

DIGITAL TRANS- FORMATION IN GREECE **2023-2024**

Being adaptive,
being open
to innovation



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Foreword



**Filippos
Zakopoulos**
Managing Partner,
Found.ation

BEING OPEN TO INNOVATION

The word open has been used in many different ways to express various concepts in the business and technology worlds. For example, when first introduced, open source software offered a more democratized version of a billion-dollar industry safeguarded by big tech houses. The concept behind it was simple: the meaning of openness was not just a gesture of generosity to the developer community, who would create new programs or services, or to the users, who in turn would gain access to more -and

often more affordable- options. The idea behind the open source software was more importantly a statement on the benefits of synergy: by being open, the code could be used, transformed, amplified, optimized and give back multiplied value to a community that would infinitely evolve on the labor of everyone involved. And in most cases, it has worked as a win-win situation for all parties involved.

So, what does open innovation have to do with this? How open can it be? In a sense, it entails the same principle and vision: it seeks to involve and/or benefit many parts, not just a single organization.

In the global arena of modern business, open innovation has emerged as a powerful driver of transformation, encouraging companies to look beyond their internal boundaries. This collaborative approach recognizes that valuable insights, methodological breakthroughs and completely new products can originate from various sources, not just from inside but also outside the organization. Embracing the significance of open innovation, companies are increasingly investing in and partnering with or simply just learning while working with cutting-edge startups or technology solution providers.

In the global arena of modern business, open innovation has emerged as a powerful driver of transformation, encouraging companies to look beyond their internal boundaries.

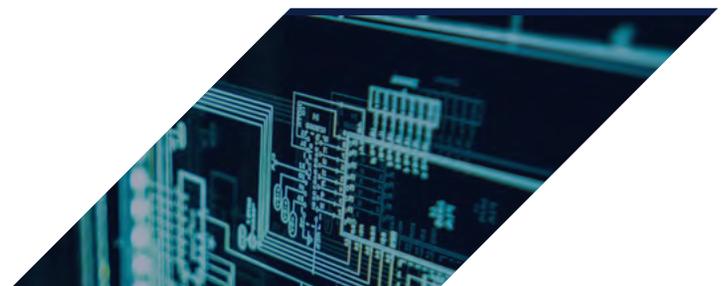
As we explore this year's examination of Greece's digital transformation, the spotlight falls on the crucial role of open innovation in propelling the rate of transformation. The current business landscape in our country reflects a notable shift, with several companies recognizing the significance of open innovation and actively implementing strategies that embrace this ethos.

In the past, there has been a limited relationship between large corporations and the dynamic world of startups and entrepreneurship. However, this narrative is swiftly evolving, giving rise to a new era characterized by increased collaboration and cross-industry partnerships. The emergence of co-development models like innovation hubs, business factories, accelerators, and even corporate venture capitals (CVCs), along with notable instances of acqui-hires, acquisitions, and joint ventures for product or service development with startups, symbolizes this burgeoning trend.

The time has come to take risks and bolster efforts that establish an environment that not only encourages but nurtures open innovation. This entails fostering a culture of shared ideation, knowledge exchange, and collaborative problem-solving, thereby unlocking untapped potential and driving our wider ecosystem's digital transformation to new heights.

By opening up, the benefits of innovation have a multiplying effect.

It's time to be more open.



About



www.eitdigital.eu

EIT Digital embodies the future of innovation by mobilizing a pan-European multi-stakeholder open-innovation ecosystem of top European corporations, SMEs, startups, universities and research institutes, where students, researchers, engineers, business developers and investors address the technology, talent, skills, business and capital needs of digital entrepreneurship.

EIT Digital builds the next generation of digital ventures, digital products and services, and breed digital entrepreneurial talent, helping business and entrepreneurs to be at the frontier of digital innovation by providing them with technology, talent, and growth support.

EIT Digital answers specific innovation needs by, for example, finding the right partners to bring technology to the market, supporting the scale-up of digital technology ventures, attracting talent and developing their digital knowledge and skills.



thefoundation.gr

Found.ation is an innovation management consulting firm that passionately transforms organizations and teams by activating new skills and disruptive methodologies.

Originally established in 2011 as one of the first tech incubators in SE Europe, it has since developed to a fully-fledged consultancy for the evolving business world, uniquely positioned at the heart of the innovation landscape in Greece. We connect brands, startups, business leaders and young talent in order to create successful, future-ready companies in the tech space and across various industries.

Since 2016, Found.ation is a strategic partner of EIT Digital, for Greece and other East Balkan countries, with the objective of strengthening the Greek startup ecosystem and enhancing the Digital Transformation of local corporations even further. Through the implementation of common, well-structured initiatives the aim of the collaboration is to initiate discussions and enhance cooperation between small and big companies. This will help both startups expand and grow and corporates adapt and evolve.

Objective & Methodology



Foundation prepared this report to provide an invaluable scope of the Greek business ecosystem. It offers important insights and examples on up-to-date practices, examines how much companies and large organizations have adopted Digital Transformation procedures, and pinpoints the reasons for any delays. The report follows the strategy of selected large organizations that operate in the country and aims to draw attention to the need for transformation. Instead of trying to define what Digital Transformation is, the report focuses on key points that summarize the strategies most commonly practiced by industry leaders, and the ones most applicable to the Greek market paradigm.

To provide a context and better understand the frame in which Greek companies operate, a brief summary of the Greek economic and digital indexes is provided.

For the seventh version of this report about Digital Transformation, Foundation conducted once again a survey completed by industry stakeholders from various Greek and multinational companies that operate in a broad spectrum of sectors. The purpose of the survey was to examine how much companies and large organizations have adopted Digital Transformation and identify the extent of knowledge that individual employees have, regarding Digital Transformation and its practices. This year's questionnaire targets exclusively CEOs and top-level managers of medium-sized to large companies operating in Greece and was carried out by Dialectica, using their proprietary platform.

As in every year, the report includes a statement from the Minister of Digital

Governance to provide a scope of what has been achieved in a fast-transforming public sector, and also what comes next for the Greek business ecosystem, from the government's point of view.

WHAT'S NEW?

Our intention with this report is to provide as much insightful information as possible. To do this, we choose to focus on specific topics each year, that are more tangible and applicable to Greek organizations. For 2024 we attempt to draw the portrait of a company that is adaptive and efficient; one that is agile and fast-changing, impactful, leading and evolving; one that leaves a positive footprint and sets the foundations of innovation. Our focus is on the adoption of emerging technologies like Artificial Intelligence (and especially Generative AI), its impact in the form and structure of companies, the ESG strategies, but also the possibilities and outcomes of Open Innovation initiatives.

While exploring what Greek CEOs and managers believe around trending DT topics, this year's survey focuses on flexible work environments, open innovation practices, and the extent of AI tools adoption.

Lastly, to offer a fresh perspective on what drives innovation in Greece today, we have included editorials from our sponsors Cardlink, Grapevine Digital and Up Hellas, all of which have very interesting insights to offer about digital transformation both in their own organizations as on behalf of their partners. Finally, we are honored to host short discussions with selected stakeholders, such as the Mayor of the first 'smart island' in Greece, Microsoft's CEO and a senior Foresight expert, who share their expertise with our audience.



EMBRACING DIGITAL TRANSFORMATION: A STRATEGIC IMPERATIVE FOR THE RETAIL SECTOR

Giannis Kordonis
Solutions & Innovation Manager, Cardlink



In the dynamic realm of retail, the winds of change are blowing stronger than ever before. As the digital revolution continues to reshape our world, the retail sector stands at the epicenter of this transformative wave. Now, more than ever, it is imperative for every player in the retail industry to embark on a journey of digital transformation.

1) The Significance of Digital Transformation in Retail

The retail sector, once defined by brick-and-mortar establishments, has undergone a seismic shift. Technology has not only disrupted traditional business models but has also fundamentally altered customer expectations. Today's consumers demand seamless, personalized, and engaging experiences both online and offline. In this landscape, digital transformation is not merely an option; it is a lifeline for survival and a pathway to unprecedented growth.

Digital transformation is not just about adopting new technologies; it's a holistic reimagining of how retailers operate and interact with their customers. Embracing cutting-edge technologies such as artificial intelligence, data analytics, machine learning, and the Internet of Things (IoT) enables retailers to gain valuable insights into customer behavior, optimize supply chains, enhance operational efficiency, and create innovative products and services tailored to individual preferences.

Beyond the operational advantages, digital transformation empowers retailers to craft immersive and personalized customer journeys. By leveraging data-driven insights, retailers can anticipate customer needs, offer tailor-made recommendations, and enhance overall customer satisfaction. This proactive approach not only fosters customer loyalty but also drives revenue growth and market leadership.

2) The Maturity of Retail-tech Solutions: Unleashing Disruptive Innovation

In the rapidly evolving landscape of retail-tech solutions, the maturity attained by innovative technologies is nothing short of remarkable. Today, retailers have unprecedented access to a plethora of advanced tools and platforms that have reached a level of maturity, stability, and sophistication previously unimaginable. These solutions are not just incremental improvements; they represent a seismic shift in the way retailers operate, offering disruptive capabilities that redefine the industry standards.

3) The Power of Open Innovation Techniques

In the pursuit of digital transformation, embracing Open Innovation Techniques has emerged as a game-changing strategy. Traditional innovation models, limited to in-house expertise, have given way to collaborative ecosystems where diverse talents converge. Open Innovation Techniques, encompassing collaborative partnerships, crowdsourcing, and co-creation with startups and technology experts, offer a rich pool of ideas, expertise, and resources.

Collaborating with external partners brings a fresh perspective, injects innovative thinking, and accelerates the pace of innovation. Startups, known for their agility and disruptive ideas, provide established retailers with the opportunity to explore uncharted territories and experiment with groundbreaking solutions. By fostering a culture of open innovation, retailers can harness collective intelligence, mitigate risks, and swiftly adapt to evolving market demands.

4) Cardlink's Retail Innovation Hub: Shaping the Future of Retail

At the forefront of this retail revolution stands Cardlink's Retail Innovation Hub powered by Found.ation — a catalyst for industry-wide transformation. Our hub is not merely a platform; it is a thriving ecosystem where retail leaders, technology innovators, and creative minds converge to shape the future of retail. We are driven by a set of core activities, meticulously designed to foster innovation, collaboration, and sustainable growth:

- **Retail Leaders Workgroups & Tech Leaders Workgroups:** These exclusive forums serve as crucibles of ideas, where industry stalwarts and technology experts engage in in-depth discussions. The insights generated are distilled into comprehensive reports, guiding the industry towards informed decisions and strategic advancements.
- **Startup MeetUps & bi-monthly Technology Trend Publications:** By facilitating vibrant interactions between startups and retail veterans, we bridge the gap between innovation and implementation. Our bi-monthly publications act as beacons, illuminating the path towards the latest technological trends in the retail sector.
- **Retail Leaders ThinkTank:** This elite gathering of experts and senior executives serves as a beacon of strategic wisdom. Discussions within this forum delve deep into the industry's challenges and opportunities, paving the way for innovative solutions that drive industry-wide progress.
- **Business Factory:** This innovative framework acts as a bridge, connecting startup teams and technology solution providers with industry stakeholders. Through collaborative efforts and Open Innovation techniques, we co-create solutions that directly address the challenges identified in our collective journey, fostering innovation that is both impactful and sustainable.
- **Various Events and our Annual Summit:** Our open events serve as melting pots of creativity, where ideas flow freely, and partnerships are forged. The Annual Summit, a pinnacle of our efforts, showcases the most groundbreaking innovations and fosters collaborations that have the potential to redefine the retail landscape.

Charting a Bold Path Forward

The digital transformation journey is not without its hurdles, but the rewards are boundless. It is a journey that demands collaboration, innovation, and unwavering commitment. As the head of Cardlink's Retail Innovation Hub, I extend an invitation to every stakeholder in the retail sector: join hands with us in this transformative endeavor.

Together, let us embark on a journey that transcends boundaries, embraces innovation, and shapes a future where the retail sector is not just a witness to change but a driving force behind it.

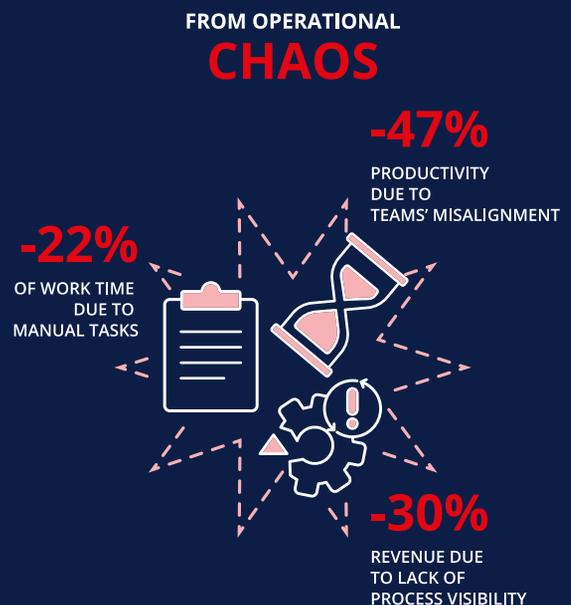


BUSINESS PROCESS AUTOMATION: THE SOLUTION TO OPERATIONAL CHAOS

Vicky Goulou
CEO Grapevine Digital
www.grapevine.digital

In today's rapidly competitive business landscape, **30% of revenue is lost every year** (IDC Research) due to a common adversary: Operational Chaos. This chaos is caused by repetitive paper-based operations, data inconsistencies, lack of process visibility, absence of interconnected systems and misalignment among teams. The traditional approach to tackling these operational inefficiencies has been complex and time-consuming, requiring extensive coding and IT involvement to develop custom workflow management solutions. In response to this challenge, an innovative solution has emerged: **No-code Business Process Automation (BPA), which revolutionizes the way organizations run operations.**

With digital transformation being a top priority for 74% of organizations (Flexera, 2022), no-code BPA platforms offer a fresh perspective on this demanding journey. They put the power of process automation into the hands of those closest to the problems: business users. The essence of no-code is found in its name – you don't need to be a programmer to build and optimize your processes. With a user-friendly interface, anyone can create workflows, connect teams or systems and automate processes with ease.



TO OPERATIONAL EFFICIENCY



At the forefront of the **no-code BPA revolution is Procify, a SaaS platform developed by Grapevine Digital, which Digitises and Automates business processes by connecting teams, data, and systems into a common workspace.** What type of processes? From simple to the most complex ones! Procify helps organizations reduce operational costs and gain 360° visibility over their processes & KPIs, with just a few clicks. With this powerful platform, three major capabilities are leveraged:

- 1. The Building of the workflows in a digital way**
- 2. The Running of the processes in an automated way**
- 3. The Measurement of productivity KPIs in real-time**

Procify also seamlessly integrates any workflow with the systems and apps organizations already have, ensures data accuracy and consistency, promotes quicker decision-making, and fosters operational agility and efficiency. While all of these work without the need to code.

Considering all the above, No-Code BPA not only assists in overcoming the existing operational challenges but also paves the way for organizations to proactively address future obstacles. In the ongoing digital transformation journey, no-code BPA is an unsung hero, ensuring the triumph of operational excellence. And Procify is ready to assist enterprises in building this digital future effortlessly!



DIGITIZING MEAL VOUCHERS. DIGITIZING A BOOMER'S BUSINESS!



Bastien Agnes
Managing Director Up Hellas



I'm 38 years old and my first boss never believed that the digitalization of the (paper) meal voucher would happen! He just assumed paper would stick around forever and that it was just simpler for everyone. Now, come to think of it, I just think he was pulling my leg – right?

Up, as a group was started nearly 60 years ago in France, based on a simple concept: we printed paper vouchers that we would sell to employers in order for them to pay for their employees' lunch – an amazing feat at the time – and a major win for employer/employee relations. And that was the model for all businesses in the industry at the time.

If you think about it – the voucher business is a simple one. You print and deliver paper – customers (employers) pay for the value of the paper; they distribute it to employees who go and spend the money in a contracted network. Do you know what makes it simple? We actually have very few added services we can bring. We don't talk to employees – we really just have to:

- deliver paper on time (at the right address)
- make sure employees can use the vouchers without complaining.

Then came the cards, a little piece of plastic that brought a major disruption in the industry. It empowered customers to request actual services – and it forced us to deal directly with hundreds of thousands of cardholders, around the clock. A much more modern benefit!

Suddenly, customers asked questions like:

Customers Questions	Things I heard...
Why can't I have a dedicated website to manage my cards and load them?	<i>Wait – this means you don't want to ask us to load your cards. We will lose touch with our customers! No way!!</i>
Could our employees have access to a mobile app to see their balances?	<i>Wow – a mobile app. How dare they. And after that – they will expect to pay with the app as well.</i>

For us in the Group, this meant moving above and beyond, changing not only our CX experience but also transforming ourselves, our organization, our tools - and entering a brand new – complex – field: payments.

Up Hellas, our favorite little subsidiary, is the embodiment of successful – and abrupt - change itself, portraying on a larger scale the whole industry.

The subsidiary was established in 2015 – with operations starting in 2016, as a paper-only business.

We launched our meal card in 2019 – and since then we have digitized 90% of our business, overcoming most of the digital transformation challenges an organization would face when moving to terra incognita. Our secret:

- Modern Leadership and a highly motivated team.
- Digitizing the services together – with one rule: never compromising the CX.
- Adapting and using the local ecosystems – Global Product but local Service!

To this day, we are the only one running a platform enabling our customers' independence. 95% of them order through our platform, 98% pay instantly through DIAS or IRIS enabling immediate top-up of cards.

Our cardholder support teams are measured in real-time and all individual customer metrics are shared. After having launched both Apple Pay and Google Pay, we rolled out meal and gift digital cards with a nifty little CX boon: you can send them instantly via Viber or SMS!

Changing the Customer Experience, giving new payment options to our customers and to our cardholders, and transforming our business and therefore our team's functions meant a continuous internal transformation process that can be stressful. The tricks are so obvious:

- Always try to keep it as simple as possible.
- Always be in a position to prove and track services and progress (otherwise, it's just words).
- Choose the right partners.
- Keep the right people, train them – never be afraid of changes.
- Make CX your mantra when making decisions.
- Change, improve, adapt.

In this ever-shifting landscape of constant change, change we do! Our next battle is the release of our new – made in Greece – back office that will allow us to build our new upcoming services in the expense management field; and then to host our meal and gift card solutions, in order to move from a minute-long service to an instant and predictive solution.

Beyond our product and service offerings, we've actively engaged in thought leadership. Hosting seminars, leading workshops, and collaborating with other industry giants, we've cemented our position as pioneers in the realm of digital meal vouchers. Our vision doesn't just stop at adapting; we're continually looking ahead, predicting the next big shift, and ensuring we're not just part of it but leading it.

Today we live in a world of instant request and constant motion. Everyone demands everything immediately. We might miss these good old slow days, but nostalgia isn't enough to convince stakeholders to stay in the world of paper or convince us not to become the transformation partner for our clients.



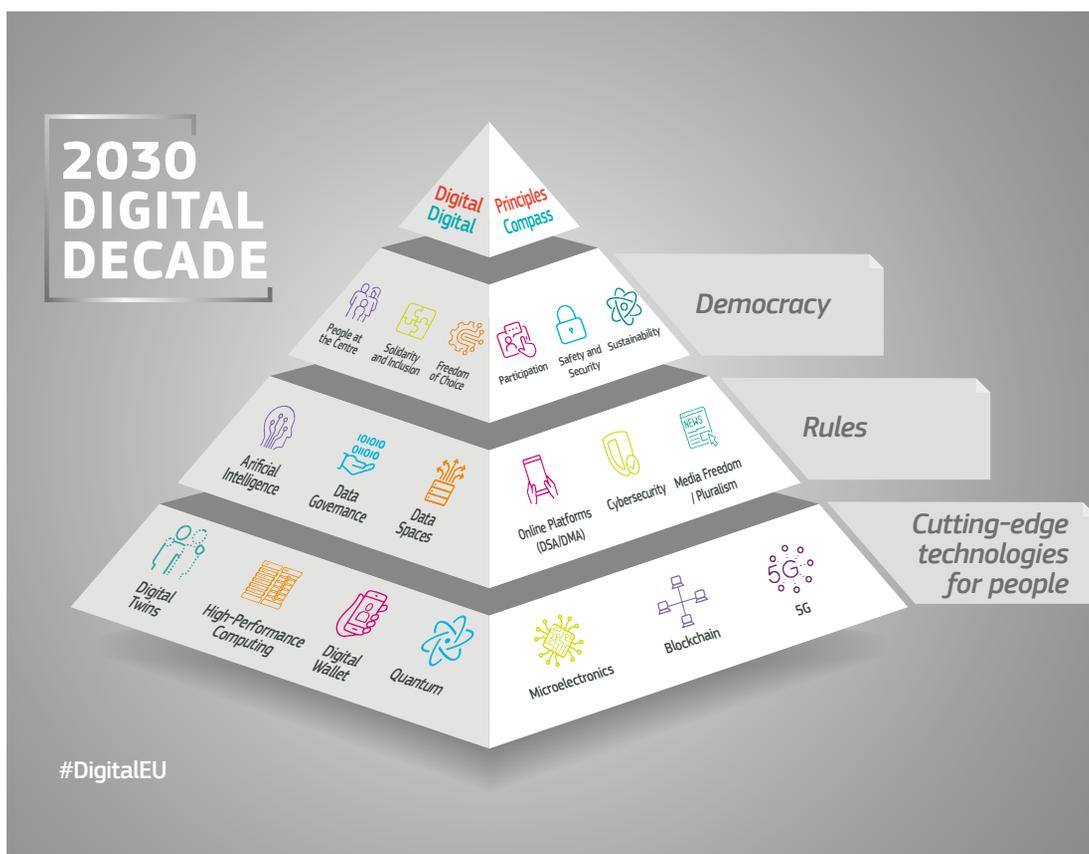
DIGITAL TRANSFORMATION IN 2023: GREECE

DIGITAL TRANSFORMATION IN EUROPE

Europe is at the forefront of the global digital revolution, with various initiatives aimed at fostering digital transformation. The continent's commitment to digitalization¹ is evidenced by the ambitious targets outlined in the EU's digital decade initiative, setting the stage for profound changes until 2030.

