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EU Tech Chamber White Paper
Digital Transformation

10 KEY RECOMMENDATIONS
HOW TO TRANSFORM YOUR COMPANY DIGITALLY

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EXECUTIVE SUMMARY

Technology has been disrupting many industries. However, technologies are evolving with time or new disciplines are entering the market every year. Today's digital technologies are deemed accelerators of innovation to enable transformation across all verticals. They can improve efficiency, power new products and services, introduce new business models, blur the boundaries between industries and lead to enhanced customer services. This has resulted in the birth of a new term 'digital transformation', which is essentially the strategic adoption of digital technologies.

An overarching and unavoidable revolution, digital transformation is driven by the confluence of several technological disruptions, including big data and analytics, unprecedented connectivity via machine-to-machine and human-to-machine interaction, 3-D printing, automation, artificial intelligence and augmented reality. Digital transformation allows companies to market more directly to their target market, process sales more efficiently, capture and keep track of their data and pinpoint strengths, weaknesses and where their business is headed in the future.

Rising customer expectations, increased competition and stricter regulatory requirements are spurring firms to adopt innovative digital-based processes – without succumbing to runaway costs or margin pressures. Driven by AI, behavioural economics, machine learning, robotics and advanced analytics, these emerging technologies are ushering in extraordinary operational efficiencies, accelerating time to market and enabling superior customer experiences through personalization – all on a massive scale1.

Leveraging this concept helps augment processes and productivity, deliver better customer and employee experiences, manage business risk and control costs. Besides, every organization has its own unique set of strategies customized to align with its requirements. The International Data Corporation (IDC) estimates that worldwide spending on the technologies and services that enable digital transformation will reach almost US$2 trillion in 2022.[1]

With great technology comes great responsibility.

Technology Obliges!

The European Technology Chamber is a registered NGO, which enables European businesses to use their technologies for the benefit of Europe and mankind. The EU Tech Chamber has three major goals and believes that technology is the answer to reach those.

Competitiveness

Strengthen Europe's competitiveness and transformation capabilities in its global positioning

Sustainability

Leverage innovation, key technologies and business opportunities to achieve 17 United Nations Sustainable Development Goalss

Growth

Build bridges to international markets and establish partnership for an inclusive growth

About the Digital Transformation Council

Designed to foster innovation and business opportunities for European technology.

The advent of digital transformation already started with Industry 3.0 and the first programmable logic controller. Today, most enterprises process their workload in the cloud. With renewable energy becoming economically viable, clean disruption will lead to a highly cost-efficient deployment of cloud infrastructure.

Platform Eco-systems
Connect European companies.

Innovation
Promote innovation in European technology companies.

Cybersecurity
Educate on cybersecurity and its application.

METHODOLOGY

About the EU Tech Chamber White Paper

A EUTEC White Paper serves as an informational document to share knowledge, foster exchange and collaboration and create value for our advocates and the larger EUTEC community – from society to businesses and from industry professionals to technological innovators.

Sharing technology-driven solutions and methods to help solve some of our most challenging questions on how we can improve our lives and providing insights from engineers, experts and researchers, a White Paper is carefully curated in collaboration with EUTEC advocates, supporters and contributors who share EUTEC's vision and values. It is published by EUTEC Sections for educational and knowledge-sharing purposes.

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10 RECOMMENDATIONS HOW TO TRANSFORM YOUR COMPANY DIGITALLY

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10 RECOMMENDATIONS

1. **Build trust in digital transformation:** Trust is a key of digital transformation. To build the trust in digital transformation is important to solve trust issue and encourge employees and end-users to gain the confidence they need to push ahead with digital transformation.

2. **Align business strategy and operations towards digital transformation:** To thrive in the digital future, companies must move beyond spawning disconnected technology initiatives and focus instead on building out a digital strategy that is aligned with their business model, processes and organization, to encourage digital usage and experimentation.

