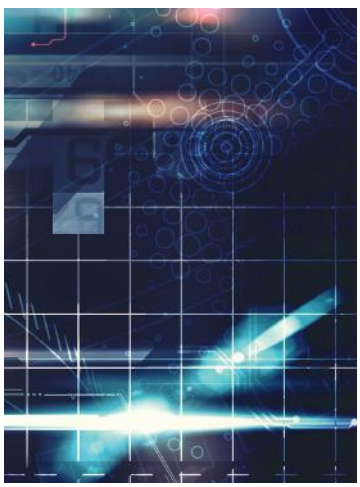
Implementing a digital shift

Heike C. Wörner, Fabian Sempf, Dr. Fabian Dömer, Volker A. Pfirsching

Today, every company wants and needs to become digital. However, what this actually entails will be different depending on the industry, size of the company, and competitive environment. Businesses essentially need to find the right degree of digitalization – their digital "equilibrium". By exploring some of the key problems traditional businesses face on their digital journeys, and how to overcome them, this article outlines how every business can realize the digital shift and create equilibrium.

Every company today wants to become digital – but what does it actually mean to be digital? What does it mean for your industry, the size of your company, and the competitive environment you are currently operating in? Essentially, how can you find the right degree of digitalization – your digital "equilibrium"?

Many traditional companies have embarked on the digital journey and started to adapt to a more customer-centric environment by modeling themselves after companies such as Amazon and other tech giants. However, this is unlikely to be the right approach – as evidenced from their internal processes and infrastructure, these legacy companies are far from the efficiency levels and effective structures that new entrants can build from scratch.



The management team of a company in an asset-heavy service industry pointed out to us recently that their organization would never become a "digital company." They had looked at Amazon and believed the company would need to only sell digital products, thus completely changing its business model. However, this is not necessarily the case – being digital takes multiple forms. This article sets out a roadmap to help companies understand what becoming a "digital company" means for them and how a digital equilibrium can be achieved, based on experience with traditional, "non-digital" businesses. The key question is, "What should your company look like in the age of digitalization?" We will explore some of the key problems traditional businesses face on their digital journeys, as well as share insight and outline ways to overcome them, in order for them to realize the digital shift and create equilibrium.

The theory: What makes a digital company?

A digital company makes use of digitalization in a way that increases its value. Achieving this requires a holistic approach, which covers:

- The business model
- Processes and organization
- Digital enablers such as data and technology
- Employee skills and company culture

Equilibrium needs to be found for each category. The right degree of digitalization is the degree that optimally supports company goals. Most companies have many digital initiatives running, but several of these may be disconnected from corporate objectives. Finding out which add value and contribute to company goals is key to finding the digital equilibrium.

But how can companies start the digital shift? Moving from a few digital "lighthouses" to a digital company brutally reveals the complexity that every large corporation has accumulated over many years. To get some tangible impact, a lot of groundwork needs to be done. Many legacy companies also need to overcome severe structural obstacles. In Germany, for example, a logistics company wanted to equip its vehicles with GPSs and gather data to give customers better estimates of delivery times. However, employee representatives saw this as illicit staff surveillance and prevented it.

We also witness a lot of "human interference" by employees or units that fear they will lose their power or status to new departments, or even to computers. In some cases, especially in manufacturing industries, employees are so trained and focused on continually delivering the highest-quality products, that the digital concept of failing and testing until a solution is established is against their very nature. In those companies, the only way to begin the digital shift is to start small and analyze where the most benefit is to be expected. On top of that, they need to heavily invest in digital competencies in these areas, as well as in changing overall company culture to make it more open and adaptive.

Five areas to address to enable a digital shift

To help traditional organizations deliver digital shifts and achieve equilibrium, we have identified five key aspects that need to be incorporated into strategy and execution.

1. Worry about getting the data before introducing the technology

Digital shifts are mainly driven by new digital technologies. This means staying on top of the latest innovation is a basic requirement for all other initiatives. However, mastering most of those new technologies requires reliable data, which is a problem in many companies today. A good example is when a company employs artificial intelligence within some of its processes. First, it can prove to be very difficult to collect and access certain data pools, and second, the quality of data is still a major concern to many legacy companies. While human beings are often able to interpret fuzzy or even false data correctly, computers are not. Defining good data structures and supplying high-quality data is therefore a crucial foundation for successfully introducing new digital technologies.

