

A “CLOUD-FIRST” APPROACH FOR A VALUE-DRIVEN DIGITAL TRANSFORMATION STRATEGY

Spain



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Executive Summary

▶ Though the COVID-19 pandemic decreased revenue for Spanish organizations, there seems to be an agreement that technology is part of the solution to the challenges presented by this crisis. For this reason, most Spanish organizations (64%), will maintain or increase their IT investment. However, the priorities in IT investments vary depending on the recovery phase of organizations. In the first phase, organizations focus on investments that respond to the challenges of the crisis. In the second phase, organizations adapt to it and address matters that were revealed as a weakness during the crisis. Finally, in the third phase — acceleration — organizations look to invest in projects that capture market share and will prioritize investments in technology.

▶ Regarding the industry impact on digital transformation initiatives in Spain, the financial services sector was already investing in these kinds of initiatives before the COVID-19 pandemic and are thus one of the highest-ranking sectors in Spain in digital transformation matters. Moreover, the tech, media and telecommunications sectors have become key players due to the increase in working-from-home initiatives as a result of the pandemic. Nevertheless, network investments have declined, which directly affects 5G development. In the manufacturing, utilities, and oil and gas sectors, most Spanish organizations will increase their investment in technology to support digital transformation. But the retail, wholesale, and transport sectors have been severely impacted. Therefore, creating new revenue streams from digital and digitally enhanced offerings is the top goal in these sectors, followed by realizing business value and achieving better business outcomes for digital transformation projects. In the public sector, the IT budget will increase thanks to EU funds.

▶ Spanish organizations will invest in working-from-home technologies that will allow employees to work safely and productively from home. This is shown as 3 out of the top 4 areas that will be permanently changed as a result of the pandemic are related to remote work.

▶ The top goals for Spanish organizations for 2021–2022 are closing the gap in the digital transformation journey together with ensuring business and operating models are viable in the future. To accomplish this, Spanish organizations will invest in IT hardware, datacenter services, and security services to advance in their digital transformation journey.

▶ The use of the cloud is key to advancing in the digital transformation journey. The cloud reduces operating costs, enables and allows for mobile applications development, improves customer alignment, allows for the development of new products, and shortens time to market. In fact, most Spanish organizations will either maintain or increase IaaS

spending in 2021. Moreover, hybrid cloud is a winning solution as it combines the benefits of the public cloud with on-premises. This allows greater flexibility to meet the individual needs of applications and users with a consistent experience, greater cost control, and optimized security and governance. Nonetheless, Spanish organizations have found that 12% of cloud migrations are unsuccessful due to security issues, performance issues, or skills shortage, which is something that needs to be addressed.


▶ Global interconnection architectures are becoming more and more valuable as datacenters must now support on-premises workloads as well as those deployed in public clouds. In addition, industry trends such as datacenter consolidation, virtualization, secure interconnection, IoT, and the adoption of cloud services will encourage enterprises to leverage co-location providers more aggressively. The cloud computing, storage, network, and power requirements of enterprises will continue to grow exponentially, so the use of co-location is transforming the datacenter into the “nerve center” of IT infrastructure and has become a crucial nexus of the entire IT ecosystem.


▶ The adoption of Edge computing is something to be considered as well. Among the various reasons to consider it are that latency-sensitive applications require faster response times than cloud or datacenter infrastructure can deliver. Moreover, security and compliance concerns arising from corporate governance regulations need to be taken into account. Also, assets with limited connectivity need to process data and take action, even in a disconnected state.

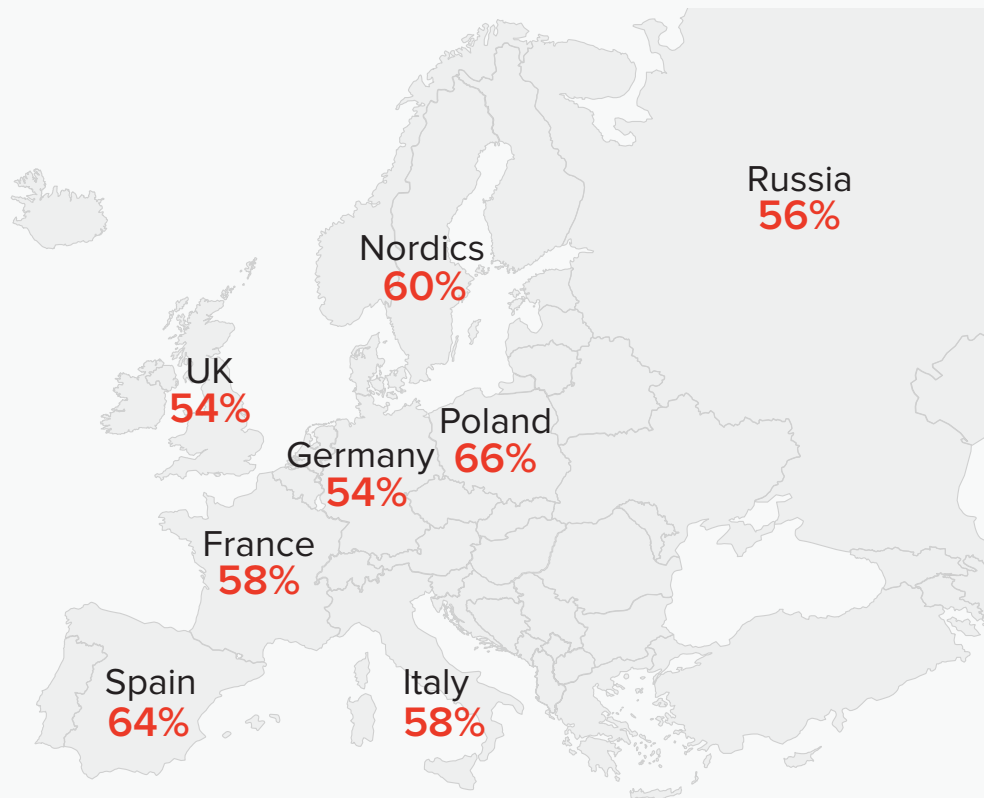
Technology as the answer to COVID-19


European organizations expecting to maintain or increase IT investment in 2021

European organizations have been significantly affected by the Covid-19 crisis and revenues have declined on average. However, there seems to be an agreement that technology is part of the solution to the challenges presented by the crisis. Therefore, as the data shows, the IT investment is among the most resilient ones.


