
Atos
Digital Vision:
Technology with a human touch

Introduction

The Creation of Adam is a 16th-century fresco by Italian artist Michelangelo that forms part of the ceiling of the Sistine Chapel. One of the most recognizable images in history, it symbolizes for many people not only divine creation, but also the pinnacle of human creativity. Today, a different type of creation happens every day, as humans breathe life into new technology that changes how we live, work and interact with each other.

However, this technology cannot exist on its own. It always needs people — technology experts — to imbue their spark into the tools and technology solutions we rely on. Put simply, technology still needs a human touch.

Although we are living through one of the fastest-changing periods in human history, one thing that holds true is that every new innovation is still designed, implemented and maintained by humans. The scrap bin of history is full of examples of technology built for technology's sake, and any individual or enterprise moving forward with an idea that fails to consider the human element is destined for the same fate. On the following pages, we will share views from a variety of experts from Atos Technology Services, a division that provides consulting, on-demand expertise and end-to-end customized services to clients in 24 countries.

These authors work in different technology areas and geographic regions but they have one thing in common: years of experience working collaboratively to design technology solutions built with humans in mind. Every piece of technology — from a stone tool to a steam engine to a self-learning chatbot — was created by people for people.

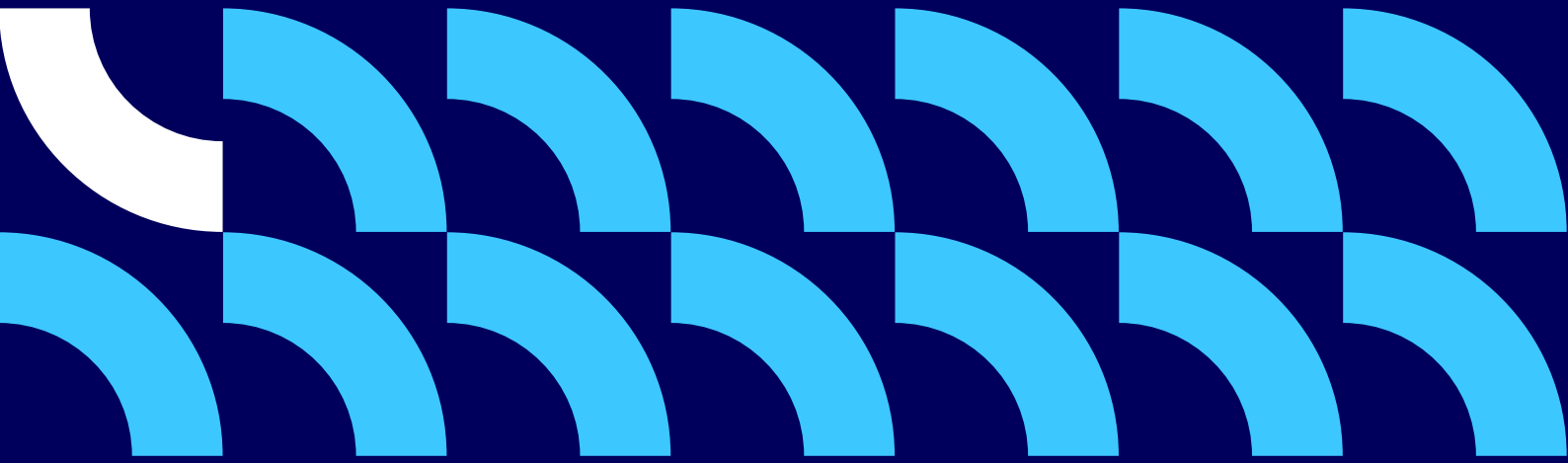
Each has a connection to the person who designed it, built it or used it. Just as art is born when a painter puts paint to canvas (or plaster), the art of technology is born when it is skillfully designed and used. In terms of technical achievement, Michelangelo's fresco is rivaled by very few other human works.

Not only does it depict the act of creation, it is itself a rareified example of what humans can create when they combine the highest levels of technical skill with deep insight. As you make your way through this publication, we hope you will come to understand that in the hands of a skilled individual, technology is not just a tool, but also become a means of expression. Let's celebrate the many ways that technology and artistry cross paths, pushing the boundaries of what is possible and enriching our personal and professional lives.

Thank you for reading.

Content

The human face of technology



Stéphane Richard
Global Head of Technology Services

I'm proud to have led Atos Technology Services since its launch in 2020. Over the course of my 20+ year career at Atos, I have worked in many different roles and capacities, and with a variety of different technologies. I have also seen a dramatic shift in the relationship between humans and technology.

For those of you that are in my generation (I graduated from university in 1995), we tend to view technology as a tool. In other words, we are accustomed to using technology to achieve a specific goal. However, my 10-year-old son and 13-year-old daughter have a completely different relationship with tech. Their generation lives technology. For my kids and others of their generation, technology is more and more becoming a primary need.

They must also navigate a set of challenges that my generation could only imagine when we were their age. What is true? What is false? How do I know I'm communicating with the person I think I am? How can I spot a simulation or deepfake? It used to be much easier to determine which information was correct, because the experts, the news media or the authorities would arrive at a consensus that you could trust. Now, the explosion of new and diverse kinds of data has changed this equation — and it is pushing us to become more intuitive again.

Today's globalized world of 24/7 digital commerce and borderless trade is also having an impact. In this context, it is easy to view everything as a commodity. However, this viewpoint creates the risk of losing our identities, our culture and our individuality — as nations, businesses, or as humans. This richness and diversity are what makes the world a place worth living in.

To combat this homogeneity, we must concentrate on the human value proposition.

The best AI systems are still trained by humans, adding their feeling, spirit and intuition.
In business, this takes the form of a deep local understanding – of the specific needs of an individual market, industry or company. With so many global tech players offering the same set of services, there is no substitute for working locally with a partner you trust.

Trust, alignment and understanding is where tech companies truly add their value. Being able to simultaneously track and synthesize market trends, emerging tech and industry drivers into a coherent strategy is no easy task. Implementing the latest software or hardware without understanding how it will create business success or serve human needs is a recipe for disaster.

The past pitfalls of unsupervised "tech for tech's sake" are well documented. Despite their affinity for memes and YouTube videos, my kids still love Disney's Fantasia — especially the famous Sorcerer's Apprentice scene, wherein Mickey loses control of his automated brigade of cleaning implements and chaos ensues.

Early attempts at fully automated, high-frequency stock trading (HFT) resulted in similar chaos and runaway systems. In that instance, there was a lack of understanding of the important role that humans played, providing an important check on a system that prioritized immediate returns over long-term stability.

In cases like these, humans add guardrails that steer technology systems in a more ethical, equitable direction. Climate change is another challenge that will require technology to overcome, but it must be guided by human insight and intuition.

If every decision is made in isolation, small errors can easily be compounded. Complex processes must necessarily be broken down into a series of steps, but the big picture understanding provided by humans is essential to guiding computer-assisted decision making.

Ultimately, using technology to its fullest is about people doing the right thing, making the right choices, and harnessing the power of technology with a human touch.

I hope you find value in the insights and opinions on the following pages.

“Trust, alignment and understanding is where tech companies truly add their value.

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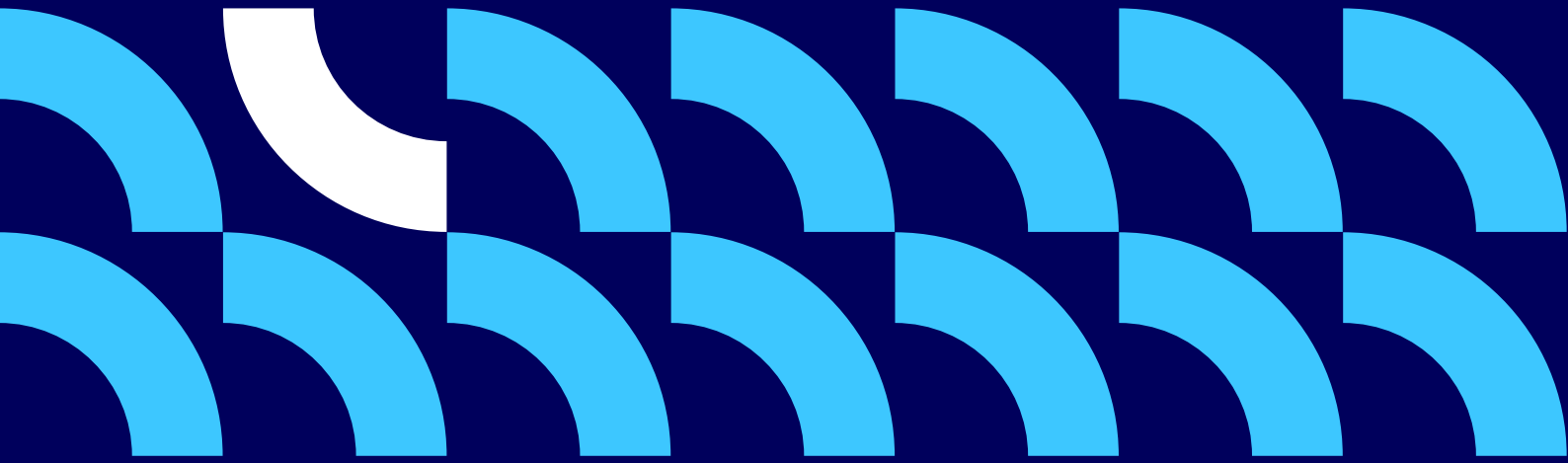
A comprehensive cybersecurity approach:

Advanced technology solutions with a human touch



Ricky El-Qasem
Global CTO of Technology Services

It is no secret that the pandemic triggered a massive increase in digitization. Organizations scrambled quickly to implement remote work and zero-touch customer interactions. No sooner had they adapted to this "new normal," they again had to pivot — galvanizing themselves against future situations where inflexible IT hampered their ability to react quickly to disruptions. Although technology enabled most businesses to survive and prosper in 2022, there are still plenty of IT concerns to be considered as we anticipate a future that promises more technological advancements and challenges.

These concerns include addressing information security, cyberattacks, IT integration into the overall business strategy, a growing skills gap and other issues.

Chief among these, cybersecurity remains a primary concern for public and private sector organizations because it protects computer systems, networks, and digital information from unauthorized access, theft, damage or disruption. Cyberattacks have become more frequent, sophisticated and damaging — and our increased reliance on technology and the Internet for business, government and personal activities has dramatically increased the attack surface for most organizations. Cybercriminals can steal sensitive data like financial information or trade secrets, and use it for illegal purposes, such as identity theft or fraud. They can also cause operational disruptions or shut down critical infrastructure, such as power grids or communication networks, leading to significant economic and social consequences.

Therefore, cybersecurity is crucial for protecting individuals, organizations, and society from the negative impact of cyberthreats. This will only worsen as hackers become more sophisticated.

The future of cybersecurity's will likely involve a continued focus on developing advanced technologies and techniques to detect, prevent and respond to cyber threats. Looking forward, we anticipate that the top five trends shaping the future of cybersecurity will be:

1. **Artificial intelligence and machine learning**: These technologies can help automate threat detection and response, identify patterns and anomalies in network traffic, and improve incident response times.

2. **Cloud security**: With the increasing use of cloud computing, securing cloud environments and data is becoming more important. Future cybersecurity solutions will likely focus on protecting cloud-based assets, ensuring data privacy, and providing secure access to cloud services.

3. **Quantum computing and cryptography**: As quantum computing becomes more powerful and sophisticated, traditional cryptography methods could be rendered obsolete. Future cybersecurity solutions must address this challenge by developing new encryption methods that can withstand quantum computing attacks.

4. **Internet of Things (IoT) security**: With the proliferation of IoT devices, securing these devices and the data they generate will become a critical priority for cybersecurity. Future solutions must address the unique security challenges that IoT devices represent, such as their limited processing power and lack of security features.

