



ENABLING THE CIO TO LEAD DIGITAL:  
**RECIPES FOR SUCCESS**

An IDC InfoBrief, Sponsored by



# THE “RECIPES FOR SUCCESS” FOR THE CIO TO LEAD DIGITAL

The overwhelming feedback from CIOs that IDC has spoken to over the past six to nine months is that they need more guidance on executing on digital transformation (DX) initiatives. What are the structures, key performance indicators (KPIs), and incentives that need to be put in place to make DX actually happen? Which translates into how do they help their respective organizations “make money.” This is no longer about marketing showcases and proof-of-concepts — it is much more about delivering new revenue streams based on digitally enhanced products, services, and experiences.

The objective of this document is to provide that guidance for the CIO based on data from a survey that was conducted of more than a 1,000 IT, digital, and business executives in Europe, the Middle East, and Africa. Looking into the organizational behavior recorded through this empirical research and additional analyst conversations, IDC has developed a series of best practices or “recipes for success” to help other organizations learn from those organizations that are delivering results and getting this right.



# The Recipes for Success

CIOs of organizations that are leading in digital transformation (digital thrivers) exhibit the following key characteristics:



They develop transformational leadership attributes.



They create a “digital dream team.”



They put information at the heart of digital transformation.



They establish a “future proof” digital platform.



They embed innovative metrics (or masteries).

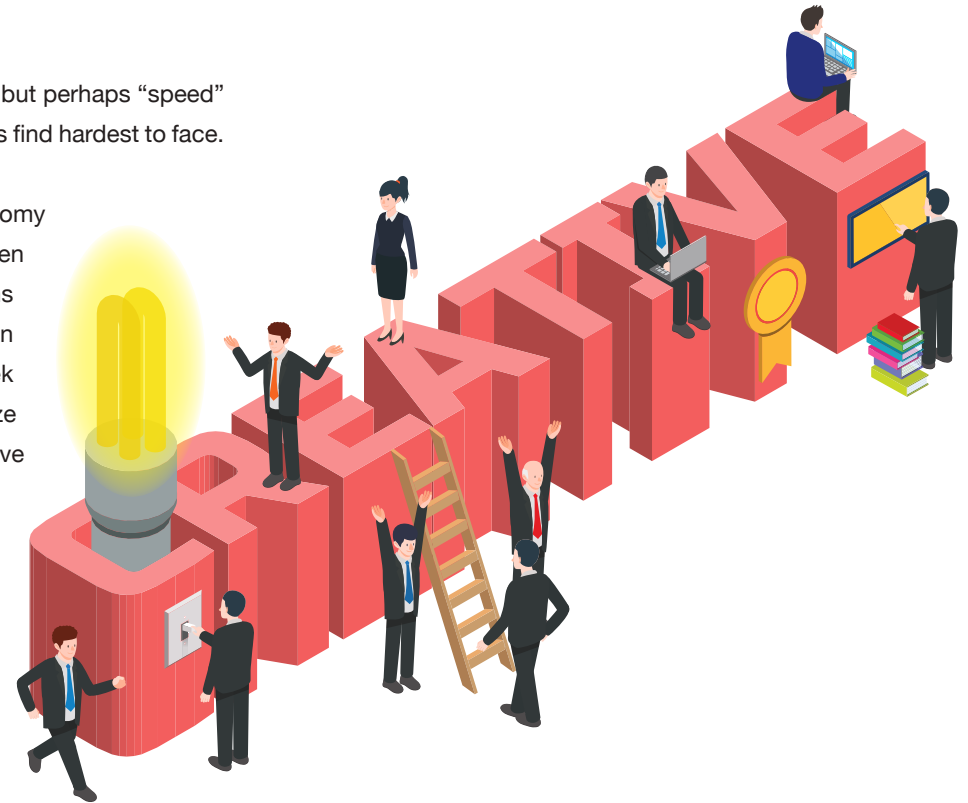
# The Dawn of the Digital Economy

As digital transformation becomes part of the strategic agenda for both businesses and IT executives, a new phase linked to the macroeconomic impact of digital investments is emerging. For IDC, this is the dawn of the digital economy. Organizations are forced to think far beyond the four walls of the traditional enterprise and take an “outside-in” perspective that embraces the entire ecosystem, including customers, partners, suppliers, startups, consortiums, and regulators.

Many executives have already started setting up strategies to generate new revenue streams from digitally enhanced products, services, and experiences. In some industries the gap between digital thrivers and survivors is growing, the window to catch up is shrinking, and organizations recognize that it is time to take action. Digital transformation can

be described using many words, but perhaps “speed” best describes what organizations find hardest to face.

IDC believes that the digital economy will require a digital platform driven business model. Organizations will have to look at data in an entirely different way and seek out opportunities to monetize that data by leveraging innovative solutions. Emerging digital use cases built on next-generation technologies can introduce unparalleled efficiencies and potentially new revenue streams.



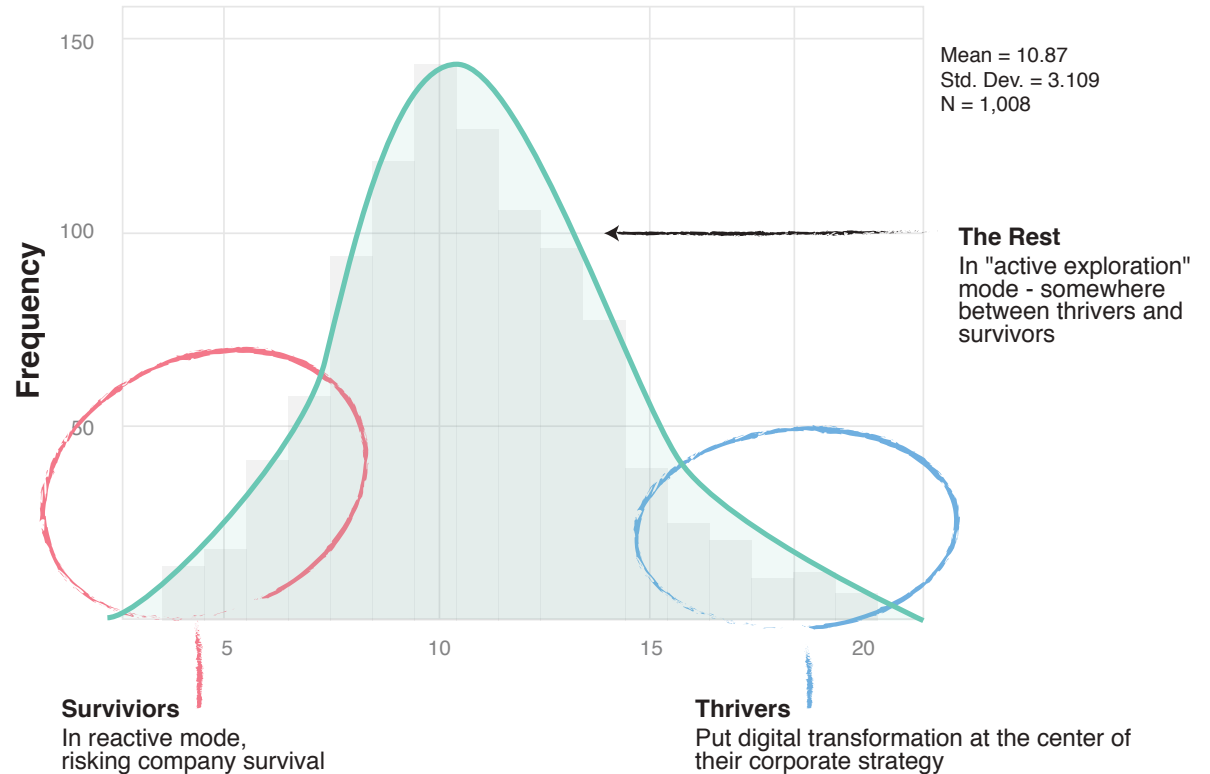
# Identifying the Digital Thrivers

There is a very strong correlation between information strategy and an organization's ability to disrupt its business model.