72% of organizations in Spain experienced a decrease in 2020 revenue as a result of Covid-19

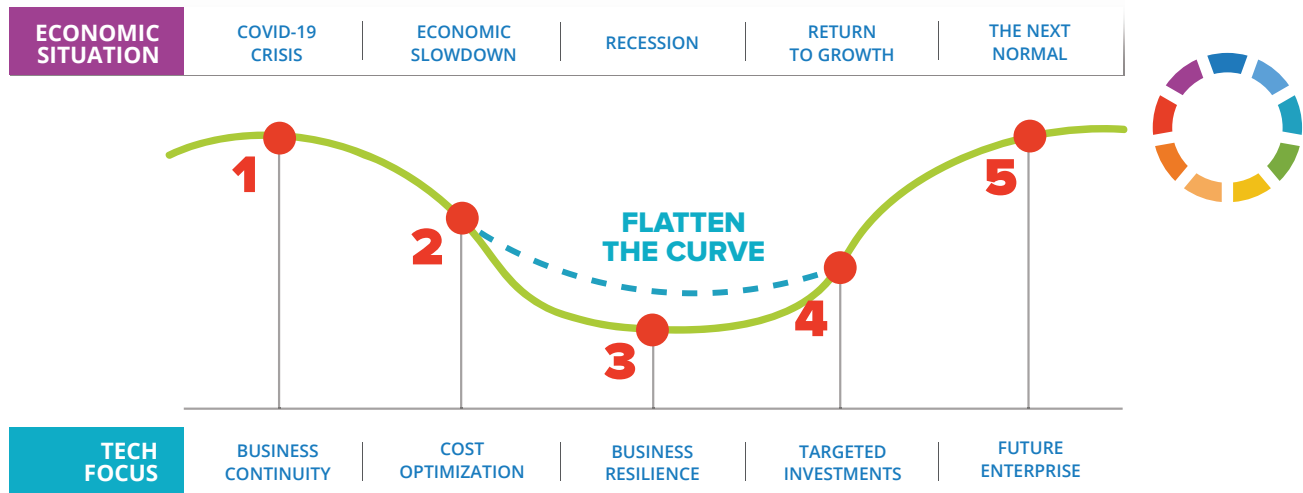

64% of organizations in Spain expect IT investment in 2021 to remain or be higher than expected at the beginning of the year




 From those who expect a grow, it will be an **17%** on average

Source: IDC EMEA Impact Survey Europe — Wave 13, Oct 2020, n=530 (Spain 50)

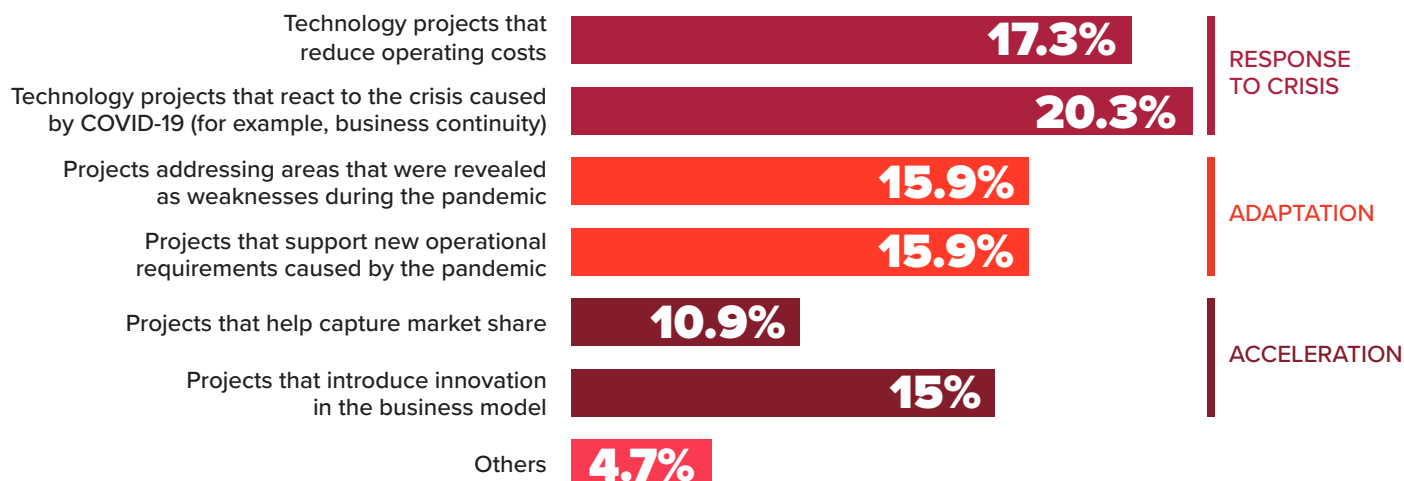
Leverage Technology to Transition to the Next Normal



- 1** Whether we are dealing with the current pandemic, or the next shock to the global market, hyper volatility will increasingly become the norm. Business continuity plans are already being rewritten and will have to become more dynamic in nature moving forward as they are constantly tested.
- 2** In this stage, organizations are in cost-optimization mode, where the business looks to technologies that can either help them manage the economic hardships or generate financial outcomes for the current fiscal year.
- 3** In this stage, organizations have overcome the initial phase of the COVID-19 crisis and stabilized financials. Their focus now is to build business resiliency – the ability to adapt to changing circumstances while maintaining the organization’s central purpose.
- 4** At this stage, economic activity is returning to pre-crisis levels, and companies are looking to invest more aggressively, but with a focus on technologies that advance an organization’s digital capabilities.
- 5** When organizations come out of the recession, they will be operating in a new type of economy – the Next Normal. This will be the beginning of the digital economy with some new twists as a result of COVID-19.

CIOs' Priorities Have Changed

IT investment distribution in Spain by priority after COVID-19



Source: IDC EMEA Impact Survey Europe - Wave 13, Nov 2020, n=530 (Spain 50)

Among the IT investment distribution in Spain by priority after the COVID-19 crisis, investment is divided in three phases.

- ▶ First, the phase where organizations respond to the crisis, where they focus on technology projects that react to the crisis caused by COVID-19 (e.g., business continuity) (20.3%).
- ▶ The second phase is where organizations adapt and invest in projects addressing areas that were revealed as weaknesses during the pandemic (15.9%) and in projects that support new operational requirements caused by the pandemic (15.9%).
- ▶ Finally, in the third phase of acceleration, Spanish organizations will invest in projects that help capture market share (10.9%) and in projects that introduce innovation to the business model (15%).

