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The Deloitte Innovation Survey

The case of Greece

November 2018

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About the research

Deloitte invited leaders from major Greek companies to participate in an online survey. Thirty five top management executives responsible for innovation from large private companies drawn from all business and industrial sectors participated in the survey. This information, which was collected in October 2018, has been analysed in aggregate and forms the basis of this publication. In some figures, because of rounding, percentages may not add up to 100.

The survey analyses innovation in Greek companies from three perspectives:

- the business perspective on new digital technologies and processes
- role of the available types of innovation and methods
- influences and barriers to innovation and the implementation of digital technologies and processes.

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Foreword



Vassilis Kafatos Partner Clients & Industries Leader Deloitte Greece



The new digital era – driven by exponential technologies, data and platforms –presents diverse challenges and changes for organizations. With this current publication, Deloitte is tackling these issues with empirical investigation and trend analysis to provide fresh, new perspectives on the innovation landscape of Greece.

According to the European Commission's European Innovation Scoreboard 2017, Greece is currently considered a Moderate Innovator, whose performance has slightly improved since 2010. Following the years of crisis, the Greek economy and businesses are in dire need of new growth paths, and innovation will certainly be a fundamental force in this effort.

Our first Deloitte Greece Innovation Survey focuses on how companies in Greece define and implement innovation, what types of technologies and processes involve in their innovation activity and which are the correlations of innovation activity with the external or internal corporate environment. The survey also provides a view on the drivers of innovation and the obstacles that Greek companies need to overcome.

It is indeed very encouraging to see that the vast majority of participating companies plan to increase innovation related investments in the next two years and more importantly they seem to focus not only in products but innovate also in different ways – a trait deemed very important for successful innovators according to Deloitte's multiyear research on innovation. Moreover, at par with global trends, Greek companies seem to have adopted maturing technologies such as cloud, analytics and digital networks and are planning to invest in rapidly emerging technologies such as Robotic Process Automation, IoT / sensors, digital reality and cognitive / Artificial Intelligence.

On the other hand, our survey reveals the need of Greek companies to invest more time and resources in building their innovation and digital skills and to focus on fostering a culture of change within their organization. To that end, respondents agreed that more investments in innovation related education, more incentives for R&D and innovation and better access to funding should be key state priorities.



Key findings

>40%

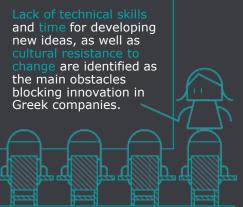
of companies concentrate their innovation efforts on product performance, increasing value through complementary services enhancing the services they provide, and fostering compelling customer interactions. of respondents stated

that their company will increase innovation investments over the next 2 years

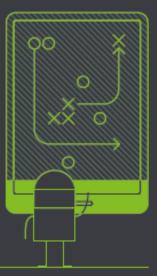




and time for developing new ideas, as well as change are identified as the main obstacles blocking innovation in Greek companies.



Simply increasing innovation budgets will not be sufficient to become innovative in the new digital era. The combination of numerous types of innovation, the implementation of suitable innovation strategies and methods, and the integration of digital technologies into companies will be decisive. Innovation should not be only about experimenting with new technologies or focusing on product features and performance. Innovation must be embedded into the DNA of organizations.





Cloud computing, data analytics, digital networks, Robotic Process Automation and IoT sensors have attracted most investments in the last 2 years.



By the end of 2020, the investment focus will shift to emerging technologies, such as blockchain and cognitive computing & artificial intelligence (AI). Wearables are identified as relevant for innovation by most respondents but are forecasted to attract limited investment.

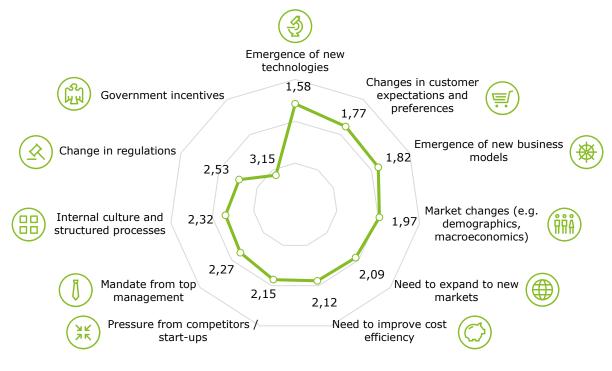
Business perception of innovation

Considering which internal or external factors trigger innovation activity in Greek companies, it appears that the emergence of new technologies and business models as well as the changes in customer preferences and market characteristics (e.g. demographics, macroeconomics) are regarded to be most important.

Innovation activity seems to be more reactionary than planned, as Greek companies seem to lack internal processes, culture and leadership that provoke innovation. In addition, government incentives, or the lack thereof, are not considered a driving force of innovation.

