



# Digital Transformation in Europe. What's next

Nextvalue in collaboration  
with CIONET International



# Table of Contents



Introduction – Alfredo Gatti .....	4
Why an INSIGHT on Digital Transformation? .....	5
Digital Maturity Matrix: a blend of strategy and implementation .....	10
What's next .....	29
Appendix – Panel and methodology .....	31

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# Introduction – Alfredo Gatti

“Digital Transformation is the biggest transition ever, requiring a proportional response from governments, companies and individuals”

How significant is Digital Transformation? It is the biggest transition in history, according to many, and it requires a proportional response from governments, companies and individuals.

If you are a business leader in today's world, you have to focus on the fact that this is the biggest transition ever - it dwarfs what has occurred in the information era and the value of the Internet today.

As a leader, if you do not reinvent yourself, change your organization structure, talk about speed of innovation, you are going to be disrupted. It will be a brutal disruption, where the majority of companies will not exist in a meaningful way 10 to 15 years from now. When dealing with digitalization, you want to think about the intelligence of an IT infrastructure where you can get access to any data, any point and any time you want, about technologies like Cloud or Mobility, Cybersecurity and the Internet of Things, all of which are very important.

That is actually the easy part. The hard part is how do you change your culture to be able to think in terms of outcomes for your customers? How do you change your organization and retain talents? How do you change your processes?

It is all about speed of innovation and changing the way you do business. The majority of companies will be digital within five years, yet the majority of their digital efforts risk to fail, which means their CxO's have to do things differently.

When we started thinking of this ambitious project, a large survey aimed at measuring the progress of the European top enterprises along their roadmap on Digital Transformation, we were conscious to initiate a tough and long-term work, to need to think much more outside the box, to have to reinvent a little bit ourselves. Internally we called this the "mother of all our surveys", and you know how much "mother" means for Italians. Thanks to all of you CxOs of CIONET, today we've got the first figures and results on how digitization is being an integral part of the business strategy, or the way European companies interface supply chain and customers as well as technology.

Stay tuned! More coming ...

Enjoy your reading.

Alfredo Gatti

Managing Partner NEXTVALUE  
Managing Director CIONET Italy

# Why an INSIGHT on Digital Transformation?

4

We live in a pretty bleak time. I feel that in the air. Everything is uncertain. Everything feels like it's on the precipice of some major transformation, whether we like it or not.

Sean Lennon

Companies have always relied on technology to innovate and to improve productivity and efficiency, but it is only in recent years that we are witnessing a massive adoption of technologies such as mobile and social analytics, which can create enormous opportunities. On the other hand, consumers are increasingly willing to purchase goods and services through digital channels, while the competitive landscape is crowded with new players, which, thanks to technology, are showing winning business models and lower cost structures.

The roadmap to Digital Transformation becomes the nexus of the agenda: however, Digital Transformation does not happen spontaneously, instead it should be guided and it requires a strategy and a specific owner, who does not always coincide with the Chief Digital Officer already present within organisations. In addition, it is also essential to spread the digital skills throughout the organisation, and to find and attract new talents. One year after the Italian edition, NEXTVALUE and CIONET International propose a Europe-wide research. The goal is to create a pan-European research project on the state of the art and trends of digital transformation within Top

Companies, similar to the one conducted in Italy exactly one year ago. On this occasion a model of maturity that allows building an overall view of a complex and variegated phenomenon was developed.

491 Top and Medium-large European enterprises responded to our "online call", forming a representative and influential panel we want to thank from the beginning in the person of CIOs and CxOs members of CIONET and fellow business communities.

Digital Transformation, the use of technology to radically improve performance or reach of enterprises<sup>1</sup>, is far from being a myth or a cool buzzword; it is instead a great opportunity for innovation. An INSIGHT describing the degree of maturity of companies that compete along this path of innovation allows shedding light on what they have already achieved in terms of results and what they have learned in terms of best practice today seems to be essential.

<sup>1</sup> MIT Center for Digital Business and CapGemini Consulting, Digital transformation: a roadmap for billion-dollar organizations, 2011, capgemini.com

## Digital Transformation: is it really happening?

The digital revolution is reshaping the world where businesses thrive and operate, and it is no news. As in the late 19th century, a massive technology shift took place thanks to the rise of electric power, reshaping organizations to new, more efficient layouts. However, this rise in productivity was not so conspicuous in the first place, as clearly pointed by a paper from Capgemini, "Organizing for Digital, why Digital Dexterity Matters", "productivity surged as a consequence of organizational change, not just the emergence of a new technology". Thus, almost thirty years were necessary for productivity to surge, only after a prominent shift in factory organizational design due to the introduction of electrification.

An introductory paragraph to explain the major hype around Digital Transformation: is it really happening? Or is it just a major hype propelled by providers of digital solutions? As pointed by Capgemini, the real effects of Digital Transformation, both in terms of disrupting results and return on investments, are still yet to be seen.

We asked our panel to express their personal opinion on a range of given sentences regarding the Digital Transformation phenomenon and its disrupting effects on businesses. A consistent 75% strongly agree on the disrupting effects of digitalization on business models, while another 72% is deeply convinced of the competitive loss that enterprises will have to face not embracing Digital Transformation.

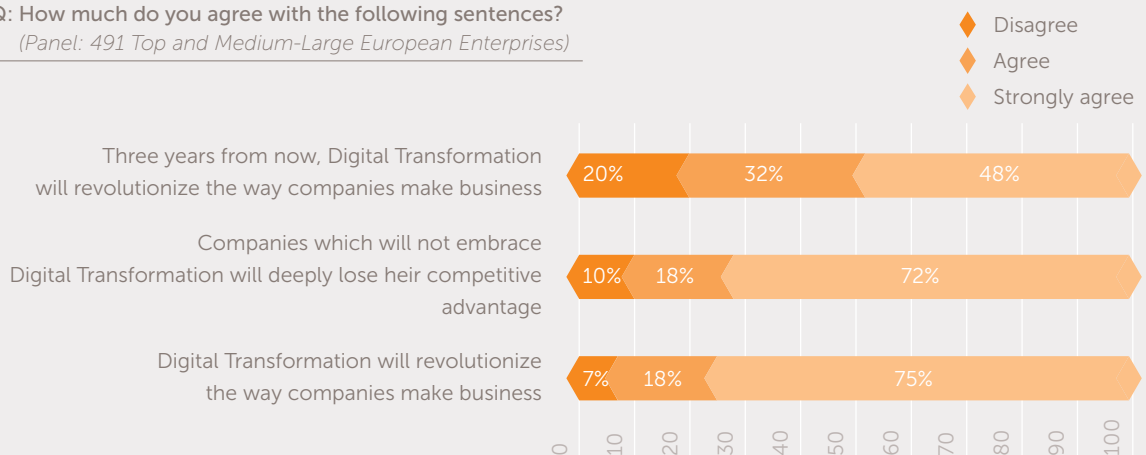
Nevertheless, when confronted with the necessity to compare Digital Transformation within the context of their companies, answers are more prudent. The percentage of respondents that strongly agree that Digital Transformation will modify deeply the business models of their own enterprises three years from now falls to a moderate 48%, and another 20% disagree on the matter [Figure 1].

Figure 1.

### The importance of Digital Transformation

**Q: How much do you agree with the following sentences?**

*(Panel: 491 Top and Medium-Large European Enterprises)*



Source: © NEXTVALUE, March 2016

However, for our panel it is unquestionable that a massive change is taking place, and keeping the right pace is not so easy.

Around 41% of our respondents perceive their companies as struggling to keep up with the effects caused by the digital disruption, whereas another 37% indicates that only single business units or divisions have the right speed. If only 5% of the panel affirms to be constantly late in adapting their organization toward digital, however only 17% of our respondents is confident in their organizational capability to react to change with the right speed [Figure 2].

Right velocity or not, there is no doubt that a transformation is taking place in the market. In fact, we asked our respondents when Digital Transformation would become a key success factor for their companies.

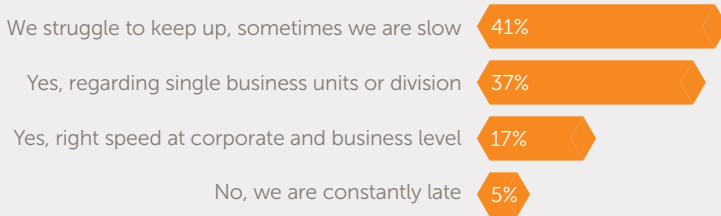
Only 4% of the panel does not know when that Digital Transformation will become a critical success factor for their companies, whereas another 5% is not convinced it would never become a success factor. A comprehensive 57% of respondents perceives digitalization as a medium-term accomplishment, whereas only 18% of the panel considers Digital Transformation a short-term factor [Figure 3].

However, another 16% of the panel perceives that their companies' survival is really at stake, and that the right time for change is now. For these businesses, digital is heavily affecting their business model, compromising overall performance.

Figure 2.

### Companies' adaptability to digital disruption

**Q: From your point of view, is your company able to keep up with the ongoing effects caused by the digital disruption?**  
(Panel: 491 Top and Medium-Large European Enterprises)



Source: © NEXTVALUE, March 2016

Figure 3.

### Digital Transformation as companies' success factor

**Q: From your point of view, when will Digital Transformation become a critical success factor for your company?**  
(Panel: 491 Top and Medium-Large European Enterprises)



Source: © NEXTVALUE, March 2016

## Three Dimensions and Five Stages toward Digital Maturity

The current speed of technological and organisational developments across global markets is favouring organizations with less history, organisational layers and physical constraints than Old Continent enterprises. As reported by Thomson Reuters, only 63% of the names listed in the S&P 500 a decade ago are still in the index, whereas the remaining companies lost traction during the years.

According to Mc Kinsey, 95 to 99 percent of digital laggards companies must choose a different path from global digital disrupters as Spotify or Uber<sup>2</sup>, not by “doing digital” on the margin of their

established business, but by wholeheartedly committing themselves to a feasible digital strategy, which must be clearly defined and coherent with the overall corporate strategy. Moreover, real success depends also on the ability to align digital capabilities with the chosen strategy, and to scale them up across the organization.

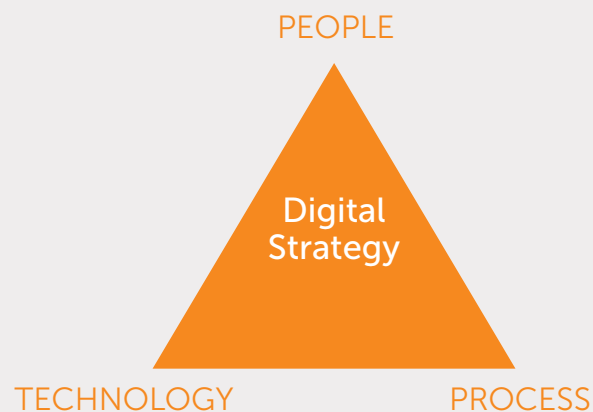
A coherent and cohesive strategy, from digital to security, is often defined by its implementation into three key macro-components, People, Process and Technology. A value triangle, as shown in [Figure 4], can be useful to depict the interconnections between dimensions.

<sup>2</sup> McKinsey, Raising your Digital Quotient, 2015, [mckinsey.com](http://mckinsey.com)

“A coherent and cohesive digital strategy is defined by its implementation into the three components of People, Process and Technology”

Figure 4.

### Digital Strategy Triangle



Source: © NEXTVALUE, March 2016

The final aim is to identify if and how much the three key dimensions are aligned, or misaligned, within organisations, toward the common goal of digital maturity.

