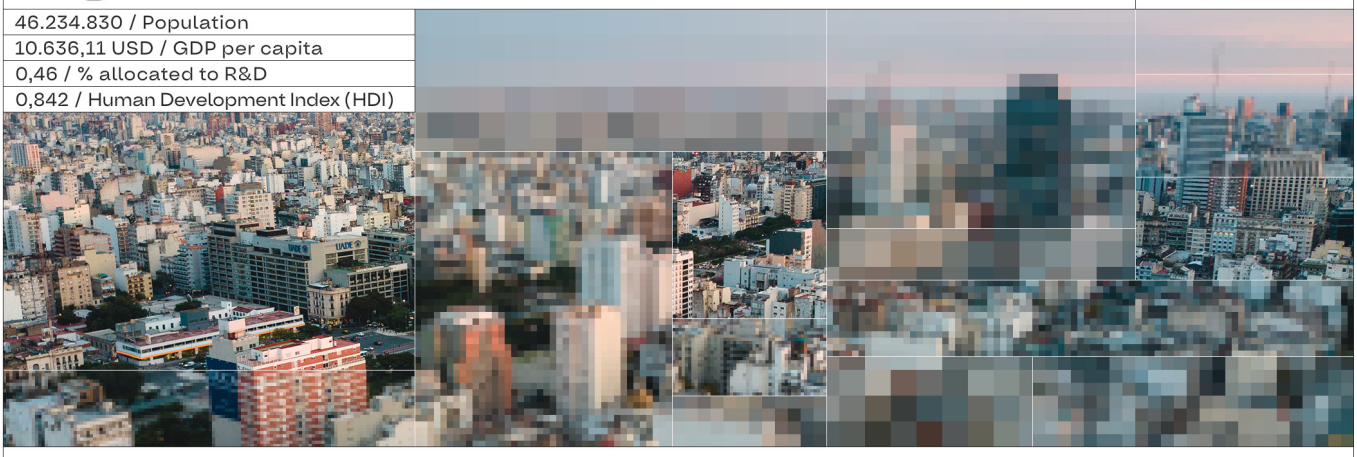
Argentina

Index Score **54,76** | Ranking **4**

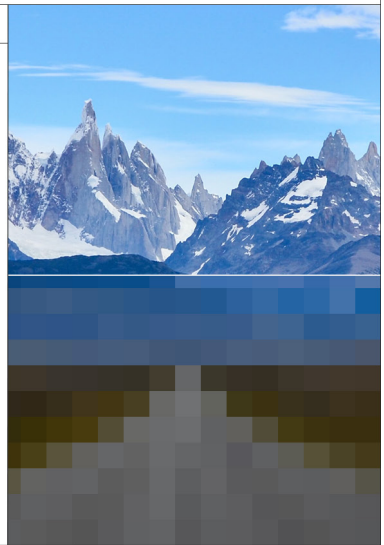
46.234.830 / Population
10.636,11 USD / GDP per capita
0,46 / % allocated to R&D
0,842 / Human Development Index (HDI)



Infrastructre Average	**59,29**	Data Availability Average	**46,89**	Talent Development Average	**36,31**
Enabling Factors Average	**47,50**				
Research Average	**59,50**	Innovation and Development Average	**10,06**	Adoption Average	**53,96**
Research, Development and Adoption Average	**41,18**				
International Vinculation Average	**67,86**	Vision and Institutionality Average	**76,79**	Regulation Average	**50,00**
Governance Average	**75,60**				

OVERALL SITUATION

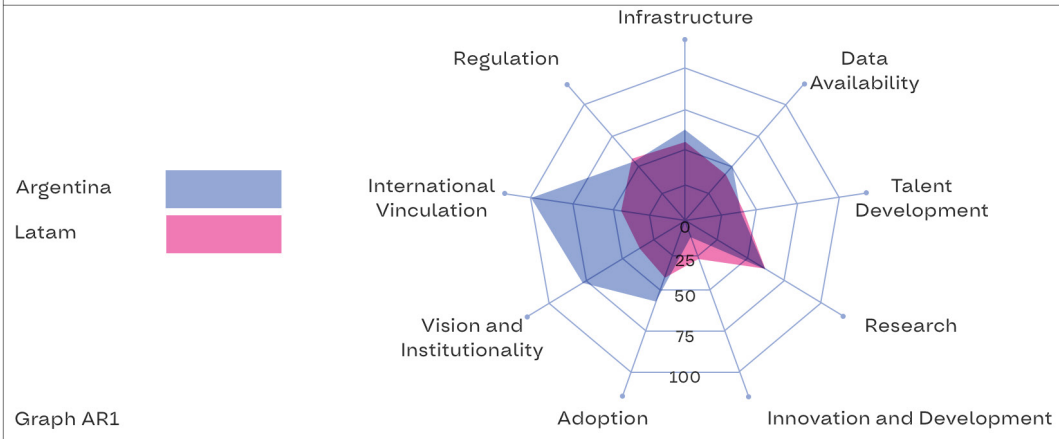
Argentina has a solid base to develop and take advantage of the potential of AI, as in different indicators it is a benchmark for the region. It has a solid infrastructure in terms of connectivity and a high potential for developing talent and technological skills. Although the average productivity of the academic community is not as relevant as in other countries, it is of high impact, which can help improve its R&D&I capacity, especially by boosting software productivity and the generation of patents. In addition, the country stands out above all for its high indexes in governance. In terms of talent migration, it is seen to be higher than the rest of Latin America, especially from 2018 onwards, Spain is positioned as an important migration and collaboration power. A progressive diversification of countries of academic exchange is also appreciated.