*IDC interviewed more than 1,000 IT and business professionals across 17 European countries to better understand their priorities, strategies, and successes with regards to digital transformation. IDC identified digital "thrivers" and "survivors" based on the relative success of their digital transformation strategy.*



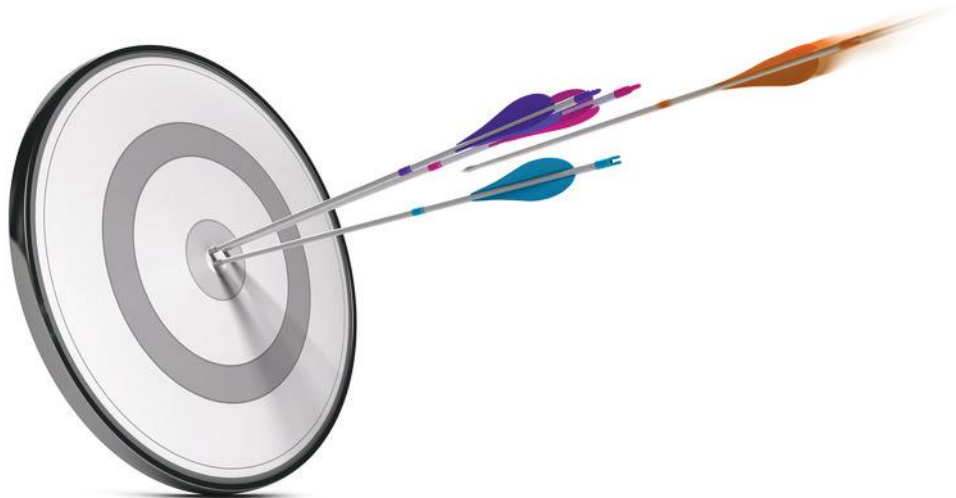
**DIGITAL THRIVERS ARE LEADERS IN INFORMATION TRANSFORMATION.**



# Thrivers — What you need to know

Digital “thrivers” are not just startups or native cloud companies, but come in all sizes and are found in all industries.

However, there are a couple of industries that stand out in their efforts. In particular, organizations in professional services are raising the bar for adjacent industries. Unfortunately, it remains rare to find examples in the public sector truly embracing digital transformation. This is often due to legal restrictions, security concerns, and lack of commercial intent.



## THRIVER INDUSTRIES

Professional Services

Manufacturing

Retail & Wholesale

Communication & Media

Agriculture

Utilities

Transport

Financial Services

Education

Healthcare

Government

# Developing World-Class Leadership Attributes





## INGREDIENT #1:

# Leading CIOs Are Able to Communicate Their Vision to the Board and Support the Broader Business

IDC agrees that successful digital transformation efforts need to be backed by the CEO and board; but it needs to be led by a new breed of leadership — the disruptive CIO. While survivors have CIOs who are trapped trying to do more with less, thrivers have CIOs who act not only as an IT leader but as a strategic executive who sets a complete business model transformation in motion. CIOs need to focus on breaking down silos within the organization, starting with the IT department and heading toward a better integration with the business.

## Leading CIOs need to effectively:

- ✓ Communicate to the board
- ✓ Understand business processes
- ✓ Identify new tech opportunities



## Leadership Attributes for CIOs

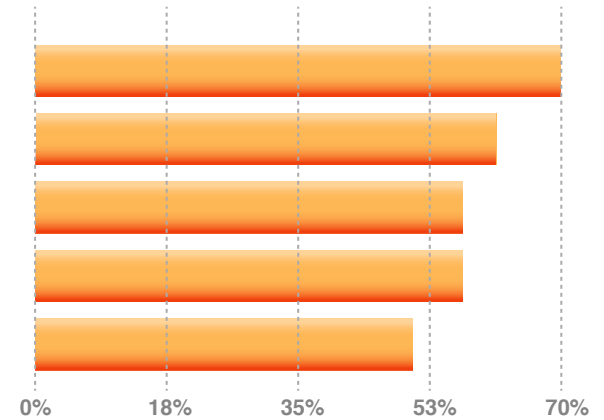
Effective communication with senior leadership

Understand core business processes

Link new technologies to business outcomes

Understand business strategy

Facilitate innovation brainstorming workshops



Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008





## INGREDIENT #2: Leading CIOs Have Taken Ownership of DX Initiatives Among Digital Thrivers

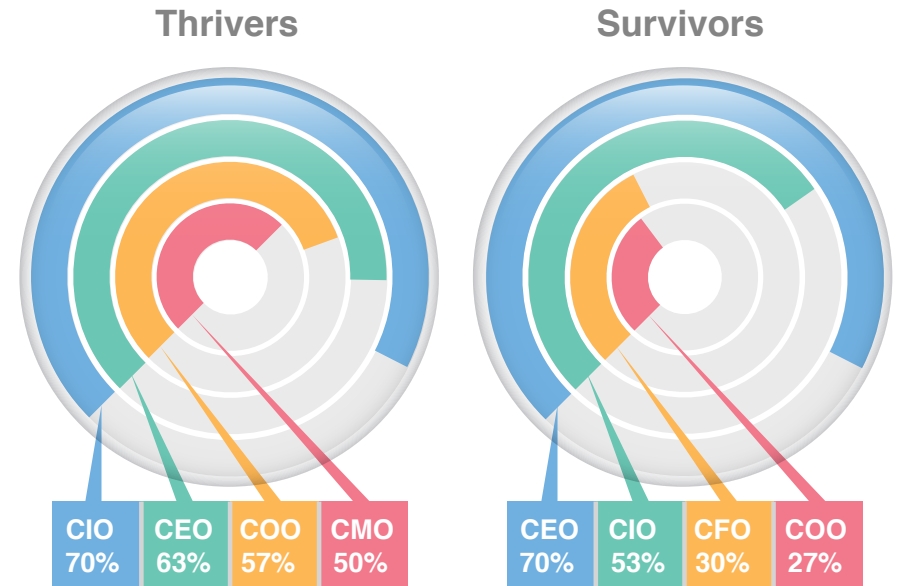
With 88% of European DX strategies directly backed by the CEO and board, there is a dire need for leadership to start executing on set objectives.

We also see that CEOs have often found it necessary to drive digital initiatives among survivors. It is therefore clear that CEOs are increasingly associating themselves with technology and innovation. Tech-savvy CEOs aim to lead digital initiatives in order to accelerate transformation across the enterprise.

However, among digital thrivers it is not the CEO but the CIO who has stepped up to the plate to drive the transformation across the broader organization — a natural response as it is ultimately up to the CIO to help drive technology changes.

**Successful digital transformation projects are led by CIOs who are stepping up to complement the increasingly tech-savvy CEO.**

Q. Who would you say is leading the digital transformation initiatives?



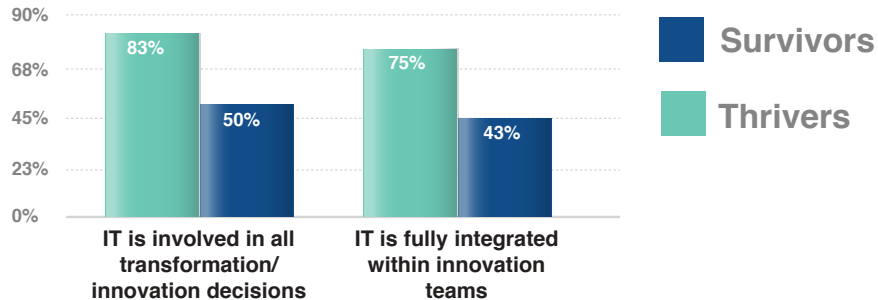
Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008



## INGREDIENT #3:

## Leading CIOs Ensure That IT is Involved in All Innovation and Transformation Decisions

CIOs who successfully drive digital transformation don't do it alone. They create equal partnerships with the line-of-business executives in the organization. This is an important step to creating buy-in, accountability, and involvement in the innovation process from the broader organization.



**Successful digital transformation projects are enterprisewide initiatives rather than siloed or department-specific initiatives.**

Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008

## Case Study



**Michael Hilzinger**  
Group CIO, Klöckner

**Michael Hilzinger** is the group CIO of **Klöckner** and a role model for IT executives managing the digital transformation journey. Not only is he CIO of the traditional group, but he is also one of the managing directors of kloeckner.i — the digital innovation unit at Klöckner — making him the chief digital officer in effect. Acting as the bridge between the traditional Klöckner business and kloeckner.i, he builds the center of excellence for digitalization by prioritizing the right use cases, creating prototypes, and experimenting with new technologies for the business. His goal is to “de-risk” these offerings and turn them into revenue-generating services on the digital platform that the organization is building. Hilzinger needs to be able to deliver traditional enterprise-grade IT services to Klöckner, and at the same time ensure that the innovation group’s products and solutions are integrated into the enterprise IT architecture. This is what the disruptive CIO is all about — stepping up to the plate and driving digital transformation efforts for the organization.

kloeckner metals

## Summary

### Key Ingredients

**Positioning and communication:**

Leading CIOs are able to communicate their vision to the board and understand the broader business.