If an organisation desires to improve its overall performance, it often starts by improving human resources and skills and capabilities at its disposal. This is usually possible through training and

development, or by recruiting the skills and knowledge needed. However, if this organisation does not know what technology or tools should employ or what processes people should use, then the training and development may not be very effective. Ideally, enterprises organize training in the technologies they use, and how to use them. Thus, we come to the third part of the diagram, process. Having a good

process that actually works is the focus of much organisational improvement. Processes in many ways acts as the "glue" which connects people, tools and technologies together.

The right blend of people, process and technology is what makes the difference. If we look at the diagram as a three legged stool seen from above, then too much emphasis on one aspect may cause the "legs" to be so disparate

that the stool falls over.

The danger that organisations could face is focusing on their "favourite" improvement vehicle. Techies like technology, quality people like process and many managers have their institutional "champions" who dig the organisation out when things get tough. The value triangle is not saying that any particular approach is better, but rather that to build a solid combination of them that fits the needs of the situation is what

organisations need. Stepping back, thinking strategically, and then using all the levers at disposal in an appropriately joined up way might get a better chance to achieve of achieving the predetermined strategy.

We asked our panel at what stage these dimensions are implemented within enterprises, given the scale shown in [Table 1]:

Table 1.

### Three dimensions and five stages of digital maturity

	PEOPLE	PROCESS	TECHNOLOGY
OPTIMISED	Deep Knowledge Knowledge Sharing Agile and Innovative Cultur Pervasive Technology Capabilities	Interdisciplinary agility Cross-functional nimble teams Tolerance to errors Entrepreneurial environment Fast-moving environment	Customized dashboards Data and Technology sharing Cloud Scalability Omnichannel Strategy Digital and online/offline Integration Real-time decisions
DIGITAL	High Level of Collaboration Full proficiency in the use of new technologies Cross-functional Centres of Excellence/Digital Teams	SCRUM Test & Learn Agile processes and Development	Advanced Analytics and Predictive Modelling Internal Social Networks tools and/or Communication Platforms Multichannel Strategy Starting the process of different channels integration
MANAGED	Specialists and Generalists Tech skills Fluid Structure Collaborative Environment	Agile Development Fast releases Fast prototyping	SaaS Technologies Joining up data Multichannel Strategy Flexible workplace Technologies Mobile Technologies
TRADITIONAL	Tech Skills Independent teams with me- dium level of collaboration Periodic Training Shortage of Digital Talents	Waterfall processes and Project Management Irregular releases Presence of some redundancies	Traditional/Legacy systems Partial data process automation Partial data joining between BUs
EMERGENT	Isolated Knowledge Vertical Skillsets Poor Training Dispersed Team Structures	Inflexible and slow-moving structure Infrequent release cycle	Technological and legal restrictions Basic analytics Siloed data sources



“Only 14% of respondents places their organization at top stages, regarding digital capabilities and skills”

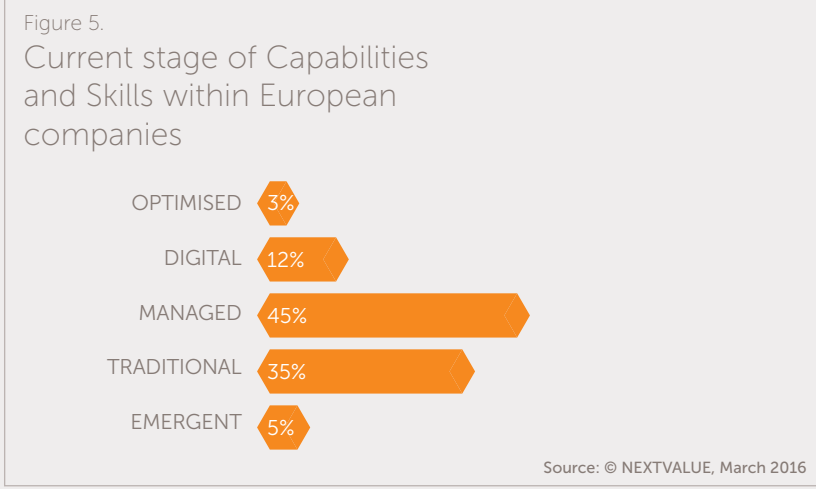
### Skills and Capabilities readiness

Regarding digital capabilities and skills, only around 14% of our panel is positioned in the top two stages, digital and optimised. At these stages, digital knowledge is extensive and pervasive, it encourages capabilities sharing the culture of innovation, while the organizational structure is based on the integration models [Figure 5].

An embryonal state of a flexible organization, where corporate culture discourages knowledge silos, is taking

place at Managed stage (45%). From an organizational point of view, the company encourages collaboration with tools and practices and have already present cross-excellence teams among corporate functions.

However, the majority of respondents to our survey lies in the underlying layers. The shortage of digital talents blocks the process of transformation and probably it is also affected by some managerial culture gap. From this perspective, as we shall see later, the road to digital readiness is still long and winding.



## Processes and organizational readiness

The average stage of processes and organization within European enterprises seems to represent the major issue in evolving toward digital [Figure 6]. Over half of our respondents (52%) categorizes operating and businesses processes of the companies they are working for as Traditional. At this level, the organizational structure is still rigid and processes suffer from delays in their modernization. Process management follows the traditional "Waterfall" approach and the company of reference does not shine for fast releases and time to market.

At Managed stage (32%), Agile practices start to substitute the Waterfall approach. In this case, the enterprise also makes extensive use of prototyping and

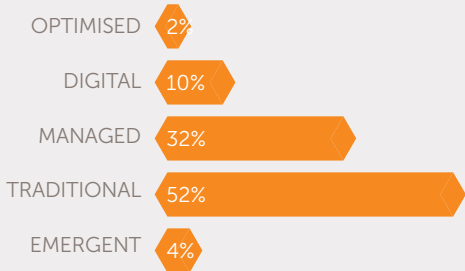
the different business functions are more integrated.

Only 12% scores again at the top stages: at Digital and Optimised layers, companies promote interfunctional agility and act with smart and flexible teams, it asks employees and managers an entrepreneurial approach in their daily work. The errors are usually tolerated, as preparatory to better learning and organizational improvement.

Figure 6.  
Current stage of Processes and Organization within European companies

Q: How do you assess the processes and organization of your company in the process of Digital Transformation?

(Panel: 61 Top and Medium-Large Belgian Enterprises)



Source: © NEXTVALUE, March 2016

## Technological readiness

A company in a starting condition cannot venture into Digital Transformation without initiating an extensive upgrade of its IT infrastructure. Still, a total 74% of companies composing our panel depicts a scenario in which companies span from Traditional to Managed stages [Figure 7].

At Traditional level, data are beginning to merge from inter-functional silos, but informative systems are still related to legacy technologies. Managed stage implies the use of Cloud Computing and, in particular, Software as a Service technologies, extended Modelling, enterprise-wide data sharing and use of analytics tools.

However, the top levels, Digital and Optimised, score a joint share of 24%,

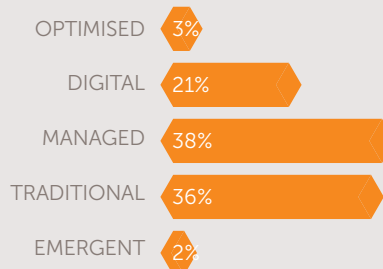
which is the highest among the three dimensions. At these stages, the company introduced an extensive use of customer-centric technologies (multi to omnichannel), customized dashboards and tools to make real-time decisions, supported by a flexible, scalable and software-driven infrastructure.

As previously stated, it is relatively simpler to push the "technology button" and implement new digital technology than modify an organization leveraging on new processes and skills. Technologies, resources and skills, processes and the organization represent "only" the necessary conditions for the start of a digital transformation. Without unique strategies and advocates to lead it, the digital maturity process is likely to remain stuck.

Figure 7.  
How do you assess the technological level of your company in the process of Digital Transformation?

**Q: How do you assess the technological level of your company in the process of Digital Transformation?**

*(Panel: 491 Top and Medium-Large European Enterprises)*



Source: © NEXTVALUE, March 2016

# Digital Maturity Matrix: a blend of strategy and implementation

Every successful organization has to make the transition from a world defined primarily by repetition to one primarily defined by change. This is the biggest transformation in the structure of how humans work together since the Agricultural Revolution.

Bill Drayton

“The majority of the European Panel is halfway on the path to full Digital Maturity”

As many rules behind management and economics, these common key-stones may look like “common sense”. However, a deep and vast ocean lies between strategy and implementation, making this principle valid for digital strategy as well.

By assessing the level of European enterprises, our goal is to match the two areas digital leaders has to think about when dealing with Digital Transformation: the “What”, meaning the digital strategy, and the “How”, the strategy implementation within the organisation using the dimension of People, Process and Technology. Together, they create the level of Digital Maturity of single enterprises.

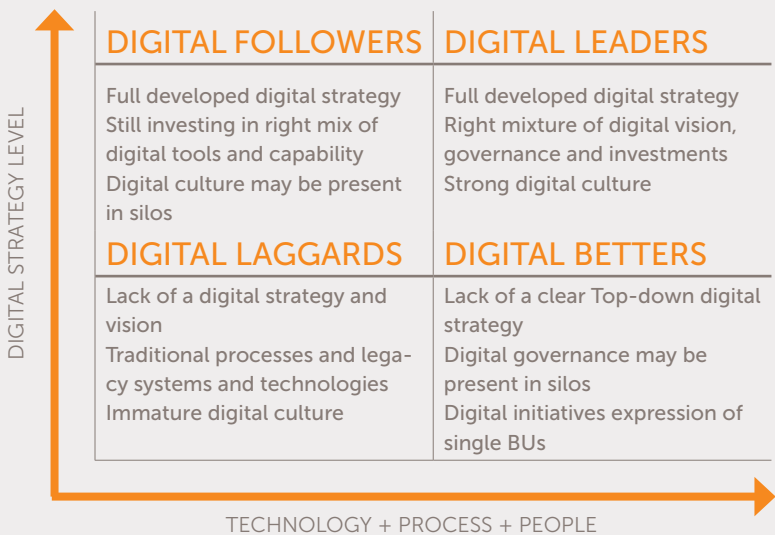
Maturity on both dimensions characterize enterprises with a positive attitude toward the future and competitiveness, a strong set of digital performance indicators to measure the effectiveness of the strategy, and a particular focus on certain types of technology, as explained later in detail.

At the same time, laggards on both dimensions are more prone to invest less of their IT budgets for digitalization projects, perceive their competitive position as “stable” for their near future and, in general, lack a sense of urgency regarding the Digital Transformation of businesses.

[Figure 8] shows Digital Maturity as a traditional 2x2 matrix, where the “What”, the Digital Strategy, poses as Y-axis, and the “How”, the different stages of implementation of Process, People and Technology, is represented by the X-axis.

