



# Know Hub Chile

Patricio A. Flores M. PhD  
Febrero 2019

**KNOWHUB**  
Technology  
Transfer  
Chile

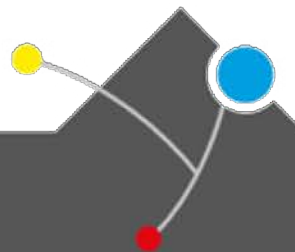


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[LinkedIn](#)



# Know Hub Chile

- Know Hub Chile is an associative entity
- 10 Universities, scientific-technological centers and other knowledge-generating institutions,
- To promote innovation as an engine of economic and social development in Chile.

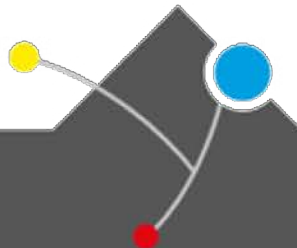


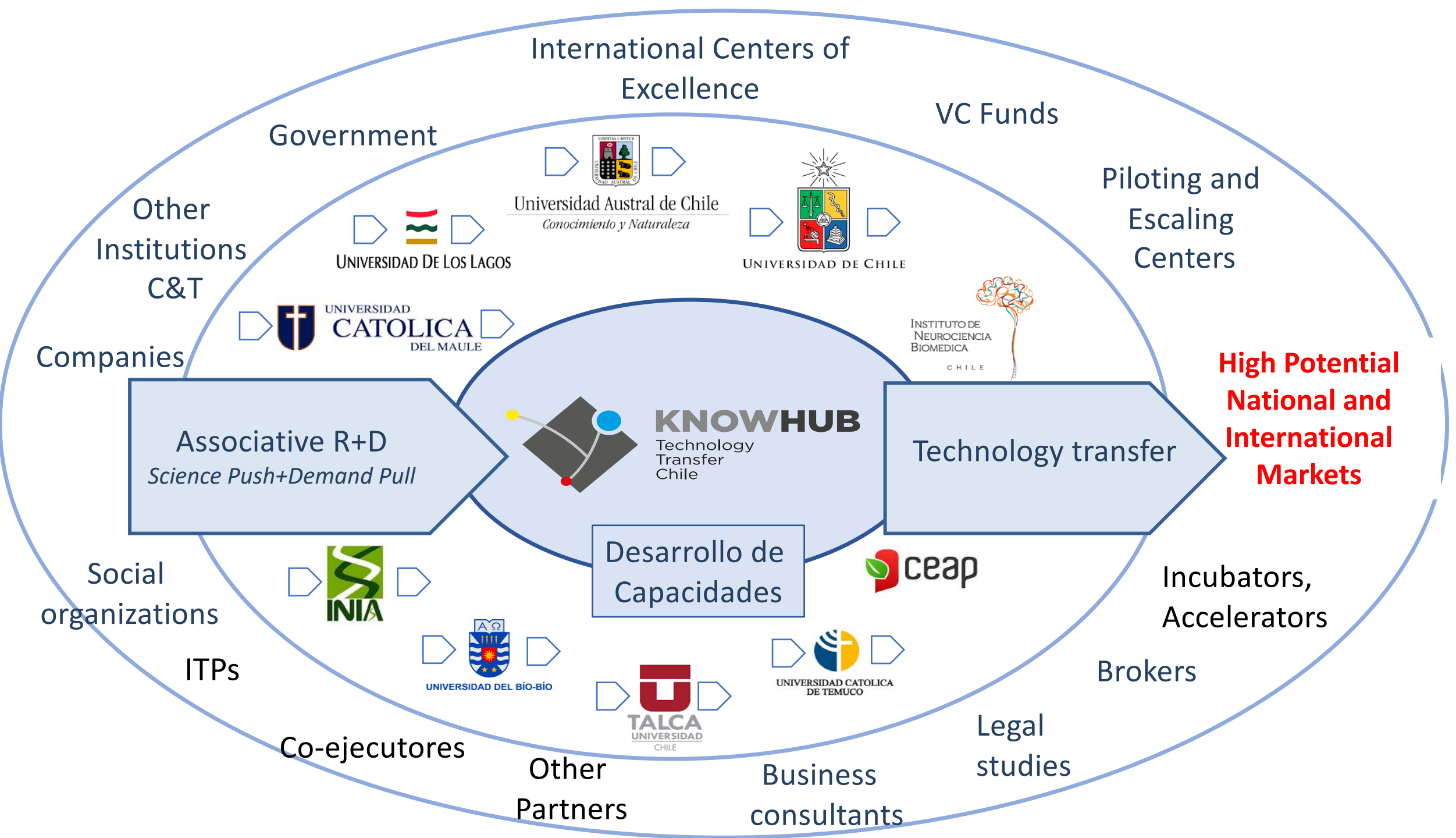
# Know Hub Chile



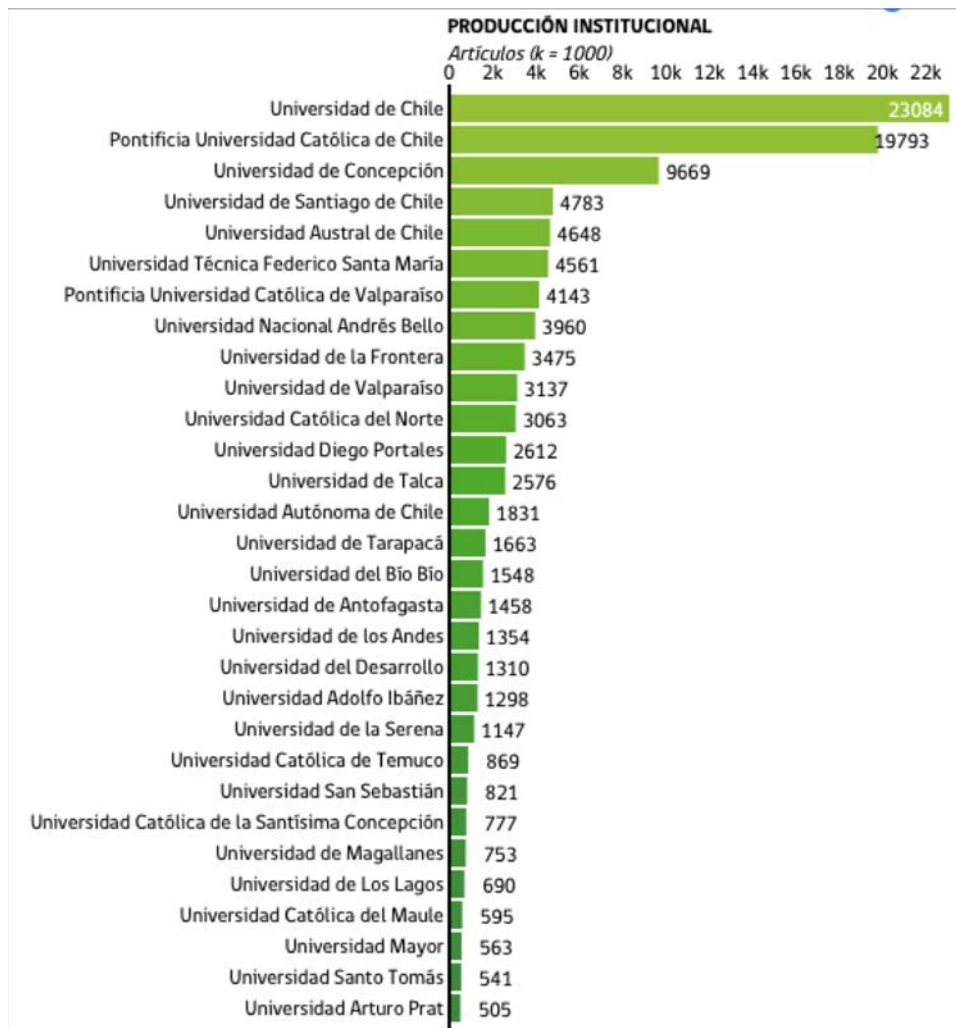
## CO-EXECUTORS AND PARTNERS

- ☐ University of California, Riverside UCR
- ☐ Genesis Partners
- ☐ KIM Global
- ☐ Innoscience Group
- ☐ Fundación INRIA