Argentina

Index Score **54,76**

Ranking **4**



Graph AR1

GENERAL FINDINGS

Argentina has a solid infrastructure that favors the adoption and development of AI. The country stands out for high rates of connectivity, especially with the implementation of 5G, with high indicators in access to technological devices, and for the presence of at least one supercomputer. All of the above contrasts, in terms of infrastructure, with the low number of available data centers.

In terms of talent development, it has the opportunity to enhance AI training. It would be beneficial to promote open courses and strengthen master's degree programs in the area, as well as to increase academic training at the master's and doctoral level and the number of graduates. Increasing the number of graduates in these disciplines will be essential to meet the growing demand for specialized AI professionals and ensure sustainable development in academia and industry. Argentina has a significant penetration of technological skills in its workforce, which represents a competitive advantage. However, the challenge of low numbers in the talent development dimension in relation to AI needs to be addressed.

In terms of AI adoption, it shows a high level driven by public sector support, through investments in research and development (R&D) and promotes investment in emerging technologies. However, in the private sphere, a lower relative intensity of AI Enterprises is observed. Promoting this dimension will make it possible to take full advantage of the potential of AI in the productive sector, boosting competitiveness and innovation in the country's economy.

In the area of research, although it has a relatively low academic productivity given the size of the nation, this area exerts a great impact on the AI scientific ecosystem. The country has the potential to significantly improve its R&D capacity, considering its advantages in governance, research impact indicators and infrastructure. To achieve this, it will be important to boost the productivity and quality of open source software, as well as encourage the generation of new patents, learning from the experience of countries such as Uruguay or Brazil.

The country stands out in the governance dimension. It shows a high performance in aspects such as the vision and institutional framework related to AI in the region. It highlights the validity of the strategy, the level of support and citizen participation involved, although it maintains a challenge in the integration of elements oriented to the common good. At the institutional level, Argentina has a solid basis for addressing the development and regulation of AI. There are institutions dedicated to this purpose and the competencies and capabilities of the agencies responsible for promoting AI-related initiatives in the country are recognized.

Its opportunity for growth lies in the generation of specific AI regulations. In addition, Argentina has demonstrated a solid and committed approach in the definition of standards and has an active participation in international organizations that regulate AI. This global collaboration strengthens the country's position in the international arena and allows the exchange of experiences and best practices in the field of AI.