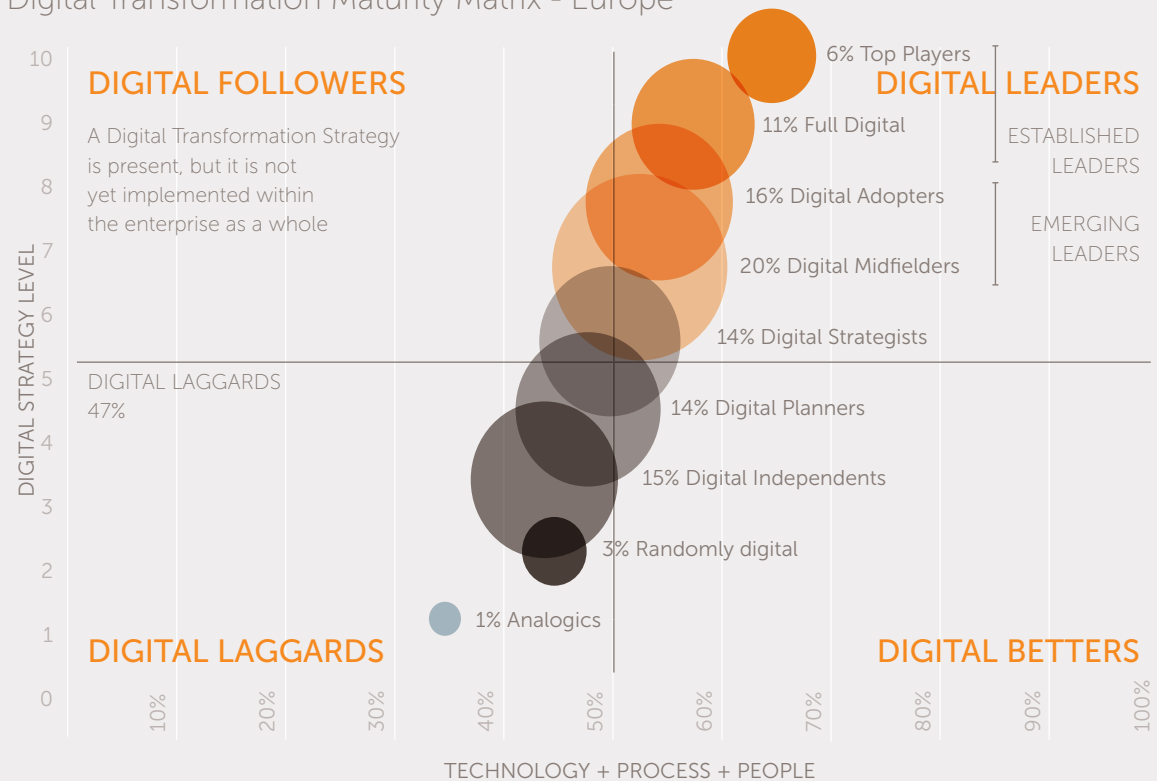
In [Figure 9] we present the final output of our research on European digital maturity. What we should expect from our clusters in a perfect world is a at least a linear relation between a defined strategy and its implementation, the more detailed and “perceived” the former, the more efficient and effective the latter. As business history tend to remind us, this is far from the real case.

Figure 8.  
Maturity Matrix  
- Overview



Source: © NEXTVALUE, March 2016

Figure 9.  
Digital Transformation Maturity Matrix - Europe



Source: © NEXTVALUE, March 2016

### “What”: different stages of digital strategy

The X-axis is the representation of different established corporate strategies regarding Digital Transformation. We highlight that the strategy level chosen by respondents is self-declared. This approach is quite useful to highlight discrepancies between the declared strategy and its implementation.

### “How”: People, Process and Technology

The Y-axis represents the weighted average from the three key components of our triangle. Applied a given percentage to each growing stage of People, Process and Technology as detailed in Table 2, “Three dimensions and five stages of Digital Maturity”, thus that the sum of the five stages at Optimised level is equal to 100%.

### Digital Maturity: the clusters

Given that every quadrant in the matrix represent a macro-cluster, it is interesting to note the total absence of Digital Followers and Digital Betters.

At the end of our analysis, only two quadrants are populated, though with different levels of digital maturity, Digital Leaders and Digital Laggards.

**Digital Followers** comprises companies that declare a full-developed digital strategy, whose implementation is however still in its early days. The lack of Digital Followers indicates that strategy and implementation regarding digital are not very far within European enterprises nonetheless, it states how those very enterprises already have a well-planned digital strategy and implementation, or that they have neither.

**Digital Betters** groups companies with single notable digital initiatives within the organization as a whole and, and the same time, no strategy defined on an executive level. In this case, we can

Table 2.

Table 2 Digital Laggards sub-clusters

SUB-CLUSTER	DIGITAL STRATEGY LEVEL	PEOPLE	PROCESS	TECH
Digital Strategists (14%)	A corporate digital strategy is present, but it is not yet implemented across the enterprise	Managed	Traditional	Traditional
Digital Planners (14%)	There is not yet an overall strategy, but we are preparing it and it will become operational within the next 12 months	Traditional	Traditional	Traditional
Digital Independents (15%)	We still have not an overall strategy, but it is expected in the medium term: in the meantime the BUs and business functions are moving in random order	Traditional	Traditional	Traditional
Randomly digital (3%)	Currently, the company doesn't believe in the necessity of a global strategy: each BU or business function could have one or already has its own	Traditional	Traditional	Traditional
Analogics (1%)	We do not believe that our company needs a strategy for Digital Transformation	Emergent	Traditional	Emergent

consider an empty quadrant a good sign, since random digital successes within Business Units rarely spread at corporate level without commitment and guide from C-levels. Thus, Betterers risk to remain stuck at a low level of digital maturity, albeit being somehow digitally advanced within silos.

**Digital Laggards (47% of total panel)** represents the second most consistent cluster in our Maturity Matrix. However, it is possible to drill down our analysis of Digital Laggards into further clusters, as depicted in Table 2:

**Digital Leaders (53%)** constitutes the majority of our panel, nevertheless it is, at the same time, a multifaceted cluster. The "real" Digital Leaders, champions in both strategic definition and implementation of digitalization, are composed only by the 17% of the total panel and form the so-called sub-cluster of Established Leaders. The respondents of our panel, who are on the right path toward digitalization, named Emerging Leaders, compose the remaining sub-cluster (36%). Emerging Leaders still have room for

improvement, and the risk of interrupting the implementation of the digital strategy, due to budget constraints or organizational resistances to change, could cause the fall into the quadrants of Digital Followers or Digital Betterers.

As we can see in [Table 2], the average level of Digital Maturity for each of the three dimensions depicts a relative digital maturity: even in the small sub-cluster of Top Players, neither People nor Process or Tech reach the ideal level of "Optimised".

Digital maturity of business and operating processes is the real weak point of our panel in digitalizing their company. As previously stated, it is clear how difficult it could be to improve fairly traditional processes, when the other two dimensions are moving faster. The real outcome of our maturity matrix is that the majority of European enterprises composing our panel is half-way on its path to full digitalization. From their actual position, many options could arise: organizations can invest in digital and deploy the right blend of strategy and implementation,

becoming Digital Leaders, or improving their own position as leaders. They can fail this transitioning because Top Management is distracted by other issues and diverges from the main goal of a holistic Digital Transformation of the enterprise, thus falling into the Digital Betterers quadrant with isolated innovative initiatives.

On the other hand, maybe digital strategy and vision are clear into Executives' minds, but the enterprise as a whole fails in implementation, thus becoming Digital Followers, always staying behind top digital organizations.

An actual possibility is also to remain stuck in the current level of digital maturity, given the high resistances to change or critical issues of any enterprise.

Businesses are walking on thin ice when dealing with Digital Transformation, however, the growing understanding of the scope of digital disruption can only help organizations in their process of transformation.

Table 3.  
Digital Leaders sub-clusters

SUB-CLUSTER	DIGITAL STRATEGY LEVEL	PEOPLE	PROCESS	TECH
Top Players (6%)	A digital vision extends from Top Management to Operations, a Top-Down or Bottom-Up approach is present, digital strategy is agile and adaptive	Digital	Managed	Digital
Full Digital (11%)	There is a global strategy and a strong digital vision influencing organizational priorities, processes and KPI	Managed	Managed	Digital
Digital Adopters (16%)	Digital Transformation is a fundamental point on Top Management Agenda and it influences all BUs and corporate functions	Managed	Traditional	Managed
Digital MidfieldersI (20%)	Digital Transformation is a fundamental point on Top Management Agenda and it is being implemented within the company	Managed	Traditional	Managed

## Focus on People: digital skills and capabilities

Below we outline the future ranges of improvement concerning the three macro areas for the implementation of the Digital Transformation strategy, starting with People’s capabilities and skills.

We asked our panel where their companies are most interested in investing to align their structure and business model to digital market shifts [Figure 10]:

On the front of digital capabilities and skills, 41% of our respondents will deliver training to its employee, in order to change corporate culture toward a digital approach. Culture derives from leadership and represents the company’s personality, value system, purpose, and people.

Key blocks of building a digital culture include not only the provisioning of purely technical capabilities, but also important “soft skills” as internal collaboration and customer centricity, relevant features in the digital age of personalization both for B2Cs and B2Bs companies.

Companies are well aware that ideal organizational structure is shifting from rigid and slow-moving models suitable for economies of scale and stable markets, toward agile, flexible and collaborative environment, without disrupting business continuity.

Not for nothing, another 21% of the panel is focused on aligning different functions composing the organization toward the common goal of digital strategy, by integrating cross-functional processes between business units. For instance, IT and Marketing collabora-

tion can be considered a “must have” to allow a holistic approach to the end customer, providing omni or multi-channel experiences through websites and mobile application, personalizing their journey, without giving up the required prerequisites of security, compliance and continuity.

New, successful digital competitors offer some rules to follow to traditional businesses: structure follows strategy, fast and project-based structures composed of teams with different expertise to adjust organization to customer objectives.

Surprisingly, the hunt for digital talents seems to have begun only in the 14% of all organizations. On this topic, we can compare the overall responses to the ones given by our “Established Leaders” sub-cluster, to inquire differences among average and top digital performances.

In addition, in this case Established Leaders are focused on training to build a “digital culture” within their organisations (45%). However, searching and retaining digital talents, is the second most rated option, along with the Creation of Centre of Excellence (22%).

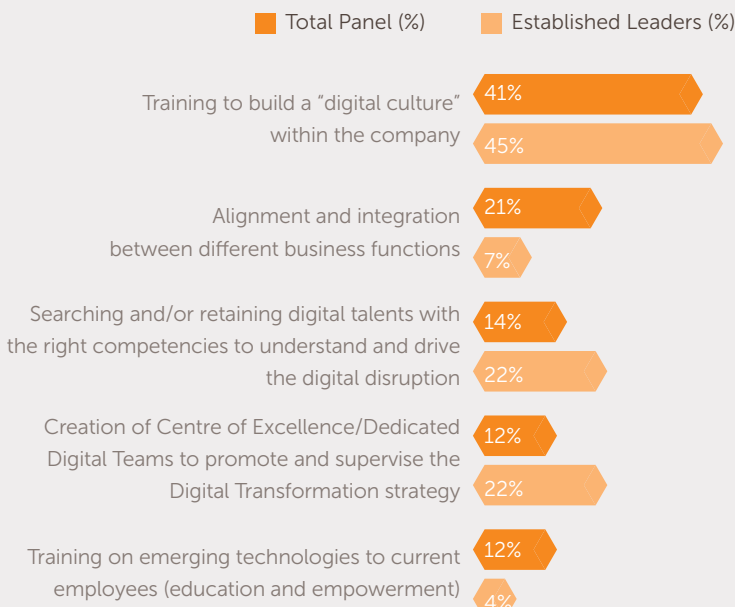
Established Leaders focus their attention both on giving proper training to their current employees and, secondly, on investing into new resources with digital capabilities. This trend has to be taken into consideration, since without digital skills success in the new digital economy is, as properly stated by Wired in one of its articles, “essentially as trying to win a gun-fight armed only with a knife”.

Today’s talents are often equipped with fundamental multiple skills, like technical capabilities for marketers and IT resources with business notions. Internal job-rotation could also prove to be useful to nurture the spreading of digital know-how within the organisation. For instance, many companies where members of the Italian community of CIONET operate favour training of junior resources into technology

Figure 10.  
Capabilities and skills  
for Digital Transformation

Q: Where your company will pose more attention regarding People and Skills to ease the process of Digital Transformation?

(Panel: 491 Top and Medium-Large European Enterprises)



Source: © NEXVALUE, March 2016



areas, to transfer them and their expertise to other business functions, such as operations, and vice versa.