Despite the increasing reliance on digital technologies, a significant portion of the European population still lacks fundamental digital skills. As of 2021, only 54% of EU citizens possessed basic or above basic digital skills, indicating a pressing need for enhanced digital literacy programs across member states. This disparity extends to academic institutions, with a mere 4% of graduates specializing in ICT fields. Gender imbalances are particularly striking in this domain, as male graduates dominated the ICT sector, comprising 8% of all male graduates, while only 2% of female graduates pursued similar fields.

According to the EU target, at least 80% of all adults should have minimum basic digital skills by 2030. The shortage of ICT specialists remains a concern, with the EU striving to employ at least 20 million ICT professionals by 2030. Although the proportion of employed ICT specialists has grown steadily over the past decade, reaching nearly 5% of the EU's workforce in 2022, this figure varies significantly across member states. Notably, Sweden, Luxembourg, and Finland boast the highest percentages, while Greece and Romania lag behind. Some countries such as Finland and Sweden have made substantial strides in equipping their workforce with ICT skills through comprehensive training programs, with 40% and 34% of businesses providing ICT training to their staff, respectively.



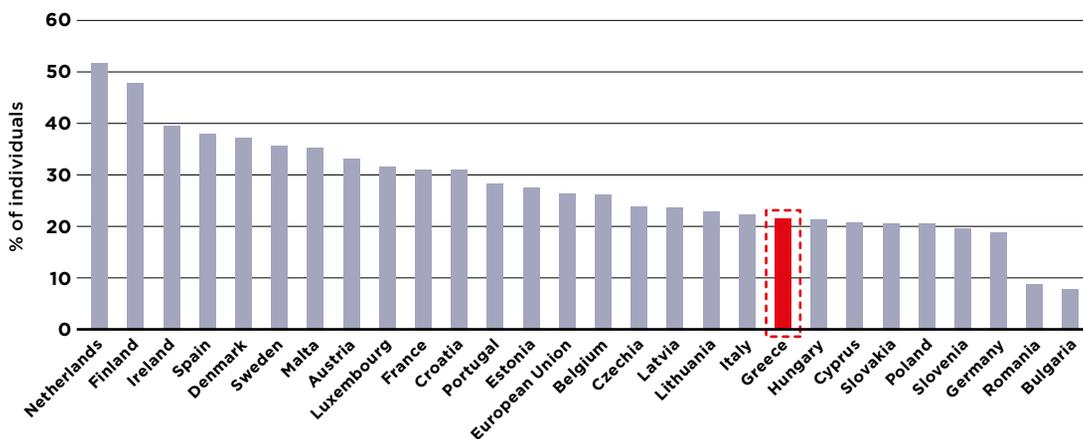
DIGITAL TRANSFORMATION IN GREECE: THE COUNTRY'S DIGITAL PROFILE

As the EU's Digital Decade² initiative gains momentum, Greece finds itself at a critical juncture in its digital transition journey. The 2023 Country Report highlights both the achievements and the areas requiring urgent attention to align with the ambitious Digital Decade targets. With a strategic roadmap in place for 2020-2025, Greece aims to leverage digital transformation to enhance its economic competitiveness and societal resilience, although notable gaps in various dimensions still demand effective interventions.

DIGITAL SKILLS: NURTURING THE TALENT POOL

While Greece boasts a population with basic digital skills close to the EU average, the nation's percentage of ICT specialists remains dismally low. To combat the brain drain and address the lack of specialized skills in demand, Greece has initiated the 'Digital transformation executive network' to streamline policy development and implementation. By actively contributing to the EU's digital skills objectives, Greece seeks to bridge the current gap and anticipate evolving market demands through proactive measures and regular assessments.

Above basic digital skills, All Individuals (aged 16-74)



Source: European Commission, DESI period: 2023 (data from 2021)

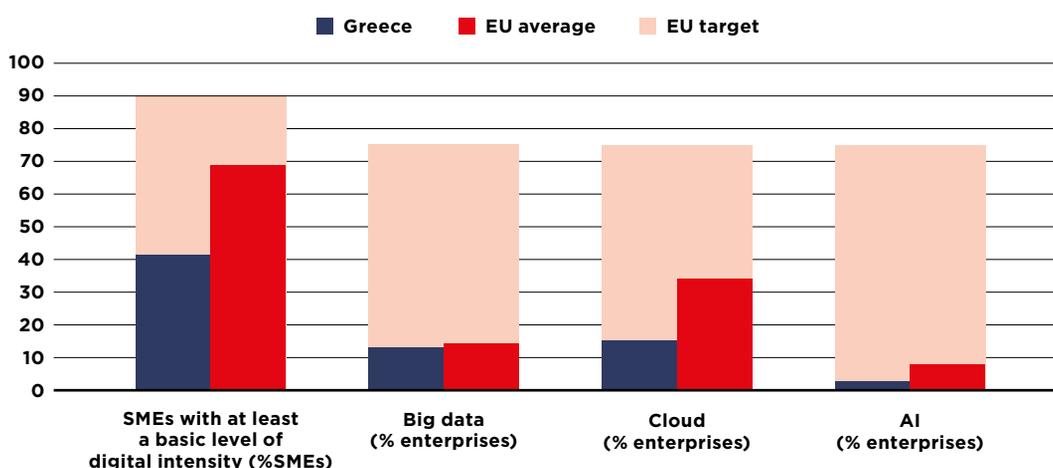
DIGITAL INFRASTRUCTURE: BRIDGING THE CONNECTIVITY DIVIDE

Greece, though making strides in mobile connectivity and pioneering 5G coverage, lags behind the EU average in fixed very high capacity network coverage. A more comprehensive strategy is imperative to meet the 2030 Digital Decade target for universal Gigabit speeds. Additionally, sustained efforts in semiconductor and quantum technology development are crucial for Greece to bolster its position in these crucial sectors.

DIGITALIZATION OF BUSINESSES: ACCELERATING ADOPTION

While the digital technology sector in Greece displays robust growth, the level of digital intensity among SMEs and the adoption of advanced technologies remains below the EU average. To enhance its contribution to the Digital Decade, Greece must swiftly implement measures outlined in the RRP, specifically emphasizing the deployment of advanced technologies such as big data and AI, particularly in small and medium enterprises.

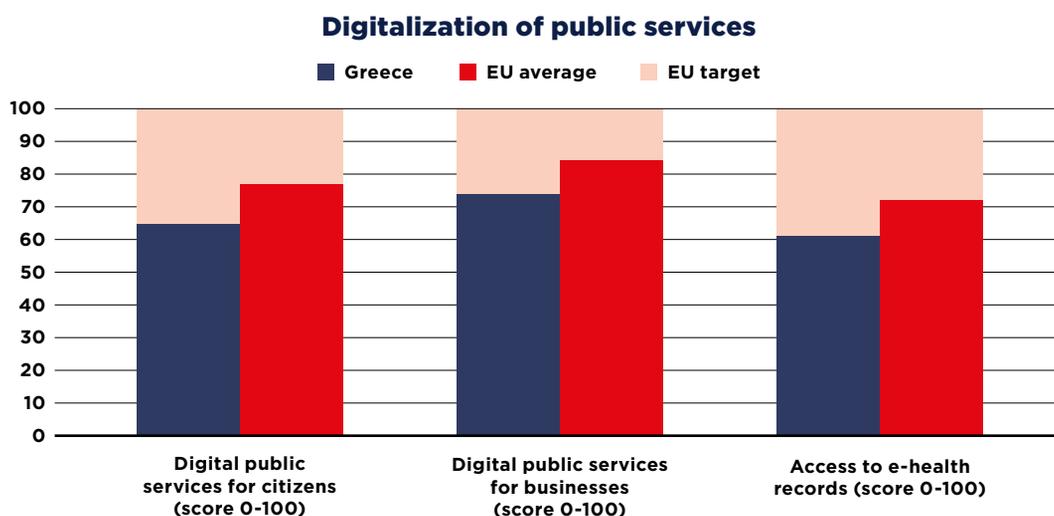
Digitalization of Businesses



Source: European Commission, DESI period: 2023

DIGITALIZATION OF PUBLIC SERVICES: PAVING THE WAY FOR INCLUSIVE ACCESS

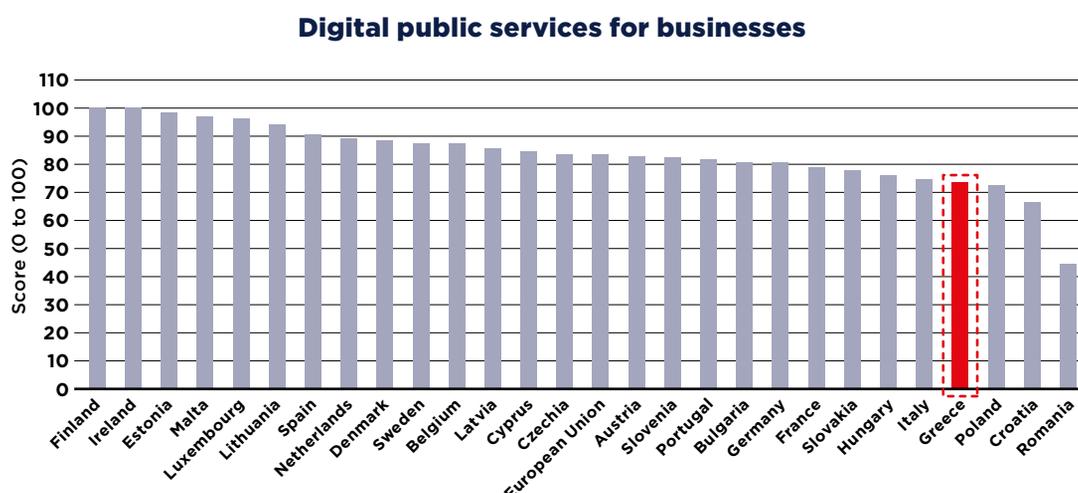
While Greece has made commendable progress in digitalizing public services, it still operates below the EU average. To meet the Digital Decade targets and ensure seamless access for all citizens, Greece must expedite the modernization of the public administration and expand the scope of accessible data, with a focus on equal access for marginalized groups. Strengthening the national telemedicine network will further bolster accessibility to crucial health services across the country.



Source: European Commission, DESI period: 2023

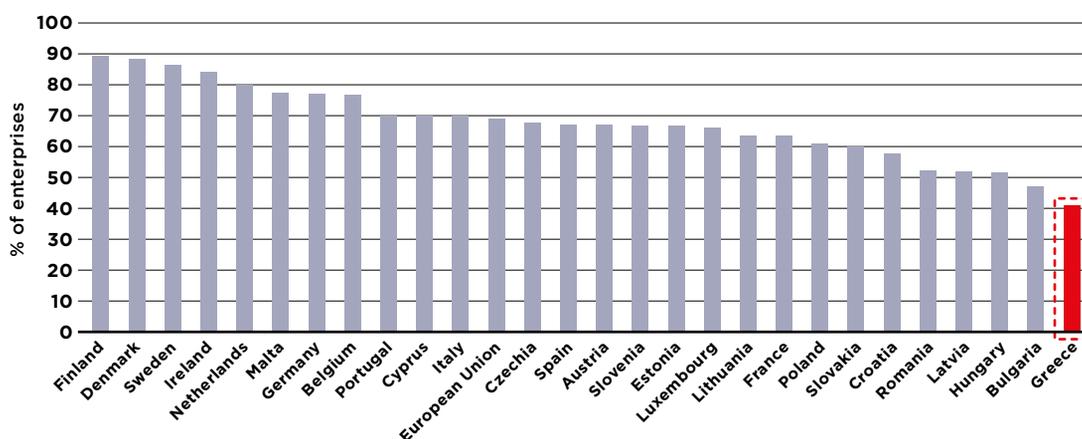
THE ROAD AHEAD: LEVERAGING THE RECOVERY AND RESILIENCE PLAN

With a significant portion of the Recovery and Resilience Plan dedicated to digital transformation, Greece has the opportunity to channel investments effectively. By ensuring the successful implementation of key milestones and targets, Greece can position itself as a key contributor to the Digital Decade objectives while fortifying its resilience in the face of evolving digital landscapes.



Source: European Commission, DESI period: 2023 (data from 2022)

SMEs with at least a basic level of digital intensity, SMEs (10-249 persons employed), without financial sector



Source: European Commission, DESI period: 2023 (data from 2022)

GLOBAL INNOVATION INDEX 2023

As evaluated by the World Intellectual Property Organization (WIPO), the Global Innovation Index 2023³ sheds light on the evolving global innovation landscape, positioning Greece at a commendable 42nd place among 132 countries. Reflecting on the past rankings, the nation's ascent has been notable, having secured the 44th spot in 2022, 47th in 2021, and 43rd in 2020.

Highlighted within the robust facets of the national innovation ecosystem that have played a pivotal role in boosting the country's global standing is its human capital. Greece's significant leap to the 29th position, surpassing the European average, is a testament to its performance in tertiary education and research and development, acting as the driving force behind innovative product development. Despite performing slightly below the European average, its infrastructure performance remains satisfactory (38th). Among the 80 specific indicators analyzed in the report, the country notably secures the 48th position in terms of access to public online services, owing to the notable improvements in digital infrastructure during the pandemic. Additionally, it stands at the 33rd position for the utilization of Information and Communication Technologies (ICT), while its performance in the logistics sector has been commendable, placing it at the 18th position. Moreover, Greece boasts the highest percentage of tertiary education entrants, along with notable rankings in software expenditure as a percentage of GDP (13th position) and foreign-funded research and development investments (20th).

Greece's strong human capital and the quality of research conducted by Greek scientists are underscored by their significant contribution to the scientific discourse, as evidenced by their 19th position in the GII index. Despite the upward trajectory in performance within the European cohort this year, Greece, on most metrics analyzed in the report, still trails the European average. The top spots on the WIPO global ranking are occupied by Poland (41st), Turkey (39th), Bulgaria (38th), Hungary (35th), Lithuania (34th), among others.

IDENTIFIED WEAKNESSES

However, Greece faces notable challenges in the broader institutional and regulatory context (63rd). The quality of regulatory authorities remains moderately rated, positioning the nation at the 50th spot. Its performance in establishing a sound institutional framework for business initiation remains significantly low (77th), and its collaboration between universities and industries for research and development also lags behind (118th). The intricate regulatory landscape and the absence of a robust regulatory framework, alongside the disconnect between the academic and industrial sectors, pose substantial obstacles to the further growth of novel ideas and emerging enterprises, and hinder the integration of highly skilled human resources into the Greek market.

FUNDING SCENARIO

Despite signs of improvement in the access of startup businesses to funding tools (57th), Greece continues to trail behind its global counterparts, partly due to the scale of its national economy. The top-ranking innovative economies in the Global Innovation Index 2023 include Switzerland (1st), Sweden (2nd), the USA (3rd), the UK (4th), and Singapore (5th), with Austria (18th), Norway (19th), and Iceland (20th) closing the top 20 positions.



GREECE RANKS
42ND
AMONG THE 132 ECONOMIES
FEATURED IN THE GII 2023



DIGITAL TRANSFORMATION IN GREECE

THE PUBLIC SECTOR

In 2023, Greece significantly improved its digital capabilities, leading to numerous advantages for its citizens, businesses, and the public sector.

In January, the National Policy for Administrative Procedures⁴ and the new digital service for establishing individual businesses through gov.gr were introduced.

The National Policy for Administrative Procedures was constituted as a comprehensive policy for emerging technologies and will be codified in the new Code for Administrative Procedures, which will be presented to the Parliament in the immediate future. The National Policy for Administrative Procedures aims to document all administrative procedures of the Public Sector. This allows for the evaluation, simplification, redesign, digitization, and overall enhancement of these processes to make them more user-friendly and accessible for citizens and businesses.

The National Policy for Administrative Procedures consists of three pillars:

1 The National Registry of Administrative Procedures "MITOS"⁵ for recording, capturing, and standardizing all administrative procedures of the State.

2 The National Simplification Program for the redesign and simplification of administrative procedures.

3 The Bureaucracy Observatory for the calculation of bureaucracy, the measurement of administrative burdens, and the continuous evaluation and documentation of the National Policy for Administrative Procedures's results.

The philosophy, goals, pillars, and news of the National Policy on Administrative Procedures are publicly accessible at diadikasies.gov.gr. This overall improves the functioning of Public Administration and its services. Alongside this, the new digital service for establishing individual businesses through gov.gr was presented by the Ministry of Digital Governance. This marks a significant simplification effort by the General Secretariat for Digital Governance and Simplification of Procedures in collaboration with AADE. It concerns a "life event" that was previously characterized by intense and cumbersome bureaucracy, requiring the physical presence of the citizen for the completion of five procedures in different services. Now, the process is unified into a single act and fully digitized for the citizen. The new service is accessible either

GOV.GR AT A GLANCE (UNTIL TODAY)



Source: G.S.I.S. - Gov.gr

directly at atomiki.gov.gr or through gov.gr, under the section "Business Activity" and subsection "Starting and Resolving a Business."

Later in the year, the first edition of the Digital Accessibility Guide for websites and applications for mobile devices⁶ of Greek Public Administration organizations was published. The Guide represents the first effort of the Greek Public Administration to create a comprehensive, structured, and concise manual for digital accessibility. The aim is to clarify all relevant concepts, such as usability and inclusion, and provide practical advice and guidelines on issues such as user participation in the assessment of digital accessibility.

The enhancement of digital skills for employees in both the public and private sectors is marked by Invitations 6 and 7, respectively, of the Special Management Service of the "Digital Transformation 2021-2027" Program of NSRF⁷, which was made public in June. The actions, with a budget of 52 million euros, will be implemented within the framework of the National Alliance for Digital Skills and Employment. In total, through the "Digital Transformation 2021-2027" Program, 113 million euros will be allocated to enhance digital skills.

In 2023, Greece took the next step in securing the safety of its citizens by issuing a new secure identity card for Greek citizens⁸, in compliance with European regulations and in response to the frauds of international bodies. On Monday, September 25, 2023, the id.gov.gr platform was launched, in accordance with the provisions of the Joint Ministerial Decision of the Ministers of Digital Governance, Dimitris Papastergiou, and Citizen Protection, Yannis Economou. This allows citizens to digitally schedule their appointments for the issuance of new types of IDs or their replacement due to changes in information, expiration, wear, or aging. The platform was implemented by the General Secretariat for Information Systems and Digital Governance of the Ministry of Digital Governance, and citizens access it using Taxisnet codes.



THE NEXT GENERATION OF DIGITAL GOVERNANCE SERVICES

A citizen-centric approach profoundly transforming the public sector

Dimitris Papastergiou
Minister of Digital Governance

Digital Governance is a dynamic term that has been around for almost two decades but has evolved impressively fast in the past few years. It involves the digitization of the State and the Public Administration operations using up-to-date information and communication technologies, with the goal of radically transforming the services offered to the citizens. It is much more than an upgrade: it offers added value to the relationship between a State and its citizens, makes administrative operations more efficient, and ultimately promotes a culture of active citizenship that contributes to fulfilling the needs of the whole society.

To fully understand the progress made regarding Digital Governance in Greece, we need to think of gov.gr not only as a platform but as a hub of everything related to a citizen's transaction with governmental services, that can be accessed from anywhere, anytime. Newer, digital-native generations have higher expectations from the way they interact with the State, driving the evolution of digital services to the direction it should take in the future. The next generation of gov.gr will be fully citizen-centric, offering personalized services, following an omnichannel approach, having semantic web capabilities, and addressing both the business world and the citizens.

Everyone should be able to use gov.gr, regardless of their digital skills, education level, or age. Everyone should feel their data is safe and procedures are transparent. Everything should be performed quickly and effectively. The next generation of gov.gr will have agility (to constantly change and adapt to the needs), interoperability (to allow all governmental platforms to interact with each other), measurable effectiveness (using data analytics), and ease of use (following the "once-only" principle so citizens should not have to address several different state services to gather all required documents).

