

INCUMBENTS IN THE  
**DIGITAL WORLD**

LAGGARDS WILL BE LOSERS



**M**ost articles about digital business focus on companies that are digital from birth: Uber, Wealthfront, Zappos, Square, AirBnB, and the like. Digital businesses such as these have transformed established markets – from merchant acquisition and peer-to-peer lending in banking, to digital media models in cable TV, to the sharing economy in hospitality and transportation.

For such businesses to become successful required overcoming enormous odds – maxing out their credit in order to get started, convincing skeptical investors to back them, and dealing with tradition-bound regulators. They tried, failed, and tried again, until they got it right. There is now no denying their success and the disruption they are causing – and there is much to be learned from them.

This article, however, is not about companies that have been digital from birth – it is about incumbents. It is about how incumbents can become leaders and ultimately win through digital. It is also about the danger that threatens incumbents that are not able to transform themselves.

Incumbents face very different circumstances than new, digital businesses. They have advantages – established brands, markets, know-how, customers, suppliers, organizations, and cash flow. But they do not start from a blank canvas, relying on decades-old approaches, legacy systems, deeply embedded processes and capabilities, and deliberate execution and decision-making cultures to deliver profitable core businesses. This makes competing on customer experience, speed, agility and lower cost, all critical in digital, a major challenge. Transformation does not come easily. But for those organizations that can achieve it, the rewards are great.

Among incumbents today, only a few leaders are building all the capabilities that underpin digital success (Exhibit 1). Even fewer are delivering the distinctive and customer-focused products and experiences that the new digital marketplace demands. The gap between incumbent leaders and laggards is getting wider, and we predict that laggards will need to catch up, or digital will fade their existence.

### EXHIBIT 1: The digital performance paradigm

Experience excellence, speed, agility, and low cost through digitization

	INCUMBENTS LAGGARDS	INCUMBENTS LEADERS	DIGITAL NATIVES
Frequency of product releases	> Semi-annual	< Monthly	< Daily
Decision-making time	< 100 hours	< 1 day	< 1 minute
Customer self-service	< 1%	> 30%	> 99%
Perception of customer experience	Functional	Intuitive	Essential
Typical OPEX Ratio	> 80%	< 60%	< 30%
% of eligible projects using agile methodology	< 5%	> 60%	100%
Time to integrate with core systems	Months	Mid-Tier enabled	Plug & play
Sales through digital channels	< 10%	> 40%	100%
# of manual interventions	The norm	Fewer and fewer	The exception
# of Data Scientists	None	> 30	> 100
Innovation approach	None	Some labs	Culturally embedded
Background of digital team	> 95% incumbent	> 30% native	> 90% native

Source: Oliver Wyman Research

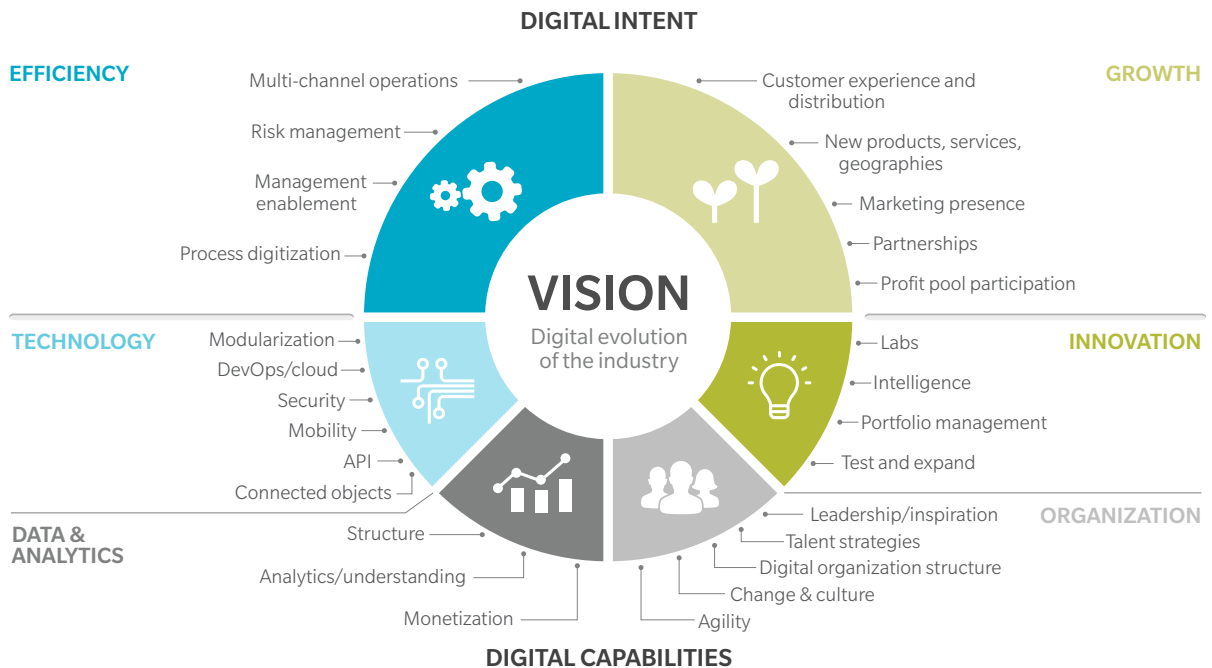
# THE CALL TO DIGITAL ACTION

Although most incumbents are doing something on digital, very few have a clear vision of where to focus their efforts. Caught on many fronts, they spend incredible amounts of money, but build little with real impact. Today their starting position is valuable; tomorrow it will be less so. The pace of change is increasing, and catching up with those who already have digital capabilities may soon be impossible. Getting focus and sequencing right is critical. Soon, laggards will become losers.

The key question for incumbents is what actions do they need to take in the face of uncertainty? What do they need to do to combine their built-in strengths with digital vision, deliberate transformation sequencing, and ruthless execution to produce a culture change and a formidable competitive package that can beat back the disruptors? Incumbent leaders take a structured approach to clarify vision and link a clear view on digital intent to prioritized digital capability development (Exhibit 2).

## EXHIBIT 2: Building the digital vision and action plan

Deciding on intent and necessary digital capabilities



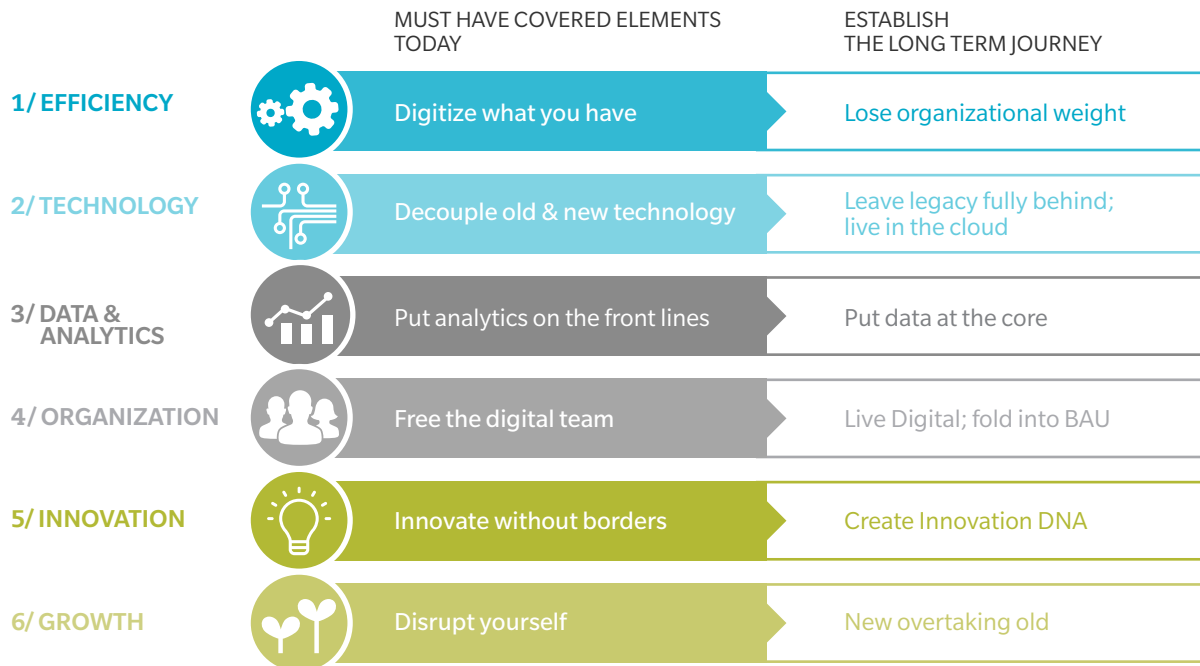
Six patterns have emerged that set the leaders apart from the laggards and set out the playbook for digital success. Incumbent leaders envision how their industry will evolve far ahead, define their desired strategic positioning, and act to transform their business by:

- Reinventing existing processes through digital thinking, reducing back-office operations
- Systematically transforming underlying systems to enable digital action
- Developing next-generation data approaches in every area of the business
- Building structural and cultural agility within the organization, including recruiting and developing digital talent
- Creating capabilities to access, nurture, and launch innovative offerings
- Growing from today’s strengths to eventually become a truly digital business

Such leaders have the first wave of digital transformation imperatives covered and have created impact, improving client experience and back office digitization (Exhibit 3). They are now investing in long-term capability transformation.

### EXHIBIT 3: The Incumbent digital enablement playbook

Near-and medium-term horizon



# DEVELOPING THE VISION TO RESPOND TO THE DIGITAL CHALLENGE

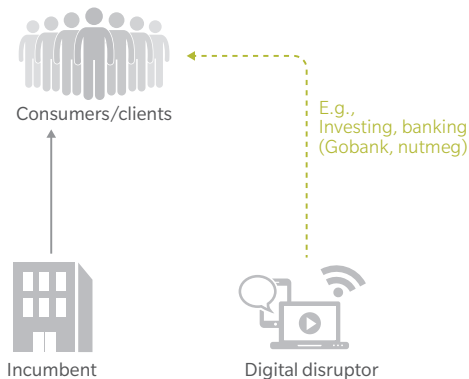
Four key patterns of digital disruption have emerged: Transformers are bringing new, ultra-low cost capacity to the market; Data Aggregators are consolidating vast amounts of data from connected objects; Service Aggregators are establishing themselves between traditional service companies and their customers; and Value Chain Integrators are digitizing entire value chains (Exhibit 4). Leaders embrace these patterns of digital evolution in their markets, articulate a clear point of view on their impact on their businesses, and focus business-model change and digital capability development accordingly.