**Digital leadership:**

Leading CIOs have taken ownership of DX initiatives among digital thrivers.

**Close to the business:**

Leading CIOs ensure that IT is involved in all innovation and transformation decisions.

### Recommendations

Communicate your business understanding (and experience) to the board, and demonstrate how use cases leveraging new technologies and processes can form a platform-business model.

Highlight your organizational “orchestration” credentials to ensure that the ownership of digital transformation efforts (at least partly) sits in the IT department.

Ensure that IT is part of every strategic board meeting with CIO level representation — and use this as a basis to drive technology into all transformation decisions.

# Creating a Digital Dream Team



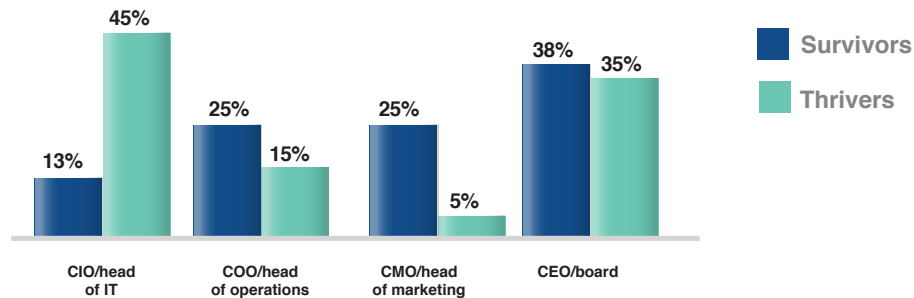


## INGREDIENT #1:

# CIOs and CDOs Work Together and Align on Vision for More Effective DX Rollouts

In some organizations the “chief digital officer” (CDO) is being introduced to support transformation initiatives. CDOs are typically responsible for the creation of digital products, services, and experiences. Together, CIOs and CDOs should develop a platform and capabilities that deliver on new business initiatives and customer requirements. Digital thrivers often have CDOs who report to CIOs.

Q. Where does the role of the CDO (chief digital officer) report into?



**IDC believes that identifying where the CDO sits and who the CDO reports to gives a good perspective on the digital maturity and power structure within an organization. The truth is most CDO roles lack clear definition and can reside within various functions across the organization.**

For more information on how CIOs and CDOs need to work together and what each role should focus on see IDC's "CIO and CDO Scorecards."

Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008

## Case Study



**Monique Shivanandan**  
Group CIO, Aviva

**Monique Shivanandan** has been the group CIO of **Aviva** since 2014.

Digital is a key priority for CEO Mark Wilson and Aviva has made Digital First one of the three pillars of the business. Hence technology is very much a hot topic on the board table. According to Shivanandan, 60% of the Aviva goals are digital and technology driven. Quite soon after she was appointed as CIO, Andrew Brem was put in place as chief digital officer of the organization. Her view is that the roles are very much complementary — “The digital product isn’t actually going to be all that effective if the back-end systems are falling over, and the back-end systems won’t have a place to offer their great capabilities if the front-ends aren’t there.” Hence her aim to build a clear partnership based on aligned goals, but also constructive “friction” to deliver on the broader digital transformation promise of the company.

*“A CDO is a partner. The relationship is one where the CIO and CDO are constantly challenging each other, constantly thinking of how to do things better, then working together to get it done.”*

*Monique Shivanandan, Group CIO of Aviva*

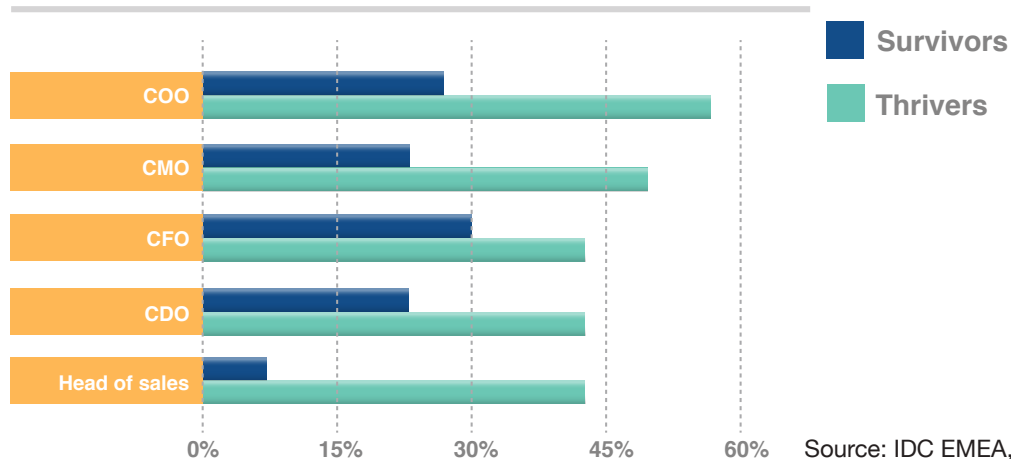


## INGREDIENT #2: Create a Digital Dream Team Involving All Business Functions

Thrivers of digital transformation create leadership teams that involve executives from operations, marketing, sales, and finance. We also see the role of HR playing an increasingly important part in the digital transformation journey.

Enterprisewide participation is critical for successful transformation projects. In fact, IDC believes 70% of siloed digital transformation projects will fail by 2018.

### Percentage of CxOs Involved



Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008

### Dream Team

1. Helps articulate a digital vision for the broader organization.
2. Sponsors regular digital “boot camps” to raise stakeholder digital IQ and tech savviness.
3. Develops a holistic transformation journey for the organization.
4. Sources or centralizes budgets to create proof of concepts.
5. Applies both design and business thinking to assess platform opportunities.



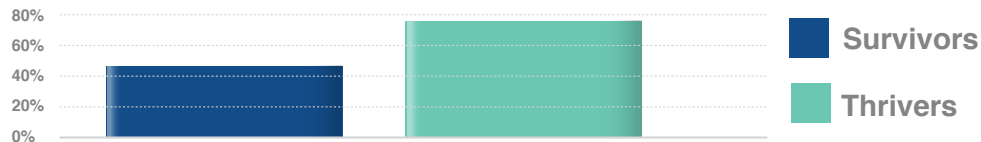


## INGREDIENT #3:

# Involve the IT Department for the Assessment of Digital Use Cases

Although the Dream Team will be critical for building digital awareness, developing buy-in, and identifying opportunities, it is not just the CIO but the broader IT department that has been found to play a critical role among thrivers. The most successful examples of digital transformation are using the IT department to identify, assess, and execute on potential use cases that reflect the digital vision of the organization. IDC believes the Dream Team needs to involve the broader IT department — a critical step overlooked by most survivors. IDC recommends involving IT for three purposes:

## How has IT led your organization's enterprisewide DX initiative so far?



IT is assessing business use cases for innovative technology initiatives

### Dream Team

1. Identifying and prioritizing relevant use cases (by industry and domain) linked to emerging technologies
2. Charting out the use case journey over a 6-, 12-, and 24-month timeframe
3. Developing the business case (and potentially a proof of concept) for uses cases with the digital Dream Team

# Summary

## Key Ingredients

**CIOs and CDOs work together:**

Organizations with CDOs that are aligned to the CIO's DX vision are more effective in their DX rollouts.

**A Dream Team involves all functions:**

The Dream Team is not just about the CIO-CDO relationship — it's across all lines of business.

**Involve the IT department:**

IT departments need to help identify, assess, and execute on potential digital use cases.

## Recommendations

The CDO needs to focus on creating digital products, services, and experiences, and building the most profitable customer propositions for them.

The CIO and IT need to focus on building out the right platforms and capabilities to deliver on those propositions.

Involve executive stakeholders from all business functions, including marketing, sales, finance, operations, and even HR. Align objectives and key performance indicators that drive both alignment (and key partnerships) but also department level transparency and accountability.

Develop a discovery workshop to identify, prioritize, and chart out the use case journey. See the Masteries section for more details on this.

