How to become an Intelligence Driven Organization
Companies across every sector, and of all sizes, have invested in intelligence-driven digital transformation as they look to respond, recover, and re-imagine their businesses. Microsoft CEO Satya Nadella told investors in April 2020, “We’ve seen two years’ worth of digital transformation in two months.”

Technologies like cloud computing and artificial intelligence (AI) underpin the dramatic transformations we’ve seen. Industries have embraced the cloud, supporting hybrid work to ensure the well-being and productivity of staff.

In parallel, businesses embrace data’s role in building resiliency and agility to compete in environments where a data-driven customer mindset is a competitive edge and differentiator. Businesses previously cautious about embracing technology, such as financial and healthcare industries, are now open to AI and cloud technology to equip employees with data that drives decisions, tests assumptions more effectively and provides faster feedback. Technology is driving efficiency, and more importantly, driving growth by helping businesses identify opportunities and generate deeper connections with customers.

So, borrowing Peter Hinssen’s phrase, what will the day after tomorrow look like? There are many uncertainties, but ingenuity and innovation will be essential, not optional.

This eBook will discuss Microsoft’s approach to successful Data & AI driven digital transformation, informed by our own transformations and industry specific context and experiences from our customers around the globe:

• Introduction to Microsoft’s Intelligence Driven Organization, designed to enable businesses implement digital transformation successfully and sustainably

• Examples of successful customer transformations that have embraced the Intelligent Driven Organization approach, putting data-driven intelligence at the heart of everything they do

“One thing we can count on: combining human ingenuity with innovation will be essential, not optional.”

RALPH HAUPTER, PRESIDENT, MICROSOFT EMEA

1.0 FOREWORD
2.0 THE AGE OF CHANGE

“If I had asked people what they wanted, they would have said faster horses.”

HENRY FORD

The challenges of this decade brought sharp focus to the need for businesses to adapt quickly to evolve and thrive. This accelerated a disruption, fuelled by digital technology, that has long been underway. Since 1955, 88% of firms in the Fortune 500 no longer exist. The average age of companies in the past was nearly 60 years and today it is less than 20. So, how can organizations prepare for this age of change?

2.1 CHANGE IS THE NEW NORMAL

Organizations across every industry have been transforming at unprecedented rates, embracing Data & AI to fuel their digital revolution, delight their customers, and empower their business through innovation, speed to market, and cost efficiencies.

Henry Ford’s quote “…if I had asked people what they wanted, they would have asked for faster horses” conveys the powerful idea that by overcoming challenges to build a better future for the organization, leaders need to foster creative thinkers. Henry Ford knew to reinvent mobility he had to be willing to envision a world free of the current restraints of reality.

Placing innovation and a culture of thriving change at the heart of the organization allows all aspects to be evaluated, iterated, and improved upon to empower employees and champion innovation anchored within data:

1. How business use cases are defined and prioritized
2. How core operations function
3. The way that information and data are shared
4. How people, processes and systems interact
5. The skills employees need for success

The digital transformation era is positively transforming our daily lives with unlimited potential for creativity, innovation, and success.
2.2 TECH INTENSITY

Successful digital transformation embraces business outcomes and succeeds with the people and culture created and the embedded innovation and agility at every level of the organization.

The digital transformation process isn’t just technology driven. Every successful organization is required to think as a digital company. We describe it as ‘tech intensity’, a blueprint for companies to jump-start their growth. Tech Intensity has three parts:

1. Organizational need to become a fast adopter of best-in-class technology.
2. Build their own unique digital capabilities, starting with workers who are deeply knowledgeable about the latest technology.
3. Investment in their human capital, to have a workplace culture that encourages capability-building and collaboration to spawn new, breakthrough concepts, through trust.

2.3 BUILDING ON OUR LEARNINGS

To support organizations on their journey to digital transformation, we set up Microsoft Industry Solutions. Our long list of global customers ranges from Toyota to the UN Refugee Agency.

Microsoft Industry Solutions helps organizations use technology to solve business problems by understanding goals, identifying risks, and guiding digital transformation. It helps organizations unlock powerful insights, empower teams with organizational agility, and enhance security for a competitive edge while offering support at every step.