## EXHIBIT 4: Four key patterns of disruption have emerged

Embrace them to create your vision

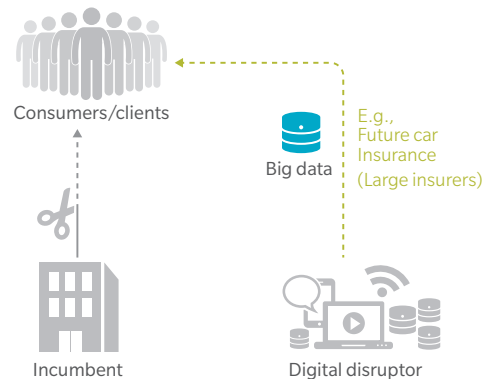
### Transformers

Somebody captures your clients by serving them differently



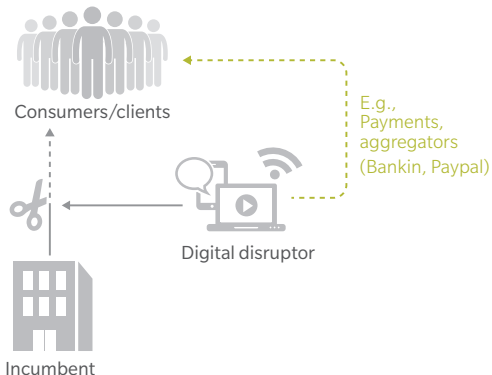
### Data Aggregators

Somebody monopolizes the data required for your business



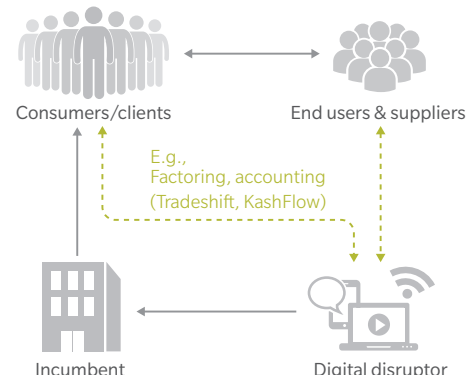
### Service Aggregators

Somebody comes between you and your client adding substantial value to capture client relationships



### Value Chain Integrators

Somebody integrate an end to end value chain which includes the service you deliver



To better understand the impact of the four patterns of disruption, leaders ask fundamental questions about their customers, channels, and economics:

- Will customer expectations change and what will be the impact on the relationship?
- How will customers make decisions and what must be done to ensure consideration?
- Will customers wish to bundle and how will relationships be anchored?
- Where will a better understanding of customer behavior have real impact on sales, retention metrics, and efficiency?
- Where will profit migration occur and moves along the manufacturing to distribution spectrum be required?
- How will digital be used to dramatically reduce cost structures?

Leaders use these questions to develop their digital vision. Schneider Electric, for instance, has put “supporting the digital transformation of its customers” at the core of its mission. Recognizing the power of data, Schneider, a company with a 170-year legacy, first in heavy industry and later in electricity and automation management, is building native connectivity into its products and is developing digital services to extract value from the data generated. Through digital, it is reinventing how it monetizes its core assets. BBVA, a large Spanish bank, widely recognized as a trailblazer in digital, has a vision “to become a leader in knowledge-based banking for the twenty-first century”. The bank’s vision is a response to the opportunity presented by data: It is seeking to realize its vision by developing truly digitized front-to-back processes and to use these to produce a differentiated customer experience.

Digital vision at companies such as these is based upon industry knowledge combined with deep insight into the patterns of technology-driven disruption, change, and shifting demand. Having looked far ahead, leaders consider how and where they might need to reposition their businesses in the long term. They use their insight to identify the structures and the enabling capabilities they need to develop now. This vision guides leaders in real time as they develop the digital enablement road map. “Fast follower” strategies do not work in digital: There is substantial lead time for incumbents in changing and developing capabilities.

# NEAR-TERM FOCUS

PRACTICAL, VALUE-FOCUSED PROGRESS

## 1 / DIGITIZE WHAT YOU HAVE



Move from automation to digitization

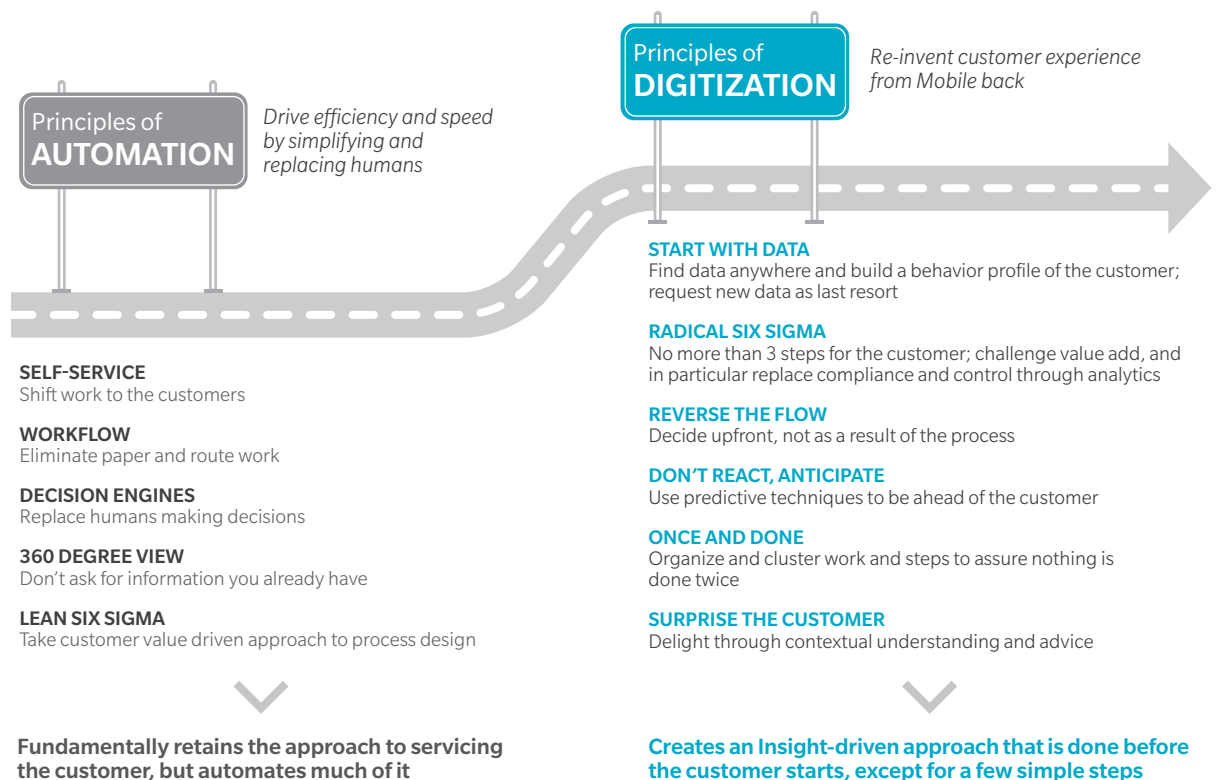
Tomorrow's back office will be very different than today's. Leaders are making what at first sight seems to be a counterintuitive decision – they are moving work to the client. Doing so puts customers in charge, empowering them to choose what they want and how and when they engage. Leaders are able to do away with work: They review policies and procedures and identify redundancies between siloed functions to create “once and done” instant activation and straight-through processing capability. They start with data and eliminate what can be done without. Efficiency gains are radical, and clients are delighted at the same time, gaining instant gratification with minimal effort. The impact on performance from digitizing processes can be dramatic, quickly realized, and valuable for today's P&L. These benefits provide the funding for future enablement waves.

In financial services, cashing checks was an early “proof point”. Smartphone camera entry accessed from any location removes the trip to the bank for the customer, thereby not only greatly improving the experience but also cutting out expensive manual processing and rework for the bank. For one bank, ruthless digitization has enabled it to reduce its twenty-plus systems and databases into a single view on its customers, shrink its decision-making time from over a hundred hours to less than a minute, and the time it takes to process a mortgage from ten days to less than an hour. For another bank, putting underwriting and marketing together enabled pre-approvals and a simple three-step acceptance process for loan offers with instant deposit into the customer's account. These are win-win solutions for the customer and provider alike.

In health care, early digitization was mostly focused on patient-facing tasks such as data capture, appointment management, check-in, and payments, shifting work away from practice administrators and back to the patients. Now attention is turning to physician-facing tasks, such as clinical documentation. Here, different legacy processes are served by a single digitized approach, as common datasets are required for billing, patient, and referrer communication, as well as safety and quality management. The data capture is automated to minimize expensive physician input: for example, by using supply-chain data on the therapeutics used and building services data on the location and time of delivery of procedures. Where physician input is required, it is predictive and structured to allow data aggregation and interrogation. The sharing of clinical information with patients and other caregivers, such as pharmacists, is automated and electronic. These new approaches result in significant cost savings in administration, increased clinician time devoted to patient care, and, because the care is better coordinated with fewer opportunities for mistakes, improved outcomes.

Leaders recognize that digitization goes way beyond automation. They fundamentally rethink processes, turning them upside down starting with data. They zero base their design to meet only genuine customer needs, carefully weighing every step that the customer does not perform his or herself or that is not automated. Using this approach the leaders move from a situation where 1% of customers are serving themselves to where >30% are, and from one where manual interventions are the norm to one where they are the exception. This reduces operating expenditure by half.

**EXHIBIT 5: Digitization goes far beyond automation**





# 2 / DECOUPLE OLD AND NEW TECHNOLOGY



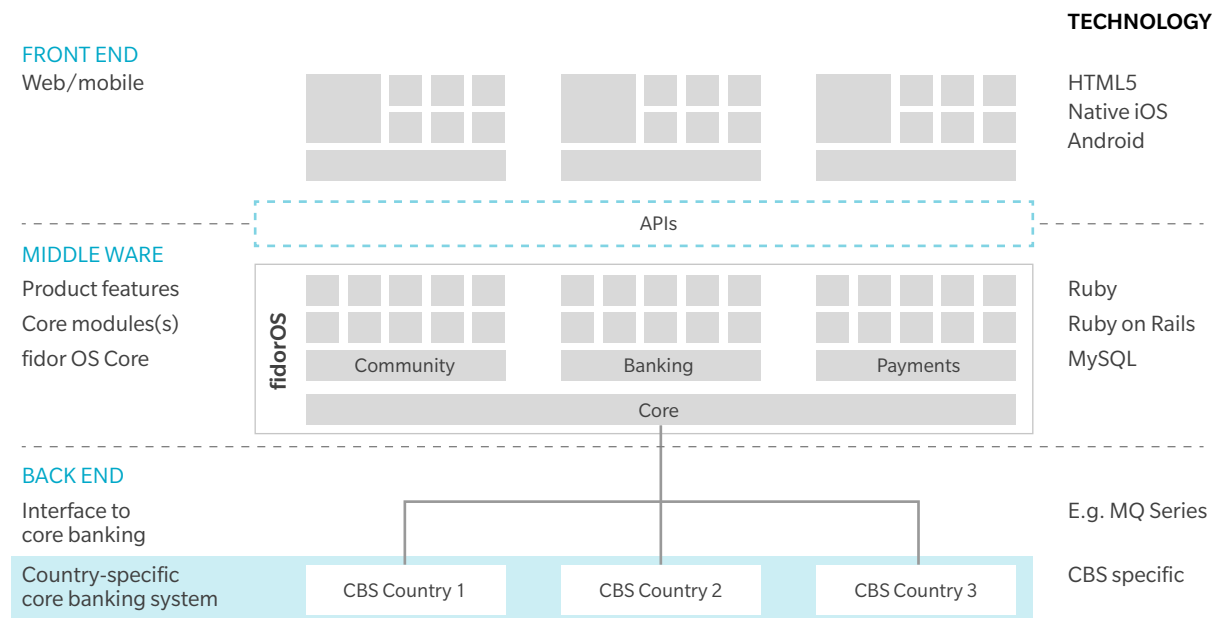
## Implement two-speed IT

For incumbents, IT systems are all too often a brake on digital progress, as are the siloed organizations typical of incumbent IT. For many, the dilemma is that replacing legacy technology has a high risk of failure and few immediate benefits. It is also incredibly expensive – a black hole of resources in organizations that are often not equipped with the skills and culture needed for such a transformation.