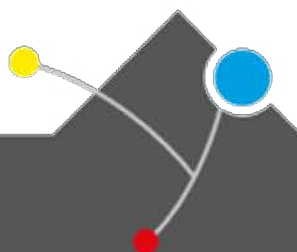
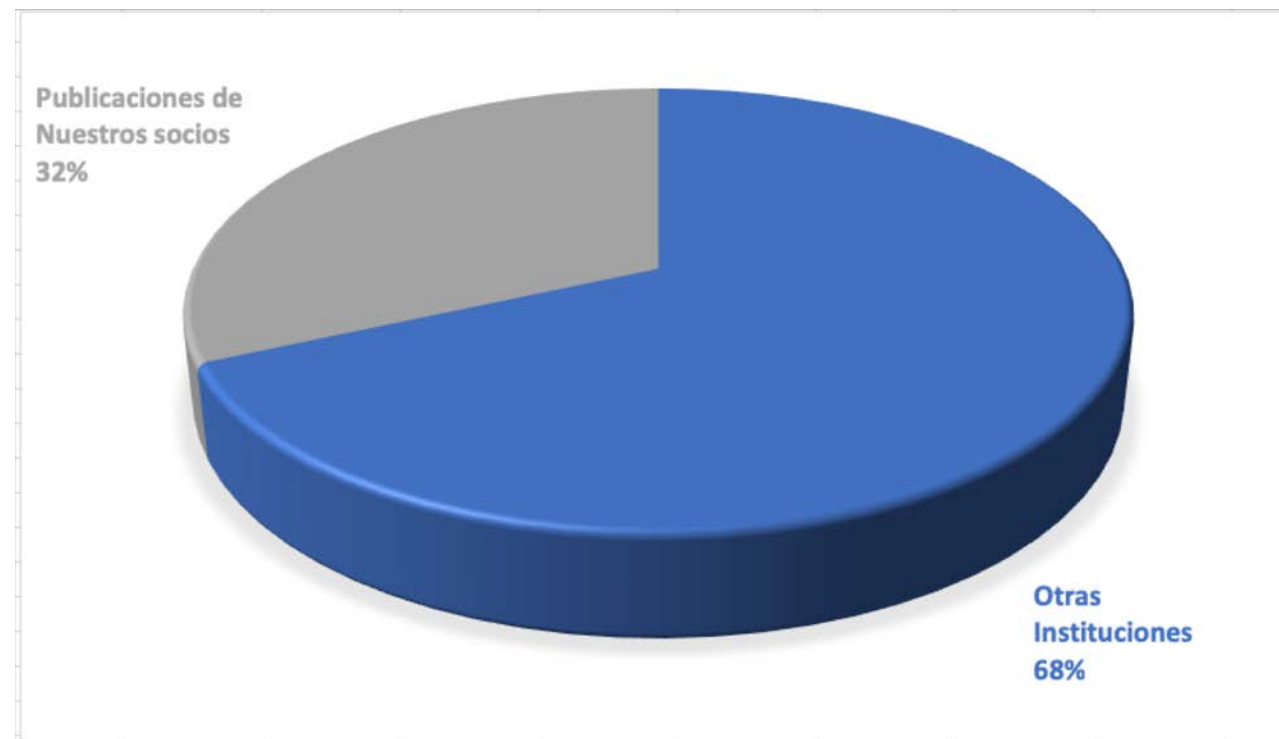