# Placing Information at the Heart of Digital Transformation





## INGREDIENT #1:

# Create a Data Discovery Environment for Your Organization's DX Initiatives

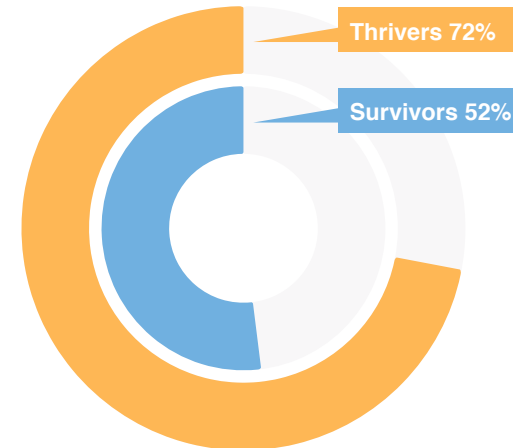
The data is clear: digital thrivers are more advanced than survivors in the use of analytics to empower their businesses.

It appears that the survivors have not moved beyond the early stages of information transformation. Laying down a governance and data foundation approach should in turn lead to more advanced stages.

Thrivers have moved on: our research shows that thrivers invest in developing a data discovery environment that:

1. Leverages and integrates datasets from multiple sources (particularly external ones) including real-time and streaming data such as from location, social media, and IoT sources.
2. Federates data by providing data services that business users can leverage for their own innovation initiatives and digital use cases.

Are the technology systems underpinning DX initiatives fed with a comprehensive enough dataset?



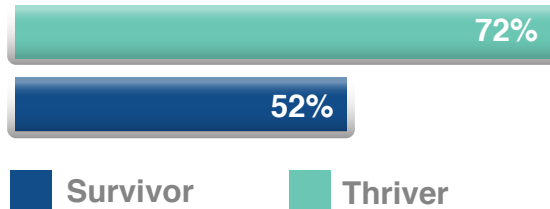
Answered "Yes"



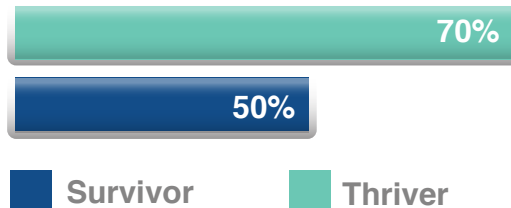
## INGREDIENT #2:

## Empower Your Business Users With the Right Analytic and Data Visualization Tools

**We aim to consolidate all our analytics tools and make them available across the business**



**Our staff have the right analytics and visualization tools to make decisions**



Sourcing, collating, structuring, and managing both internal and external datasets including Big Data is a significant undertaking but is only the start of the data discovery process.

Exploration and visualization are critical activities in order for an organization to develop value and realize the value of its data. A critical step in being able to achieve these outcomes involves equipping LOBs and innovation teams with user-centric analytical packages and data visualization tools that will empower them to find interesting or hidden insights in the data or even run more complex business simulations leveraging the various datasets available to them. For instance, business users may want to know the yield ratio over their investments, which generally require input from multiple data sources.

**In fact, 81% of all organizations IDC surveyed think their DX initiatives would benefit significantly from the ability to run real-time analysis on any dataset.**



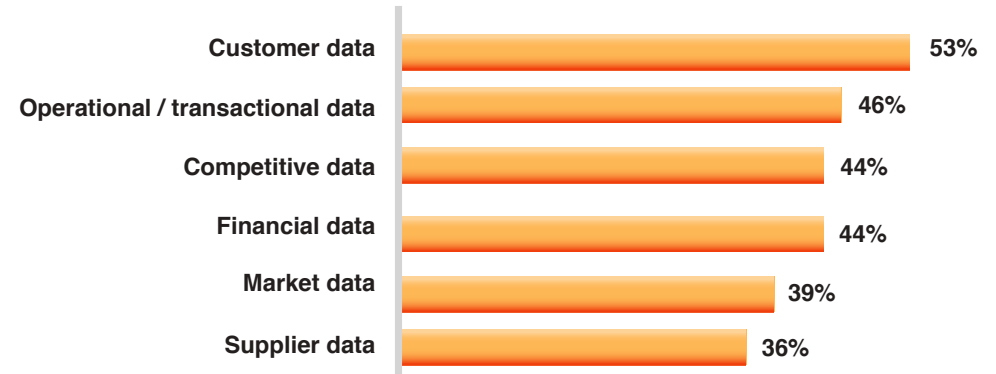
## INGREDIENT #3:

# Treat Data as a Strategic Asset

Collecting and curating the right data is not just about empowerment through the generation of insights (important though that is). Digital thrivers see data as a strategic asset that can be packaged to monetize and sell to customers and partners, or embedded into existing products or processes to generate business insights or increase value. IDC believes that by 2019, **40% of European IT projects will create new digital services and revenue streams that monetize data.**

Data monetization, however, requires a clear understanding of the data market and data valuation. For example, a company should understand the *financial value of data and how it contributes to the revenue generated*. It should also know the value of data confidentiality compared with potential direct income from sharing or selling it.

## Gaps in Organizational Datasets



Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008

## Case Study



**DOW JONES**

As a publishing firm and provider of financial information, **Dow Jones** is a very good example of a company that has had to redefine its business based on data. Although the organization started its digital journey some time ago (as the media industry was turned upside down by the availability of free news content), it is only in the past 24 months that the company has undertaken a data-driven approach to running its business — using data to really understand what content works (and what doesn't), with its flagship publication (the Wall Street Journal) as the test case. This is an approach that has been put in place by CTO **John O'Donovan** and his team, focusing on four key areas:

1. Putting the customer's needs (i.e., the reader) ahead of its content (not a “write it and they will read it” mentality)
2. Focusing less on web traffic and more on revenue from subscriptions (and using this to drive all content-related decisions)
3. Downplaying the reliance on advertising (which is declining anyway) and relying more on subscriptions to the digital content
4. Focusing less on data as the output (i.e., traditional reporting and historical analysis) and more as the driver (i.e., in terms of what works and what doesn't)

Using these principles, O'Donovan could not only deliver tangible business results (i.e., new revenue streams) in a short timeframe, but also provide the business case to redefine the underlying technology architecture to deliver on the new focus areas. In parallel, he can also help to shape the publishing strategy of the content editors for Dow Jones' key publications.

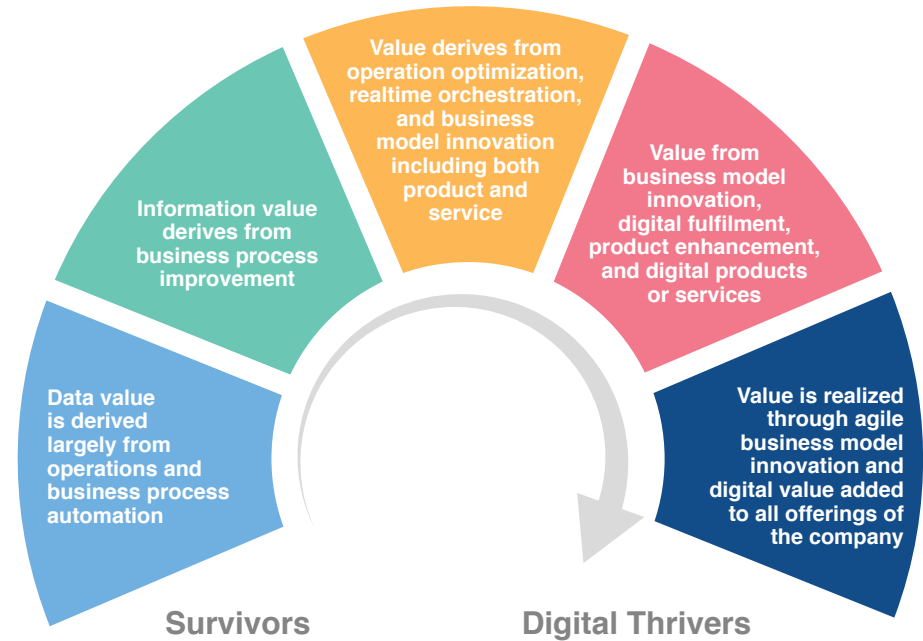


## INGREDIENT #4:

# Place Information at the Center of Your Organization's Digital Revenue-Generation Strategy

The next is to consider the creation of new products and services that can be built using that data. For instance, leading manufacturing organizations are making available operating and performance data on their products — this can be valuable and offered as a paid for service — for example, to prevent unplanned downtime or reduce operating costs.

Organizations that are truly digitally transformed become in fact services companies as they no longer deliver tangible products. Product companies across all industries will therefore need to learn how to run a services business and understand how to drive successful service delivery, measure expected outcomes, adopt new types of costing models, and manage a different set of risks. Most of the data that a company owns can potentially be leveraged to create a service and enhance an existing product or service with better outcome or value.