In short, Microsoft Industry Solutions help our customers become Intelligence Driven Organizations – empowering their innovation with breakthrough results. Global seafood leader Pescanova quadrupled yields per acre after creating the world’s first intelligent aqua farm. Robotics giant ABB saw a 20% increase in customer satisfaction after transforming its workforce management solution. Stainless steel manufacturer Outokumpu increased production by up to 15% after digitalizing its main plant. The medical tech company IBA Worldwide can now capture and analyze ten times as much data to help the cancer patients that use its proton therapy treatment rooms.

These are just some examples of the outcomes that can be realized when data is leveraged with Artificial Intelligence (AI). Over the coming chapters we will show you how to get started on the next phase of your own digital transformation journey.
HOW MICROSOFT INDUSTRY SOLUTIONS HELPED CREATE THE WORLD’S FIRST INTELLIGENT AQUAFARM FOR A GLOBAL SEAFOOD LEADER

THE CUSTOMER:
Nueva Pescanova is a world leader in sustainable seafood production, employing close to 12,000 people across four continents.

THE CHALLENGE:
Pescanova was faced with the challenge of meeting rising demand for their products while balancing sustainability and profitability concerns. Aquafarming emerged as the smartest way to ensure a consistent supply of products from existing sites, but Pescanova’s operation was hampered by a lack of visibility and consistency in operations.
Pescanova wanted to undergo a digital transformation across their organization to ensure consistently high-quality product, and also wanted the new technology to help upskill their workforce and benefit the communities where they do business.

WHAT WE DID:
To fully understand Pescanova’s challenges and chart a course forward with an IDO transformation, the Microsoft team needed to see firsthand the farming sites and conditions in which Pescanova operates. These are often remote areas of open water that are hard on equipment, and don’t necessarily offer connectivity. The sites were operating independently.

After travelling to Ecuador, immersing themselves in Pescanova’s operations, and spending time with the farmers themselves, Microsoft realized that the intelligence necessary for a digital transformation was already there in the minds of the employees. After extensive time on the ground and in the water with Pescanova, Microsoft suggested adding layers of AI, IoT technology, and automation to their process.

The transformation culminated in the creation of Smartfarm, the world’s first intelligent aquafarm, developed as a custom solution by Microsoft Industry Solutions. Incorporating knowledge from long-time Pescanova farmers, Smartfarm’s impact has been monumental. Taking data directly from sensors in pools, it leverages underwater drones, hydrophones, and automatic feeders to optimize cultivation and provide real time insights and suggestions. The Smartfarm platform was able to tell farmers exactly what was needed and when, providing them with insights and information that greatly improved their working process.

Integral to the success of Smartfarm was the Control Tower, a central repository of Pescanova’s data, updated in real time via IoT enabled feeding and monitoring equipment. In the past, checking on a site or feeder might have required walking up to two kilometers and then setting out in a boat. With the Control Tower, all that information is visible in a central location, streamlining operations and freeing employees from high levels of repetitive manual labor. Instead, they can spend their time studying insights and further refining the predictive analytics models that are a hallmark of an Intelligence Driven Organization.

After deploying Smartfarm, Pescanova’s survival rates increased ahead of schedule, and yields per acre quadrupled from 800 to 3200. These transformational improvements increased revenue by 20% in one year and allowed Pescanova to hire more workers after implementing automation, proving that digital transformation in a business can have a positive human impact in the community.

WHAT THEY SAID
“We understood that aquaculture was the way to provide food, because sea fishing had reached its limit. Sustainability is not just a strategy of the company, it’s the strategy.”
Ignacio González, Nueva Pescanova CEO

“The technological and digital transformation of our aquafarms is really a transformation of people.”
Guillermo Renancio Artal
Nueva Pescanova Director of Technology
Microsoft Industry Solutions developed the Intelligence Driven Organization framework for digital transformation based on our global collective experience. Harvested from the work of our consultants working with customers across the globe, it establishes a common language to structure and simplify the process of transforming your business.

