

PRESS RELEASE

Telefónica Foundation presents the *Digital Society in Spain 2022 Report*

5G, A KEY TECHNOLOGY IN SPAIN'S ECONOMIC RECOVERY

- **5G technology will lead to investments worth more than 5,000 million euros and the creation of more than 300,000 jobs in our country, according to the Digital Spain 2025 strategy. It's also becoming a key tool in promoting environmental sustainability.**
- **The pandemic has driven the country's digital transition and introduced the role of technology as a lever for economic growth and a tool for recovery into the public debate. However, there's still room for SMEs to boost their competitiveness by means of instruments such as big data, artificial intelligence and e-commerce.**
- **The education system is facing numerous challenges as it furthers its digital transformation and trains the future professionals who are set to lead the digitisation of our economy and society. The report shows that practically the entire educational community is in favour of the use of technology, including 99% of the heads, 89% of the teachers and 83% of the families.**
- **Spain is one of the four OECD countries with the highest proportions of fibre optic accesses, standing in third position among the countries with the best connectivity in 2021 behind only Denmark and the Netherlands.**
- **The lack of technological professionals is a problem throughout Europe and it's exacerbated in Spain. In 2021 Spain had 72,000 ICT specialists, a figure equivalent to 3.8% of total national employment, compared with the EU average of 4.8%. Only 17% of Spanish companies have specialists in digital technology in their workforces, compared to 19% of European firms. By size, the percentages are 67% in Spain and 76% in Europe for large companies, while they respectively fall to 16% and 18% for SMEs.**
- **In Spain, the main digital gender gaps, larger ones than those related to internet access and use, are to be found in training and the labour market. Barely 10% of the 4.2 million people in STEM occupations in Spain work in the most digital sectors of the economy, and only about a fifth of them are women (compared to the figure of 79% for men).**



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Madrid, 6 September 2022_ We're witnessing a period of transition characterised by general uncertainty, global economic instability and market volatility. In view of this situation, digitisation is presented as a key lever for economic growth and a tool for recovery, with 5G featuring prominently. The deployment of this technology constitutes a unique opportunity to reactivate the Spanish economy with investments totalling more than 5,000 million euros and the creation of more than 300,000 jobs, while it will also become a tool to promote environmental sustainability by reducing the total annual emissions of the European Union by as much as 20%.

These data are included in *The Digital Society in Spain 2022*, the report published by Telefónica Foundation which compiles the most relevant social indicators to measure the progress towards digitisation.

Digitisation as a lever for economic growth

The degree of digitisation of Spanish society has been one of the main reasons why organisations and individuals have been able to recover or maintain their activity in the wake of the coronavirus crisis. Moreover, the pandemic has driven the country's digital transition, with Spain standing in ninth place among the 27 EU member States in the European Commission's 2021 DESI (Digital Economy and Society Index) report, up two positions from the previous year. In particular, Spain excels in connectivity and digital public services, although there's still room for SMEs to boost their competitiveness by means of instruments such as big data, artificial intelligence and e-commerce sales.

Spain, a leader in connectivity

Spain is one of the top four OECD countries with the highest proportions of fibre optic accesses with respect to the total number of fixed broadband accesses.

Focusing the analysis on the European field, Spain remains among the member States with the best connectivity and, in fact, in 2021 it moved up three places to third position, behind only Denmark and the Netherlands.

78.7% of the traffic carried nationally (99% of the total traffic) corresponded to 4G networks. 5G networks began to carry traffic in 2020, albeit in an almost symbolic way (1.8% of the national total).

The steady increase in high-speed broadband coverage is the result of the investments made by the telecommunications operators. In 2020, despite the economic slowdown caused by the coronavirus pandemic, investments once again exceeded 5,000 million euros.

A legal framework for the digital transformation

In 2021 the European institutions pursued their vigorous regulatory activity to adapt the current framework to the new digital trends, facilitating better exploitation of the digital transformation in the member States. The two most important proposals made by the European Commission published in late 2020 to define the new rules of the game for digital services, thus protecting users' rights and preventing anti-competitive behaviour by the large digital platforms, the Digital Services Act (DSA) and the Digital Markets Act (DMA), continued their legislative procedure during 2021.