Digital talents can be acquired through innovative approaches, such as setting start-up incubators in a targeted and desired field of innovation, a way to access talents that would be difficult to achieve through traditional means. If the acquisition of digital companies disposing of the real talents is a too demanding option, though quite effective in organically including new resources and capabilities, employee exchange program can simplify the process, an option by giants Procter & Gamble and Google to nurture cross-pollination of skills and to scale up P&G's Internet marketing initiatives.

The sub cluster has also invested in Centres of Excellences, or Digital Teams, to promote a Digital Transformation strategy in the 22% of cases, against a 13% signalled by total panel. A Centre of Excellence is a working group, which operates separately and in parallel to the company's main business, focused on rewarding and innovative projects. The creation of dedicated digital teams is an option chosen by different organizations to cultivate new capabilities. However, these projects can become successful only if these capabilities are actually integrated into the company's core business. As it is known, skills integration could often prove to be a challenge.

Where both Established Leaders (4%) and total panel (12%) agree is that training human resources on emerging technology is not necessary, though with different percentages. In fact, technical training could prove to be insufficient without promoting a comprehensive digital vision, strategy and culture at all organizational levels.

## Focus on Process: integration and flexibility

According to our respondents, process is the less digitalized component of businesses. The need for agile and flexible processes is a direct consequence of adjusting organizational structures to the fast moving digital paradigm [Figure 11].

Manual and redundant processes are costly and error-prone, and automation could become the solution. Anyhow, becoming digital often requires reinventing the entire business process to cut out or reduce the number of documents needed.

Obtaining agile processes is not only about technology, it is mostly about methodology. Traditional waterfall processes were meant for a different, slow-moving market, whereas agile and DevOps dynamics were developed to face an ever-changing market (41%).

For 26% of respondents, the importance of improving knowledge net-

Figure 11.  
Processes for Digital Transformation

Q: Where will your company pose more attention regarding Processes to ease the process of Digital Transformation?

(Panel: 491 Top and Medium-Large European Enterprises)



Source: © NEXTVALUE, March 2016

works within the boundaries of organizations is becoming fundamental, as well as focusing on clear social media marketing strategy toward customers. Overcoming informative silos can improve the overall performance, by increasing employees' productivity and potentially improving customer service. On the matter, Enterprise 2.0 tools include internal social networking, corporate wikis and podcasts.

Information is at the centre of the Digital Age and information computerization creates a new economy. In a broader sense, Digital Transformation replaces limited one-way vertical communication with broad communication channels that are both vertical and horizontal. Executives can engage in two-way communication quickly at scale. Employees can collaborate in ways that were previously not possible. The tools that virtualize individual work, whilst implemented for cost reasons, have become powerful enablers of knowledge sharing.

Knowledge networks ensure that no matter who is interacting with the customer, the employees have the complete picture. Integrating backend data with real-time collaboration ensures that they are prepared with the latest data at their fingertips to understand the status, interaction history, demographics and needs of a customer. For the customer, this means a seamless experience that is always informed, relevant, and meets his or her needs. If the ability to collaborate resides in a central location, existing business processes can be improved and supported. More important, taking network also into the mobile world helps ensure that employees have the information they need anytime and anywhere. Value chain integration (20%) to enable "digital-ready" businesses is also taken into consideration from our panel. Technologies such as the Internet of Things can reshape and integrate busi-

ness processes and can create value by connecting individuals and machines in a new "digital thread" across the value chain, making it possible to generate, securely organize, and draw insights from vast new oceans of data.

But perhaps more compellingly, digitalizing the value chain facilitates innovation and can directly improve the top line. For example, the aggregation and analysis of data across a product life cycle can increase the uptime of production machinery, reduce the time to market, and make it possible to understand the product consumers. In addition, an integrated value chain enables the creation of a network of enterprises that share the same value chain, especially by introducing open systems and technologies to enable better information sharing and the creation of shared applications among partners and suppliers.

Once-novel technologies such as mobile e-mail, collaboration tools, and video conferencing have now become the norm in many companies. Employees routinely collaborate with people whom they have never met in person, in regions they have never visited. Mobile devices allow employees to stay connected with the office at all hours and to work from home when not able to be in the office. Individual level work has, been virtualized in its essence, separating the work process from the location of the work. That virtualisation technologies have now become mainstream is demonstrated by the relatively low percentage (13%) assigned by our panel to Work Virtualization as a way to improve corporate processes.

## Focus on Technology: integration and innovation

Information Technology's main role has been for many years the backbone of business, entrusted with providing reliable service and continuity. Yet today's fluid marketplace requires technologies that can drive innovation, automation, and personalization much more quickly.

However, 51% of our respondents focuses on automating and integrating business process before investing in new innovative technologies [Figure 12].

On one hand, since is understandable, since it is difficult to build the "new" without first changing the "old" as, for instance, business processes. Inefficient IT processes are another impediment for companies seeking to compete successfully against digital companies and to improve business performance. As companies collect more customer information and need to transmit it in

real time across applications, they require more storage and computational power. Rather than adding more components to an already-complex system, companies prefer to pursue automation of what they already have.

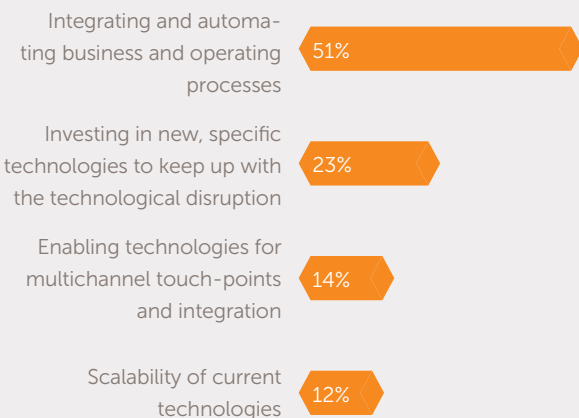
Business process automation can result in massive competitive advantage since initial investments, when well implemented, can scale quickly without substantial additional costs. The result is a more agile and flexible organization, able to better adapt to market shifts, whilst reducing cost inefficiencies.

Moreover, replacing paper and manual processes with software allows businesses to collect data automatically that can be mined to understand better process performance, cost drivers, and causes of risk. Real-time reports and dashboards on digital-process performance permit managers to address problems before they become critical.

On the other hand, only 23% of our panel is interested in investing into new

Figure 12. Technology for Digital Transformation

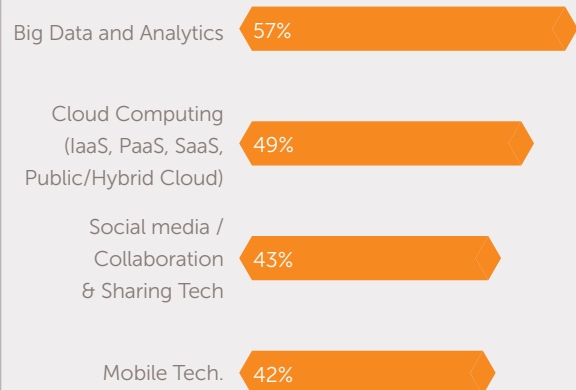
Q: Where will your company pose more attention regarding Technology to ease the process of Digital Transformation?  
(Panel: 491 Top and Medium-Large European Enterprises)



Source: © NEXVALUE, March 2016

Figure 13. Innovation Technologies investments – 24 months

Q: Which of the following technology areas are considered relevant by your company on the path toward digitalization over the next 24 months? (Please, choose up to three answers)  
(Panel: 491 Top and Medium-Large European Enterprises)



Source: © NEXVALUE, March 2016

“Big Data & Analytics, Cloud Computing and Digital Marketing Technologies are confirmed top innovation investments”

technology, indicating that consolidating existing technology is still first priority, as also clearly indicated by the 12% who focuses on scaling current tools and systems.

On the growing relevance of customer centricity within Digital Transformation of companies, 14% of our panel declares to be interested in introducing multichannel technologies for better customer experience and satisfaction.

Innovation technologies where companies are most interested to invest in the next biennium are shown in [Figure 13]. Unsurprisingly, four megatrends are reshaping corporate technology as they are reshaping markets: Big Data and Analytics, Cloud Computing, Mobile and Social Technology/Digital Marketing.

Almost every enterprise realized to possess at least a discrete amount of Big Data, high-volume, high-velocity and high-variety information assets demanding for cost-effective, innovative forms of information processing to gain real value, as enhanced insight and decision-making. Our panel indicates Big Data and Analytics tools (57%) as first technology area of investments over the next few months.

The advent of new data analysis solutions such as in-memory computing, along with the ability to host many of these solutions in the Cloud, is enabling enterprises to overcome the traditional barriers to Big Data analysis. Organizations today have the ability to process and analyse large quantities of structured and unstructured data to generate business insight in real time.

Cloud represents a valid enabler of Digital Transformation (49%): companies need to be agile, flexible, and fast to meet customers' expectations. Cloud computing can be key to that responsiveness, especially if going beyond the first generation of Cloud transformation, limited to move from capital to operating expenses, to enhance collaboration and deploy services in elastic fashion.

The rise of both public and private Cloud computing is also due to the possibility of creating new business models and services in addition to taking advantage of greater cost efficiencies and scalability features.

Mapping the customer journey and achieving single customer view are among the promise of Digital Marketing technologies, a key area of investment for 43% of the panel. Capabilities to support Digital Marketing Operations include Customer Insights analytics, to track and analyse customer behaviour and deliver insights to decision makers quickly (being a sub-area of Big Data Analytics), and continually track and manage marketing programs.

Delivering on omnichannel customer experiences requires marketing technology that can automate processes, personalize interactions, and coordinate actions. It usually means building a flexible system able to interact smoothly with the large platforms that are becoming more dominant and ecosystems of evolving point solutions.

Mobile technology initiatives follow with a close 42% of preferences from our respondents. Especially since the advent of smartphones, mobile has already deeply changed business operations and employees work. Organizations' efforts in this area include developing applications for customers, employees and partners to use and making changes to the internal IT infrastructure to provision and manage a BYOD environment. On the customer side, mobile technology can also be used, as for digital marketing technologies, to trace customer behaviours.

We want to highlight the absence of Internet of Things, 3D Printing and other Industry 4.0 peculiar tools and technologies among the answers of our respondents. Despite the growing hype over the Fourth Industrial Revolution, according to our panel it would probably not arise in Europe within the next years. Although investing in Big Data and Analytics is the first, compulsory step to start building IoT platforms.

If we take into consideration a restricted panel composed of our Established Leaders, the Full Digital and Top Players clusters, although the given percentages resemble the results given by our total panel, the fourth key technology to invest in, Cybersecurity, stands out with 41% of choices [Figure 14].

Primary risks preventing the adoption of the four megatrends often concerns data security issues, as with any emerging technology. There are drawbacks to everything, and that includes digitalization. For example, more customer entry points and a creation of an omnichannel approach could also lead to more attackers entry point. There are numerous urgent fields of attention, like network integrity, process control systems and web applications. Moreover, as organizations become interconnected others, the borders between internal and external networks get less clear. The Cloud and employees bringing in their own devices only add to this phenomenon, dubbed as de-perimeterization. There is no 'inside' or 'outside' anymore for most organizations.

