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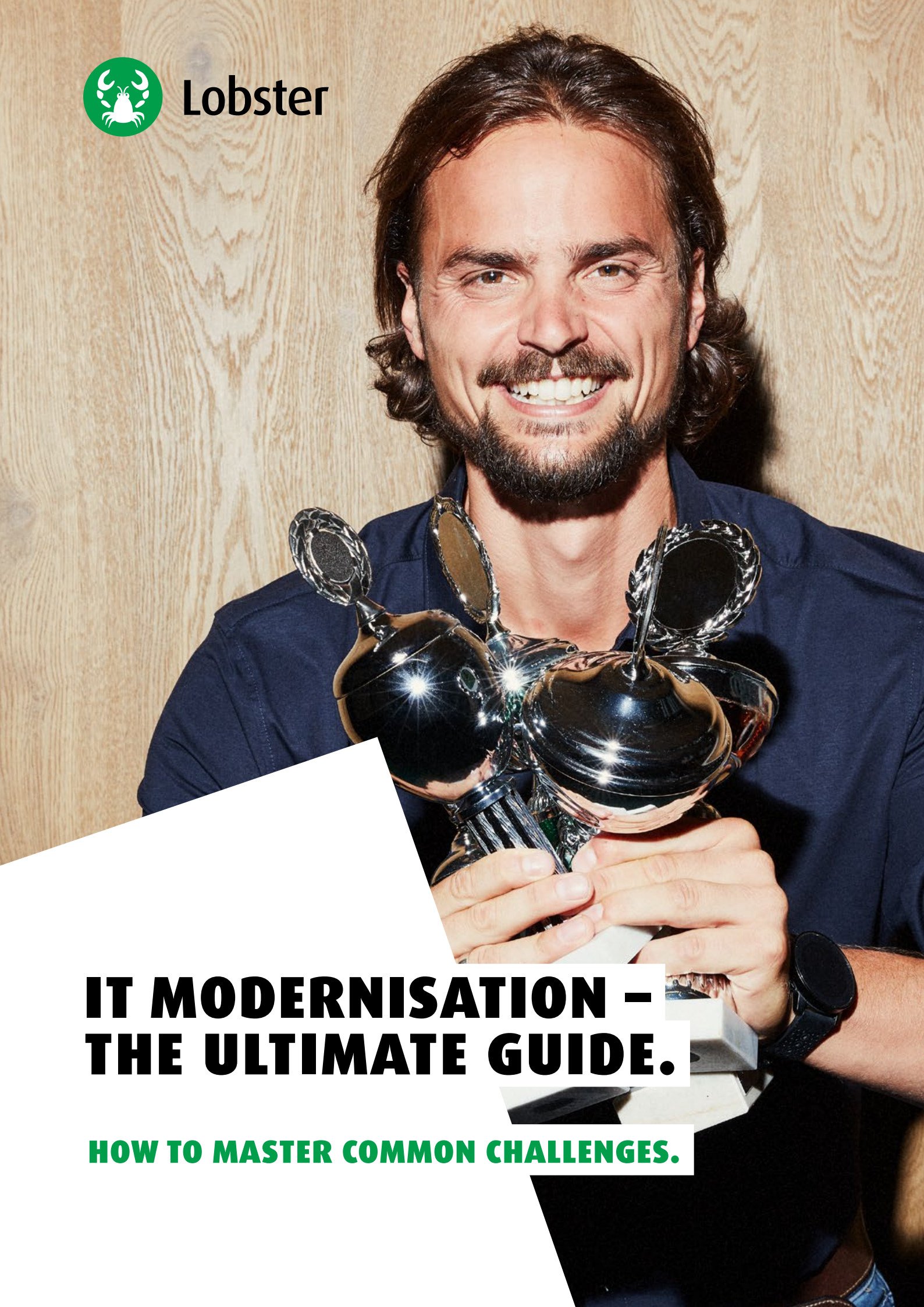


IT MODERNISATION – THE ULTIMATE GUIDE.

HOW TO MASTER COMMON CHALLENGES.

CONTENTS

WHY MODERNISERS SHOULD READ THIS WHITE PAPER!

> In just a few clicks, we can access the formats we need. What used to take us several days is now done in just a few hours – thanks to Lobster_data.