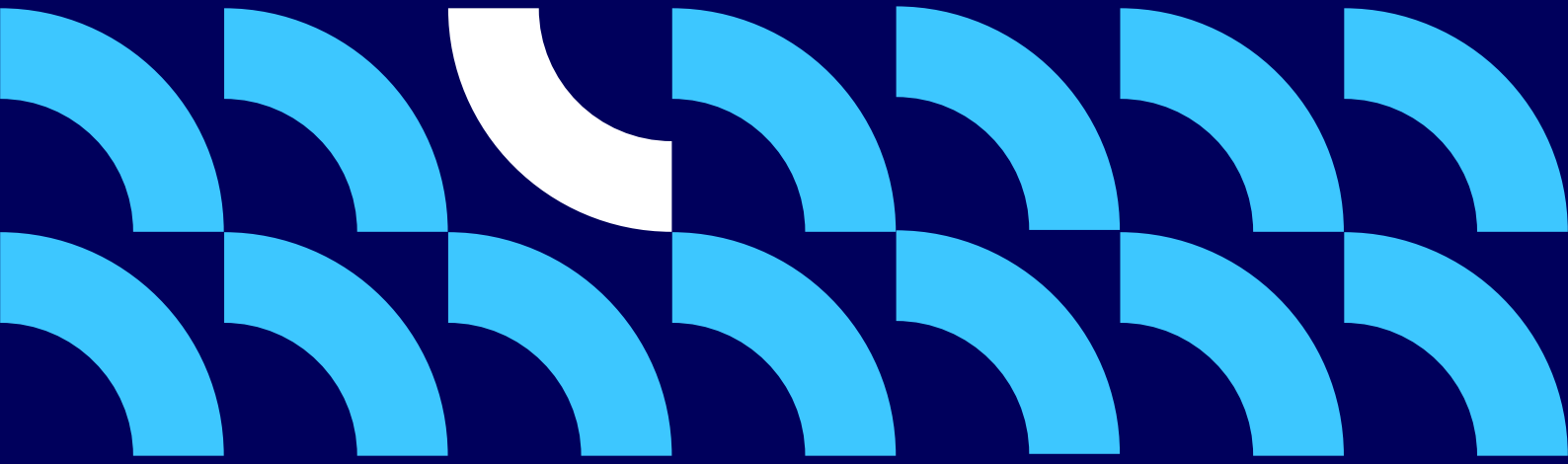
5. **Increased regulation**: As cyber threats continue to increase, governments and regulatory bodies will likely take measures into their own hands, introducing new cybersecurity regulations and standards to help organizations protect themselves and their customers.

Unleashing a bot army works just as well to defend an enterprise as it does to attack one, but bots are of little use if they aren't given good instructions or pointed in the right direction. To date, the most effective AI-driven security solutions all feature a "human in the loop," helping guide the machine learning process. This is where human intuition, knowledge and experience come into play — teaching the robots to discriminate truly malicious actions from harmless anomalies.

As we move forward, the future of cybersecurity will require a comprehensive approach that combines advanced technology solutions, robust policies and procedures, and skilled cybersecurity professionals ready to protect against emerging threats.

> Although many security professionals are quick to look for technology-based answers to these emerging challenges and threats, never discount the power of the human element.
>
> AI, automation and other technologies are great workforce multipliers, but there's no substitute for human intuition.

Why choose technology consulting? How to ensure the success of your digital transformation



Aleksandra Tyszkiewicz
Global Head of Technology Consulting

For any organization, the challenges of digital transformation are significant. To ensure the expected benefits are realized, transformation involves not only selecting and adopting the right technologies, but also reimagining business processes and enabling people to develop new skills and ways of working. Here's where technology consulting can make all the difference. Technology consulting firms employ experts with in-depth knowledge of specific technologies and digital tools, expertise in domains such as strategy, operations and finance, and real-world experience in specific industries and environments. Leveraging the right blend of these specialties will accelerate your transformation and ensure that it delivers the necessary returns on investment for your business.

How and where can technology consulting help?

Research and analysis

Consultants leverage a wealth of knowledge and experience from working with different leaders, companies and industries. They understand best practices and industry trends, providing valuable insights into what works and what does not.

Business evaluation

External consultants can provide an expert assessment of your company's current state and future goals. They will identify areas for improvement and any gaps in processes, and can offer new and innovative ways to achieve your business objectives.

Strategic planning

Consultants can assist in defining your transformation strategy by aligning technology initiatives with your business goals. They can help prioritize projects, establish timelines, and create a roadmap for successful transformation.

Problem solving

Internal issues or siloed thinking can hinder transformation. External consultants bring an outsider's perspective, so they can challenge the status quo and propose solutions you may not have considered yet.

Change management

Implementing transformation involves significant organizational and cultural change to ensure that the promised benefits are sustained. Consultants can guide you through change management processes, including stakeholder engagement, communication plans and training programs to ensure smooth adoption and employee buy-in.

Risk mitigation

All transformations come with inherent risks. Consultants can help identify and mitigate different types of risk, from project management and delivery risks, to information security and regulatory compliance requirements.

What are the benefits of external consulting expertise?

Scalability and flexibility

External consultants can quickly scale their teams up or down based on your project requirements. This will give you access to the right expertise at the right time without incurring long-term costs.

Faster time-to-value

External consultants will bring proven experience, established methodologies and pre-built accelerators to the table, enabling faster implementation and quicker realization of business benefits.

Knowledge transfer

Your internal teams can learn from consultants' expertise, methodologies and best practices, enabling them to continue driving change – even after the consulting engagement ends.

How to approach your digital transformation

Define your vision and strategy

Start by defining your vision for the future state of your organization, and then develop a technology strategy that aligns with that vision.

Assess your current state

Conduct an assessment of your current technology landscape, including existing systems, processes and capabilities.

Identify gaps and opportunities

Pinpoint any gaps and key opportunities in your current state that can be addressed through digital transformation.

Develop a roadmap

Based on the assessment, develop a roadmap for your digital transformation that outlines the steps needed to achieve the vision, including roles, responsibilities and timeframes.

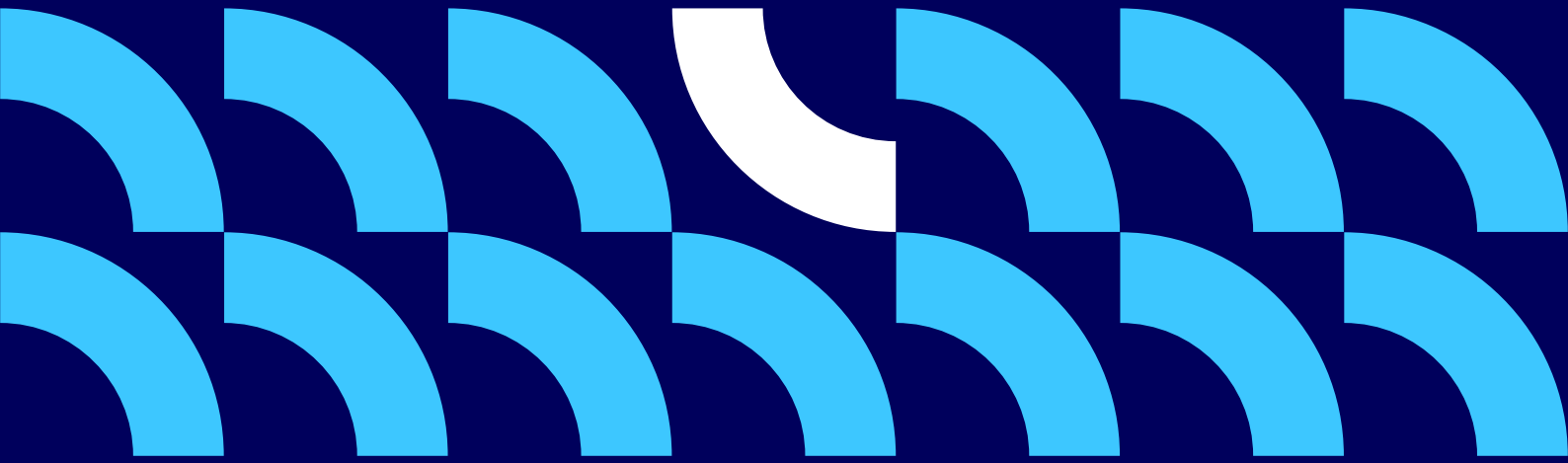
Execute and measure

Implement the roadmap and measure progress against key milestones and objectives using quantitative and qualitative metrics.

Digital transformation is a complex process that requires careful planning, orchestration and measurement. Working with a skilled technology consulting partner will complement your in-house knowledge and expertise to achieve your ambitions and realize your vision of the organization you want to become.

> Transformation involves not only selecting and adopting the right technologies, but also reimagining business processes and enabling people to develop new skills and ways of working.

Integration and VAR services: Three ways to maximize the value of partnership



Hans Liebregts

Global Head of Integration & VAR Services, Technology Services

The IT sector is a rapidly growing industry that relies heavily on collaboration and partnerships to create innovative products and services. Developing strong ecosystems and partnerships play a vital role in the success of the IT sector, as they provide a platform for developers, entrepreneurs and businesses to work together to create solutions that address the needs of the market. However, it has not always been this way.

In the good old days of the 1970s, 1980s and 1990s, the hardware and software that large corporations used were usually monolithic, proprietary systems designed to stand on their own. Back then, you needed to contract a systems integrator (SI) or value-added reseller (VAR) to install and customize your powerful new system to meet your company's needs.

Integrating hardware and software was seen as a good thing, but not always a strict requirement. Each system was designed to serve a single purpose and they were often walled-off from each other for security reasons — or because IT departments operated as separate fiefdoms.

Even if integration was attempted, any older, non-updated products within the ecosystem could cause havoc, so it was often better to let these monoliths run undisturbed and unconnected.

Operating in this manner required a great deal of specialized, niche skills, but in many ways it was a simpler, easier time.

Today, the IT industry is no longer dominated by these standalone solutions. Rather, it is driven by standards and most products are designed to integrate with each other to one extent or another. Enterprises are no longer dependent on large SIs to implement and maintain their major systems. In addition, IT is no longer simply a way to improve processes or save money. Technology is now a source of competitive differentiation.

Systems integrators and VARs must now deliver a higher level of value. Selling hardware and software is a high-volume, low-margin business, so one cannot compete solely on pricing.

Everything must be backed up by a comprehensive suite of services. In this way, enterprises can consolidate both the services they procure and the partners they work with — making it a win-win for both companies.

When it comes time to choose a VAR or SI to work with, there are three important factors to consider:

1. Consider the true nature of the system you need and base your decisions on that

In general, when a technology system is a competitive asset, most companies want to buy or own it – enabling greater control and security of these mission-critical assets. This might translate into bringing on a consultant to advise on the best solution based on your needs and environment. They should objectively evaluate and recommend the best-fit technology solution, which you can then take forward with a hyperscaler, SI or your own IT organization.

In the case of commodity technology, it makes sense to buy it as a service and take advantage of the economies of scale that a hyperscaler or managed data center provider can offer. Whatever choice is right for you, a trusted consultant with experience in your industry can help make these choices and balance risk and flexibility to meet your unique requirements.

2. Think about your bigger goals and do not get locked-in to your own specs

When looking for a partner, many organizations try to specify the requirements and parameters in intricate detail before floating an RFP or tender. This is especially true of governmental organizations. Public tenders are great because they level the playing field for all providers, but being overly specific can leave you with a blind spot.

If you simply go for the lowest price and do not take your partner's integration abilities into account, you may not choose the option with the lowest TCO (total cost of ownership) over the long run. There may be alternate approaches that will serve you better, so think about what you want to achieve and choose partners based on their ability to deliver the outcomes you need.

3. Ask smarter questions, make smarter choices.

When it comes to choosing hardware and software, the more questions you ask and the more inputs you receive, the better. New hardware is designed to last for decades, and large third-party software packages are expensive and designed to keep you coming back for the latest versions.

Once you choose, you are committed to that path for many years, so rely on expert consultants to provide thought leadership based on their experience with infrastructure, networks, software and applications.

The best SIs and VARs can act not just as service providers, but knowledge providers. They have strong ecosystems you can draw on to build an ecosystem of infrastructure products, software and applications that add value to your business.The greatest value is delivered by consultants with the business and technology knowledge to guide you toward the best solution to help your business grow and prosper.