# Institutional scientific production 2008-2018



HUB Total Production: 107.227



## Strengths in different areas of scientific production 2008-2018

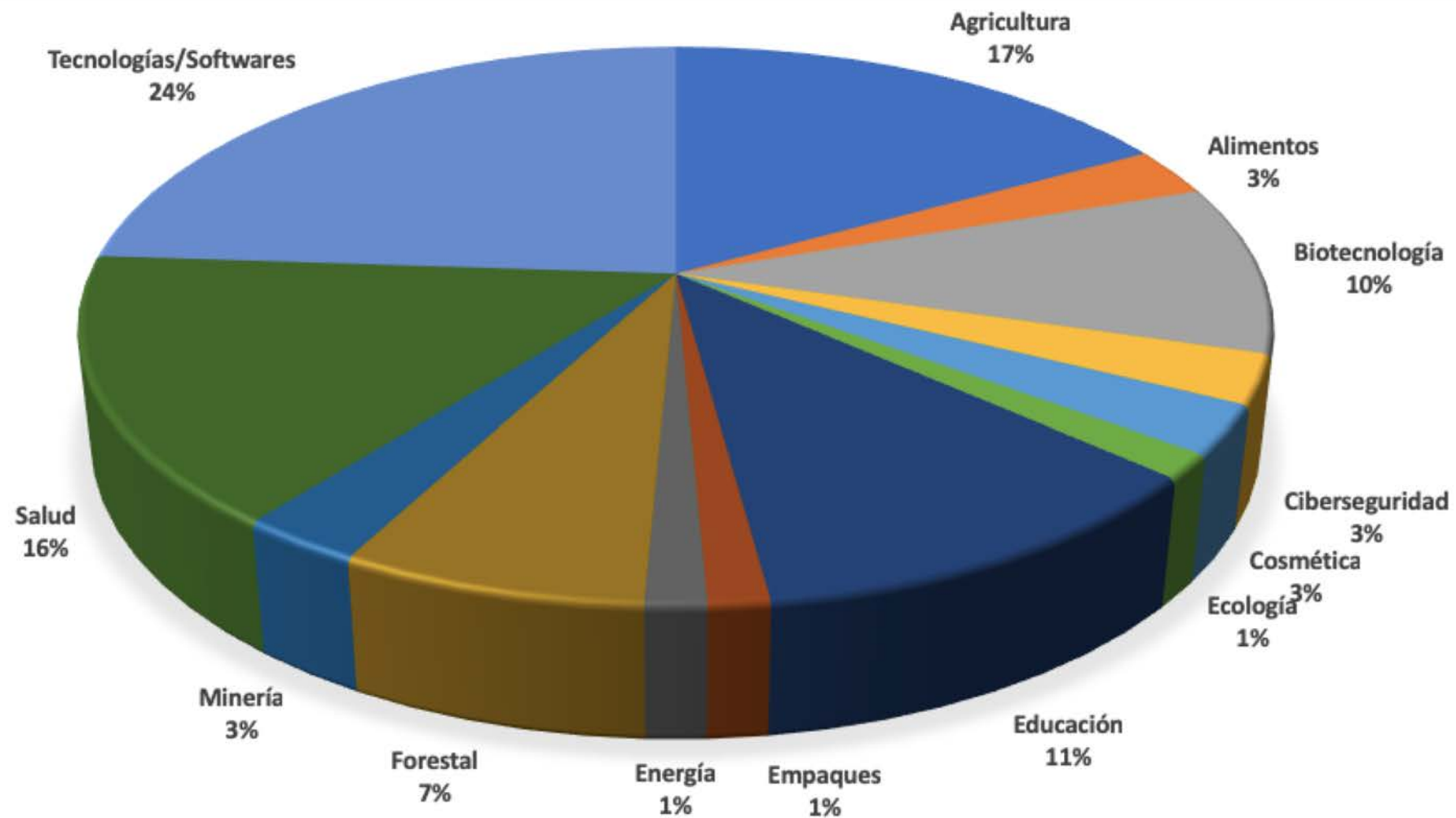
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### CUADRO RESUMEN

Disciplina	Nacional
Agricultural Sciences	5.69%
Engineering and Technology	12.85%
Humanities	4.90%
Medical and Health Sciences	22.19%
Natural Sciences	45.50%
Social Sciences	8.88%

[https://dataciencia.conicyt.cl/dimensiones/disciplinas\\_univ.php](https://dataciencia.conicyt.cl/dimensiones/disciplinas_univ.php)

## Licensing contracts of our partner institutions 2015-2018



Total  
2015-2018: 71 licenses



Patent=Monopoly



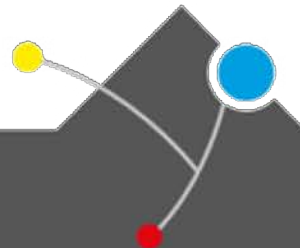
Patent=Riches

Monopoly=Riches



*having a patented product or process doesn't automatically guarantee that the patent will have market value.*

*Only inventions that fulfill a need that producers or consumers are willing to pay to fulfill can be valuable*



## Validation and IP valuation

Nov 13, 2017, 04:45pm

### In Today's Market, Do Patents Even Matter?



**Stephen Key** Contributor

*I write about how to use intellectual property to profit.*

#### TWEET THIS

It's a well-known fact that a vast majority of patents are worthless.

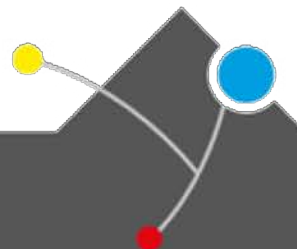
Sometimes. It all depends on your business objectives.

In some industries, patents are absolutely critical. But in far more they are not.