With gov.gr we have achieved some amazing numbers so far:

- **Over 8 million distinct citizens have utilized gov.gr services since its inception.**
- **Individual citizen visits resulting in the issuance of at least one document, or the submission of an electronic declaration have surpassed 256 million.**
- **The platform has facilitated the signing of 23 million documents that previously required physical signatures, reducing time and effort for citizens.**
- **Notably, the digital issuance and circulation of vehicle registration certificates have streamlined administrative processes, with almost 290,000 vehicles registered in 2022 alone.**
- **More than 48 new services have been introduced since July alone.**



These statistics underscore the remarkable impact that gov.gr has had on the digital landscape of Greece. By fostering a culture of digital literacy and streamlining bureaucratic processes, gov.gr has not only facilitated citizen-state interactions but has also paved the way for a more inclusive and interconnected society.

Moreover, specific examples such as the digital issuance of the Athens Ring Road Free Entry Card for vehicles, the expansion of the Wallet program to include various essential documents accessible on mobile devices, and the introduction of the arogi.services.gov.gr platform for citizens affected by natural disasters, highlight the platform's versatility and inclusivity.

But the most important outcome is simply this: gov.gr has assisted both the citizens' and the public administration's digital upskilling. It has established itself as the go-to point for everything related to public services, connecting the State to its citizens -individuals and businesses alike-, but has also paved the way for a unified, omnichannel, next-generation platform that will truly allow the interconnection of all public digital services and processes.

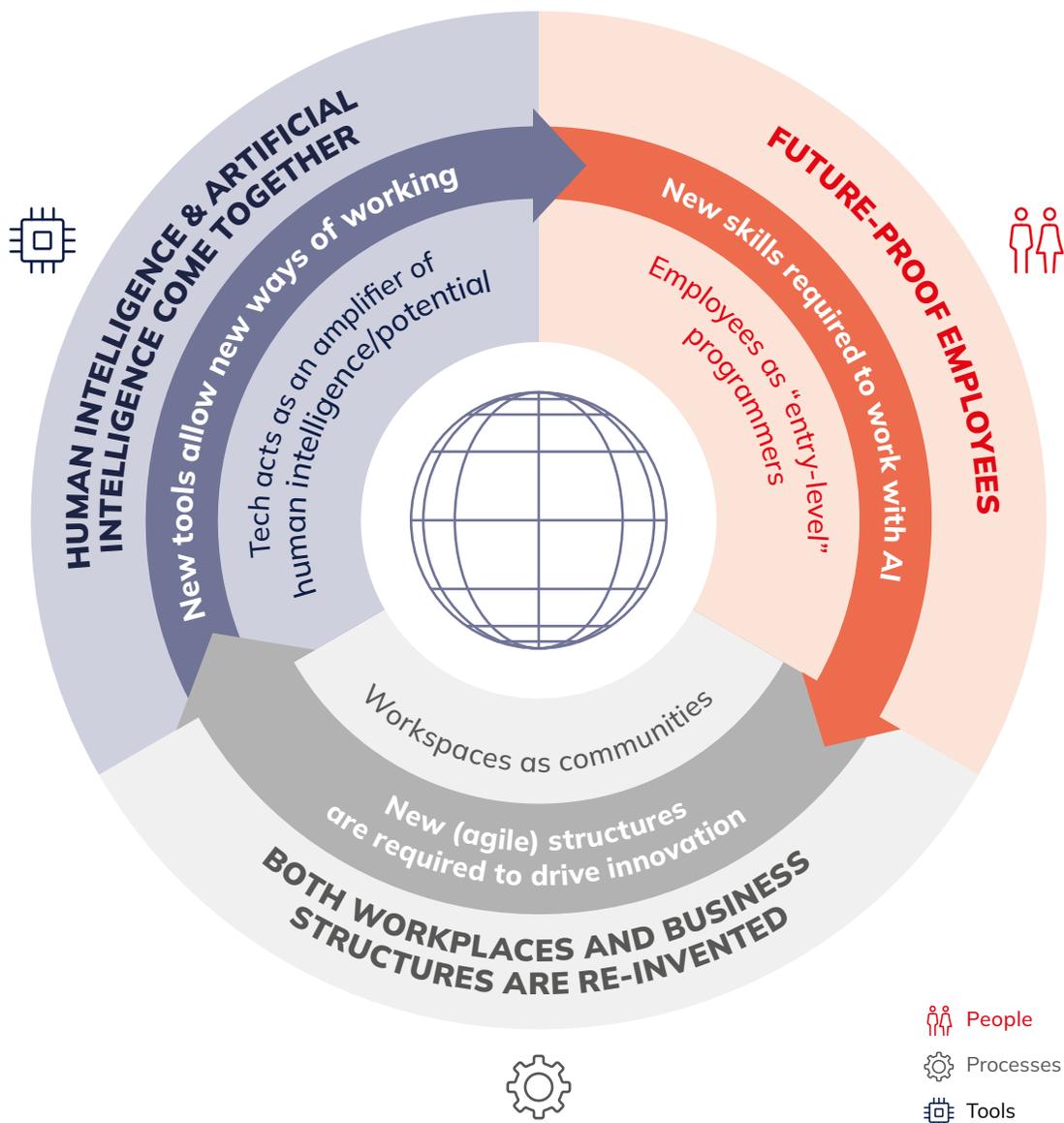
The progress achieved by gov.gr exemplifies Greece's commitment to technological advancement and its dedication to empowering its citizens through a comprehensive and user-friendly digital infrastructure. As we continue on this transformative journey, our focus remains unwavering - to build a digital ecosystem that fosters transparency, efficiency, and equal access for all, driving the nation towards a brighter, more digitally enabled future.

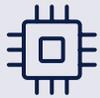


DIGITAL TRANSFORMATION IN 2024: TRENDS

EFFICIENCY RELOADED

New tools, processes and people skills boost productivity, speed and efficiency. Simpler company structures, clear roles and responsibilities, flexibility, AI & digital tools.

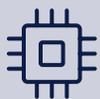




HUMAN INTELLIGENCE & ARTIFICIAL INTELLIGENCE COME TOGETHER

Artificial intelligence (AI) is not here to overtake human intelligence, as it does not carry with it the cognition that makes decisions relevant and trustworthy to humans. Rather, AI will stand next to humans, as one more tool to help them produce better work and tasks. Inevitably, some automatable tasks currently run by humans will be overtaken by AI, only to free up time for humans to do more meaningful tasks. Human empathy, kindness and creativity will be the invaluable assets⁹ humans will bring into this collaboration with AI, when AI brings along organized statistical data. Because, would you let an AI babysitter¹⁰ babysit your child, when it is still unclear how this might impact the child's social and emotional development? Or, would you serve a soft drink with an AI-generated taste¹¹?

1



AI HYPE UNCOVERS

With the constant pushing of AI in our lives and workplaces, unseen tensions might be underplay behind the scenes. AI has arrived and will stay in our lives just as any other tool, but we ought to be wary of the hype. Most jobs are not online¹², and those which are not, will not be affected as much. Additionally, sceptics¹³ keep on sharing that regulating the technology will be a moment when current tech leaders will lock in their advantages in the market share, closing opportunities for new competitors. We are bound to see through the current vague talk¹⁴ on the capabilities of this technology, and soon realize that each organization will be using it¹⁵ in a way that serves its own values. Good or less good.

2



EVERYONE IS AN ENTRY LEVEL SOFTWARE DEVELOPER NOW

With the development of tools, all computer literate employees can now develop solutions of their own. Gone are the days when research and development was locked up in the R&D department. With big corporations opening up space for 'regular' employees to develop early solutions close to their needs and problems with so-called "citizen developer" schemes¹⁶, they allow for innovation to open up towards the correct and needed direction. However, these solutions are early experiments and use cases that, in order to scale up and gain a solid software foundation, still require the expertise of R&D departments.

3



FUTURE-PROOFING MINDSET

In an ever-changing uncertain reality, it can be difficult to keep your cool. Becoming friends with uncertainty can be a steep ladder to climb, alas it is almost necessary. People in organizations need to be aware of this context and be prepared to alter plans or take action when new unexpected realities occur. And we do not just mean unexpected events such as the pushing back of deadlines, but rather, instances such as the unexpected effects of climate change on infrastructure, requiring agile reassessment of “business as usual”.



A BIRDS-EYE VIEW OF TECH AND ENABLING ASSETS CAN ENSURE EQUITABLE DEVELOPMENT

With new technologies available, an effort must be made by organizations to ensure equitable access. For all to be included in the transition into a new technology, centrally organized processes ought to come into place to ensure that nobody is left behind. Thus, communal actions are preferred¹⁷ over individual actions, the latter of which tend to broaden the gap between those with access to assets that enable technology installation, use and benefits. Furthermore, accurate and central management of resources¹⁸ with an understanding of the context within the organization operates will help organizations and communities flourish together.



AGILE BUSINESS STRUCTURES CRACK THE HARDEST NUTS (TO DRIVE INNOVATION)

Innovation and Digital Transformation operate in fast rhythms. Just last year, Open AI opened up its AI tool, and ever since, a wild range of applications on AI have been brought to life. For an organization to be able to follow the technological developments close by, and not be left behind, it has to work in a more agile and lean way. Startups have been bootstrapping and working agile for years. Now we see big old & heavy organizations from traditional sectors such as banking¹⁹, selecting agile ways of working. A way that slowly but steadily helps them innovate.

IN DISCUSSION WITH



Yanna Andronopoulou
CEO Microsoft
Greece, Malta,
Cyprus

Microsoft has been a pioneer in helping companies transition to a digital-first business world. What is your opinion on the progress made by Greek companies, especially in the last two years?

Microsoft has been a catalyst in helping people and businesses transition to a digital-first world. In the last two years, companies have made significant progress in this regard. The pandemic surely accelerated the adoption of digital technologies and remote work practices, which has led to a more flexible and agile work environment. At the same time companies have been able to leverage cloud computing, artificial intelligence, and other digital technologies to improve their operations and customer experiences.

What are the trends you see as more prominent for 2024? Which technologies or practices should Greek companies prioritize in order to become future-ready?

As we go into 2024, we find ourselves talking about AI transformation. We are in the midst of the next massive shift in computing with AI, an inflection point similar to the magnitude of the personal computer, the internet, mobile devices and the cloud. With this shift comes immense opportunities for people and

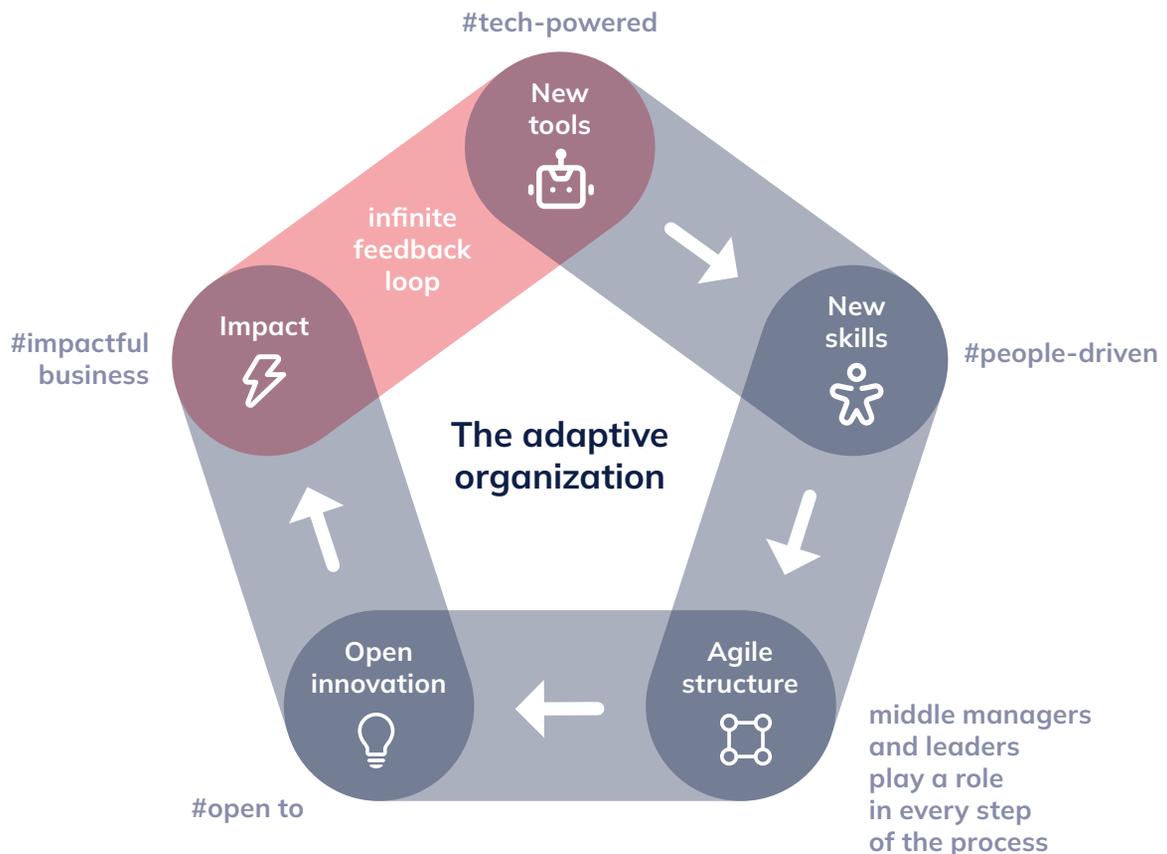
organizations. In a world of increasing economic complexity, AI has the power to revolutionize many types of work, bringing people greater satisfaction and providing substantive productivity gains and a differentiator for organizations. We're seeing rapid advancements in large models and generative AI that are not only capturing our imaginations, but unlocking even more possibilities across search, productivity, creativity, and in uses like healthcare or security. With these advances in AI, there is even greater responsibility for those building and deploying AI. We expect to see more companies adopting AI tools and Microsoft is in a formidable position to deliver on this promise. Focus will also be placed on digital infrastructure and cybersecurity in parallel with what is already high on the agenda including sustainability and social responsibility as consumers themselves become growingly more environmentally conscious and socially aware.

Greek companies are prioritizing digital transformation, which involves the integration of digital technologies into all areas of their business. This will enable them to become more agile, efficient, and customer-centric. They should also focus on upskilling their workforce to ensure that they have the necessary skills to thrive in a digital-first business world.

As the hybrid work environment is becoming the norm, how can women professionals turn it to their advantage? What is your advice to them?

As the hybrid work environment becomes the norm, women professionals can turn it to their advantage by leveraging their skills and strengths. Talent shortage in technology and in specific areas like cybersecurity is an opportunity for women. I would urge them to focus on building their digital skills and staying up-to-date with the latest technologies while also taking advantage of the flexibility offered by hybrid work models to strike a better work-life balance and pursue their passions.

DIGITAL TRANSFORMATION THE ADAPTIVE ORGANIZATION



WHAT IT IS - AND CAN ANY COMPANY BE ADAPTIVE?

The short answer is yes. Any organization willing to invest in specific practices that enable it to become more agile, flexible and innovative, is better positioned than its counterparts in facing what comes next. So what does the adaptive company look like in 2023/2024? As we do every year, we've identified the changes that need to be made in every one of the Digital Transformation pillars: People – Processes – Tools.

By now, everyone knows that the hottest trend in 2023 is the use of AI tools. While it is still not entirely clear what AI's implications will be in the future, its exponential growth is hard to ignore. The rise of generative AI tools holds many benefits for every industry and every company. But the implementation of such tools is not enough on its own.

This Digital Transformation path may sound simple, but it requires some deeper changes in the other two pillars of DT: people and processes. To fully leverage on AI tools, an organization's workforce must develop some new skills, while its leadership team must also be in a position to deeply understand the new technologies and envision their usefulness and ROI for their organization. A new organization structure and mindset are also necessary to support this journey. In this year's report we will examine what it takes to become efficient by applying all those transformation practices.

To foster a culture of innovation, organizations should follow an agile structure, promoting cross-functional collaboration and encouraging employees to explore new ideas and experiment with emerging technologies. This approach allows companies to adapt quickly to market changes, deliver solutions efficiently, and stay ahead of the competition.

Every company must recognize the importance of continuous learning and provide ample opportunities for employees to enhance their skills and stay updated with the latest advancements in technology. By empowering its workforce to acquire new competencies, any organization has the potential to amplify the efficiency of technological tools and drive innovation.

Technological advances can sometimes be overwhelming for employees, whose endurance has already been tested after an unprecedented global pandemic that changes the very nature of work. To balance it off, every company should prioritize a healthy work-life balance and invest in employee well-being, foster a supportive and inclusive work environment, encourage open communication and collaboration. Flexible work arrangements and employee benefits have proved to contribute to high job satisfaction and retention rates.



A forward-thinking company must also create impact. By fostering collaboration and nurturing a culture of openness, an organization can initiate a ripple effect of innovation that not only benefits itself, but also empowers its wider ecosystem to evolve and generate more innovation in an infinite feedback loop.

#TECH_POWERED

NEW WAYS OF WORKING: Re-inventing the business culture

Why it is important to embrace flexible working

The pandemic highlighted that "work" can still transpire even when a significant portion of the population is socially distanced. While this may not be an ideal social scenario, it has become a prevalent mode of operation for many technological companies in recent years. Remote work has become so ingrained in their culture that it is simply considered "work." Although this transition has been seamless for some, organizations without prior experience in remote work must carefully consider how to adapt to this new opportunity while preserving their existing culture. As we enter the post-pandemic era, it is crucial to reflect on the strengths and weaknesses observed during the pandemic working experience, with the aim of developing appropriate policies that combine the best aspects of both in-person and remote work setups. This approach will enable employees to remain productive, motivated, and satisfied while prioritizing their well-being.

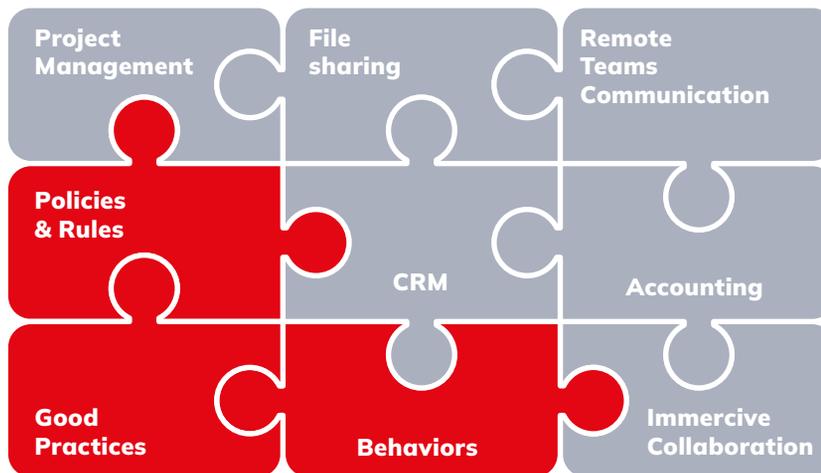
Embracing flexible work has become a necessity in light of the newfound experience and understanding of alternative work arrangements. A significant portion of the workforce has realized that different ways of working are not only possible but also lead to increased productivity and in some cases is a preferred working condition.

Enablers of flexible work

Whether remote work is an option or a permanent condition, a range of enablers are considered as a prerequisite for it to be applicable:

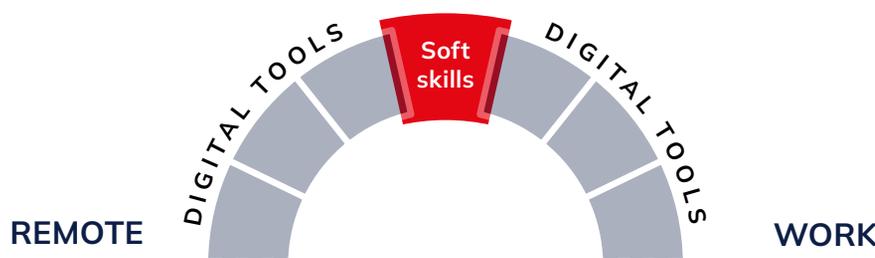
- Technological infrastructure: Personal connected devices, cloud-based software, high-speed connectivity, combined with advanced security protocols.
- Digital tools: for project management and remote team communications, file sharing, CRM, accounting, and creative immersive collaboration, separately or combined.

- **Policies:** the office etiquette and culture of a workplace. A set of understandings, written processes (rules) and/or unwritten suggestions (behaviours & good practices).
- **Mindset:** Monitoring work cannot be done in the same way as before. Instead of counting time on and off the job or monitoring presence, KPIs should reflect the quality of the deliverable instead of the hours clocked.
- **Skills:** The success of any flexible working setup falls onto softer competencies and skills among the employees.



Do remote and hybrid work models really boost productivity and satisfaction?