Industry Impact on Digital Transformation Initiatives in Spain (I)

	Software as a Service (SaaS)		Platform as a Service (PaaS)		Infrastructure as a Service (IaaS)		Artificial Intelligence/ Machine Learning technologies		Collaboration platforms	
	As Planned Earlier	Increased Investment	As Planned Earlier	Increased Investment	As Planned Earlier	Increased Investment	As Planned Earlier	Increased Investment	As Planned Earlier	Increased Investment
Financial Services	55%	9%	36%	27%	36%	36%	18%	36%	18%	27%
Telecoms, Media, Business Services	42%	33%	50%	17%	25%	25%	17%	50%	25%	25%
Manufacturing, Utilities, Oil and Gas	14%	57%	0%	86%	43%	43%	43%	43%	14%	43%
Retail, Wholesale, Transport	60%	10%	20%	10%	40%	20%	60%	10%	40%	0%
Public sector	50%	30%	30%	40%	40%	40%	30%	40%	40%	30%

Source: IDC EMEA Impact Survey Europe - Wave 13, Nov 2020, n=530 (Spain 50)

Industry Impact on Digital Transformation Initiatives in Spain (II)



Financial Services

- ▶ Financial services were deeply involved in digital transformation pre-COVID in both internal processes and customer experience. The key Spanish financial players are global digital leaders, and the rest of the competitors need to “follow the digital wave” to remain competitive.
- ▶ 64% of financial CIOs expect IT investment to be higher than expected for 2021, ranking highest of all sectors in Spain.



Technology Media Telecommunications

- ▶ Technology is emerging as a vital utility given the rising implementation of working-from-home initiatives, distance-learning programs, and home applications. However, the telecom sector is under strain due to network investments, specifically 5G.



Manufacturing, Utilities, Oil, and Gas

- ▶ As for the initiatives prioritized by Spanish organizations in 2021, the majority (57%) will increase investment in technology to support digital transformation.
- ▶ More specifically, for organizations working in this industry, driving value into new areas/markets by expanding their partner ecosystems (71%) is their top goal for 2021-2022.



Retail, Wholesale, Transport

- ▶ This industry has been severely impacted on several fronts. Supply chain difficulties have arisen following closures of factories and the reduced transportation of goods. On the other hand, online retail may see increases in demand, but online still accounts for less than 15% of the sector's revenue in Spain.
- ▶ Among organizations in this industry, creating new revenue streams from digital and digitally enhanced offerings is the top goal (70%), followed by realizing business value and achieving better business outcomes for digital transformation projects (60%).



Public Sector

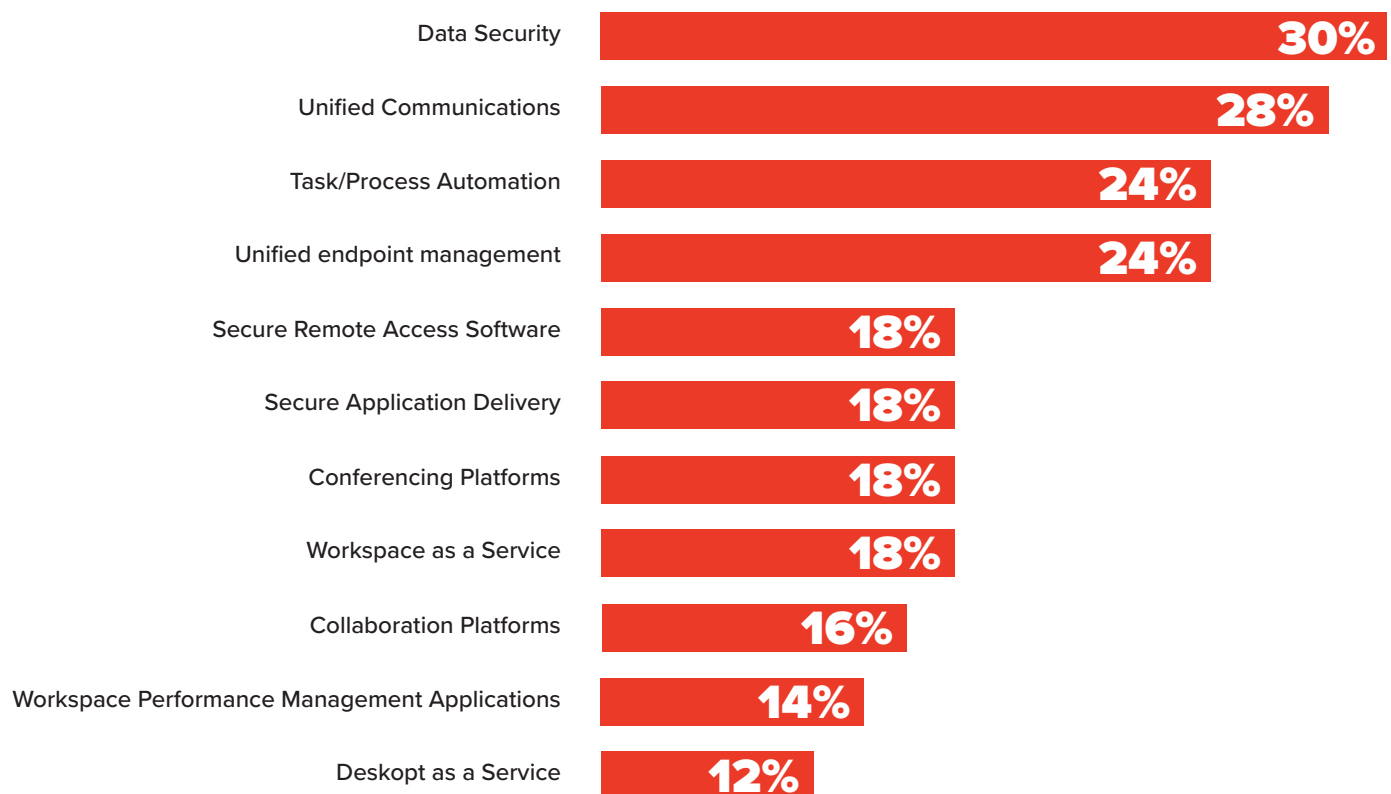
- ▶ Government CIOs have reacted to the pandemic by delaying IT investments.
- ▶ The forecast for 2021 is an IT budget increase thanks to EU funds. 33% of the €70 billion will be dedicated to digital projects — higher than the EU average

Source: IDC EMEA Impact Survey Europe - Wave 13, Nov 2020, n=530 (Spain 50)

Data Security and Unified Communications Have the Highest IT Investment Increase for 2021

IT investment will increase in 2021 to provide the necessary support to employees to continue to perform their tasks productively, safely, and reliably from home, especially for financial and manufacturing services.