ULRICH PEEKHAUS
HEAD OF IT, KNIPEX

Is your IT architecture burning a hole in your budget? Is it making the lives of your employees harder and not easier? As the one who holds the tech purse strings – are you looking for clear-cut solutions to these problems? Then read on and learn how to modernise your systems with no-code-based middleware from Lobster.

For years now, the media, market surveys and industry panels have all agreed that investing in IT modernisation is unavoidable. Digitalisation, automation, Industry 4.0, AI and analytics are common buzzwords in this context.

However, what these discussions fail to highlight is that a lot of the money companies spend on updating their IT actually goes to waste. The tech department itself isn't to blame. Instead, it's usually the heterogeneous, fragmented and not particularly user-friendly computing environment they operate within that's at fault.

To ensure the digitalisation process within IT teams and the wider company is as efficient as possible, we must first consider a number of basic factors. This white paper aims to provide a roadmap for sustainable digital transformation and will highlight how the IT wheelhouse can be harnessed to cut costs and boost revenue.

HERE'S A SNEAK PEAK OF THE KEY TAKEAWAYS YOU'LL FIND IN THIS WHITE PAPER:

1. Mastering IT complexities is easy with a data-process-middleware solution.
2. No-code democratises access to tech and increases acceptance of digital projects.
3. Step-by-step digitalisation integrates learnings made during project implementation.
4. Flexible agreements with external partners are key to long-term project success.

DO THESE 5 ROADBLOCKS SOUND FAMILIAR?

> Our biggest concern is scalability. Ensuring we're in a position where we increase our turnover over time and can adapt our IT systems accordingly. Step-by-step. We need an infrastructure and an IT landscape that can support this, as the number of integrations is set to skyrocket as we grow.

JENS ENGELBRETT
HEAD OF IT, HUMMEL

Maybe you've been thinking about modernising your IT landscape through digitalisation for some time now. Perhaps you are already half way through the process. Maybe you're still considering how best to leverage the digitalisation process in your environment. For many directors and executives, digital transformation is an area of key concern where they must set the course for their company. After all, in today's business climate, no research paper is published without a list of all the crises that firms are facing. Recession, inflation, pandemic, war, global warming – a 'polycrisis' to be precise. In this context, comprehensive digitalisation strategies are paramount. We must enhance IT – whether as a department, with the help of a supportive tool, or as a solid operational foundation for weathering the storm. The benefits are manifold and range from increased efficiency, productivity, flexibility and resilience at a lower cost all the way to breaking into new industries.

This excess of outcomes and objectives may be met with enthusiasm or apprehension. So, for the purposes of this article, let's keep it simple: investments in IT projects are all well and good, so long as they help cut costs for the wider company or if they boost revenue.

Internal factors but also external dynamics will decide what makes for an effective digital transformation strategy, how it is prioritised and to what degree all participants, i.e. partners, suppliers and – most importantly – employees, are integrated and motivated by it. In this paper, we will therefore not only be looking at **the 5 most common roadblocks for IT modernisation projects.** We will go as far as to question supposedly tried-and-tested concepts and routines. Because if you don't delve beneath the surface when planning your project, any optimisation to your IT landscape will be superficial, treating only the symptoms – which is a waste of money.