# Summary

## Key Ingredients



### Data wrangling:

Create a data discovery environment for your organization's DX initiatives.



### Customer segmentation:

Empower your business users with the right analytic and data visualization tools.



### Data monetization:

Treat data as a strategic asset.



### Linking new digital projects to the back-end:

Place information at the center of your organization's digital revenue-generation strategy.

## Recommendations

Understand that "data wrangling" will be critical for digital initiatives — the necessary sandboxing capabilities to deliver this will be required.

Segment your user base across power users (data scientists) and casual users (information consumers) by business unit and ensure that they have the necessary technology capabilities that align to their requirements.

Look for ways to monetize data by selling it and embedding it into products/services to get business insights or increase value. Start to classify data types according to "organizational" value. This could be as basic as a set of platinum, gold, and silver tiers as a starting point.

Consider creating new products and services leveraging the data owned by your organization. Create the necessary data linkages between new digital projects/initiatives and back-end core systems with the right architecture to scale over time with the growth that will come.

# Establishing a “Future Proof” Digital Platform

# The Platform Economy

01

## Every Company is a Software Company

Enterprises pursuing DX will double their software development capabilities by 2018

02

## Innovation = Code + Data

Enterprises with DX strategies will expand delivery of data to the market by 100-fold or more by 2018

03

## Industry Cloud Platforms Will be the Primary Route to Market

50% of enterprises will create/partner with industry cloud platforms to distribute their innovations

### The Platform Economy has a number of threads:

1. Companies will increasingly become software companies, and they will invest in development capabilities.
2. They will feed those new software development environments (i.e., the code) with new sources of data via an API-driven architecture.
3. They will look to disseminate these new capabilities via industry cloud platforms.
4. Software innovation is the differentiator.

**All of this is part of a broader shift in business models.**

# The Platform Economy



zalando

Zalando is building a digital platform that connects the fashion world.



ENGIE is putting in place a digital “factory” to link its efforts with partners and customers as part of the Smart City Ecosystem.



Aviva is building a digital platform to deliver product innovation and development to its customers through data analytics, customer insights, and risk management.

**klöckner & co**

multi metal distribution

Klöckner is building an industry digital platform to connect suppliers and customers in the steel distribution industry.

# From Monolithic Business Systems to Platform Thinking



Monolithic systems of record of the past focused on driving efficiencies through automation. Now it is all about innovation and evolving business models.



As new business models disrupt industries, innovation needs to come from within companies — it cannot be driven solely from core systems that are built from an “industry best practice” viewpoint.

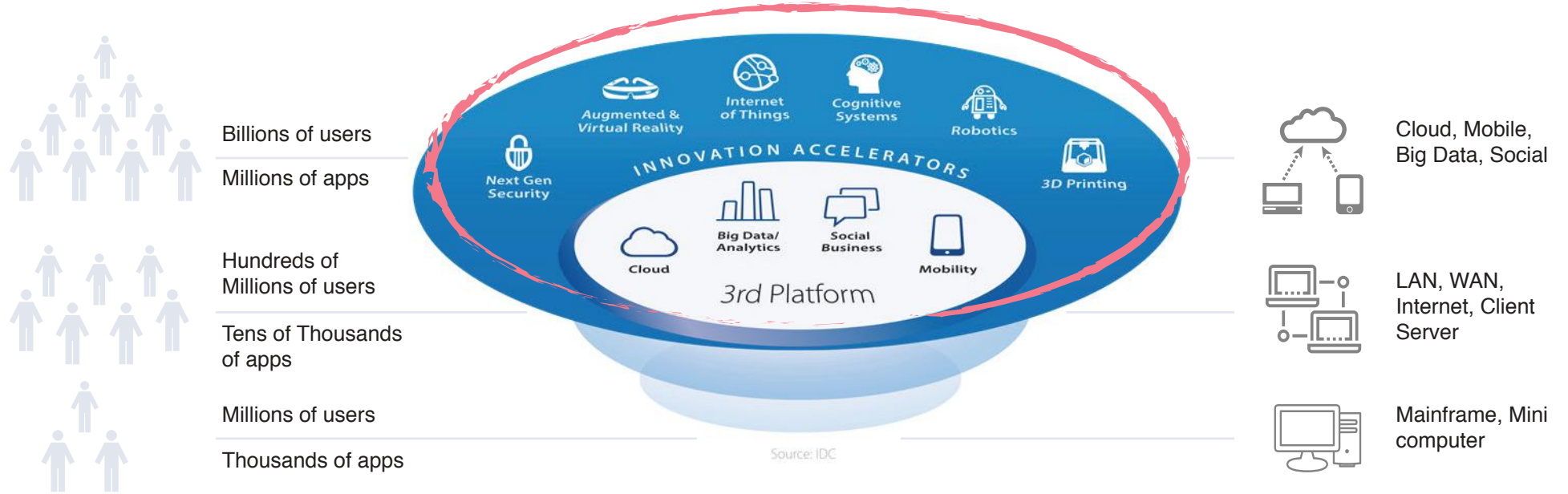


These core enterprise business systems (e.g., ERP, SCM, MES) still have a very critical role to play and cannot be seen to exist in a separate sphere outside the realm of technology innovation. They need to be modernized and integrated to work seamlessly with a broader collection of new technologies. We term this new integrated architecture for digital transformation inclusive of modernized enterprise applications, the Enterprise Digital Platform.



# The Enterprise Digital Platform Architecture is 3rd Platform-Driven

**These 3rd Platform technologies drive the Enterprise Digital Platform architecture**



# The Enterprise Digital Platform Architecture is 3rd Platform–Driven

## Engagement Layer

Providing services through customer-centric UI across devices and operating systems. Dynamic content based on user profiles. Enables two-way user interaction for communication or transactions.

## Integration Layer

API library and SDKs to connect with internal and external ecosystem.

## Development Layer

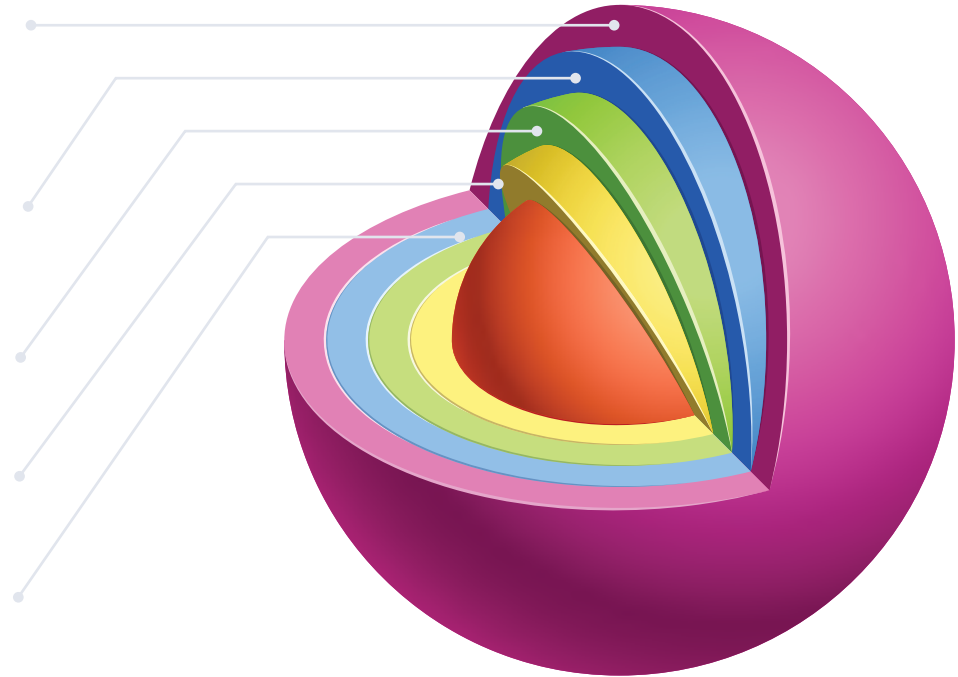
DevOps oriented with a focus on continuous integration and delivery.

## Data Layer

Multitiered and multitenanted data design with an external focus.

## Core IT Layer

Core IT environment encompassing all mission-critical applications and information systems to sustain operations and business continuity.



