**I IndesIA Forum: the impact of Artificial Intelligence on industry**

# The application of data and artificial intelligence in Spanish industry will have an estimated impact on GDP of 16.5 billion euros by 2025.

- *Institutional representatives and experts from academia and business outline the opportunity presented by the use of data and artificial intelligence-based technology for the country's growth.*

- *Spain has a solid and sophisticated infrastructure that allows the boost of artificial intelligence to be carried out in better conditions than in other EU countries.*

- *The sustainability of AI and the lack of talent, especially female, are some of the challenges facing the business world when applying new technologies.*

**Madrid February 9, 2022**. Artificial intelligence (AI) is one of the best opportunities for the growth of the Spanish economy. **Its application in industry alone will have an estimated impact on Spanish GDP of 16,500 million euros in 2025**, according to experts who met today at the *"I Foro IndesIA: the impact of Artificial Intelligence in industry"*.

The meeting was organized by IndesIA, the association for the application of artificial intelligence in industry made up of Repsol, Gestamp, Navantia, Técnicas Reunidas, Telefónica, Microsoft, Airbus and Ferrovial, with the support of the Basque Artificial Intelligence Center (BAIC) and Accenture. In it, the main managers of the associated entities, benchmarks and experts in this field have shared at Repsol's headquarters their thoughts on the role of artificial intelligence in the economic momentum, the improvement of competitiveness and the future of Spanish and European industry.

All of them have spoken about the transformation that the country needs and have highlighted the privileged position that **Spain has to advance in it, having already available a solid and sophisticated infrastructure for broadband connection, fiber and 5G. Something that allows the impulse of artificial intelligence to be carried out in better conditions than in other countries of the European Union.**

In addition, they have pointed out that the country already has leading companies in very relevant sectors, such as banking, telecommunications or energy, which are already using AI. These are organizations that act as tractors for the rest of the companies. In addition, according to the experts,

Spain's capacity to train and attract talent and the opportunity offered by European recovery funds, provided that they are used in a unified way with collaboration between the different administrations and companies.

Another of the points they have addressed is the need to break the fear of the use of technology by SMEs and also the creation of their own technology so as not to depend only on what is being developed in other nations. Artificial intelligence is a tool of power and sovereignty, so its adaptation to the industry and the rest of the companies cannot depend on the development of it in each country.

**Sharing use cases and data spaces**

At the 1st IndesIA Forum, the main challenges that industry must face were presented, which mainly involve increasing competitiveness. In order to meet these challenges, the solution agreed by the speakers was to identify the use cases in which the application of artificial intelligence could be of substantial help. Thus, the meeting explained that artificial intelligence can be used, for example, to create intelligent, autonomous, flexible, sustainable and virtualized factories; for predictive maintenance; to improve efficiency or to avoid possible incidents in production plants, generating a culture of prevention and anticipation that boosts productivity and efficiency.

Sharing these cases facilitates the challenge of making the country a benchmark in data transformation. But we must also take into account the ethics of data and its regulation, which so far depends on each country. It is also necessary to create data spaces under the premise of achieving their democratization and access. In other words, encouraging data to be shared and processed so that they do not remain stored in silos, connecting them between different domains and contexts, in order to interoperate them and give them real and applicable value for business.

In this regard, the participants in the IndesIA Forum pointed out the need to capture quality data, to build these spaces little by little and, above all, to establish the necessary standards to ensure trust. On this aspect, they warned that the difficulty is not technological, but organizational, i.e. to be able to find consensus frameworks and to be able to carry them out taking into account the specific needs of each company.

**Boosting sustainability**

Apart from economic growth, the I IndesIA Forum also discussed the impact of AI on sustainability and how it is possible to create "green algorithms" to contribute to energy efficiency, the development of new materials or the strengthening of the circular economy.

On this point, the speakers remarked that we are at a key moment in terms of sustainability and industry, something that we have been working on for some time. At present, there are technological developments that will be applied and used little by little thanks to the application of macroeconomics, computational algorithms and distribution models in companies.

Artificial intelligence and the use of data offer the possibility of achieving energy efficiency in industry, an aspect of great importance at this time, due to the energy transition that is being experienced and the commitment to sustainability that benefits society as a whole. In this sense, they explained that it is also necessary to work on the reduction of energy consumption that artificial intelligence itself implies. Among the solutions would be the use of supercomputing to address the management and operations of a greater number of data with the same energy and in less time.