Figure 1: Factors that provoke innovation

Question: What triggers innovation activity in your company today?



Weighted average (Very important: 1 | Not important: 4)

Figure 2: Estimation of future expenditure in relation to innovation

Question: How will your company's budget for innovation change over the next 2 years?



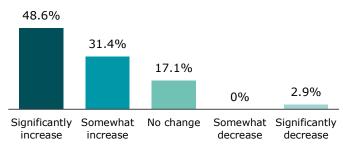
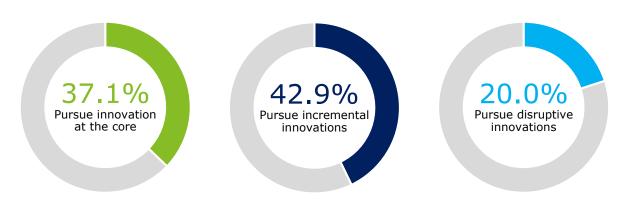


Figure 3: Three kinds of innovation

Question: What kind of innovation does your company pursue?



Question: How would you describe your company as an innovator compared to your competitors?





0%

of executives agreed with the statements "we don't use new technologies at all and do not drive innovation" and " we do not have any competitors".

Types of innovation & methods

The majority of companies innovate by supporting and increasing value of offerings through services. They also intend to develop distinct features of their products (product performance) and foster compelling customer interaction.

It is noted that Greek companies do not focus on forming cooperations to create value (network), although, according to Deloitte research, foreign organizations in more innovative and digitally mature countries (e.g. in Germany) seem to extensively use this particular type of innovation.

Figure 4: Ten types of innovation

Question: Which types of innovation does your company pursue?

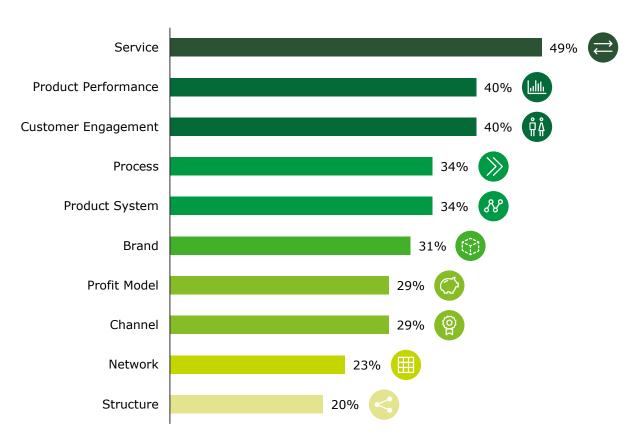
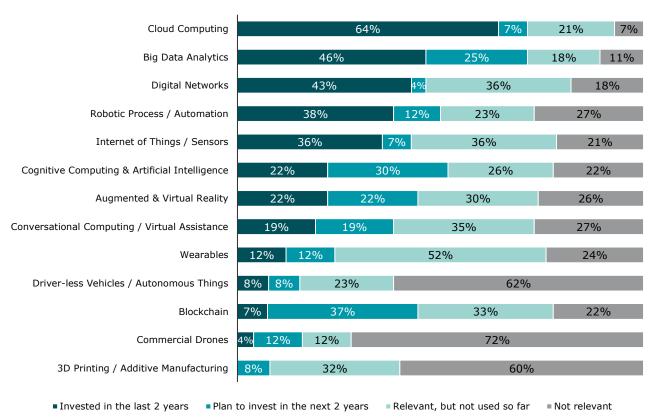


Figure 5: Actual and expected investment in digital technologies / processes

Question: Which of the following technologies and processes are relevant for innovation in your company?



Isolated, unstructured investment in new technologies will not suffice. Our survey indicates that although Greek companies intend to invest in several emerging technologies in the next two years, they appear not to have a coherent digital strategy in place. Deloitte's global experience suggests that true digital transformation will only be achieved when enterprises successfully link technology across value chain. Deloitte labels this the *Symphonic Enterprise*, where strategy, technology and operations work together, in harmony, across domains and boundaries.

As it can be noticed in Figure 5, cloud computing primarily, as well as data analytics and digital networks, are becoming established digital tools as most companies implemented relevant investments in the last 2 years.

Robotic Process Automation and Internet of Things (IoT) sensors rank also high, as 38% and 36% of respondents respectively indicated they have already invested in them.

By the end of 2020, the focus of investment is estimated shift to emerging technologies, with blockchain as well as cognitive computing & artificial intelligence (AI) earmarked for new investment by 37% and 30% of executives respectively.

Commercial drones, autonomous vehicles and 3D printing / additive manufacturing are reported to be less relevant for innovation in Greek companies.