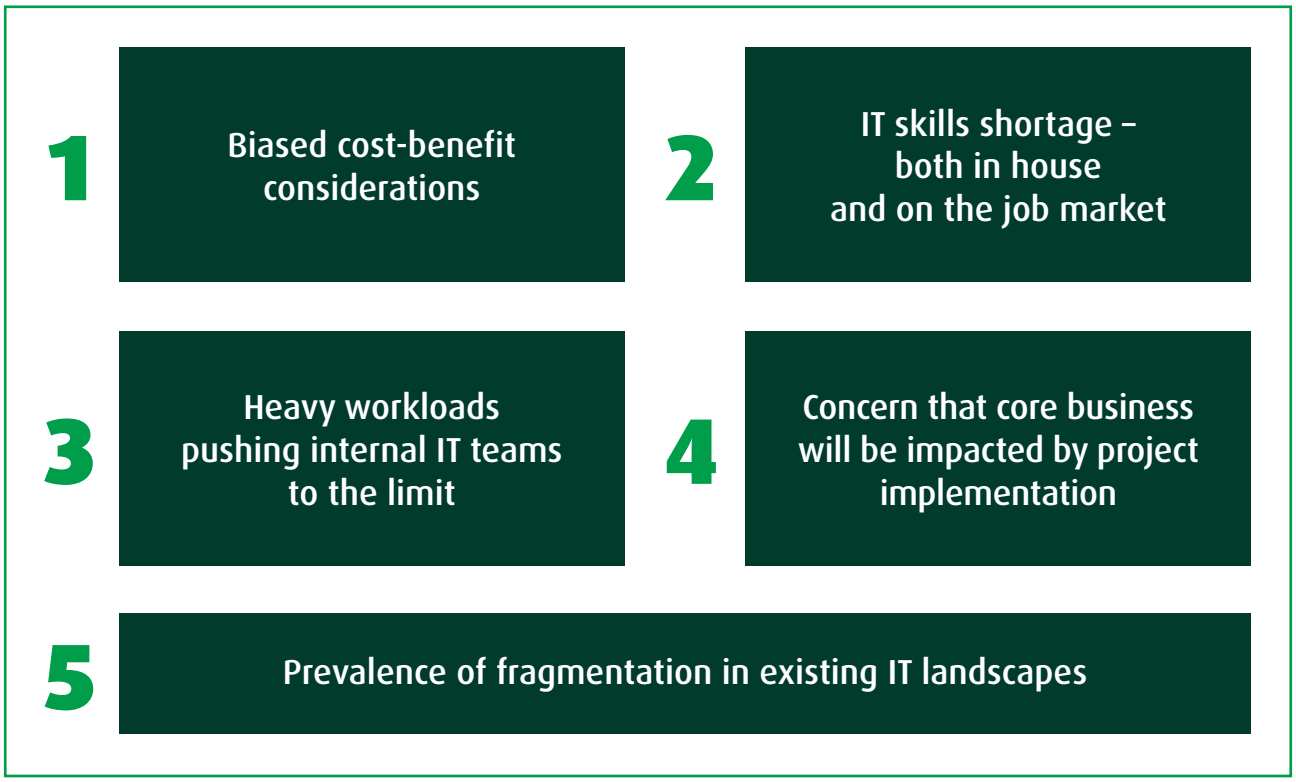


Fig. 1: Important modernisation roadblocks

1 BIASED COST-BENEFIT CONSIDERATIONS

When a company decides to optimise its IT landscape, cost-benefit analyses are always the first step: what efficiencies can we exploit when introducing the software? Which digital business areas should we establish alongside our business assets? How much money can we save by digitalising core process XYZ? How will the project improve the customer experience?

However, companies are also concerned about the cost of IT modernisation. On the one hand, hardware, software and staffing budgets are on the up.

And on the other, depending on the provider or project partner, fees for installation, consulting services, configurations, customisations, training, maintenance and updates can rack up, making the TCO of the project hard to predict. It's easy to see how this may make execs hesitant to approve investments.

However, one question that companies don't ask themselves enough is: does our existing IT landscape actually allow us to be 100% productive, or should we be taking a totally different approach?

2 IT SKILLS SHORTAGE

We're all tired of hearing about it, but unfortunately the fact remains: IT specialists are in short supply. And the few candidates that are open to new opportunities are also being headhunted by competitors. Accordingly, when you finally find the right candidate, they will expect handsome compensation. Not only does this mean a competitive salary, but also performance-related bonuses, unlimited WFH days and generous holiday arrangements.

The resulting talent tug-of-war affects large corporations just the same as SMEs. Consultancy firm Randstad NV estimates that there will be a shortage of over 85 million tech employees worldwide by 2030 (IMF 2019, Sloyan 2021). This spells bad news, particularly for firms with less financial pulling power: if the best IT candidates always go with the big players, won't this widen the gap? And what can everyone else do to keep up?