2. Reengineer processes – Don't just digitalize them

One of the core tasks for a company when digitalizing its value chain is to digitalize its processes. This is the biggest driver for efficiency gains, as well as for forming the basis of new products and services. However, with many successful traditional companies, a lot of processes are driven by pre-digital ideas combined with some digital aspects. This results in gaps and a need for manual "repair steps" to patch processes. Many company processes would benefit from high automation with the least human interference possible – but achieving this often requires processes to be redesigned end-to-end, with clear focus on external or internal customers. Standardization is also key to establishing digital processes, which has more to do with focusing on the groundwork than with simply introducing digital technologies. Reengineering also needs to incorporate the previously mentioned acquisition of data, its analysis, and related value-adding process steps.

3. Smash the silos

Another important pillar in realizing a digital shift is to invest in the company's governance and organizational set-up. Functional silos can be one of the biggest obstacles to digitalizing companies. End-to-end processes need to be the main drivers for creating the organizational structure. In the case of purely digital companies, this is built around the products delivered to the customer, not the functions behind the delivery. As part of this, the organization needs to be set up in a way that encourages collaboration, with clear focus on results and benefits. Building teams dynamically, with focus on the product, is a way to move forward and strongly supports the digital shift. Even though it is simple to form virtual teams, we have found that companies realize the highest impact when these are co-located. Another important success factor is to offer a lot of freedom to the teams and let them self-organize. However, this freedom does have limits – a small number of strict boundaries and guidelines should be defined, with teams free to operate within them.

4. It's all about the business model

In the digital age, the business model moves center stage as companies innovate around how they offer value to their customers, the ways they have established their value chains and, in many cases, how they have set up their revenue models. Two trends have accelerated this change – customers now have a stronger role in the value creation of companies, and the range of potential business models is increasing through the advent of digital technologies and collaboration with digital companies or start-ups. New business models also need to complement existing ones if they are to offer full customer journeys, providing the client with an end-to-end experience. In the digital world, they also need to be flexible enough to adapt to changing environments. This is a big change – for most traditional companies, business models have been static for long periods. However, these are now in constant motion and should be expanded and re-evaluated regularly.

5. People first, technology second

Employees play a key – if not the most important – role in realizing the digital shift. If traditional companies do not manage the transition process for their employees and take them along on their digital journeys, employees can end up being one of the biggest obstacles to becoming (more) digital companies. Digital and IT competence therefore not only are required within IT departments, but also form an integral part of companies' core business processes and require all employees to develop their IT skills. Today's workforce needs to be more flexible and willing to invest and develop their capabilities constantly. In this environment employees take on more responsibilities, but in return are more demanding, selecting their employers based on the working environments they provide. The new leadership style required for the digital shift will be one of empowerment and servant leadership to enable employees to grow and thrive. In a world where it has become more difficult to switch off due to constant exposure to emails and apps, work-life balance will also be a decisive factor when staff choose employers.

Case study: How to get there

A major player in the transportation and logistics industry recently conducted a digital shift over an extended period. The program was initiated by the IT department, with the clear goal of making the organization more digital and finding its digital equilibrium. This introduces a key question – is the IT department really the best place to start when it comes to digitalization? It does have advantages, as there can be a "natural" affinity between technological trends and technology expertise. However, the IT department is mostly known for its legacy role as an executor of strategy, or as a cost center, which makes it inevitably much harder to embark on such an important journey and take the organization along. Therefore, in parallel to the digital company shift, the major player started enhancing the performance as well as image of the IT department, increasing its collaboration with business units. From this starting point, it seemed logical to follow a bottom-up approach comprising four essential steps.