3. **Encourage businesses to integrate digital technologies:** The potential value of integrating digital technologies is substantial. Macroeconomic simulations conducted by OECD estimate that by 2030, the cumulative additional GDP contribution of new digital technologies could amount to €2.2 trillion in the EU, a 14.1% increase from 2017. [2]

4. **Understand the importance of the role of management in digital transformation:** Business leaders across the world fail to understand that digital transformation involves integrating digital technology into all areas of a business, resulting in fundamental changes to the way businesses operate and deliver value to customers.

5. **Prioritize cybersecurity for digital transformation:** As technology advances, so does the level of cyber risk that organizations must navigate. The cybersecurity for digitaly oriented organization has dramatically changed due to the emergence of new cyber risks. This requires a paradigm shift that cybersecurity should be an integral part of the organization and its employees.

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10 RECOMMENDATIONS

6. **Engage and train tomorrow's digital workforce:** Digital transformation requires a culture that embraces data-led decision making and diverse talent. To seize the full potential of digital technology, today's workers must be engaged and trained for tomorrow's jobs.

7. **Speed up digital transformation implementation:** In early 2021, Deloitte and Fortune surveyed CEOs about their leadership through the pandemic. 85% indicated that their organizations had significantly accelerated digital transformation during the crisis, with three-quarters seeing the pandemic as fostering the formation of new partnerships and alliances. [3]

8. **Connect digital processes:** 65.8% of businesses benefit from a balanced approach that effectively combines new technologies with existing solutions. Digital leaders have shown time and again that web-enabled connections between people, systems and devices can transform business models and create better outcomes. [4]

9. **Unify the user experience:** Digital transformation begins and ends with customer experience Customers experience your company through products and services. The fact that customer experience in the digital age is a continuous process puts high demands on companies. Customers want to be approached as unique individuals, whenever they communicate with you and whatever the means of communication.

10. **Increase efficiencies by digitally transforming your business:** Invest, leverage and use digital technologies that are proven to be effective and efficient. This brings your company, brand and business closer to people. Finding the right digital technologies is a essetial, as it will pave the way for you to attract the attention of potential customers and clients who are willing to use your company's new platform and improved digital technology.

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1. Build trust in digital transformation

The main challenge and goal are to identify an optimum balance of trustworthiness as defined by an organization's current state, minimum requirements and target state. This optimization approach also applies to the organization's entire digital transformation effort and to the overall trustworthiness strategy and associated level of investment.

Even with the benefits associated with achieving baseline levels of trustworthiness, too much trustworthiness is not always a net positive for an organization. Therefore, compromises are often need between the risk of underinvesting in trustworthiness efforts and the consequences of overinvesting in it. Putting trustworthiness in the context of a business case often highlights trade-offs.

The company culture will always resist new digital disruption and technology. However, gradually encouraging people to adopt the benefits and advantages of these digital technologies can allow the entire community of employees and even customers to adjust to the new technology. The business will operate effectively if this evolution of technology is supported rather than rejected or completely ignored. You should be effective and efficient in persuading resistant members of the business organization to openly embrace digital transformation.

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2. Align business strategy and operations towards digital transformation

A digital transformation strategy aims to create the capabilities to fully leverage new technologies' possibilities, opportunities and impact faster, better and in more innovative ways in the future. A digital transformation journey needs a staged approach with a clear roadmap, involving a variety of stakeholders, beyond silos and internal/external limitations. This roadmap takes into account that end goals will continue to move, as digital transformation de facto is an ongoing journey, as are change and digital innovation.

There is no single approach to accelerate digital transformation. Each digital ecosystem is unique and requires a tailored approach to match local needs and digital maturity levels. The transformation is not merely about digital technologies. It is first and foremost a solution to economic, social, societal, urban and organizational issues. When developing their digital strategy, local stakeholders have to keep in mind the problems faced by local citizens, businesses and organizations and come together to think about digital solutions to tackle them.

New technologies will offer new opportunities and challenges, as will changing market conditions, competitive landscapes and so forth. While digital transformation has the goal of preparing us for those, at the same time that goal is subject to change. Change is a constant.