What do we mean by Intelligence Driven Organization (IDO)? In simple terms, IDO leverages data, combined with Artificial Intelligence, surfaced through applications, and leveraging agile development to foster growth, innovation, speed to market and cost efficiency. Beyond technology, IDO enables you to frame the creation of a comprehensive roadmap and ignites the capacity for change; focusing on 4 axes designed to make digital transformation a successful and sustainable reality: an Executive Strategy & Culture driven by clear Business Use Cases, supported by core Technical Capabilities (including Data Strategy), and an Agile Operating Model.

The IDO framework has been designed to address some of the many key obstacles common to digital transformation. IDO has a foundation in data strategy that reaches beyond that to a multi-solution approach to touch everything from an organization’s culture to its technical capacity, to its processes.

Helping our customers generate business outcomes requires identifying processes and building digital capabilities. Through the implementation of these processes, the monitoring and measuring are continuously improved over time, effectively creating a digital feedback loop. Digital feedback loops are at the heart of becoming intelligence driven, and fuels digital transformation, enabling our customers to become customer centric, foster growth, bring about operational efficiencies, and be more productive at scale.

These types of business outcomes can be expected when data is leveraged and combined with AI, surfaced through modern applications, to fuel digital transformation. For every customer project of this nature, a business conversation to sustain the desired transformation is essential. This is articulated along four major axes – executive strategy and culture, technical capabilities, operating model, and business use cases.
3.2 EXECUTIVE STRATEGY & CULTURE

Organizations must embrace meaningful, long term digital transformations by going all in with executives defining a clear and inspirational strategy that aligns with new market and industry conditions, coupled with a culture based on intelligence driven processes. This blueprint for growth is being referred to as tech intensity. Organizations will need to become fast adopters of digital technology and build their own proprietary digital capability.

Why does this matter?

There is no digital innovation without cultural transformation. Organizations will require more than an investment in digital technology or products; it will also require a change in the way the whole organization works and thinks. Addressing continuous change and disruption while creating a more agile organization requires more than an investment in digital technology or products.

What might this look like in practice?

- Business strategy is defined as metrics and digital priorities set with goals.
- Commitment to an Agile operating model and Cloud native applications is made as a way to acquire new digital capabilities.
- Metrics, cloud and digital technology adoption goals are broken down to the line of business levels.
- A branded plan to continuously communicate, creating a movement where everyone is a transformation advocate is key.

Key things to consider

Does your executive strategy have a clear sponsor? Can all employees see how their work contributes to this strategy? How can you reinforce the new culture at regular moments? Do you have listening mechanisms in place to learn quickly where practical changes are needed?

How do you know it is working?

- Progress is measured within the premise of becoming intelligence driven, not just business activities.
- An executive strategy is in place to change the culture to become an intelligence driven organization and company-wide implementation.
- The organization’s values are owned and emulated by the leadership team and employees are given a shared voice centered on the values.
- Managers are actively nurturing the adoption of new habits throughout the organization.
- Creating desire and reinforcing the adoption of new habits continually drives the changes.
As we have shared in the digital transformation journey through our work with global customers, we have identified a set of critical capabilities to becoming an Intelligence Driven Organization. Companies will need to build the right mix of technical capabilities critical to a successful transformation but not all capabilities will be needed or deployed at once – some might already be in place. Building that right mix of technical capabilities will be an iterative multi-year journey.

Why does this matter?
Organizations need the capability to empower themselves and employees to measure and review metrics that can be used to project and estimate actions to guide progress and meet goals.

This is not just about measuring business activities, but also about measuring progress in becoming intelligence driven: what percentage of key business strategies have metrics associated with them, how many products and services are being measured, how many Line of Businesses are using dashboards to track key metrics and projections like A/B experiments.

What might this look like in practice?
• Assessing the organizational structure to ensure accountability for business metrics throughout the organization
• Assessing the needed combinations of intelligent applications and pairing with both governance and operation models to support the strategy
• Empowering the Line of Business implementation of strategy and culture, collaborating and metrics sharing
• Permission to experiment with new ways to track and project measurable outcomes while identifying their own key performance indicators

Key Considerations
Line of Business users have the responsibility of materializing the principles reflecting the organization’s (digital) strategy, such as Customer Centricity, for everything from product design to customer interactions. Leveraging best practices of an agile and continuous process to build and improve efficiency and iteratively; from the development of applications to machine learning models and management of data are also key considerations for digital strategy.