At Atos, we choose the partners we work with in a very similar fashion to the way you might choose the right hardware or software to implement. We always start with an agnostic viewpoint and an open mind, but we also look for partners that have a dominant position and capabilities. By establishing top tier alliances with these providers, we have the ability to take our clients' issues back to the partner and use our influence to initiate joint R&D for new and emerging challenges.

That being said, we also keep our eyes and ears open for emerging point solutions and smaller players that can provide rapid innovation to our clients.

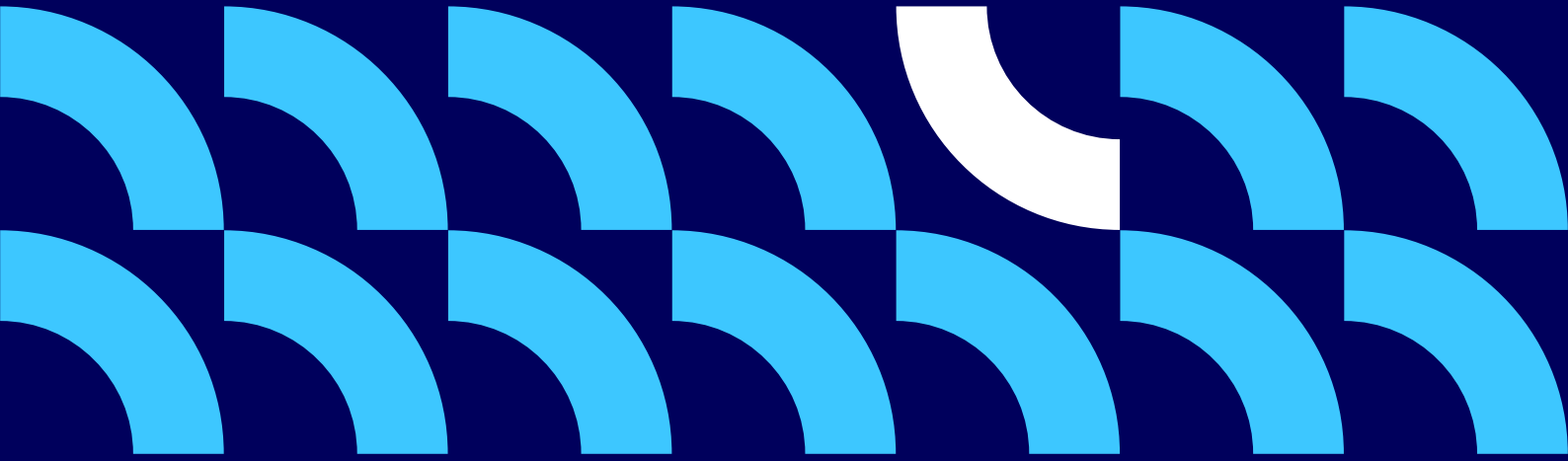
Even though we have a wide range of capabilities when it comes to custom software development, we actively seek out the best solution for our clients, avoiding "not invented here syndrome" — the tendency of some systems integrators to dismiss anything not created in-house.

One final piece of advice: Whatever firm you choose to serve as your SI or VAR partner, make sure they understand your needs and have deep knowledge of your business. The best technology partners combine best-in-class technology with value-added services to build long-term relationships that not only help fulfill your technology needs, but help achieve your business ambitions as well.

“Technology infrastructures and ecosystems are moving toward greater connectivity, automation and intelligence.

As technology continues to evolve, we can expect to see new innovations and disruptions, and major cloud providers like Microsoft and AWS are opening up new ways of doing business.”

The evolving landscape of IT maintenance & support: Trends, challenges and the way forward



Florence Burnoud

Head of Maintenance & Support Services, Technology Services

In today's fast-paced technological landscape, IT maintenance and support has become a cornerstone for businesses striving to remain competitive and ensure the uninterrupted operation of their critical systems. As technology continues to advance, the role of IT maintenance has evolved, adapting to emerging trends, addressing business challenges and evolving toward a future of enhanced efficiency and innovation.

What is changing?

Within the realm of IT maintenance support, staying current with technology advancements is paramount and involves multiple contracts and SLAs to manage. The rapid pace of innovation introduces new complexities to systems, and the hybrid infrastructures supporting today's businesses require support providers to possess a deep well of knowledge. From managed or self-maintained to the latest hybrid cloud and hyperscale environments, the ability to seamlessly integrate these changes while minimizing disruptions is a hallmark of effective support.

Gone are the days of reactive support. The name of the game is now proactive monitoring and problem resolution. With the help of predictive analytics, support teams can identify potential issues before they escalate, ensuring high availability, minimizing downtime and enhancing user satisfaction.

What are the keys to success?

Effective IT maintenance support depends on a comprehensive understanding of a diverse range of different technologies and providers.

As a result, if you are working with a support partner, they must have a broad range of skills and certifications, spanning from hardware troubleshooting, proficiency in network configuration, cybersecurity, cloud technologies, data analytics — not to mention a knack for effective communication to collaborate with diverse teams.

This know-how is a cornerstone of competitiveness, as it empowers support teams to tackle multifaceted challenges with confidence.

Looking ahead, automation and artificial intelligence (AI) are set to change IT maintenance support. However, alongside this transformation, the importance of sustainability is gaining prominence Assets must be kept alive and maintained, even after End-of-Support prolonging the lifespan of products through proper support reduce the environmental impact associated with manufacturing, transporting, and disposing of new equipment.

Routine tasks can be automated, allowing support teams to focus on more complex and value-driven activities, all while considering the environmental impact. A combination of human expertise and technological advancements will pave the way for a more efficient, effective and sustainable support landscape.

Where do we go from here?

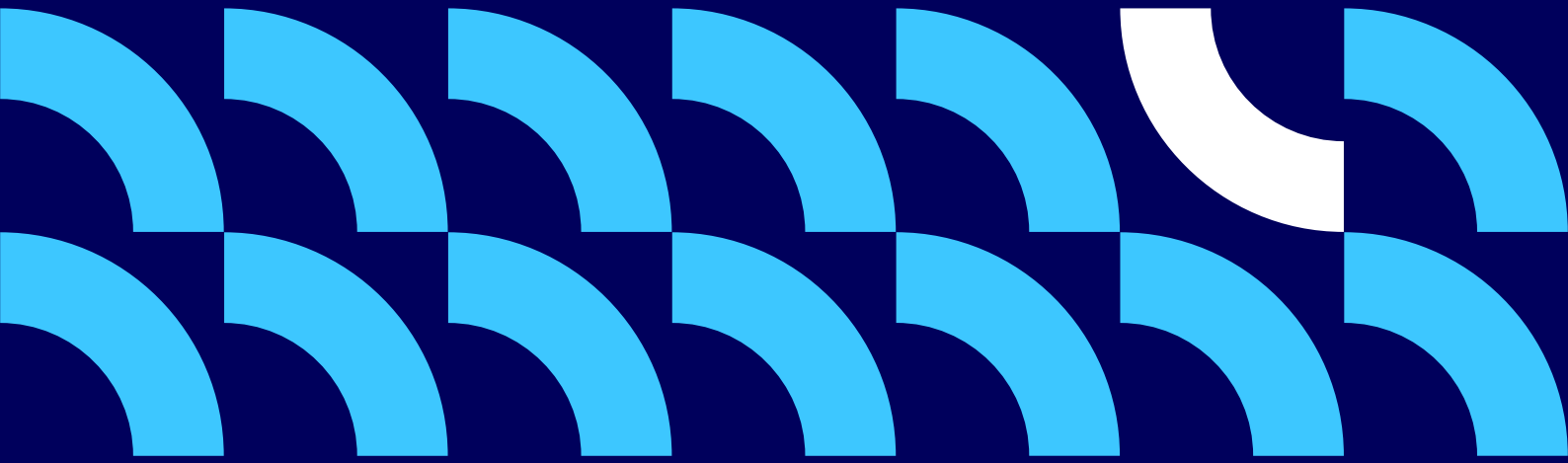
In conclusion, the world of IT maintenance support is undergoing a transformative journey, guided by trends that underscore the importance of proactivity, up-to-date expertise and sustainability. The challenges that today's enterprises face — especially the need for uninterrupted high availability — emphasize the importance of a responsive and capable support partner.

The future of IT maintenance support lies in embracing automation and AI while also placing sustainability at the forefront. This dual focus will redefine the support paradigm and elevate it to new heights of efficiency, innovation and eco-consciousness.

“Downtime can lead to significant financial losses and reputational damage, so IT maintenance support is much more than just fixing issues.

Ensuring that systems are always operational requires a proactive mindset, quick response times and a commitment to reducing disruption.”

The secret to competitiveness: A lab-based approach to harnessing constant innovation



Laurent Clergue

Director of Innovation, Technology Services

Everyone knows that today's businesses face an overwhelming onslaught of technological change, which occurs so rapidly that most enterprises find themselves in reactive mode — behind the curve and racing to keep up.

With new advances in artificial intelligence, cloud, robotics, IoT, analytics and the metaverse, it is hard enough to anticipate the future market needs — much less to align these innovations with your business strategy.

The possibilities are endless, which in this case is actually a hindrance. When technology can take you literally anywhere, how do you choose what direction should to steer your business? Believe it or not, there is a solution to this conundrum. Applied properly, a lab-based approach can deliver the right kind of innovation — the kind that is achievable, outcome-based, and aligned with your business goals and the future direction of your organization. Here are three important factors that can make or break any innovation lab initiative:

1. Be a good listener

Whether you are a technologist, a business user or a service provider, the most important thing you can do is to listen to your counterparts from other departments or functional areas.

There is always a balance to be struck between business needs and technological limitations, and arriving at the optimum contribution of technologies available is often an exercise in compromise.

If there is no "out of the box" solution, co-innovation is required, and the stakes can get even higher. When working with a technology provider (either an internal department or an external firm), good communication is essential. Innovation requires investment, and the financial burden can and will be distributed among the different parties.

It is essential for everyone involved to be up-front, forthright and open to each other's perspective. Everyone at the table must understand and agree on the terms: whether or not the solution is exclusive, whether external funding is provided, how and to whom royalties will be distributed, and any other aspects of the financial and contractual model.

2. Keep users at the heart of innovation

Innovation is useless if your people do not know how to incorporate it into their daily work lives. Poor user adoption is one of the most common reasons why new technologies fail, so employing a user-centric approach during development is critical. End users should be involved from the early stages of a lab-based innovation effort. Moreover, they should be considered equal and active participants in the research — not simply test subjects. Make sure your innovation partner is involving your key resources and putting them in the room with their technology and process experts, as well as other members of the innovation ecosystem (start-ups, academics, consultants, etc.)

Even if your objectives are difficult to specify at the beginning, keeping your business users actively engaged provides important "guard rails" — controlling the risk of failure and helping steer everyone towards an adaptable, usable solution. If your technology partner is not getting your end users involved in the innovation lab process, it is time to look for a new one.

3. Make sure it will scale

Finally, whatever new innovation you and your partners develop, you must be able to get it out of the lab and into the hands of users across the enterprise. History is littered with examples of big ideas that never made it from theory to practice — and when it comes to IT systems, scalability is nearly always the limiting factor. If you are working with an innovation partner, make sure they have the tooling to rapidly create functional proofs of concept designed for operational industrialization.

Our experience has shown that best way to ensure that the ideas co-created in a lab setting are relevant, impactful, and ready to deploy at enterprise scale is to incorporate preventive, curative and evolutionary scalability management. By anticipating future scalability needs and building in expansion strategies from the beginning, you can make sure your technologies always maintain the highest level of performance.