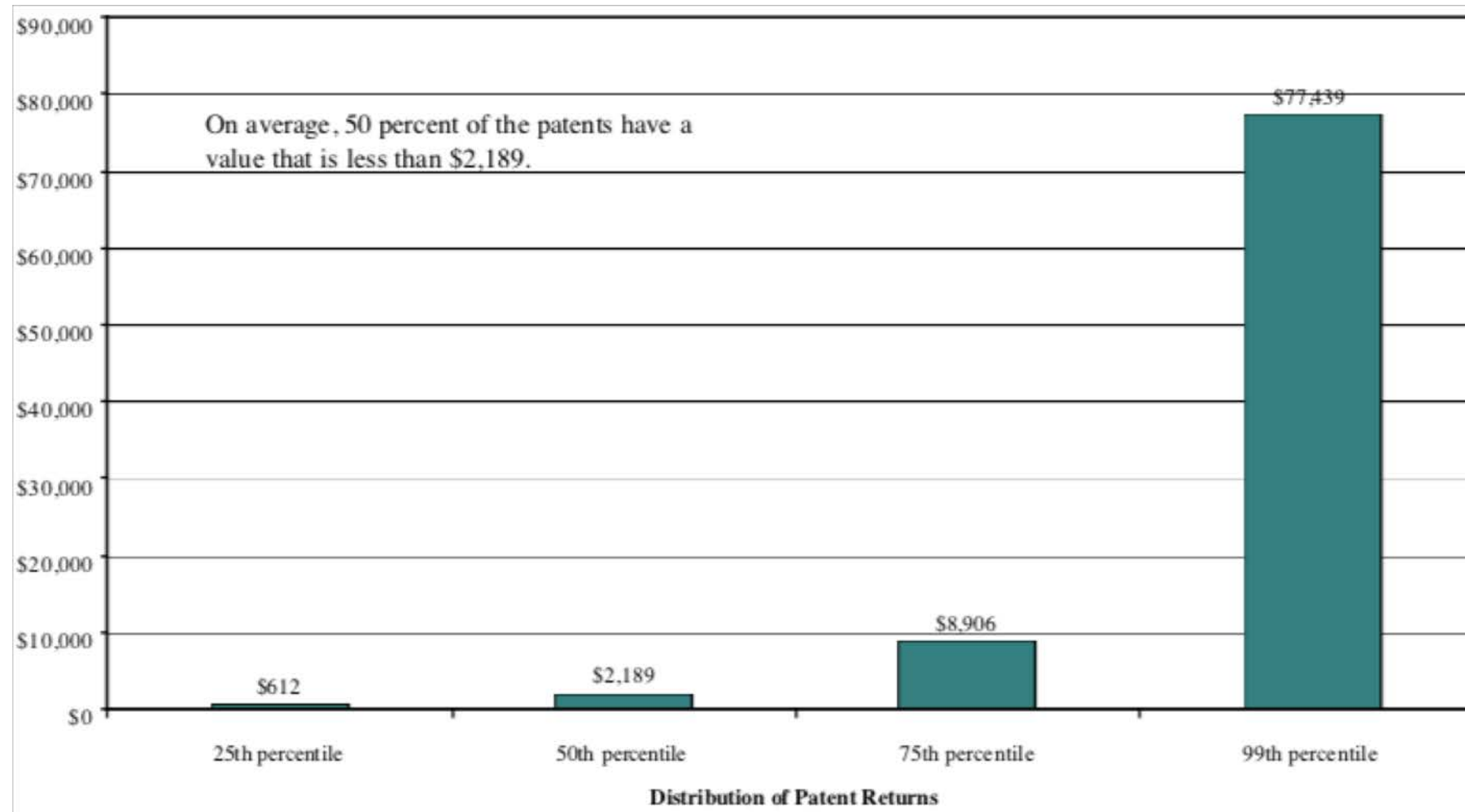
in

It's a well-known fact that a vast majority of patents are worthless. Around 97% of all patents never recoup the cost of filing them. That figure has been floating around for years. There's other compelling evidence.

<https://www.forbes.com/sites/stephenkey/2017/11/13/in-todays-market-do-patents-even-matter/#72450b8e56f3>



## *The majority of patents are not worth much*



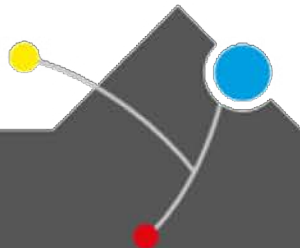
Pakes, Ariel (1986).

## Why is it important to value intangibles?

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- They constitute a true comparative advantage and are shown by the balance sheet.
- Establishing the value in cases of company absorption or of joint ventures
- Support in situations of conflict, such as court proceedings or alternative dispute resolution mechanisms (such as arbitration).
- Fund raising through bank loans or venture capital.