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3. Encourage businesses to integrate digital technologies

Digitalization of businesses in the EU is lagging behind. According to the OECD, business use of information and communications technology (ICT) has grown slowly in the EU, and the use of advanced e-business applications is particularly low. Traditional sectors like construction, agri-food, textiles and steel as well as small and medium-sized enterprises (SMEs) are particularly delayed in their digital transformation.

This figure offsets all the technological investment needed and is a direct positive return to the EU economy. In the simulation of the labor market effects, the average employment effect of technology by 2030 is -2.9%; however, this may be offset by a decline in the European labor force projected for the same period, due to demographic factors. This will result in a need for higher labor productivity, which digitalization can provide. [5]

Technology will not become an effective tool without exploring how it could be made better and contribute to the whole company's well-being. Research and development (R & D) enable IT systems to be properly maximized and optimized. Discoveries and innovation may be witnessed in the process. R & D is an excellent way to leverage your technology and your business to a higher level. Investing in these projects is constructive for the whole business operation.

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4. Understand the importance of the role of management in digital transformation

A study by The Economist and DXC Technology found that 68% of senior executives have seen an increase in profitability in the last three years due to digital transformation, and 74% predict that there will be a rise in profitability due to digital transformation. Sometimes, it can also mean bringing about cultural change that requires organizations to continually challenge the status quo, experiment often and get comfortable with failure. The latter is essential, since we do not have a solution that fits all when it comes to achieving digital transformation. [6]

It is also crucial to have a clear idea about this concept, as the C-suite empowers this change, while IT and HR lead it. Here, IT and HR share the responsibility of planning and rolling out employee experience and digital transformation initiatives. Moreover, since cultural change will occur at all levels in a business organization, i.e. from C-suite to employees, it requires employee and manager buy-in throughout the process.

For successful digital transformation, leaders must be ready to face and solve certain challenges in this race. They should remember that strategy is a must. Without a vision, implementing digital technologies can cause failure beyond recovery and economic loss. Leaders must be engaged in initiatives that are directly aligned to the business strategy. With leadership buy-in secured, you can avoid any budget challenges that will impact your project.

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5. Prioritize cybersecurity for digital transformation

Digital transformation demands robust, secure and resilient digital network infrastructure. With cybersecurity incidents on the rise worldwide, critical infrastructure and democratic processes are under threat.

Currently, Europe is not adequately prepared to address cybersecurity threats. Both industry and the public sector are struggling to secure the equipment and tools needed (such as quantum technologies) due to the fragmentation of resources and know-how across the EU.

Successful digital transformation also requires transformation of security. Some of the largest companies in the world have fallen victim to cyberattacks. For that reason, security must be embedded directly into all applications. Much like putting off an overdue doctor's appointment, many companies choose to delay strengthening their security systems until it is too late.

It is critical for companies to not underestimate the importance of a security culture. Cyber attackers benefit from a lack of security awareness and untrained employees in the organizations they attack. Companies needs to ensure to train and periodically re-train employees in cyber security, and embed a sense of responsibility in every member of your staff. Your enterprise needs to address the challenges and opportunities to bring about competitive advantages while neutralizing new cyber risks.

6. Engage and train tomorrow's digital workforce

Employees who used to spend a lot of time with customers may now spend more time with technology. It is important to create a culture that does not harbour resentment or distrust over a more technological workplace. it is imperative to understand and relay how digital tools create a more efficient and positive outcome for both employees and customers. This means working with HR to create an experience that motivates employees through their technology. The mindset shift must start with leadership and trickle down into the core of the company culture.

Reskilling the workforce in different EU industrial sectors is a major priority and challenge. Launching a comprehensive pan-European training strategy based on the needs of industry is required to mitigate the economic and social risks that will come from failing to prepare the workforce for the digital future.