The Atos approach: Inno'Labs

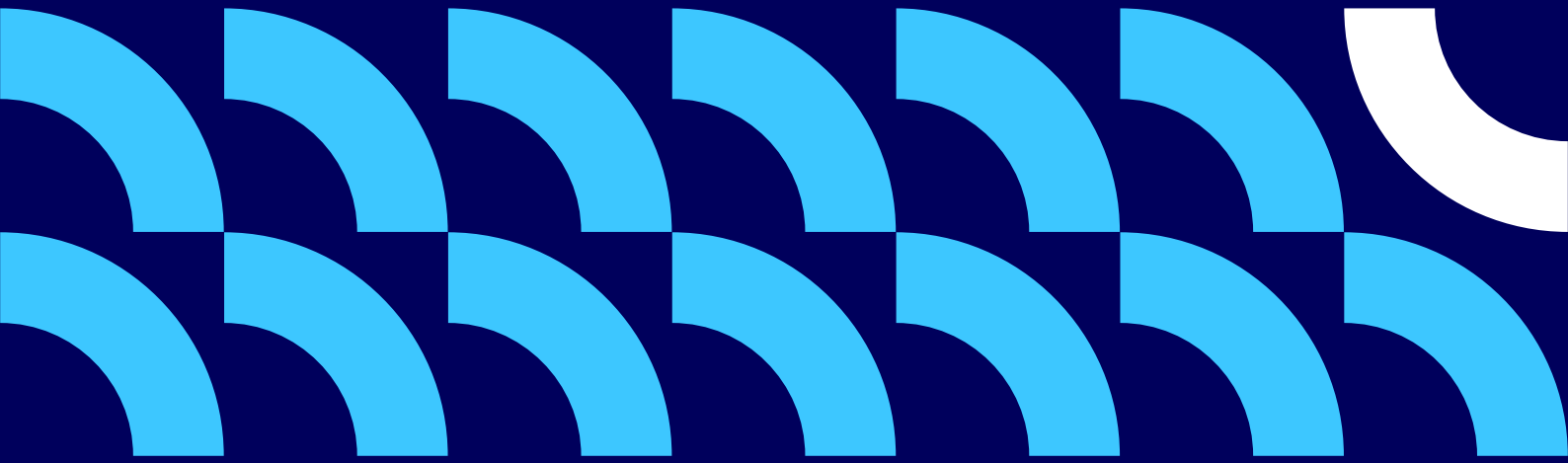
New ideas, concepts and ways of working lead to improved products and solutions, more efficient processes and advanced capabilities. Rapid developments in artificial intelligence and machine learning allow us to envision and realize innovative, high-impact solutions. Evidence shows that structures that foster innovation are more agile and better suited to thrive. Although the future is uncertain, mastering innovation is the key to success — enabling organizations to increase adaptability, improve technical processes, financial results and decision making.

At Atos, we have taken this structured approach to innovation and built it into our Inno'Labs, enabling us to anticipate trends and help guarantee competitiveness for our clients. To make this approach tangible, functional and to account for specific local customer requirements, we have established a network of Inno'Labs in 14 locations across in Europe (as of Q4 2023). They represent a unique, scalable solution that enables us to support the technological trends in the regional markets we serve.

“There is always a balance to be struck between business needs and technological limitations.

Arriving at the optimum combination of technologies is often an exercise in compromise. If there is no «out of the box» solution, the stakes can get even higher.”

Central Europe: Key challenges and opportunities for business leaders and innovators



Martin Depenbrock

Head of Technology Services, Central Europe

Across every industry, the pace of change is only increasing. Reflecting shifts taking place worldwide, this brings challenges and opportunities for Central Europe – a region known for its innovative medium-sized enterprises. Let's look at three global challenges and what they mean for enterprises across the region.

Cybersecurity imperatives

One of the hottest topics is the rise in cybercrime and challenges around cybersecurity. In the past, hackers were often students and a cyberattack may have been a shot in the dark — done for fun or as a learning exercise rather than purely for financial gain. Nowadays, however, bad actors are highly sophisticated and well equipped. For any enterprise, the potential for financial and reputational damage from a cybersecurity incident has dramatically increased.

An attack may be an attempt to steal personal data or to blackmail a company using ransomware technologies and threats. One particular risk for innovative companies in Central Europe is the loss of intellectual property (like patents and trade secrets) and the resulting erosion of competitive advantage. In response, it is essential for every enterprise — from global organizations based in Central Europe to small and medium businesses (Mittelstand) — to implement end-to-end cybersecurity technologies and processes based on an assessment of risk.

These will minimize the impact on a company's operations, or its positioning in the market, that would result from an attack.

Sustainability and the fight against climate change

We are all seeing the effects of climate change in our daily lives, underscoring the urgent need to take action by changing our priorities and behaviors. A focus on sustainability is increasingly important for citizens and consumers in Central Europe, who look to governments and major industry players to take action.

Enterprises must make real and significant improvements to sustainability not just within their own operations, but also along their supply chains, from production through to distribution.

Regulatory and governance frameworks are evolving accordingly. The Corporate Sustainability Reporting Directive sets out new requirements for due diligence and environmental, social and governance (ESG) reporting. Every organization is dependent, to some degree, on the sustainability performance of their partners.

This encompasses their values and how they meet their corporate social responsibilities in relation to the environment, their employees and the communities in which they operate.

A fast-changing workplace

Against the backdrop of a changing (and aging) workforce, the long-predicted skill shortage in Central Europe has become a reality that must be addressed. As younger demographics enter the workforce, this is not a question of overcoming differences in mindset between Baby Boomers and Generation Y or Z. Instead, it requires a focus on who is best placed to perform a role. In this context, the contribution of AI is critical.

Innovative enterprises are already employing intelligent automation to perform repetitive or low-value work. Now, generative AI is changing the world of work, as well as people's private lives.

With these advances come new challenges and risks that must be carefully managed, particularly around data.

Towards a safer future

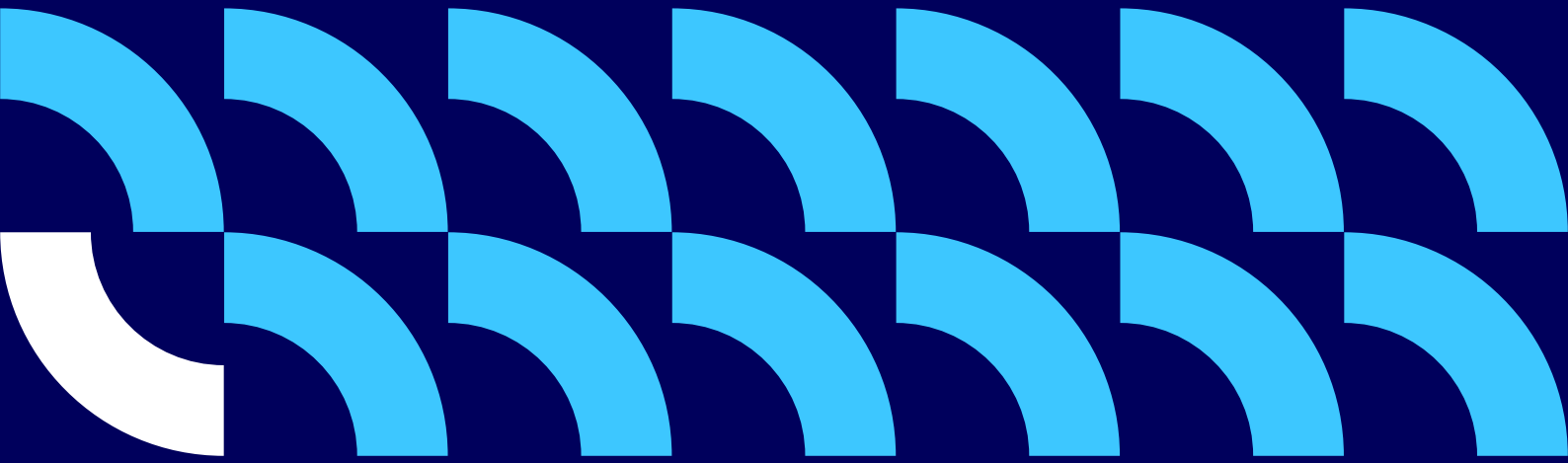
Here, we have looked at just some of the reasons why the future of our society is heavily dependent on a fast-changing IT infrastructure, with digital technologies and data as core components. Just imagine what is possible in any sector when vast computing power is moved from the data center, out to the cloud, and then right to the edge – and then combined with AI and analytics. In healthcare for example, this creates the ability to more efficiently diagnose disease for faster, better treatment. This will help address the shortage of clinicians we face in Central Europe, particularly in rural areas.

Quite simply, the possibilities created by technologies are endless. Leaders, innovators and their partners in Central Europe can envision and collaborate on game-changers that will help address society's urgent challenges and build a safer, better future for all of us.

“It is essential to set clear boundariesand establish robust governance of how data is collected, stored, processed and used — especially in the EU.

European data protection laws must be applied as organizations, their partners and customers embrace the exciting opportunities to apply AI to their vast, untapped stores of data.”

Overcoming future market obstacles for IT Technology Services in Benelux and the Nordics



Adam Lewis

Head of Technology Services, Benelux and the Nordics

In a swiftly changing technological environment, organizations face unprecedented challenges in their efforts to evolve how they will consume, deliver and manage IT services in the future. To confidently navigate the future IT landscape, it is more important than ever for every organization to comprehend the market challenges and investigate viable options to overcome them.

In Benelux (Belgium, Netherlands and Luxembourg) and the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden), we believe that there are five key challenges that enterprises and organizations in the public and private sectors must overcome in order to ensure success.

1. Navigate a changing technological environment

The rapid rate of technological development represents a challenge for businesses seeking to maintain their competitive edge.

To overcome this difficulty, organizations should prioritize their efforts to keep abreast of emerging technologies such as artificial intelligence (AI), blockchain, the Internet of Things (IoT), and quantum computing. Businesses must leverage these technologies to promote innovation and establish a competitive edge by continuously evaluating their potential impact and exploring their applications.

2. Adopt a stronger cybersecurity posture

As technology evolves, cyber threats become increasingly sophisticated. Organizations in Benelux and the Nordics must proactively bolster their cybersecurity measures to protect sensitive data and preserve customer confidence. This core element of their strategy should be realized by (among other things) implementing robust security protocols, undertaking regular vulnerability assessments and penetration testing, and providing employees with comprehensive cybersecurity training.

In addition, organizations must keep abreast of evolving cybersecurity trends and best practices to remain ahead of potential threats.

3. Address data privacy regulations

With the introduction of stringent data privacy regulations such as the European Union's General Data Protection Regulation (GDPR), businesses looking to compete in the EU must prioritize compliance.

To address this challenge, organizations should implement robust data governance frameworks, secure data handling procedures and transparent consent management processes to ensure GDPR compliance. Investing in privacy impact assessments and making data protection officers key leadership positions can also support effective compliance strategies.

4. Win the battle for talent

In the hot job market of the Benelux and Nordic countries, demand for qualified technology professionals continues to outpace supply, making talent acquisition and retention a formidable challenge.

Organizations should adopt a multifaceted strategy to overcome this challenge, including establishing a strong employer brand to attract top talent, implementing comprehensive recruitment strategies, fostering partnerships with educational institutions, and investing in employee training and development programs to upskill existing employees.

Furthermore, the ability to rely on a select group of trusted technology partners is essential to meet the dynamic skill and talent demands of technology transformation and innovation initiatives.

5. Embrace ethical and sustainable practices

In a socially conscious market, businesses must adopt ethical and sustainable technology practices. To overcome the significant environmental, social and governance (ESG) challenges of our time, companies must prioritize transparency, fairness and the responsible application of emerging technologies.

When implementing new projects or programs, organizations must incorporate ethical considerations into AI algorithms while ensuring data privacy and security. In addition, these emerging technologies may require enterprises to institute new IT governance, policies, processes, controls and metrics — but it is time well spent.

By taking the time to comprehend and align with societal ESG expectations and environmental responsibilities, organizations can establish trust, improve their reputation and differentiate themselves in the marketplace.

In summary, for businesses to be successful in the future, they must address the problems (and opportunities) generated by rapid technological advancements, cybersecurity threats, data privacy laws, talent shortages and ethical sustainability concerns.