Initially, leaders resolve these problems by decoupling old and new technology. They insert a mid-tier layer between the front end and the core systems, and create a new digital front-end organization and ownership for the mid-tier itself. This allows for the most appropriate development approach – an improved waterfall for the core systems and agile execution wherever possible elsewhere. Leaders invest deliberately in the mid-tier, building up this layer over time in tandem with each front-end and core-system development effort. They also invest in the critical enablers of agility: cloud, DevOps, test automation, scrum master capabilities, and reusable components.

### EXHIBIT 6: Decoupling IT

Creating architecture separation for speed – fidorOS



Source: Fidor Bank

Fidor, an innovative German bank, developed FidorOS, a proprietary mid-tier platform that constitutes the central nervous system of the bank (Exhibit 6). The addition of the mid-tier removed time and expense from each development project by reducing integration complexity with the core and consequent testing requirements. Today, FidorOS is owned and operated by FidorTecS, a separate organization that white-labels the system for other organizations in four countries. Importantly, FidorTecS thinks digital. Compared to many established IT organizations, it is more willing to risk failure and then ask for forgiveness, and more accommodating to “minimum” viable products and specification ambiguity. Fidor’s technology and organization allows creative ways to work around legacy system and talent limitations.

Typical cycle time benefits of combining agile execution and flexible core integration are greater than 50%. Moreover, decoupled environments allow for the rapid deployment of new products and applications where it matters most – at the points where clients or employees interact directly with technology and in the processes through which technology engages with the business. It takes away the excuse that “the infrastructure doesn’t allow it”. Achieving this requires a big shift in execution culture, increased execution speed, and ease with requirement ambiguity: The approach is forcing business and IT to converge again, including in the ability to let teams fail and govern output “after the fact”.

By following these approaches, leaders move from occasional use of agile methods to their use in 60%-100% of projects for which they are appropriate. As a result, integration with core systems becomes “plug and play”, rather than taking the many months of the old point-to-point integration development, with its extensive testing regime. Ultimately, this speeds development cycles and increases the frequency of releases.

# 3 / PUT ANALYTICS ON THE FRONT LINES



Beware of thinking too big, too centrally, and too long term about data

Many incumbents still only think big and long-term about data, repeating earlier mistakes. Although the big data warehouses of the past are giving way to new, mega data infrastructure projects that will be more flexible in the end, these projects still consume a lot of resources and investment and produce delayed benefits. Leaders, by contrast, see sophisticated big data capabilities as a mid-term goal. In the near horizon, they share data freely and rapidly. They build small nuclei of dedicated, high-powered data capabilities near to the business user. They rapidly create small, new, and parallel infrastructures, ensuring the flexibility that lets them grow together over time. They bolster their analytics tools, make data more accessible, and build up data science capability. Some best practices of near-term data analytics efforts are emerging:

- Build the portfolio of high impact business/functional problems
- Connect technology choices (infrastructure, delivery/access) to the analytics needs of the businesses/functions
- Guide data architecture and data modeling efforts from a business subject matter perspective
- Develop a new IT capability layer that applies analytical value-add to data
- Rapidly develop end-to-end business decision processes to accelerate analytics pilots
- Build out business-driven analytics investment plans with rapid and continuous proof points

In wealth management, a key driver of performance is the amount of time advisors can spend with the right customers. This time is increasingly under threat from compliance checks and other administrative tasks. This makes it critical that banks realize the full potential of the available data to identify high-potential customers at the front line. One private bank worked with experts from Oliver Wyman Labs to develop an Intelligent Lead Generation Tool. Data experts worked directly with client advisors to understand the key decisions and the information required to inform them. Simple-to-use tools were developed and iterated with users over time. No new data were needed. Evangelist “early adopters”, whose own performance has improved with the new tools, generating up to 20% greater revenue per advisor, are “selling” this data-driven approach to their colleagues.

Building a data foundation for the long term is very important – in terms of improved data accessibility, processing, and platforms, as well as the introduction of behavioral analytics tools and the recruitment of the scarce talent required to turn big data into insight. However, these investments will take time to pay back. Significant improvements can be created immediately by ensuring that the most important data are instantly available to support decision making, on demand and in a flexible form, thereby transforming the all too common situation where only a tiny fraction of data is available to support business decisions. By ensuring this transformation, incumbent leaders can cut decision times from days to minutes and can start to build the data science capabilities required to ensure their competitiveness in the future.

# 4 / FREE THE DIGITAL TEAM



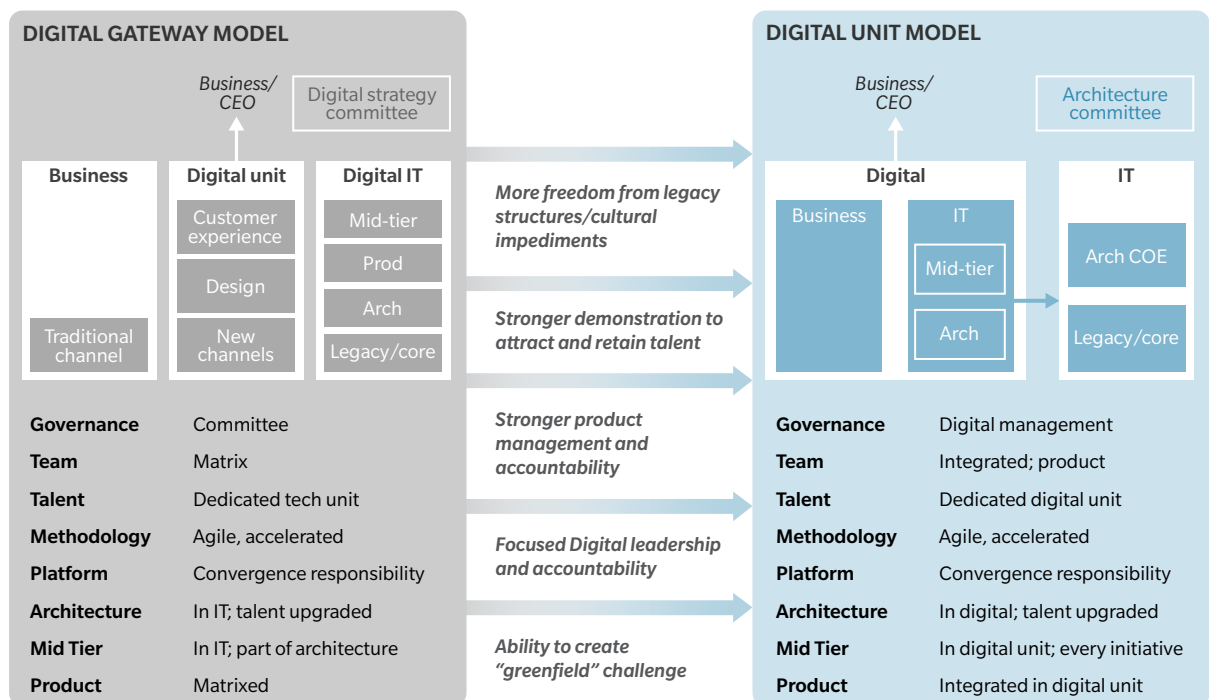
Independence is critical for speed and talent access, as is collaboration

Attracting the right people and allowing them to work with flexibility and agility within the organization is critical to digital success. However, incumbent businesses often prove unattractive to highly skilled digital talent, who have many choices and seek evidence of commitment and the potential for making an impact. Business and technology separation, and often cumbersome processes, make it hard to succeed at digital speed.

Leaders often begin by putting in place a stand-alone but well-connected digital team. Freed from legacy silos and culture, and provided with the visible support of senior executives, such groups can guide the strategic direction of the digital program, become an incubator of capability, a valued contributor to initiatives, and a rallying point for digital transformation, knowledge sharing, and marketing. The team also provides an opportunity to learn how to integrate business and technology for agile execution, and to instill a product management mindset. Even in the short term, however, “stand-alone” should not mean isolated: Successful digital teams retain strong links to the core businesses, creating a clear transition path from non-digital to digital for the business model.

Leaders often choose one of two models, according to the degree of product-IT convergence required (Exhibit 7). Both models can demonstrate digital intent and focus, product management orientation, and cross-functional working. However, a stand-alone digital unit provides a greater step towards product-IT convergence and greater challenge.

EXHIBIT 7: Two best practice organizational models have emerged for Digital



In the longer term, incumbents will no longer regard digital as an add-on. Rather, they fold the separate digital structure back into the business-as-usual organization. As the job of the legacy product managers becomes more and more digital, the earlier separation of digital no longer makes sense, and digital and non-digital structures collapse into each other. This transition is not easy, requiring a complete change in mindset – and fresh talent management and retention strategies. It requires converging the digital and development, architecture, customer experience design, marketing, data warehousing, and strategy teams into one, cohesive (now digital) organization.

One leading global media and entertainment company, under pressure from nimble digital entrants such as Netflix and Apple, built a separate unit to support its goal of being a digital leader. Initially, the team, with independent decision rights, operated as an incubator outside the legacy business. A new business head and separate offices further helped a significant talent infusion. Agile teams of product owners and technologists worked together on every project. The teams had the freedom to experiment and to fail, with the mandate to bring products to market quickly. The shift toward a digital mindset has since accelerated. Over time, early digital products and thinking were back-integrated into the legacy system and business. Now, new approaches are designed from the start to back-integrate, ensuring consistency, architectural integrity, and convergence.

By freeing the digital team, leaders are able to grow the native talent critical to digital transformation and are able to embed the product management mindset required to support the development of digital properties, support agile penetration, and explicitly anchor commercial digital metrics.