Leisure drives internet usage

A large number of the most commonly used digital services continue to be accessed via computers, smartphones and tablets, although other devices (smart speakers, smart TVs, activity bracelets, home IoT systems and smart household appliances) are beginning to secure a prominent presence. In 2021, for the first time, more than half of households (53.1%) had a smart TV connected to the internet, a figure almost 11 points higher than in 2020.

Computers have benefited from the consolidation of teleworking and online training. After years of market displacement by other devices such as tablets and smartphones, computer sales rose sharply in 2021, with almost all (97.2%) of the people who worked remotely using a computer to do so (a figure 20.9 points higher than in 2020).

With respect to the smartphone, all uses increased in 2021. 52.2% of internet users declare that they listen to music, radio programmes and podcasts on their smartphone, 1.3 points more than in 2020. 38.9% watch multimedia content on their smartphone, 6.8 points more than in 2020. And 38.1% make purchases by means of this device, a percentage similar to that recorded in 2020. The fastest-growing use in 2021 was financing operations, with an increase from 16.9% to 34.4% in the number of internet users between 2020 and 2021.

Digital entertainment continues to be one of the main reasons for internet usage; almost two thirds (64.7%) of Spanish internet users watched multimedia content in 2021, making it one of the main uses of the internet.

Life goes digital: shopping, e-Administration and healthcare.

E-commerce is consolidating its position as an alternative to traditional business, with 55.2% of people shopping online in 2021 (an increase of 1.4 points compared to 2020).

The OECD ranks our country seventh in its composite digital government index, ahead of nations such as France, Italy, the Netherlands and Germany.

In the field of healthcare, 51.3% of the Spanish population used digital tools to make medical appointments, a figure eleven points higher than in 2020.

The digital divides persist

Despite the progress towards digitisation, there are gaps that remain. One of the most obvious ones is age-related, with 30% of those over 65 not using the internet. Another digital divide is related to the levels of training and skills; in 2021, one fifth of Spanish households didn't have a computer, a device necessary for making advanced uses of the internet such as teleworking and online training.

The above highlights the need for public policies to help to reduce the digital skills gap, without neglecting the divide resulting from the lack of availability of sufficient devices.

The transformation of the Spanish company

Spanish companies still have significant scope for improvement with respect to the benefits of the digital technologies. Most companies only use their websites to provide corporate information and very few of them offer more advanced uses, such as the options of making orders or online bookings.

Social media applied to business are only used, on average, by just over 65% of companies, a very low figure in view of the potential that blogs and social networks offer for connecting with niche markets and positioning brands at a relatively low cost. Nor are tools for sharing information within the company (ERP), those for managing customer relations (CRM) and the most advanced technologies such as big data and artificial intelligence particularly widespread within the Spanish business fabric, and no more than a third of the largest companies use them.

Moreover, almost a third of Spanish companies with more than ten employees have acquired a cloud computing service, 27.7% make use of the internet of things and a quarter of companies with more than ten employees use online sales channels. In the area of cybersecurity, more than half of companies had defined a technological security policy in 2019, although only 25% of them had redefined or revised it over the last 12 months.

Promoting digital talent

The education system is facing numerous challenges in terms of furthering its digital transformation and contributing to the development of digital talent. A study conducted by Telefónica shows that the entire educational community is in favour of the use of technology: 99% of the school heads interviewed believe that technology helps teaching, a percentage that falls to 89% among teachers and 83% among families.

The lack of technological professionals is a problem throughout Europe and it's exacerbated in Spain. In 2021 Spain had 72,000 ICT specialists, a figure equivalent to 3.8% of total national employment, compared with the EU average of 4.8%. Only 17% of Spanish companies have specialists in digital technology in their workforces, compared to 19% of European firms. By size, the percentages are 67% in Spain and 76% in Europe for large companies, while they respectively fall to 16% and 18% for SMEs.