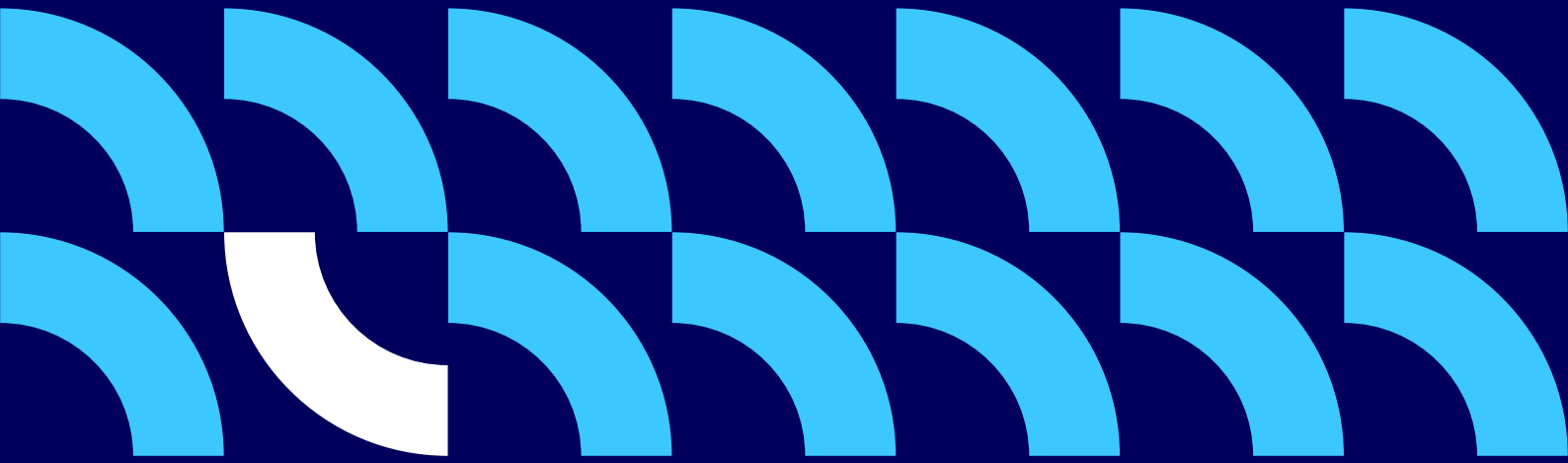
By remaining informed, implementing robust cybersecurity measures, ensuring compliance with data privacy regulations, adopting talent acquisition and retention strategies, and embracing ethical and sustainable practices, organizations can successfully overcome these challenges and position themselves for long-term success in the constantly evolving market in Benelux and the Nordics.

Each of these five areas requires a comprehensive understanding of the relevant technologies (software, hardware and services), their market maturity, and how organizations can maximize value and achieve outcomes that are aligned with their technology strategy.

This is one of our core focus areas at Atos, and we are ready to help our clients build the foundations for a thriving tomorrow.

> To confidently navigate the future IT landscape, it is more important than ever for every organization to comprehend the market challenges and investigate viable options to overcome them.

The technology market in the UK and Ireland: Evolving to meet new marketplace demands



Mark Bentley

Head of Technology Services, UK and Ireland

The technology market in the UK and Ireland (UKI) has a storied past of innovation and technological advancements.

In the past, the UKI region played a pivotal role in shaping the global technology landscape. It was home to computing pioneers like Alan Turing, who laid the foundations for modern computer science. The UKI was also instrumental in the development of the Internet and today's modern telecommunications infrastructure.

The technology market in the UKI continues to thrive and evolve. Some key aspects of the present technology landscape include:

1. Digital transformation

Businesses across various industries are actively undergoing digital transformation to streamline operations, enhance customer experiences, and adapt to changing market dynamics. Cloud computing, big data and automation are central to this transformation.

2. Startups and innovation

The UK and Ireland are home to a vibrant startup ecosystem, particularly in cities like London and Dublin. These startups span various sectors, including fintech, health tech, AI and more, providing the region with a great way to attract top talent and a culture of innovation.

3. Fintech leadership

London stands out as a global fintech hub, with numerous financial technology startups and established players offering innovative solutions in payments, lending and blockchain.

4. Artificial intelligence

AI and machine learning are driving innovations across industries, from healthcare and finance to manufacturing and retail. Research institutions and companies are working on AI advancements and applications.

5. Cybersecurity focus

With the increasing frequency and sophistication of cyberattacks, cybersecurity has become a critical concern for businesses and organizations. The UKI region has been actively investing in cybersecurity research, solutions and talent.

6. Remote work and collaboration tools

The COVID-19 pandemic accelerated the adoption of remote work and virtual collaboration tools, and the demand for technologies that enable efficient remote work experiences remains high.

In the present day, clients in the UKI technology market have specific needs that reflect the current business landscape and trends:

Cybersecurity solutions

As cyber threats continue to evolve, businesses need robust cybersecurity solutions to protect their data, systems and customer information.

Cloud services

The shift to cloud computing is ongoing, and clients require reliable and scalable cloud services to host their applications, data and infrastructure.

Digital customer experience

With the rise of online shopping and digital interactions, businesses are focused on providing seamless and personalized digital experiences for their customers.

Data analytics and AI

Clients are seeking ways to harness the power of data for informed decision-making. They need advanced analytics and AI solutions to extract insights and drive innovation.

E-commerce platforms

The e-commerce sector is expanding rapidly, and businesses need user-friendly e-commerce platforms to sell their products and services online.

Remote work solutions

Remote and hybrid work arrangements are here to stay. Clients need tools that enable effective communication, collaboration and project management for distributed teams.

Looking ahead, the technology market in the UKI is likely to continue evolving in response to various factors:

1. Regulatory changes

Post-Brexit regulations will shape how the UKI engages with international markets and data sharing, influencing the tech sector's growth and operations.

2. 5G and IoT

The rollout of 5G networks will open doors to new opportunities, such as enhanced IoT applications and connected devices. Strong cyber defenses will become more important than ever, helping protect this enlarged attack surface against cybercriminals and hacktivists.

3. Sustainable tech

The emphasis on sustainability will lead to increased demand for green technologies, including renewable energy solutions and eco-friendly computing. However, this is a niche set of skills that will require most organizations to look outside for help and guidance.

4. Health tech innovation

The COVID-19 pandemic has highlighted the importance of health tech solutions. The UKI region should anticipate growth in telemedicine, remote patient monitoring and health data analytics, and will require the technology infrastructure to support it.v

5. AI ethics and regulation

As AI becomes more prevalent, discussions around ethics, bias and responsible AI use will intensify, leading to potential regulations that enterprises both public and private will need expert guidance to adapt to.

6. Upskilling and workforce development

As experienced workers retire and technologies continue to evolve, many organizations will struggle to keep up with the pace of change. Addressing the skills gap through education and upskilling programs will be crucial to meeting the demand for tech talent.

7. International collaboration

Collaboration with global tech hubs will continue to foster innovation and knowledge exchange, but it will be essential to enable the free flow of ideas across borders without sacrificing technology sovereignty or putting key IP assets at risk.

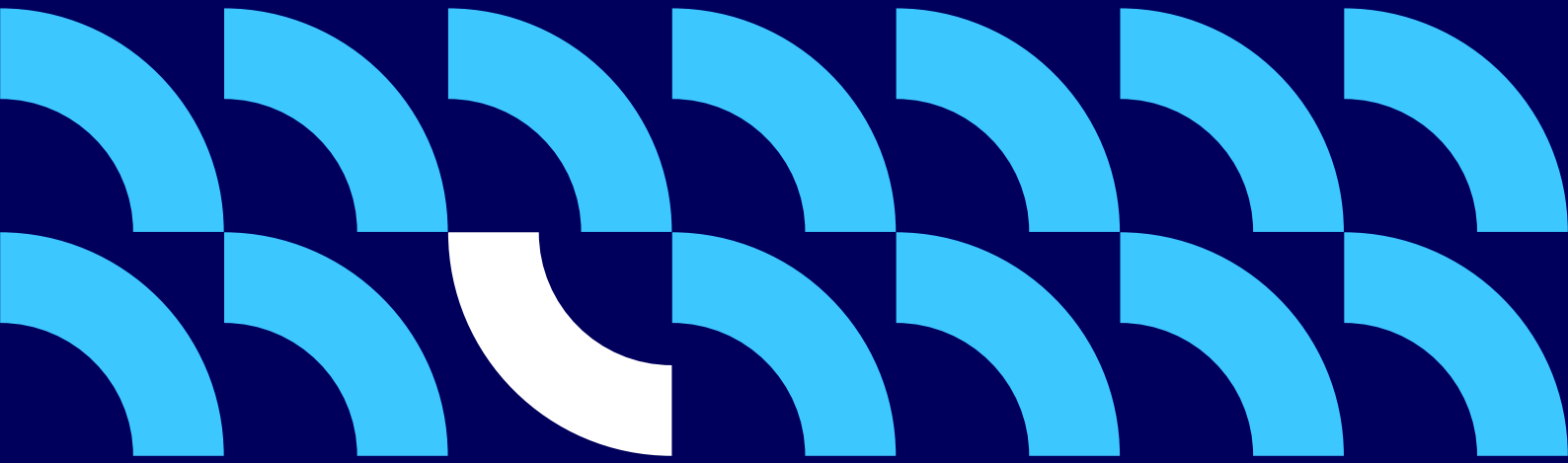
The technology market in the UK and Ireland has a history of innovation and remains a major player in the global tech ecosystem. From its contributions to computing to its vibrant startup scene and focus on digital transformation, the region continues to evolve.

Staying informed about these trends and anticipating their impact will be crucial for businesses, policymakers and stakeholders to navigate the rapidly changing landscape and harness the full potential of technology.

“In the future, factors like post-Brexit dynamics, emerging technologies, sustainability and ethical considerations will shape the direction of the technology market in the UKI.

Staying informed about these trends and anticipating their impact will be crucial for businesses, policymakers and stakeholders.”

The technology market in Africa: Positioning for growth in a vibrant and growing region



Ahmed Benhayoune

Head of Technology Services, Growing Markets Africa

Africa has vast potential for economic and social development through digital transformation. Although the continent has historically faced challenges around technology infrastructureand access, there has been significant progress in recent years. Investment in telecommunications and e-commerce has grown. Many countries have leapfrogged traditional technology infrastructure and moved straight to mobile. As a result, a thriving marketplace has sprung up, offering enterprises new channels, new revenue streams, and new opportunities to engage consumers and build relationships.

What is more, during the pandemic, more people than ever before started using technology to work and collaborate remotely. However, there are still challenges that are slowing down technology adoption and limiting Africa's potential.

Barriers to address

In many regions, inadequate infrastructure remains an issue. Problems include unreliable power supplies and limited network coverage, particularly in rural areas. This makes it difficult for enterprises to use technology to interact with customers or to run their operations. Exacerbated by low rates of digital literacy in some areas, the affordability of technology also represents a significant barrier to entry. Unfamiliarity with technology among some segments of the workforce hinders the adoption of digital tools and the benefits that they can bring. Similarly, a lack of skilled tech workers makes it difficult for enterprises to source the talent they need to develop, implement and maintain new technology solutions.

A long-term approach

Despite these headwinds, things are changing in the African technology market. International companies are expanding their presence in the region. More and more local technology startups are emerging to drive digital innovation. So how can innovative enterprises respond? And what is the role of technology providers in enabling companies and communities to benefit from digital transformation?

Opening up access

Given that the market for African companies is characterized by a wide digital divide, businesses must prioritize providing affordable, accessible and user-friendly products and services that cater to varying levels of technology literacy.

They should also recognize the diverse technology needs of Africa's countries, industries and communities. That means not only developing innovative solutions, but also ensuring that productsand services are designed with consideration for local languages, cultural nuances and market-specific requirements.

In terms of any infrastructure and connectivity barriers, enterprises must invest in innovative solutions that can function efficiently even in low-resource settings. Examples include leveraging solar power for energy needs, utilizing mesh networks for improved connectivity, and developing offline capabilities to increase the resilience of mobile applications.

Digital enablers for enterprises

In terms of digital transformation, enterprises across Africa are looking for secure and reliable communication and collaboration tools to enable remote working and improve productivity and employee experience. Many also require specialized software and technology solutions capable of supporting their specific workflows and business processes.

At the same time, as use of technology continues to grow in Africa, the risk of cyberattacks and data loss increases. Enterprises may lack the resources to fully secure their systems and data, which can lead to significant potential for financial and reputational damage as a result of a breach.

