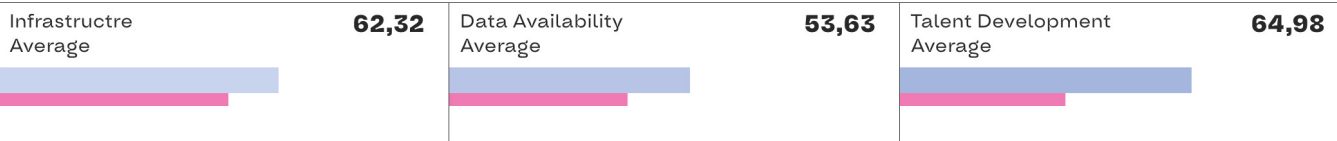
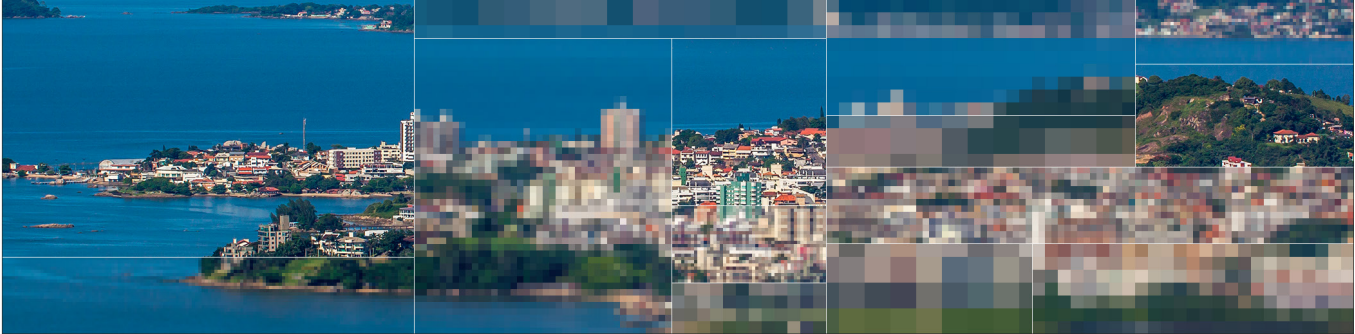


Brazil

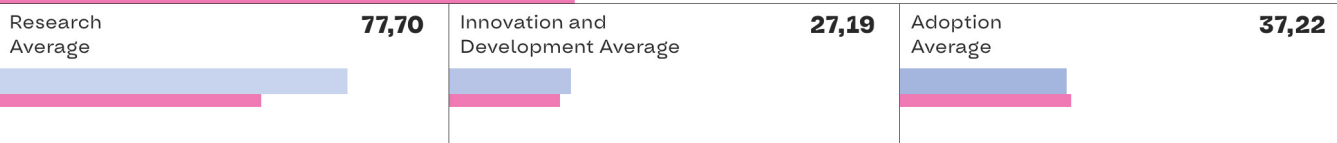
Index Score **65,31**

Ranking **2**

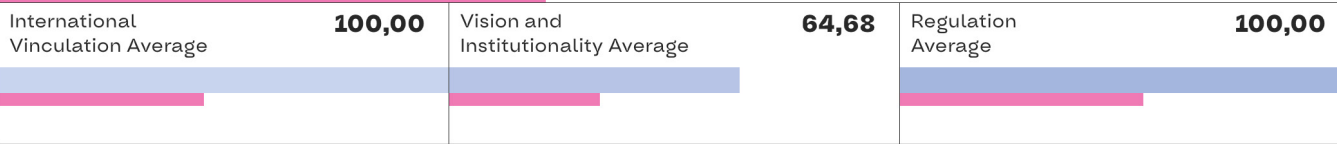
215.313.498 / Population
 7.507,15 USD / GDP per capita
 1,21 / % allocated to R&D
 0,754 / Human Development Index (HDI)



Enabling Factors Average **60,31**



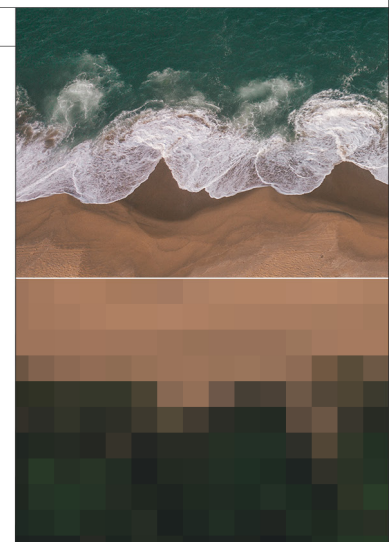
Research, Development and Adoption Average **47,37**



Governance Average **88,22**

OVERALL SITUATION

Brazil has a number of strengths in infrastructure, human capital, data availability and governance in the field of AI, which positions it among the top-ranked countries in the ILIA. However, it also faces challenges in terms of R&D investment, adoption and infrastructure. These challenges provide opportunities to strengthen its current strategy and further enhance its position as a leader in AI development in Latin America. Talent migration is low, even less significant than in other countries in the region, in addition, migration and collaboration with Portugal and the United States stand out in the country.