This often depends on the nature of the job, the individual's work style, and the level of support from the employer. Employees typically save about one hour per day by not commuting, which can then be used for work or leisure. From this, 40% (24min) goes to work, and 11% (6,6min) go to caregiving activities²⁰. A study by Buffer²¹ found that 97% of respondents wanted to work remotely at least some of the time for the rest of their careers, showing high satisfaction levels with remote work. As mentioned earlier in this report, a shift in the mindset to enable flexible work is imperative: trust the employees and focus on the quality of deliverables, rather than counting hours on the job.



MENTAL HEALTH AND WELLNESS INITIATIVES CASE STUDIES

- Microsoft has been proactive in implementing "No Meeting" days. The idea is to provide employees with a full day without meetings to focus on their work, reducing meeting fatigue and increasing productivity.
- Google has provided employees with "resilience training". This includes teaching techniques to handle stress and uncertainty, improve physical fitness, and get better sleep.
- Zoom: With the majority of their workforce working remotely, Zoom has implemented wellness programs including fitness challenges, meditation and yoga classes, and workshops on mental health.
- Johnson & Johnson has a comprehensive employee wellness program called "Energy for Performance". It offers training and resources to help employees manage energy levels, stress, and overall mental health.
- LinkedIn provides employees with a week off called "RestUp!" where the entire company shuts down to give employees time to rest and recharge.

NEW TOOLS ENTER THE WORKSPACE: Embracing technology to evolve business abilities

Applied AI automations / No code tools

These technologies are designed to automate repetitive tasks, optimize workflows, and eliminate manual errors, resulting in significant time and cost savings. By harnessing the power of machine learning and natural language processing, AI tools can analyze vast amounts of data, make intelligent predictions, and provide actionable insights to drive informed decision-making.

Any business owner will consider the cost of such an implementation and its potential return on investment. In last year's report, we attempted to prove that the cost of digital tools needed to make a company digital-first or digital-ready is not so high. Specifically, we highlighted the fact that a moderate scenario would demand a monthly fee of €100 per user. In the dawn of AI services, the cost of implementing such technologies can be even lower, as some of the tools are in beta mode or have freemium models that can accommodate the needs of small to medium enterprises. The

monthly cost could start from €0 and climb up to a few thousand euros, depending on the needs of the company and the industry it operates in. Organizations that need to build custom solutions of AI tools should of course expect a higher cost, while at the same time, they should also consider that it would also include hardware and infrastructure costs, contracting specialized engineers or other employees, or even investing in upskilling of employees. To provide some examples, a company using just ChatGPT for text generation will only have to pay 0.2 cents of a euro per 750 words. That is 10 euros for 50 2-page texts. On the other side of the spectrum, a company that is in the process of training its own Large Language Model, like Meta, must spend millions per month, mostly on servers and hardware costs (it is estimated to exceed \$2.4 million in the training phase²²).

Nevertheless, a company that implements advanced automation solutions and leverages artificial intelligence to streamline operations and enhance productivity is a feasible reality.

What value do AI tools bring to the enterprise?

When talking about AI and automations today, we mainly refer to generative AI implementations that are either used as external services by employees of a company, or as the base (mainly in the form of APIs), upon which tailored large language models will be built to address the needs of each organization.

AI tools bring several key values to the enterprise, including:

- 1. Increased productivity** by automating repetitive and time-consuming tasks, they allow employees to focus on more strategic and value-added activities.
- 2. Time management:** by providing intelligent scheduling, prioritization, and task management capabilities, individuals and teams can optimize their work and achieve better outcomes within given time constraints.
- 3. Enhanced decision-making:** AI tools can analyze large volumes of data quickly and accurately, providing valuable insights and recommendations to support decision-making processes. This helps organizations make more informed and data-driven decisions, leading to better outcomes.
- 4. Cost reduction:** AI tools can help automate processes, reduce manual labor, and eliminate errors, leading to cost savings for the enterprise.

However, along with these benefits, there are challenges and security concerns that need to be addressed when adopting AI tools in the enterprise:

- 1. Data security and privacy:** AI tools rely on large amounts of data, often including sensitive and confidential information. Ensuring robust security measures and privacy safeguards is crucial to protect this data from unauthorized access, breaches, or misuse.



- 2. Bias and fairness:** AI algorithms can inadvertently reflect biases present in the data used to train them, leading to biased outcomes or discriminatory practices. Addressing bias and ensuring fairness in AI algorithms requires careful attention to data selection, training, and ongoing monitoring.
- 3. Ethical considerations:** AI tools may raise ethical concerns, such as the potential impact on jobs, the responsible use of AI in decision-making, and the accountability of AI systems. Organizations need to establish ethical guidelines and frameworks to ensure responsible and transparent AI usage.
- 4. Technical expertise and integration:** Implementing AI tools requires technical expertise and integration with existing systems and workflows. Organizations may face challenges in acquiring the necessary skills, integrating AI solutions with legacy systems, and ensuring seamless collaboration between AI and human workers.
- 5. Change management and employee acceptance:** AI adoption may require organizational changes and process redesign. Organizations need to manage the change effectively, address employee concerns, and provide training and support to ensure a smooth transition and maximize the benefits of AI tools.

By proactively addressing these challenges and security concerns, organizations can harness the value of AI tools while mitigating potential risks and ensuring a successful integration into their operations.

#PEOPLE_DRIVEN ORGANIZATIONS

THE SKILLS OF THE NEW ERA

There are two dominant trends that demand an urgent upskilling of employees of all levels. Technology allows us to amplify our capabilities with AI. When you think of all the added benefits it can offer, it makes sense to read the “A” as short for amplified instead of artificial. And then there are the no-code (or low-code) tools: Employees with no, or almost no knowledge of code development and IT, are nurtured to generate software and apps using low-code and no-code platforms for business applications. Generally, these individuals hold other posts within the organization, in functions and departments away from IT. Thus, the context in which they operate, and their day-to-day work, does not necessarily involve any contact with coding. However, combining this business intelligence with coding applications can have a number of benefits for organizations.



Other than employee upskilling, putting AI and coding skills in the hands of other business functions can boost innovation, mainly as these employees are the main stakeholders of the challenge solved through their own coding. By leveraging these tools there are significantly higher chances for useful and relevant applications to be developed, supporting real business needs and generating tailor-made functionalities for actual business problems. Using low-code, no-code or AI tools can take the burden of development off the shoulders of IT departments, helping for faster solution delivery, boosting productivity and organization agility and efficiency, breaking down silos, and improving transparency.

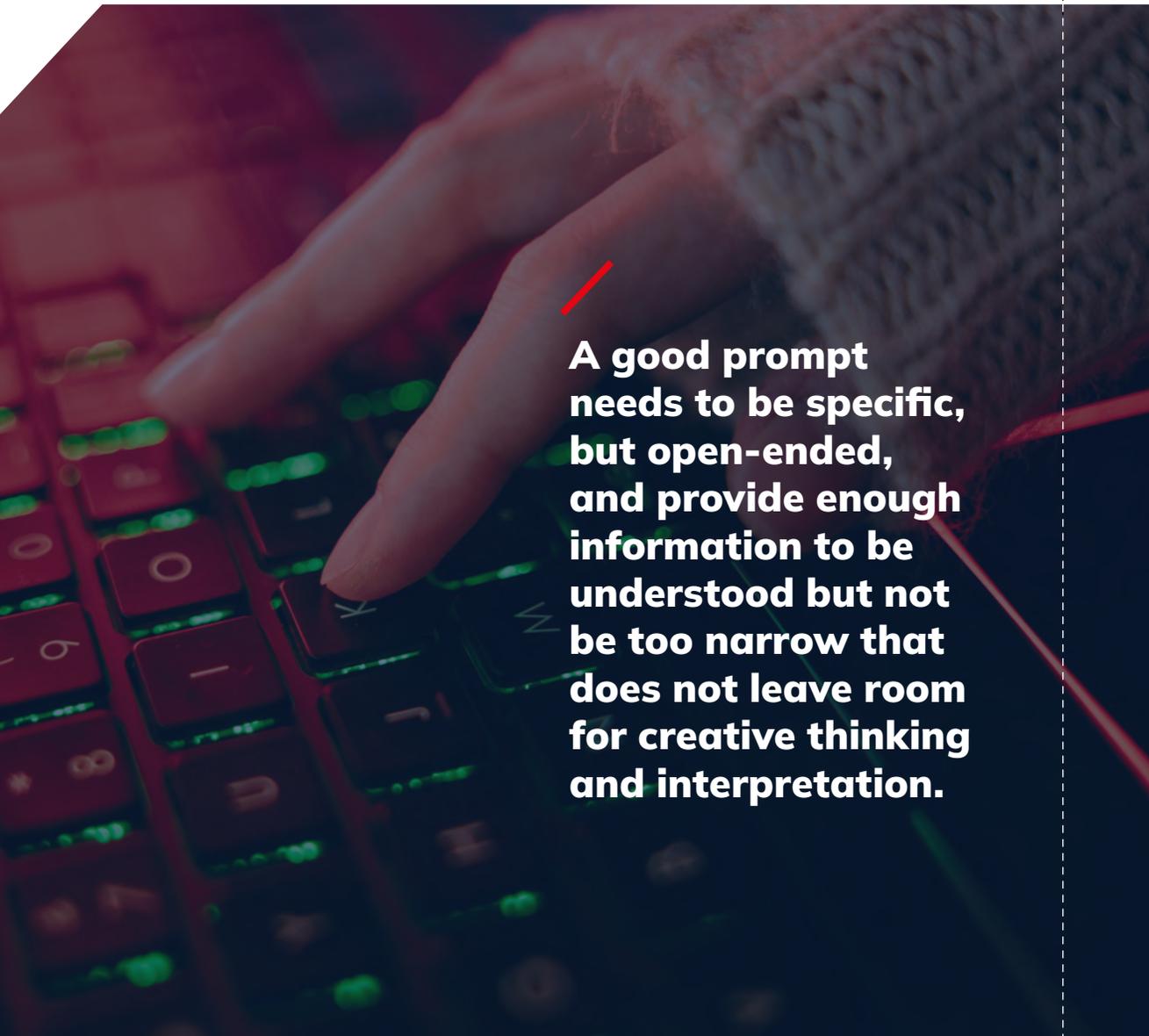
LEARNING TO WORK WITH/ALONGSIDE AI

The role of the creative individual would be to understand the AI output, judge it in regards to specifications and context of use, curate it along with other project inputs in order to create a holistic sensation and use it as a step forward to evolve ideas and concepts. Thus, the work of the creative individual transposes from practical and detailed creation to overviewing and curating the details, an evolution into the cognitive skillset. To use and operate no-code tools and AI-powered services, a few key skills are needed:

- **Critical Thinking:** As work becomes more complex, the ability to navigate complex problems toward a solution requires this sought-after skill. With it, individuals can approach solutions by applying reasoning, analysis and creative thinking to identify problems before they commence to proposing recommendations for resolving these problems.
- **Business understanding:** Understanding the business requirements and being able to translate them into a solution using AI tools.
- **Creativity:** The ability to think outside the box and come up with unique solutions using tools that require no expertise in creative arts.
- **Adaptability:** The ability to adapt to new technologies, trends and best practices, as they continue to evolve.
- **Productive communication skills:** By exercising calm, kind and active listening within conversations and confrontations, teams where a part or all work remotely can be more effective and avoid misunderstandings.
- **Forecasting skills:** A company needs to prepare for forthcoming events, but taking it a step further, it needs to design its every action, strategy and decision for future implications.

FOCUS: PROMPT ENGINEERING

Like writing and coding before it, prompt engineering is an emergent form of thinking. It lies somewhere between conversation and query, between programming and prose. It is the one part of this fast-changing, uncertain future that feels distinctly human. Learning to use the right prompts is now a form of art²³, as once was effective searching with search prompts on early (and less intelligent) search engines. In order to create a good prompt – a text input to any AI technology – the human behind it must have a very good understanding of the context of the brief at hand, its stakeholders, and the data produced by qualitative and quantitative research, so as to know they are solving the correct brief. Additionally, aided by the organization's strategy, the prompt engineer can direct the efforts of AI toward a solution fitting the brief. A good prompt needs to be specific, but open-ended, and provide enough information to be understood but not be too narrow that does not leave room for creative thinking and interpretation. In such a way, a prompt engineer needs to balance technological, design, and communication skills. A difficult and artful balance between hard and soft skills.



**A good prompt
needs to be specific,
but open-ended,
and provide enough
information to be
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and interpretation.**

GENERALIST VS SPECIALIST

For many years, the workplace had praised and needed 'the specialist' employee. The right person for the right job, with the specific skills to dive deep into their expertise, for a relatively narrow spectrum of the job. Traditionally, educational systems have also followed the pattern of creating experts, through learning paths that mainly cater to the development of hard skills. But in a changing world where problems are more complex, cross-sectoral and perplexing, apart from deep knowledge in a sector, projects, work and issues faced by organizations require an outlook to the periphery of problems as well. It is necessary for the organization to either employ or upskill employees who are generalists. People who can see and comprehend the bigger picture, bring an important perspective to the table – their own understanding and common sense. These individuals other than generalists, may also be described as T-shaped. A T-shaped individual is better situated within an organization to solve complex problems, as their understanding of the periphery permits them to understand needs and issues from other functions, while solutions they might propose may not be related to a specific domain, but rather at the intersection of two or more domains, identifying, bridging, merging and integrating gaps, in the likes of pure innovators and high-performing teams.

THE CHANGING ROLE OF THE MIDDLE MANAGER

In an era where the rise of artificial intelligence, machine learning, and so many more tools and approaches which can facilitate decision-making, the role of the middle manager is definitely being renegotiated. Managers are now able to monitor and evaluate the performance of the entire workforce faster and easier, thus taking the task off the middle manager's list of responsibilities. There is even the idea of eliminating entire middle management departments with the aim of a flatter approach, but what is their new role, eventually, and can we eventually talk about these roles vanishing? In the post-pandemic era, this discussion has once again come to the spotlight, as organizations are opting for a flatter, faster and leaner approach.

In this new reality, middle managers have an essential role²⁴, as they create opportunities, can guide different people, cultivate new talent, but also strengthen the connection between employees and teams. The middle managers become an orchestrator for the correct implementation of new tools and practices within a company, instead of merely focusing on continuously monitoring and directing people and teams towards business goals and strategies.

LEADERSHIP CHANGES: HOW DECISION-MAKING IS AFFECTED BY NEW TECHNOLOGIES

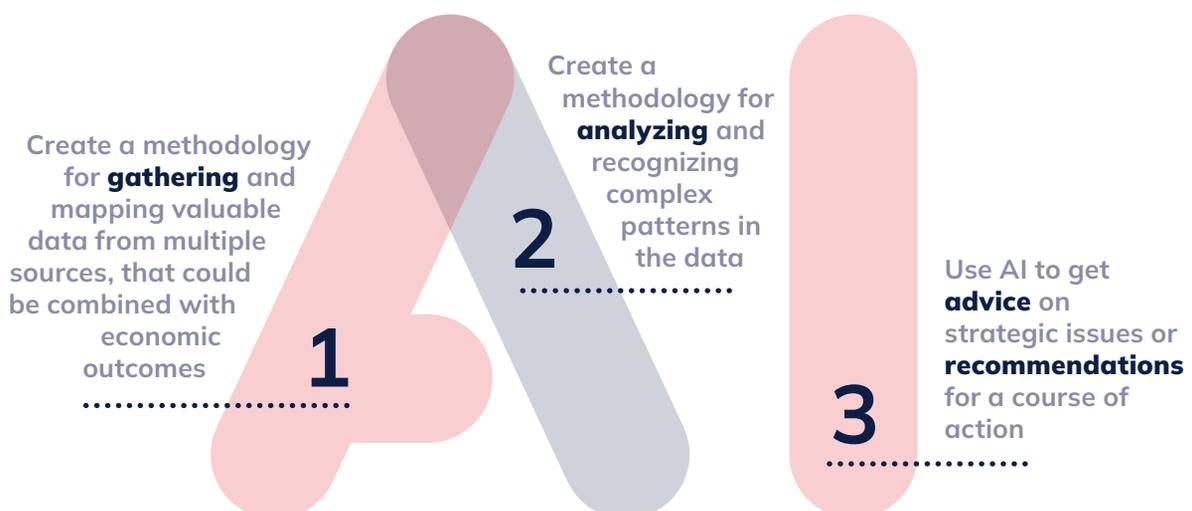
When it comes to decision-making at a higher level, years of expertise are considered the ultimate qualification for senior executives. Nevertheless, bringing AI into the boardroom offers many advantages. AI could be used to improve strategic decision-making by tracking patterns in financial results, return on investment, market trends and competition, and highlighting concerns, areas for reviewing and then suggesting market opportunities and sectors that need investments.

The role of AI in the boardroom is to augment decision-making and not replace a decision-maker.

Salesforce has developed Einstein²⁵, a proprietary AI program to help leaders make important decisions in executive-level meetings. Multiple studies²⁶ and academic papers²⁷ show that when firms implement complementary organizational practices in parallel with AI investments, they achieve higher levels of algorithm appreciation, leading to better decisions, made with stronger confidence, in turn increasing organizational profits. They also show that human decision-makers and machines develop increasingly more effective work relationships over time and outperform AI machines in stand-alone settings, while keeping humans in the loop²⁸ could enable AI-powered firms to achieve the most productive outcomes.

MIT research²⁹ reveals that the 'human filter' makes all the difference in organizations' AI-based decisions. There is no single, universal human response to AI suggestions, and different individuals make entirely different choices based on identical AI inputs.

A SIMPLE FORMULA FOR USING AI IN THE BOARDROOM AND INTEGRATING AI INTO DECISION-MAKING



ORGANIZATIONAL STRUCTURE FOR AUTOMATION-POWERED COMPANIES

As automation solutions are being deployed at scale in increasingly more companies worldwide, many parts of an organization are affected: from people and roles to processes, HR systems, organization structure, reporting, and even an organization's values, strategies and purpose. Established organizational structures such as flat hierarchies are no longer suitable for this purpose. Automation solutions offer indisputable benefits in terms of process optimization in less time and with fewer resources, but the ultimate goal of any AI deployment solution is to eventually boost an organization's innovation capabilities.

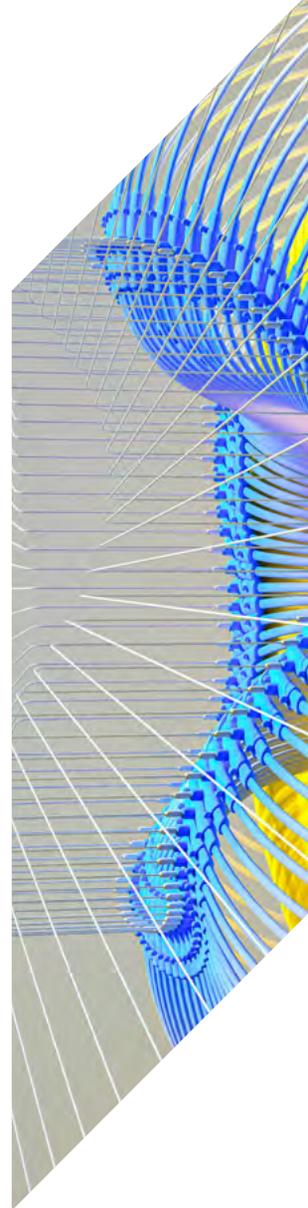
AI and Robotic Process Automation (RPA) models require continuous data collection, training, engineering, and monitoring to ensure their performance increases in accuracy. New automation projects need close alignment with the challenges of the business and means to measure success. Therefore, data teams, technical teams, and business teams must all work together to ensure the successful implementation of these systems in any business. New organizational structures may need to be put in place to ensure that this workflow can be successfully implemented.

New departments (such as an AI center of excellence) or even new job positions (such as a Chief AI Officer or an Automation Product Manager) might need to be established to ensure that all methods used to collect data, train AI/RPA models and use the outcomes are fully aligned with corporate values and the corporate strategy (also addressing matters of governance, privacy and security), and can ensure return on investment.

New governing procedures must be implemented to clearly define roles and responsibilities around the usage of data and automation training. Challenges following the use of automation technologies such as privacy, security and algorithm bias must also be addressed, therefore organizations should also provision for checkpoints where humans must be kept in the loop: teams of people monitoring and providing feedback to models when they make mistakes, contributing to their improvement with more data and training, acting as manual override switches when AI decisions are out of line or not up to the desired standards.

THE NEED FOR AN AI CENTER OF EXCELLENCE

A question that always pops up when a company designs the first steps of its AI implementation is who should be in charge of the high-level decisions regarding governance. Several experts are in favor of the establishment of instruments such as an AI Center of Excellence (CoE). The idea of establishing a CoE in AI is not particularly radical, as it follows the same logic behind every competence center establishment (for example,



the rise of e-commerce led to Chief Digital Officers and groups supporting online presence). The creation of a CoE is a holistic approach that proves that an organization aspires to embed AI in all its processes. All of its functions should be aligned to the organizational matrix, yet striking the right balance between centralization and organizational flexibility.

The AI CoE should be responsible for creating an AI vision, a portfolio of AI use cases, and a clear strategy for the required enabling factors, enabling all decentralized teams across the organization when needed, ensuring collaboration and preventing them from duplicating efforts.