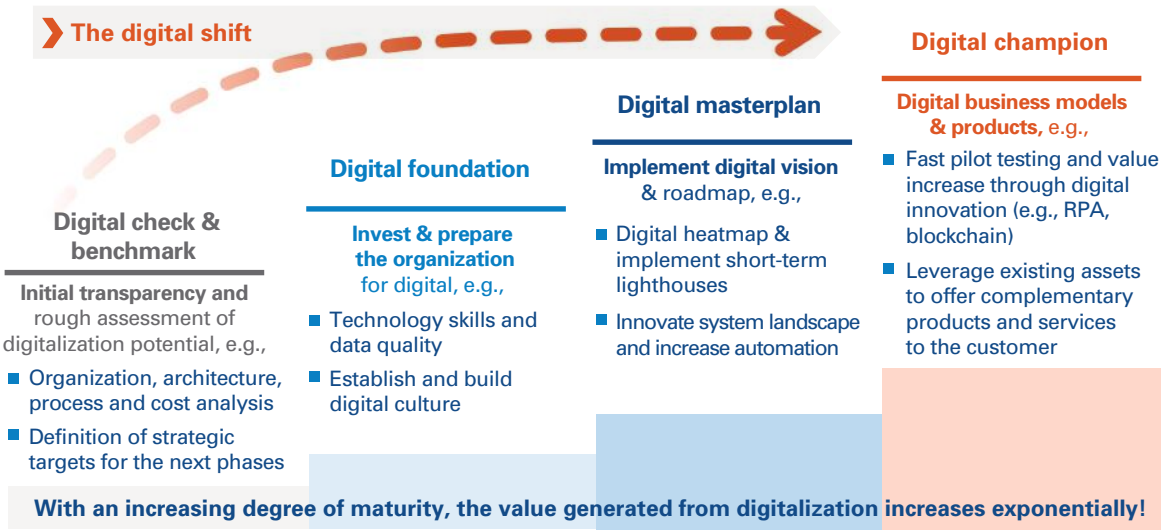


Figure 1: The digital shift: Four steps to becoming a digital champion

Step 1: Digital check & benchmark

Initially, the company conducted a digital check & benchmark to gain greater transparency into processes, costs and innovation/digital projects that had already started. The goal of this first step was to define a clear starting point. This stage uncovered a great deal of complexity and a lot of potential for optimization. After a high-level analysis, the organization decided to initially focus on where it could get the most "bang for its buck", especially compared to its competitors. It therefore dug deeper into both administrative processes (especially in finance) and asset maintenance. Before the start of the digital shift program, digitalization initiatives had primarily been launched opportunistically, which meant teams had trouble presenting convincing business cases. This benchmarking phase was therefore essential for the overall journey of building a digital company.

Step 2: Digital foundation

When traditional companies move towards digital, they need what we call a "digital foundation". Essentially, many companies start digitalization projects without solving basic underlying challenges. One of the most often experienced is data availability and data quality. In manual processes, humans are creative enough to interpret false or incomplete data correctly most of the time. For digital processes, this can be a death blow.

On the human side of the digital foundation, while many employees are experts in their areas of expertise, they do not possess sufficient skills to excel in digital companies. This is because company culture is more focused on doing the things employees have always done perfectly instead of thinking about how to achieve the same goals in very different, more efficient ways.

While training courses can help, in this case they had proven insufficient for this fundamental transformation of skills and culture. A more top-down approach had to be taken. The company therefore established multiple unofficial meetings in meeting rooms that were set up as "creative areas", with cozy and inspiring environments. Preparing top management for the digital shift was a key success driver, as they would need to lead by example. The organization also began stand-up meetings, involving everyone in particular areas, irrespective of their seniority, in order to increase collaboration.

Step 3: Digital masterplan

Once the foundation was in place, the next step was to establish a digital masterplan. This looked to answer these questions in the following order:

- Why? – Why are we doing this and what is the goal?
- What? – What digital levers do we need to use?
- How? – How will we achieve our goals?

The case study company went through this process with top management and employees in several workshops, and developed a "digital heatmap" that showed the biggest potential for digitalization. Some "lighthouse" projects were then strategically selected and mapped to implement the vision for the digital shift. It is critical to stress that this masterplan is not a general template, but has to be very specific to individual companies, as it is based on the current process landscape, as well as the organization's strategic targets.