**Need for training**

Implementing this whole "data revolution" requires talent and training. Over the next three years, companies in the industrial sector alone will need more than 90,000 professionals with expertise in data and artificial intelligence to be able to carry out their projects, boost the country's economy and be able to compete with other international organizations. The lack of qualified personnel in data and artificial intelligence is an obstacle to the growth of companies and, therefore, to economic recovery.

There is a growing demand for professionals who have knowledge of AI, proof of this is that today there are 300 positions related to artificial intelligence published on LinkedIn only in Madrid that also not only refer to data science or more purely technological professions, also professionals in any field who know how to contextualize the use of AI in their sector and in their field of work, such as those specialized in ethics or data humanism.

In this sense they have lamented that compared to the youth unemployment figures that Spain has, there are 200,000 STEM positions, which will not be filled in the next two years. For this reason they have warned of the need to adapt academic curricula and training programs to introduce Artificial Intelligence in new and existing degrees, to train all those professionals who are so scarce and so in demand.

They pointed out that it is also necessary to train employees who are already part of the organizations and their leaders and above all to encourage women, 50% of the population and talent, to join this transformation, since only 1 in 5 professionals in artificial intelligence is a woman and only 10% of computer science graduates are women, a figure that they pointed out is lower if we talk about vocational training studies.

**I IndesIA Forum**

The opening of the 1st IndesIA Forum was led by Repsol's CEO, Josu Jon Imaz, who valued the unique moment that is being experienced to promote the transformation of the industrial fabric. He pointed out that in Spain the degree of maturity in the use of these technologies is very varied, since there are companies that started this path several years ago, but there is also a very significant network of companies, especially small and medium-sized ones, that are starting their digital transformation processes. For this reason, he warned that companies have to join forces, learn and teach, share experiences and accelerate the transfer of this technology to the entire value chain, especially SMEs.

Following his speech, the Secretary General for Industry and Small and Medium-sized Enterprises, Raül Blanco Díaz, from the Ministry of Industry and Small and Medium-sized Enterprises. Raül Blanco Díaz, from the Ministry of Industry, Trade and Tourism, emphasized that industry is the basis of productivity and economic growth. For this reason, he has positively valued the great work that the companies of the sector are doing, advancing in their recovery after the situation caused by the pandemic, and that many of them have already reached indexes previous to this crisis. Thus, he pointed out the Government's commitment to plans related to the promotion of Artificial Intelligence and digitalization and announced that a financing plan for 150 million euros for Industry 4.0 will be launched around the end of March. He also referred to some initiatives already presented such as PERTE related to mobility and the promotion of electric vehicles, the one related to the agri-food sector and the naval sector.

For his part, the Chief Data Officer and corporate vice president of Microsoft, Hernán Asorey, emphasized in his keynote that the goal is to make interactions with AI as human as possible, so that they act in the way people need and also that no one is left behind. He defined the ethical principles that should prevail when working with artificial intelligence, which according to Asorey are: fairness, reliability, inclusiveness, privacy and security, accountability and transparency.

The event was also attended by all the CEOs of the companies promoting IndesIA and they stressed the need to promote Spain as an international benchmark in artificial intelligence. They also showed their firm conviction in how the integration of artificial intelligence in their organizations can contribute to the growth, modernization and competitiveness of the national industry.

For his part, the president of IndesIA, Valero Marín, explained how IndesIA was created and his confidence that more and more companies, especially SMEs and technology and training centers, will join the association. He then gave way to the closing of the event by the Secretary of State for Digitalization and Artificial Intelligence of the Government of Spain, Carme Artigas, who referred to the country's commitment to innovation and technological disruption, promoting sectorial digitalization processes that are decisive for the integration of AI in value chains.

Artigas stated that, by 2030, 75% of companies will have to incorporate artificial intelligence and data into their processes, something that will only be achieved if we facilitate the access of SMEs to change. In this sense, he has valued that the Administration cannot achieve the conversion to a more digital industry by itself, hence he has valued very positively the union of the companies that make up IndesIA and its intention to be a tractor that joins all the organizations of the sector to promote the competitiveness of the country. Above all, at a time that he has catalogued as the Reindustrialization of the 21st Century and in which Spain must become an innovation hub.

**About IndesIA**

IndesIA is a Spanish association of artificial intelligence for industry, formed by eight large Spanish companies, Repsol, Gestamp, Navantia, Técnicas Reunidas, Telefónica, Microsoft, Airbus and Ferrovial, with the support of the Basque Artificial Intelligence Center (BAIC) and Accenture. Its aim is to position Spain as a benchmark in the use of data and artificial intelligence in the industrial field and to boost the development of the economy and the country's recovery.