# The Enterprise Digital Platform Architecture is 3rd Platform–Driven

	1st and 2nd Platform	3rd Platform	The Era of the Innovation Accelerators
Engagement layer (driven by applications and apps)	Monolithic, stateful, fixed, etc.	Stateless, user-centric, and service design	Customer-centric immersive experiences linked to IoT and the ecosystem
Integration	Focused on enterprise service bus technologies and SOA	Loosely coupled services in an API-driven architecture	API library and SDKs to connect with internal and external ecosystem
Development	Waterfall development approaches linked to static requirements gathering, solution development, and testing	Agile development with a more iterative approach to requirements gathering and solutioning	DevOps oriented with a focus on continuous integration and delivery using capabilities on the platform
Data	Structured (within the four walls) focusing primarily on data management and storage	Internal and external, using a combination of visualization and predictive analytics	Multitiered and multitenanted data design with applied intelligence to extract business value and meaning
Core IT	Infrastructure and information systems are located on-premise, mainframe, or client/server based	Applications consumed from private or public cloud environment, scalable infrastructure, and automation capabilities in place to drive elasticity	Cloud-only applications and infrastructure with a microservices and container focus for increased flexibility

## Digital Platform Architecture

In the reality of IT environments within organizations, it is clear that there isn't a huge line drawn between enterprise IT and digital innovation use cases. However, organizations do need to think about it in a much more integrated fashion.



# Benefits of an Enterprise Digital Platform: What It Can Do for Your Business

## External Value



Helps launch new revenue streams from its products and ultimately allows company to develop a platform-business model



Connects an ecosystem of partners, suppliers, and customers by transforming experiences



Runs multiple workloads and integrates data (from the Internet of Things/IoT ecosystem) to feed analysis capabilities



Provides an environment to develop “net new” applications to deliver new capabilities to the ecosystem in an open fashion



Supports innovation around existing business logic and the creation of new internal digital applications



Provisions modernized core IT (e.g., ERP, SCM, CRM, and MES) and can trigger new business processes within these core applications



Allows internal and external Big Data sets to be accessed and interacts with the ecosystem to improve real-time decision making



Gives access to state-of-the-art technology which can help identify new opportunities and investment areas

## Internal Value



## INGREDIENT #1:

# The Digital Platform Architecture Should be Based on Transformative Technologies

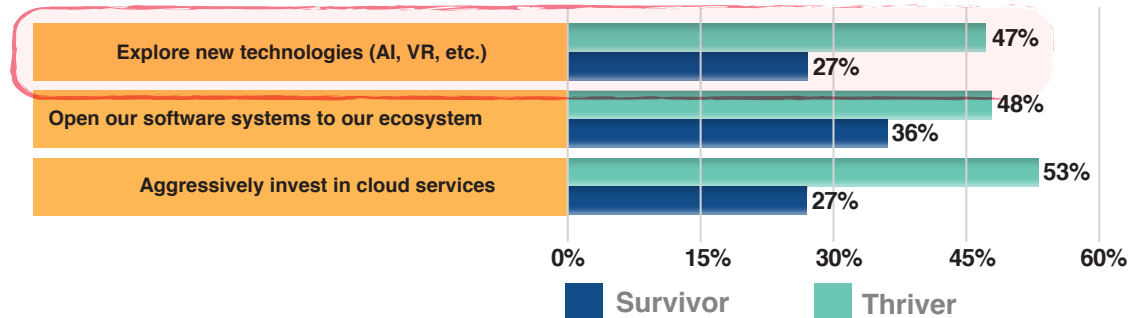
The digital platform is a set of “technology building blocks” to deliver on DX as outlined below:

- Digital infrastructure consisting of microservices and containers
- Code (dev environments for professional and “digital developers”)
- Cloud (cloud-first, but not necessarily cloud-only delivery model and architectures)
- Data services with a major focus on analytics and AI/machine learnings
- APIs (to integrate with other elements of the ecosystem)
- UX and mobile capabilities (and AR/VR) to deliver those immersive experiences — this should include collaboration and social

Depending what the business is trying to achieve (e.g., IoT data collection, customer engagement analytics, rolling out mobile apps, etc.), the combination of the “building blocks” listed above could look very different.

**Thrivers are actively exploring new technologies to drive their digital transformation efforts.**

## Initiatives undertaken to support digital transformation strategy



Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008

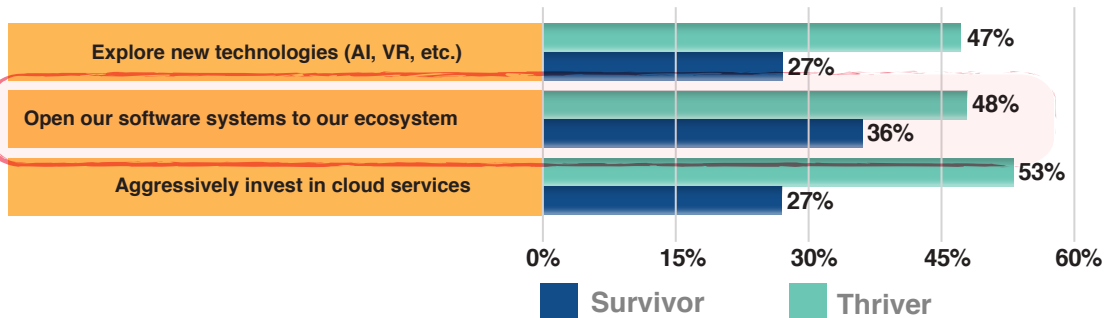


## INGREDIENT #2:

# The Digital Platform Architecture Needs to be Open and Ecosystem-Centric

**Thrivers are actively opening up their software systems to their ecosystems to drive their digital transformation efforts.**

## Initiatives undertaken to support digital transformation strategy



Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008

Digital thrivers have already externalized the platform for the ecosystem to start building out their own relevance in that ecosystem. Survivors tend to focus on islands of innovation or are still identifying the use cases.

Our survey shows that the top 3 areas where organizations need more data are around customer, finance, and operations. These are critical ingredients to any business model. Most organizations would benefit significantly from improved ability to run real-time analyses and develop data models to support operations.

Currently, only disruptive companies are making the required investments to surface data centrally through a digital platform.

This in turn can provide new revenue streams (data monetization) and powerful new opportunities to connect up with partners and customers to support new business models.

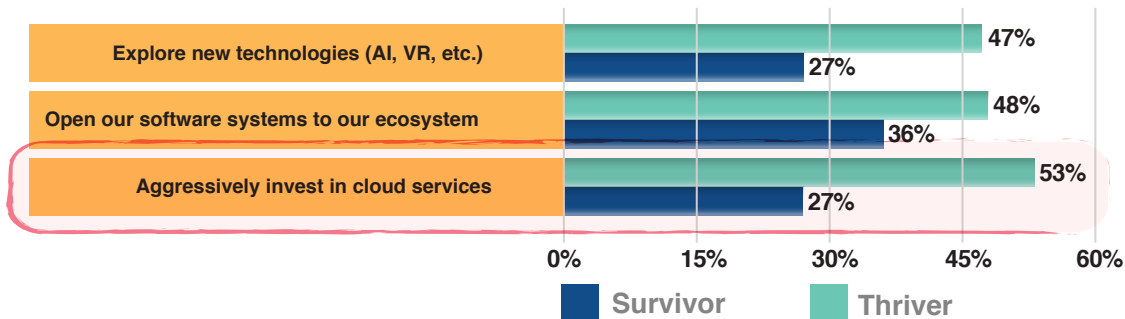


## INGREDIENT #3:

## The Digital Platform Architecture Should be “Cloud Only” (or, at a Minimum, “Cloud First”)

**Thrivers are putting in place a “cloud first” mantra to drive their digital platform efforts.**

### Initiatives undertaken to support digital transformation strategy



Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008

In the context of digital transformation, both IT and business leaders should be able to work on new trial applications and use cases in an agile environment without huge upfront investments. More importantly, to achieve increased data-driven innovation, the real cloud platform opportunity for most businesses should not be limited to software development on flexible infrastructure but be associated with the ability to add intelligence to operations.

1. The first form of intelligence will be that of Big Data solutions on cloud platforms, which will allow organizations to capture, store, process, and analyze data in a single, holistic environment, allowing executives to focus on discovering and acting on meaningful insights.
2. The second form of intelligence will be machine learning, where organizations can expose data and processes to pretrained or tailored algorithms in order to automate and accelerate business or consumer processes and applications.

Under these circumstances the cloud is changing the fundamental nature of computing and how business gets done, and it will continue to do so for as long as we can see. In fact, IDC expects that by 2020 we will stop referring to “public” and “private” clouds altogether; it will simply be the way IT is provisioned and business gets done.