Step 4: A digital champion

After "fixing the basics" and defining the digital masterplan, the organization was mature enough to develop new business models and products to build on that digital foundation. This company developed a business model based on selling usage time on assets that the organization had not fully utilized. This new business model created a complementary product for customers, which enhanced their end-to-end usage experience.

The overall process took more than two years, and was accompanied by extensive change management. Many items from the agile tool box were used, such as a fixed sprint cycle with review meetings at the end, which were attended by all hierarchies up to board level. Extensive management support and involvement was a key success factor for the entire endeavor. In the end, the operational improvements resulted in an average cost decrease of 15 percent in the optimized processes, with increased quality at the same time. The new business model is projected to contribute substantially to the company's revenues after full roll-out.

The case example organization experienced some of the typical barriers, which slowed down the speed and effectiveness of its digital shift:

- In the beginning, the company found that it was engaged in multiple projects with overlapping content. Though it proved to be beneficial to have an innovative spirit across the organization, too many initiatives that had started in different corners of the company had resulted in roadblocks due to a need for constant alignment meetings. This removed the focus from action and content. The leadership team assigned clear responsibilities, and then stepped back and let teams operate within their boundaries.

- Even though management realized that experimenting with digital technologies was essential and required some freedom, especially in the beginning, it was also crucial to steer and manage the digital innovation process. The company found that the best way forward was to implement decision and quality gates to ensure that investment was directed towards projects with the most impact on business value. If clear business value cannot be derived, attention should be redirected to more promising initiatives in the digital portfolio.

- In the case example, the cost of the digital foundation was spread across multiple business units and departments. This typically would result in long discussions about how funding for digital initiatives without direct business impact should be split. To counter this, the company set aside central funds to build modular platforms that could be used across the entire organization. Now that the company has invested in a common infrastructure, security standards remain high and synergies (such as around license costs) can be achieved.

Insight for the executive

Operating in today's competitive environment, every company, whatever its industry, needs to make use of digital technologies and find its digital equilibrium. Across projects in multiple industries, we have seen that a digital shift is a journey, that can be fuzzy at first, but with a holistic and structured approach, can significantly exceed expectations in the end, with great impact on business value. A digital shift is no self-driving process – it needs a lot of groundwork and investment in a digital foundation to make the entire organization mature and ready to benefit from new technological possibilities. In our case example, we saw that the digital shift was a senior management task but needed to be taken forward by the entire organization. The IT department played an essential role by laying the digital foundation, supporting with its technology know-how and providing platforms and infrastructure.

Overall, leveraging digitalization is not a question of "if", but "how", and will be the key to survival. In order to move their companies towards becoming digital champions, leaders need to focus on three pillars:

- **Digital leadership and empowerment of the organization:** Establish a clear digital vision and ensure that employees are empowered to realize the digital shift. Invest in change initiatives to take the employees along, and introduce a "digital-friendly" culture and agile ways of working.

- **Unify digital and IT, but also strive for further fusion of business and IT:** We recommend avoiding separating IT and digital into parallel units. Moreover, business departments need stronger alignment with IT, while the company must invest in digital skills and competences across the entire organization.

- **Invest in a digital foundation and establish end-to-end processes:** The digital shift will not be possible without the underlying foundation. Investment in digital platforms, data infrastructure and end-to-end processes with clear customer focus is required to fully support and realize the digital shift. This will enable new business value and boost performance to a new level.

Senior leaders therefore need to understand that for a digital shift to be successful, they need to search for new ways of doing business, but equally invest in their digital foundations to further streamline and automate their processes. Special focus must be given to development of a company culture that is flexible enough to continuously adapt to new surroundings, whatever the sector.

Heike C. Wörner
is a Principal at the Frankfurt office of Arthur D. Little and a member of the Technology & Innovation Management and Travel & Transportation Practices.

Fabian Sempf
is a Principal at the Frankfurt office of Arthur D. Little and a member of the Technology & Innovation Management Practice.

Dr. Fabian Dömer
is Managing Partner at the Frankfurt office of Arthur D. Little and head of the Technology & Innovation Management Practice in Central Europe.

Volker A. Pfirsching
is a Partner at the Munich office of Arthur D. Little and a member of the Technology & Innovation Management Practice.