But who should lead this department? The right person should understand AI from a technical standpoint but also have business savvy and expertise. Nevertheless, AI should be the responsibility of the whole management team, C-level executives need to understand the fundamentals of AI technology and the related implications, as well as the CEO must clearly commit to spearheading the AI strategy. Furthermore, the organization needs cross-divisional teams to implement AI processes or products.

Organizations take a variety of approaches to setting up their AI CoE and there is no one-size-fits all solution. In general, it makes sense to position the AI CoE close to critical decision makers, as the involvement of these individuals also highlights the importance of AI to the larger organization.

#IMPACTFUL_BUSINESS

CREATING A STRONG FOOTPRINT

In 2023, environmental and social issues affect our daily life in a number of ways. From public discussions³⁰ on climate change and witnessing its effects³¹ in human habitats, globally, to speaking up in regards to gender-based violence³² and taking action against racial favouritism³³, we live in societies with a number of challenges. And though some may cry “How can this be, this is 2023!”, we also should admit that we have come some way and having overcome quite a few other life-threatening issues, we have awoken to such important and relevant thematics. However, still, we need to go further, and thus address these important themes and issues that arise in society in any way possible.

Organizations operating in this context must acknowledge its challenges and will have to augment their cultures, develop policies and processes to consider the burning issues of our zeitgeist. Whether they take official positions or casual measures in the day-to-day operations, it is impossible to turn a blind eye. These issues are of great importance for the younger generations,

where according to a survey³⁴ Gen Z and Millennials are even willing to turn down jobs that do not have a clear policy on diversity and inclusion and additionally, they are more active³⁵ in addressing climate change than previous generations.

With managers globally expecting climate change to impact company strategy and operations³⁶, ESG, Environment, Social and Governance policies are already becoming more important. Organizations will have to address diversity issues more openly and pressingly to help develop their culture, and research evidence³⁷ can be on their side, where, for instance, companies with more than 30% of female executives outperform companies with less.

Additionally, organizations need champions to transpose to ESG policies, where ESG targets are translated into measurable KPIs and included in organizations' financial reporting. For example, DHL³⁸ has been using ESG KPIs such as the absolute CO₂ footprint reduction, employee engagement, lost time injury frequency engagement for health and safety, the share of women in management for diversity and coverage of mandatory compliance training. And since 2009, the European Commission³⁹ has shared a document of how this ESG reporting can materialize, accompanied by a number of proposed KPIs to serve as a basepoint. With such a long time brewing, it is high time for ESG KPIs to start becoming compulsory to be implemented, with 2024 being the beginning, as a BCG white paper⁴⁰ indicates, providing a roadmap to implementation, and pointing towards consequences when not complying which may include fines, legal consequences, damage to reputation and business relations.





DIGITAL TRANSFORMATION OPEN INNOVATION

INTRODUCTION

Open Innovation (OI) is a concept that urges companies to look beyond their internal resources and team up with external partners to drive innovation. It recognizes that valuable ideas and knowledge can originate from various sources within and outside the organization. The most popular trend of applying openness today is investing in and partnering with cutting-edge startups worldwide or technological solution providers in general to bring more business opportunities to the organization quickly⁴¹.

It should be noted that the "open innovation" concept is not new to the business world. It has been recognized and extensively discussed since the 1960s, emphasizing the advantages of embracing greater openness. Henry Chesbrough, professor of the Center for Open Innovation at the Haas School of Business, University of California, played a crucial role in popularizing the term. However, in recent times, open innovation has gained even more attention, particularly after the COVID-19 crisis, when many companies were seeking new solutions and ways to adapt to changing circumstances.

Siemens, for example, opened its Additive Manufacturing Network to the global medical community to speed up the production of medical equipment during the pandemic. Other case studies quoted by the Harvard Business Review⁴² include the partnerships between heavy truck maker Scania and the Karolinska University Hospital to support healthcare workers during the lockdowns as well as unusual alliances between Ford, the United Auto Workers, GE Healthcare, and 3M to create ventilation systems by reusing (of all things) F-150 seat fans. The benefits of (for once) putting value creation before profit was a valuable opportunity for open collaboration evangelists. This increased interest in open innovation demonstrates its significant potential, proving its relevance not only during times of crisis but also in more stable periods. Another rather successful example is the acquisition of SendX, a startup operating in the last-mile delivery sector, by the Greek scale-up company Skroutz, allowing the latter to efficiently streamline and manage its delivery services right when the demand peaked.

Skeptics agree that opening for external collaborations constitutes risks of leaking sensitive strategic information and details about intellectual property (IP). Nevertheless, a company that uses IP policy strategically can turn it into a driver that enables and enhances open innovation activities⁴³. Besides implementing appropriate safeguards and confidentiality clauses to protect patents, copyrights, and trade secrets legally, companies can focus on sharing specific aspects of their expertise relevant to the collaboration without exposing their entire IP portfolio. More elaborate synergies like cross-licensing and shared IP protocols, where both parties exchange specific IP rights to create a mutually beneficial relationship, can further mitigate risks and foster a culture of trust and responsible innovation. But how does this delicate equilibrium between openness and secrecy work in real life?



OPENNESS AS A STRATEGY – THE WINNING APPROACH

As the Harvard Business Review points out⁴⁴, balancing openness with secrecy can be a magician's act when formulating strategic pillars. To begin with, a company can leverage openness for three different strategic phases:

IDEA GENERATION:

A company might want to determine its direction to move towards: openness can spark creativity and accelerate idea generation, leading to a broader range of innovative concepts. This stage may be the most beneficial stage for a company in the initial stages of cementing a strategy, where open access to an extensive and diverse demographic of users can prove extremely useful. The best practices in this stage include tools like competitions or hackathons that allow contact with broad and varied crowds, often including engagement techniques like contests or gamification.

FORMULATION OF STRATEGIC DETAILS:

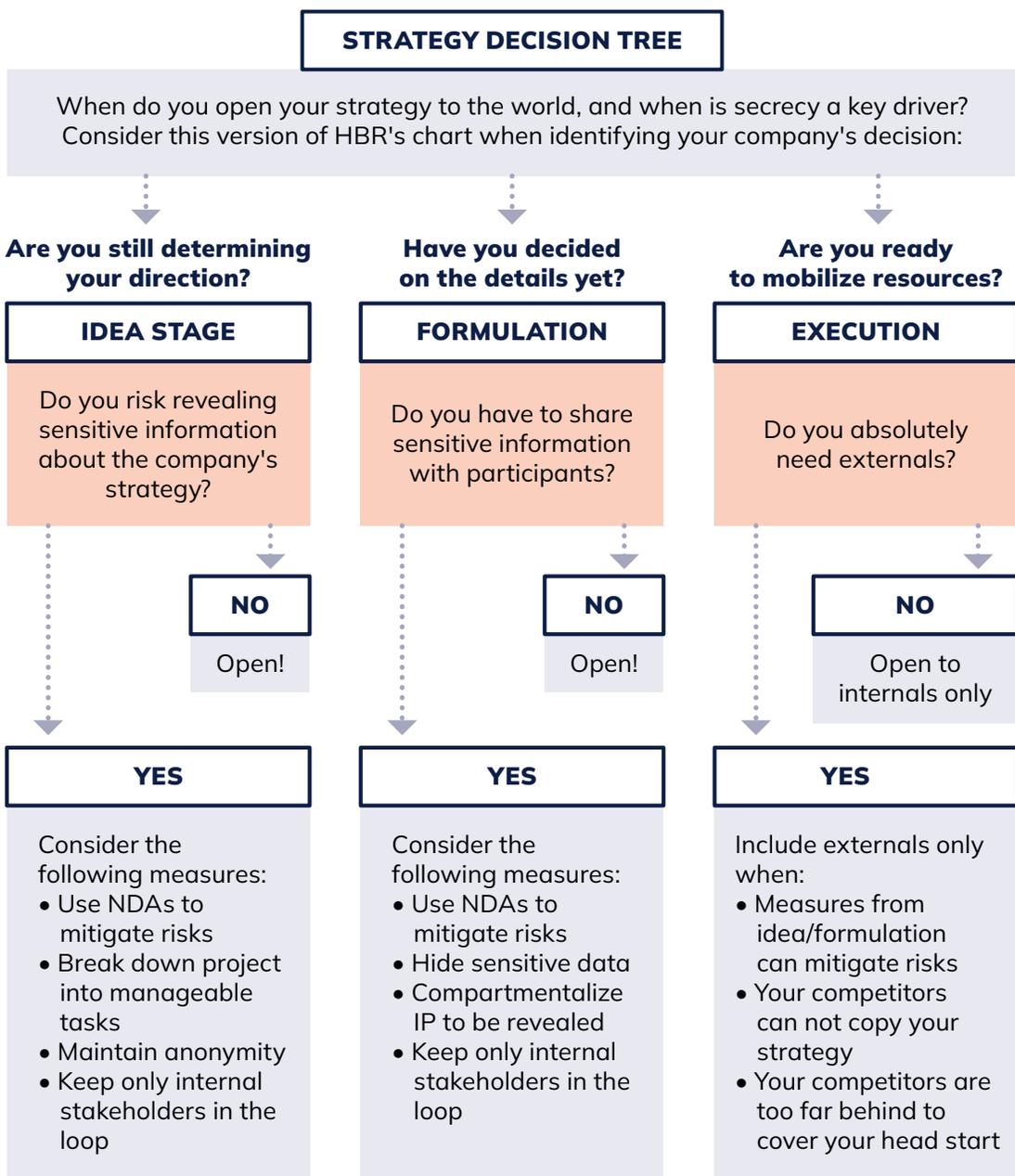
A company might have decided on a particular strategy, but the exact nuances might not be specified yet. Openness is an excellent catalyst for refining and enriching strategic plans. When organizations open channels for constructive feedback and transparent communication, they gain valuable insights into potential challenges and opportunities. By narrowing it down to specific stakeholders, innovation leaders can identify blind spots, anticipate potential hurdles, and create more robust and adaptable strategies. This is a phase where more details are revealed to the selected few external stakeholders, so non-disclosure agreements are usually mentioned at this point. An accelerator targeting specific sectors or an open call to companies in specific sectors or of a given maturity level are examples of this phase.

EXECUTION PHASE:

A company might be ready to mobilize resources and staff; openness can significantly elevate ownership and collective responsibility, driving employee motivation and commitment. Openness to feedback during the execution phase allows for continuous improvement and adaptation, ensuring that the strategy remains relevant in the face of changing circumstances. Furthermore (and maybe even more importantly), transparent communication and collaboration across different departments and teams ensure everyone is aligned with strategic objectives. It should be noted that to reap these benefits, companies often need to sacrifice secrecy and potentially share internal knowledge. At this end phase, however, the company

is already committed to partnerships, and information leaking is no longer necessarily an issue. Acqui-hires, acquisitions, or strategic partnerships fall into this phase.

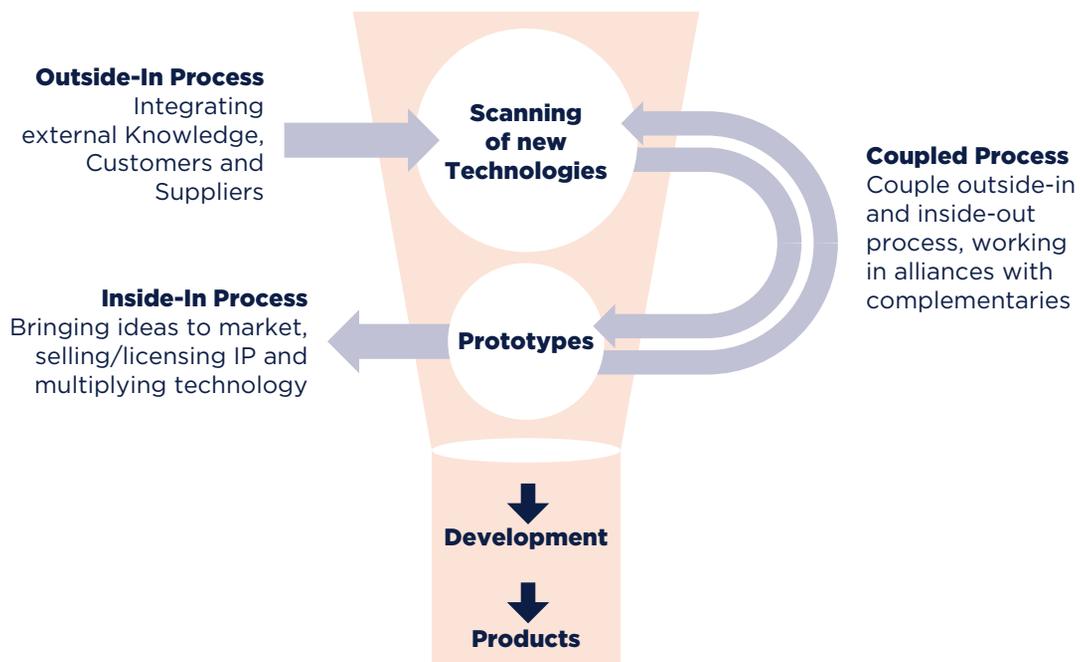
While there are many best practices for Open Innovation, it is crucial to recognize that each company's approach should be tailored to its requirements. Factors such as technology or market drivers, B2B or B2C focus, industry pace, access to resources, and complexity of technologies and competencies all play a role in determining the best Open Innovation strategies. However, a common foundation for success lies in nurturing a culture that supports Open Innovation. An effective Open Innovation Strategy should define the objectives and alignment of Open Innovation activities. It should address questions like what the company aims to achieve with Open Innovation, how it supports overall corporate goals, and which opportunities to pursue and why.



HOW TO APPROACH OPEN INNOVATION

Most analysts today identify two main types of open innovation: outbound and inbound⁴⁵. Outbound open innovation is observed when companies transfer their own innovations outside of their enterprise, sharing tools, technology, and processes with external partners. The most common example is when a company licenses IP or tech to a third party and receives payment. A more unique and notable example would be waiving IP rights, a bold strategy that encapsulates the mindset of openness, such as the 2014 release of Tesla's electric vehicle patents⁴⁶. Inbound open innovation involves a reversed knowledge transfer: external knowledge and ideas are brought into the company to be implemented in the organization's operations. It should be noted that most companies are more willing to adopt inbound innovation than outbound: P&G, for example, completely remodeled their traditional R&D department to seek innovative solutions outside the organization.

THE RELATIONS OF INBOUND AND OUTBOUND OPEN INNOVATION (ARJAN KEIJSER, 2022)



Obviously, these methodologies are not mutually exclusive, and there is always a way to balance these elements into a dynamic, ongoing coupled process of inbound/outbound streams⁴⁷. Samsung, for example, divides its innovation strategy into four parallel categories: partnerships, ventures, accelerators, and acquisitions. Here are some varied examples of applied open innovation concepts:

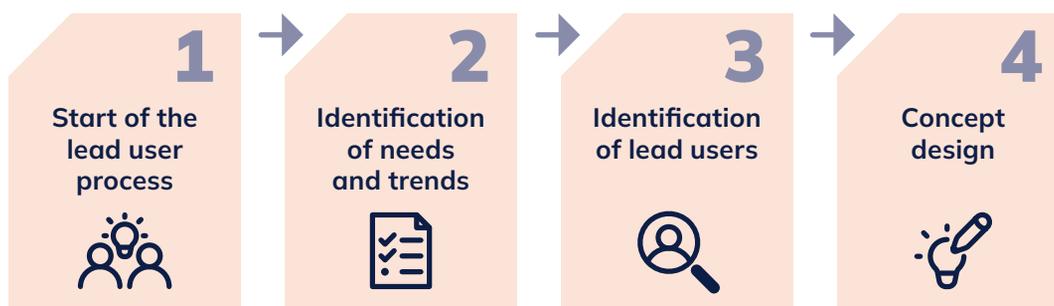
OPEN INNOVATION INITIATIVES

A company can often adopt what is called an open innovation initiative, where a permanent invitation is always in place, offering to accept all and any patents, suggestions, or innovative pitches. The perfect example is GE and its Open Innovation Manifesto, which invites passionate experts, entrepreneurs, and engineering enthusiasts to come together and share ideas about anything of interest to GE. On the other hand, Samsung, a company investing heavily in innovation outside its already impressive internal R&D unit, also leverages the Samsung Accelerator program to invite designers and innovators to the perfect environment for creation, providing facilities and resources⁴⁸.

INNOVATION WITH CUSTOMERS (LEAD USER METHOD & DESIGN THINKING)

Utilizing the experience and needs of customers and users is of paramount importance when innovating new products and services. The conventional view of innovative activities revolves around producers creating new goods and services for customers. However, users often spontaneously innovate when they cannot find existing products or solutions that meet their specific needs. These user innovations, usually developed by so-called Lead Users, arise from the necessity of addressing unique and unmet requirements. In other words, these Lead Users are individuals or organizations that face these needs ahead of the general market, making them early adopters and innovators in their respective fields. Enter the Lead User Method, a methodology that integrates the most experienced and innovative users in the actual innovation process through workshops or other projects.

THE FOUR STAGES OF THE LEAD USER METHOD



Design thinking is another process using the customer's perspective as input. This is a dynamic, non-linear process that teams employ to gain a deep understanding of users, challenge preconceived notions, redefine problems, and develop innovative solutions through prototyping and testing. This process comprises five interconnected phases (Empathize, Define, Ideate, Prototype, and Test) and proves highly effective when addressing complex, ill-defined, or unknown problems.

INNOVATION NETWORKS

While previous examples of open innovation typically involve cooperations with a single partner at a time, a network of partners that operate within the same field of interest can also opt to establish a common ground of collaboration. Most examples⁴⁹ of these networks include research institutions, universities, companies, startups, and other stakeholders, that foster knowledge-sharing, joint research, and technology development. Nevertheless, there are many other sources of innovation, either external or internal.

WHERE TO LOOK FOR INNOVATION?

There are several ways corporations can pave the way for innovation. As mentioned earlier, innovation can be an outside-in, an inside-out or a coupled process. Accordingly, innovation can be found, acquired, created or co-created depending on what fit best each company's needs.

And startups can form a fruitful relationship; some require more involvement, some require more time, some may have more impact in the organization. There is no one-size-fits-all solution, and there are benefits coming from all types of partnership. For example, co-development of a product has a high impact on the innovation that can be generated inside an organization, but it is also very demanding in terms of involvement for both sides.

On the other hand, a supplier-buyer relationship requires much less corporate resources, but has less transformative impact for both parties involved. Ecosystem-wide initiatives such as accelerators or incubators can fall to either side of the scale, depending on the way they are implemented, but usually they are lower-intensity initiatives. Investments and acquisitions are more targeted actions matching very specific business objectives, that can also be very impactful if corporate involvement is intense.

STARTUP COOPERATIONS

In ecosystems like the Greek one, it seems that one of the most popular trends in Open Innovation for businesses today would be cooperations with startups. As mentioned, this is a win-win synergy for both parties, but the advantages bring tremendous value, specifically for companies with high potential in digital transformation. When openly partnering with an up-and-coming startup, a company gains fast access to vertical IT know-how and subject matter experts, which can quickly be translated into innovation implementation.

For many analysts, startup cooperations are described as the pinnacle of open innovation⁵⁰. Startups bring fresh perspectives, disruptive technologies, and innovative ideas. By collaborating with a startup, a company gains access to new knowledge, cutting-edge technologies that it might not have internally, and the typically agile mindset of a quickly adapting team.



Collaborations between companies and startups often involve co-creation, where both parties work together to develop new products, services, or solutions. This joint effort fosters a culture of innovation and encourages cross-pollination of ideas and cultural exchanges. Moreover, while both parties work together to develop innovations, startups enjoy the resources and support of an established company with a wide distribution and marketing network.

EXTERNAL	 Hackathons or Accelerators	Innovations that originate from innovation hackathons, acceleration competitions, or other third-party crowdsourcing mechanisms	Pro: Best for companies who do not have their own innovation labs or experts
	 Startups or solution providers	Independent solution providers of product or services (tech companies, consulting/design firms etc.), and startups that provide their product as vendors	Con: Company may not be the owner of the product's licence or IP rights
	 Acquisitions, acqui-hires or investments	Acquiring a company (a smaller competitor or a startup) that has already developed the desired solution or investing in one that develops something close to the desired one	
INTERNAL	 R&D department or innovation lab	A dedicated department managed by the company with the task of creating new ideas/products	Pro: The company has full control of the idea
	 Employees	Employees who work on innovation only partly or participate in ad hoc internal innovation mechanisms	Con: There might be a lack of internal talent or infrastructure to achieve the desired result
MIXED	 Cooperation with R&D Centers, Research Institutes or Academic Networks	Co-developing a solution in cooperation with a lab or institution that provides its expertise or technical equipment	Pro: Can limit internal resources required to create innovation
	 Solution co-development mechanisms (e.g. "Business Factory")	Close cooperation with external solution providers or startups with the aim of developing a tailored service or product, to be offered as part of the company's portfolio of services	Con: Requires high involvement of the company's stakeholders to achieve a successful outcome

3+1 CASE STUDIES

Open innovation preaches that David and Goliath should collaborate, not compete. Here are some recent examples of companies daring to open and partner with smaller startups⁵¹, and one that didn't go as planned.