How do you know it is working?
• Each group, division or subsidiary will leverage the data driven intelligence that is surfaced through applications to optimize the execution of business processes and deliver the organization’s products or services.
• Line of Business users leverage applications to access the data and intelligence that allows them to make decisions and effectively execute the business function they are responsible for (finance, marketing, sales, etc.).
An operating model defines the day-to-day execution for digital transformation. Embracing an agile model – with a test and learn culture driven by self-organizing, cross-functional teams – will unlock and unleash innovation. Consolidating the processes and approaches to implement and enable business use cases are at the heart of the business execution.

Why does this matter?

Data-driven innovation needs an agile, flexible, and scalable operating model. Being intelligence driven means controlling operations with secure, predictable, and flexible service delivery and capabilities. Innovation will drive faster development and roll-out of business use cases through adoption of cloud services, for example. Speed, agility, and reduction of go-to-market time keep organizations competitive. Cost control is gained by leveraging the public cloud to limit upfront investment and scale quickly and without limit.

What might this look like in practice?

- Governance via an enterprise Control Tower to drive operation in accordance with Executive Strategy and Culture (People), Use Cases (Process) & Capabilities (Technology)
- A common Agile ‘ideas-to-initiatives’ execution framework coming from multiple inputs across the organization
- Share of best practices, promote re-usability, quality, and efficiency
- Agile and DevOps are leveraged to build innovative and customer centric solutions at the speed of business and at the quality expectations.

Key things to consider

A cohesive Operational Model allows the best decisions strategically and operationally. The cohesive Operational Model strategic decisions are made by making the right investment decision, choice in strategic direction and prioritization of initiatives and operationally, by picking the best standards, approach, methodology and capabilities.

How do you know it is working?

- Broad organizational needs (i.e. culture, skills, etc.) are understood.
- Continuous innovation enablement by executive strategy team
- Build a ‘data and analytics platform’ for the digital feedback loops, while building business scenarios.
Central to progressing through the digital transformation journey is identifying and selecting the right business use cases to direct your digital transformation, as they will become the central building blocks to becoming an Intelligence Driven Organization.

Why does this matter?
Because of the infinite possibilities your digital transformation will create, by selecting well defined business use cases with measurable outcomes, you will enable your organization to accelerate its digital transformation. The creation of Business Use Cases creates deep value for the journey to become an Intelligence Driven Organization, and:

- Are the root of the epics and user stories that feed Agile practices (including DevOps)
- Allow us to define impact and outcome in the context of specific personas
- Enable us to describe vision and objectives in practical terms that both technical and non-technical people can understand
- Rationalize the need for specific features and capabilities
- Align the organization behind a common narrative across Line of Business and from Executive Management to every employee

What might this look like in practice?
- Clear areas of focus that flow from the organization’s mission and vision
- Defined key metrics that show how success will be measured
- A unifying narrative that ties the new ways of thinking and working together

Key things to consider
Which use cases will have the biggest impact on your business? How many things can the organization focus on at one time? Can you explain why you have chosen to focus on certain things over others?

How do you know it is working?
- Business Use Cases are a critical tool to connect scenarios with the technical capabilities needed to enable them in a language than can understood by all.
- An aligned adoption of use cases across the organization
- Broad organizational knowledge of how these use cases contribute to the business goals
- Clearly define impact and outcome in the context of specific roles
- Enable us to describe vision and objectives in practical terms that both technical and non-technical people can understand
- Rationalize the need for specific features and capabilities
- Align the organization behind a common narrative across Line of Business and from Executive Management to every employee
THE CUSTOMER:
Outokumpu is the global leader in stainless steel. Dating back to 1910, the Helsinki-based manufacturer now has 10,500 employees in more than 30 countries.

THE CHALLENGE:
Outokumpu has a vision to become the best value creator in stainless steel through customer orientation and efficiency. To achieve this, the company defined six ‘must-win’ scenarios – safety, sustainability, operational excellence, commercial excellence, expanding into the Americas and digital transformation.