Argentina

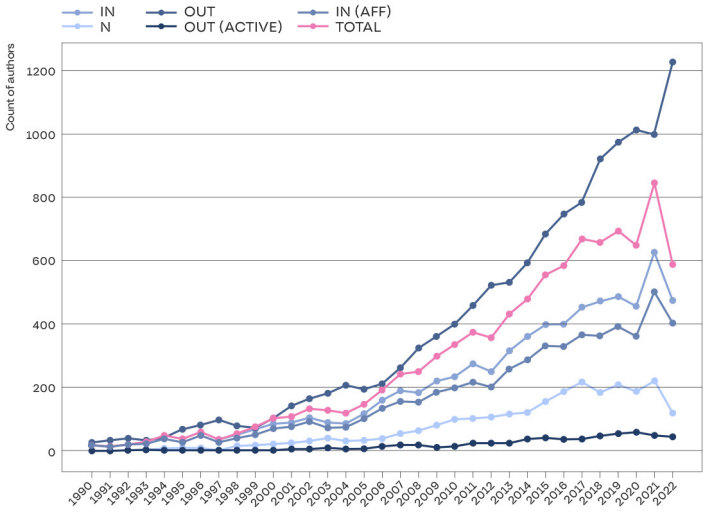
Index Score **54,76** | Ranking **4**

TALENT DRAIN

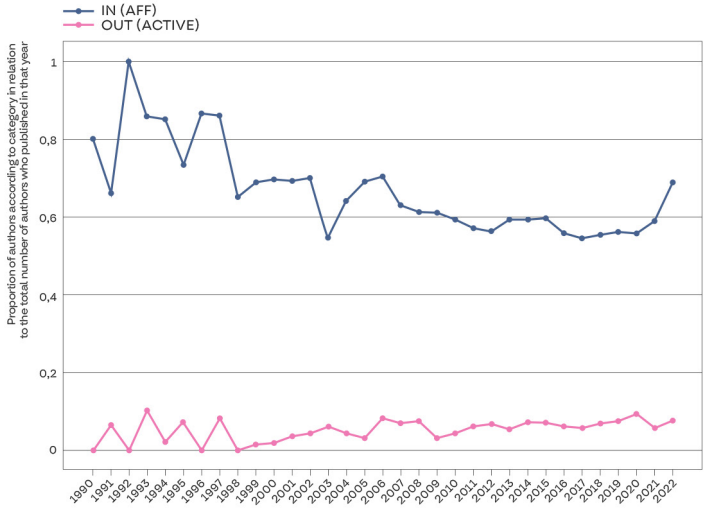
The talent drain in AI is not significant, although a marginal but steady increase can be seen until 2020, it is lower than for the rest of the analysis elements (out-active). We note that the number of authors has grown steadily until 2019, especially since 2012, and as for Latin America, both in 2020 and 2022, we see a negative impact, probably due to the pandemic. The particularity of Argentina is that by 2020 there is a more significant drop than for the rest of the region in all the groups observed (total). Authors who consistently publish in IA have increased progressively throughout the series (N). In addition, those who published in other countries and began to publish in Argentina have progressively increased (in-aff), especially since 2012, an increase that is also reflected in those publishing for the first time in IA (In).

Since 2005, the number of authors integrating AI concepts in their publications has been growing more intensely than the other groups (out). Although there are steeper jumps than in Latin America for some periods, the trend towards transdisciplinary scientific production is the same (see Graph AR2).

Talent migration: Argentina / Graph AR2



Talent migration: Argentina / Graph AR3



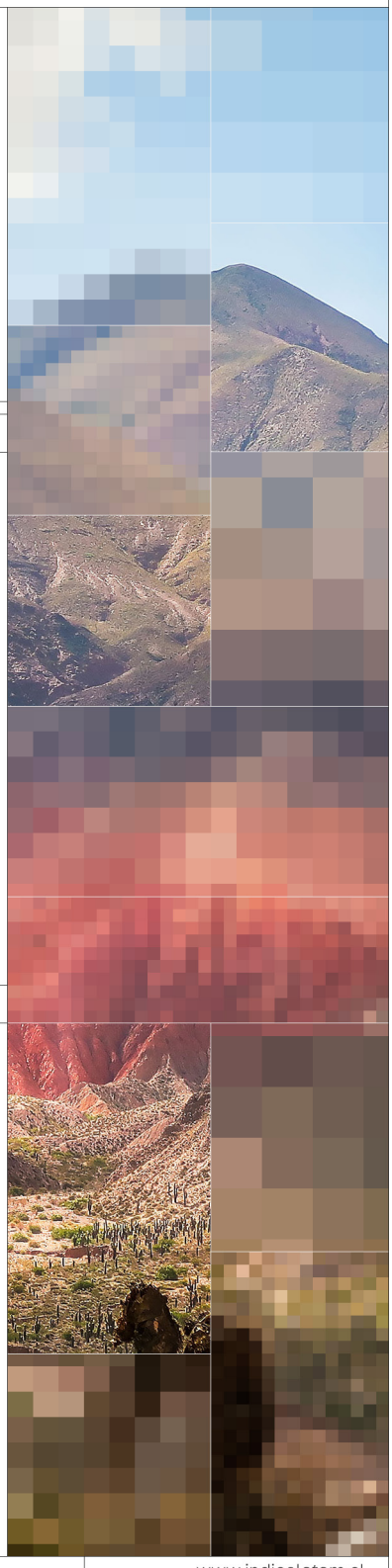
Graph AR3 shows that the proportion of authors who had not published in the region and who do so in the year of analysis shows a tendency to decrease until reaching a plateau around 65% from 2010 to 2019 (in-aff). This trend reflects a relative strengthening of the ecosystem through a proportional increase in the number of authors who are trained and continue publishing in the country. On the other hand, we see that the proportion of talent drain is marginally higher for Argentina than for the average for the region and has been increasing over the last two decades (out-active), but remains relatively stable at around 10% (see Graph AR3).