PFIZER AND BIONTECH

This synergy has its roots back in 2018 when Pfizer wanted access to mRNA vaccines, an R&D area that BioNTech had been working on. Back then, vaccines were being developed to fight the flu. Under the terms of the agreement, BioNTech and Pfizer jointly conducted research and development activities to help advance mRNA-based flu vaccines. Pfizer assumed sole responsibility for further clinical development and commercialization of mRNA-based flu vaccines following BioNTech's completion of a first-in-human clinical study. A few years later, when the COVID-19 pandemic spread, Pfizer was ready to capitalize on technological advances in mRNA and successfully annihilate the Delta variant.

SKROUTZ AND SENDX

The price comparison site and marketplace Skroutz, once a startup itself, saw the rising need for faster and more efficient deliveries, which was going to become even more urgent as consumers turned to e-shopping during the pandemic. Instead of expanding its own small fleet, it quickly acquired SendX, a division of MyJobNow startup focused on last-mile delivery services, which had already developed the service it needed but had not yet conquered a market segment on its own.

TOYOTA AND AURORA

This is a perfect example of an 'everyone wins' scenario. Toyota wanted help from Aurora to explore self-driving car technology, a rapidly growing new segment. Aurora was struggling to grow and wanted access to one of the largest vehicle manufacturing networks on the planet. This match made in heaven led to the successful launch of a robotaxi in 2021, as well as the massive automation of Toyota's Sierra minivan fleet. Japanese automotive supplier Denso is also involved in the partnership, proving there is always room for more!

VIVARTIA AND FORKY

Originally starting with a wholly different business model, the founders of Forky, a food delivery app, realized they had to pivot and focus on a different operating model. Perhaps that is what attracted a large company like Vivartia to acquire the company a few years later. Not much information is known about the nature of the collaboration, but the partnership did not flourish.

IN DISCUSSION WITH



Epameinondas Christophilopoulos
UNESCO Chair on
Futures Research
Chairholder
| MOMus President
| Millennium Project
Greek Node Co-Chair
| FEN Vice-president
| ESIR member

Which would you say is the most competitive advantage of Greek companies? Where do they lag?

I believe in being straightforward and must point out that, on a global scale, Greek companies are not performing exceptionally well. While specific industries like tourism, shipping, and food production are thriving, their competitive edge often stems not from groundbreaking technology or innovative strategies, but rather from unique national attributes. These include Greece's rich cultural heritage, its strategic geographical position, and its abundance of natural resources. The tourism sector flourishes thanks to the country's breathtaking scenery, historical landmarks, and the warm hospitality of its people, positioning Greece as a top travel destination worldwide. In the realm of shipping, Greek businesses operate one of the world's most substantial merchant fleets, rooted in a profound maritime heritage. The food industry also shines, particularly in producing premium olive oil and other Mediterranean delicacies. Nevertheless, Greek enterprises encounter obstacles in areas like economic volatility, bureaucratic red tape, and restricted access to funding. Additionally, R&D is trailing behind their European counterparts which can be attributed partly to the aforementioned economic issues and a pronounced brain drain phenomenon, where highly skilled

professionals leave the country seeking better working conditions and prospects abroad. Addressing these challenges is imperative to elevate the global competitiveness of Greek businesses.

Given your experience with Foresight methodologies and tools, how would you describe the innovation landscape in Greece? How will it transform in the next years or what should change in order to have a more positive prospect?

The UNESCO Chair on Futures Research, in collaboration with the Special Secretariat for Foresight at the presidency of the government, was commissioned by the Hellenic Development Bank of Investments (HDBI), to analyse the innovation ecosystem and compose future scenarios towards 2035. According to the study, several pivotal factors will significantly influence the development of the innovation ecosystem and the advancement of competitiveness in the future. These include our strategies towards demographic shifts, addressing the issue of brain drain, transitioning to eco-friendly practices, reshaping the education system, navigating successfully the digital transformation, ensuring open access to data and knowledge, and refining the framework within which start-ups operate. Additionally, the embrace of sustainable policies backed by robust societal support, coupled with the establishment of an open economy, are identified as strategic variables fraught with uncertainty, yet crucial for shaping the future landscape of innovation in Greece.



DIGITAL TRANSFORMATION IN THE PRIVATE SECTOR

2023 EXECUTIVE SURVEY RESULTS

What do CEOs think of AI? How well do they know its potential and how eager are they to let their employees experiment with it? How do they encourage or pursue innovation in their organizations? Which skills do they identify as most valuable and how do they develop them inside their organizations? To find the answers, we asked 100 CEOs and top level managers of Greek companies.

Is the world of work different today than it was last year? In the wake of the pandemic, and the shifts this brought to the workplace through the enablement of remote and hybrid working covered in our past reports, it was important to investigate how Greek organizations move forward. In asking respondents about their employee preference regarding work location, 52% admitted that employees prefer a balanced hybrid plan. However, 9% reported that their organization does not allow remote or hybrid work, a number possibly acceptable given their positions within the healthcare and education sector and other organizations that still require physical presence.

METHODOLOGY OF THE SURVEY

Each year Found.ation explores how Digital Transformation progressed in Greece by running a survey among employees of Greek businesses. This year, we decided to take a different approach, targeting a more specific group of respondents. In collaboration with Dialectica, our questionnaire was distributed exclusively to C-Level employees in the

Greek business sector, reaching a total of 100 respondents working in the areas of General Management (28%), Technology (20%), Marketing (13%), Sales (12%), Innovation (6%), Finance (5%), R&D (4%), Operations (2%) and others (10%). No transformation effort can be successful if not supported by the top management, thus the findings of the survey shed interesting light on their opinions, refrains and vision.

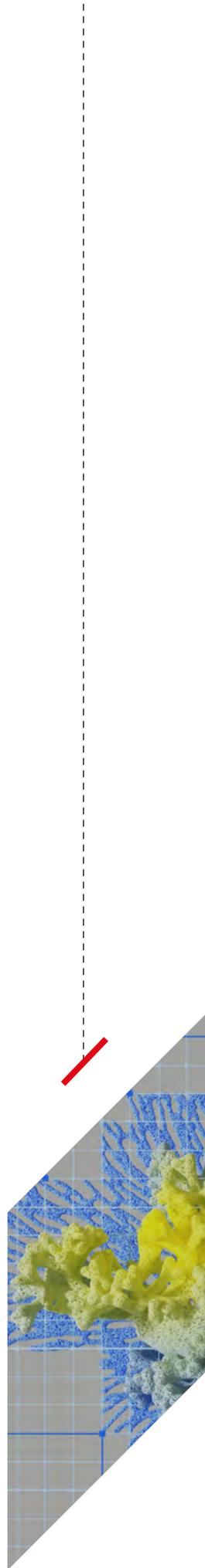
The main areas looking for insights included how organizations work considering culture and hybrid work, while the addition of AI in the workplace came into question. Innovation, as every year, was a center point, while we explored the sentiment of how respondents felt about the future, where they will be focusing on and how. Our main goal was to explore the way senior executives feel about innovation, emerging technologies and digital transformation practices, how they nurture and embody them in their organizations and how they empower their people in adopting them.

WHO IS AFRAID OF AI?

Regarding AI, though the majority report using such tools to work faster, 56% state that these can open possibilities for new ideas. Of the individuals not using AI tools in work, half admit not having access to these tools, while 37% are not satisfied with the results produced. Only 4% have no interest in the tool, though another 7% do not trust the technology. Yet, no respondent felt that AI threatens their job position, an interesting response that goes against the current hype of Generative AI substituting all or most individuals, and a more realistic approach to using AI as a collaborator, or as a tool that can help unlock human potential, as 75% of respondents see it. Though the interest and potential for AI may be high among respondents, their perceived lack of application of AI tools in the workplace is owing to the inability of the workforce to envision how this emerging technology can find practical business application, an indication that more wide information and success stories or even experimental AI applications in the business sector should be part of the AI discussion, in the form of 'leading by example' or just brainstorming and envisioning exercises. Forty-nine percent of respondents believe that the lack of skills that will make AI work as a collaborator with the workforce may be a hurdle, while 44% see a barrier in technological comprehension.

HAS INNOVATION BEEN TURNED ON?

Greek organizations, thinking of innovation, opt for employee idea-generation schemes, internal innovation programs, partnerships with others and have a dedicated innovation department, but the majority (71%) do not have a dedicated CIO role, a finding that begs for an answer in regards to who puts these initiatives in place, especially when 1 in 2 respondents denote that less than 5% of the organization's budget is allocated to R&D. Could this mean that mainly innovation activities are not centrally orchestrated or organized and left more to individual departments and disconnected internal actions? Should this be true, one would place these organizations on a DT Maturity Level of between 1 and 2 (on a scale of 0 to 5, 0 being the lowest), as these were proposed in our 2022 DT report. Given that innovation efforts are



measured in the company's revenue and identified through indicators such as new product and service delivery, difficult as it may be to connect immediate fruitful effects of innovation activities to results with the chance of monitoring innovation narrowly, the biggest hurdle to innovation is considered organizational culture (40%) ahead of lack of resources (30%). This might mean that every organization wants change, but not many want to change themselves and somehow efforts fall short and in disdain, leaving employees dispirited. Only, things cannot go ahead this way. As important as it may be to communicate that an organization strives for innovation, equally if not more important is an organization embracing such efforts with all its strength.

This would additionally require readdressing one's DT strategy regularly, though only 39% of the participants review their digital transformation strategy yearly, and astonishingly, 34% report not having any monitoring review process. This finding implies that there might be little sense of direction in the intended outcome of innovation efforts for most businesses, and a functioning "innovation compass" that may be tampered with.

It is indicated that the preferred way of handling risk associated by DT transformation is following best practices (46%) instead of having a dedicated risk management team or using Project Management methodologies which include risk management (22%). Typical of the Greek age-old way of doing business, businesses refrain from being first movers, and prefer to see what works in the business, copy & then apply to themselves. Given that half of respondents describe their organization's structure as a traditional hierarchical form, this may justify low reflexes to change, less eagerness to localization and adaptability to the Greek context, considering that best practices might originate from abroad or within risk taking Greek early movers. In the latter case, one needs to ask how early movers handle the risk and cost involved and whether the rest of the innovation community waits out the storm.

SKILLS FOR A NEW AGE

Other than organizations, people also need to adapt to this brave new world. Currently, this is occurring with innovation activities such as online learning platforms (30%), in-house training sessions (29%) and external training providers (24%) and less with on-the-job training, developing new job roles suited for digital work and trainings that employees attend. The focus currently is on innovation (30%) and productivity skills (27%). The respondents indicate that the skills they wish to develop more are on emerging technologies, such as AI and agile methodologies, followed by leadership skills that can help them lead teams better through the unprecedented shifts in the post-pandemic workplace. Currently, the effectiveness of training is mainly monitored through employee feedback (44%), and job performance improvements (29%) that may indicate an increasing shift of mindset into applying knowledge to practice ASAP and learning on the job. It would be beneficial to follow up and identify how forgiving of 'failures' these organization may be, considering that a high rate of newly

possessed knowledge applied to practice can highlight inexperience. However, Rome wasn't built in a day, therefore, organizations ought to be willing to take the risk of failure if they are to flourish and differentiate in the long term!

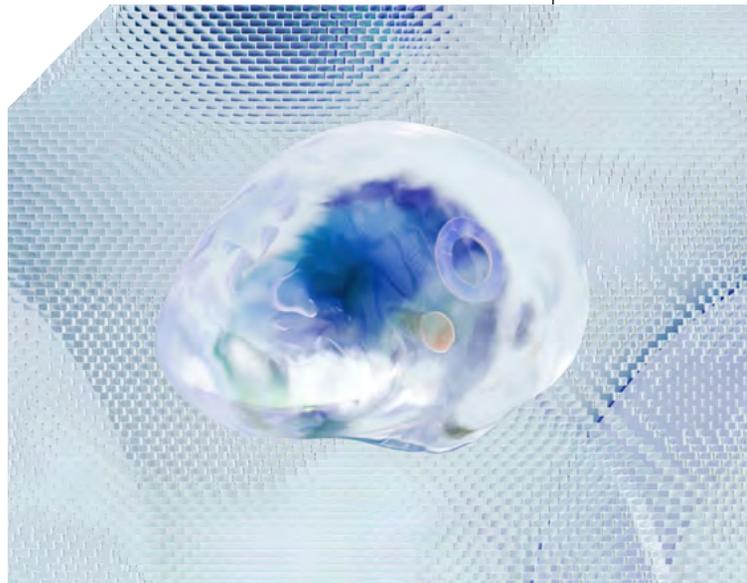
When not upskilling and instead hiring, businesses are least interested in degrees and qualifications and more eager to find team members with learning agility (43%) and specific technical and soft skills (63%). But how can they find them “ready to be served” in an environment that is under development and does not really “develop” this kind of individual? Of course, they do look for cultural fit as a standard practice (71%) to have teams and team members aligned in values.

NEW TECHNOLOGIES, SAME CONCERNS

As Digital Transformation moves ahead, embedding emerging technologies in the workplace will become even more significant. Most participants consider themselves fast-followers when it comes to the implementation of new technologies and agile methodologies (43%), but only 23% identify as early adopters. Another 22% are slow movers, with the remaining 12% stating their reluctance to commit to the implementation due to cost or risk. However, the vast majority (67%) report that DT has proven effective in terms of leading operational efficiency and process automation, followed by sales and marketing, business model innovation, and customer engagement and experience. Considering that 22% of the respondents find AI and Machine Learning as the most essential technologies for their organization, a percentage on par with Data Analytics, closely followed by Cloud Computing, it seems that operational efficiency will continue to be at the forefront of Digital Transformation for Greek businesses. Had the interest been directed to IoT, AR/VR, Blockchain or the Metaverse, 2024 would find us curious to uncover developing gems in terms of disruptive products, services and business models. But as can be the case in the global arena, Greek organizations play it safe and have a less risk-taking strategy, so we shouldn't expect any surprises. Another interesting fact to note is that a surprisingly large number of respondents say their companies make use of no-code tools such as Microsoft Power Apps, Google AppSheet or Zapier, while only 17% state they use no such tools or are not even aware of their existence.

NOW WHAT?

The respondents foresee that in the years ahead, their organizations are most likely to invest in IT and DT (27%) followed by production and service delivery, slightly ahead of customer service and experience,



marketing and branding and R&D – even when their R&D is currently significantly low. Notably, only 4% of respondents believe their organization will invest in sustainability and environmental initiatives, a rather worrying insight given the stress building up from climate change for local communities⁵² over the globe, yet, given the small size of Greek companies and their relentless efforts to survive in a competitive market, they are led to turn a blind eye on this very important subject.

Responding to what is believed to be the greatest risk for their organization's growth in the coming decade, respondents note economic instability (21%), the shortage of skilled workforce (19%) and competition (16%). Again, environmental and sustainability issues seem very low on the agenda (3%), illustrating a sense that organizations are disconnected from important societal and possibly life-threatening causes and events and are focused on business as usual, no matter the consequences. It is only a matter of time until organizations realize how much environmental and sustainability issues can influence economic stability and market fluctuations. Recent unfortunate events such as a disruption by a flooded railroad, a blocked canal such as Suez, or power lines affected and graded nonfunctional because of extreme heat, all point to the direction that governments⁵³ will have to shape policies for climate change mitigation, and individual businesses cannot disregard their personal impact on the environment. In this light, respondents stating that their organization needs adaptability and innovation to thrive in the new world, ought to bear in mind that this not only involves competition and market waves, but also the context and environment in which they operate with currently unfathomable implications for business as usual.

KEY FINDINGS

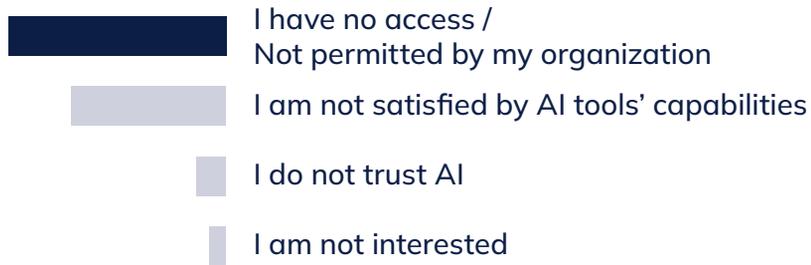
This year's research method and results captured a very interesting picture of the current state of Digital Transformation in Greece. Looking forward, it seems important for Greek organizations to be exposed to more examples of how AI can be applied to business, get generative and creative in ways AI could come into play for them, as one of our businesses' age-old characteristics is that it is not an early mover or a risk taker, and requires building enough confidence before it adopts new disruptive tools and technologies. For innovation to flourish across sectors, more effort must be put into addressing one's DT Maturity level, and begin to develop organization-wide coordinated efforts to implement DT projects. Close by, to aid these efforts, a shift in culture would be beneficial, as in the new world ahead, agility, versatility and an entrepreneurial mindset are necessary to hold ground in the globalized local business arena. This definitely requires building upon and upskilling employee soft skills, but in any case, plenty of effort needs to be put in this direction. Furthermore, organizations need to become more future-proof, and though surviving the market competition is crucial, comprehending the wider context and environment in which they operate, its global challenges and local implications can make a difference on whether organizations will be around for the short or long term.

Dialectica is a B2B information services firm accelerating the shift to a prosperous society by empowering better decision-making. By partnering with the world's top business professionals, we support them in gaining insights into the markets, offering unmatched client service.

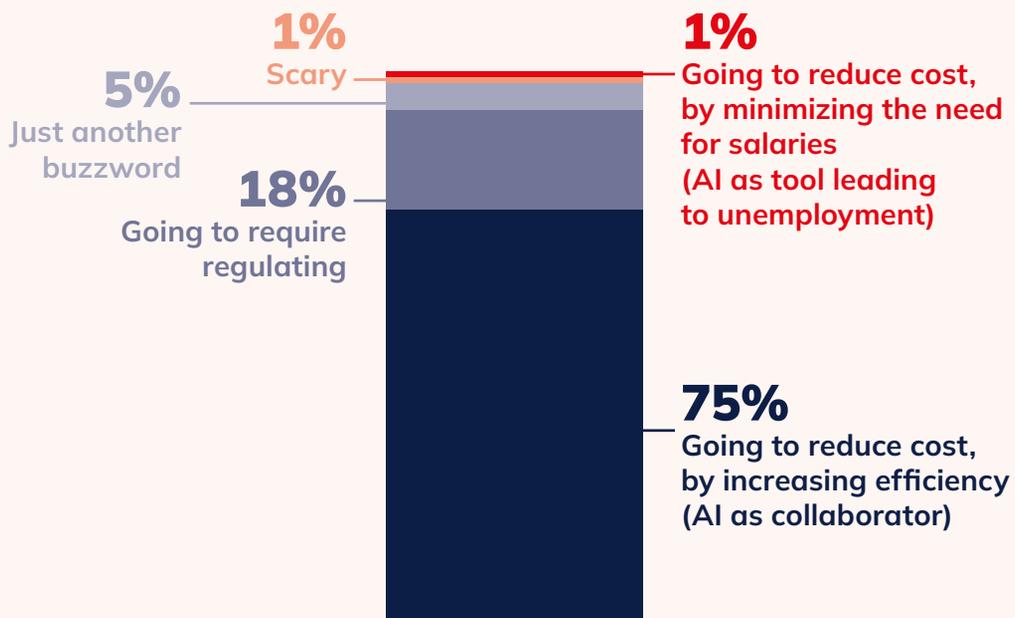
For what purpose do you personally use AI tools at work?



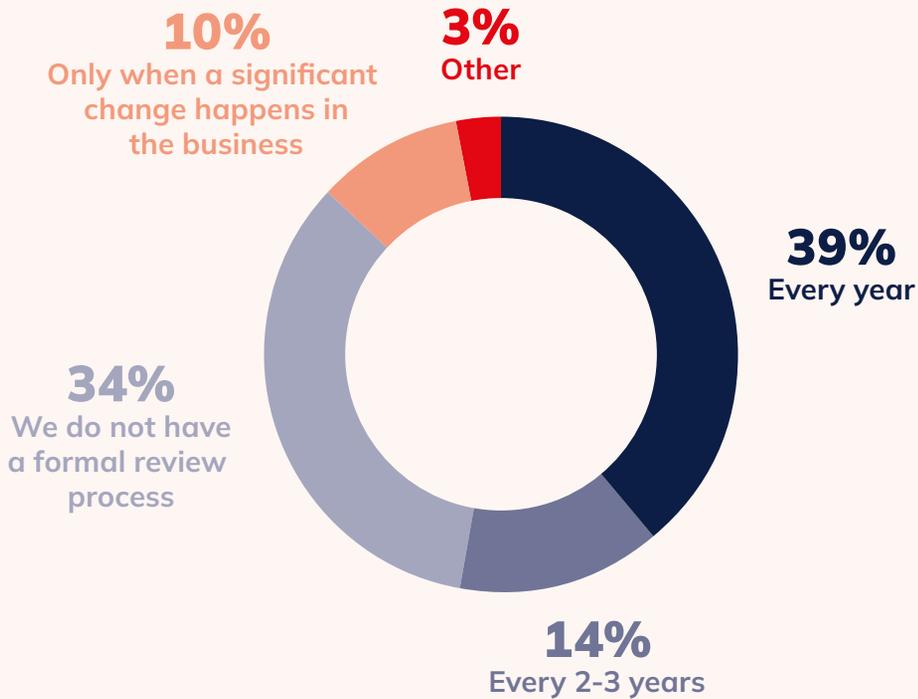
Why don't you use AI at work?