It is expected that digital transformation will severely impact employees accros the globe. The general workforce needs to be made aware that to stay employed, they must be willing to reskill and possibly shift sectors. According to a Harvard Business Rewiev research, more than half of all respondents predict a significant impact on employees' job roles as a result of adopting new technologies—meaning that 25 percent or more of jobs will change or that parts will become redundant. Without reskilling these employees, we're likely to see an employment crisis. [7]

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7. Speed up digital transformation implementation

While a range of technologies have accelerated disruption, business innovation and changes in human behaviour, the exponential growth and pace of change is just a fraction of what is yet to come. However, real acceleration happens when the acceleration of innovation and transformation goes exponential. When analysts talk about the digital transformation economy or DX economy, they mean not just acceleration of disruption and changes but acceleration of the actual digital transformations and innovations leading organizations will go through, making the gap with laggards even bigger.

In just a few months' time, the COVID-19 crisis has brought about years of change in the way companies in all sectors and regions do business. According to a new McKinsey Global Survey of executives, their companies have accelerated the digitization of their customer and supply-chain interactions and of their internal operations by three to four years. And the share of digital or digitally enabled products in their portfolios has accelerated by a shocking seven years. [8]

While business leaders largely understand the importance of digital transformation to remain competitive and support evolving customer demands, a lack of skilled employees who can both implement and work with new technology, is a key barrier. For some companies digital transformation projects have been slow, disappointing or have failed completely so far, despite digital transformation being a company

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8. Connect digital processes

According to the Salesforce research, 70% of customers say connected processes — such as seamless handoffs or contextualized engagement based on earlier interactions — are very important to winning their business. The digital world will not wait for slow, incumbent development processes, technologies and applications to deliver change: to seize market opportunities, satisfy customer demands and innovate at digital speed, the enterprise has to be capable of delivering web-scale IT at a fundamentally different pace. Outward-facing teams must be able to constantly build and test new ways of interacting – from experiences, offerings and channels through to entirely new business models – to discover and scale what works best. [9]

On-premise systems still make up the critical transactional core of most enterprises and need to be quickly and easily connected to new digital processes. This requires a combination of integration connectors, API management and manual workarounds to securely and robustly connect incumbent systems to new digital flows.

Building end-to-end digital flows requires us to 'mesh' our internal systems with people, systems and things that exist beyond the organization's boundaries. The technology infrastructure must therefore connect the whole digital landscape, making on-demand resources an integral component of end-to-end business operations. Competing in the emerging digital economy means participating in wider ecosystems with customers and partners.

9. Unify the user experience

As we live in an experience economy, more than ever, customers value how they experience brands above all else. That extends to both online and offline stores, as well as social media or other potential touchpoints along the way. And to make matters worse, a bad experience is often a silent killer. Most people who leave due to a bad experience will vanish without complaining, leaving companies clueless.

The key to change is to work on building a customer experience from the bottom up. The company goal should be to focus on customer journeys. If businesses are able to optimize the touchpoints along this journey instead of merely trying to win sales, then they will stand a better chance at keeping customers around longer. This provides the opportunity to improve sales and retention, which means stable growth in the years to come.

According to the Mckinsey research, digital transformation and a focus on customer experience can generate a 20-30% increase in customer satisfaction and economic gains of 20-50%. It is also important to consider the 'art of the customer experience'. This requires businesses to exemine at their current presence and find ways to assess the level of enjoyment of each customer's experience. Once companies understand their customers and have found out what they need, then companies can work on building a business that puts the customer at the centre of everything, which is the foundation for a better business. [10]

10. Increase efficiencies by digitally transforming your business

Digital transformation helps traditional industries to produce new goods in a more resource-efficient way and to deliver better, faster and cheaper products or services. The use of AI in different technological solutions and sectors can lead, for example, to fewer fatalities on roads, smarter use of resources such as energy and water, less pesticide use on farms and a more competitive manufacturing sector. Blockchain is also one of the emerging technologies that could have a huge potential impact in many sectors.