Argentina

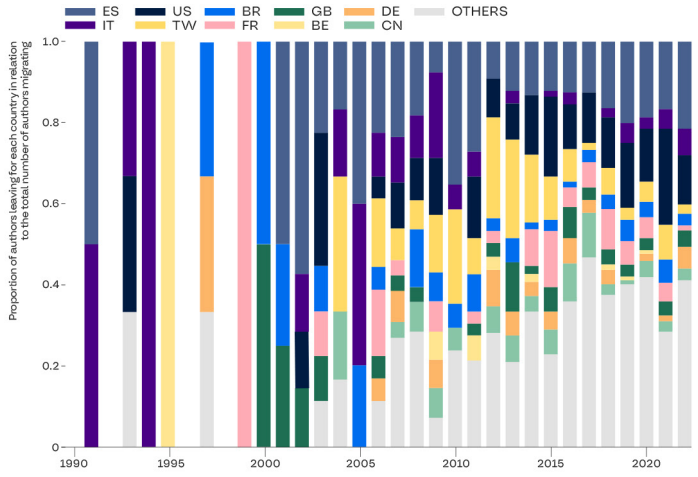
Index Score **54,76** | Ranking **4**

TALENT DRAIN

A similar migration pattern can be observed for the arrival and departure of authors, and a trend toward internationalization of destinations over time. Regarding the origin and destination of the authors, the importance of Spain is evident, probably due to language affinities, even greater than the importance of the United States. Italy and Taiwan also appear as relevant destinations and origins for the 2005 and 2010 periods, respectively. Unlike other countries in the region, but like the regional trend, there is a decrease in the relevance of European countries, with the exception of Spain. On the other hand, China has become progressively more important over the years. The migration patterns described for arrivals are similar to those for departures, i.e., as at the regional level, most of the incoming authors come from countries to which they had gone before, with a temporal distance of 4 years. Moreover, as in Latin America, there is a progressive internationalization over the years, especially in terms of destination (see Graph AR4).



Talent migration: Where are the authors that published in Argentina going? / Graph AR4



Talent migration: Where does the authors that publish in Argentina come from? / Graph AR5

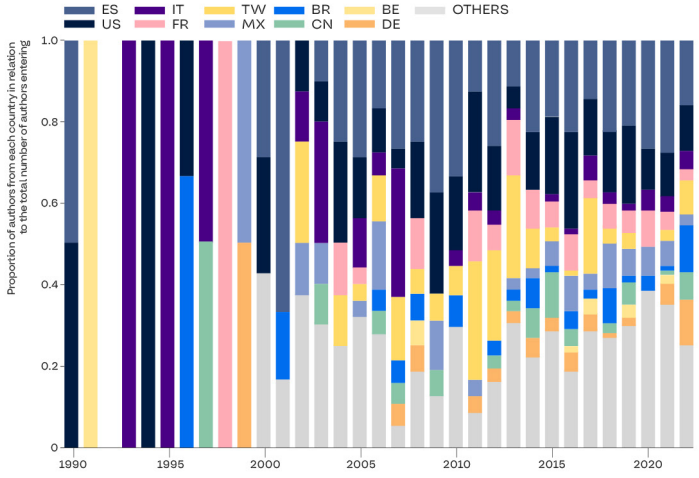


TABLE AR 1 Summary of scores and ranking in each sumdimension and indicators for Argentina

Dimension	Subdimension	Indicators	Argentina	LAC Average	Ranking
Enabling factors	Infrastructure	Conectivity	69,44	56,32	3
		Computing	32,84	33,73	6
		Devices	75,58	63,60	2
	Infrastructure average		**59,29**	**51,21**	**3**
	Data	Data barometer	46,89	39,80	6
	Data availability average		**46,89**	**39,80**	**6**
	Talent development	AI literacy	37,50	48,96	4
		AI professional formation	56,04	33,89	3
		Advanced human capital	15,40	28,05	10
	Talent development average		**36,31**	**36,97**	**6**
Enabling factors average			**47,50**	**42,66**	**6**
Research, development and adoption	Research	Research	59,50	58,47	6
	Research average		**59,50**	**58,47**	**6**
	Innovation and development	Development	9,60	24,77	11
		Innovation	10,51	24,68	7
	Innovation and development average		**10,06**	**24,73**	**11**
	Adoption	Use of AI in companies	19,70	25,80	4
		Public promotion of AI	88,23	50,73	1
	Adoption average		**53,96**	**38,27**	**3**
Research, development and adoption average			**41,18**	**40,49**	**5**
Governance	Vision and institutionality	AI Strategy	67,86	35,42	4
		Social involvement	75,00	21,88	2
		Institutionality	87,50	43,75	1
	Vision and institutionality average		**76,79**	**33,68**	**2**
	International vinculation average		**100,00**	**45,83**	**1**
	Regulation average		**50,00**	**54,17**	**3**
Governance average			**75,60**	**44,56**	**3**
AI Index			**54,76**	**42,61**	**4**