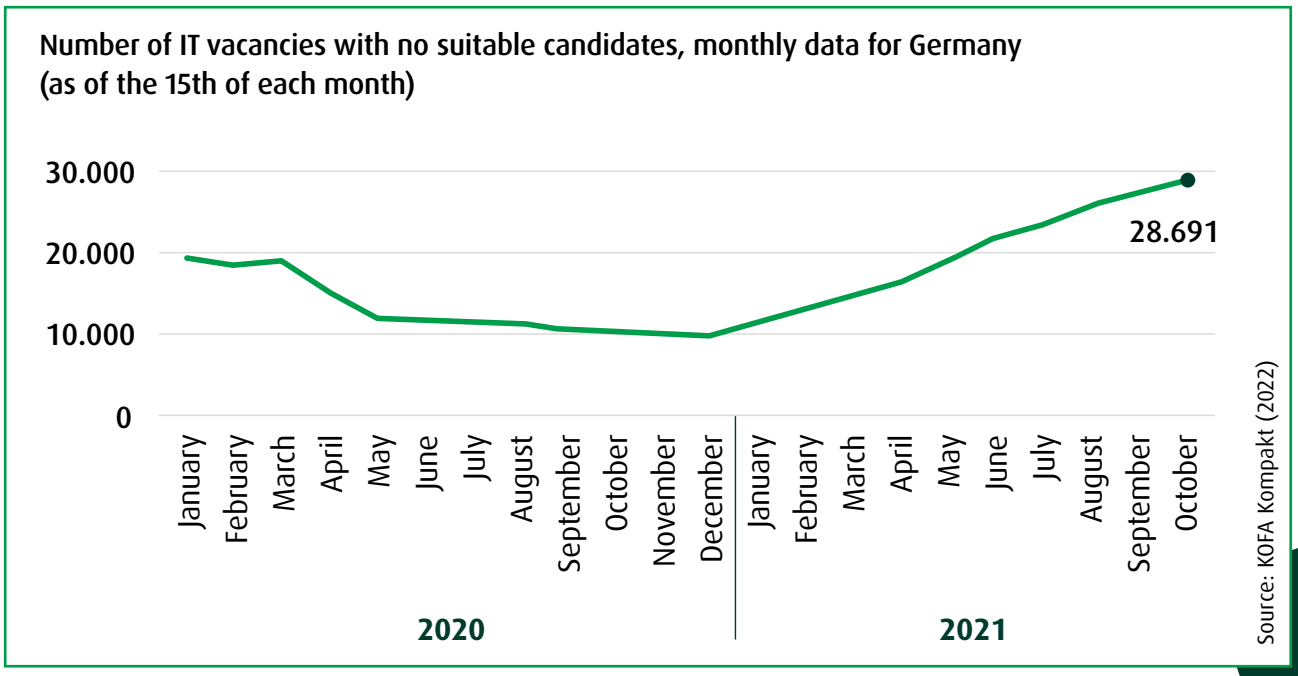


Fig. 2: Development of the skills gap in IT in 2020 and 2021

3 HEAVY INHOUSE IT WORKLOAD

So we've established that every internal IT service comes at a cost. But the team is also battling enquiries from left, right and centre: sourcing laptops for onboarding, setting up new servers, digitalising processes, designing interfaces and ensuring cloud networks are secure. In view of this variety of tasks, it's not surprising that IT employees are protesting at the growing pile of to-dos. It's not just a question of "setting something up quickly". Competitive pressure induced by digitalisation are forcing IT experts deeper and deeper down the rabbit hole into business processes that were once reserved for operations management. In addition to day-to-day tasks, there is project work that has to be organised, coordinated, controlled and documented. This, too, wastes money because highly paid specialists can't put their core competence to best use. For IT teams, a shift from IT administrator to IT service provider is on the horizon. And not everyone is ready for this change!

4 CONCERNS ABOUT IMPACT TO CORE BUSINESS

The lack of transparency in the run-up to digitalisation projects also presents a challenge for non-IT departments. Despite their first-hand experience of working with inefficient existing IT landscapes, some may even call them "swamps", it's still business as usual – meaning core workflows and supportive processes need to function as normal. But is this even possible if "someone from IT" is also tinkering with the necessary systems and data streams? Or if externals are getting involved in inhouse routines and questioning supposedly tried-and-tested processes?

And while we're on the subject: why is the overall digitalisation strategy progressing so slowly? The underlying fear is that expensive and long-winded IT projects will hinder core business operations. After all, the market needs agility so adjustments to shifting goalposts can be made quickly. The cacophony of voices proves that the decision to exclude non-IT employees from IT modernisation strategies only increases resistance to new processes, causing shadow IT to form.