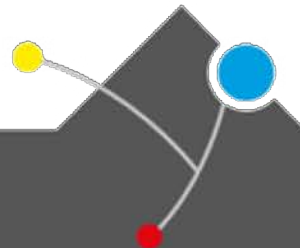
**Licenses and franchises where it depends on the economic valuation that is made and its high value that reflects the level of royalties that will exist.**

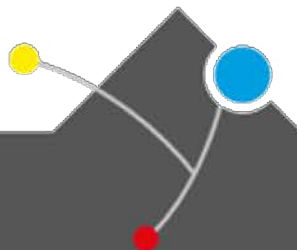
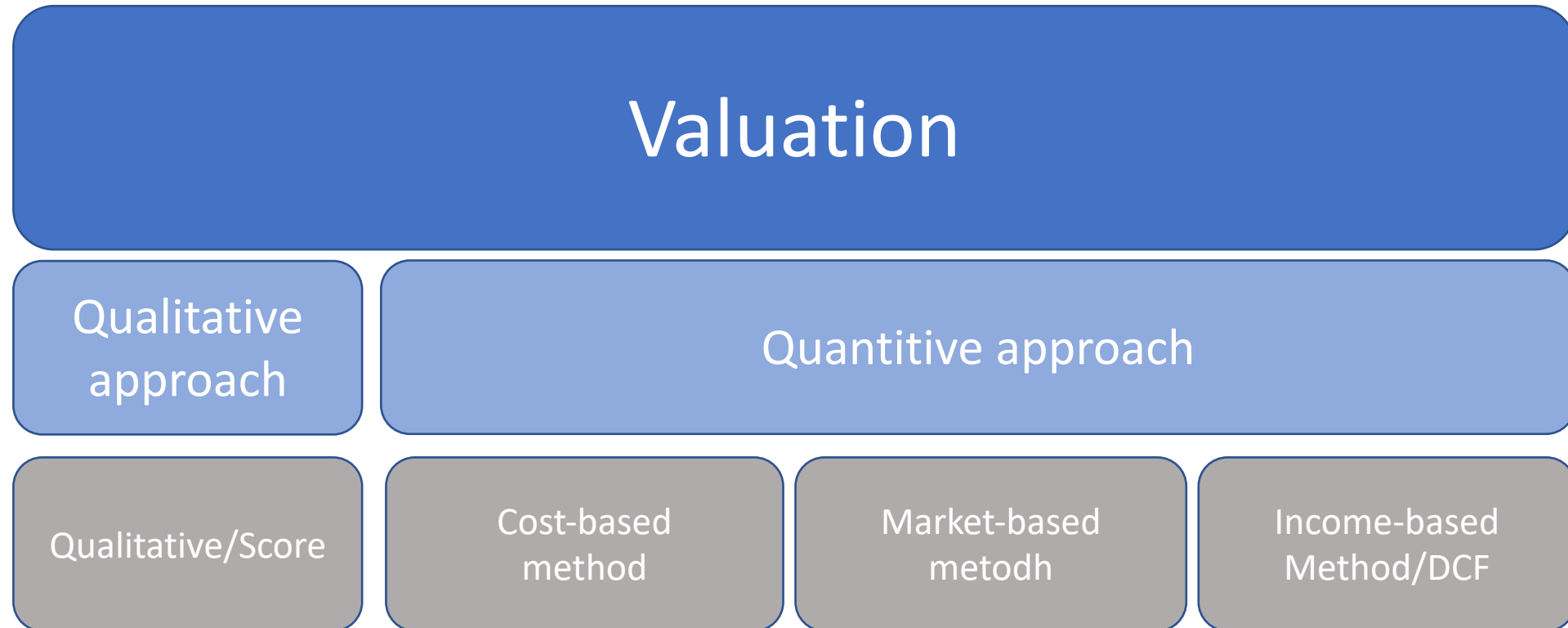


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# How we determine the value of IP?