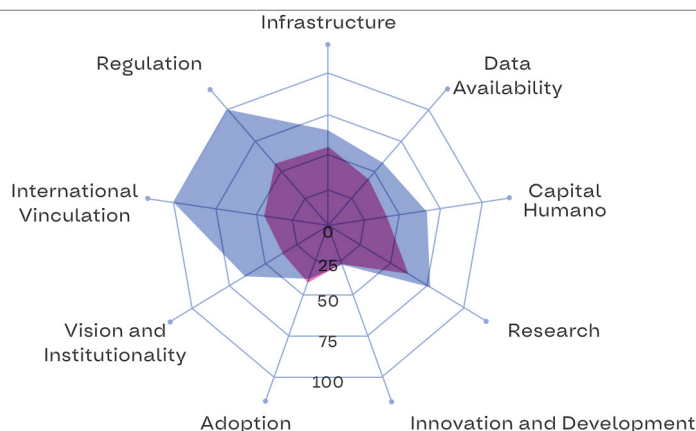


Brazil

Index Score **65,31**

Ranking **2**

Brazil
Latam



Graph BR1

GENERAL FINDINGS

In terms of infrastructure, Brazil has excellent connectivity, which facilitates Internet access for a large part of the population, with an average Internet download speed that exceeds the region's average. In addition, 5G is available to certain consumers, which represents a significant opportunity to boost AI in various sectors. In computing, it stands out for its supercomputer capacity, showing global leadership. Although the number of data centers is not as high as in other countries, the country continues to maintain a number of devices above the average for the region. In terms of the data sub-dimension, Brazil has excellent information availability, with all sub-indicators of this aspect above average, providing a solid foundation for the development of AI-based solutions.

The country's talent development stands out for its high literacy, as early education and open courses in AI have been implemented, providing learning opportunities. It is the only country in the region with specific AI elements in the school curriculum. In terms of vocational training, Brazil stands out in all sub-indicators, especially in computer graduates and technology skills in the workforce. However, a challenge is identified in the formation of advanced human capital, especially in Master's and PhD graduates.

In the field of research, it shows solid indicators in research productivity and impact of AI research. In addition, the country has a significant number of publications in AI, active researchers and an outstanding presence of research centers.

Open source productivity is low in comparison with other indicators and with respect to other countries in the region. This could be attributed to an underrepresentation of contributions made on the GitHub platform due to the lower presence of terms in Portuguese, which is amplified due to the size of the country. Brazil has a large number of registered patents compared to other countries in the region, indicating a high potential in terms of innovation. Another important aspect to strengthen in Brazil is the attraction of investments in AI, both in terms of the number of incoming investments and the estimated total value of these investments. Although it leads in terms of gross investment, when normalized its relative position decreases.

In terms of adoption, a duality is observed. On the one hand, the private sector in Brazil has a higher number of AI companies than the Latin American average, reflecting a strong entrepreneurial drive in this field. On the other hand, there is no public information available regarding government spending on R&D, which prevents a comparative analysis.

In the area of governance, Brazil shows high levels in general. It has an AI strategy in place as a sectoral government initiative, which provides a solid framework. To drive the strategy, it is characterized by having an apparatus that involves more than one institution with coordinating competencies. Its challenge is to integrate greater dimensions of the common good into this strategy and to encourage citizen and other stakeholder participation in its definition.

On the other hand, it actively participates in the international regulation of IA, with outstanding values in terms of specific regulations, participation in international committees and subscription to multilateral documents. There are also updated AI regulations in cybersecurity and data protection, and AI regulatory experimentation initiatives have been implemented.