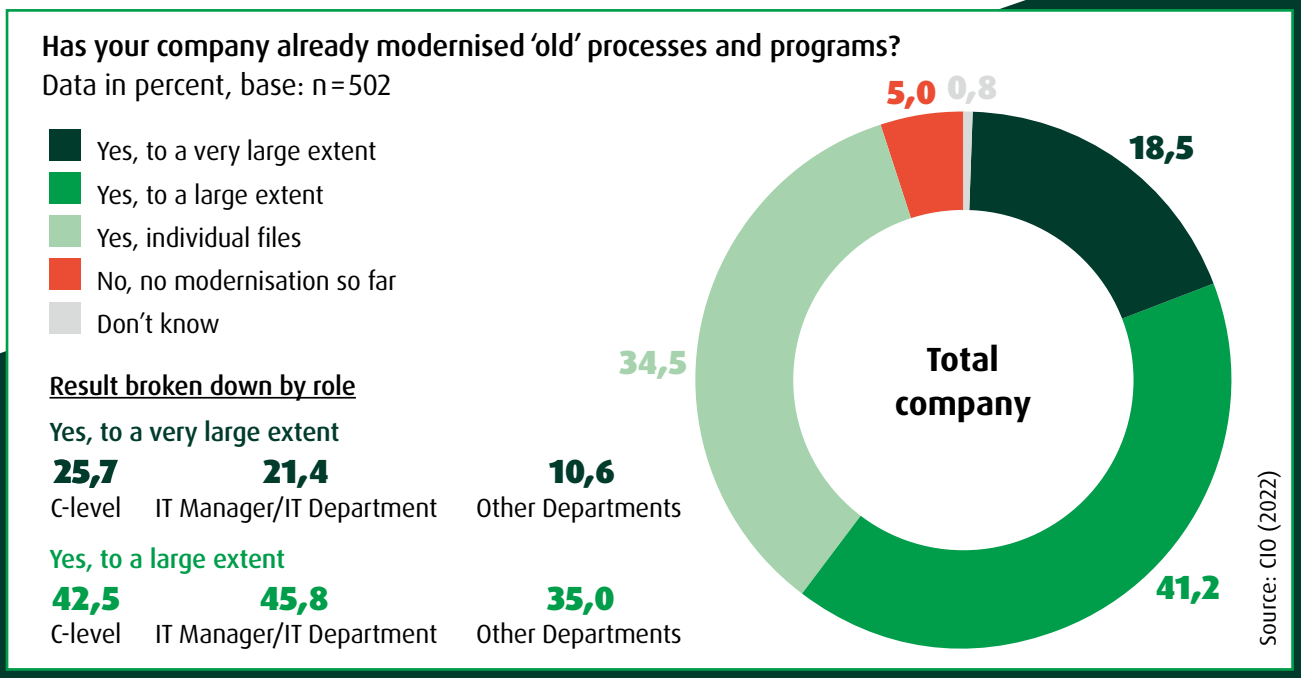


Fig. 3: Success assessment of modernisation measures

5 FRAGMENTATION AND COMPLEXITY OF IT PROCESSES

As already outlined above: when it comes to modernising IT landscapes, everything seemingly ends up with the IT department. This isn't surprising when one considers the old assumption that digitalisation strategies require specialist insights. Which in turn makes fragmentation and silo formation unavoidable. This belief that IT complexities are fundamentally unmanageable is causing some companies to make do with a (bad) compromise rather than open what could be a 'Pandora's box'.

It is also interesting to note that an IDG study from 2021 found that C-level and IT managers believe they have modernised legacy structures to a very large extent (25.7% and 21.4% respectively) or at least to a large extent (42.5% and 45.8% respectively). But non-IT departments – as in the actual beneficiaries of the strategy – don't seem to witness the digitalisation drive (only 10.6% or 35.0%) (CIO 2022). This idea of fragmentation therefore extends to the interplay of "actual vs. perceived modernisation".

DEEP DIVE: IT FRAGMENTATION.

Strapped for time? Jump ahead to p. 10

Many companies can't seem to shake the belief that IT is so abstract that non-IT employees could never understand it. Figure 1 shows that many of the factors that stand in the way of IT modernisation are caused by significant IT fragmentation. But: instead of fearing complexity as an arcane business risk, it should be seen as the controllable constant of a highly specialised corporate reality.

Here is a breakdown of **7 insights for improved understanding:**

1 FUNCTIONAL FRAGMENTATION

Tech plays a multi-dimensional role, so the breadth of IT tasks is considerable – from providing and maintaining basic infrastructure to choosing the right solutions and supporting business processes. And not only within departments, but even across companies. Functional fragmentation also includes the challenge of IT being asked to take care of a „quick issue". These unofficial tasks are added to the day-to-day to-do list, further fragmenting workflows.