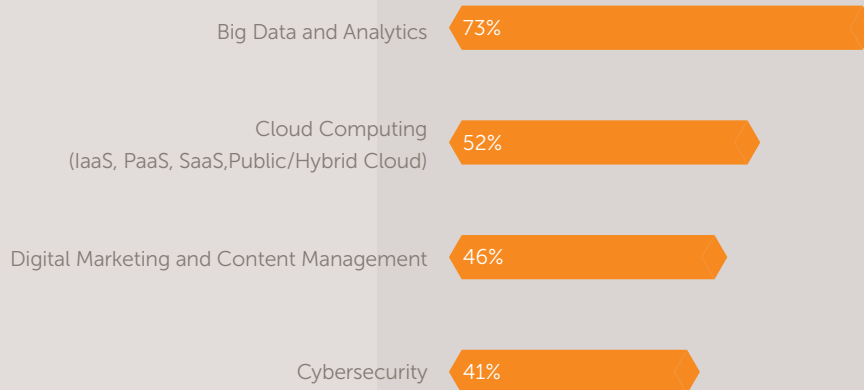
Cyberdefense and resilience are necessary ingredients to Digital Transformation, given the high business impact of IT failure and cyberattacks. The more investing on innovation technologies, the more our Established Leaders are aware of the importance of securing the introduction of new technologies, preferably by following principles of security by design. As also the other clusters of our Digital Maturity Matrix progress on their path toward digitalization, they will gradually have to face cyber threats.

Figure 14.

### Innovation Technologies investments – 24 months (Established Leaders)

Q: Which of the following technology areas are considered relevant by your company on the path toward digitalization over the next 24 months? (Please, choose up to three answers)

(Panel: % of Total Panel belonging to Established Leader cluster)



Source: © NEXTVALUE, March 2016

## Transforming the enterprise: where to

Setting our research, questions about the strategy and positioning of each company along the way that will lead to the digital metamorphosis become fundamental.

There is no single way for Digital Transformation, because each company will tend to form their own vision and digital strategy relating closely to their business. However, having to propose to our panel a model independent from industry peculiarities and individual business models, we decided to refer to the quite articulated scheme summarized in [Table 4].

It is common for the digital transformation strategy to take shape around three goals, customer experience, digitalization of business processes and redefinition of the business model itself. Given the effort required for its implementation, normally the strategy unfolds along one of these objectives, but we have not ruled out a focus on more than one simultaneously.

[Table 5] shows in more detail what could be the policy areas connected

with customer-facing processes and with operational processes. To excel in one or two of these areas over competitors means positioning the organization high up in the ranking of companies that innovate.

Moreover, best performing companies not only outperform for practices and investments in individual areas, but also seek synergies and pursue developments even in contiguous areas as well. If improving the customer experience and acting on operational processes is difficult, change business models and/or causing the company to compete on a global level is even more difficult.

Assuming that for a company is rather complicated to determine the total budget allocated to Digital Transformation, therefore making it subsequently difficult to be obtained by our respondents to the survey (not to mention the fact that is covered by confidentiality requirements), it seemed appropriate to obtain at least an overall indication of the allocation percentages of the panel in the different macro areas of the digitalization strategy [Figure 15].

Even if the figure has a relative value, it allows us to understand that the most

Table 4.  
Digital transformation strategy levers

<b>Customer Experience</b>	Customer Understanding (Market Sensing) Direct contact improvement Action on all the available points of contacts (Omni and Multichannel)
<b>Operating processes</b>	Digitalization (redesign/optimization to improve effectiveness and efficiency) Work virtualisation Process and performance management
<b>Business models</b>	Alignment of the traditional businesses to digital change Evaluation of new businesses Global level of action (Internalization)

Source: © NEXTVALUE, March 2016

critical area is still the one related to the processes and organization. In this case, we refer to all processes, including those to better engage and retain customers (an average 32% of the entire Budget).

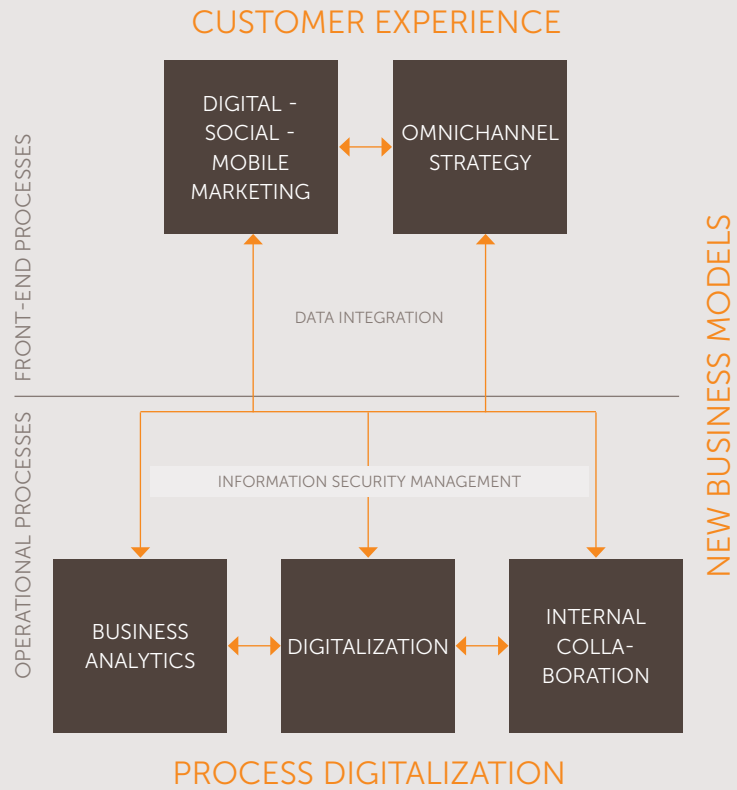
Customer Experience follows at 29% of the Budget, showing how all the areas pertaining to improve personalization, omnichannel offer and measuring customers are gaining more traction into enterprises agenda.

A further 21% is kept in defining and developing new business models, while a significant part of the panel feels the need to allocate at least 18% of the budget to the execution of an overall digital strategy, which comprises more than one of the previous areas.

We are now going to analyse in detail where respondents to the survey are concentrating their efforts in the key areas of Business Models and Customer Experience.

Table 5.

### Areas of excellence in Digital Transformation



Source: © NEXTVALUE, March 2016

Figure 14.

### Digital Transformation: where to

Q: If 100 is the total expenditure allocated to digitalization projects, please indicate the percentage allocated from your company in the following areas:  
(Panel: 61 Top and Medium-Large Belgian Enterprises)



Source: © NEXTVALUE, March 2016

## Business Models

The advent of digital disruption forces many companies to change strategy, skills, processes and technologies adopted, but also, in some cases, to redefine their offerings or business model. This is because the digital business model of new competitors and incumbents often proves successful, at the expense of a traditional model burdened by rigid cost structures and complex value chains. Obvious example, Kodak filling Chapter 11 in 2012, due to an excessive focus of its core business, rollers and films, underestimating the power of digital photography. Ironically, Kodak itself developed the first prototype of digital camera.

The media and banking system are also among the sectors whose business model is more affected by digital. In [Figure 16] declared benefits regarding investments on Business Models are shown.

Integrating the functions of Marketing, Sales and Customer Service is in the front line in delivering the greatest benefit to enterprises. A joint of these units helps improving customer-facing areas and obtaining valuable insights from

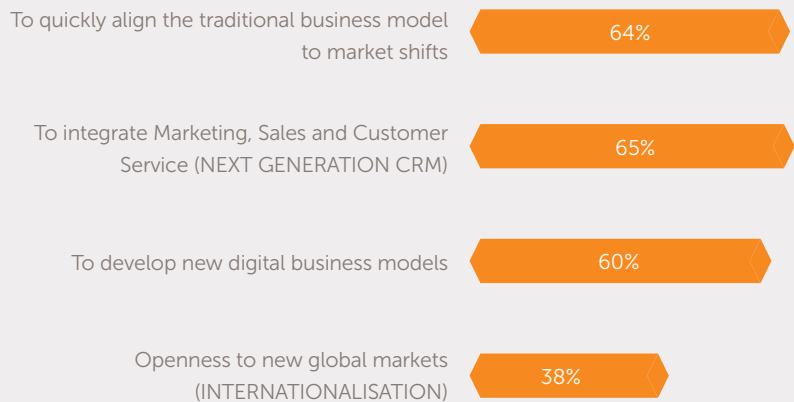
joining up data regarding customers. To compete in the digital world, businesses composing our panel indicate a great benefit (64%) in quickly aligning traditional business models to market shifts. As clearly explained by the Kodak case, but also the difficult position of former mobile leader BlackBerry, right vision and speed of implementation are to be taken seriously.

Developing new digital business models in parallel to a company's core business scores 60% of the panel preferences. For instance, by developing a valid digital business platform in-house, a company could offer and provide its solution to other companies, thus capitalizing on development costs.

Digital undeniably facilitated globalization and the internationalization of companies, mainly thanks to the internet. Surprisingly only 38% of our respondents states that the company they are working for could benefit greatly from opening to new global markets. In truth, aligning the current business model to digital trends and increasing digital maturity is, of course, the first step to develop a cross-border digital strategy.

Figure 16.  
Business Model:  
benefits from digital

**Q: With reference to Business Models, how much your company could benefit from the following areas**  
*(Panel: 491 Top and Medium-Large European Enterprises)*



Source: © NEXTVALUE, March 2016



# Customer Experience

The way today's consumers use screens and what they expect to accomplish does not mirror traditional customers of the past; their values are shifting, and how they make decisions no longer aligns with a traditional funnel model. Expectations are reshaping engagement and, ultimately, the way their relationships with companies unfold.

Understanding that the customer journey is not just for B2C, B2B organizations can also benefit from journey mapping research. Looking into digital behaviours and touchpoints of the direct business customer market (B2B) and also the ultimate customer markets (B2B/2C) helps business customers succeeding by learning where and how to introduce value into the entire customer chain. Customer Experience gains a growing importance into the agenda of businesses [Figure 17]

“72% of respondents agree on “Personalization” as being the first benefit coming from investments into digital Customer Experience”

Figure 17.

## Customer Experience: benefits from digital

**Q: With reference to Customer Experience, how much your company could benefit from the following areas?**

*((Panel: 491 Top and Medium-Large European Enterprises))*



Source: © NEXTVALUE, March 2016

## Digital Governance

As pointed by our Digital Maturity Matrix, a large share of our panel is interested in embracing digital as an essential part of its future business strategy.

It is quite logic to assume that technology departments are deeply involved in a transformational project that at its heart includes, of course, digital technology. However, this has not proven to be true in many cases, especially for traditional organisations where Information Technology is usually a staff unit, which provides a service ancillary to core business and clearly, it is not focused on bringing innovation in the first place.

At the same time, as other function like Marketing dwell more and more on digital tools and practices, the innovation sceptre still have to find its king. Clearly, leaders across the business must learn about and stay abreast of digital trends, their implications for the business, and how to leverage new technologies. That does not mean they have to know how the technology works, but rather why it is important and how to use it. For instance, data driven decision-making is on the rise, as clearly demonstrated in [Figure 18]. In our panel, 58% of Top Managers and Executives relies both on data and on their experience on taking business decisions.

With the ongoing availability of data in the information age, analytics tools to find patters and cause relations between them is one of the key investment trends for European organisations, as demonstrated by the technological investment priorities of our panel in Big Data and Analytics. Actually, only for 13% of our respondents Top Management is provided in real-time with all the right structured data and information, but at the same time, only around a quartile of the entire panel declare that their organisation is not able to provide their executives meaningful data, or that executives themselves prefer to rely on managerial experience only.

Tech-savvy managers, who recognize the importance of digital decision-making and of using digital tools and a digital mind-set are the key to lead a successful transformation.

On the path to digitalization, an internal champion often rises to the occasion (or, is given authority) to officially lead transformation and cross-departmental integration. This role is either assumed by individuals who take it upon themselves to become change agents and/or a formal role that is filled to lead the way. In either case, digital transformation cannot happen without a leader who rallies stakeholders toward action.

Ideally, strategy formulations should be the prerogative of C-levels, namely, with Chief Executive Officer as main supervisor. Digital Transformation is a typical change agent that should act through a top-down approach within the organisation, to ensure that new cultural change is shared and accepted at all organizational layers.