# 5 / INNOVATE WITHOUT BORDERS

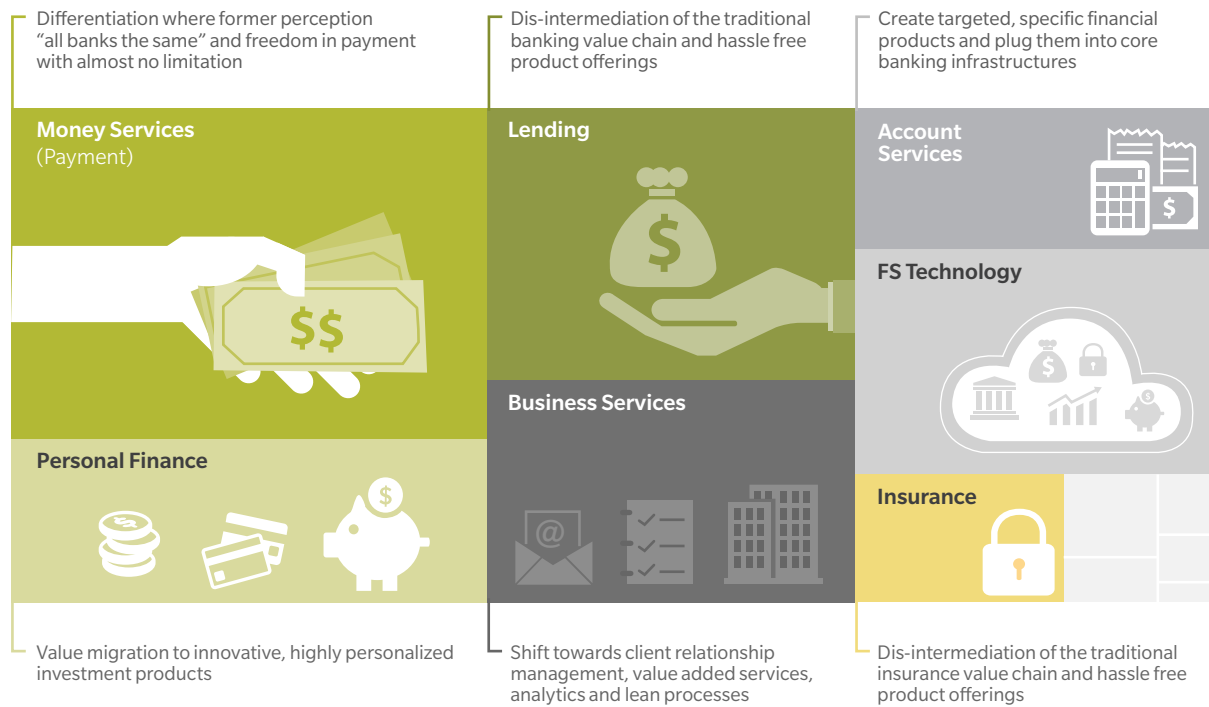


Create an innovation ecosystem and active exploration playground

Innovative companies foster the new ideas they require to stay ahead across the entire organization and not just within R&D. Very few businesses, however, are able to find all the new ideas solely within their own organization. To ensure there is sufficient creativity, leaders play the numbers game and build an innovation ecosystem, expanding their search beyond their own walls. This includes creating partnerships with external labs, investment in technology startups such as in the FinTech space (Exhibit 8), forming strategic partnerships with next generation technology providers, and putting in place targeted recruiting.

## EXHIBIT 8: Innovation requires a broad ecosystem

2,800 FinTechs are channeling an investment of \$30 BN to innovate against unmet needs



Source: Oliver Wyman Analysis

Notes: Area of box represents number of Fintechs addressing theme

The approach taken by a number of leading companies has been to launch innovation labs to concentrate the required capabilities within a single unit. These centers of excellence include experts in IT, business, product, and customer analytics, as well as social media and digital marketing. The labs establish the latest concepts of innovation, like co-creatorship and crowdsourcing within the company environment. Such centers then serve as pilots for future organizational changes, transferring digital know-how across the organization.

The Government Digital Service (GDS), an office of the UK Government, has opened up the traditional and sometimes risk-averse civil service to external innovators. Its people not only include career civil servants but committed technophiles with broad networks within the digital community. Guided by an advisory board of technology heavyweights, GDS works with external partners, including those in the commercial and not-for-profit sectors, as well as with other governments. Informal networks and “hackathons” create competitive arenas in which to develop fresh ideas; open standards enable even small startups to play a profitable role in developing solutions. This approach has enabled GDS to benefit from sizeable savings in project costs, produce a better customer experience, and develop a solid platform for the tough tasks it faces in the coming years.

By building innovation labs and external networks, leaders drive innovation: with more internal staff involved in idea generation and labs generating ideas from inside and outside the business.

# 6 / DISRUPT YOURSELF

Enable new digital businesses alongside the legacy business



For many incumbents, the fear of disruption to their legacy business is a cause of paralysis, preventing them from launching digital ventures and leveraging their hard-earned capabilities. In the near term, leaders explore digital businesses side by side with their legacy business. They understand that the risk of disruption to existing operations and short-term profits is a required trade-off for seeding and learning from ventures that could ensure their long-term survival. In many cases, they fold successful ideas that monetize core assets in new ways back into their core business to ensure that they are stronger over the longer term.

One example of how enabling digital capabilities power business growth is Daimler's moovel flexible mobility service. Daimler identified the trend among urban consumers to favor car sharing early. With the support of its dedicated Business Innovation Department, Daimler was in a position to launch its car2go car sharing service in 2008. Hard technology capabilities, such as GPS, smartphone app development and connected data in the systems allowed customers to use a single interface to instantly reserve and drive, and to return the car anywhere. The company showed agility in further developing the service, integrating the customer's need for mobility end-to-end. It added other transport modes, parking and payments in a one-stop-shop, moovel. car2go always had strong links to the legacy business and as it has matured, moovel has been folded back into this core. As an example of digital success, it acts as a living case study for others in the organization and as an exporter of digital talent to other business units. The outcome is not only a great consumer experience but also a contributor to sustained profitability from a segment that would otherwise have been at risk and a significant step in the digital transformation of the business.

In financial services, Commonwealth Bank of Australia (CBA) is proactively creating new businesses that allow it to meet "Disintermediators" head on. In merchant acquisition, the bank's Pi platform is an open payments platform that CBA controls and builds an ecosystem of solution providers on the platform that are available to merchants to facilitate payments, but also to cover other financial services and business management needs. By being both a Disintermediator and a provider on the platform, CBA assures that it is in the choice set where the client starts her or his financial services decision journey. The combination of card readers, mobile device technology, and ecosystem does disrupt the bank's existing business but also positions it to compete with Square and other digital natives. Ultimately the bank protects its existing business and may even access new profit pools in the merchant and small and medium enterprises value chain. In mortgage lending, where banks are being disintermediated by online and mobile home purchase research and mortgage brokers, Commonwealth Bank of Australia has moved up the value chain to offer home search through smartphone applications. The applications may provide direct revenue generation opportunities for the bank but also ensures that the bank competes effectively in the online mortgage brokers game seeking to disintermediate.



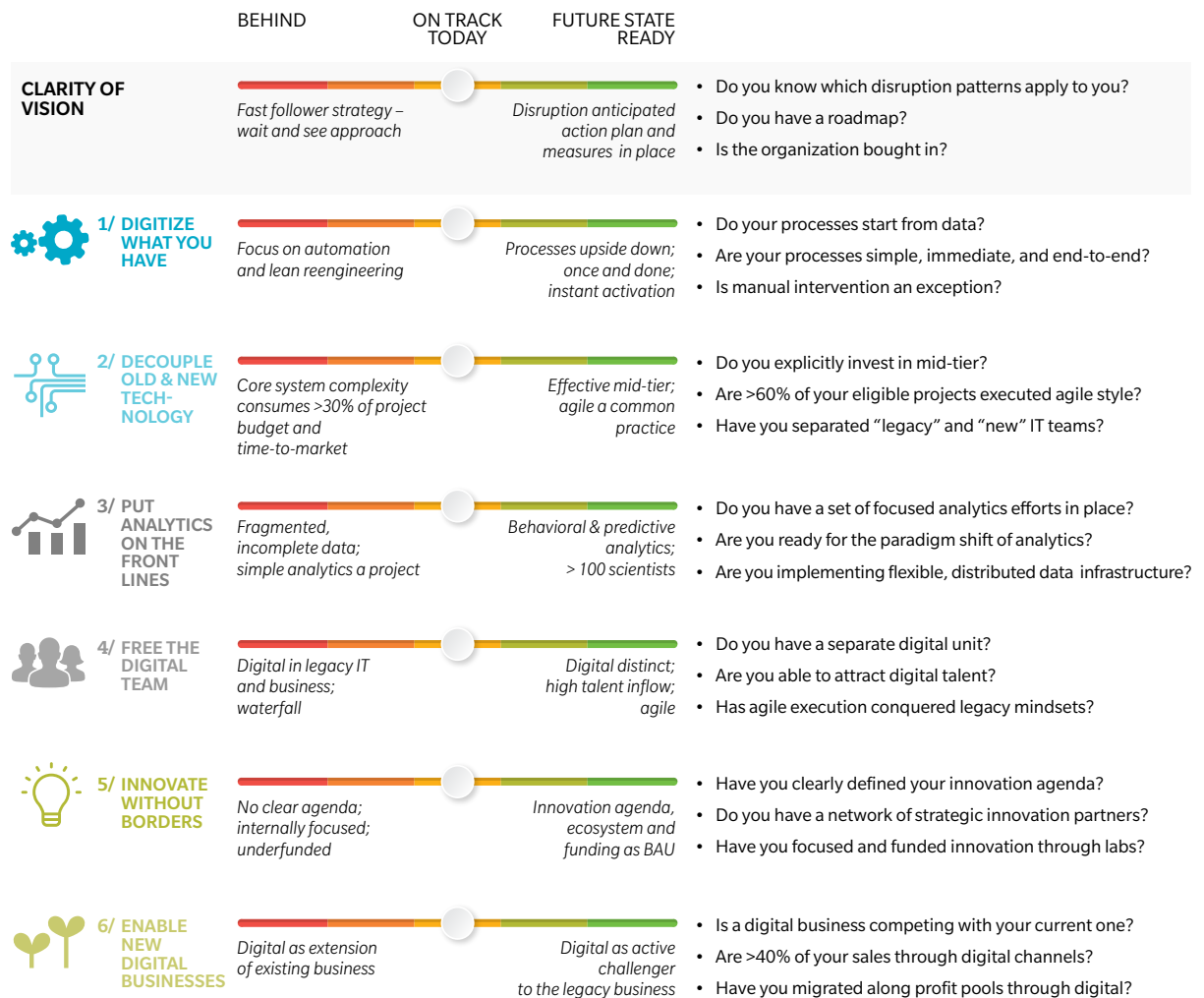
# STARTING THE CAPABILITY JOURNEY

## ARE YOU A LEADER OR LAGGARD?

Many incumbents are currently a long way from being a truly digital organization. The imperative is to build the necessary capabilities now. The first challenge is to develop a plan for targeted action. Exhibit 9 provides a high-level digital diagnostic across the six key capability dimensions covered in this paper. Knowing where you are – “behind” “on track today”, or tracking “future state ready” – can help you to begin this prioritization.

