

Building the intelligent business platforms of tomorrow

As digital transformation accelerates across all verticals, today's decision-makers now face a strategic challenge: how to survive and thrive in a fast-changing, unpredictable business environment?

The wake of a new era

For years, digital transformation has been at the heart of C-level executives' agendas. It is now **at a turning point**. With the rise of Cloud, AI, the IoT and hyper-connectivity, it is no longer only revolutionizing process management and people communications; **it is profoundly impacting business models themselves**. This is offering huge prospects not only in B2C but also, and most importantly, in the whole B2B space.

Until now, enterprise and public digital transformation efforts have mostly been focused on the first waves of applications and digital benefits:

- **The introduction of digital efficiency** in all processes, boosting agility and enabling strong CAPEX and OPEX reductions.
- **The improvement of digital customer experience** and digital-based design of new products and services.

With the rapid adoption of the **'digital intelligence'** technologies that are hitting the market in all industries, comes **a new wave of digital transformation**.

As our whole environment becomes sensitive, analyzable and actionable, the impact is tremendous:

- **Digital-driven businesses rapidly evolve toward information-based business models**. Everywhere, the efficient use and good governance of data from every possible source have become the primary source of value creation and competitive differentiation. Turning data into customer knowledge becomes the key driver for innovation in products and services.
- **Organizations are gradually, but increasingly, becoming data-driven**. Thanks to the intelligence-enabling technologies, from machine learning to analytics and bots, **information now begins to be able to manage itself**.

Toward AI-driven data intelligence

From manufacturing to transport, retail, utilities, telco, financial or public and healthcare domains, these evolutions are **changing the game dramatically**. After B2C, which has been the primary field disrupted until now, digital will hit B2B considerably in the future.

The challenges for business: survive and thrive in uncharted territories where customers, competitors and business models themselves evolve at the speed of light within complex, multi-players ecosystems across all industries. **What's needed: become ADAPTIVE in a real-time, prescriptive way.**

In the face of billions of customers and objects evolving at each instant, human reactivity alone is no longer sufficient. How to get actionable, instant insights from zettabytes of data flow? How to no longer adapt in a reactive but instead in a predictive and even prescriptive way? As online and digital worlds blur, **intelligent, data-driven automation becomes necessary** across all functions, whether in the front or back office.

This is where the promise of the long-awaited AI technologies comes in. They are currently emerging from a long research winter thanks to the rapid progress of algorithms and High-Performance Computing. This burgeoning of multiple technologies is blossoming from multiple vendors, start-ups and, most importantly, from the players that have the largest data sets to manage and the most massive computing capabilities: internet companies.

What's at stake:



ENHANCING CUSTOMER EXPERIENCE

Conversational interfaces - such as chatbots, virtual assistant, robo-advisors, smart objects and more - will be able to serve customers, citizens and employees significantly better along their entire journey.



BOOSTING OPERATIONAL EXCELLENCE

Robotic Process Automation (RPA) and expert systems for process optimization, shop floor 4.0 and more promise much more than a step change in productivity: they promise a dramatic leap forward in agility.



DEVELOPING NEW BUSINESS MODELS

Smart machines and automated systems for new mobility services, personalized offerings, outcome-based services and more will transform models and open avenues for new monetization streams.



FOSTERING TRUST AND COMPLIANCE

With intelligent prescriptive cybersecurity and compliance systems, intelligent defense, and more, it will no longer be enough just to fight threats: it will be possible to prevent them before they strike.

In the wake of this transformation, **some players are at the forefront of the data-intelligence revolution and have taken a step ahead: the GAFAs***.

Born with the internet, they have accumulated both the main data sources in their hands - in B2C at least - together with **some of the most advanced digital technologies of this new wave**. They practically invented them, from hardware to software: Natural Language Processing (NLP), image recognition, Deep Learning, etc. By combining these two assets with very high investment capabilities, they may breach many enterprise digital business fields, with first innovations and incursions in IoT, autonomous transport, the smart home, ... showing the breadth of their innovation capabilities.

This poses both opportunities and challenges to all incumbent players. How to catch up with new best practices and technologies? How to develop possible partnerships with new players and startups, while staying a step ahead in vertical business expertise, data ownership and value proposition? **How to work with GAFAs as partners, rather than as competitors?**

These challenges will be at the heart of enterprise strategies in the years to come.

Building the intelligent business platforms of tomorrow: Being ready for the next wave

These transformations impact enterprise and public services' **business, organizational and human strategies** heavily. They also impact the very core of their **technology foundations**.

For decades, incumbent public and private organizations have built bullet-proof information systems to meet the challenges of the first digital waves. **We're now at a crossroad**. Built in isolation across departments, based on dated 'first wave' technologies, most of these systems now fail to provide the agility and openness organizations need in today's fast-moving landscape.

In previous years, all organizations launched a strong wealth of modernization initiatives. Motivations varied: catching up with digital innovation, experimenting with the Cloud, developing mobile services or even improving customers' or citizens' digital experience. While success has been plentiful, ever-increasing competition from new disruptive players means **organizations must accelerate their efforts**.