2 TEMPORAL FRAGMENTATION

"Now" and "later" tasks go hand in hand in IT (even if most tickets are to be dealt "asap"). "Later" tasks have a medium-term time horizon and can be processed alongside daily operations, introducing a new project management tool for example. Immediate tasks, on the other hand include to-dos such as adapting an interface between the warehouse and production systems during up-time. Due to the urgency of "now" tasks, IT staff tend to abandon "later" tasks that have already been started. The disadvantage of this fragmented logic is that employees are forced to interrupt, refocus and then start again, which takes more time that is then missing for other tasks.

3 SYSTEMIC FRAGMENTATION

Every company has seen at least one legacy system in its time. New, old, industry-specific and general systems are all accounted for. Some in use, some mothballed, some no longer being actively used, but that still hold key data. This systemic fragmentation is known as brownfield development, with new systems working alongside software already in situ. Where each system has its own data and speaks its own language. Good luck to anyone trying to find complete and updated documentation in this fractured environment!

4 INTERFACE FRAGMENTATION

In order for systems to communicate with each other, brownfield integrations are implemented at random – by different employees or external service providers, some of whom may now no longer work for the company. These interfaces are rarely coherent. It's possible that one and the same inventory system uses file-based FTP uploads to communicate with the ecommerce software, AS400 to talk to the ERP software, and triggers web services to deal with the WMS. This heterogeneity complicates communication, causes transmission errors and gives rise to avoidable costs.

5 ORGANISATIONAL FRAGMENTATION

Due to the nature of their work, IT teams deal with a wide range of departments when digitalising processes. Within these departments, IT stays in touch with individual employees who are the sole holders of process-specific knowledge. Whether this knowledge can be communicated to IT depends on the employee's willingness to share this information and their didactic skills. If IT is unable to fully grasp the process in question, any processes introduced, no matter how sophisticated, will be for naught.

6 PROCEDURAL FRAGMENTATION

Organisational fragmentation leads to procedural fragmentation. In addition to the different programming and system languages, the departments also have to navigate different "process languages". Of course, the logistician has other concerns and analysis tools than the production manager or the sales lead. But even within one department there can be procedural fragmentation. The procurement process for screws differs from that for solar panels. Here, too, there is a general lack of suitable process documentation.

7 HUMAN-SYSTEM FRAGMENTATION

The digitalisation of processes is rarely comprehensive. There is always a gap somewhere, where a human has to intervene – usually when important decisions have to be made. Even today, human intervention still involves employees taking hand-written data and manually entering it into a computer. One should not forget to consider the interface as a communicative layer between human and machine.

WHY MODERNISATION STRATEGIES ARE FAILING.

e used to have at least three meetings with external programmers to discuss how best to proceed. Thanks to Lobster_data, we can now connect to our customers ourselves.

MARKUS FÜRLINGER
PROJECT MANAGER IT AT GARTNER

So, in addition to roadblocks such as biased questions, hesitancy to invest, the lack of skilled workers and suitable information, we can see that it is IT fragmentation that ultimately hinders digitalisation projects. Those navigating the swamp could be wearing the best boots, but it won't get them there any quicker. So before setting off with the best digitalisation intentions, one should first consider the causes and consequences of fragmentation in order to leverage investments and cost-cutting measures.

In recent decades, two MOs have developed when it comes to streamlining digitalisation strategies: IT outsourcing and IT standardisation. But these methods offer a band-aid solution at best – and are by no means a panacea.

Given the complexity of IT projects, it is understandable that companies seek external support. After all, very few firms have the necessary IT competence inhouse. The success they have achieved in their industry is due to their superior vertical integration or unparalleled expertise in certain niche markets, such as transporting hazardous goods. External IT specialists therefore seem to be the obvious solution – almost as if they were a supplier for a specific part.

Certainly, neither approach is wrong. However, customers should be aware that the current digitalisation trend means service providers have overflowing order books. They also know that every customer will begrudgingly wait for their turn. Even at a high price.

The Project Management Institute's figures prove: 39% of all IT projects worldwide go over budget, while 45% don't meet their deadlines. (PMI 2021)

IT OUTSOURCING – LET THEM GET ON WITH IT!