### EXHIBIT 9: Are you a leader or laggard

#### Digital Capability Assessment



Although this paper has focused on the baseline capabilities incumbents need to build today, the journey only begins here. While most incumbents begin back-office optimization by digitizing what they have, they must continue to lose weight, ultimately processing high volumes rapidly with 100% accuracy at incremental cost. In technology, they must extract benefit from the extended enterprise – ensuring flexibility and efficiency through partners. Analytics will become central in every role, with data the raw material of every digital product and service. The early digital organizations must move from being stand-alone and internally differentiated to the new core. The first tactical steps in innovation must be used to accelerate the replication of innovative DNA. Ultimately, as incubated digital capabilities fold back into the organization, the incumbent’s new digital customer propositions will become its main business.

Many incumbents underperform digital native companies. As the pace of change accelerates, speed will be of the essence to ensure that current advantages are not eroded. Although there are opportunities for leaders, the danger for laggards is that they will wind up out of the race, as losers.

## ABOUT OLIVER WYMAN

Oliver Wyman is a global leader in management consulting that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation.

For more information, please contact:

### THIERRY MENNESSON

Partner, Paris

Thierry.Menesson@oliverwyman.com

### ENG HONG LIM

Partner, Singapore

Enghong.Lim@oliverwyman.com

### MATTHIAS KLINGER

Principal, Berlin

Matthias.Klinger@oliverwyman.com

[www.oliverwyman.com](http://www.oliverwyman.com)

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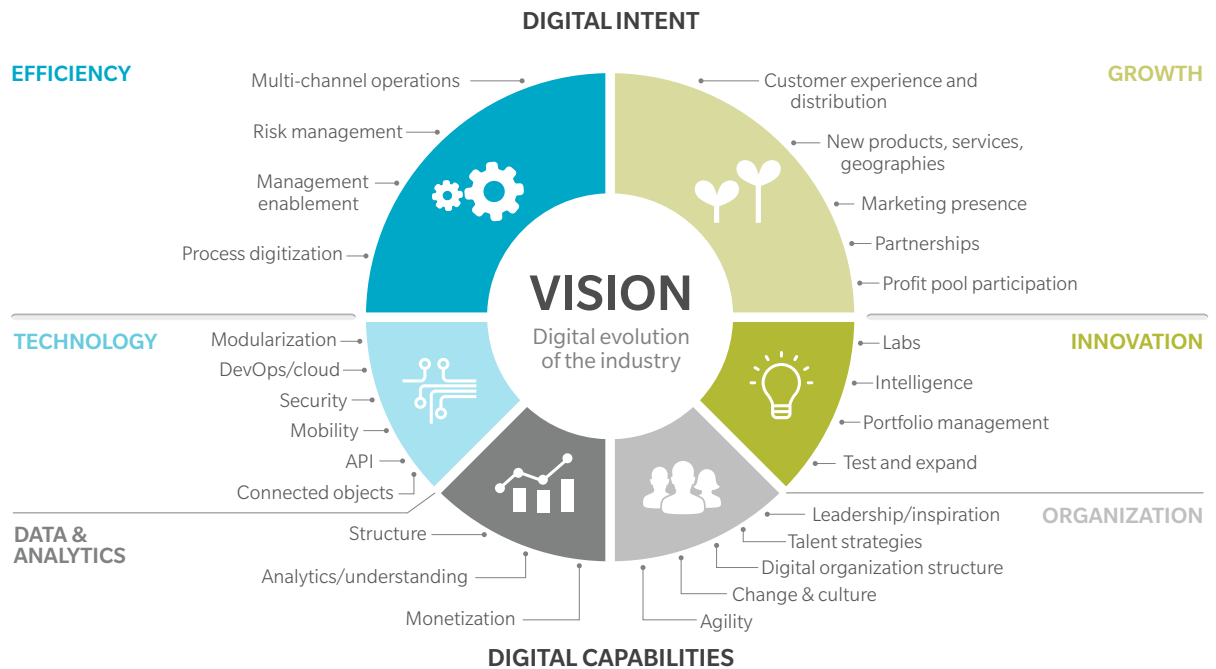
# THE CALL TO DIGITAL ACTION

Although most incumbents are doing something on digital, very few have a clear vision of where to focus their efforts. Caught on many fronts, they spend incredible amounts of money, but build little with real impact. Today their starting position is valuable; tomorrow it will be less so. The pace of change is increasing, and catching up with those who already have digital capabilities may soon be impossible. Getting focus and sequencing right is critical. Soon, laggards will become losers.

The key question for incumbents is what actions do they need to take in the face of uncertainty? What do they need to do to combine their built-in strengths with digital vision, deliberate transformation sequencing, and ruthless execution to produce a culture change and a formidable competitive package that can beat back the disruptors? Incumbent leaders take a structured approach to clarify vision and link a clear view on digital intent to prioritized digital capability development (Exhibit 2).

## EXHIBIT 2: Building the digital vision and action plan

Deciding on intent and necessary digital capabilities



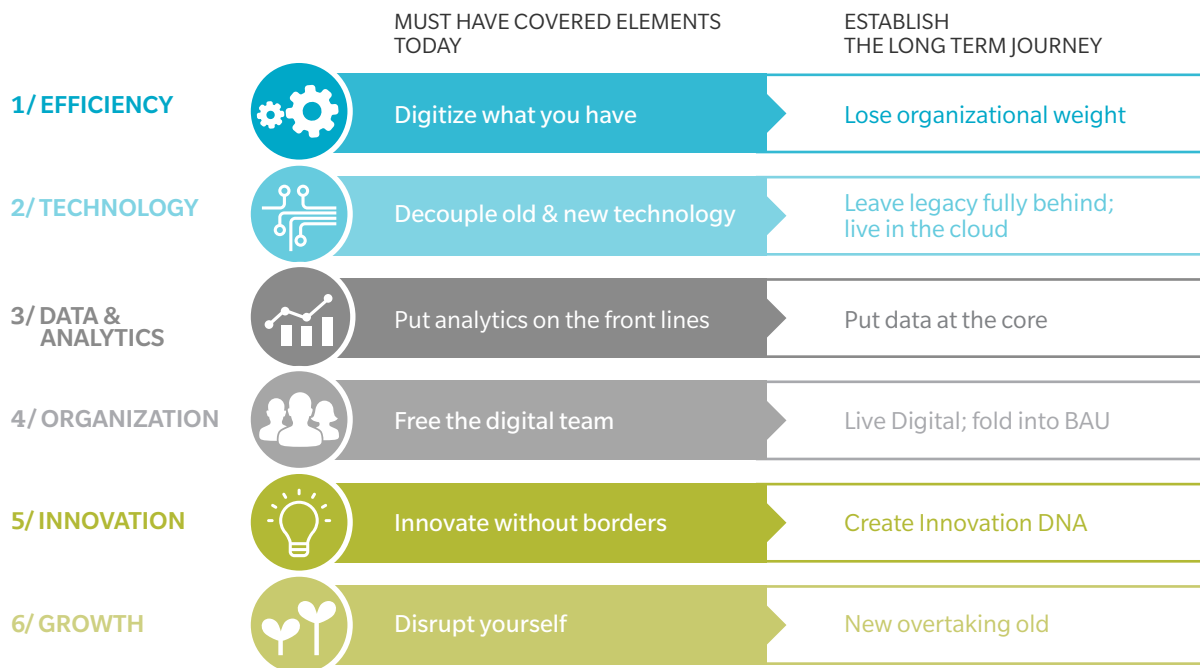
Six patterns have emerged that set the leaders apart from the laggards and set out the playbook for digital success. Incumbent leaders envision how their industry will evolve far ahead, define their desired strategic positioning, and act to transform their business by:

- Reinventing existing processes through digital thinking, reducing back-office operations
- Systematically transforming underlying systems to enable digital action
- Developing next-generation data approaches in every area of the business
- Building structural and cultural agility within the organization, including recruiting and developing digital talent
- Creating capabilities to access, nurture, and launch innovative offerings
- Growing from today's strengths to eventually become a truly digital business

Such leaders have the first wave of digital transformation imperatives covered and have created impact, improving client experience and back office digitization (Exhibit 3). They are now investing in long-term capability transformation.

### EXHIBIT 3: The Incumbent digital enablement playbook

Near-and medium-term horizon



# DEVELOPING THE VISION TO RESPOND TO THE DIGITAL CHALLENGE

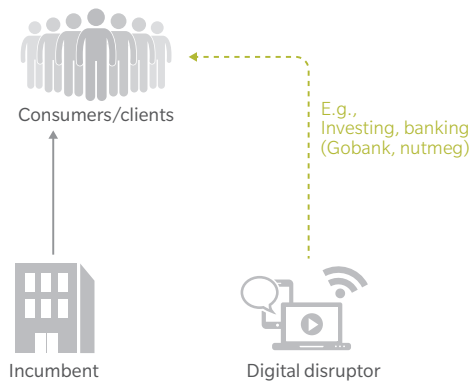
Four key patterns of digital disruption have emerged: Transformers are bringing new, ultra-low cost capacity to the market; Data Aggregators are consolidating vast amounts of data from connected objects; Service Aggregators are establishing themselves between traditional service companies and their customers; and Value Chain Integrators are digitizing entire value chains (Exhibit 4). Leaders embrace these patterns of digital evolution in their markets, articulate a clear point of view on their impact on their businesses, and focus business-model change and digital capability development accordingly.

## EXHIBIT 4: Four key patterns of disruption have emerged

Embrace them to create your vision

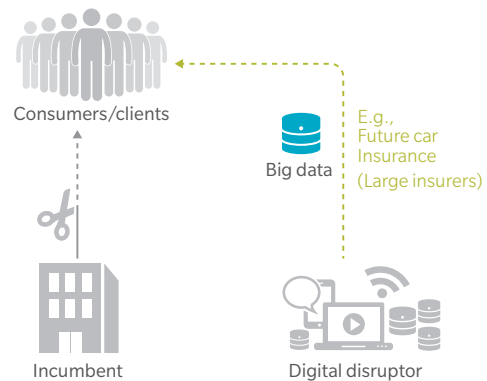
### Transformers

Somebody captures your clients by serving them differently



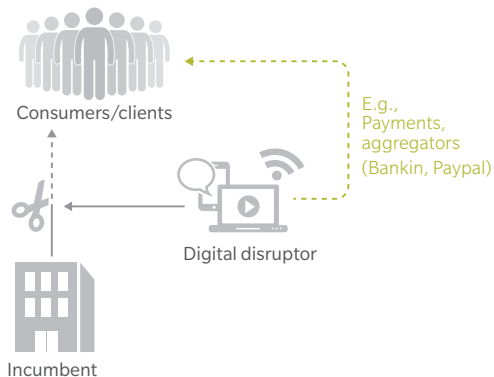
### Data Aggregators

Somebody monopolizes the data required for your business



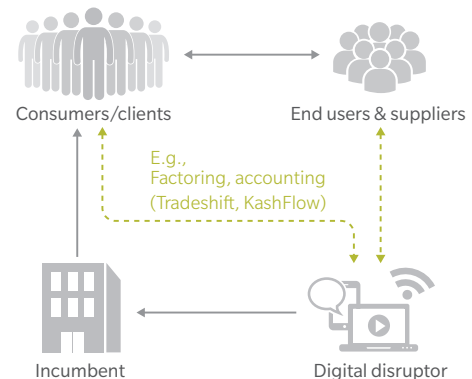
### Service Aggregators

Somebody comes between you and your client adding substantial value to capture client relationships



### Value Chain Integrators

Somebody integrate an end to end value chain which includes the service you deliver



To better understand the impact of the four patterns of disruption, leaders ask fundamental questions about their customers, channels, and economics:

- Will customer expectations change and what will be the impact on the relationship?
- How will customers make decisions and what must be done to ensure consideration?
- Will customers wish to bundle and how will relationships be anchored?
- Where will a better understanding of customer behavior have real impact on sales, retention metrics, and efficiency?
- Where will profit migration occur and moves along the manufacturing to distribution spectrum be required?
- How will digital be used to dramatically reduce cost structures?