An additional problem is the gender gap within digital skills and professions. Barely 10% (420,000) of the 4.2 million people in STEM occupations in Spain work in the most digital sectors of the economy, and only about a fifth of them are women (compared to the figure of 79% for men).

According to the Women in Digital Scoreboard (WiD), the indicator of women's digital development published by the European Commission, Spain has a significant gender gap in the digital professions. There are only 12 female graduates in STEM disciplines per every 1,000 individuals aged between 20 and 29, while the European average stands at 14 and the figure for men at 29.7. Furthermore, the proportion of ICT specialists is 1.6%, compared with the figure of 5.6% for men.

Cutting-edge technologies: artificial intelligence, blockchain, quantum computing and the metaverse

Technologies such as artificial intelligence, big data, the internet of things, blockchain, the cloud and robotics are shaping the data and knowledge economy.

Spain, despite not being a country as advanced in terms of artificial intelligence as England, Germany or France, is displaying a firm commitment to its deployment, as shown by the launch in late 2020 of the National Artificial Intelligence Strategy, one of the pillars of the Digital Spain Agenda 2025 and one of the components of the Recovery, Transformation and Resilience Plan for the Spanish economy.

The implementation of blockchain is occurring at a slower pace than that of other technologies, due to poor understanding and a lack of knowledge of its application in business beyond cryptocurrencies such as Bitcoin. Nevertheless, GlobalData estimates a significant upturn in the global market for this technology, whose value will rise from 3,600 million dollars in 2020 to 24,100 million dollars in 2025 and total 198,600 million dollars by 2030. The report highlights that our country has a “vibrant” blockchain ecosystem, with 150 companies engaged in this field, an annual turnover totalling 103.5 million euros and a significant network for the promotion of this technology, with more than 500 members and eight universities with blockchain-related degrees, positioning it as a leader in blockchain training in Europe.

Quantum computing is making the leap from the academic world to solutions to the real problems facing science and economics. The integration of classical computing into quantum computing and artificial intelligence will constitute the largest computing revolution in the last sixty years and three key applications of this technology have been identified: algorithm optimisation, data science and mathematical modelling and quantum chemistry and materials science.

Another major cutting-edge technological trend is the metaverse, in which technologies based on virtual reality and extended reality are of vital importance.

Moving towards ethical digitisation

In late 2021, the European Commission published its annual report on the degree of application of the Charter of Fundamental Rights of the European Union, focusing on the issue of the protection of fundamental rights in the digital age. The document identifies several issues associated with the ongoing technological transformation as being of particular concern, namely content management by the digital platforms, individual rights in the use of artificial intelligence, the different digital gaps, the rights of gig economy workers and surveillance based on the collection of citizens’ macro data.

From the standpoint of the member States, Spain pioneered the adoption, in July 2021, of a *Charter of Digital Rights*, which seeks to equate the protection of citizens’ rights in offline and online environments.

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Telefónica Foundation, the social side of the digital era

For over 20 years Telefónica Foundation has been striving to be a catalyst of social inclusion in the digital era and contribute to creating a more inclusive, fair and charitable world. True to its technological origins, it’s placing its trust in the limitless capabilities of the new technologies to improve people’s lives and connect them to the opportunities provided by digital progress. With this vision in mind, it operates in 41 countries with a transformational vocation to connect society to [education](#) and reduce the education gap, with the [new form of employability](#) to generate the digital profiles required by the labour market, with [knowledge and culture](#) to generate a common reflection on the ideas that are changing the world and with [solidarity](#) by undertaking social actions hand in hand with Telefónica’s employees to ensure that the most vulnerable people have the same opportunities for development. It does so through global and inclusive initiatives with a digital soul and with the combined forces of more than 500 entities and 100 public administrations.

FOR MORE INFORMATION**TELEFÓNICA FOUNDATION** Rafa Cobo rafael.cobocobo@telefonica.com | 647 66 58 88Ainhoa Sigüero ainhoa.siguerofadrique@telefonica.com | 661 74 36 38**ATREVIA**Sara López slfarhan@atrevia.com | 673 76 50 08