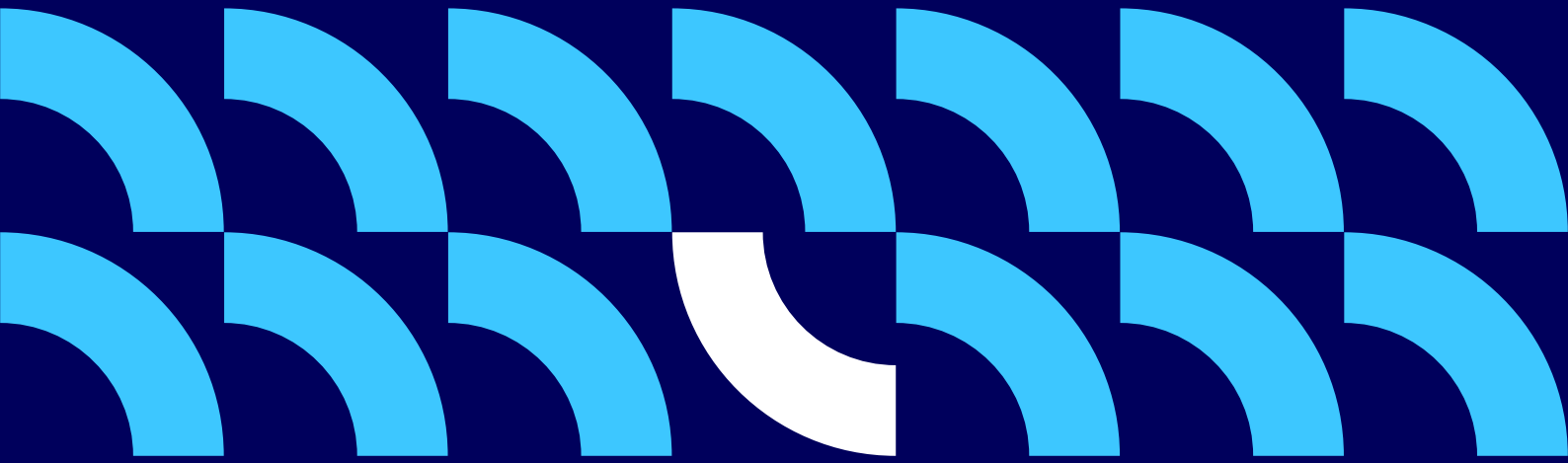
Here's where technology partners can help, drawing on global experience and working closely with enterprises to assess their specific cyber risks, then develop end-to-end cybersecurity strategies and controls. These should include monitoring, detection and response capabilities to minimize impacts in the event of an attack.

Collaborating to win

There are now important opportunities to develop innovative digital solutions to address Africa's pressing social issues, such as healthcare, education and financial inclusion. By focusing on creating a positive social impact, enterprises can build long-term relationships with local stakeholders and contribute to sustainable development in the region. Africa is not just a strong emerging marketplace, it is also a vibrant source of talent. Companies should actively engage with local startups, educational institutions and government bodies to drive innovation and foster an ecosystem of technological advancement. In this way, enterprises, partners and public sector organizations can create a win-win-win as Africa continues to develop and compete on the global stage.

> Forward-looking technology partners should take a responsible long-term approach that includes fielding the resources and expertise needed to increase access to technology and overcome infrastructure challenges.
>
> They should also look to nurture and develop local talent to fill the skills gaps that exist.

South America: Balancing growth with responsibility on an evolving continent



Cristian Almeida

Technology Services Head, South America

South America is a vibrant and evolving IT market with a landscape that has transformed dramatically in recent years. Overcoming initial challenges such as limited IT infrastructure, skill gaps and security concerns, South America has emerged as a hub of opportunity for enterprises looking to implement cutting-edge digital solutions to bolster their competitive advantage.

Gone are the days of unreliable internet connectivity and outdated hardware that hindered South American businesses from reaching their full potential.

South America has made tremendous strides in upgrading its IT infrastructure. With increased internet penetration, the expansion of broadband networks and improved connectivity across the region, businesses can now operate more efficiently and seamlessly than ever before.

South America has witnessed a remarkable surge in the number of skilled IT professionals. However, the demand for talent continues to outpace supply.

Digitalization has taken South America by storm, reshaping the business landscape and creating unprecedented opportunities. As clients embrace digital transformation, the demand for cutting-edge IT services and solutions has skyrocketed.

Technologies such as cloud computing, big data analytics, artificial intelligence and the Internet of Things (IoT) are increasingly playing a critical role in driving business success.

However, the path to technological innovation in South America is not always completely smooth. There are structural challenges to overcome, not the least of which are cultural mismatches that can impact digital transformation projects.

Many large enterprises in South America have foreign roots or may even be subsidiaries of overseas companies. There can be a struggle to source local workers that have both the technical skills and the linguistic abilities to effectively communicate with executives from a foreign parent company — often in Germany, France or the US — on the execution of a strategic IT project in South America.

Moreover, when the strategic direction is coming from abroad, there may be misalignment on priorities between foreign parents and local subsidiaries. This can not only derail a project due to miscommunication, but can also cause problems with the perceived value of an initiative. The answer is improved soft skills development (primarily linguistic and collaboration skills) on the part of South American providers and IT workers.

Overcoming this challenge will also require a change in mindset among the IT leadership at large enterprises. Rather than taking a purely cost-driven approach and looking for the lowest cost in the short run, you can achieve more long-term value by taking a holistic view.

Body shopping is a great way to onboard the skills needed for an initiative, but once those services are established, start tracking metrics, KPIs and service levels as you work towards a managed services model. As this maturation process takes place over time, world-class providers can start applying automation and other optimization techniques to drive efficiency and long-term value.

Just like it is across the globe, cybersecurity is also a top challenge for South American market.
In an era of heightened cyber threats, securing digital assets is non-negotiable. As South America's economies grow, the region becomes a more attractive target for international cybercrime gangs, as evidenced by ransomware attacks against a major energy producer in Colombia, Brazil's Ministry of Health and even the Chilean Army. Lower profile attacks may employ social engineering techniques to scam manufacturers with fake purchase orders or deliveries to bogus addresses that result in stolen or hijacked goods.

As the region becomes more connected and experiences significant growth in digital infrastructure and e-commerce, it becomes more susceptible to cyber threats.

Cyberattacks can disrupt critical services, damage reputations, and lead to substantial financial losses. Implementing robust security measures is vital to safeguard South America's economic stability and reputation in the global marketplace.

Additionally, cybersecurity is instrumental in preserving consumer trust and confidence.
By protecting personal data from breaches and theft, businesses can demonstrate their commitment to data privacy and regulatory compliance. This, in turn, fosters strong customer relationships, driving sustained growth and competitiveness for South American enterprises.

Finally, cybersecurity plays a crucial role in protecting government institutions and critical infrastructure from potential attacks. As cyberthreats become more sophisticated and pervasive, collaboration between private and public sectors is vital to defend against cyber threats that may target national security and societal stability.

To address these challenges, South American governments and businesses must invest in state-of-the-art cybersecurity technologies and expertise. Proactive threat detection systems, encryption protocols, and robust incident response strategies should be put in place to stay ahead of cyber adversaries.

Prioritizing cybersecurity in South America is imperative for preserving business continuity, safeguarding sensitive information and fostering regional growth. By embracing comprehensive security measures, the region can build a resilient digital ecosystem that instills trust, attracts investments and secures its place in the global digital economy.

Looking to the future, South America's IT market is poised for continued growth and innovation. As advanced technologies like 5G, edge computing, blockchain and quantum computing gain prominence, we look for a decisive edge to drive transformative change within the industry.

In addition, as global data protection regulations become increasingly stringent, safeguarding digital assets is of paramount importance. The main challenge in this regard is keeping South American businesses compliant while delivering robust data privacy solutions, preventing data breaches and mitigating cyber threats.

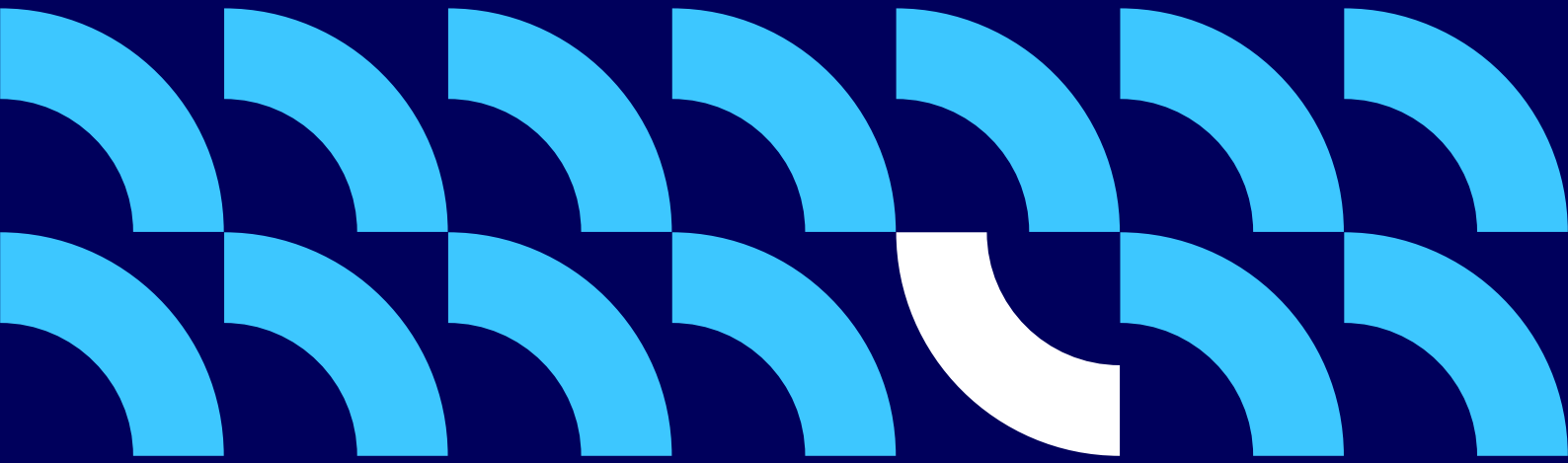
On a global scale, the IT industry is evolving towards sustainability and South American businesses are at the forefront of this movement. Solutions that reduce environmental impact and promote eco-friendly practices not only minimize energy consumption and reduce carbon footprints, but increase overall business efficiency.

Investing in robust ESG (environmental, social and governance) practices will ensure that as the region and its businesses grow, they do it in a responsible fashion that benefits all citizens and contributes to creating a better future for every individual in South America.

“South America is a vibrant and evolving IT market with a landscape that has transformed dramatically in recent years.

Overcoming challenges such as limited IT infrastructure, skill gaps and security concerns, South America has emerged as a hub of opportunity for enterprises looking to implement cutting-edge digital solutions to bolster their competitive advantage.”

The technology market in Spain: Skilling up to meet emerging challenges



Fernando Fernández Fernández

Head of Technology Services, Spain

In the past, the largest IT challenges facing spanish market were working to improve access to connectivity, modernizing infrastructure and applications, and increasing the number of qualified, capable IT professionals. Businesses in Spain needed IT solutions that could help modernize their systems, improve efficiency, and streamline processes for better service at lower cost. The demand for basic IT services such as hardware maintenance, software installation, and network setup were high.

Now, we find ourselves in a different situation altogether. Today, the IT market in Spain has evolved significantly. Enterprises now have more advanced needs and face different challenges. The focus has shifted towards digital transformation, cloud computing, cybersecurity, big data, and increasingly, artificial intelligence.

Enterprises in Spain need IT solutions that can help them adapt to the new digital era and improve their operations — reducing costs while at the same time becoming more competitive through personalization and accelerated time to market. The demand for advanced IT services like cloud migration, data management, cybersecurity solutions, and AI-driven applications is increasing in a scenario where valuable, secure data is critical.

Challenges undoubtedly include ensuring data privacy and compliance — and the need to keep up with technological advancements and stay ahead of the competition. In addition, all this must be managed in a market context of where there is increasing competition to onboard the most skilled experts.

In this context, it is increasingly crucial for IT service companies to retain top talent, which means that enterprises must work with a strong ecosystem of partners. These ecosystems becomes are absolutely imperative in today's market, because companies must work with technology providers (not against them) to procure the talent required to roll-out the value innovative, value-added solutions that today's consumers expect.