## Case Study



Isabelle Kocher  
CEO, ENGIE



Isabelle Kocher is the CEO of ENGIE and is the key “change agent” in the digital transformation journey of the organization. ENGIE has three primary areas of focus for its Digital Factory:

- **Customer Experience:**

Customer experience is the primary focus for ENGIE’s digital transformation efforts in the short term. It is targeted at ENGIE’s retail operations, but relates to both business and residential customers. The efforts are primarily focused on understanding and redefining the customer journey. As a starting point it involves reimagining the delivery of traditional commodity services (e.g., selling gas and electricity), but more importantly it will involve designing completely new services to disrupt the market and its competitors.

- **Digitalizing Employees:**

ENGIE realizes that in order to deliver “customer delight,” it needs to enable employees with the right employee experience. For client-facing employees, this initiative is a key enabler for the customer experience outlined previously. And providing the technologies to underpin this will be critical. Mobility will play a key role here, particularly in terms of creating native mobile apps for business functions like HR and procurement.

- **Optimized Asset Operations:**

Outside of the downstream retail dimension, ENGIE is also focusing on improving the operational performance of its assets/plants. Here, the major focus is on connecting assets and associated processes. So IoT becomes the key enabler to deliver new internal services such as predictive maintenance.

ENGIE’s digital platform in the cloud supports and connects the systems and solutions introduced by the Digital Factory. It gives ENGIE an agile environment to surface relevant information to all of its touchpoints — whether it’s a customer, partner, or employee. Access to cloud development and Big Data capabilities enables the innovation team to develop and test new applications with embedded intelligence cost effectively.

# Summary

## Key Ingredients



### State of the art:

The digital platform architecture should be based on transformative technologies.



### Open and ecosystem-centric:

The digital platform architecture needs to be open and ecosystem-centric.



### Cloud platform:

The enterprise digital platform architecture should be “cloud only” (or, at a minimum, “cloud first”).

## Recommendations

Although your digital platform architecture will leverage these transformative technologies, focus on the use cases — and how these technologies will turn into tangible business results.

Develop an “ecosystem first” approach to your development methodologies — always looking to expose relevant content and capabilities via APIs to customers, partners, and other stakeholders in the ecosystem.

A cloud platform does not only give access to flexible infrastructure for IT, it can give access to an endless number of Big Data functions, intelligence, and opportunities for the business. Master the integration and management of hybrid cloud and multi-cloud environments. This will be a fundamental requirement for operating — not just as an IT group but as a business.

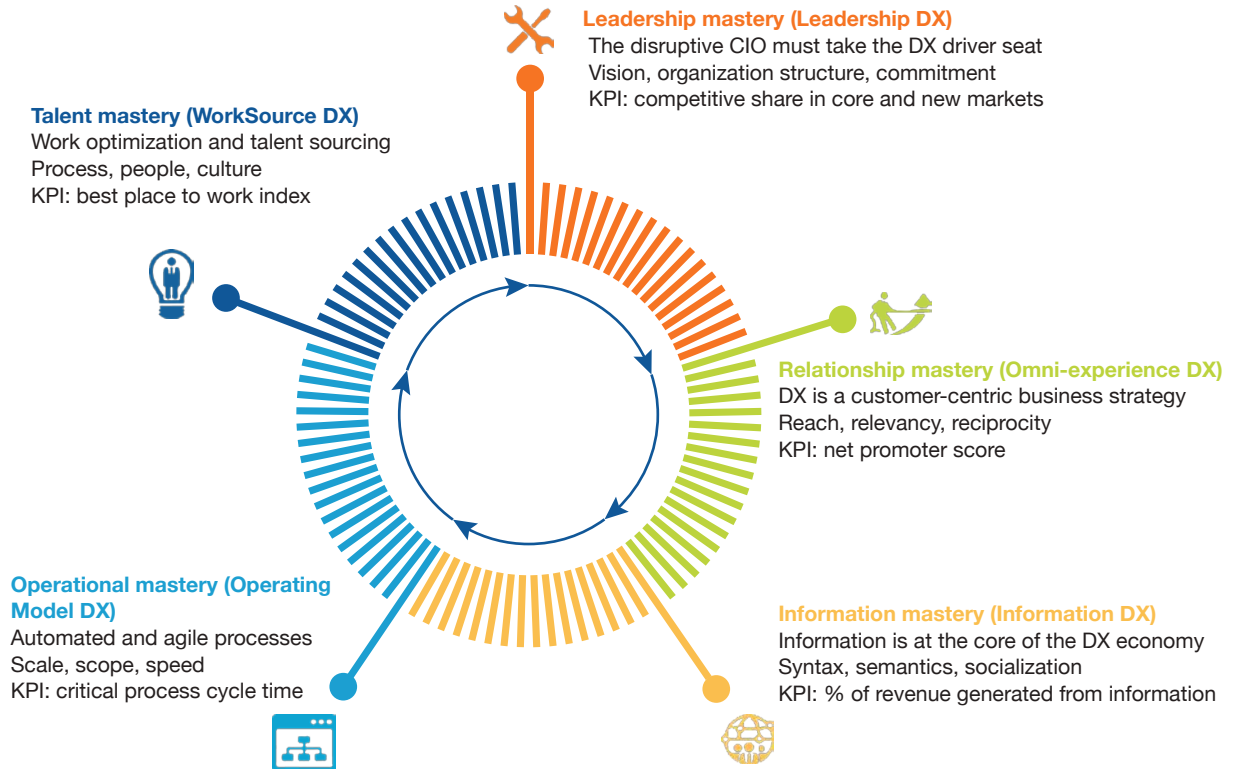
# Embedding the Digital Masteries

# What Does it Mean to Embed the Digital Masteries?

Embedding the “digital masteries” is all about an organization adopting a programmatic approach to its digital transformation initiatives.

Based on IDC’s view of the five pillars of digital transformation, embedding the five digital masteries involves devising clear and measurable objectives for digital transformation initiatives linked to business outcomes and use cases, as well as the monitoring of progress in the meeting of these objectives through the use of measurable business metrics.

These business metrics need to be embedded within the line of business and map into the metrics for the CIO’s office to drive synergies through a common set of shared goals.







## INGREDIENT #1:

# Ensure that CIO KPIs Are Aligned with the Broader Digital Ambitions of the Enterprise

Of the digital thrivers whose CIOs were NOT leading the organization's companywide DX initiatives,

**42%** of them cited that this was **because their CIO was largely focused on IT operations and was primarily measured on this.**

Similarly,

**81%** of CIOs who were left out of siloed DX initiatives primarily focused on **"IT operational excellence."**



**Measuring your CIO primarily on IT operational excellence is setting your organization up for failure in its DX initiatives.**

For more information on CIO KPIs and focus areas, please see IDC's "CIO and CDO Scorecards."



## INGREDIENT #2:

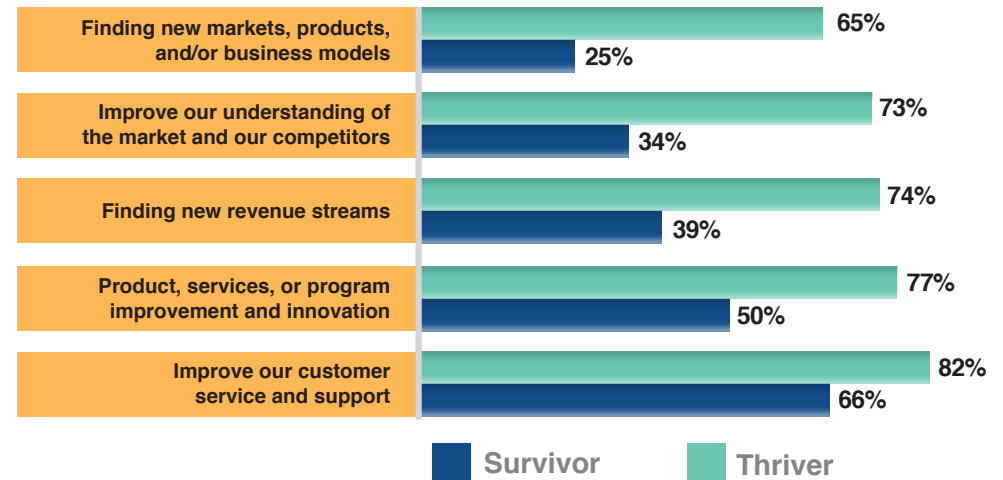
# Focus DX Programs on Transforming Customer Experience and Driving Digital Business Innovation

Both thrivers and survivors have a focus on improving the customer experience by leveraging digital technologies to transform customer service and support.