Companies who do not have digital CEOs yet need to bring in digital leadership in another way. The first response of the CEO, once he realizes he is not the one to do this yet, is to scrutinize the existing organization to find senior management that can handle the job. We asked our panel what role is accountable for a Digital Strategy formulation and implementation in their organisation. Percentages attributed to roles are quite similar also for the sub-cluster of Digital leaders [Figure 19].

The results are mixed and quite interesting, especially regarding the role of CIOs. Two roles take the lead as official Digital Transformation "sponsors" within enterprises: Chief Executive Officers and Chief Information Officers. A CEO should be taking personally the digital agenda as a main point among its main activities, and that is what happens in all clusters of our panel, with different results.

The Chief Executive Officer is accountable for the strategy formulation in the

49% of cases. However, another 40% indicates that the Chief Information Officer can be considered the sponsor of digitalization within companies as well. We assume that to our top performing cluster the role of CIO is more empowered in terms of innovation budget and digital projects supervision if compared to fellow colleagues in the other sub-clusters.

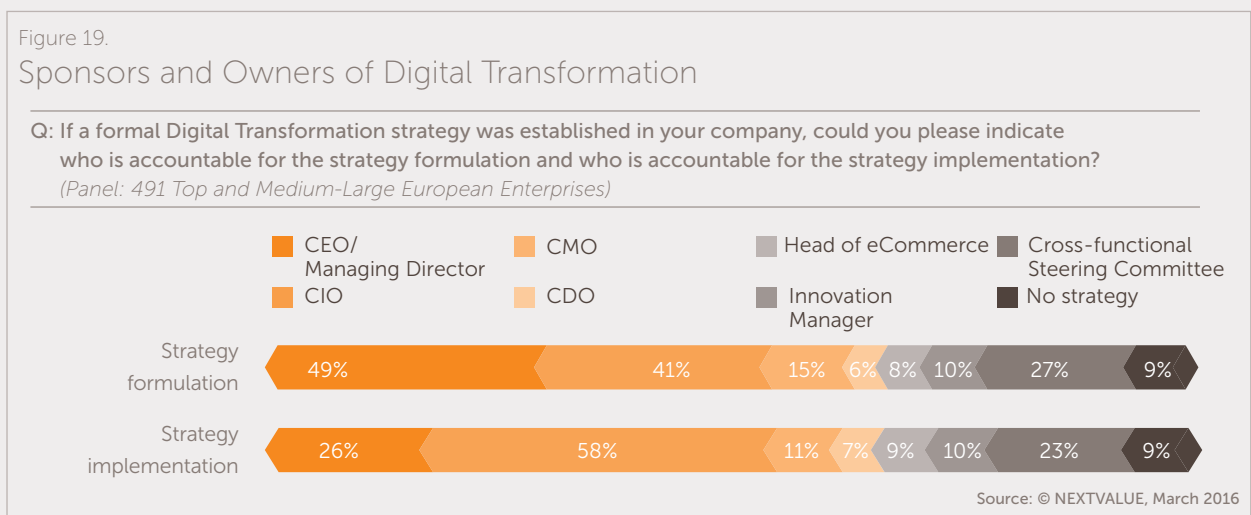
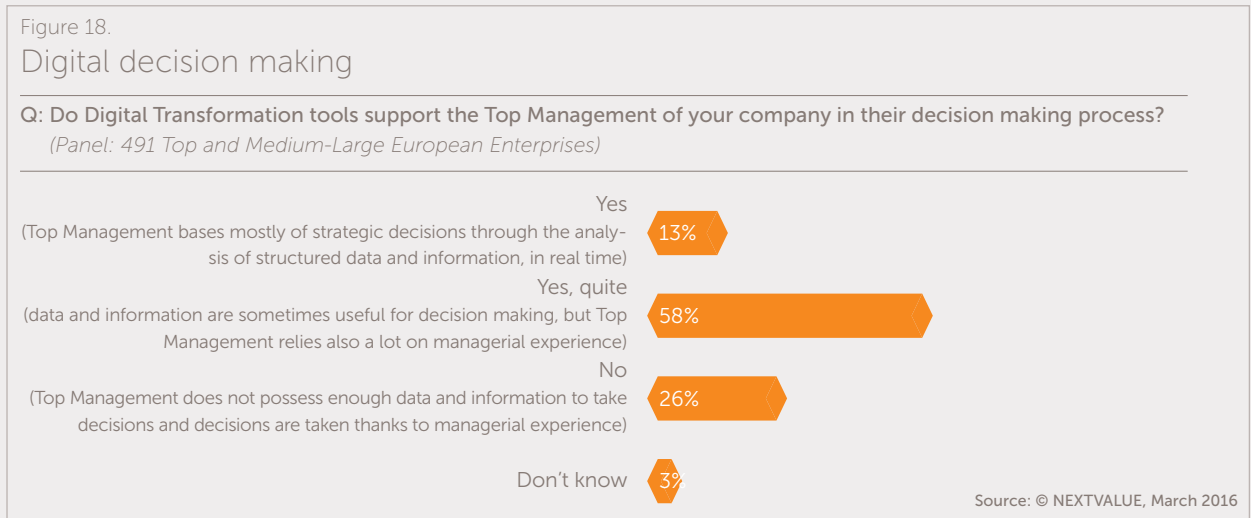
The CEO needs a CIO when he is unable to pull off the huge challenge of Digital Transformation alone. By accepting a full-force CIO and giving him/her a "license to change", the CEO should be aware that the CIO is involved in creating and rolling out the initiatives that guarantee the revenue

streams and profit of tomorrow. This will make the CIO the executive holding the keys to the future, putting him or her in direct line to become the next CEO of the company.

CIOs better than anyone understand technology and own the IT strategy and platforms, but Digital Transformation is not only a matter of technology. On top of that, their responsibilities come with substantial budgets, strict policies and processes, all of which require a traditional way of management that is difficult to mix with the attitude that is needed for Digital Transformation.

Another alternative to lead and promote digital governance is to create a

Cross-functional Steering Committee, as indicated by our panel in the 27% of cases. The aim of creating Steering Committees lies behind the aim of blending central coordination with cross-skills and capabilities and it has the benefit of not "burdening" a single role to become change agent. These Committees are usually dedicated to making investments decisions, prioritizing resources and ratifying digital policy and standards. However, as any other choice, the Steering Committee reserves also some challenges, namely, to lack the embodiment of a real leader, often requiring additional measures to lead the transformation and to enforce the real application of policies and standards.



“CIOs are the formal owner of the digital strategy implementation in the 58% of cases”

Another figure, which lately has been associated as both close partner and internal competitor with the CIO is the figure of the Chief Marketing Officer. CMOs understand the real power of digital channels because their department was the lead for most of the online activities that were developed over the last two decades. They own the customer facing touch points of the company which are increasingly becoming digital. Respondents to our survey indicates CMOs in the role of digital strategy formulator in the 15% of cases.

The challenge behind this choice though could be that marketers look at the company in a marketing-centric way, without the necessary holistic and transversal view on everything else that matters.

Other recent organizational roles are less commonly in charge of defining the strategy for Digital Transformation. The Innovation Manager/Chief Innovation Officer is declared accountable for the strategy formulation in the 10% of companies composing our panel, followed by Head of eCommerce (8%) and, surprisingly, Chief Digital Officers with only 6%.

The Innovation Manager is a dedicated staff figure, in possession of large and diversified skills, usually marketing, technology, business transformation and financial planning. On the other hand, precisely the requirements of such extensive skills is what makes the creation of this role within the companies quite expensive.

Head of eCommerce and Chief Digital officers are quite new blocks on the organizational charts. In the already crowded C-Suite, CDOs should help companies to drive growth by converting traditional “analog” businesses to digital ones, and oversee operations in the rapidly changing digital sectors like mobile applications, social media and related applications. However, in the already crowded C-Suite of many companies the CDO often reports to the CIO or the CMO, without any formal

power as “transformer I chief” for the entire organisation.

The Head of eCommerce faces similar challenges, given that is a figure that usually oversees the definition and implementation of an eCommerce strategy, whereas it is not likely could manage an entire transformation strategy.

Regarding the implementation of a Digital Transformation strategy, the CIO covers a very important role once again: in the 58% of our panel, it is the IT to “practically” manage digitalisation. For CIOs, it represents both a great challenge and an engaging opportunity. Just as cloud computing led to CIOs having to acquire new capabilities around SLA management and integration across different platforms, so Digital Transformation will require the development of new skills and knowledge.

This will typically include building a greater understanding around other business units and their requirements, looking at working in more agile and collaborative ways, and learning more about customer needs and behaviours. For CIOs that are willing to embrace a new way of working, Digital Transformation represents a great opportunity to have a big impact on the future direction of the organisation.

Chief Executive Officers (26%) and Cross-functional Steering Committees (23%) directly follow CIOs in the role of owners of Digital Transformation.

In the end, it is to these three roles that digitalisation is entrusted to, in terms of both strategy and implementation. CEOs are the formal masterminds, CIOs acts as both trusted leader and operating arms for their director, and Committees combine firm level figures toward a new, common goal.

C-levels are the fuel for the innovation engine, without their commitment, the same engine is destined to stop and no isolated projects, albeit innovative, is destined to survive.

## A role for IT

As mentioned above, Digital Transformation is not only about technology, but also about strategy, culture, capabilities and processes. However, it is undeniable that digital technology plays a dominant role, being the cause of the radical change.

But what is the role covered by IT in the process of digitalization? Given that this research was conducted thanks to the panel of CIOs members of CIONET, we deem undeniably important to focus more on the role played by Information Technology.

Firstly, we inquired how the IT department influences a substantial number of projects, that is, how IT can generate advantages by intervening with its own governance capabilities and by coordinating the projects themselves [Figure 20].

We believe that these results are very important in assessing the possible leadership that the corporate IT can take during Digital Transformation. In many organizations, this is not a foregone conclusion. Whilst in the past the entirety of projects involving

the use of innovative technologies for processing and the processing of data and information was attributable to the IT function by default, within digitalization issues this does not happen automatically.

According to 21% of our panel, IT governance influences 60% to 100% of digitalization projects undertaken by their companies. However, another 26% states that only up to 10% of the overall projects are, in reality, under the direction of IT.

Among 31% to 50% of digital initiatives is instead coordinated by the IT department in one quarter of cases and, similarly, the same amount of projects would create greater benefits if coordinated by IT, according to our panel of CIOs (22%).

In the end, less than half of the entire digitalization projects requires a prominent role from the corporate Technology department. Moreover, the very same Chief Information Officers do not perceive the contribution of the department they manage as utterly fundamental.

