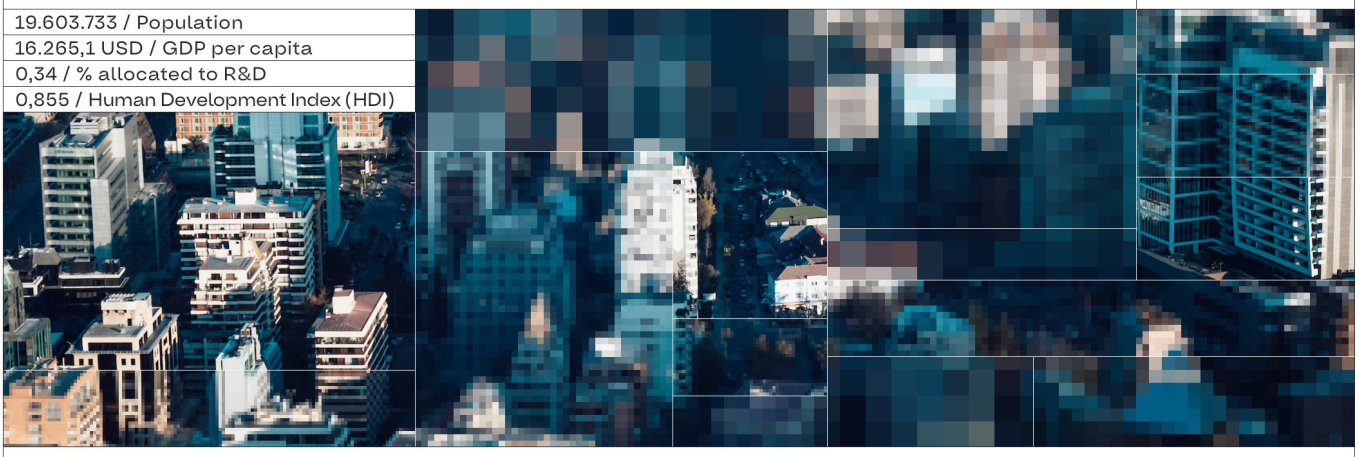
Chile

Index Score **72,67**

Ranking **1**

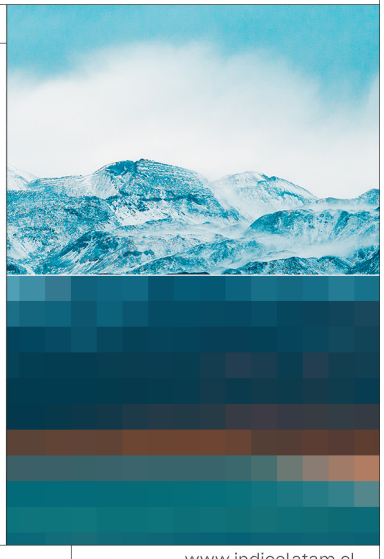
19.603.733 / Population
16.265,1 USD / GDP per capita
0,34 / % allocated to R&D
0,855 / Human Development Index (HDI)



Infrastructre Average	**71,32**	Data Availability Average	**48,32**	Talent Development Average	**71,49**
Enabling Factors Average	**63,71**				
Research Average	**97,34**	Innovation and Development Average	**41,93**	Adoption Average	**84,11**
Research, Development and Adoption Average	**74,46**				
International Vinculation Average	**75,00**	Vision and Institutionality Average	**89,48**	Regulation Average	**75,00**
Governance Average	**79,83**				

OVERALL SITUATION

Chile stands out as a regional benchmark in different aspects, which places it in first place in the ILIA. Among the areas in which it stands out are infrastructure, professional training, advanced human capital, research, adoption and in almost all sub-indicators of the governance dimension. However, there are challenges in terms of development and innovation, which provide opportunities to take better advantage of the high numbers in other sub-dimensions. There is a more significant trend of talent migration than in the rest of the region, as well as a greater diversity of countries in terms of migration and collaboration.