Looking into the future, we expect the IT market in Spain to witness further advancements and challenges, driven by emerging technologies like the Internet of Things (IoT), blockchain, edge computing, and 5G networks. Enterprises will turn toward IT solutions that enable them to harness the potential of these technologies, enhance automation, improve customer experience, and drive innovation.

The upcoming challenges for Spanish organizations will revolve around managing vast amounts of data generated by IoT devices, ensuring the security and privacy of interconnected systems, and dealing with the complexity of integrating different technologies.

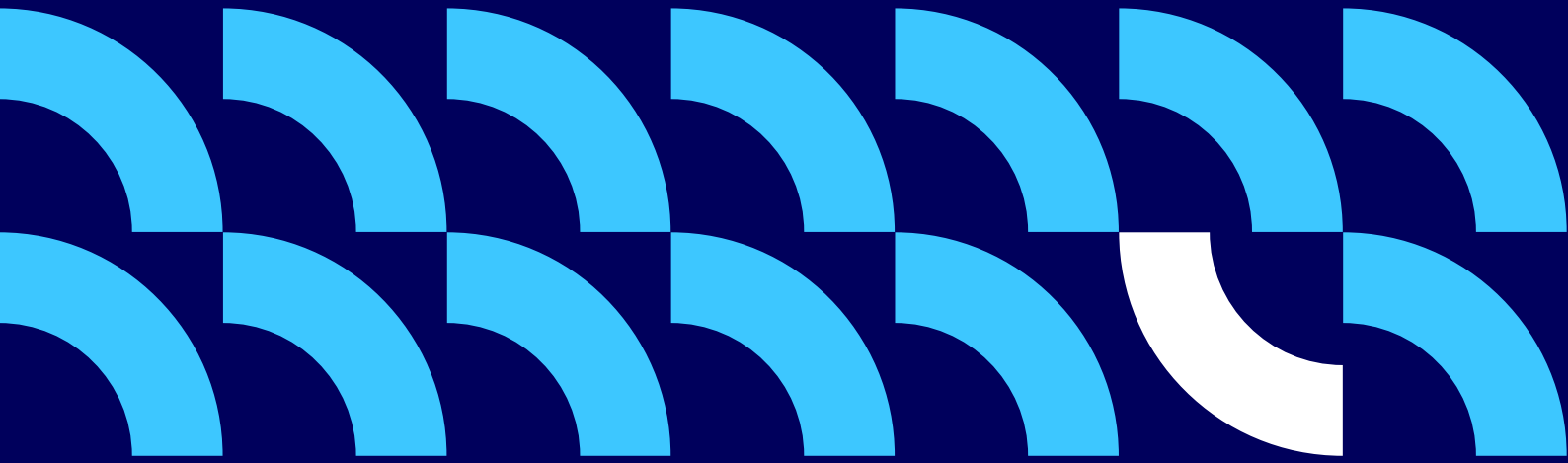
In addition, employee skills adaptation may also become an issue to solve, as new technologies become prevalent in a context of fast changes. It will require a workforce proficient in areas such as data science, machine learning, and cybersecurity and tomorrow's IT professionals in Spain will surely have to renew their skills even faster than today.

Overall, as the needs and IT challenges of Spanish enterprises will continue to evolve, IT leaders need to focus on digital transformation, advanced technologies, data management, and cybersecurity, — with an emphasis on staying agile, secure, and competitive in the fast-paced digital landscape.

“We expect the IT market in Spain to witness further advancements and challenges, driven by emerging technologies like IoT, blockchain, edge computing and 5G networks.

Enterprises will turn toward IT solutions that harness the potential of these technologies, enhance automation, improve customer experience and drive innovation.”

Creating the foundation for organizational success in an evolving workplace



Tar Tumber

Global HR Business Partner, Technology Services

Our ways of working have evolved constantly over the past few years, shaped in equal parts by the extraordinary times we have experienced and by changes in technology. The restrictions resulting from the COVID-19 pandemic had a significant impact not only on how we lived and interacted socially at the time, but also how we have worked since then.

From the rapid rise in remote working to the emergence of big data, increased digitization and the growing use of automation and AI technology has changed the way organizations operate and deliver value. Employers are investing in new technologies with the primary aim of increasing business performance through improved quality and cost savings. However, the impact of workplace technologies on people must be considered, because this relationship will only continue to grow in the future.

So, what are the top three tech trends impacting how we operate in the workplace, and the skills and competencies that tomorrow's workers will require?

1. Remote working

One of the biggest changes is the increase in remote working, which was only accelerated further by COVID-19, forcing many organizations to rapidly develop solutions to help maintain both productivity and employee wellbeing for an entirely remote workforce. However, working remotely was already gaining popularity before the pandemic, and advances in technology have enabled people to work not only from their homes, but often from anywhere in the world.

Both employers and employees enjoy the benefits of remote working – from less commuting and better work-life balance to enhanced cost savings through reduced office space. However, this is not without its drawbacks, with employees lacking social interaction with their peers, and not being able to "switch off" from work at home. Hence, post pandemic, many organizations have opted for hybrid working arrangements – mixing onsite and off-site working, where roles allow.

2. Flexible working

Technology has allowed us not only to flex our working locations, but also our working hours. The 9-to-5 workday is no longer the only option – tech innovations allow employees to collaborate and connect with colleagues at any time with the click of a mouse. While this can facilitate a desirable work-life balance, it can also be eroded when the lines between our work-life and home-life become too blurred. As with any other challenge of this nature, the art lies in finding the right balance between competing factors. Consulting a digital workplace partner can help define the specific priorities of your business and your workforce, then craft a plan that provides the flexibility and efficiency to benefit all stakeholders.

3. Advanced automation and AI

AI tools have a great deal of potential when it comes to the human side of the business. They can help select candidates, with the ability to sift through cover letters and CVs, conduct personality tests, or even hold virtual interviews. While they are not perfect, such tools can significantly reduce the efforts of recruiters and accelerate the onboarding process.

It is clear that organizations can become more efficient and productive through automation and AI. Some jobs may be lost as machines are increasingly integrated into the workplace to perform routine tasks quicker and more accurately than humans, but other opportunities will be created. It is also likely that employees will need to develop new skills to remain relevant in the workplace – therefore reskilling and upskilling should be a focal point for organizations going forward.

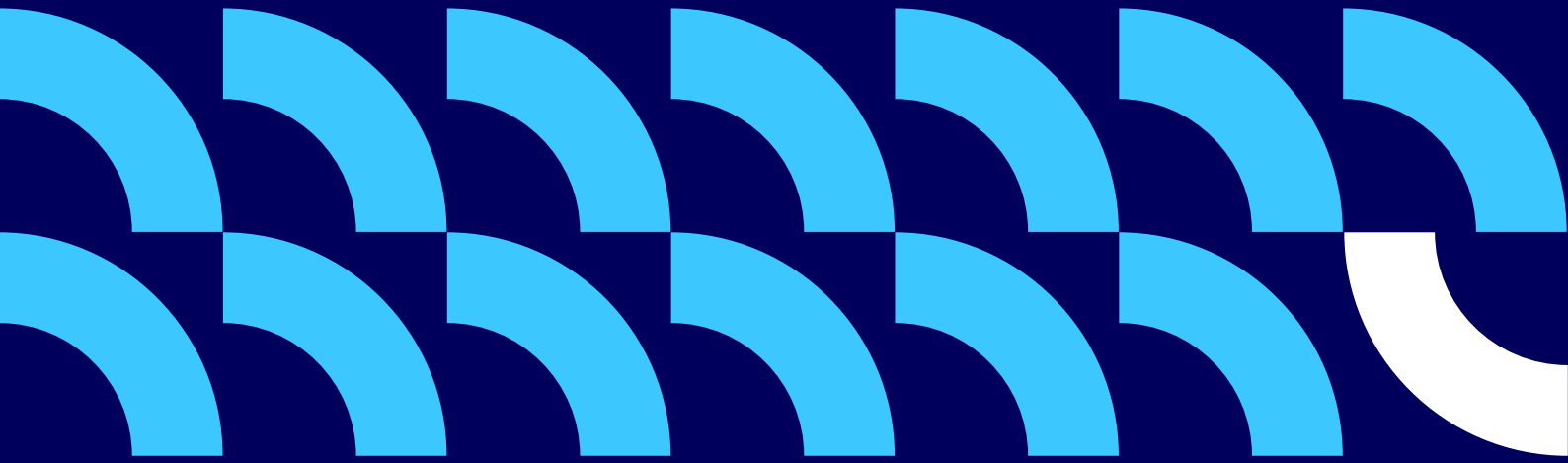
There are many benefits to using technology-driven innovations in the workplace: improving efficiency and overall performance; simplifying and automating tasks; increasing employee productivity, effectiveness and job satisfaction. However, there is also fear that automation can take jobs away from humans and that the portability of today's devices and applications can blur the boundaries between work and home life — meaning people find it difficult to switch off from their work.

All these challenges can be overcome with the right workplace strategy. By working with an experienced digital workplace partner, forward-thinking enterprises can harness technology to benefit the business and their employees.

“Technological advancements in the workplace represent a huge opportunity, but organizations must consult and prepare their workforces for these changes.

Successfully integrating tech into the workplace requires careful planning, consideration, and expertise.”

The critical importance of the right expertise in technology implementation



Hiba Kadri

Chief of Staff for Technology Services

Throughout my career in IT, I have found that every successful project has one characteristic in common: having a team composed of the right people with the right skills — brought in to contribute their expertise at the right time.

We all know that surrounding yourself by the best doers and the most experienced people in the market has a virtuous circle effect for any company — enabling the business to win market share and prestige as a market leader.

However, it is not always easy to find the right person at the right time to overcome a critical challenge in a strategic project or launch a strategic project. Additionally, most enterprises only need these highly specialized skills for the duration of a strategic project or a new product rollout. At Atos Technology Services, it's our job to stay flexible and agile, and to keep our hiring machine up and running. The daily challenge of these workforce management teams is to find the right balance between hiring new experts and training our current staff to keep their expertise on the latest technologies up to date. Both must be ready to deliver on-time.

In the next two to three years, I believe there will be profound changes in the way technology projects are delivered. Big data, generative AI and Web3 are showing enormous potential to be game changers for the enterprises of the future. Each of these disciplines requires its own set of niche technical skills, but non-technical skills will also make a difference.

Whether it is in-depth domain knowledge, strategic planning abilities, efficient execution, customization expertise, troubleshooting skills or training capabilities — all of these are essential for successfully implementing new technology and improving business outcomes. The key is to communicate early and often about your business goals.

Even if every step in the process isn't immediately evident, clearly articulating the end-state you hope to achieve will help you and your partners deliver improved outcomes.

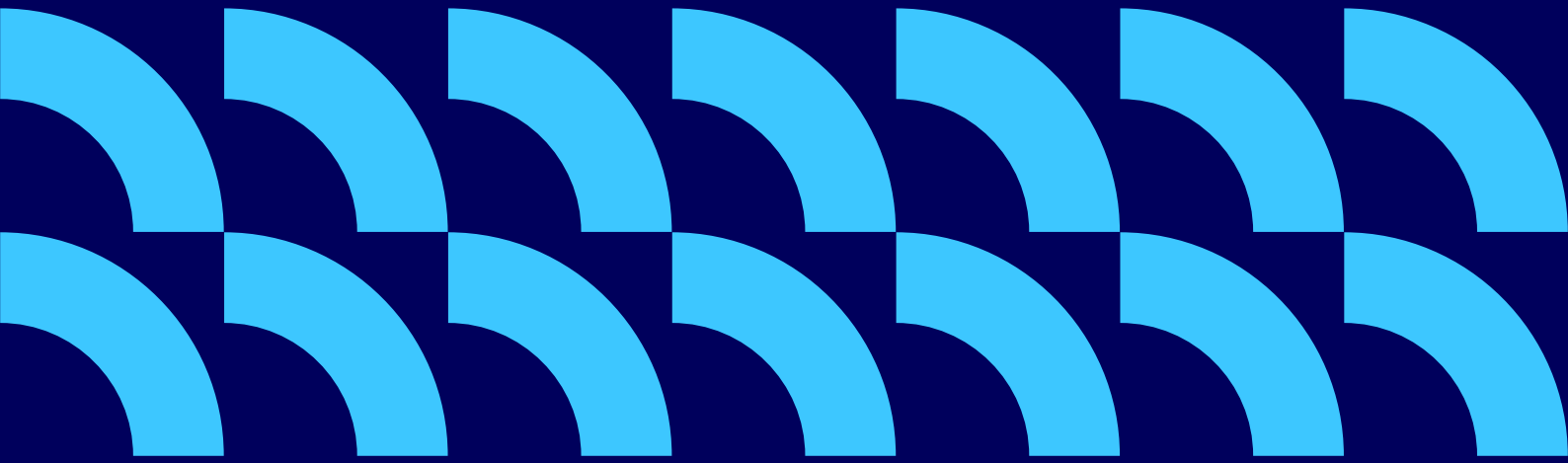
As you get ready for the next phase of your enterprise's technology evolution, be careful not to lose sight of the human factors. With the rapid pace of change, it's easy to focus on the tech alone — without taking into account the people who will design, build and use it. The employees should not only be well prepared for future advances, but also flexible and responsive enough to handle the next wave of ground-breaking innovations.