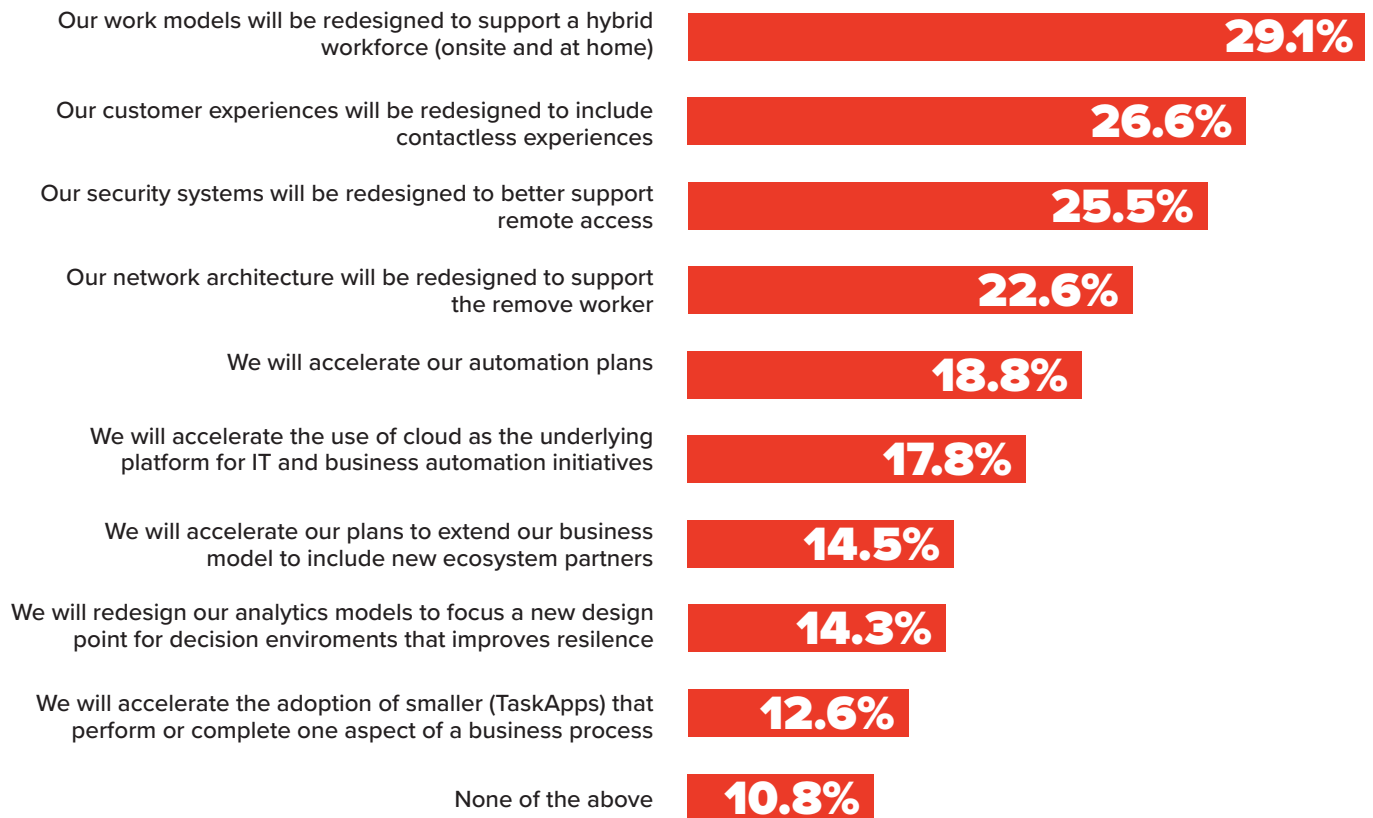
For which of the following products/services is your organization planning to increase investment in 2021 compared to 2020 due to business changes triggered by responses to the COVID pandemic? [Choose all that apply]



Source: IDC EMEA Impact Survey Europe - Wave 13, Nov 2020, n=530 (Spain 50)

Organisations are realising that supporting remote work is no longer trivial but will impact on results

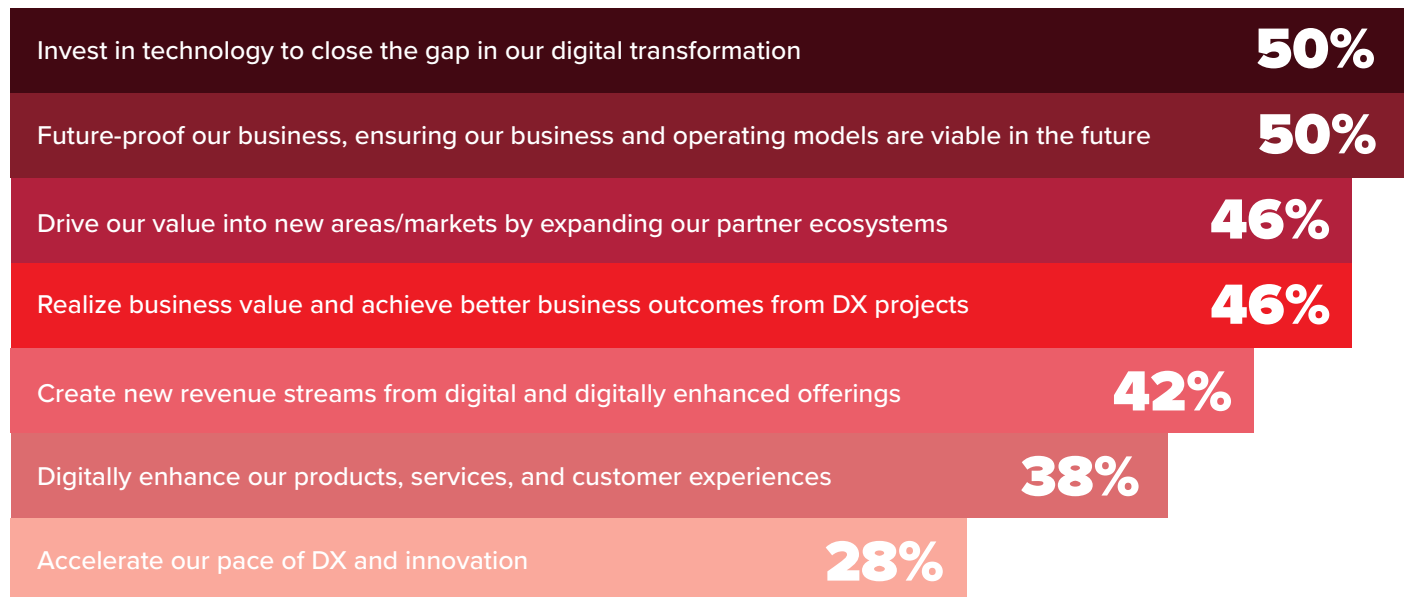
Which of these areas will likely be permanently changed as a result of the COVID-19 pandemic?
[Choose all that apply]



Source: IDC EMEA Impact Survey Europe — Wave 13, Nov 2020, n=530 (Spain 50)