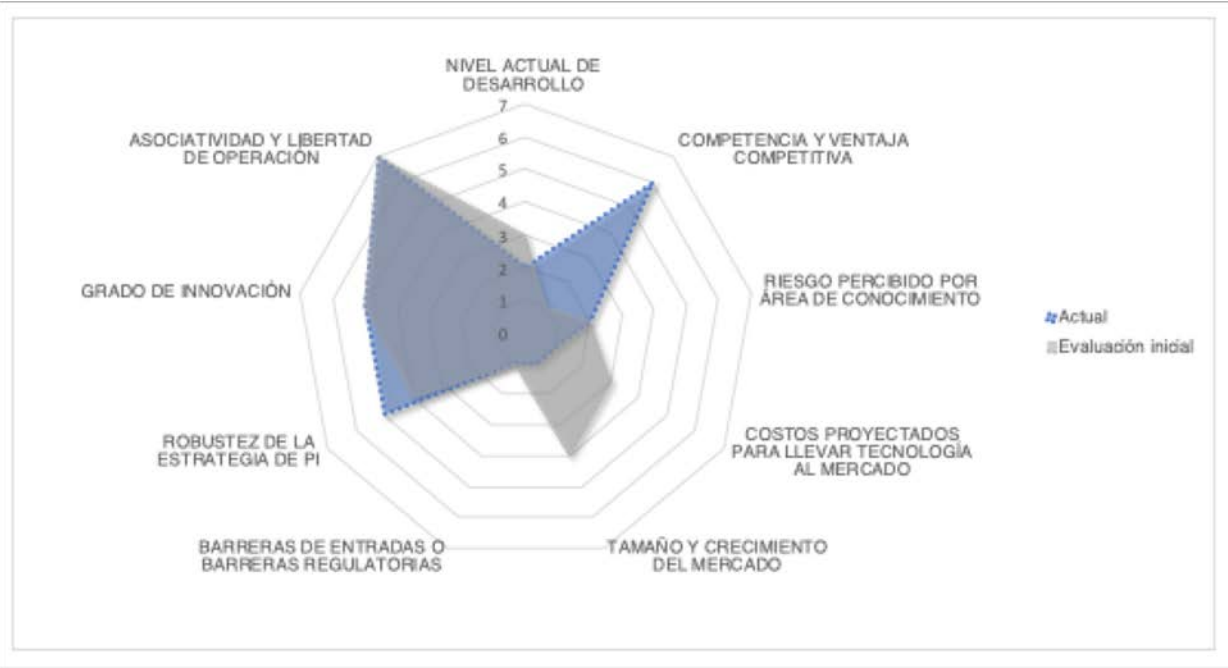
The valuation of **intellectual capital and its intangibles** is normally very subjective even when several methods are used since depending on the method used different valuations could be reached for the same intangible.





# Qualitative/Score

RESUMEN DE PUNTAJES	Puntaje inicial <sup>1</sup>	Puntaje final	Ponderación
Nivel actual de desarrollo	3	2	0.10
Competencia y ventaja competitiva	1	6	0.10
Riesgo percibido por área de conocimiento	2	2	0.05
Costos proyectados para llevar tecnología al mercado	3	1	0.15
Tamaño y crecimiento del mercado	4	1	0.15
Barreras de entradas o barreras regulatorias	1	1	0.05
Avance de PI	4	5	0.15
Grado de innovación	5	5	0.05
Asociatividad y libertad de operación	7	7	0.20
PROMEDIO <sup>2</sup>	3.25	3.65	

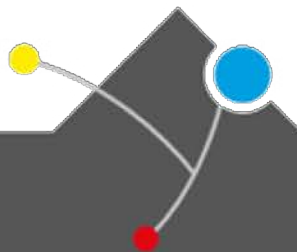


**2) COMPETENCIA Y VENTAJA COMPETITIVA**

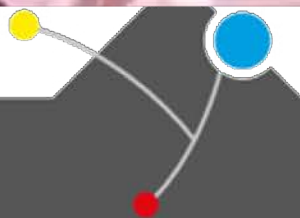
La necesidad no está bien definida. No se sabe quién son los clientes ni cómo se compara esta tecnología con los competidores.	1
Existe muy pocos competidores, pero el coste de cambiar a una nueva tecnología es demasiado grande para el cliente y el valor agregado no es grande.	2
Las soluciones actuales ofrecidas por los competidores son suficientemente buenas y el cliente no considera prioritario cambiar.	3
El campo está ocupado por pocos competidores grandes que ponen barreras de entrada muy altas.	4
El campo lo ocupan competidores pequeños, la ventaja que entrega la nueva solución son grandes y las barreras de entrada no son altas.	5
Existe competencia, pero la diferencia con los competidores se basa en una mejora tecnológica bien definida, protegida y difícil de copiar.	6
La propuesta de valor está bien definida, la implementación es asequible y el mercado está esperando una solución como esta.	7



## Propuesta de Valor BIC for Her



BIC for Her



## Cost-based Method

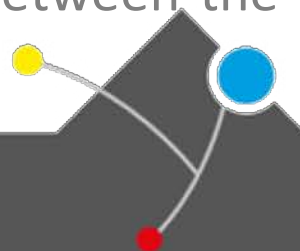
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**Historical cost:** An obvious basis of valuation is the sum of all the investments that have been made in the brand; promotion, research and development, distribution, etc.



