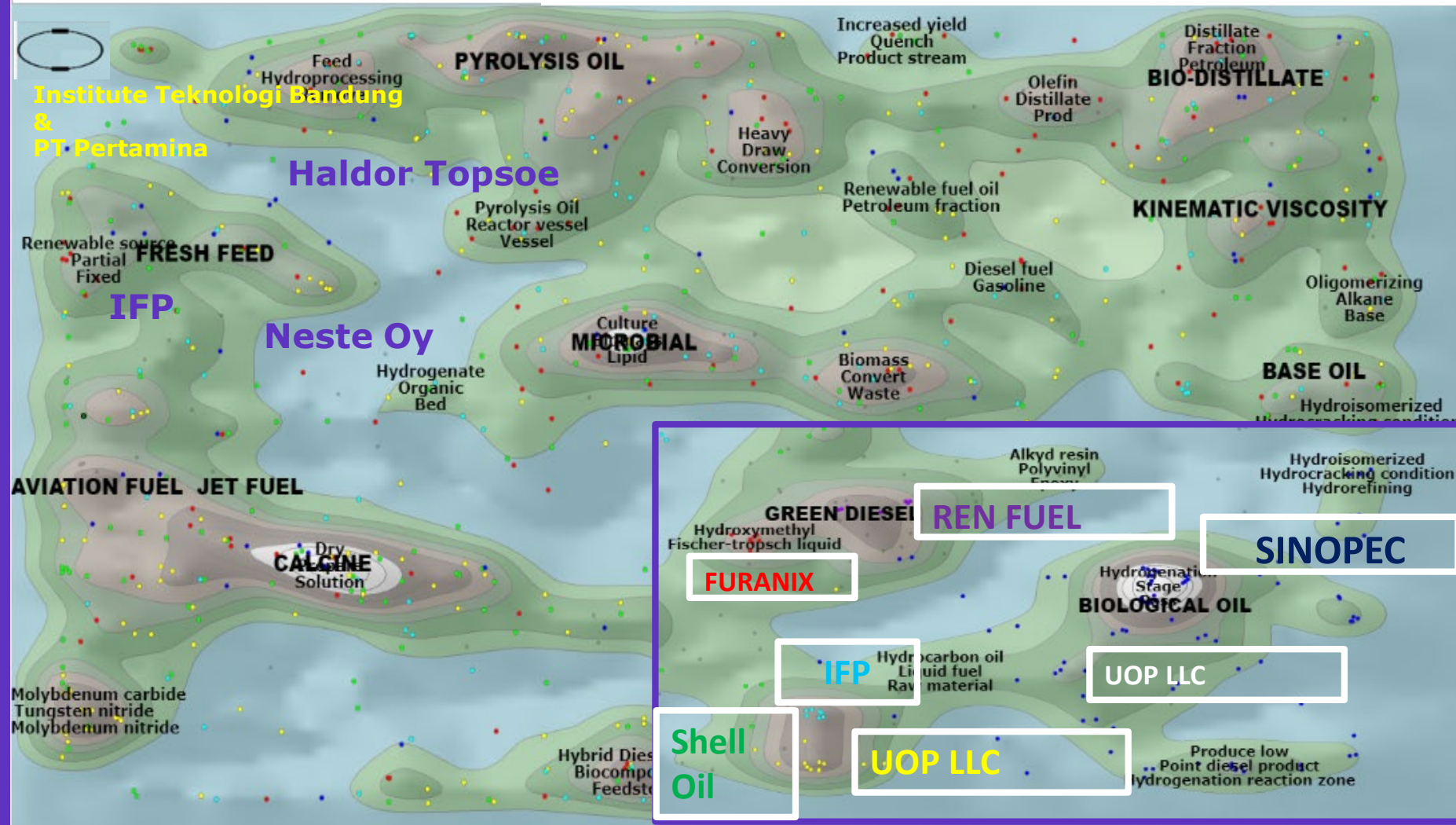
Themescape, Charting, & Visualizations

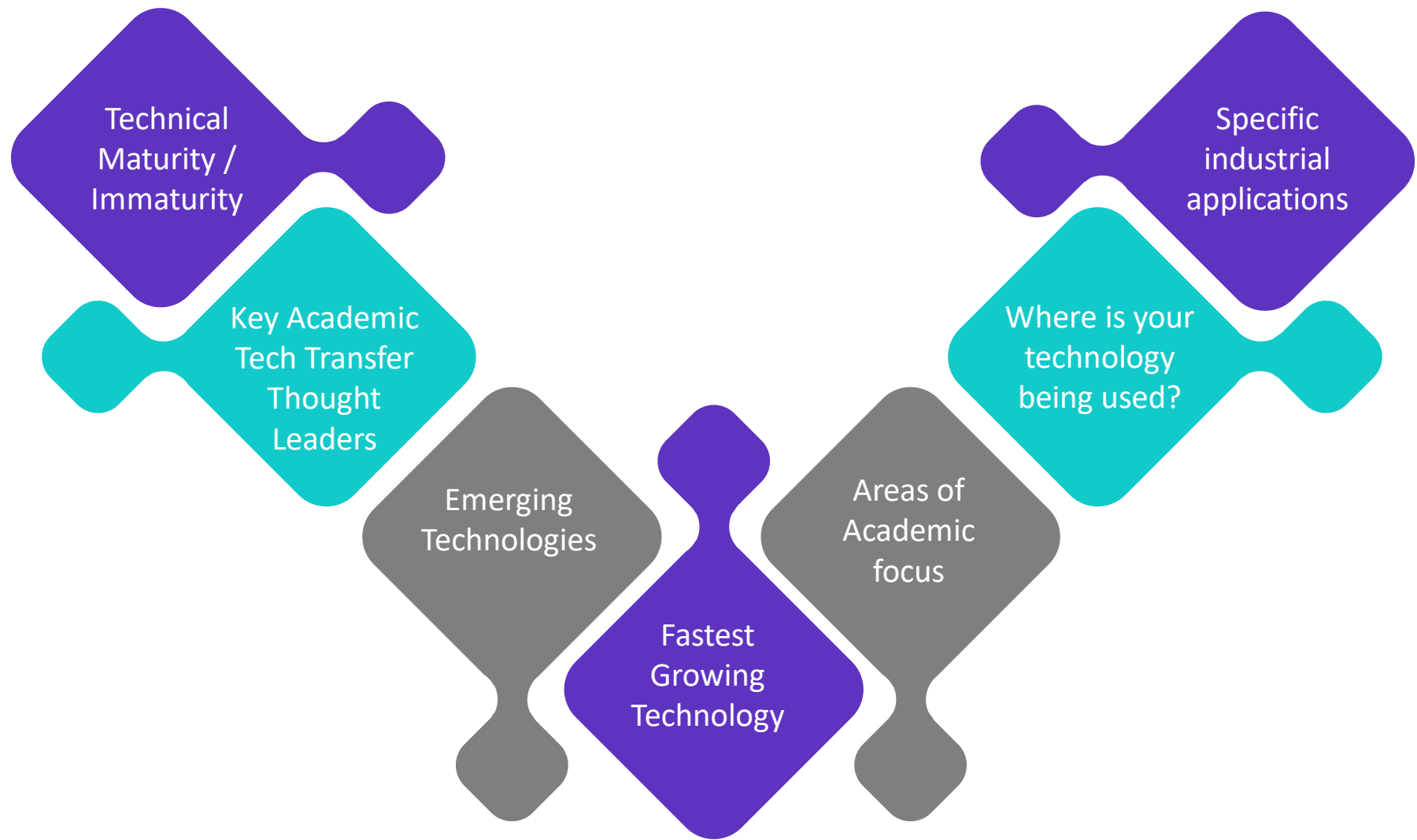
Built-in analytical tools to help you uncover not only the key information you need, but turn raw data into actionable intelligence

- ❑ Converts thousands of documents into a clear picture, helping you spot **key competitors, technologies, and trends**
- ❑ Allows you to view data topographically and identify common themes
- ❑ **Patent and Literature comparison** – comparing a patent and literature map on the same technology in order to identify new technologies and partnerships, and potential commercialization opportunities

Understand Areas of Focus on a Technology Landscape to Drive Decisions

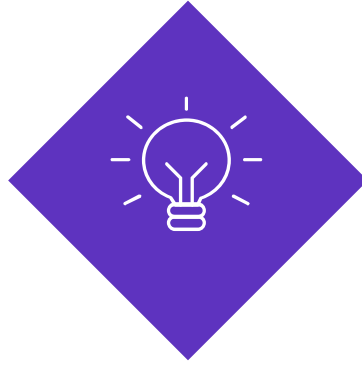
ITB's Merah-Putih Catalyst Tested at Pertamina's Dumai II Oil Refinery