Technology and IT budget do not belong just to the CIO anymore; for

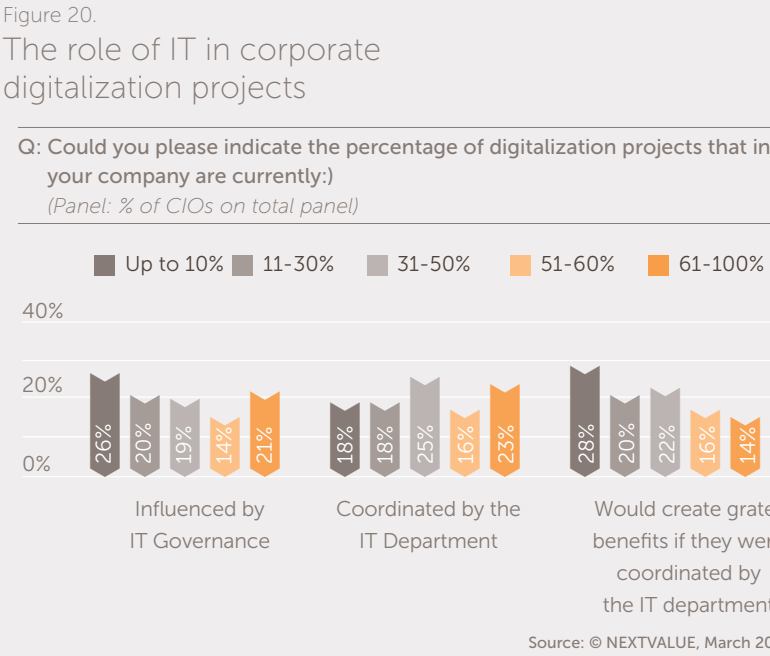
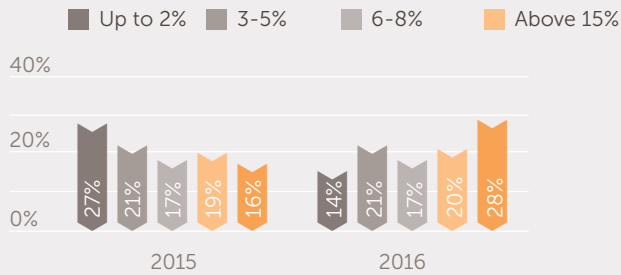


Figure 21.  
IT Budget destined  
to innovation

Q: If you are a CIO/IT Director, what is the percentage of the investments dedicated to Digital Transformation by your company in 2015, given the total External IT Budget? What about 2016?

(Panel: % of CIOs on total panel)



Source: © NEXTVALUE, March 2016

instance, major parts of the marketing technology buying decisions are moving to the CMO or the CDO. However, the Chief Information Officer often covers the role of commander in chief of the Digital Transformation strategy, as described in the previous paragraph, more than the owner or coordinator of single projects.

To shed clarity on the matter, we asked our panel of CIOs how much of their current External IT Budget is dedicated to innovation and Digital Transformation projects, in 2015 and 2016 [Figure 21]. From now on, we will refer to the External IT Budget simply as "IT Budget". In calculating the External IT Budget, we exclude costs related to electricity grid, to building and offices and hired personnel.

Nearly half of our panel (composite percentage equal to 48%) states that in 2015 the IT Budget destined to innovative projects was only up to 5%. Only 16% of our restricted panel of CIOs declares to invest more than 15% of IT Budget in Innovation, which largely corresponds to those companies that have declared a digital strategy and activities related thereto.

These figures can lead to some speculations: first, less digital com-

panies focus on the maintenance of current informative systems, rather than on technological innovations. Second, budget destined to Digital Transformation may not be accountable within the IT budget.

On the other hand, the landscape is destined to change in 2016. For this year, nearly half of the CIOs responding to our survey declared instead to destine to innovation a range of the IT budget comprised from 9% to over 15%, a massive turnaround compared to 2015.

We may suggest that the gradual economic recovery, along with an increased urgency of change, are stimulating funds provisioning on the technological innovation front. Established Leaders know it well: more than half Chief Information Officer pertaining to this cluster already invested between 9% to over 15% of their IT Budget in 2015 in innovation, whereas for 2016 they estimate over 15% of the budget already in the 42% of cases.

Investing in digital technology matters, how to evaluate the value coming from these initiatives?

## You can't manage what you can't measure: assessing Digital Transformation

One of the challenges related to digital initiatives is to measure effectively their return on investments and to create compelling business cases.

As William Edwards Deming, engineer, statistician and management consultant, once said, "You can't manage what you can't measure", a motto that is undoubtedly true also when it comes to Digital Transformation. Many companies are struggling to compute ROI for digital investments, not least because these investments have wide-ranging impacts that ROIs cannot capture. For instance, proving the value of social media initiatives is notoriously difficult, as organizations try their hardest to find a link between metrics such as customer sentiment and revenue growth.

If measuring the return on digital is tough, it does not explain the total absence of a cohesive system to measure the effects of Digital Transformation on the organisation as a whole. As every project undertaken within enterprises comprises the definition of performance metrics and indicators to evalu-

ate the return of the initiative, a series of metrics to understand the value of the digital strategy taken is necessary.

The majority of respondents to our survey (47%) declares that a system of Key Performance Indicators in order to measure the outcomes of digitalization has not been implemented within their companies yet. For these organisations, the time is probably still not right, and a digital strategy has not yet been defined [Figure 22].

Another 41% states that the definition of a measuring system is under way, most likely in parallel with the definition of the strategy itself.

Only 10% of our total panel has already defined a comprehensive system of performance indicators. From our point of view, these data are unflattering and, if confirmed, will certainly open up strong doubts about the capacity of enterprises to become data-driven organizations.

Many transformation efforts are hampered by budgetary cycles that are not sufficiently responsive to what is happening inside the company.

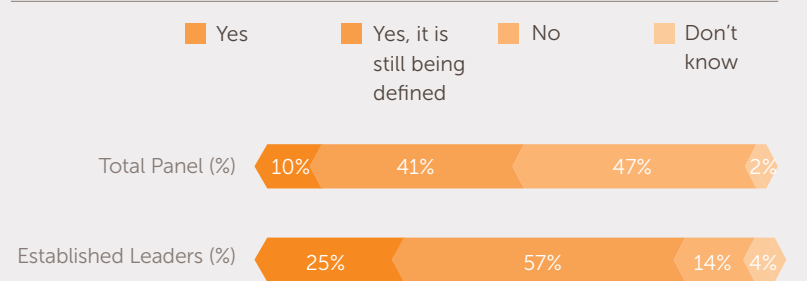
Giving that usually CFOs refer to traditional metrics to evaluate project returns, the absence of a proper

Figure 22.

### Transformation performance measurement

Q: Has your company defined a KPI system for measuring performance and processes related to a Digital Transformation strategy?

(Panel: % of CIOs on total panel)



Source: © NEXTVALUE, March 2016

“Established Leaders are defining a cohesive KPI system for digital in the 57% of cases, against 41% of total panel”

measurement system could hinder also budget approval for innovation initiatives.

Our Established Leaders restricted panel knows the importance of a digital performance measurement system: 25% has already implemented KPIs, 57% is defining a system. Only the remaining 14% declares the total absence of key performance indicators.

As a digital strategy must be coherent and cohesive, so unitary must also be the method of assessment related.

Measuring the effects of digitalization initiatives as another side of the coin: motivating transformational change. Knowing when and where the innovation initiatives are giving the expected returns is useful to generate a fruitful cycle of remuneration towards those teams and business units who are making Digital Transformation happen.

Resistances to change are always present, but if you are encouraged to do so and to do it properly, transformation can result less bitter. Moreover, the right policies and incentives can also favor the transition toward a digital corporate culture, empowering employees and facilitating the creation of a “sense of

urgency”.

On the other hand, when efforts are not properly rewarded, the implementation of the digital strategy can be hampered by motivational drops of the employees involved.

As for the metric system, only a small 10% of respondents to our survey indicates the adoption of policies and rewards. Conversely, a system is in definition in the 36% of cases, while nothing alike present for around half of our panel (50%) as shown in [Figure 23].

Again, if we consider our Established Leaders restricted panel, results are much different: 30% of the panel has already created policies and rewards connected to Digital Transformation, and another 54% is defining them.

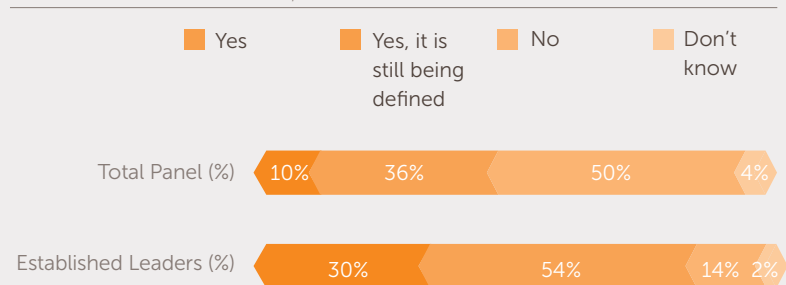
Incentives and rewards should not always be provided in monetary form, but also as promotions and/or reevaluation of existing roles, or training programs. However, the presence of additional bonuses, especially if linked to obtaining the scheduled objectives, can only help the change

Figure 23.

### Digital Transformation incentive systems

Q: Does your company adopt policies and/or incentive systems related to the objectives of the Digital Transformation strategy?

(Panel: % of CIOs on total panel!)



Source: © NEXTVALUE, March 2016



## Obstacles, challenges and cultural barriers to Digital Transformation

Despite growing acknowledgment of the need for a Digital Transformation, most companies struggle to get clear business benefits from new digital technologies. We dedicate this last paragraph to the inevitable obstacles and challenges that plague organizations digital roadmap.

As the figures we present in this paragraph, there is no a single factor that impedes Digital Transformation, but multiple scattered obstacles that worsen the path toward digitalization [Figure 24].

41% of our panel indicates a major obstacle due to a corporate culture not inclined to change, our "People" dimension. Some of these reflect broader societal ideas about gender, age, education and other factors, which can be unspoken issues that affect every aspect of a company, including Digital Transformation. Yet, some companies are more resistant to change than others do.

The further down the organizational ladder one goes, the less employees perceive the reasons why and the necessity to change, especially without the presence of a strong transformational leader that motivates modifications within organizational structures and the traditional way of doing things. Institutional and organizational barriers are multifaceted; 38% of our panel indicates siloed oriented Business Units as another hurdle for Digital Transformation. The lack of cross-communication and shared processes among different business functions represents an almost physical barrier to implement an organizational digital strategy, and another key indicator that the adoption of digital technology is not enough without digital processes and digital skills.

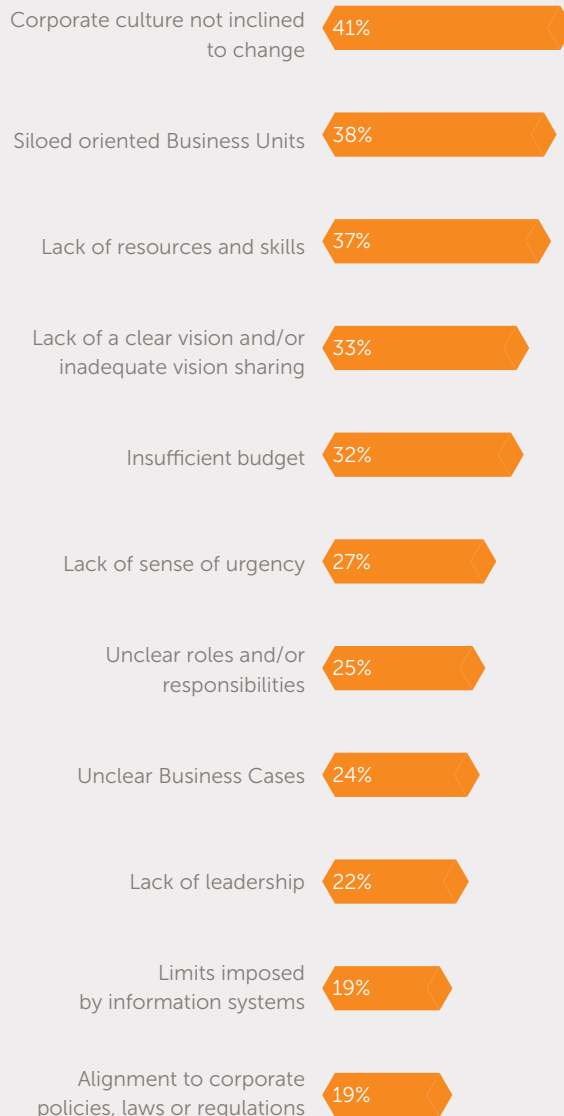
Digital Transformation starts with a vision from top leadership, when digital initiatives are also present in silos, with-

Figure 24.