"In my organization, AI is _____"



How frequently do you review and revise your digital transformation strategy?



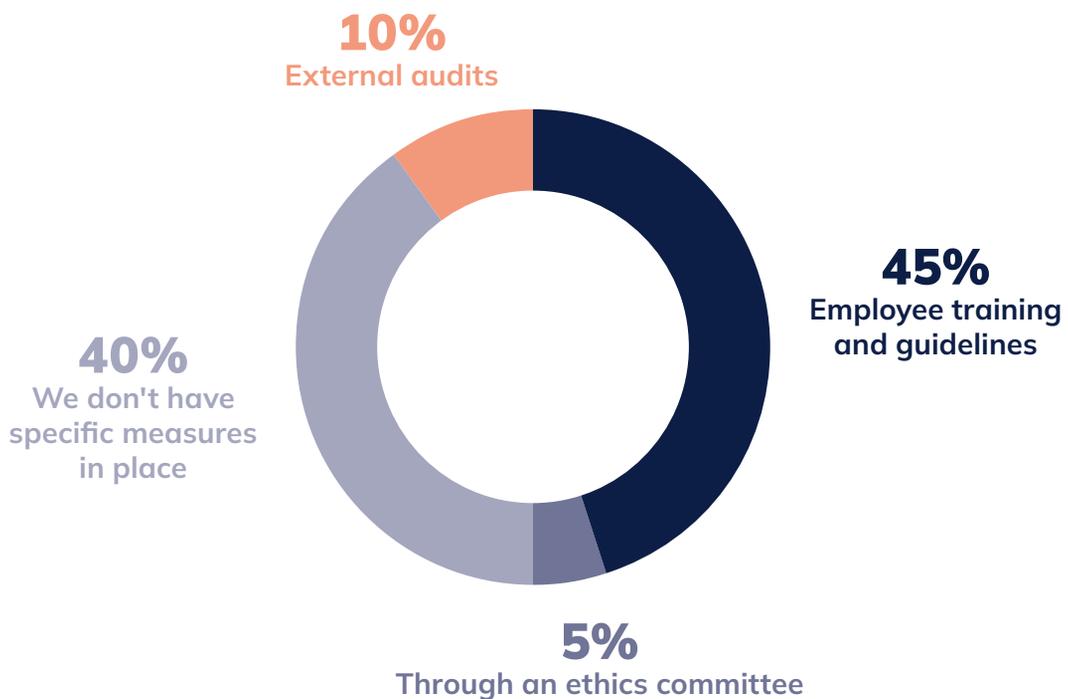
How does your company handle the risk associated with digital transformation projects?



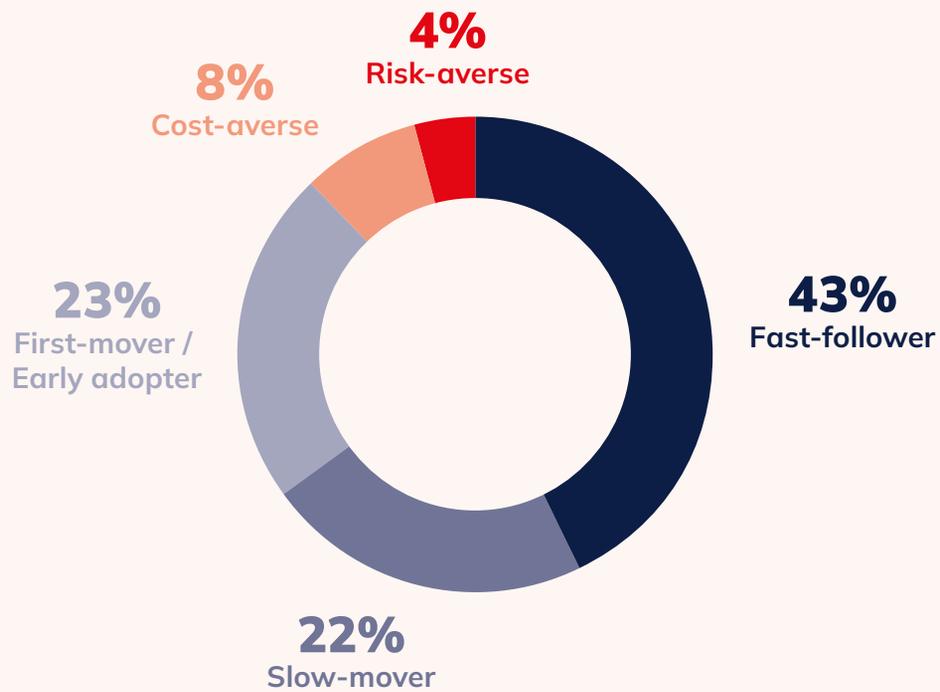
Does your company have a dedicated Chief Innovation Officer (CIO) or similar role?



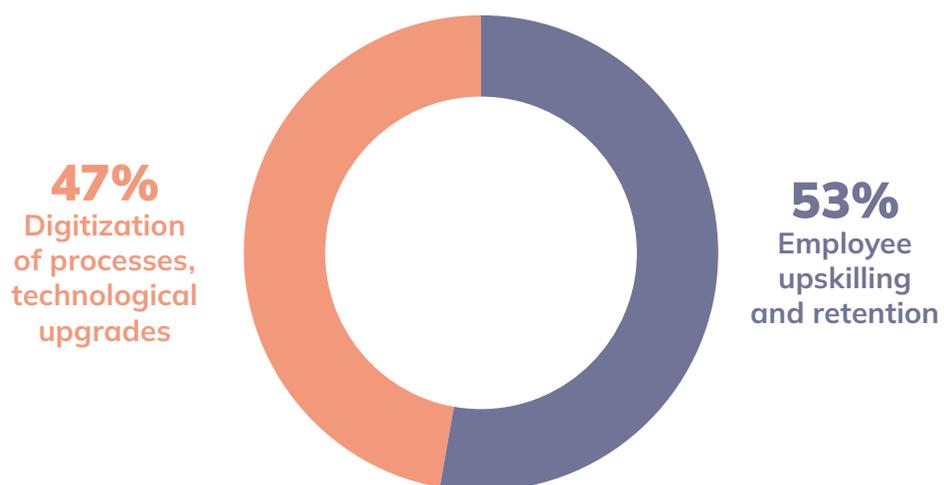
How does your company ensure the ethics and responsible use of new technologies?



In terms of adoption and implementation of new technologies, agile methodologies and ways of working, is your company a:



If you had to prioritize investment in one of the following two, which would it be?



Which of the following poses a greater risk for your organization's growth in the next 5-10 years?



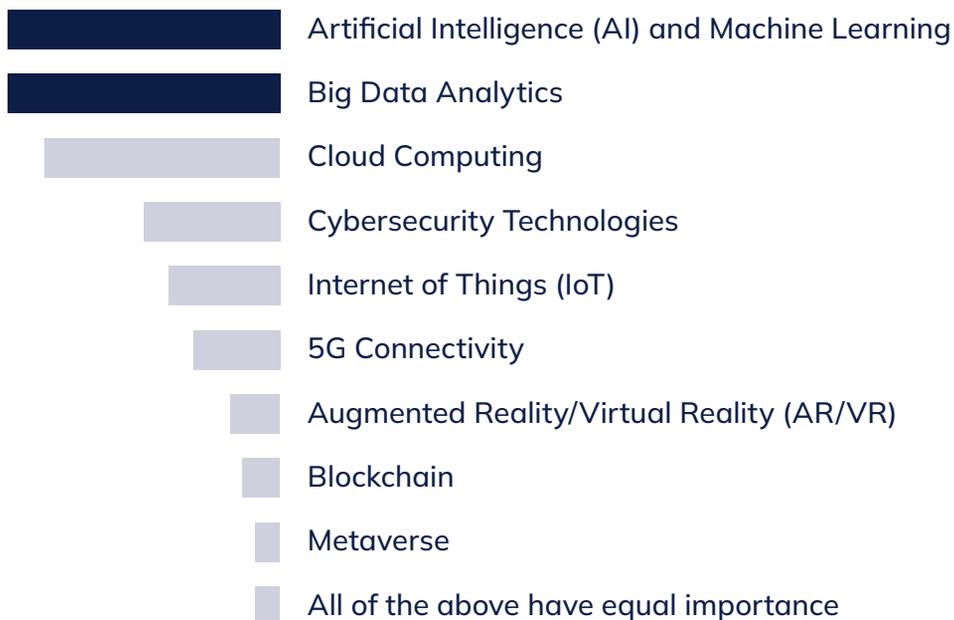
In which area of your business has digital transformation proved to be more effective?



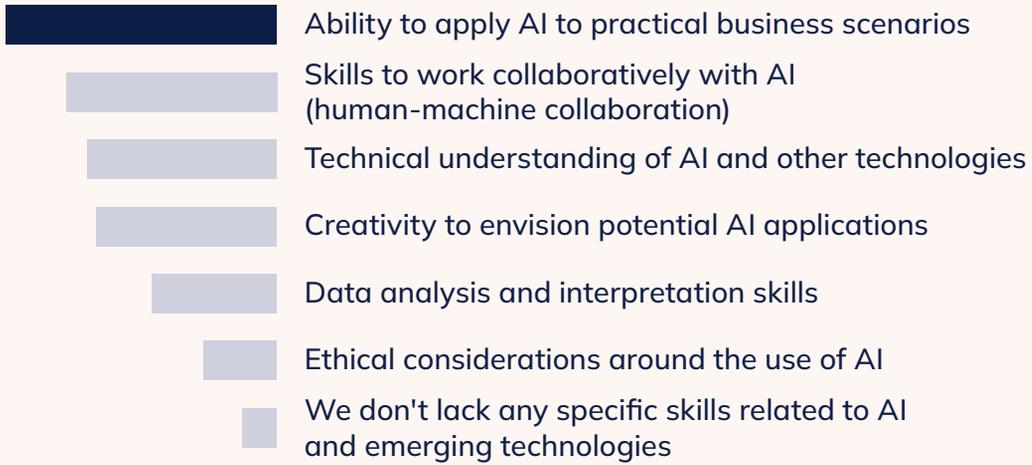
Which of the following no-code tools do you allow or actively use in your company?



Which technologies would you say are the most important for your company?



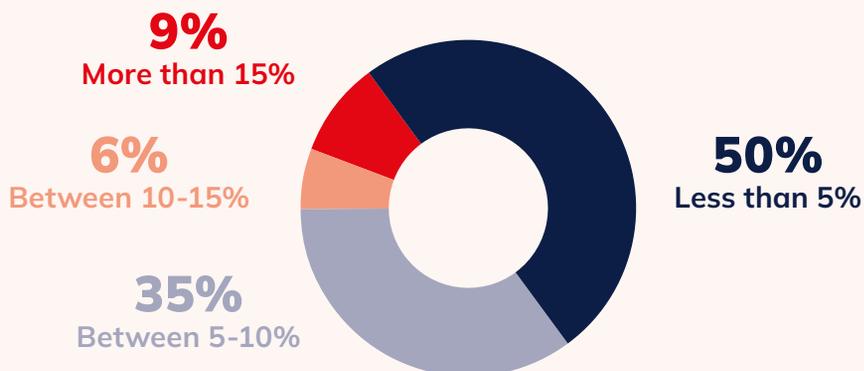
What skills do you believe the people in your company lack to fully leverage the power of AI and other emerging technological tools?



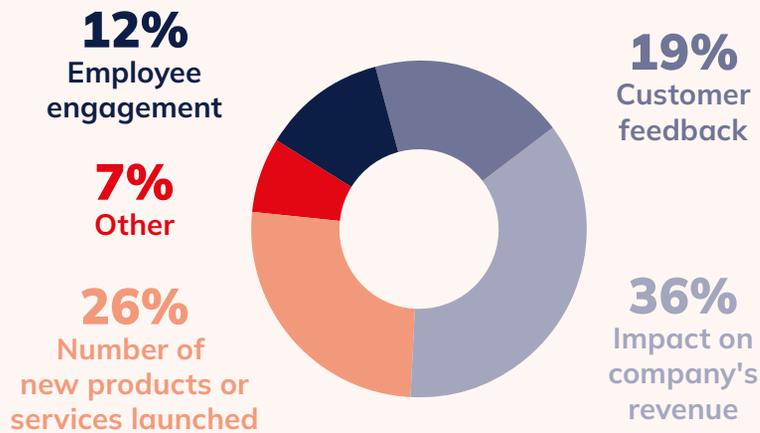
What is your primary focus in terms of skills development for your employees?



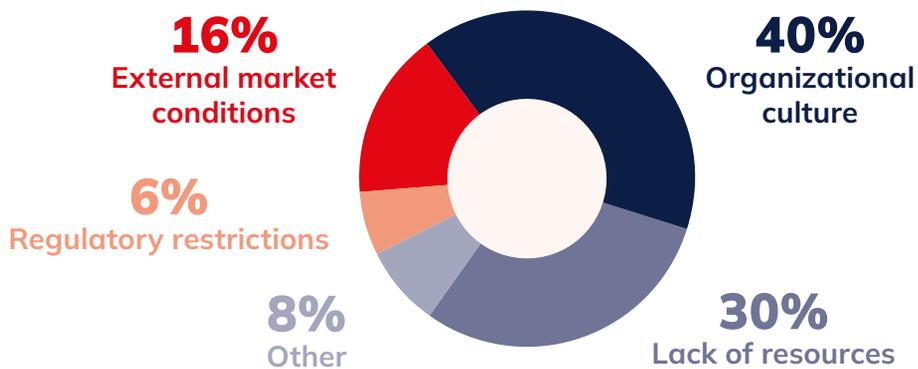
What proportion of your company's revenue is allocated for research and development?



How do you measure the success of your innovation efforts?



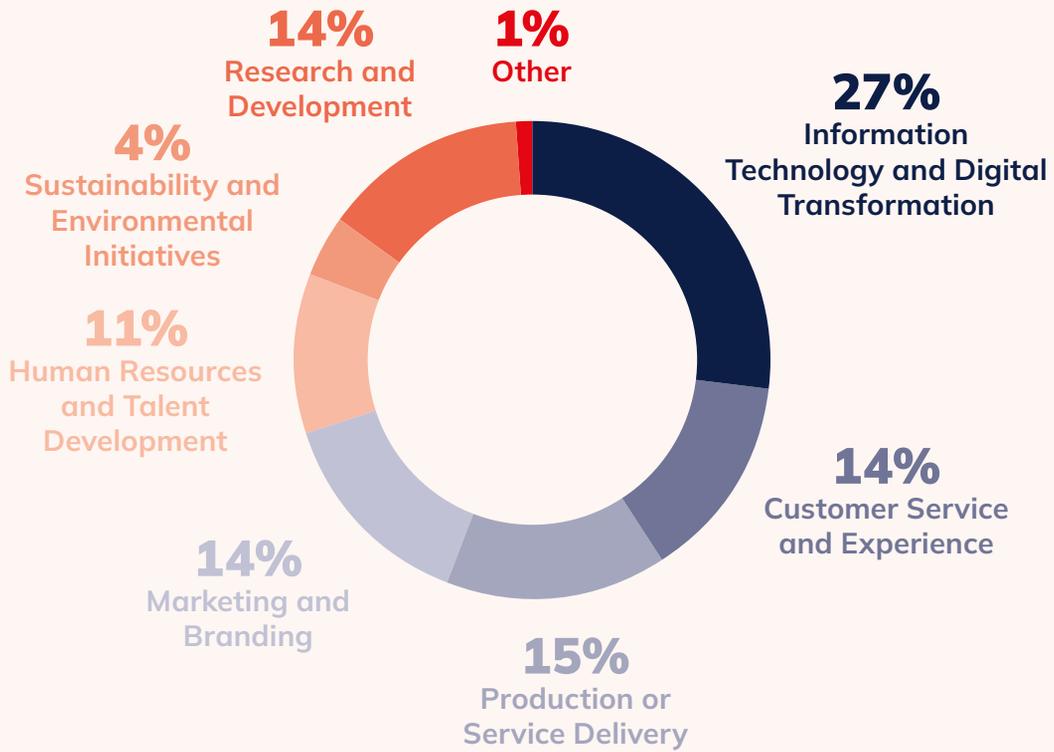
What is the biggest barrier to innovation in your organization?



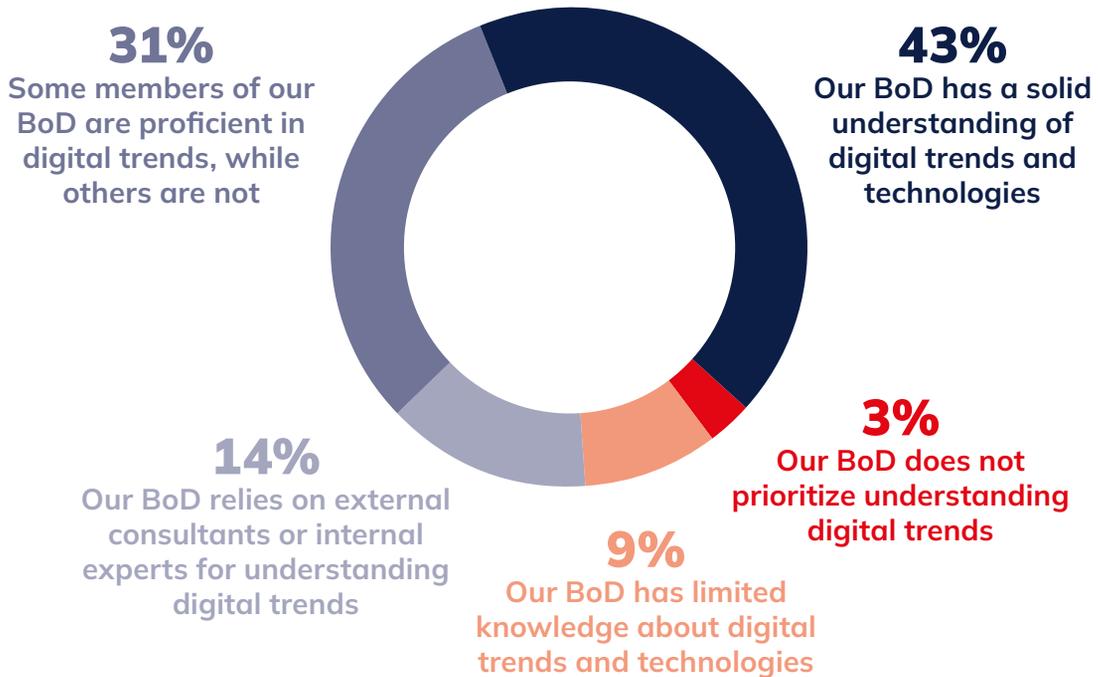
Choose the structure closer to the one of your company:

- Traditional hierarchical structure (clearly defined top-down structure)
- Matrix structure (employees report to two or more managers)
- Hybrid structure (a combination of various structures)
- Flat structure (few or no levels of middle management)
- Network structure (modern structure using technology to link employees and tasks)
- Holacracy (self-management with distributed authority)

Where will your company most likely invest more in the next 3 to 5 years?



Choose the statement that reflects more the digital-savviness of your company's Board of Directors (BoD):



What initiatives does your company take to foster a culture of innovation?



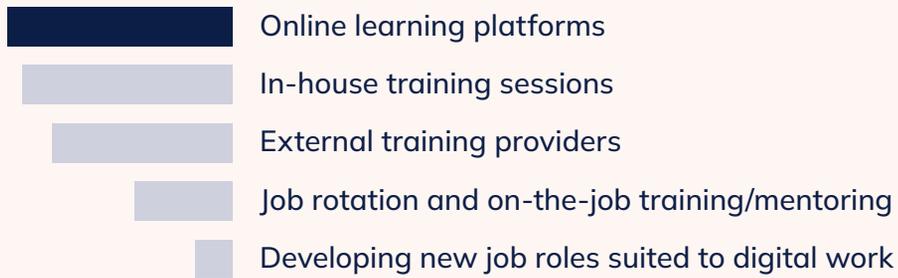
Which of the following skills would you like to personally obtain or enhance in 2024?



What metrics do you use to evaluate the effectiveness of your training programs?