But:

- (I) There is not necessarily a correlation between expenditure on an asset and its subsequent value.
- (I) There are also practical difficulties involved in applying the historical cost-based approaches, such as differentiating between the expenditure that maintains the value of the IP



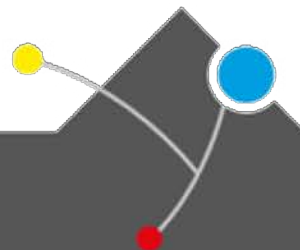
## Market-based method

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A “comparable” technology is one that is used in the same industry, performs a similar service or function, and is of similar importance to the final product being sold as the intellectual property we are trying to value

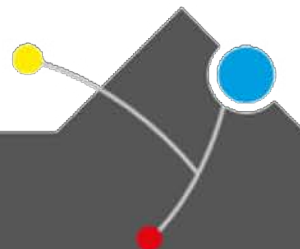
But:

- No 2 IP assets are the same
- Different underlying IP assets
- Different geographic territories
- Different market potentials/degree of success
- the number of benchmark prices that can be obtained is still limited.



### Sources

- Royalty Source – Intellectual Property Valuation and Licensing: [www.royaltysource.com](http://www.royaltysource.com)
- Recap [www.recap.com](http://www.recap.com)
- PharmaVentures [www.pharmaventures.com](http://www.pharmaventures.com)
- Royaltystat [www.royaltystat.com](http://www.royaltystat.com)
- Knowledge Express [www.knowledgeexpress.com](http://www.knowledgeexpress.com)
- Intellectual Property Research Associates [www.ipresearch.com](http://www.ipresearch.com)
- ktMINE [www.ktmine.com](http://www.ktmine.com)
- etc.



## Discounted cash flow method

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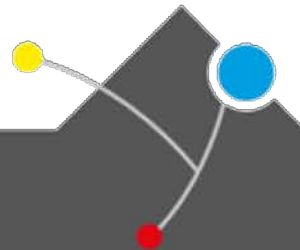
- Useful in determining the value of intellectual property once it has been invented.
- But, how to determine the value of a new technology that it is still in the process of developing? The cost- saving or demand-fulfilling characteristics of the technology have yet to be fully determined.

### Technology in the market



VS

### Technology in progress

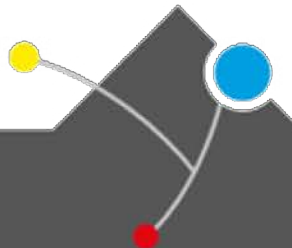




## Discounted cash flow method

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- Many assumptions (price; Market share; growth rate)
- Patent Duration vs other IP rights
- Linked or not to knowledge
- Geographical scope
- Discount rates
- Market changes
- Different scenarios
- Etc



## Discounted cash flow method

The value of the intellectual property comprising the new technology is equal to the increase in profits that could be gained in manufacturing using the new technology compared with manufacturing using the old technology.

<b>A. Net Present Value of Cash Flow From New Intellectual Property:</b>	<b>\$31,421,760</b>
<b>B. Net Present Value of Cash Flow From Next Best Alternative:</b>	<b>\$24,090,016</b>
<b>C. Net Present Value From Using the New Intellectual Property minus Net Present Value From the Alternative: (A-B)</b>	<b>\$7,331,744</b>
<b>D. Net Present Value of Sales:</b>	<b>\$209,478,401</b>
<b>E. Royalty Rate that Extracts the Maximum Willingness to Pay of the Licensee: (C/D)</b>	<b>3.5%</b>

This yields the maximum royalty that a manufacturer would be willing to pay for the right to use the patented technology



# Discounted cash flow method

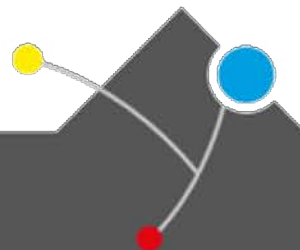
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## Direct sources of information

The more accurate the information we have, the greater the degree of accuracy in the assessment. Hence, no information is more accurate and reliable than that from the company owning the intangibles to be valued.

## Indirect information sources

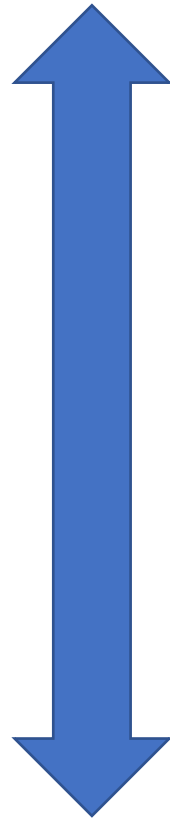
Indirect sources as opposed to direct ones, are granted by subjects or elements external to the own company object of the valuation



## IP valuation methods

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More used



Income – based method  
DCF

Market – based method

Cost – based method

Less used