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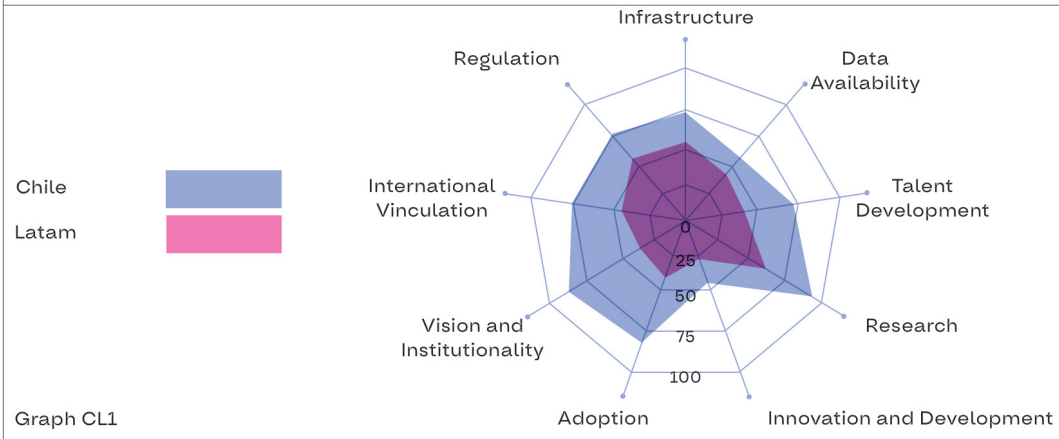

Graph CL1

GENERAL FINDINGS

In infrastructure, Chile shows outstanding performance; in terms of connectivity, the country has the highest average internet download speed in all of Latin America. The implementation of 5G technology is in the commercialization stage, which represents a great opportunity to boost the development of AI. In terms of computing, Chile stands out in the use of the cloud and obtains the highest score. Despite this, it suffers from a lack of sovereign capacity in traditional and AI computing.

In data, all indices in the data barometer exceed the Latin American average or are close to the average. Specifically, Chile has high data availability. However, it performs poorly on the Use and Impact sub-indicator.
In terms of AI literacy, Chile has implemented ICT in the official school curriculum, but not yet AI. It also has open programming courses, but the challenge lies in incorporating open courses associated with AI.

For the indicator of professional training in AI, all sub-indicators are above the Latin American average. The country has undergraduate programs in computing in universities belonging to the QS Top 500 and obtains the highest regional score in this indicator. It also stands out in the number of computer science graduates and technological skills in the workforce. In terms of advanced human capital, Chile achieves the highest score in all sub-indicators.

In the research indicator, the country shows exceptional performance, obtaining the highest score in the entire region. Chile has a high concentration of publications, active researchers and has the presence of at least 3 AI research centers. In addition, it stands out in terms of productivity of AI researchers and impact measured in citations of its AI research.

An opportunity for improvement is identified in the Innovation and Development sub-dimension. The sub-indicators of productivity and quality of open source code are below the regional average, as are the number of patents registered. In terms of AI adoption, this exceeds all regional averages; both in the use of AI in companies, as well as in terms of public promotion, for the sub-indicators of government spending on R&D and government promotion of investment in technologies.

In the area of governance, it shows an outstanding performance. Chile has a current AI strategy supported by the highest authority, which included citizen participation in integration mechanisms and multistakeholder methodologies. In addition, it has a coordinating institution in charge of the matter and a high participation in the definition of international standards and regulations in IA. Finally, it has also implemented specific and updated regulations in matters related to AI, particularly the constitutional reform on Neuro Rights.

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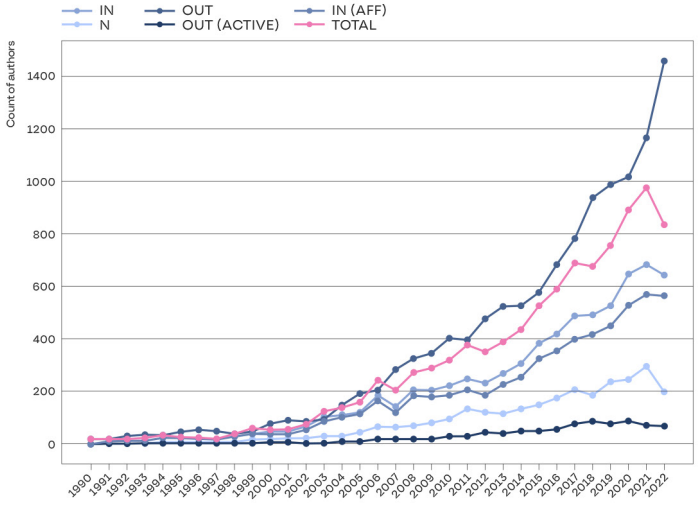
TALENT DRAIN:

As in the region, the talent drain in AI does not seem significant, although a marginal but steady increase can be seen until 2020, it is lower than that of the rest of the analysis elements (out-active). We note that the number of authors has grown steadily until 2021, especially since 2012, and as for Latin America in 2022, we see a negative impact (total) possibly due to the pandemic.