IT outsourcing means that an external IT service provider takes on an IT project for a company – from conception to implementation, from configuration to downstream support. These service providers benefit from project management experience, a first-hand knowledge of system fragmentation and specialist process know-how from previous customer projects.

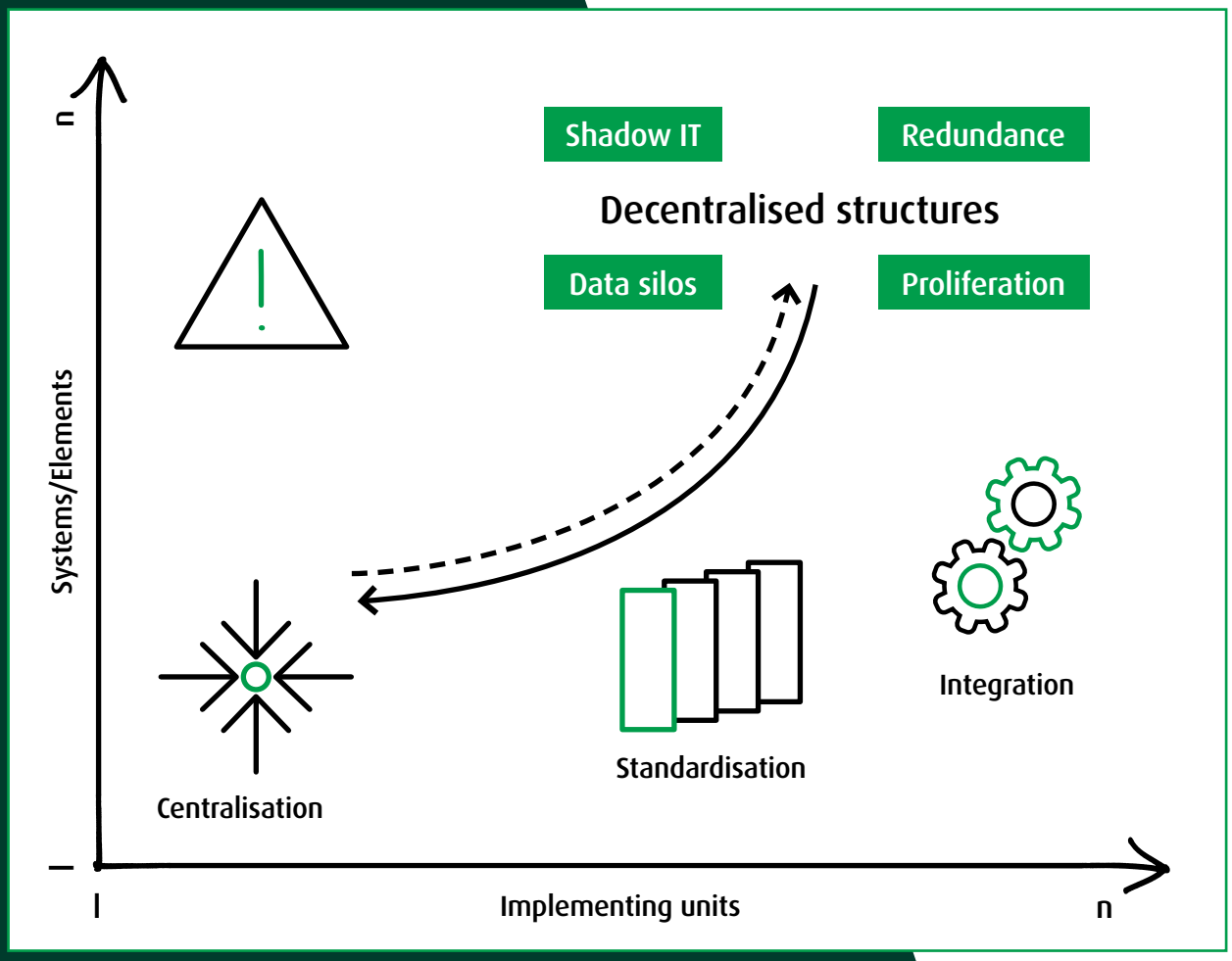
For the IT service provider, an IT project is like open heart surgery. So if you're going to do it, it should also be worth your while. Big bang projects are put out to tender with a fixed go-live date. Tender rounds tick by. After the selection, kick-off meetings are scheduled with countless participants. Requirements and specifications are drawn up. Project time frames are set for months and even years in advance. The overall plan is broken down into daily, weekly and monthly actions. Regular meetings are scheduled. What was once a temporary partnership born out of necessity mutates and merges with day-to-day operations. Checks are carried out, milestones are missed due to the complex arrangements, which delays the project. The steering committee convenes and debates. The go-live date is postponed and the cycle repeats

And even if the project is finally delivered, hasn't the outsourcing process simply introduced a new player, shifting the dependency from internal IT to a third party? Perhaps the project manager is thinking: "If we didn't have them, we wouldn't need them!".