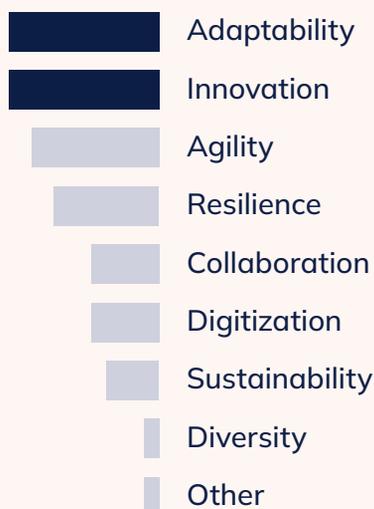
How does your organization deliver skills development and training programs?

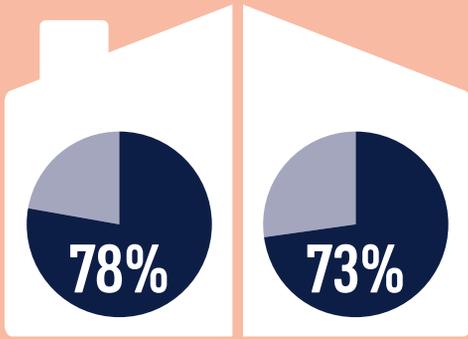


When searching for new talent, you focus more on:



What single word most reflects what your organization needs to thrive in 2024?





78% of employees prefer to **work from home** or in a hybrid plan

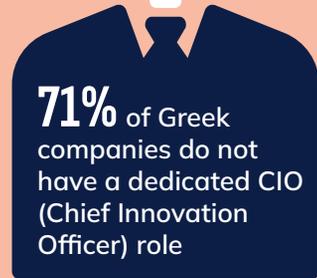
73% of managers believe that hybrid work **boosts productivity** or barely affects it



...mainly to **work faster** or **get new ideas**

74%

of managers **use AI tools** at work...

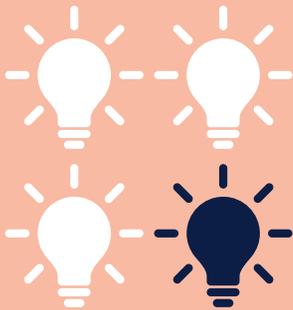


71% of Greek companies do not have a dedicated CIO (Chief Innovation Officer) role

Only 2% find AI scary or job-threatening



No.1 way to measure the success of innovation efforts is **the impact on a company's revenue**



3 of the top 4 ways to foster innovation in an organization

are believed to come from the **inside** (employee idea-generation schemes, internal labs, innovation departments). Partnerships with startups / academia is 3rd out of the 4.



No1 barrier

to innovation is Organizational Culture



30% of managers believe that **Innovation skills** (analytical/design thinking, customer experience, problem-solving) **should be a priority** for their employees. Productivity skills come second.

69%

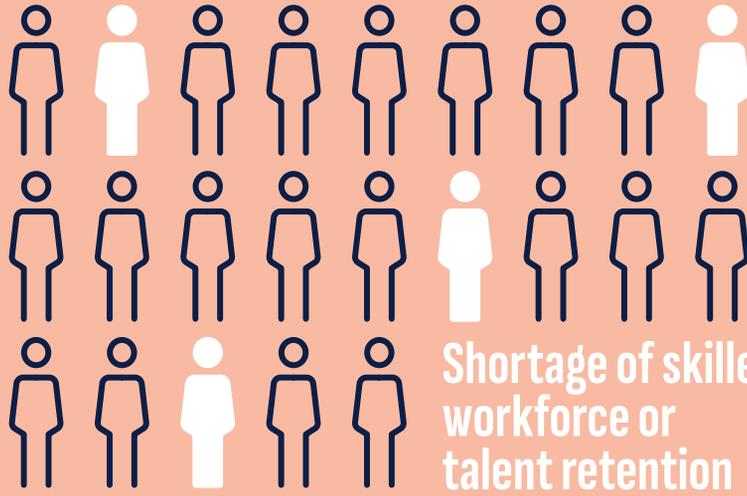
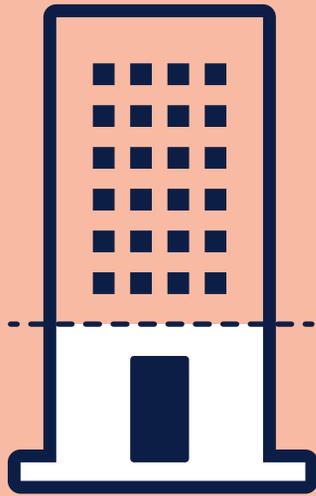
of managers took part in some skills training program themselves in 2023.



61%

of those chose to train in Leadership skills.

For 2024, managers wish to prioritize upskilling in Emerging Technologies for themselves

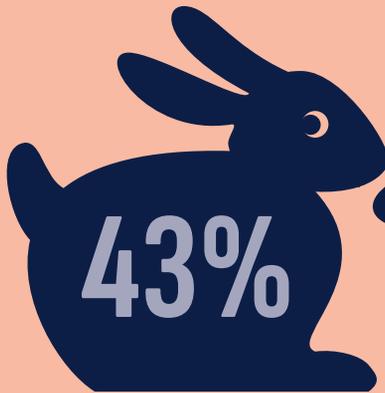


Shortage of skilled workforce or talent retention

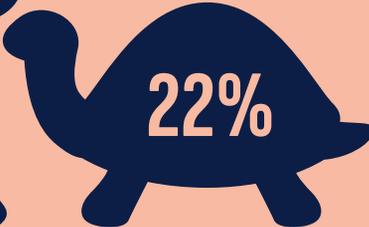
is considered the **2nd greater risk for growth** in the next 5-10 years (economic instability is the 1st)

34%

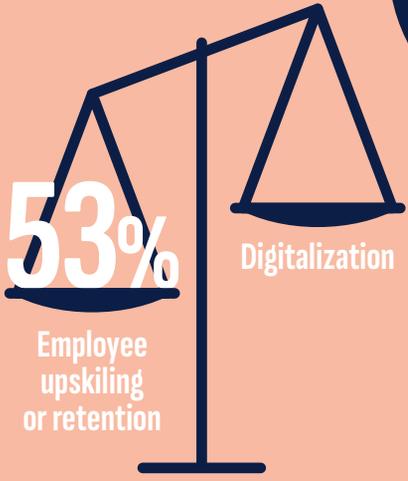
of Greek companies **do not** have a formal DT strategy review process in place



of Greek managers consider their companies **fast-followers**



of Greek managers think they are **slow-movers**

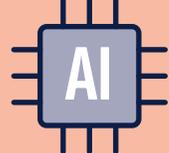


53%

Employee upskilling or retention

Digitalization

Employee upskilling or retention is **considered to be more important** than Digitalization by 53% of managers

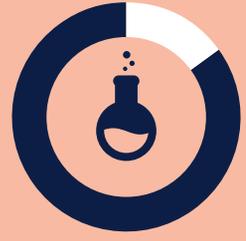


AI/Machine Learning

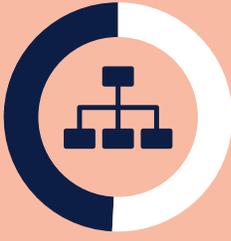


Big Data Analytics

Considered the **2 most important technologies** for Greek companies



Only **15%** of Greek companies **allocate more than 10%** of their revenues in R&D



51% of Greek companies have a traditional hierarchical structure (top-down)



Less than half of Greek managers believe that their BoD has a solid understanding of digital trends and technologies

IN DISCUSSION WITH



Konstantinos Konstantinou
Co-founder & co-CEO at korr. and vice-chairman at Printec Group of companies

Korr came to life as a sort of spin-off from a large corporation. Based on your experience, how can Greek companies experiment with innovation?

As Greek companies gear up for the digital transformation journey, it's akin to learning the art of being a DJ in the modern music scene. Historically, they've tended to hold back, a bit like DJs who are reluctant to spin new tracks because the old ones still get some heads nodding. This conservative approach, ingrained in a culture of playing it safe, has slowed the digital groove.

The real game-changer, however, is mastering organizational ambidexterity—it's like a DJ mixing two different tracks: one that keeps the party going (exploitation) and another that brings in fresh beats (exploration). Exploitation is about perfecting the current playlist, ensuring the dance floor stays full, while exploration is about experimenting with new rhythms and sounds, looking for what could be the next anthem.

Incorporating employee involvement (a form of open innovation) and scaling exploration, Korr. crafted a distinct culture within this landscape, diverging sharply from traditional exploitation businesses of Printec. By prioritizing staff input and collaborative exploration, we fostered a more innovative, flexible environment. This cultural shift was pivotal in successfully scaling our operations, aligning

growth with a more dynamic and inclusive approach.

Greek companies need to embrace this DJ mindset. It's not about abandoning the classics; rather, it's about infusing them with innovative, catchy hooks that can transform the vibe. This means blending their solid, traditional processes with digital innovations like AI, creating a fusion that resonates on both familiar and new frequencies.

Sure, outdated systems and red tape can sometimes act like a scratched record, but with a culture shift towards agility and learning, companies can start laying down tracks that are both timeless and trendy.

IN DISCUSSION WITH



Dimitris Lianos
Mayor of Naxos
and Small
Cyclades

Naxos is set to become the first "smart island in Greece". What does this mean for the local businesses and the island?

The "Naxos Smart Island" plan is a valuable tool for the digital transformation of local businesses. Amazon Web Services (AWS) has taken the lead in coordinating various companies to implement digital applications in businesses operating on the island. Naxos has significant economic activity in the primary sector (agricultural and livestock production), product processing, and services, and the digital applications will enhance service delivery across the spectrum. Professionals are already experiencing the benefits, such as training in digital services and the promotion of Naxos and their businesses.

We are here to implement "smart" management solutions, test applications for sharing organic material via drones on islands and in remote mountain settlements, telemedicine applications, and high connectivity. We are here to support and implement policies that enhance the utilization of new digital technologies, create new opportunities for businesses and consumers, support the green transition, achieve climate neutrality goals, assist citizens in acquiring digital skills, and contribute to the digitization of public services while ensuring respect for basic rights and values.

Imagine the Municipality in 2030. How will Digital Transformation affect its citizens and businesses?

By 2030, the benefits of the "Naxos Smart Island" program will be significant. With the completion and continuous improvement of the island's internet network, the sense of security for all residents will increase. For example, telemedicine can effectively operate in remote clinics on the island, producers can monitor the microclimate of their area throughout the year, and residents in mountainous and remote areas of Naxos can have internet access year-round, allowing them to work remotely, among other things. The benefits to the local community from implementing digital applications with the assistance of AWS will be manifold, in various areas. By placing the citizen-user at the center of the design and implementation of new digital services, transparency, participation, accessibility, privacy, as well as the sense of security and trust in institutions, are increased. The choice of Naxos for the implementation of this pilot program by AWS is highly significant for the islanders, and for this, we sincerely thank them.

KEY TAKEAWAYS

Greece finds itself at a critical juncture in its digital transition journey. With a strategic roadmap in place for 2020-2025, Greece aims to leverage digital transformation to enhance its economic competitiveness and societal resilience, although notable gaps in various dimensions still demand effective interventions.

Undeniably, the greatest success of the public sector remains gov.gr: over 8 million distinct citizens have utilized gov.gr services since its inception, while new services are being added constantly.

For 2024 we draw the portrait of a company that is adaptive and efficient; one that is agile and fast-changing, impactful, leading and evolving; one that leaves a positive footprint and sets the foundations of innovation. Our focus is on the adoption of emerging technologies like Artificial Intelligence (and especially Generative AI), its impact in the form and structure of companies, the ESG strategies, but also the possibilities and outcomes of Open Innovation initiatives.

To fully leverage on AI tools, an organization's workforce must develop some new skills, while its leadership team must also be in a position to deeply understand the new technologies and envision their usefulness and ROI for their organization. A new organizational structure and mindset are also necessary to support this journey. In this year's report we examine what it takes to become efficient by applying all those transformation practices.

Every company must recognize the importance of continuous learning and provide ample opportunities for employees to enhance their skills and stay updated with the latest advancements in technology. By empowering its workforce to acquire new competencies, any organization has the potential to amplify the efficiency of technological tools and drive innovation.

We asked 100 CEOs "What single word most reflects what your organization needs to thrive in 2023?". Their top 3 answers were: Adaptability, Innovation, Agility. So, it makes sense to choose as our main focus for this year's report the qualities of the adaptive organization. Any organization willing to invest in specific practices that enable it to become more agile, flexible and innovative, is better positioned than its counterparts in facing what comes next.

#tech_powered, #people_driven, #impactful and #open_to_innovation - this is what the adaptive business should be in 2024. From the entry-level employee to the CEO, the adaptive organization requires deep changes in skills, organizational structures and culture.

A forward-thinking company must also create impact. By fostering collaboration and nurturing a culture of openness, an organization can initiate a ripple effect of innovation that not only benefits itself but also empowers its wider ecosystem to evolve and generate more innovation in an infinite feedback loop.

For 2024, we chose to focus on Open Innovation - a unique mechanism for organizations to produce successful products and services either using their own resources either by creating meaningful collaborations with the wider ecosystem. innovation can be an outside-in, an inside-out or a coupled process. Accordingly, innovation can be found, acquired, created or co-created depending on what fit best each company's needs.



100 CEOs and top level managers of Greek companies who participated in our survey shed light on some interesting topics:

- 73% of managers believe that hybrid work boosts productivity or affects it very little
- 74% of managers use AI tools mainly to work faster or get new ideas. Only 2% find AI scary or job-threatening
- Applying AI to practical business scenarios and human-machine collaboration are the most desired skills to develop (regarding AI use)
- 3 of the top 4 ways to foster innovation in an organization are believed to come from the inside (employee idea-generation schemes, internal labs, innovation departments. Partnerships with startups/ academia is 3rd out of the 4.
- No.1 barrier to innovation is Organizational Culture
- 30% of managers believe that Innovation skills (analytical/ design thinking, customer experience, problem-solving) should be a priority for their employees. Productivity skills comes second.
- For 2024, managers wish to prioritize upskilling in Emerging Technologies for themselves
- 34% of Greek companies do not have a formal DT strategy review process in place
- Shortage of skilled workforce or talent retention is considered the 2nd greater risk for growth in the next 5-10 years (economic instability is the 1st)
- Employee upskilling or retention is considered to be more important than Digitalization by 53% of managers
- AI/Machine Learning and Big Data Analytics are considered the 2 most important technologies for Greek companies
- Less than half Greek managers believe that their BoD has a solid understanding of digital trends and technologies

1. **Digitalisation in Europe - 2023 edition**
<https://ec.europa.eu/eurostat/web/interactive-publications/digitalisation-2023>
2. **2023 Report on the state of the Digital Decade**
<https://digital-strategy.ec.europa.eu/en/library/2023-report-state-digital-decade>
3. **Global Innovation Index 2023**
https://www.wipo.int/global_innovation_index/en/2023/
4. <https://www.secdigital.gov.gr/paroyias-i-ethnikis-politikis-dioiki/>
5. <https://oecd-opsi.org/innovations/mitos-the-national-registry-of-administrative-procedures/>
6. <https://www.secdigital.gov.gr/sti-dimosiotita-o-odigos-psifiakis-pro/>
7. <https://www.nationalcoalition.gov.gr/article/enischysi-ton-psifiakon-dexiotiton-gia/>
8. <https://www.gov.gr/ipiresies/polites-kai-kathemerinoteta/stoikheia-polite-kai-tautopoietika-eggrafa/id>
9. <https://www.weforum.org/agenda/2023/05/ai-work-creative/>
10. <https://www.wsj.com/articles/the-ai-nanny-in-your-babys-future-999d0e50>
11. <https://hypebeast.com/2023/9/coca-cola-y3000-new-ai-created-flavor>
12. <https://slate.com/technology/2023/04/artificial-intelligence-jobs-software-eating-the-world-andreessen-economy.html>
13. <https://www.axios.com/2023/05/17/ai-leaders-sam-altman-regulate-senate>
14. <https://www.theguardian.com/commentisfree/2023/may/15/artificial-intelligence-cynicism-technology>
15. <https://www.newsweek.com/2023/07/21/ai-scariest-beast-ever-created-says-sci-fi-writer-bruce-sterling-1809439.html>
16. <https://www.techtarget.com/searchsoftwarequality/definition/citizen-development>
17. <https://www.bbc.com/future/article/20230517-how-solar-power-is-keeping-lebanons-lights-on>
18. <https://restofworld.org/2023/tesla-new-factory-mexico-drought/>
19. <https://www.ubs.com/global/en/our-firm/annual-review-2021/connect/articles/transformation-for-the-firm-and-for-clients.html>
20. <https://www.nber.org/papers/w30866> and <https://www.insurancejournal.com/news/international/2023/01/24/704295.htm>
21. <https://buffer.com/state-of-remote-work/2022>
22. <https://www.cnn.com/2023/03/13/chatgpt-and-generative-ai-are-booming-but-at-a-very-expensive-price.html>
23. <https://www.theatlantic.com/technology/archive/openai-text-models-google-search-engine-bard-chatbot-chatgpt-prompt-writing>
24. <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/the-vanishing-middle-manager>
25. <https://www.businessinsider.com/benioff-uses-ai-to-end-politics-at-staff-meetings-2017-5>
26. https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=5676&context=gc_etds
27. <https://www.semanticscholar.org/paper/Organizational-Decision-Making-Structures-in-the-of-Shrestha-Ben-Menahem/9e58e541b8549cd438c9d3e8cfb91dd12760589f>
28. A human is doing the decision making assisted by a machine that is providing only decision support or partial automation of some decisions, or parts of decisions. This is often referred to as intelligence amplification.
29. <https://sloanreview.mit.edu/article/the-human-factor-in-ai-based-decision-making/>
30. <https://unfccc.int/cop28>
31. <https://www.theguardian.com/environment/2023/sep/19/global-heating-made-mediterranean-floods-more-likely-study-says>
32. <https://www.unwomen.org/en/what-we-do/ending-violence-against-women/unite/16-days-of-activism>

33. <https://spigglelaw.com/is-racial-favoritism-legal-at-work/>
34. <https://www.deloitte.com/content/dam/assets-shared/legacy/docs/about/2022/deloitte-2022-genz-millennial-survey.pdf>
35. <https://www.pewresearch.org/science/2021/05/26/gen-z-millennials-stand-out-for-climate-change-activism-social-media-engagement-with-issue/>
36. <https://www.esgtoday.com/97-of-top-execs-expect-climate-change-to-impact-company-strategy-operations-deloitte-survey/>
37. <https://onlinelibrary.wiley.com/doi/full/10.1002/ijfe.2089>
38. <https://emtemp.gcom.cloud/ngw/globalassets/en/finance/documents/trends/esg-measures-that-matter-gbq.pdf>
39. <https://ec.europa.eu/docsroom/documents/1547/attachments/1/translations/en/renditions/native>
40. <https://media-publications.bcg.com/How-EU-Financial-Institutions-Can-Prepare-for-ESRD-ESRS.pdf>
41. Benjamin Laker, How To Lead Innovation In 2022, <https://www.forbes.com/sites/benjaminlaker/2022/04/07/how-to-lead-innovation-in-2022>
42. Linus Dahlander and Martin Wallin, Why Now Is the Time for “Open Innovation” <https://hbr.org/2020/06/why-now-is-the-time-for-open-innovation>.
43. Oliver Alexy, Paola Criscuolo and Ammon Salter, Does IP Strategy Have to Cripple Open Innovation? <https://sloanreview.mit.edu/article/does-ip-strategy-have-to-cripple-open-innovation/>
44. Christian Stadler, Julia Hautz, Kurt Matzler, and Stephan Friedrich von den Eichen, A User’s Guide to Open Strategy, Harvard Business Review <https://hbr.org/2021/11/balancing-open-innovation-with-protecting-ip>
45. Arjan Keijser, What is Open Innovation: a definitive guide <https://www.steepconsult.com/insights/what-is-open-innovation-a-definitive-guide/>
46. Elon Musk, All Our Patent Are Belong To You <https://www.tesla.com/blog/all-our-patent-are-belong-you>
47. Tanja Eschberger-Friedl, Best Practice Open Innovation - this is how the best are doing it <https://www.lead-innovation.com/en/insights/english-blog/best-practice-open-innovation>
48. Ekaterina Novoseltseva, Open Innovation: Benefits, Case Studies and Books <https://apiumhub.com/tech-blog-barcelona/open-innovation-benefits/>
49. Merit Morikawa, 16 Examples of Open Innovation – What Can We Learn from Them? <https://www.viima.com/blog/16-examples-of-open-innovation-what-can-we-learn-from-them>
50. Anis Uzzaman, How VC Partnerships Can Further Open Innovation for Corporations <https://www.forbes.com/sites/forbesfinancecouncil/2021/10/05/how-vc-partnerships-can-further-open-innovation-for-corporations>
51. Alex Goryachev, Better Together: Making Magic Between Big Companies and Startups <https://www.business.com/articles/startups-big-companies-collaborate-to-innovate/>
52. <https://www.bloomberg.com/news/articles/2023-07-26/extreme-heat-drought-drive-opposition-to-ai-data-centers>
53. <https://www.raconteur.net/climate-crisis/climate-adaptation-government>



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