Adapting to the new era requires a quantum leap. To embrace the challenges of a digital world and take a winning position within it, aligning with digital megatrends and strategic signals will be essential to fine-tune strategies. At a time when the world becomes the computer with IoT, intelligence takes control of the machines with AI, and infrastructure becomes a commodity with Cloud, three core principles will be essential:

- 1. Become customer experience-centric**, moving from a pure 'produce and sell' to a 'sense-&-respond' customer-led approach. What's at stake: **ensuring 360°, seamless engagement across all digital and physical touchpoints**. In this domain, the advantages of owning connected physical assets (connected factories, connected cars, connected stores, connected products, ...) become essential for incumbents to differentiate if they completely digitize their business environment.
- 2. Provide intelligent data-driven orchestration**, being able to **adapt to market changes and evolving customer demands in a real-time, prescriptive way**. For that, leveraging AI and data-driven automation becomes necessary across all functions. The strategic challenge for business: orchestrate multiple technologies each adapted to their own data sets, specific usages and very specific business challenges across enterprise applications.
- 3. Adopt open platform foundations** and real-time process automation with the hybrid Clouds that combine private and public assets. The objective is to **deliver the best products and services at the lowest cost** while being ready to adapt in hours or just seconds.

To thrive, companies will also need to create the right partnership and convene the largest ecosystem to enrich their offering, services and channels.

In a networked world, no organization is an island. How to smoothly collaborate with other players, orchestrate multi-sourced services, enable partners to leverage shared data and APIs to build complementary services, and help match the best mix of offerings to serve customers better? **This will be the battlefield of the future: build an open and scalable platform to be able to attract, federate, collaborate or integrate with the best ecosystem** to deliver the most differentiated and profitable services to customers. This will be all the more important as verticals will blur around customer-centric services ecosystems in the future, gathering multiple multi-sided players that will have to interact in real-time.

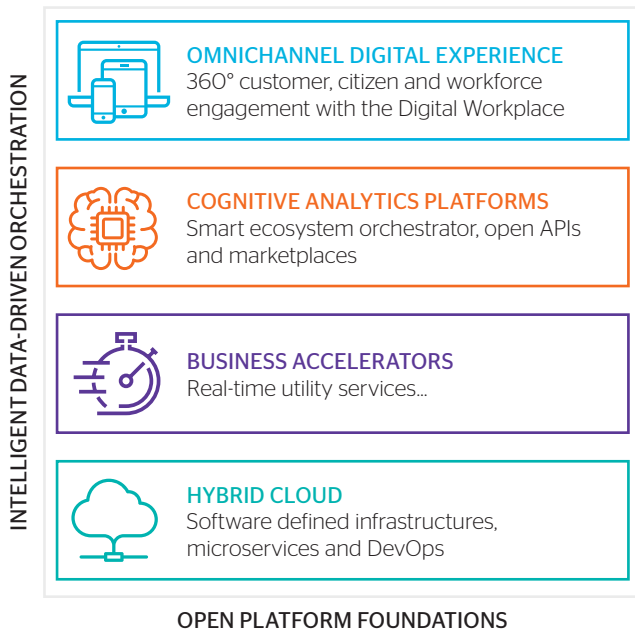
*Google, Apple, Facebook and Amazon

Disruptive technologies for a new world

Public and private organizations should begin building their new architecture today. Modernizing legacy and fully embracing the latest Cloud, automation, Big Data/AI, the IoT and mobile technologies is only the **start of the journey**.

Next-generation architecture for future-ready organizations

CUSTOMER CENTRICITY



More disruptive technologies will emerge along the way. While some may only appear as dots on the horizon today - they will turn out to be strongly impactful in the years to come: blockchain for transactions and traceability, 3D printing, Quantum Computing for High-Performance analytics...



Watch these technologies: take a look at the **Look Out 2020+ Technology Radar**

The road ahead: A quantum leap in IT

Turning information systems into intelligent business platforms will be among the most strategic challenges for enterprises and public services in the years to come. Within their own organization first, to support unified customer service management across existing silos and then externally with partners, either in private or open mode.

To adapt and survive in the upcoming **data-driven and AI- and Cloud-powered world**, enterprises will need to build, acquire or integrate these capabilities in their business networks. This will require them to combine:

- **Deep, data-driven technology innovations** with the best of hyperscale, consumer-derived, open AI solutions for the multi-Cloud world. Selected partnerships with GAFAs to leverage their latest open-source-based technologies and Cloud services will be a strategic option to consider.
- **Deep enterprise-grade, secure and vertical business technologies with design, integration and operation expertise** in all sectors: Industry 4.0, Retail, Transport, Telco, Utilities, Finance, Public, Healthcare... with the ability to seamlessly integrate digital and physical assets. In a flourishing digital world with multiple technologies, Cloud services and IoT/Edge components emerging from everywhere, this overall integration will be the critical challenge for incumbents for creating value and differentiation. To design, build, operate and secure the best solutions, choosing trusted and open digital transformation services partners will be essential.

Along the road, there may be many challenges. These will require imagination, adaptive strategy roadmaps and processes. But there will be huge rewards for those who will dive into the future.

How to move on? The best practices will be of help:

- **Start now:** In tomorrow's networked economy, first movers gain a strong advantage in the race: by being the first to federate an ecosystem of partners, they create a cumulative attraction effect that makes it difficult for late followers to catch-up. The internet is a 'star,' 'winner-takes-all' economy.
- **Evolve progressively:** Digital is, as yet, an emerging world. There may be successes and failures. A progressive, iterative approach will be the best to progress, testing and evaluating ideas at every step. Test & learn, fail-fast experimentations will be an essential help in rapidly exploring possible roads and selecting the best ones efficiently.
- **Challenge existing rule:** With digital, the world is entering an uncharted era. Well-recognized rules may be challenged. What worked yesterday may not be relevant tomorrow. Enterprises and public services must not hesitate to contradict traditional assumptions and invent disruptive strategies and models. Digital is an unexplored continent waiting to be conquered.