Brazil

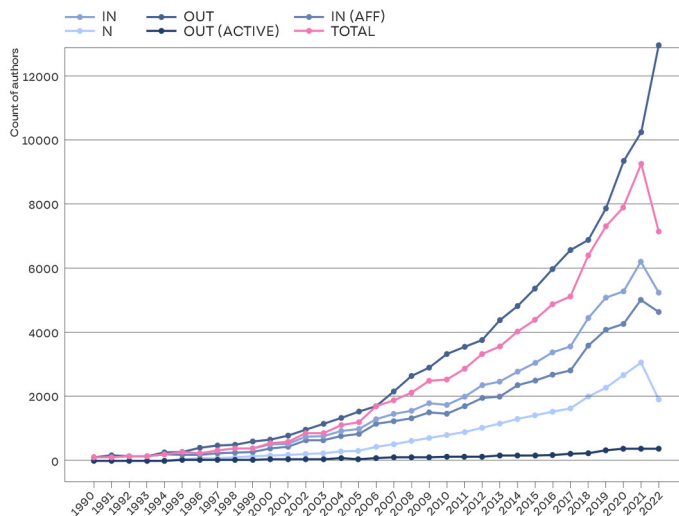
Index Score **65,31**

Ranking **2**

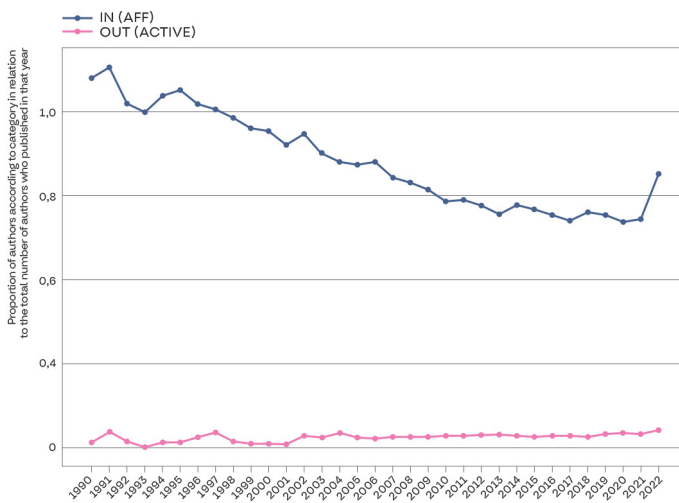
TALENT DRAIN:

In Graph BR2 we can see that as in the region, the talent drain in AI is not significant and in fact is of lower intensity than in other countries and also lower than the rest of the elements of analysis (out-active). We observe that all groups of authors have grown steadily until 2021, especially since 2012, and as for Latin America, in 2022, we see a negative impact, probably due to the pandemic (total). Particularly authors who consistently publish in IA (N) have increased consistently throughout the series. In addition, those who published in other countries and began to publish in Brazil (in-aff) have increased progressively since 2005. This growth is also reflected for those publishing for the first time in AI (In) and with greater intensity for those who integrate AI concepts in their publications (out), reflecting a significant increase in transdisciplinary scientific production.

Talent migration: Brasil / Graph BR2



Talent migration: Brasil / Graph BR3



Graph BR 3 shows that the proportion of authors who had not published in the region and who do so in the year of analysis is very high in the early years and has a tendency to decrease over time until 2020, when it stabilizes below 60% (in-aff). This 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 very low and remains relatively stable at around 5%. Thus, we can affirm that there is not enough evidence to indicate a phenomenon of Brazilian talent drain (out-active).