Digital Transformation Still a Top Priority in Spain

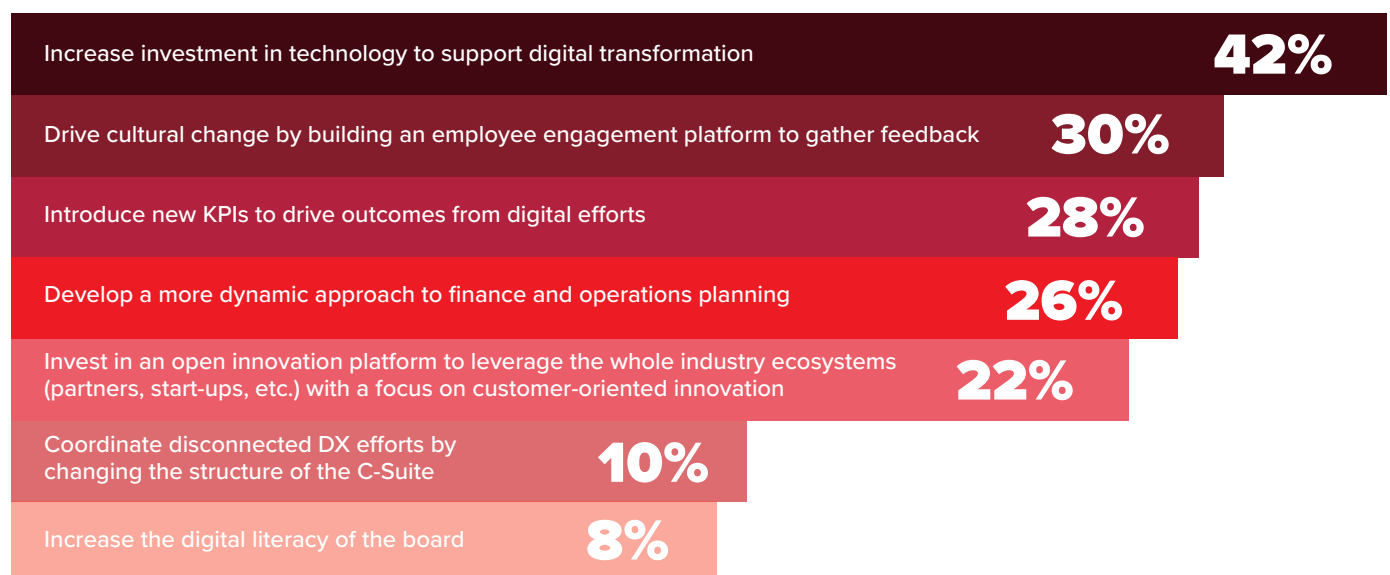
Q: What are your organization's top goals for 2021-2022?



Source: IDC EMEA Impact Survey Europe — Wave 13, Nov. 2020, n=530 (Spain 50)

- For Spanish organizations, closing the gap in the digital transformation journey (50%) together with future-proofing the businesses by ensuring businesses and operating models are viable in the future (50%), are among their top goals for 2021-2022.
- Moreover, they also give high importance to driving value into new areas/markets by expanding their partner ecosystems (46%) and realizing business value and achieving better business outcomes from digital transformation projects (46%).
- To achieve this, Spanish organizations will invest in IT hardware, datacenter services, and security services to advance in their digital transformation journey.








Q: Which of the following initiatives will be prioritized by your CEO to drive the next phase of your digital transformation in 2021?



Source: IDC EMEA Impact Survey Europe — Wave 13, Nov. 2020, n=530 (Spain 50)

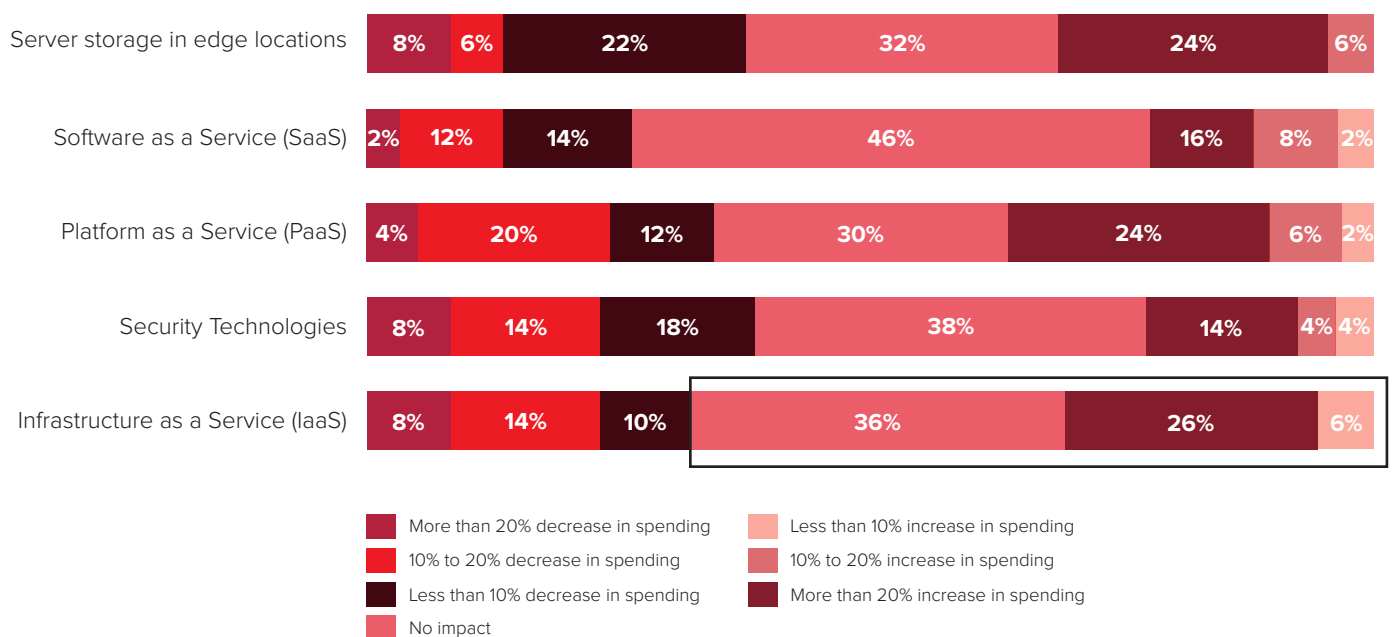
- For Spanish organizations, the top strategic priority (42%) is to increase investment in technology to support digital transformation (e.g., digital hardware and datacenter services).
- They also give a high importance to driving cultural change by building an employee engagement platform to gather feedback (30%) as well as to introducing new KPIs to drive outcomes for digital efforts (28%) and enable digital transformation processes.

Why Cloud Matters for Transforming Your Business

-  Reduce operating costs (DR, applications, infrastructure, etc.)
-  Enable and develop mobile applications
-  Improve customer alignment, knowledge, experience, and innovation
-  Develop new products
-  Change business models/business model innovation
-  Leverage data for business analytics
-  Shorten time to market

Between 60% and 72% of Spanish organizations will either maintain or increase investment in all these areas. This shows that the use of the cloud is key to advancing in the digital transformation journey. The COVID-19 crisis has also proven that it is the right time to take advantage of the hybrid cloud, as it will become the norm in the future.