Figure 6: Benefits from digital technologies / processes

Question: What are the main benefits of the following technologies and processes for your company?

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Big Data Analytics	6.9%	34.5%	17.2%	3.5%	20.7%	6.9%	-	-	10.3%	
Cognitive Computing & Artificial Intelligence	19.1%	28.6%	4.8%	9.5%	9.5%	4.8%	4.8%	4.8%	14.3%	
Internet of Things / Sensors	30.4%	21.7%	17.4%	17.4%	4.4%	4.4%	-	-	4.4%	
3D Printing / Additive Manufacturing	-	38.9%	5.6%	16.7%	5.6%	-	-	22.2%	11.1%	
Robotic Process / Automation	43.5%	4.4%	4.4%	17.4%	8.7%	-	13.0%	4.4%	4.4%	
Blockchain	9.1%	18.2%	-	27.3%	-	27.3%	4.6%	4.6%	9.1%	
Cloud Computing	18.5%	14.8%	7.4%	33.3%	-	-	3.7%	22.2%	-	
Augmented & Virtual Reality	13.6%	22.7%	31.8%	4.6%	9.1%	-	-	13.6%	4.6%	
Wearables	23.5%	23.5%	17.7%	5.9%	-	-	5.9%	5.9%	17.7%	
Conversational Computing / Virtual Assistance	9.5%	23.8%	28.6%	14.3%	4.8%	-	9.5%	9.5%	-	
Commercial Drones	5.6%	11.1%	16.7%	16.7%	-	5.6%	11.1%	16.7%	16.7%	
Driver-less Vehicles / Autonomous Things	15.8%	10.5%	15.8%	21.1%	-	5.3%	15.8%	10.5%	5.3%	
Digital Networks	23.8%	23.8%	14.3%	19.1%	9.5%	-	-	9.5%	-	
>20% of respondents 10% – 20% of respondents <10% of respondents No respondents										

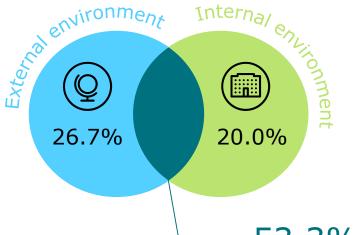
Influences and barriers to innovation

Our survey challenged executives to provide their opinion about the level of influence the external environment might have on the innovation activity within their companies. However, the majority of them highlighted that the external environment is not more significant than the organization's internal environment.

Figure 7: Two types of organization's environment leverage innovation

Question:

How important are influences from outside your company to innovate in your company?



53.3% of respondents regard external

influences are as important as internal influences and capabilities

Figure 8: External innovation mechanisms

Question: How does your company tap into innovation sources from outside your company?

An organization's external environment and networks opens possibilities. Innovation is increasingly emerging from constant analysis of customers' preferences and experience, collaborations with experts from other or own industry, crowdsourcing and cooperation with universities or research centers.

In addition, albeit at a lesser extent, Greek companies seem willing to tap into the start-up ecosystem to drive innovation across their businesses. A satisfactory 20%-27% of respondents indicated that they invest in start-ups or cooperate with them to accelerate their innovation process.

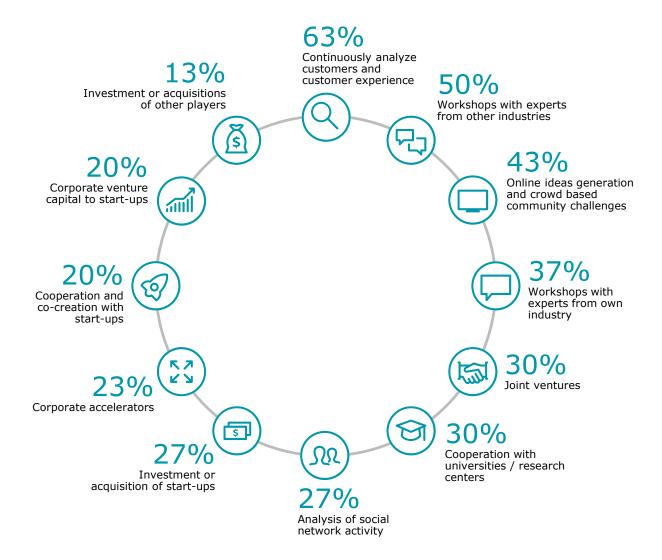


Figure 9: Internal innovation mechanisms

Question: Which internal processes and assets are important for successful innovation in your company?

Concerning their internal corporate environment, most respondents agree that every organization needs a clear vision and strategy, as well as a concrete set of relevant goals and ambitions, in order to pursue innovation. In addition, there is general consensus that successful innovation can be achieved only if qualified leadership provides strong support in innovation initiatives and fosters organizational culture in the direction of innovation.