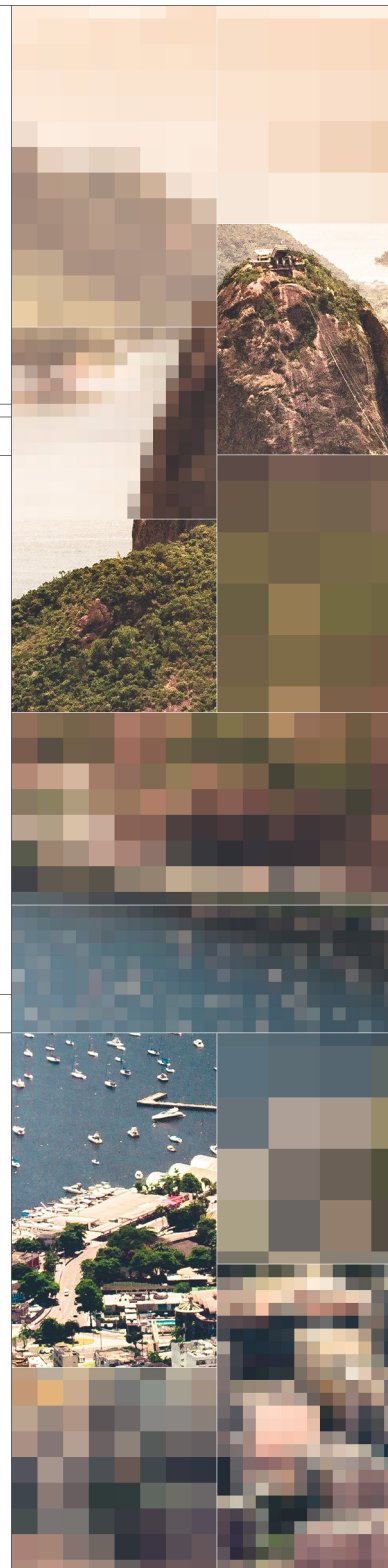
Brazil

Index Score **65,31**

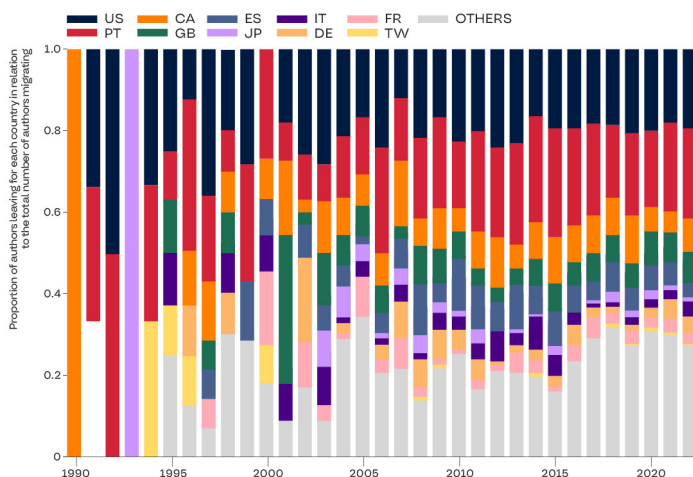
Ranking **2**

TALENT DRAIN:

Graph BR.4 shows the origin and destination of authors migrating to and from Brazil. The importance of Portugal is evidenced, probably due to language affinities, and the United States. Great Britain, Canada and Spain also Graph, but to a lesser extent than the rest of the countries in the region. As with the regional trend, there is a decrease in the relevance of the countries of Europe, with the exception of Portugal and Spain, which remain constant. On the other hand, it is noteworthy that China does not appear as a destination or origin. The migration patterns described for arrivals are similar to those for departures, i.e., as at the regional level, most of the authors who enter come from countries to which they had gone before, with temporal distances of 4 years. Similar to what has been observed in the rest of the region, there has been a progressive international diversification in recent years.



Talent migration: Where are the authors that published in Brazil going? / Graph BR4



Talent migration: Where are the authors that published in Brazil going? / Graph BR5

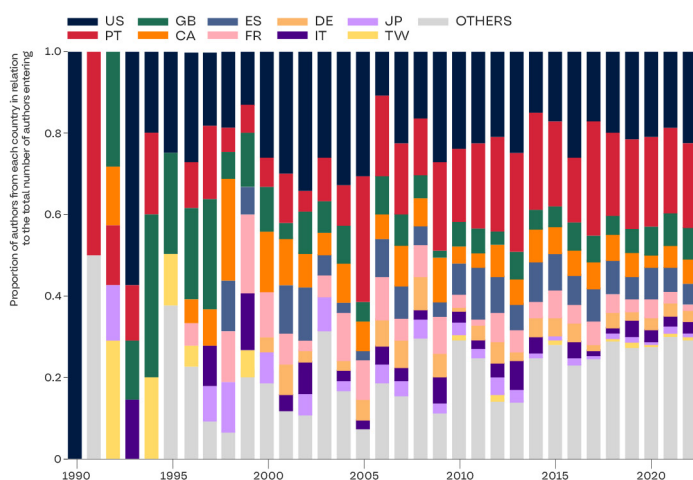


TABLE BR 1 Summary of scores and ranking in each sumdimension and indicators for Brazil

Dimension	Subdimension	Indicators	Brazil	LAC Average	Ranking
Enabling factors	Infrastructure	Conectivity	80,576	56,320	2
		Computing	50,557	33,725	1
		Devices	55,832	63,597	8
	Infrastructure average		62,322	51,214	2
	Data	Data barometer	53,639	39,800	1
	Data availability average		53,639	39,800	1
	Talent development	AI literacy	100,000	48,958	1
		AI professional formation	80,376	33,888	1
		Advanced human capital	14,586	28,053	11
	Talent development average		64,987	36,966	2
Enabling factors average		60,316	42,660	2	
Research, development and adoption	Research	Research	77,702	58,471	2
	Research average		77,702	58,471	2
	Innovation and development	Development	41,054	24,768	2
		Innovation	13,327	24,684	4
	Innovation and development average		27,190	24,726	3
	Adoption	Use of AI in companies	36,380	25,798	3
		Public promotion of AI	38,073	50,734	8
Adoption average		37,227	38,266	7	
Research, development and adoption average		47,373	40,488	3	
Governance	Vision and institutionality	AI Strategy	69,048	35,417	3
		Social involvement	37,500	21,875	3
		Institutionality	87,500	43,750	1
	Vision and institutio-nality average		64,683	33,681	4
	International vinculation average		100,000	45,833	1
	Regulation average		100,000	54,167	1
Governance average		88,228	44,560	1	
AI Index		65,306	42,615	2	