Leaders use these questions to develop their digital vision. Schneider Electric, for instance, has put “supporting the digital transformation of its customers” at the core of its mission. Recognizing the power of data, Schneider, a company with a 170-year legacy, first in heavy industry and later in electricity and automation management, is building native connectivity into its products and is developing digital services to extract value from the data generated. Through digital, it is reinventing how it monetizes its core assets. BBVA, a large Spanish bank, widely recognized as a trailblazer in digital, has a vision “to become a leader in knowledge-based banking for the twenty-first century”. The bank’s vision is a response to the opportunity presented by data: It is seeking to realize its vision by developing truly digitized front-to-back processes and to use these to produce a differentiated customer experience.

Digital vision at companies such as these is based upon industry knowledge combined with deep insight into the patterns of technology-driven disruption, change, and shifting demand. Having looked far ahead, leaders consider how and where they might need to reposition their businesses in the long term. They use their insight to identify the structures and the enabling capabilities they need to develop now. This vision guides leaders in real time as they develop the digital enablement road map. “Fast follower” strategies do not work in digital: There is substantial lead time for incumbents in changing and developing capabilities.



# NEAR-TERM FOCUS

## PRACTICAL, VALUE-FOCUSED PROGRESS

# 1 / DIGITIZE WHAT YOU HAVE

### Move from automation to digitization



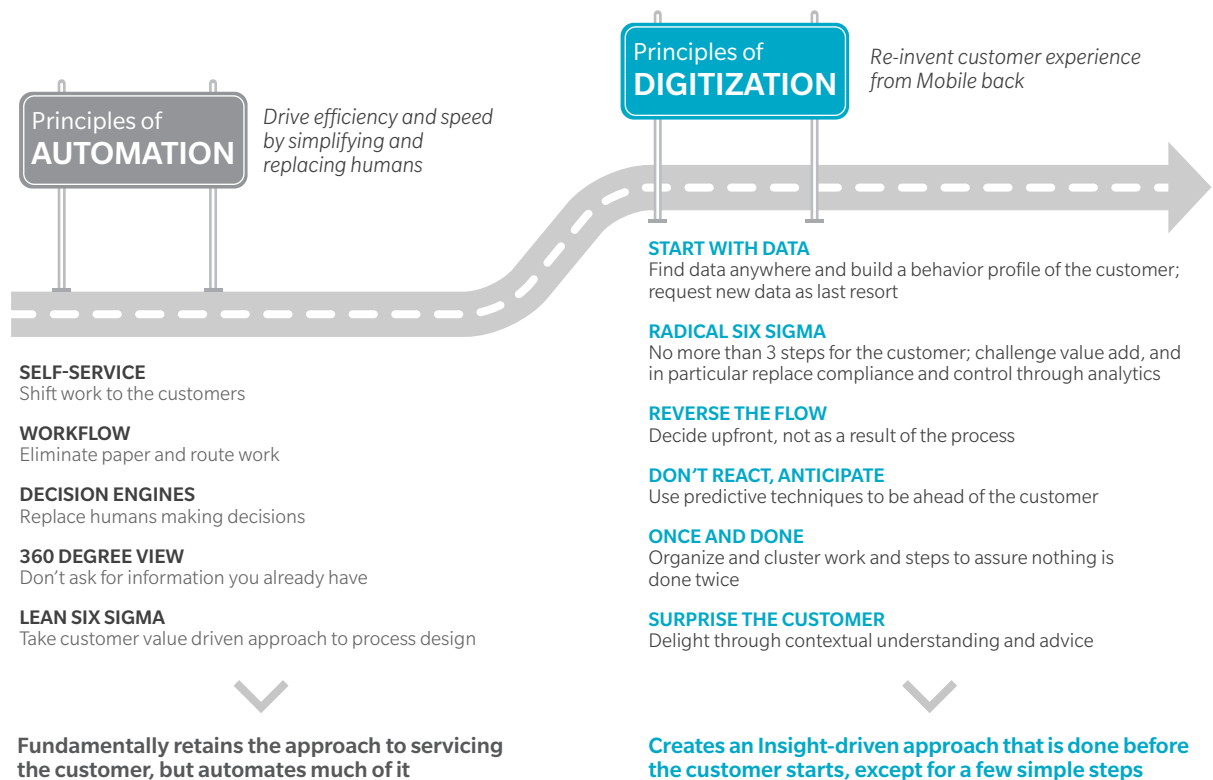
Tomorrow's back office will be very different than today's. Leaders are making what at first sight seems to be a counterintuitive decision – they are moving work to the client. Doing so puts customers in charge, empowering them to choose what they want and how and when they engage. Leaders are able to do away with work: They review policies and procedures and identify redundancies between siloed functions to create “once and done” instant activation and straight-through processing capability. They start with data and eliminate what can be done without. Efficiency gains are radical, and clients are delighted at the same time, gaining instant gratification with minimal effort. The impact on performance from digitizing processes can be dramatic, quickly realized, and valuable for today's P&L. These benefits provide the funding for future enablement waves.

In financial services, cashing checks was an early “proof point”. Smartphone camera entry accessed from any location removes the trip to the bank for the customer, thereby not only greatly improving the experience but also cutting out expensive manual processing and rework for the bank. For one bank, ruthless digitization has enabled it to reduce its twenty-plus systems and databases into a single view on its customers, shrink its decision-making time from over a hundred hours to less than a minute, and the time it takes to process a mortgage from ten days to less than an hour. For another bank, putting underwriting and marketing together enabled pre-approvals and a simple three-step acceptance process for loan offers with instant deposit into the customer's account. These are win-win solutions for the customer and provider alike.

In health care, early digitization was mostly focused on patient-facing tasks such as data capture, appointment management, check-in, and payments, shifting work away from practice administrators and back to the patients. Now attention is turning to physician-facing tasks, such as clinical documentation. Here, different legacy processes are served by a single digitized approach, as common datasets are required for billing, patient, and referrer communication, as well as safety and quality management. The data capture is automated to minimize expensive physician input: for example, by using supply-chain data on the therapeutics used and building services data on the location and time of delivery of procedures. Where physician input is required, it is predictive and structured to allow data aggregation and interrogation. The sharing of clinical information with patients and other caregivers, such as pharmacists, is automated and electronic. These new approaches result in significant cost savings in administration, increased clinician time devoted to patient care, and, because the care is better coordinated with fewer opportunities for mistakes, improved outcomes.

Leaders recognize that digitization goes way beyond automation. They fundamentally rethink processes, turning them upside down starting with data. They zero base their design to meet only genuine customer needs, carefully weighing every step that the customer does not perform his or herself or that is not automated. Using this approach the leaders move from a situation where 1% of customers are serving themselves to where >30% are, and from one where manual interventions are the norm to one where they are the exception. This reduces operating expenditure by half.

### EXHIBIT 5: Digitization goes far beyond automation



# 2 / DECOUPLE OLD AND NEW TECHNOLOGY



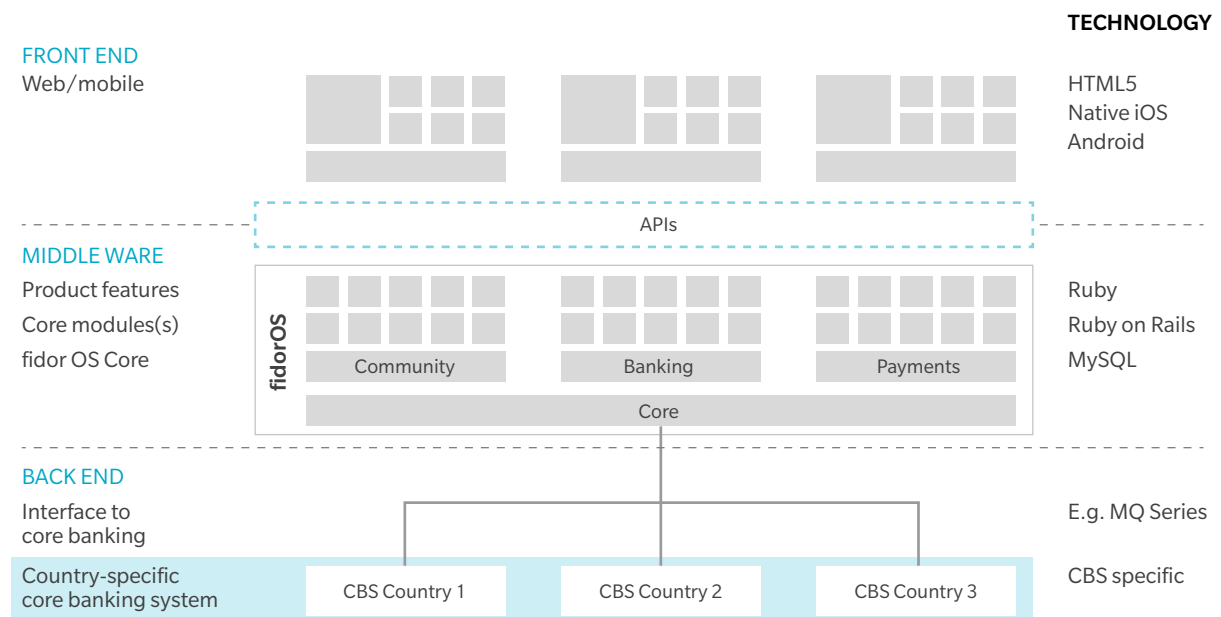
## Implement two-speed IT

For incumbents, IT systems are all too often a brake on digital progress, as are the siloed organizations typical of incumbent IT. For many, the dilemma is that replacing legacy technology has a high risk of failure and few immediate benefits. It is also incredibly expensive – a black hole of resources in organizations that are often not equipped with the skills and culture needed for such a transformation.

Initially, leaders resolve these problems by decoupling old and new technology. They insert a mid-tier layer between the front end and the core systems, and create a new digital front-end organization and ownership for the mid-tier itself. This allows for the most appropriate development approach – an improved waterfall for the core systems and agile execution wherever possible elsewhere. Leaders invest deliberately in the mid-tier, building up this layer over time in tandem with each front-end and core-system development effort. They also invest in the critical enablers of agility: cloud, DevOps, test automation, scrum master capabilities, and reusable components.