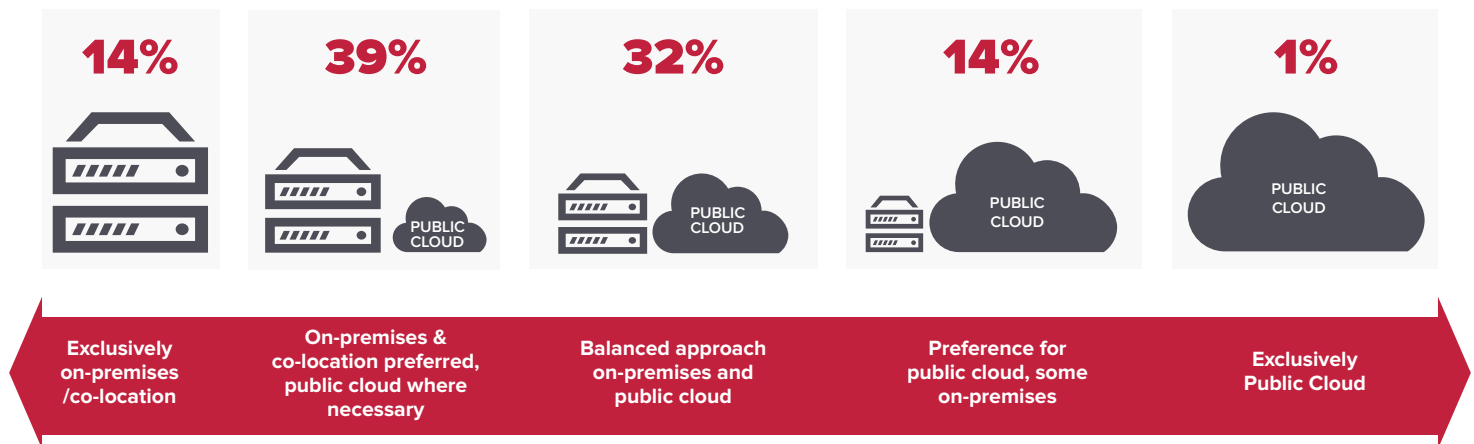
Compared to your organization's investment in 2020 (after COVID adjustments), how do you think your organization's investment on the following IT products and services will change in 2021?



Source: IDC EMEA, COVID-19 Impact Survey Europe, Internal, Wave 13: October 20 - October 30, 2020, n=50

68% of organizations in Spain expect to maintain or increase IaaS spending by 2021

Hybrid Cloud is the Future



Source: IDC's 2020 annual multicloud and next-generation infrastructure survey

In the cloud universe, the hybrid option combines the benefits of the public cloud with on-premises. This allows greater flexibility to meet the individual needs of applications and users with a consistent experience, greater cost control, and optimized security and governance.

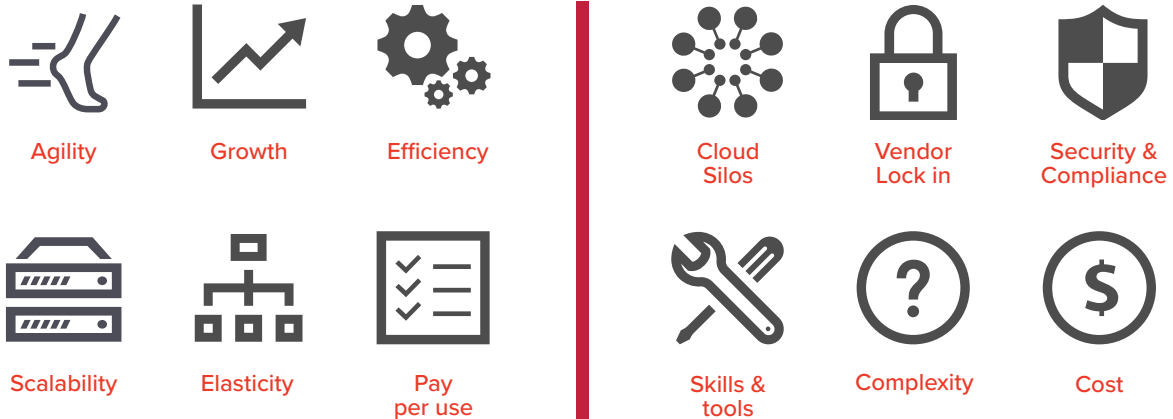
The development of the hybrid cloud is one of the accelerators in the adoption of the cloud in organizations. In this environment, the services that help manage this hybrid cloud are growing strongly, supported by multicloud environments, that is, the management of various cloud services, whether public or private, provided by more than one provider.

At IDC we estimate that by the end of 2021 more than 90% of European companies will be using multicloud services and platforms. If we bring this further down to the companies that are going to establish mechanisms to manage multicloud environments, this percentage will reach 40% by the same date in Europe.

Multicloud management provides organizations with the following advantages:

- ▶ Identify which workloads are suitable for the public cloud and which for a private cloud
- ▶ Count on cloud experts who can implement and operate a multicloud strategy
- ▶ Avoid vendor lock-in
- ▶ Continuously evaluate vendors in the cloud market, as well as security and legal requirements

Cloud Opportunities & Challenges



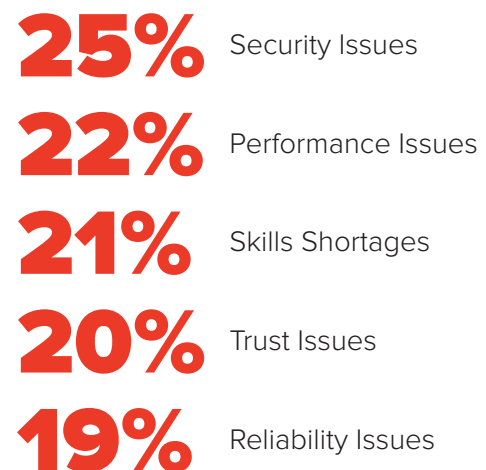
By 2022, 40% of core IT investment will be cloud-related, rising to 80% by 2028

Reasons Why Public Cloud Deployments Are Unsuccessful

Are business application migrations successful?