But beyond CX, digital thrivers are looking to innovate, to differentiate the business by developing new products, services, and programs that blend physical and digital and by launching new revenue streams as a key overarching business outcome of their DX initiatives.

Survivors are stuck in a defensive or internally focused mindset where they are looking to improve customer acquisition and retention and drive efficiencies, for incremental change rather than disruptive new business.

## Business Outcomes Linked to DX



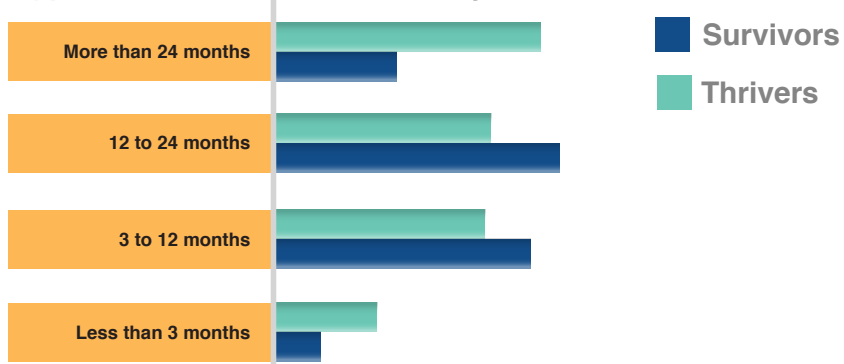
Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008



## INGREDIENT #3:

# Actively Measure the Business Impact of Digital initiatives

## Typical Time to ROI for a DX Project



Source: IDC EMEA, DX Survey, SAP, May 2016; n = 1,008

As DX becomes a mainstream board priority, the measurement of its actual business impact will become a key area of focus. This is a critical topic because as we know, DX is a journey and continued investment in transformation initiatives will become a function of the return that these investments bring to the business.

Having said this, digital thrivers are more balanced in their ability to reap the rewards of digital transformation — with a significant proportion of digital thrivers taking a longer-term approach and balancing expectations between investing for quick tactical wins versus strategic long-term investments that move the business forward.

This difference is reflected in the alternate approaches to leadership — with thrivers demonstrating an openness to disruptive innovation, while most survivors focus on short- to medium-term gains.

The proportion of revenues that are digitally enabled is another key measure that should be tracked over time. IDC research shows that some digital thrivers are already generating over half of their annual revenue from enhanced products or digital services launched as part of their digital transformation program.


**INGREDIENT #4:**

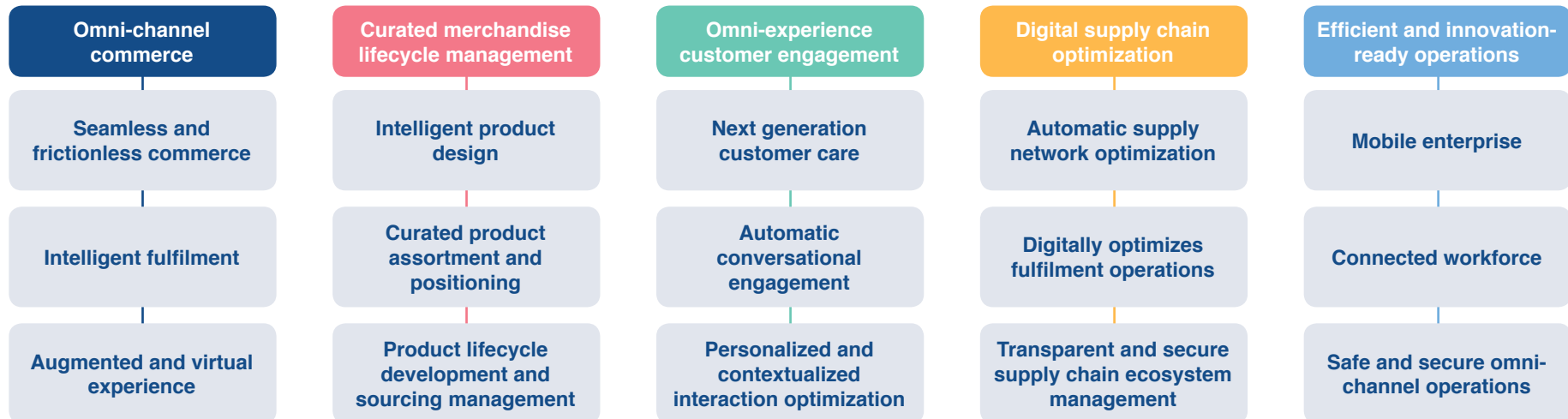
## Define the Outcomes for Your Use Case Journey and Prioritize Efforts Accordingly

In order for an organization to adopt a programmatic approach to digital transformation it is important to define specific outcomes of the digital use case journey.

More than 80% of thrivers cited their CIO as leading their organization's DX initiatives successfully by focusing on assessing business use cases for innovative technology initiatives and running prototypes and proof of concepts for these use cases.

IDC believes the most effective approach for CIOs start by mapping the outcomes with an industry-specific perspective and assigning priorities based on the organization's existing capabilities.

Taking the retail industry as an example, some of the key use cases that a retail organization would consider are highlighted below.



## Case Study



**Diane Randolph**  
CIO, Ulta Beauty



Diane Randolph was named chief information officer of Ulta Beauty in September 2014. As CIO, she is investing in talent and advanced technologies, fostering innovation, in order to build and evolve the fast-growing retailer's IT strategy. Ulta Beauty has deployed a set of technologies to innovate and to meet new customer needs, personalizing shoppers' experiences across different channels, such as in-store, mobile app, and online. It is focusing on three main digital use cases. The first is to enable omni-channel commerce, helping customers to have access to products whenever and wherever they want. The second is bringing technology into the store to drive omni-experience customer engagement with personalized and contextualized interactions. The third is content delivery to educate and engage customers through online and social channels. Under Randolph's leadership, Ulta Beauty has also implemented a mobile clientele system in which retail sales associates have real-time access to customer behaviors and product information, enabling omni-experience customer engagement and commerce everywhere through inventory transparency across the supply chain. Integrating digital services into employees' day-to-day operations enables staff to be more flexible around the store, maximizing productivity and ensuring the highest levels of efficiency and performance. Through these innovations, Ulta Beauty now has 15 million loyalty members, with an increase of 6% in sales per loyalty member.

*"Our guest is at the center of all we do ... We're deploying a task management solution and an inventory management application — both delivered on mobile devices. We feel these tools will help to optimize productivity and create efficiency for our associates, which will allow them to spend more time assisting our guests."*

# Summary

## Key Ingredients



### **New KPIs:**

Ensure that CIO KPIs are aligned with the broader digital ambitions of the enterprise.



### **Digital business:**

Focus DX programs on transforming customer experience and driving digital business innovation.



### **Business impact:**

Actively measure the business impact of digital initiatives.



### **Outcomes and priority:**

Define the outcomes for your use case journey and prioritize efforts accordingly.

## Recommendations

Ensure that the CIO has elements of his or her KPIs linked to the five dimensions (Leadership, Omni-Experience, Information, Operating Model, and WorkSource). These KPIs are not the traditional metrics — they are new KPIs influenced by DX.

Focus on building profitable customer propositions that deliver business value — this should start with the customer/citizen experience and link new, innovating products and services that blend physical and digital into that proposition.

Segment digital projects according to strategic priorities and have ROI benchmarks (and associated timelines) in place accordingly.

Identify the business outcome for each use case, then define a new digital business process before creating the linkages back to existing systems to scale digital capabilities across the organizations.



## About SAP

As the market leader in enterprise application software, SAP is at the center of today's business and technology revolution. SAP helps you streamline your processes, giving you the ability to use live data to predict customer trends – live and in the moment. Across your entire business. When you run live, you run simple with SAP.

For more information, visit [www.sap.com](http://www.sap.com).



## About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives.

IDC is a subsidiary of IDG, the world's leading technology media, research, and events company. Further information is available on our websites at [www.idc.com](http://www.idc.com)

## Copyright Notice

*External Publication of IDC Information and Data — Any IDC information that is to be used in advertising, press releases, or promotional materials requires prior written approval from the appropriate IDC Vice President or Country Manager. A draft of the proposed document should accompany any such request. IDC reserves the right to deny approval of external usage for any reason.*

*Copyright 2017 IDC. Reproduction without written permission is completely forbidden.*