### EXHIBIT 6: Decoupling IT

Creating architecture separation for speed – fidorOS



Source: Fidor Bank

Fidor, an innovative German bank, developed FidorOS, a proprietary mid-tier platform that constitutes the central nervous system of the bank (Exhibit 6). The addition of the mid-tier removed time and expense from each development project by reducing integration complexity with the core and consequent testing requirements. Today, FidorOS is owned and operated by FidorTecS, a separate organization that white-labels the system for other organizations in four countries. Importantly, FidorTecS thinks digital. Compared to many established IT organizations, it is more willing to risk failure and then ask for forgiveness, and more accommodating to “minimum” viable products and specification ambiguity. Fidor’s technology and organization allows creative ways to work around legacy system and talent limitations.

Typical cycle time benefits of combining agile execution and flexible core integration are greater than 50%. Moreover, decoupled environments allow for the rapid deployment of new products and applications where it matters most – at the points where clients or employees interact directly with technology and in the processes through which technology engages with the business. It takes away the excuse that “the infrastructure doesn’t allow it”. Achieving this requires a big shift in execution culture, increased execution speed, and ease with requirement ambiguity: The approach is forcing business and IT to converge again, including in the ability to let teams fail and govern output “after the fact”.

By following these approaches, leaders move from occasional use of agile methods to their use in 60%-100% of projects for which they are appropriate. As a result, integration with core systems becomes “plug and play”, rather than taking the many months of the old point-to-point integration development, with its extensive testing regime. Ultimately, this speeds development cycles and increases the frequency of releases.

# 3 / PUT ANALYTICS ON THE FRONT LINES



Beware of thinking too big, too centrally, and too long term about data

Many incumbents still only think big and long-term about data, repeating earlier mistakes. Although the big data warehouses of the past are giving way to new, mega data infrastructure projects that will be more flexible in the end, these projects still consume a lot of resources and investment and produce delayed benefits. Leaders, by contrast, see sophisticated big data capabilities as a mid-term goal. In the near horizon, they share data freely and rapidly. They build small nuclei of dedicated, high-powered data capabilities near to the business user. They rapidly create small, new, and parallel infrastructures, ensuring the flexibility that lets them grow together over time. They bolster their analytics tools, make data more accessible, and build up data science capability. Some best practices of near-term data analytics efforts are emerging:

- Build the portfolio of high impact business/functional problems
- Connect technology choices (infrastructure, delivery/access) to the analytics needs of the businesses/functions
- Guide data architecture and data modeling efforts from a business subject matter perspective
- Develop a new IT capability layer that applies analytical value-add to data
- Rapidly develop end-to-end business decision processes to accelerate analytics pilots
- Build out business-driven analytics investment plans with rapid and continuous proof points

In wealth management, a key driver of performance is the amount of time advisors can spend with the right customers. This time is increasingly under threat from compliance checks and other administrative tasks. This makes it critical that banks realize the full potential of the available data to identify high-potential customers at the front line. One private bank worked with experts from Oliver Wyman Labs to develop an Intelligent Lead Generation Tool. Data experts worked directly with client advisors to understand the key decisions and the information required to inform them. Simple-to-use tools were developed and iterated with users over time. No new data were needed. Evangelist “early adopters”, whose own performance has improved with the new tools, generating up to 20% greater revenue per advisor, are “selling” this data-driven approach to their colleagues.

Building a data foundation for the long term is very important – in terms of improved data accessibility, processing, and platforms, as well as the introduction of behavioral analytics tools and the recruitment of the scarce talent required to turn big data into insight. However, these investments will take time to pay back. Significant improvements can be created immediately by ensuring that the most important data are instantly available to support decision making, on demand and in a flexible form, thereby transforming the all too common situation where only a tiny fraction of data is available to support business decisions. By ensuring this transformation, incumbent leaders can cut decision times from days to minutes and can start to build the data science capabilities required to ensure their competitiveness in the future.

# 4 / FREE THE DIGITAL TEAM



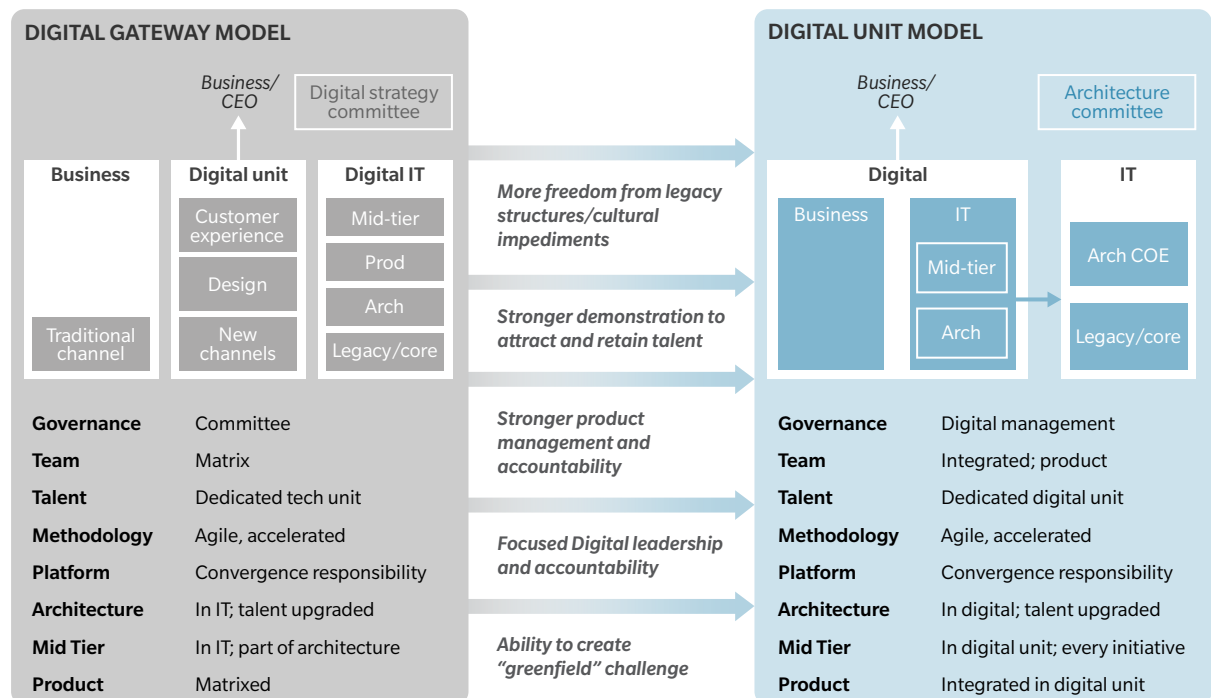
Independence is critical for speed and talent access, as is collaboration

Attracting the right people and allowing them to work with flexibility and agility within the organization is critical to digital success. However, incumbent businesses often prove unattractive to highly skilled digital talent, who have many choices and seek evidence of commitment and the potential for making an impact. Business and technology separation, and often cumbersome processes, make it hard to succeed at digital speed.

Leaders often begin by putting in place a stand-alone but well-connected digital team. Freed from legacy silos and culture, and provided with the visible support of senior executives, such groups can guide the strategic direction of the digital program, become an incubator of capability, a valued contributor to initiatives, and a rallying point for digital transformation, knowledge sharing, and marketing. The team also provides an opportunity to learn how to integrate business and technology for agile execution, and to instill a product management mindset. Even in the short term, however, “stand-alone” should not mean isolated: Successful digital teams retain strong links to the core businesses, creating a clear transition path from non-digital to digital for the business model.

Leaders often choose one of two models, according to the degree of product-IT convergence required (Exhibit 7). Both models can demonstrate digital intent and focus, product management orientation, and cross-functional working. However, a stand-alone digital unit provides a greater step towards product-IT convergence and greater challenge.

EXHIBIT 7: Two best practice organizational models have emerged for Digital



In the longer term, incumbents will no longer regard digital as an add-on. Rather, they fold the separate digital structure back into the business-as-usual organization. As the job of the legacy product managers becomes more and more digital, the earlier separation of digital no longer makes sense, and digital and non-digital structures collapse into each other. This transition is not easy, requiring a complete change in mindset – and fresh talent management and retention strategies. It requires converging the digital and development, architecture, customer experience design, marketing, data warehousing, and strategy teams into one, cohesive (now digital) organization.

One leading global media and entertainment company, under pressure from nimble digital entrants such as Netflix and Apple, built a separate unit to support its goal of being a digital leader. Initially, the team, with independent decision rights, operated as an incubator outside the legacy business. A new business head and separate offices further helped a significant talent infusion. Agile teams of product owners and technologists worked together on every project. The teams had the freedom to experiment and to fail, with the mandate to bring products to market quickly. The shift toward a digital mindset has since accelerated. Over time, early digital products and thinking were back-integrated into the legacy system and business. Now, new approaches are designed from the start to back-integrate, ensuring consistency, architectural integrity, and convergence.

By freeing the digital team, leaders are able to grow the native talent critical to digital transformation and are able to embed the product management mindset required to support the development of digital properties, support agile penetration, and explicitly anchor commercial digital metrics.

# 5 / INNOVATE WITHOUT BORDERS

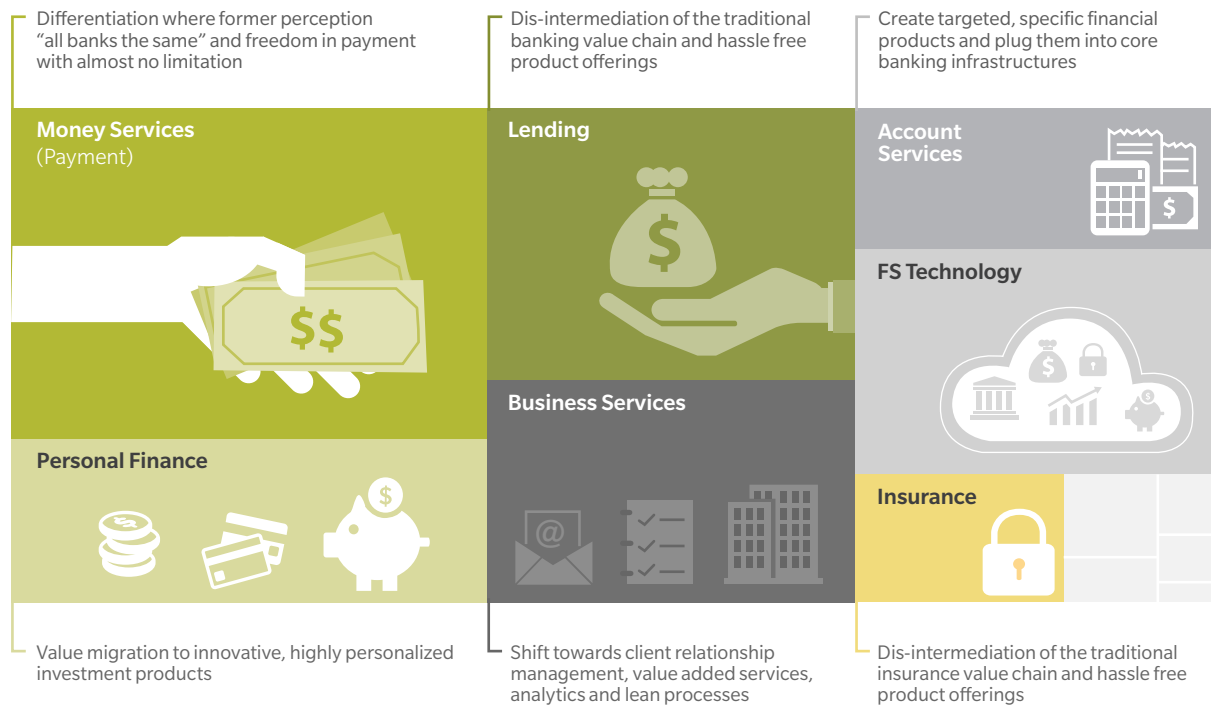


Create an innovation ecosystem and active exploration playground

Innovative companies foster the new ideas they require to stay ahead across the entire organization and not just within R&D. Very few businesses, however, are able to find all the new ideas solely within their own organization. To ensure there is sufficient creativity, leaders play the numbers game and build an innovation ecosystem, expanding their search beyond their own walls. This includes creating partnerships with external labs, investment in technology startups such as in the FinTech space (Exhibit 8), forming strategic partnerships with next generation technology providers, and putting in place targeted recruiting.