Why cloud migrations in general fail



Source: IDC's Multicloud Survey, 2020

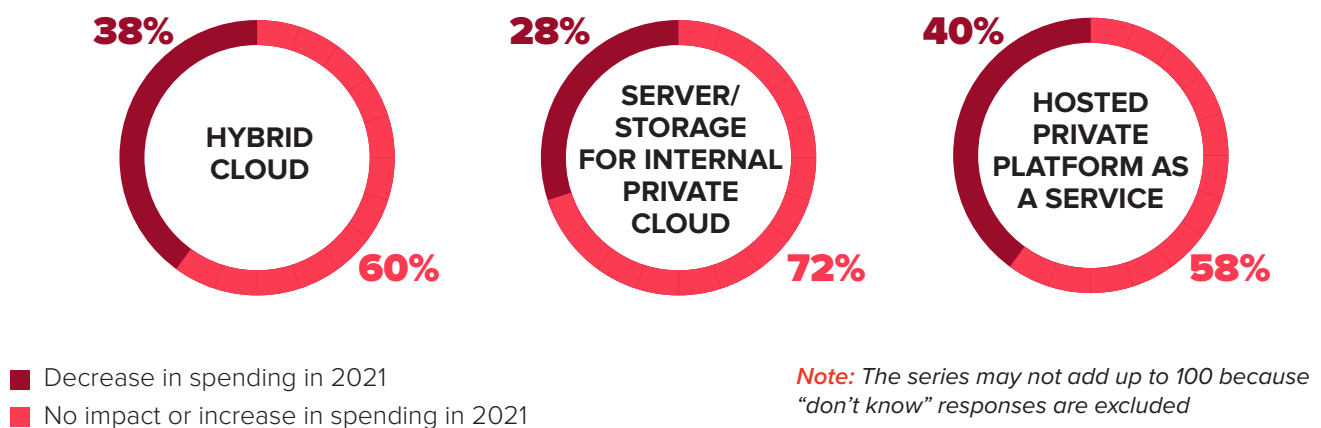
It is important to highlight that 62% of cloud deployments are either completely successful or somewhat successful, while 26% of them are neither successful nor unsuccessful.

Only 12% of cloud migrations fail and the main reasons for its failure are security issues (25%), performance issues (22%), and skills shortages (21%).

Datacenter Service Providers Play a Significant Role in Digital Transformation

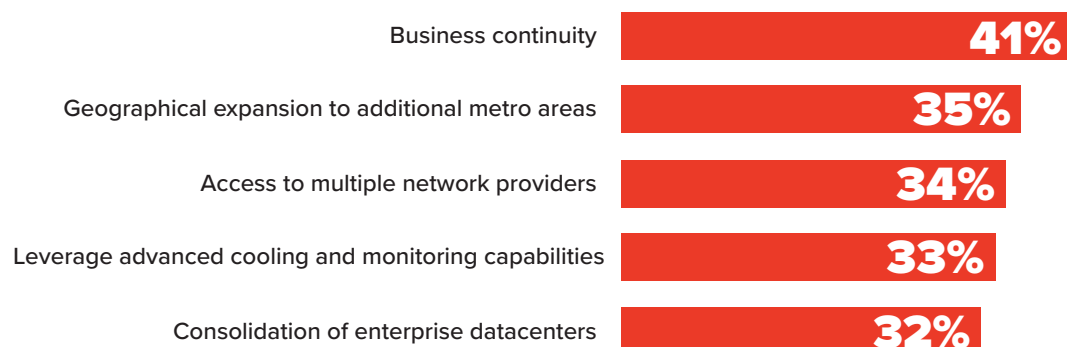
- ▶ The networking challenges of digital transformation and multicloud can be particularly acute because the latter is redrawing the boundaries of what constitutes a datacenter and what is required from a datacenter network, which now must extend outward to support not only on-premises workloads but also those deployed in public clouds. This is an area where global interconnection architectures can provide significant value.
- ▶ Managed hosting and co-location services are being driven by the heightened needs of business continuity, geographical expansions to additional metro areas, and better network efficiencies. Industry trends such as datacenter consolidation, virtualization, secure interconnection, IoT, and the adoption of cloud services will encourage enterprises to leverage co-location providers more aggressively.
- ▶ As enterprises transform, their cloud computing, storage, network, and power requirements will continue to grow exponentially. The use of co-location is transforming the datacenter into the “nerve center” of IT infrastructure and a crucial nexus of the entire IT ecosystem.

Maintained, increased or decreased investment in 2021 in Spain



Source: IDC EMEA, COVID-19 Impact Survey Europe, Wave 13: October 20 - October 30, 2020, n=50 (Spain)

Why do enterprises leverage co-location providers?

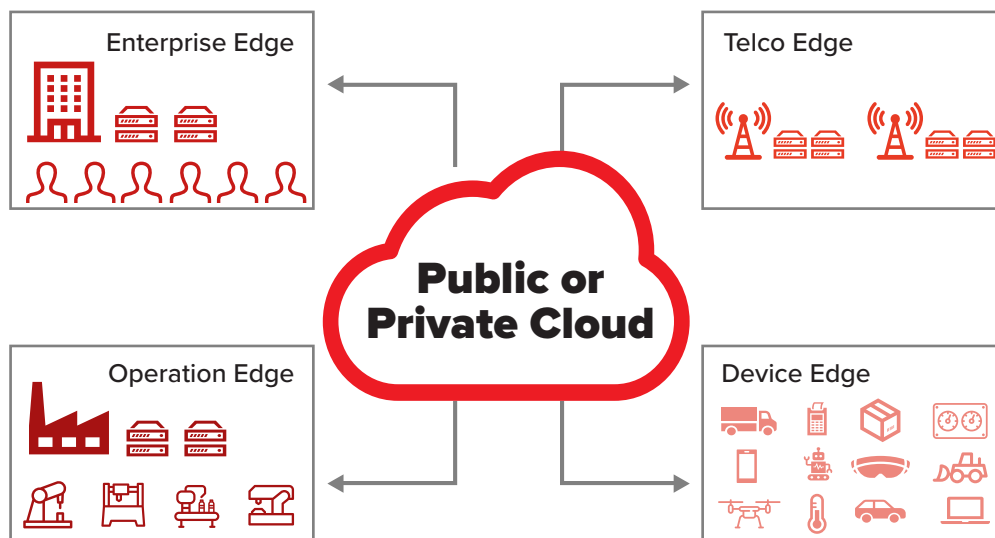


Source: IDC's 2019 Enterprise Communications Survey: Connectivity

Factors Driving Edge Adoption

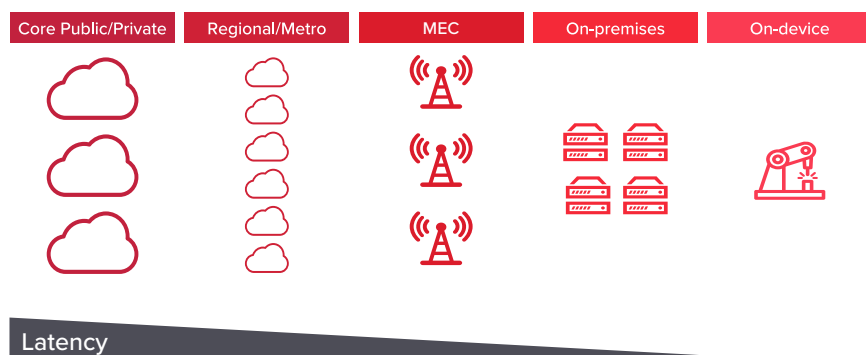
- 1.** **Latency-sensitive applications** require faster response times than cloud or datacenter infrastructure can deliver
- 2.** **Assets with limited connectivity** need to process data and take action, even in a disconnected state
- 3.** **Scalability** concerns around the abundance of data generated for analytics and AI use cases
- 4.** **The cost** of transmitting data for centralized processing can be prohibitive
- 5.** **Security and compliance** concerns arising from corporate governance regulations