In a traditional industry which can be wary of new technology, Outokumpu committed to creating new digital business and manufacturing platforms and embracing a culture built on data-driven management.

WHAT WE DID:
Outokumpu leadership worked with Microsoft Industry Solutions to reimagine every aspect of its business, from supply chain and production to IT, data analytics and leadership. This hugely collaborative partnership allowed us to help the brand in a holistic and genuinely transformative way.

The first big project was the digital transformation of its production site in Tornio, in the Finnish Lapland. With 2,000 employees, it’s the biggest plant in the Outokumpu network and the perfect place to develop and trial the Outokumpu Digital Platform, built on Azure, Microsoft’s cloud computing service.

The Digital Platform allows Outokumpu to capture data from every aspect of the production process, analyze it using cutting-edge AI tools and then create solutions that cover everything from quality tracking and efficiency to predictive maintenance and best practice comparisons.

The tools implemented as part of the Outokumpu Digital Platform initiative have increased output from Tornio by 10-15%, while predictive technology has helped the company reduce quality defects by up to 40%. There was an environmental impact too. Together the savings made on electricity, energy and production time lower the plant’s CO2 emissions.

As we have seen, these kinds of data-led initiatives require cultural changes too, and the Outokumpu Digital Platform is helping to move the company to data-based decision-making. The company is already using data from Tornio’s machines to help close the skills gap between operators who have been producing stainless steel for decades and those who are new to the industry.

Now the intention is to scale out the learnings from Tornio to other locations in Outokumpu’s network, as well as using its new data-driven mindset to drive innovations that could change the steel industry forever.

“Imagine if the technology existed so you could know exactly where each coil of steel you buy comes from, what’s in it and how large its CO2 footprint is,” says Senior Vice President and Chief Technical Officer Stefan Erdmann. “Then you start to create an additional business opportunity, a new feature that nobody else has at the moment: the ability to guarantee a certain environmental footprint.”

HOW MICROSOFT INDUSTRY SOLUTIONS BUILT A NEW PLATFORM TO TRANSFORM EVERY ASPECT OF THE WORLD’S LEADING STAINLESS STEEL MANUFACTURER

CASE STUDY 2

WHAT THEY SAID
Jan Hofmann, Outokumpu’s Executive Vice President for Business Transformation and IT:
“What we have achieved here in the last 14 months is unmatched. Not just in the metals industry, but probably in any industry. It’s the speed of the changes in digitalization that makes what we have done unique. And how it has impacted our aspirations as a company. It’s not just about improving efficiency; it’s about changing the entire business concept.”

Stefan Erdmann, Senior Vice President and Chief Technical Officer at Outokumpu:
“We have a clear goal to be the industry leader in digital manufacturing. The Azure platform lets us achieve this vision. It enables us to have one source of data, in the same coding, across all our different sites. And this, ultimately, helps us make better decisions everywhere.

Microsoft has played such a large role in this whole journey. We really felt like partners. That is what is unmatched about this story: it’s not the scale of the transformation – it is the eagerness, the speed and dedication of both partners to make it happen.”
THE CUSTOMER:

Flowe, a startup founded by one of the largest Italian banks, Banca Mediolanum, was created with a mission that goes beyond finance. The company aims to empower customers to live meaningful lives by integrating education and transparency with sustainability and personal health directly into the banking experience.

THE CHALLENGE:

Flowe wanted to attract millennial customers with a new, unique and modern banking experience. The company needed a highly differentiated value proposition in order to outcompete not just other banks, but also digital-only challengers jockeying for market share. The company needed to create a digital platform that would comply with all regulatory requirements around data privacy and security, while also allowing the flexible integration of third-party apps and platforms to provide a unique experience for their customers.

WHAT WE DID:

Microsoft Industry Solutions and Flowe collaborated to build an experience that would stand out from typical banking apps, targeting millennial customers by integrating educational videos on sustainability, as well as on how to eat well and exercise properly. The aim was to create a sense of community, with customers able to see the impact of their sustainability efforts, and how their physical activity compares to that of other community members. This was achieved by using the Microsoft AI platform to give gentle nudges to users to help them create more meaningful lives. Another example the app provided was to make transparent the difference in carbon impact of shopping at one store versus another.