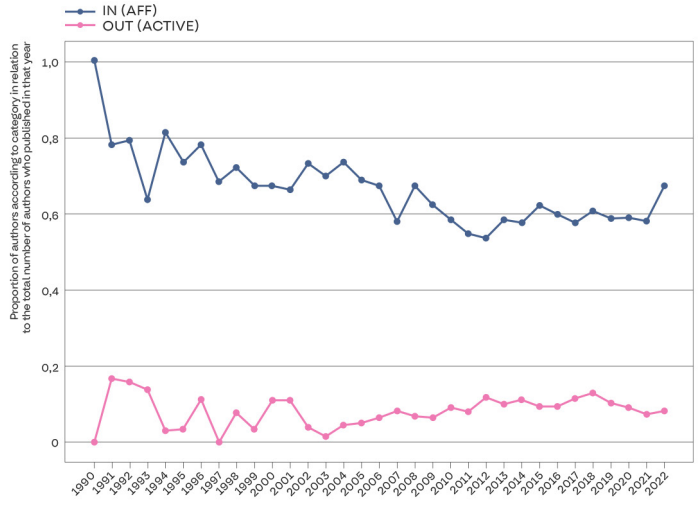
Regarding authors, who constantly publish in IA, the number has increased progressively, except for a couple of years (2018 and 2022) in which this number is maintained or declines (N). In addition, the number of authors who published in other nations and start publishing in Chile increases progressively (in-aff), especially since 2012, an increase that is also reflected for those who publish for the first time in IA (In), which is probably linked to the Becas Chile program.

On the other hand, since 2008 there has been a significant increase in the number of authors who integrate elements of AI in their research (out). Although there are steeper jumps than in Latin America for some periods, the trend towards transdisciplinary scientific production is the same, as can be seen in the out (see Graph CL2).

Talent migration: Chile / Graph CL2



Talent migration: Chile/ Graph CL2



Graph CL3 shows that the proportion of authors who had not published in the region and who do so in the year of analysis has a tendency to decrease over time, remaining around 60% (in-aff). This trend reflects a relative strengthening of the ecosystem, through a proportional increase in the number of authors who continue to publish in the country. On the other hand, we see that the proportion of authors who leave Chile and remain active remains relatively stable at around 10%, a higher proportion than the average for Latin America (out-active), which is evidence of a stronger phenomenon of talent drain in this country than in the rest of the region (see Graph CL3).

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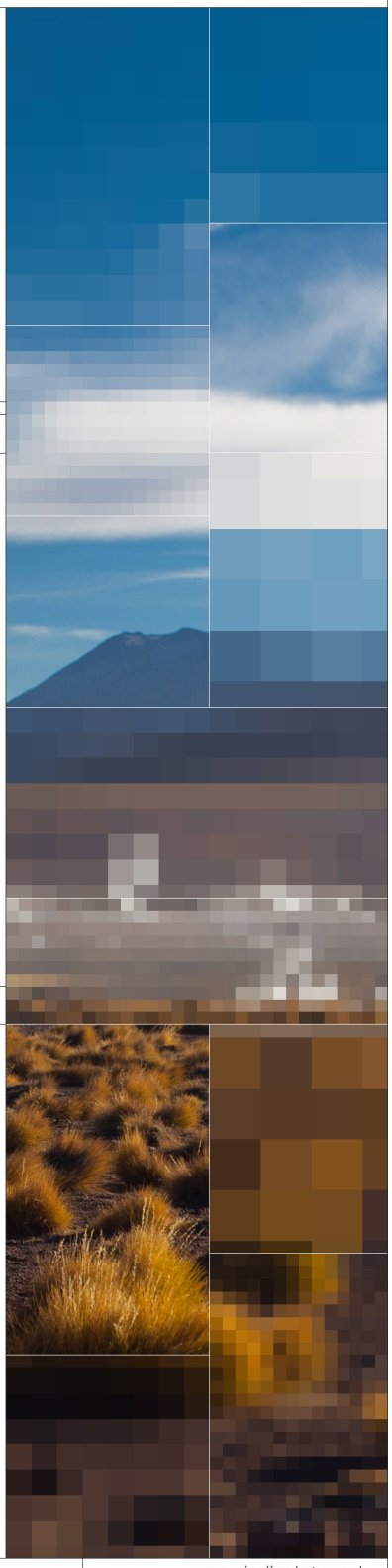
TALENT DRAIN:

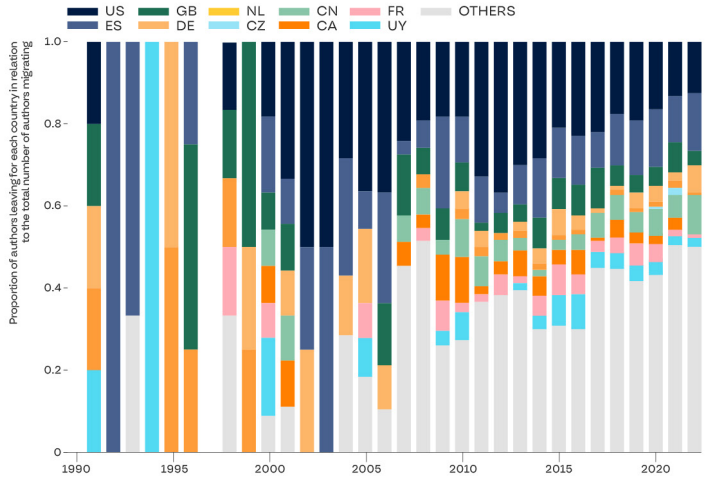
Regarding the origin and destination of the authors, the importance of Spain is evident, probably because of the language affinities for both those who arrive and those who leave. The migration patterns described for arrivals are similar to those for departures. That is, as at the regional level, most of the authors who enter come from countries to which authors had previously gone, with the only exception that the proportions of those who arrive from Spain are higher than those who leave and that those who arrive from the USA are fewer than those who leave for that destination.

In contrast to the region, we see that the proportion of authors entering and leaving from and to China is lower and has not increased as consistently as it has in Latin America, but we do observe a decrease in the relative importance of European countries (excluding Spain) and the USA.

Among the most important differences in this country, we find that the phenomenon of diversification of destinations is much stronger than in the average for Latin America (see Graph CL4).



Talent migration: Where are the authors that published in Chile going? / Graph CL4



Talent migration: Where are the authors that published in Chile going? / Graph Cl5

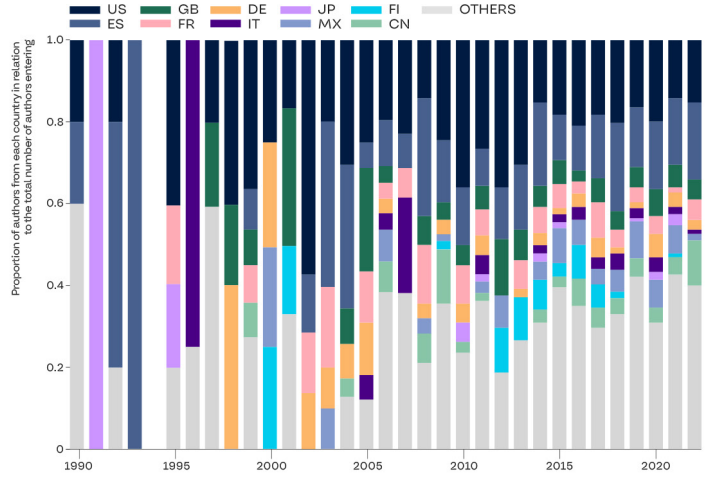


TABLE CL 1 Summary of scores and ranking in each sumdimension and indicators for Chile

Dimension	Subdimension	Indicators	Chile	LAC Average	Ranking
Enabling factors	Infrastructure	Conectivity	96,10	56,32	1
		Computing	43,39	33,73	4
		Devices	74,46	63,60	4
	Infrastructure average		**71,32**	**51,21**	**1**
	Data	Data barometer	48,32	39,80	4
	Data availability average		**48,32**	**39,80**	**4**
	Talent development	AI literacy	62,50	48,96	3
		AI professional formation	64,95	33,89	2
		Advanced human capital	87,03	28,05	1
	Talent development average		**71,49**	**36,97**	**1**
Enabling factors average			**63,71**	**42,66**	**1**
Research, development and adoption	Research	Research	97,34	58,47	1
	Research average		**97,34**	**58,47**	**1**
	Innovation and development	Development	13,75	24,77	8
		Innovation	70,11	24,68	2
	Innovation and development average		**41,93**	**24,73**	**2**
	Adoption	Use of AI in companies	100,00	25,80	1
		Public promotion of AI	68,23	50,73	4
	Adoption average		**84,11**	**38,27**	**1**
Research, development and adoption average			**74,46**	**40,49**	**2**
Governance	Vision and institutionality	AI Strategy	80,95	35,42	2
		Social involvement	100,00	21,88	1
		Institutionality	87,50	43,75	1
	Vision and institutionality average		**89,48**	**33,68**	**1**
	International vinculation average		**75,00**	**45,83**	**2**
	Regulation average		**75,00**	**54,17**	**2**
Governance average			**79,83**	**44,56**	**2**
AI Index			**73,21**	**42,61**	**1**