Edge Types



Cloud to Edge Locations

For business solutions that require minimum latencies (such as autonomous cars), investment in on-device solutions is necessary. However, 3-5ms latency will not have any major impact on business applications running on cloud environments at large.



Discussion with Equinix

How do you see the Spanish landscape in this digital transformation era? In your opinion, which technology areas should be prioritized by organizations in Spain?

Our country is facing a great opportunity to become the new digital HUB for Southern Europe. As a result of its privileged geographical position, the arrival of new underwater cables to Iberian coasts, the commitment of new international players in cloud services and interconnection and, the IT maturity of the companies operating in the country, Spain is at the ideal stage to face the challenge of catching up with other major European technology markets. To achieve this, IT infrastructures play a fundamental role as the facilitator of the organization's digitalization. The development of technologies related to big data, artificial intelligence, or IoT cannot be understood without the figure of the datacenter, as the world's digital infrastructure, which allows the exchange and management of data in a private, direct, secure and ultra-fast way through interconnection. Organizations in Spain must be committed to the digitalization of their business processes, the adoption of hybrid multicloud solutions and the creation of strong business ecosystems to be able to operate together with partners and customers through interconnected environments from any geographical position.

What challenges do organizations face in Spain, and how can Equinix help them address these challenges in their digital transformation journeys?

Digital transformation is a constant challenge. Embarking on a process of digital transformation means taking the leap to modernity in terms of data and infrastructure management and requires being aware of the latest innovations and seeking the benefits they can bring to any business process. At this point, Equinix plays a key role as a travel companion in the digitalization process.

Equinix, the world's digital infrastructure company, enables digital leaders to bring together and interconnect through an infrastructure that powers their success. Thanks to Platform Equinix, which hosts 10,000 companies, including 1,800 network providers, and 2,900 cloud and IT providers, through its more than 220 datacenters worldwide, our customers have access to all the right places, partners, and possibilities they need to accelerate advantage. This enables them to scale with agility, accelerate the launch of digital services, deliver world-class experiences, and multiply their value.

Several organizational changes are expected across industries post the COVID-19 pandemic. What do you envisage these to be, and how can Equinix help organizations change and/or overcome any challenges?

Ignacio Velilla Rincón

Managing Director,
Equinix Spain



This crisis has shown that the companies that were more digitalized were able to maintain their business processes despite the continuous changes. Agility is the key. We are in a moment in which accelerating digital transformation processes has become a necessity. Equinix recently released Vol4 of our Global Interconnection Index (GXI), an annual market study that in this edition shows the effect of the COVID-19 pandemic on how companies are planning their digital infrastructure initiatives for the next three years, and from this study we can the forecast that the bandwidth will grow at a 45% compound annual rate (CAGR) by 2023.

In this context of growing demand for interconnection and a situation of large and rapid changes caused by the pandemic, Equinix can help businesses meet new challenges to rapidly scale online collaboration and network capacity for a remote workforce. Equinix can specifically help them to:

- Build network capacity for workforce collaboration to move business forward through a combination of private, secure physical, and virtual interconnection products and services
- Meet the new requirements and demands on their infrastructure, including quickly adding new locations and connections
- Maintain business continuity from the edge, adding temporary cloud and network access points where they need them most
- Access secure, direct connectivity to thousands of network, cloud, SaaS and other providers in key metros around the world that help them meet evolving business continuity, disaster recovery, and supply chain requirements
- Increase their bandwidth to top CSPs globally in minutes as their needs shift to support remote workforces
- Connect to the top collaboration/UCaaS providers to boost application performance with their evolving remote workforces

Discussion with Equinix

What is your strategy to partner with cloud service providers to support the multicloud and hybrid cloud strategies of end-customer organizations in Spain?

As the IT sector has evolved, different cloud providers have also emerged. Each has been responsible for developing this disruptive technology and has sought its market share through specialization in different business areas. At the same time, companies have significantly increased the number of essential applications for their business (budgets, finances, organization, communication, document sharing, sales intelligence, etc.) that operate from cloud environments. For this reason, a single cloud provider is unlikely to meet all the business needs of a company.

This is where multicloud environments become the best destination option in our journey to the cloud. Equinix, within this mix of applications and clouds, has the key to interconnect any data from the main cloud providers in the global market: Equinix Fabric.

This software-defined network solution allows companies to take advantage of the full potential of cloud environments by connecting directly to different clouds in a private and secure way. This creates a market ecosystem where everything is interconnected, and workloads can be migrated from private to public environments and between different clouds.

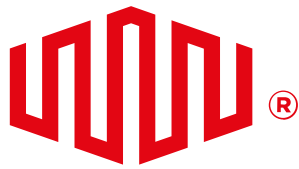
Platform Equinix has more than 2,900 cloud and IT providers and the strategy is to continue feeding this interconnection ecosystem through our infrastructure and to continue offering customized solutions that meet each customer's specific needs.

Edge computing is high on the CIO agenda as it provides an increasing number of digital services in compliance with in-country data regulations. How is Equinix placed to meet this demand in Spain?

At Equinix, we are already operating at the edge as our more than 220 datacenters distributed in more than 63 markets allow that proximity between devices, computing processes, public cloud services, and end users, reaching those minimal latencies that only the largest interconnection platform can offer globally.

In Spain, edge computing is at an early stage, just as we talked about the cloud a decade ago: its evolution will go hand in hand with market needs and demand from specific use cases in which the requirement to process huge volumes of data as close to the users as possible is extended.

At Equinix, as a leader in innovation, we are clear that the time to focus on edge computing is now. Operating in the edge brings a new step when it comes to sending and receiving information from anywhere in the world with minimum latencies. Moreover, if edge computing is combined with the possibility of connecting privately, directly, securely and ultra-fast to the main cloud providers in the market — with services such as Equinix Fabric — companies will get the best of both worlds: maximum proximity, minimum latency, and great flexibility.



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