All this requires data, some of which comes from devices such as smartwatches. Other data comes from third-party apps that are integrated into Flowe’s AI platform, for example an app that tracks users’ steps and workouts and offers community challenges. Flowe also works with a partner that plants trees to offset the carbon impact of customer expenses tracked in the platform.

Flowe was built from scratch on Azure, which made it easy to integrate modern banking features – such as real-time transactions and person-to-person transfers – and also enabled greater flexibility with technologies such as Azure Kubernetes Service (AKS) and an architecture based on microservices. The cloud-native solution allows Flowe to easily manage access to data and use it in a way that is compliant with regulations.

Flowe and Microsoft Industry Solutions deployed the new platform and app in less than a year. The collaboration stayed on track, even at the height of the COVID-19 pandemic. The team was able to react and adapt very quickly, in part thanks to the fact that Azure DevOps was utilized to streamline their Agile workflow, and Microsoft Teams enabled ongoing interactive communication across the team. As Roberto Sommacal, Experience Design Perspective Practitioner at Flowe, said: “Microsoft Industry Solutions went above and beyond what we expected. Each and every person acted as if delivering Flowe successfully was the only thing that mattered to them.”

WHAT THEY SAID

Roberto Sommacal: Experience Design Perspective Practitioner at Flowe:

“Microsoft Industry Solutions has a vast reservoir of knowledge and capabilities. The team’s expertise was just as important as having the right technology. They helped us achieve excellence in the design and development of the platform and app.”

“Flowe also works with a partner that plants trees to offset the carbon impact of customer expenses tracked in the platform.”
THE CUSTOMER:
Rabobank is a Dutch bank that serves 9.5 million customers in 39 countries across six continents. Some companies optimize ways of working to suit the new, more virtual world of work. Other companies optimize work for in-person contact with their customers. Rabobank wanted to do both.

THE CHALLENGE:
Rabobank’s relationship managers spend a significant amount of time on the road. They need to, because that’s how relationships are nurtured, and opportunities identified. But this way of working means it can be up to two weeks between visits to a regional office, requiring a mechanism to ensure seamless client information.

And that means that sometimes, these relationship managers may go into meetings without all the relevant information they need to best serve that client. Who else from Rabobank has spoken to the client recently? What was discussed? What issues were raised?

After the visit, it might take a week or two for relationship managers to file their reports, perpetuating the cycle of delay for their colleagues and making it less likely they can seize fast-moving opportunities.

WHAT WE DID:
After reviewing the bank’s challenges and understanding its business objectives, Microsoft Industry Solutions found the perfect solution in ClientLink Mobile, a business application built on Microsoft Dynamics 365.

Ultimately, the app will bring together all client information formerly housed in various different applications, giving managers a comprehensive client view that’s always at their fingertips. They can verify previous client contacts and get up-to-date information on the latest developments.

After a client meeting, they can schedule time to create and share reports with colleagues while they’re still on the road, as well as identify opportunities for new and expanded business. This enables them to act on opportunities more quickly, boosting client satisfaction and generating more integrated business for Rabobank.

That solution, specially tailored to Rabobank’s distinctive requirements, is a hybrid Microsoft Power Apps application that brings together the anytime, anywhere power of the cloud with the bank’s need to maintain client data on premises. And while Microsoft expertise was a crucial part of conceiving and realizing the hybrid Power Apps solution, knowledge transfer to the Rabobank IT team means the bank can now maintain, expand and evolve the solution on its own.

The bank conducted a pilot of ClientLink Mobile in early 2020. The success of that pilot, along with a survey of test users, convinced the bank to expand the initial scope beyond client reports and appointments to also include opportunity reports. Rabobank is now rolling out the solution in Asia and plans to do so globally.

WHAT THEY SAID
Anneke Broere, Business Owner of ClientLink at Rabobank:
“We saw Microsoft Industry Solutions’ deep investment in our success with ClientLink Mobile. Everyone on the Microsoft side, including senior management, demonstrated a real commitment to helping us find a solution – and they did.”
Learn more about what it takes to become an Intelligence Driven Organization and see how businesses across industries have successfully transformed.