### EXHIBIT 8: Innovation requires a broad ecosystem

2,800 FinTechs are channeling an investment of \$30 BN to innovate against unmet needs



Source: Oliver Wyman Analysis

Notes: Area of box represents number of Fintechs addressing theme



The approach taken by a number of leading companies has been to launch innovation labs to concentrate the required capabilities within a single unit. These centers of excellence include experts in IT, business, product, and customer analytics, as well as social media and digital marketing. The labs establish the latest concepts of innovation, like co-creatorship and crowdsourcing within the company environment. Such centers then serve as pilots for future organizational changes, transferring digital know-how across the organization.

The Government Digital Service (GDS), an office of the UK Government, has opened up the traditional and sometimes risk-averse civil service to external innovators. Its people not only include career civil servants but committed technophiles with broad networks within the digital community. Guided by an advisory board of technology heavyweights, GDS works with external partners, including those in the commercial and not-for-profit sectors, as well as with other governments. Informal networks and “hackathons” create competitive arenas in which to develop fresh ideas; open standards enable even small startups to play a profitable role in developing solutions. This approach has enabled GDS to benefit from sizeable savings in project costs, produce a better customer experience, and develop a solid platform for the tough tasks it faces in the coming years.

By building innovation labs and external networks, leaders drive innovation: with more internal staff involved in idea generation and labs generating ideas from inside and outside the business.

# 6 / DISRUPT YOURSELF



Enable new digital businesses alongside the legacy business

For many incumbents, the fear of disruption to their legacy business is a cause of paralysis, preventing them from launching digital ventures and leveraging their hard-earned capabilities. In the near term, leaders explore digital businesses side by side with their legacy business. They understand that the risk of disruption to existing operations and short-term profits is a required trade-off for seeding and learning from ventures that could ensure their long-term survival. In many cases, they fold successful ideas that monetize core assets in new ways back into their core business to ensure that they are stronger over the longer term.

One example of how enabling digital capabilities power business growth is Daimler's moovel flexible mobility service. Daimler identified the trend among urban consumers to favor car sharing early. With the support of its dedicated Business Innovation Department, Daimler was in a position to launch its car2go car sharing service in 2008. Hard technology capabilities, such as GPS, smartphone app development and connected data in the systems allowed customers to use a single interface to instantly reserve and drive, and to return the car anywhere. The company showed agility in further developing the service, integrating the customer's need for mobility end-to-end. It added other transport modes, parking and payments in a one-stop-shop, moovel. car2go always had strong links to the legacy business and as it has matured, moovel has been folded back into this core. As an example of digital success, it acts as a living case study for others in the organization and as an exporter of digital talent to other business units. The outcome is not only a great consumer experience but also a contributor to sustained profitability from a segment that would otherwise have been at risk and a significant step in the digital transformation of the business.

In financial services, Commonwealth Bank of Australia (CBA) is proactively creating new businesses that allow it to meet "Disintermediators" head on. In merchant acquisition, the bank's Pi platform is an open payments platform that CBA controls and builds an ecosystem of solution providers on the platform that are available to merchants to facilitate payments, but also to cover other financial services and business management needs. By being both a Disintermediator and a provider on the platform, CBA assures that it is in the choice set where the client starts her or his financial services decision journey. The combination of card readers, mobile device technology, and ecosystem does disrupt the bank's existing business but also positions it to compete with Square and other digital natives. Ultimately the bank protects its existing business and may even access new profit pools in the merchant and small and medium enterprises value chain. In mortgage lending, where banks are being disintermediated by online and mobile home purchase research and mortgage brokers, Commonwealth Bank of Australia has moved up the value chain to offer home search through smartphone applications. The applications may provide direct revenue generation opportunities for the bank but also ensures that the bank competes effectively in the online mortgage brokers game seeking to disintermediate.

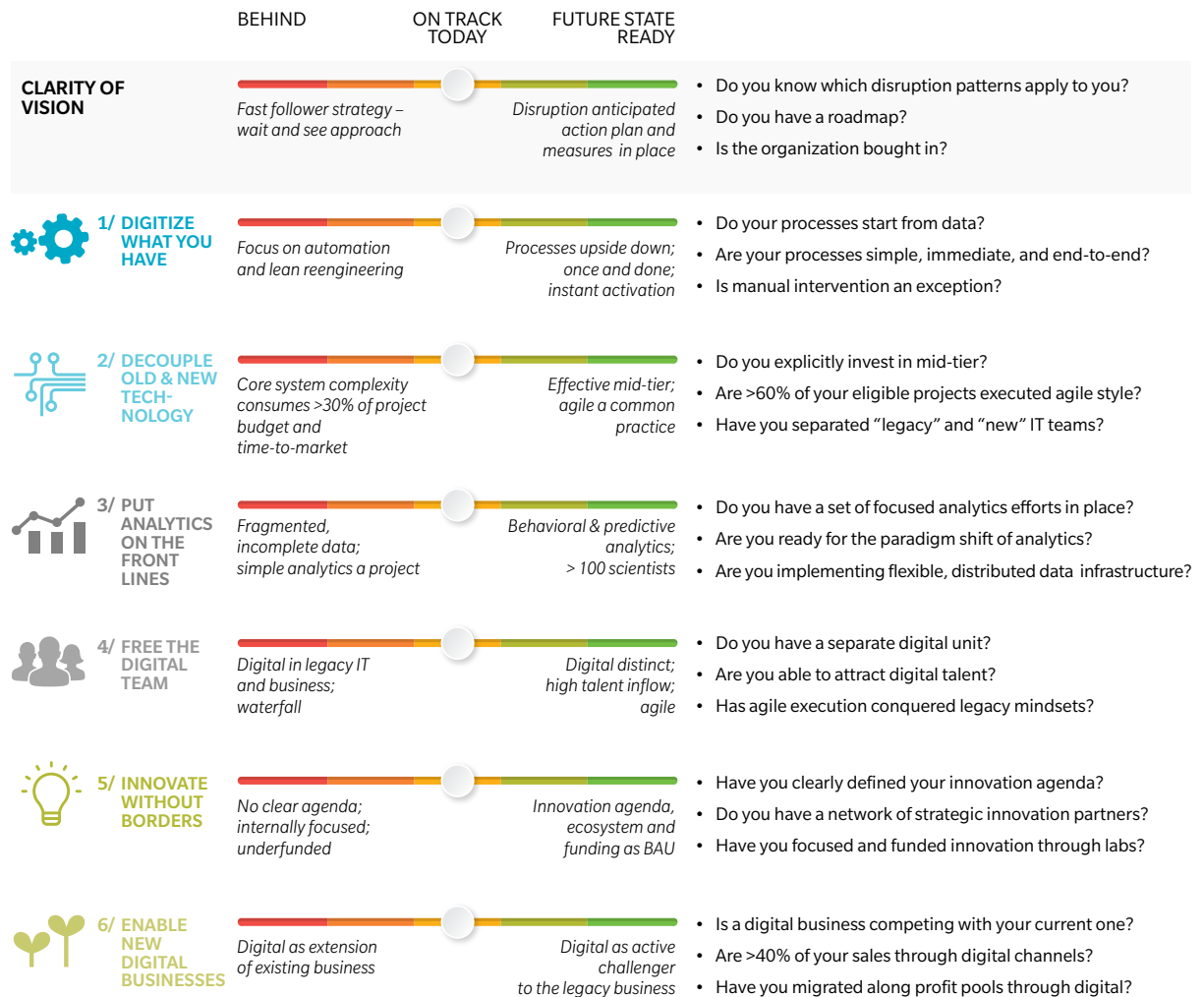
# STARTING THE CAPABILITY JOURNEY

## ARE YOU A LEADER OR LAGGARD?

Many incumbents are currently a long way from being a truly digital organization. The imperative is to build the necessary capabilities now. The first challenge is to develop a plan for targeted action. Exhibit 9 provides a high-level digital diagnostic across the six key capability dimensions covered in this paper. Knowing where you are – “behind” “on track today”, or tracking “future state ready” – can help you to begin this prioritization.

### EXHIBIT 9: Are you a leader or laggard

#### Digital Capability Assessment



Although this paper has focused on the baseline capabilities incumbents need to build today, the journey only begins here. While most incumbents begin back-office optimization by digitizing what they have, they must continue to lose weight, ultimately processing high volumes rapidly with 100% accuracy at incremental cost. In technology, they must extract benefit from the extended enterprise – ensuring flexibility and efficiency through partners. Analytics will become central in every role, with data the raw material of every digital product and service. The early digital organizations must move from being stand-alone and internally differentiated to the new core. The first tactical steps in innovation must be used to accelerate the replication of innovative DNA. Ultimately, as incubated digital capabilities fold back into the organization, the incumbent's new digital customer propositions will become its main business.

Many incumbents underperform digital native companies. As the pace of change accelerates, speed will be of the essence to ensure that current advantages are not eroded. Although there are opportunities for leaders, the danger for laggards is that they will wind up out of the race, as losers.

## ABOUT OLIVER WYMAN

Oliver Wyman is a global leader in management consulting that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation.

For more information, please contact:

### THIERRY MENNESSON

Partner, Paris

Thierry.Menesson@oliverwyman.com

### ENG HONG LIM

Partner, Singapore

Enghong.Lim@oliverwyman.com

### MATTHIAS KLINGER

Principal, Berlin

Matthias.Klinger@oliverwyman.com

[www.oliverwyman.com](http://www.oliverwyman.com)

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