Key assets such as IT systems and skilled personnel, as well as effective governance and organizational structure together with efficient innovation development processes are also considered important to complement culture and leadership and deliver on vision and strategy.

On the other hand, most respondents in our survey consider physical infrastructure and innovation space, as well as specific innovation metrics and access to funding as less important in their innovation efforts.

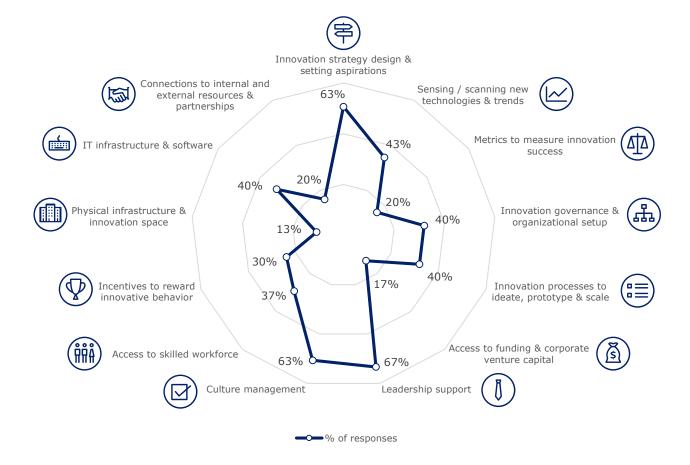
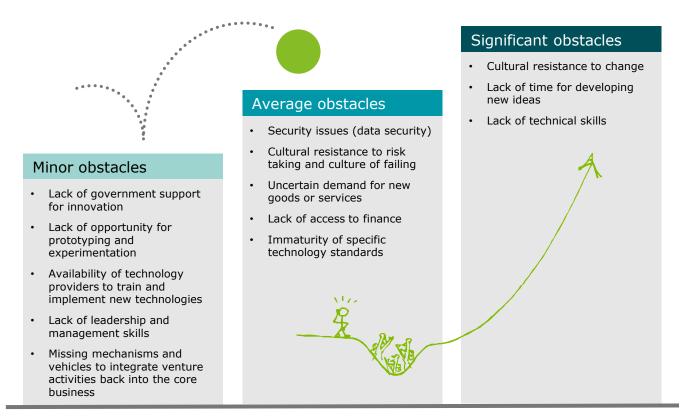


Figure 10: Main obstacles pursuing innovation

Question: What are the main obstacles to foster innovation within your company today?

The majority of participants in Deloitte's survey agreed that resistance to change is the major obstacle in fostering innovation within their organization. To a lesser extent but still important, the lack of time for innovation activities and the lack of technical skills are identified by respondents as major inhibitors to innovation.

The aforementioned findings indicate that major obstacles to innovation derive mainly from the internal environment of organizations and thus need concentrated effort from the companies themselves to prioritize innovation higher and focus on providing their personnel both the skills and the mindset to innovate.



<20% of respondents

20% - 25% of respondents

>25% of respondents

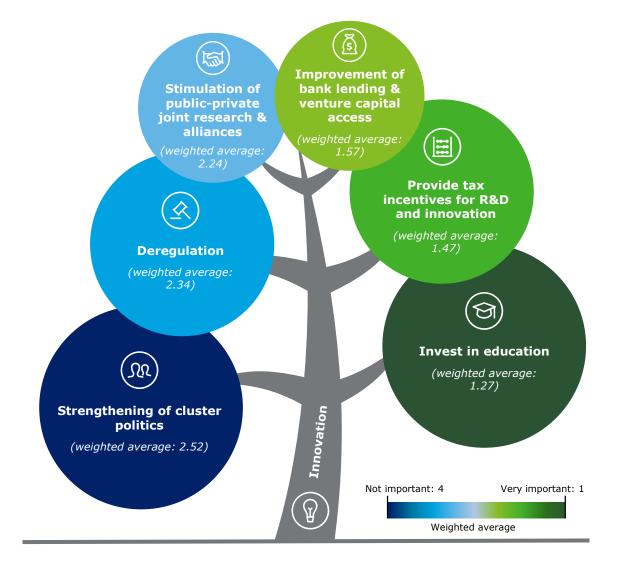
Figure 11: Greek State's needed actions

Question: What should the State do to spur innovation in

Greece?

Except for the innovation strategy and the action plan that every company should follow to foster innovation within their organization, there is a number of things that the Greek State could do to spur innovation.

The vast majority of respondents agree that state policies, investment and programs should focus more on education, incentives and access to capital, rather than public-private joint research initiatives, deregulation and clustering.



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