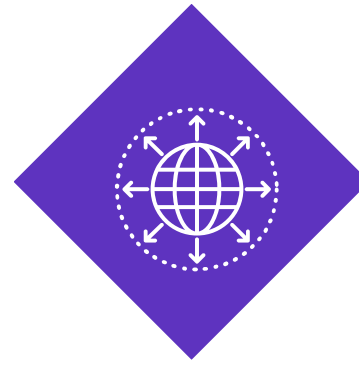


Derwent Innovation for Decision Support

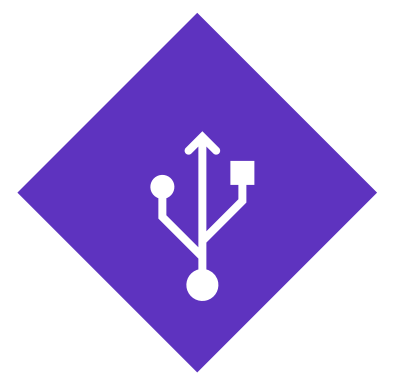
A smarter, simpler, better
patent solution



Expertise



Content



Technology

Derwent World
Patents Index

Smart Search
Patented Search
Technology

Themescape,
Charting, &
Visualizations

Derwent Patents
Citation Index

Which patents are most relevant to your business? What makes them unique or novel in nature?

How to reduce the time spent building patent search queries yet still have the most relevant results sent to the top your list?

How can you quickly identify your main competitors and observe their innovation activities?

Who is most influential in each technology and are there others doing similar work as you?

AI Enhanced Predictive Analytics

Questions & Answers



Thank you!

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