### Digital Transformation obstacles

**Q: What are the main barriers that your company faces/could face in the path toward digitalization? (Please mark up to three reasons)**

*(Panel: 491 Top and Medium-Large European Enterprises. Multiple answers)*



Source: © NEXVALUE, March 2016

out the presence of a clear roadmap, the ship of the Digital Transformation can enter into shallow water. This issue is present in 33% of our enterprises, according to the choices of our respondents.

Budget constraints (32%) are another long-time issue in companies' transformational efforts. The 2008 economic and financial crisis and the subsequent European monetary and economic turmoil badly stroke European companies, decreasing the percentage of profits and margins dedicated to new investments. Slight signs of improvement on this side are promising albeit in a gradual economic recovery and

an increase in the share dedicated to innovation, choice obliged to maintain at least the current competitive position on the market.

Lack of leadership and a clear vision, as many other cultural barriers and resistances to change, could hinder Digital Transformation. On the other hand, technological limits imposed by current information systems only score the 18% of preferences from our respondents, indicating that, as usual, technology is not the focal point of Digital Transformation.

When executing change, other big challenges must be overcome. As por-

Figure 25.  
Digital Transformation challenges

Q: What are the main challenges that your company faces/could face in the path toward digitalization?  
(Please, choose up to three answers)

(Panel: 491 Top and Medium-Large European Enterprises. Multiple answers)



Source: © NEXTVALUE, March 2016

trayed in [Figure 25], aligning the different business units toward the common goal of Digital Transformation represents for more than a half of our panel the biggest threat to the execution of a digital strategy (68%), followed by the understanding of the new technological requirements and/or value proposition offered by new partners (40%), in this case an issue related to the lack of adequate digital skills and capabilities.

At 36%, our respondents also outline the difficulties in measuring the real return of multichannel investments. As described in the previous paragraph, assessing the ROI of digital initiatives is no easy task, but the adoption of a clearly defined system of KPIs could prove useful in understanding the real value of the undertaken innovation initiatives. To gain Top Management involvement (35%) is another issue when dealing with enterprise transformation. Without the advocacy from senior managers, as already pointed out, transformational efforts could be inhibited, since they are the actual decision makers. An illuminated group of executive could create the difference between success and competitive failure.

Many of the difficulties associated with Digital Transformation we mentioned stem from organizational and "political" reasons within the company. Perhaps these are the real reasons of resistance to change that businesses brings with it; after all, these are traditional obstacles never fully eliminated in the recent history of companies.

"Aligning the different BUs to digital change is the most concerning challenge for 68% of respondents"

# What's next

36

First comes thought; then organization of that thought, into ideas and plans; then transformation of those plans into reality. The beginning, as you will observe, is in your imagination.

Napoleon Hill

“The CIOs role is becoming one of managing relationships, while IT and digital technology come into play into the famous third platform”

What emerges from the results of our survey is that the Digital Transformation is a complicated exercise, but it must be grounded as it could be implemented in every company in a future not too distant from now. The transformation process needs to be driven and managed, senior management must be involved, take the leadership and work to align all the initiatives to the organizational structures.

To create the right level of cooperation necessary to overcome the resistance to change, instilling a digital culture, rewarding behaviors in light of the results and inserting digital “native” resources are steps to be followed, while the CEO, together with the CIO, should lead the transformation.

A strong strategy is a good starting point. As a first step, it will be necessary to clarify that the digital strategy is to support all the Business and a complete business plan correlated P&L is essential. It must also articulate in short, medium and long-term, well clarified objectives: customer centricity, creating new user experience, process digitalization and creation of new business models.

Once defined the cornerstones and objectives of Digital Transformation, companies of course need a system for measuring performance, KPIs and metric, supported by solid analytical tools and reporting. Since there is no value return without a coherent and compre-

hensive evaluation of the efforts undertaken at transforming an organization. Furthermore, there is the role of people, starting with those who lead and make decisions. The strategy passes by the formation of new teams and the allocation of specific roles and responsibilities for digital, from establishing an interactive and agile work environment to sharing new values and capabilities. Transparency, collaboration, empowerment, training and integration are fundamental steps for the implementation of the digital strategy. New professionals who combine extensive technical skills with extensive market knowledge and creativity and marketing skills with data processing skills.

Strategy is also built on technology, infrastructure, data, metadata and standards and from purchasing the right solutions and services. The CIO is in the midst of this process, leading the change along with other C-levels, providing advisory in the selection process of tools, partners and suppliers and training talents.

The CIOs role is becoming one of managing the relationships with providers and internal and external customers where IT and digital technology come into play in that famous third platform area of cloud-based, mobile-driven and data-intensive pervasive or ubiquitous technology.

However, Chief Information Officers are

also suffering the very same technology spreading through the organization, often intervening in digitization projects under way to ensure the right level of security and compliance. Moreover, IT is now the rate limiter for change, the IT infrastructure that was implemented to deliver business automation in the 20th Century, now impedes business agility in the 21st Century.

Finally, do not forget processes. If agile and multidisciplinary, they can bring innovation, speed, openness and responsiveness, and correct automatisms. When out of date, they can reveal the real Achilles heel of an organization, promoting siloed structures, as evidenced by our panel.

The road to the digital maturity of European enterprises can still be complex, but to live up to our panel, the majority of them has at least begun to define a transformation strategy. Investments in innovation are growing for this 2016, the digital transformation is perceived as a must.

Difficulties and obstacles are many, from a top management often shortsighted with respect to a change that seems inevitable, to varying degrees, of a still unfavorable economic situation, to overcome change resistances.

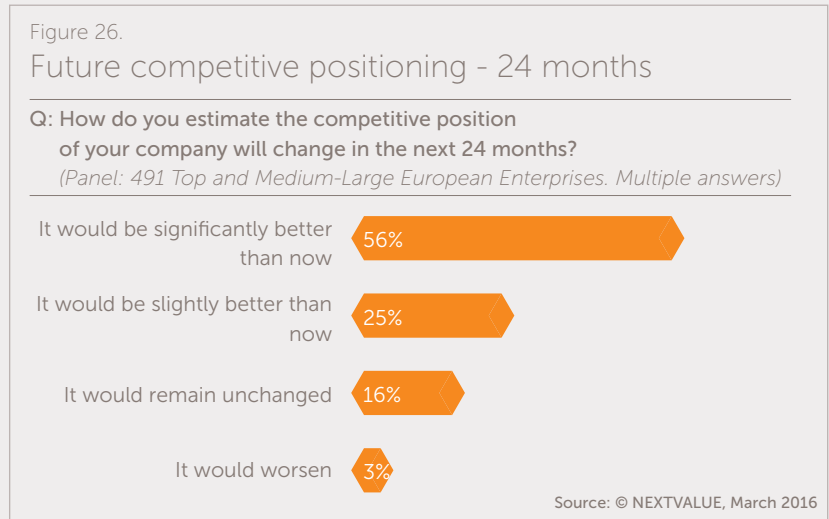
However, we want to cast a positive light on the future with the last question

to our panel: how do you estimate the competitive position of your company will change in the next 24 months? [Figure 26].

A good 56% of our panel is confident that in 2017 situation would be slightly better than now, whereas another 25% strongly affirms that it would be significantly better. If we consider our familiar restricted panel composed of Established Leaders, the optimists share grows up at 40%, establishing a correlation between digital maturity and confidence into future performance improvement.

Given these results, or our respondents really do not see the storm coming, or they really perceive that the measures taken would be sufficient to maintain stable their current market share (16%) or that actually would enable new ways to success.

We are convinced that the latter is the case, and we will keep watching the progresses of enterprises toward digital maturity. Thus, we want to leave you with a quote from writer C.S. Lewis on transformation, being it digital or personal: "It may be hard for an egg to turn into a bird: it would be a jolly sight harder for it to learn to fly while remaining an egg. We are like eggs at present. And you cannot go on indefinitely being just an ordinary decent, egg. We must be etched or go bad".



## Appendix – Panel and methodology

38

Surveys on Digital Transformation are around since some years from now, though “Digital Transformation in Europe” is the first research conducted on a European scale and with a qualified panel from the CIONET International Community, composed of C-levels and Executives directly on digital projects pertaining to Top Enterprises., as shown in [Figure 27-30]

Our aim is to explore vision and strategy, meaning the familiarity and the state of the art of digital transformation, of European enterprises, the elements of this strategy and the role played by IT. We will then dig deeper on current and forecasted budgets and investments on Digital Transformation, obstacles - challenges and organizational and cultural barriers to the digitalisation of companies and the human factor behind the transformation, meaning leadership, talents, organisational structure and incentive systems.

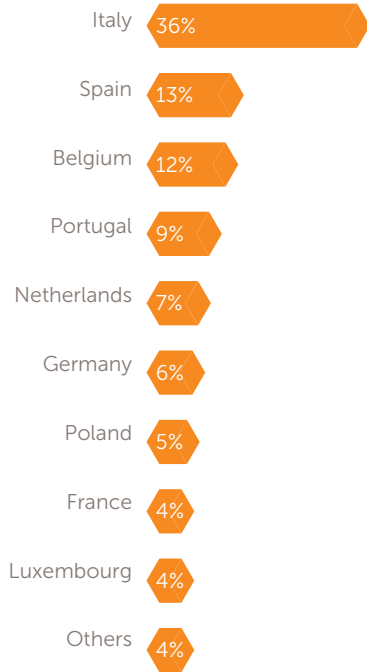
A fundamental part of the INSIGHT is the construction of the Maturity Matrix, in which each firm of the panel is placed in a precise position based on parameters and algorithms defined in our methodology. Assessing the Digital Maturity of companies represents the core of our research project, thus obtaining a single metric to describe the state of art of European Companies.

Participants were asked to rate the current “state” of the Digital Transformation” strategy within enterprises,

From the results of the survey, we will obtain some key takeaways to the long and medium term roadmap toward a successful Digital Transformation, the “What’s next”.

“The research was conducted into 9 different European countries where CIONET local communities are based”

Figure 27.  
Panel composition  
by geography



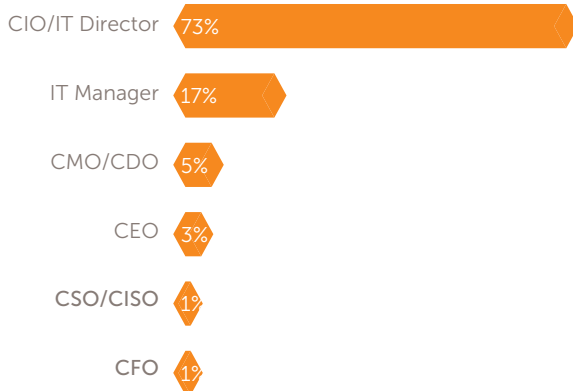
Source: © NEXTVALUE, March 2016

Figure 28.  
Panel composition  
by industry



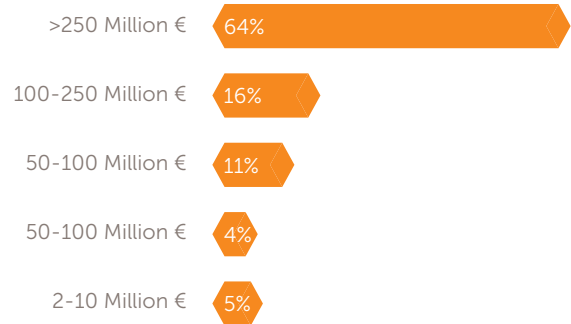
Source: © NEXTVALUE, March 2016

Figure 29.  
Panel composition  
by role



Source: © NEXTVALUE, March 2016

Figure 30.  
Panel composition  
turnover



Source: © NEXTVALUE, March 2016