According to Fujitsu reserch, key drivers of digital transformation in retail are strengthened competitiveness (70% reporting high or very high importance), improved efficiency and reduced cost (69%), strengthened customer relationships (69%), and increased revenue (67%). Less important, but still significant, are improved employee satisfaction (60%) and transformed business models or processes (53%). [11]

Digital transformation of a business presents enormous opportunities for innovation and competitive advantage, which will require a complete rethinking of the organization: cultural, strategic, technological and operational changes. In this transformation, processes and data play a fundamental role, as achieving a good operational efficiency ratio is not just another indicator that entities must present, but a requirement to be able to account for the digital transformation.

CONCLUSION

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Most companies looking for digital transformation tend to gravitate towards the adoption of technologies like AI, cloud computing, augmented reality, blockchain, DevOps, data analytics, IoT and 5G. The key benefits include operational agility, mobility, workforce enablement, improved data security and enhanced customer experience.

The COVID-19 pandemic climate forced significant changes that can be considered part of digital transformation. These include furthering the reach of customer support via tools that include chatbots, automation tools for resilience reasons and a radical housecleaning of redundant or conflicting systems. The pandemic also boosted the rapid adoption of digital operating models, including integrated cross-functional teams, along with the expansion of public cloud adoption.

It is crucial to understand that digital transformation is not just about a specific project, process or optimization exercise. It is a holistic given that does not happen overnight. There are many components and intermediate goals. It happens in incremental steps, hence the digital maturity views. The various stages, steps, projects and so on in the context of digital transformation have one or more goals as such, yet at the same time fit within the broader purpose that we just established by referring to (part of) our definition. In other words: you have a roadmap and an end goal in mind.

To leverage digital transformation in organizations, it is essential to improve procedures through the adoption of innovative technologies that will directly impact operational efficiency, which translates into greater productivity. For example, for the management of business assets, solutions must be implemented that improve the efficiency of operations, maximizing the availability of productive assets and directly impacting the organization's profit and loss account. Implementing a robust enterprise asset management solution can directly contribute to how organizations improve their operational efficiency by increasing revenue and decreasing costs.

Digital transformation is ultimately the outcome of the collective efforts of diverse stakeholders sharing a common vision for the transformation of their businesses. Their approaches can be inspired by the successful digital transformation experiences of European companies of similar size, economic context and/or level of digital maturity.

Digital transformation also helps organizations to transform their management model based on operational efficiency, through tools that optimize the life cycle of productive investments.

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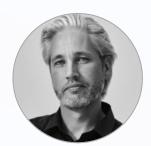Digital Transformation Council

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SOURCES

1. IDC, Worldwide Digital Transformation Spending Guide, https://www.idc.com/tracker/showproductinfo.jsp?containerId=IDC_P32575 [1]

2. Shaping Europe's digital future | European Commission, (www.europa.eu) [2]

3. Deloitte, How digital transformation—and a challenging environment—are building agility and resilience,
   https://www2.deloitte.com/us/en/insights/industry/technology/focus-areas-to-accelerate-digital-transformation.html [3]

4. Fujitsu, White Paper The Four Essential Pillars of Digital Transformation, https://www.fujitsu.com/nl/Images/The_Four_Essential_Pillars_of_Digital_Transformation.pdf [4]

5. EPRS | European Parliamentary Research Service, https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633171/EPRS_BRI(2019)633171_EN.pdf [5]

6. Digital Transformation: A Top Business Priority for 2020, https://wrighttechnologies.comdigital-transformation-a-top-business-priority-for-2020/ [6]

7. HBR. Competing In 2020: Winners And Losers In The Digital Economy, https://hbr.org/resources/pdfs/comm/microsoft/Competingin2020.pdf [7]

8. How COVID-19 has pushed companies over the technology tipping point—and transformed business forever, https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever [8]

9. Saleforce, What Are Customer Expectations, and How Have They Changed?, https://www.salesforce.com/resources/articles/customer-expectations/?sfdc-redirect=369 [9]

10. McKinsey, What matters in customer-experience transformations, https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/what-matters-in-customer-experience-cx-transformations [10]

11. Fujitsu, Success Factor for Digital Transformation, https://www.fujitsu.com/downloads/GLOBAL/vision/2018/download-center/FTSV2018_Survey_EN-1.pdf [11]

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