Be sure to bring in people with the right skills and knowledge at the right time, and it's never a bad idea to ask a trusted partner for advice or guidance at critical points in your implementation journey. At Atos Technology Services, we're always here to help.

“Completing the right team with the right skills and at the right time is crucial to the success of IT project implementation.

The right team is people with both technical and non-technical skills to successfully implement technology with a focus on human factors. Working with trusted partners such as Atos Technology Services is the best support for implementing technological change.”

A blueprint for the future: Technology as a catalyst for business and operational transformation



Wieger Rottier

Chief Operations Officer, Technology Services

In the ever-evolving landscape of business transformation, technology has emerged as a powerful catalyst for optimizing operations and driving efficiency. From streamlining processes to enhancing customer experiences, technology offers a multitude of opportunities for organizations to unlock their full potential.

Technology can help businesses optimize their transformation journeys while ensuring long-term benefits for all stakeholders involved.

When it comes to business transformation and operations, technology can make a significant impact across the many domains where your business operates. By integrating technology into their processes, organizations can achieve enhanced outcomes.

For instance, Atos has witnessed many enterprises undergo remarkable transformations in various business areas. For example, integrating smart technology into a corporate service desk with self-service tools and automated workflows can dramatically reduce workload and improve efficiency, not to mention transform the employee experience.

Similarly, technology plays a vital role in automating manual tasks and optimizing routine processes such as travel bookings, expense claims and approvals.

By embracing digital solutions, organizations can streamline workflows, improve visibility and drive faster decision-making. Additionally, technology enables improved customer experiences by providing consistent, seamless interactions across every channel and touchpoint, including online, via mobile app, or in a physical store. Successful business transformation is not solely reliant on deploying technology tools but also on fostering continuous stakeholder engagement.

In order to ensure that your transformation is human-centric and aligned with the needs of users, employees and customers, it is essential to keep all stakeholders engaged throughout the transformation journey.

By mapping the customer journey and understanding stakeholder needs, organizations can design solutions that meet their requirements effectively and are met with high adoption rates.

Ongoing feedback and stakeholder engagement are critical for maintaining alignment and driving continuous improvement throughout the lifecycle of any technology solution. By establishing regular conversations, soliciting feedback through various channels and involving thought leaders, organizations can enhance their solutions and better address evolving stakeholder needs. This iterative approach ensures that the solutions provided remain relevant and valuable, even as expectations change over time.

In prioritizing business transformation initiatives, organizations must strike a balance between short-term goals and long-term benefits. It is essential to consider not only financial gains but also the well-being of employees, customers and the communities served by the organization. A focus on sustainability and meaningful impact drives decision making that aligns with the broader societal context.

By considering the broader perspective, organizations can evaluate the impact of their proposed changes on resources, energy consumption, land usage and the overall environment. Incorporating sustainable business model innovation into their strategies enables enterprises to contribute positively to society while achieving their transformation objectives. This approach goes beyond mere compliance and embraces a proactive mindset and responsible business practices.

As technology continues to evolve and shape the business landscape, organizations have a tremendous opportunity to leverage its potential for optimizing business transformation and operations. By embracing technology-driven solutions and prioritizing stakeholder engagement, businesses can create meaningful and sustainable change. The journey towards optimal transformation requires continuous learning, adaptability and a willingness to integrate feedback. Ultimately, successful transformations are those that align with the needs of employees, customers and communities — while delivering long-term benefits and remaining competitive in a rapidly changing world. In the pursuit of business transformation, technology serves as an enabler of innovation, efficiency and improved experiences.

At Atos Technology Services, we have experienced firsthand the positive impact it can have.

“By strategically harnessing technology, engaging stakeholders, and prioritizing sustainability, organizations can achieve enhanced efficiency, improved customer experiences, and long-term success.

As we navigate the digital era, let’s leverage the potential of technology to drive business transformation, ultimately shaping a brighter future for all.”

About the authors

Stéphane Richard, Global Head of Technology Services

Stéphane is a multi-experienced leader with an international management mindset and a human-centric approach. He studied quantum physics, but his entire career has focused on sales, engineering and the IT industry.

In his 20-year career at Atos, he has had a successful track record in different jobs areas — leading to dual expertise in sales and operations in digital and cloud services. He has served as Global Delivery Executive for Renault & Sanofi, in a Client Executive Partner role for the FS&I market in France, as application management project and program director, and as a Business Unit Manager for professional services.

In his personal life, Stéphane is an amateur DJ, a diver and coaches children's soccer.

Ricky El-Qasem, Global CTO of Technology Services

Ricky is a virtualization and cloud veteran with 30 years of experience under his belt. He is a digital technology and business leader, employing a creative, adaptive and business-centric leadership style that incorporates people, industry best practices as well as data and technology. As a digital technologist and member of the Atos Research Community (ARC), Ricky scans the horizon and advises both Atos and its clients about their digital strategies and technology investments.

In his spare time, he DJs and collects and remodels old computers.

Aleksandra Tyszkiewicz, Global Head of Technology Consulting

Aleksandra has more than 20 years of consulting experience in areas like brokerage houses, the banking industry and at Atos. She has worked for German, Swiss and American organizations where she was responsible for development of consulting offerings portfolio, setting up new entities, as well as strategy, business development and digital transformation programs across the world.

She holds degrees in Mathematics and Information Technology as well as an Executive MBA and a PhD in Finance and Science.

In addition to her work at Atos, she is a Lecturer of MBA studies, serves as an expert in National Court and is the author of books and scientific articles. In her private time, Aleksandra is fascinated with researching decarbonization in heavy industry and is an avid traveler that has visited 84 countries and counting.

Hans Liebregts, Global Head of Integration & VAR Services, Technology Services

Hans is part of the Global Technology Services team working jointly with local teams to build, deliver and maintain services and solutions. Hans began his career in the IT sector in 1986, serving in several sales and general management roles for companies including Tulip Computers, Cisco, Fujitsu-Siemens and Siemens IT Solutions and Services.

In his spare time, Hans is a traveler and photographer, and enjoys cycling and playing squash.

Florence Burnoud, Head of Maintenance & Support Services, Technology Services

Florence Burnoud is an IT maintenance virtuoso reshaping the future for her clients. With an engineering degree in biotechnology and an MBA from the University of Texas, Florence's career journey has been diverse and successful. Her mission is to ensure uninterrupted operations for critical systems, relying on expertise that spans intricate hardware and network management and optimization. Always focused on innovation, she envisions the combined power of automation and AI, alongside a strong emphasis on sustainability, as the driving forces reshaping the future landscape of tech support and maintenance.

Laurent Clergue, Director of Innovation, Technology Services

Laurent is responsible for innovation strategy for the Atos Technology Services business line.
He manages more than 10 AI and digital-powered Atos Inno'Labs supported by 100+ experts. Innovation is his passion and he incorporates new technologies into Atos client businesses.

His background includes roles as a senior consultant and product manager of Atos's space imagery Software as a Service (SaaS) as well as CEO of GEOSIGWEB, a pioneering geomatic software startup. He is fascinated by computers and software using large scale data like space imagery and high-level automation.

Martin Depenbrock, Head of Technology Services, Central Europe

Martin has 28 years of experience in IT Business. He has been working for Atos for last 12 years leading Technology Services in Central Europe. He is expert in Project Management and ITO.

Adam Lewis, Head of Technology Services, Benelux and the Nordics

Adam Lewis has more than 25 years of experience in the technology business, He has held a variety of leadership positions, driving growth and achieving outstanding results. He is passionate about leveraging technology to solve complex challenges and drive business innovation. Adam's experience includes working both globally and locally in consulting firms, software companies, system integrators and outsourcing firms that operate across a wide range of industries. He is a Chartered Scientist and Chartered IT Professional, and holds a Master's degree in Information Technology.

Mark Bentley, Head of Technology Services, UK and Ireland

Mark is highly experienced business leader who has consistently navigated the realms of sales, sales leadership and business operations. His career is spanning over 35 years in the dynamic landscape of the information technology industry. Throughout this journey, he has been an integral part of the IT revolution, witnessing and contributing to its exponential growth.

Ahmed Benhayoune, Head of Technology Services, Growing Markets Africa

Ahmed has more than 25 years of experience in infrastructure integration and professional services. He is known for his professionalism and his commitment to nurturing talent and ensuring success for both his clients and his teams.

Throughout his long career at Bull and Atos, he has worked on large infrastructure integration, maintenance and managed services projects for many of the largest enterprises in Morocco and Africa.

Cristian de Almeida, Technology Services Head, South America

Cristian is a technology professional with over 25 years of experience in the IT sector. With a passion for technology, his exceptional expertise, leadership and dedication to excellence empowers the multinational teams he leads to thrive in the rapidly evolving digital landscape.

Fernando Fernández Fernández, Head of Technology Services, Spain

Fernando Fernández is an experienced professional in the IT sector with a background in strategy, digital transformation, innovation and operations – mainly in the financial services sector. A professional with a technological background, Fernando has evolved towards leadership and operational transformations, leading technological and business integration projects, transformation and cloud migration initiatives.

He has also been focused on activities aimed at reengineering, efficiency, optimization and automation of operational processes.

Tar Tumber, Global HR Business Partner, Technology Services

Tar has over 25 years of experience in HR across a variety of industries in both the UK public and private sector. Since 2019, Tar has worked with Atos business leaders and management teams, delivering strategic and operational guidance. A results focused professional, Tar is passionate about enabling leadership teams to develop and deliver their people agenda.

Hiba Kadri, Chief of Staff for Technology Services

Hiba has 18 years' experience in IT sector and has studied computer sciences. She has showcased extensive skills in various domains including sales, management, communication, and strategic planning, evolving from technical roles to managerial and leadership positions.

In her current role as Chief of Staff, her ability to align teams with organizational goals and navigate complex situations show her strategic thinking and leadership skills.

Wieger Rottier, Chief Operations Officer, Technology Services

Wieger has been leading Atos's global operational strategy for more than 20 different countries since 2020. He has a strong background in heading and delivering global projects and programs related to digital transformation, post-merger integration, automated self-healing and lean service delivery. He has an Executive MBA and a Bachelor's in Communication Management.

Wieger is passionate about solving problems, learning new things and making a positive impact with all his work. Outside of work, he enjoys activities like kayaking and dancing.

About Atos

Atos is a global leader in digital transformation with 105,000 employees and annual revenue of c. € 11 billion. European number one in cybersecurity, cloud and high-performance computing, the Group provides tailored end-to-end solutions for all industries in 69 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos is a SE (Societas Europaea) and listed on Euronext Paris.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

Find out more about us
atos.net
atos.net/career

Let's start a discussion together

About Tech Foundations

Tech Foundations is the Atos Group business line leading in managed services, focusing on hybrid cloud infrastructure, employee experience and technology services, through decarbonized, automated and AI-enabled solutions. Its 52,000 employees advance what matters to the world's businesses, institutions and communities. It is present in 69 countries, with an annual revenue of € 6 billion.

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