IT STANDARDISATION – ONE AND THE SAME?

The standardisation approach involves an external software provider delivering a portfolio of software solutions that offers ready-made or partially configurable, compatible process templates. This service provider is able to comb through existing heterogeneous IT landscapes and stopping the uncontrolled undergrowth in its tracks with standardised, interlocking modules.

At first glance, IT standardisation seems to be a sensible alternative: why not first cut through the overgrown brownfield and then repopulate it with a new software solution? But standardisation is also associated with its own pitfalls. A standardised software portfolio will never completely replace a highly specialised individual solution that has become part of the company.



Source graphic and quote: C: Rentrop (2017)

Fig. 4: Characteristics of heterogenous IT landscapes

> In summary, we're seeing standardisation and centralisation projects are not guaranteed to succeed. Moreover, we should think carefully about when standardisation can make a meaningful contribution.

PROF. DR. CHRISTOPHER RENTRUP
UNIVERSITY OF CONSTANCE

The example of the hair cutting machine is a perfect example of the dilemma (Kirsch 1997, p. 357):

> The inventor of a haircutting machine explains to his patent attorney: "The customer inserts his head onto the opening. We use this dial to set whether the client wants their hair cut short, medium or long. The lever here selects a normal haircut and or a 'short back and sides'. When you then press the red button, it takes no more than 5 to 6 seconds, and the customer has the desired haircut." "But" counters the patent attorney, "people have different head shapes, don't they?" "Only beforehand," the inventor responds.

In other words, those who standardise put their necks on the line along with the processes they have established as well as the responsible employees. Can that work? Of course it can. And the service provider brought on board will also emphasise that the standard functionality of the software solution is significant, that they offer a-grade process modules and that they have extensive experience!

For standardisation to succeed, it is only the companies that invest significant time in advance and consider the external IT partner and their solution in detail, that pull their head out of the machine with a perfect haircut. Those who do not take this approach will suffer more than just a bad hair day: perhaps the range of features is too large for the process, perhaps it is too small. Maybe tried-and-tested processes have to be changed due to the new software. Sometimes this can be implemented without issue and sometimes it can't. Then there are the times when the service provider realises that the company-specific requirements mean that the process can't actually be standardised at all and the budget will need to double to accommodate the customisations. Will this also make the updates and patches more expensive? And what about the non-standard solutions that you want to keep? How are they connected and via which solution? Sounds like IT standardisation makes companies just as dependent as IT outsourcing. The sheer number of unresolved questions call for a new approach.

WHAT'S THE SOLVE? DON'T REPAIR IT. REIMAGINE IT!

We've seen that IT outsourcing and IT standardisation are not efficient solutions for those looking to optimise their existing IT landscapes. On the one hand, companies need more and more IT to bring digital transformation to all departments. On the other hand, the idiosyncrasies of operational departments give them a reputation of being resistant to IT changes. Turning to third parties who can act as a buffer between staff and management when unpopular decisions are made is one approach. However, you run the risk of replacing one pain point with another.

So what are the alternatives? Based on what we have seen so far, one could arrive at the following conclusion: once the significant IT fragmentation has been addressed, the existing system landscape could be expanded and its modernisation outsourced. After all, there are enough options and examples of successful outsourcing – even in high-security sectors such as banking, healthcare or governmental IT settings. Sadly, this is again wishful thinking:

- **Successful companies thrive on the division of labour and specialisation,** which is why there will always be functionally separate departments. But even with flat hierarchies, matrix structures and agile management methods – procedural fragmentation and silos will hinder all-encompassing digitalisation efforts.
- **Reducing systemic fragmentation requires many players** and is not solvable by individual companies. Legislators and industry associations are fighting to standardise interface formats, but only rarely have they been able to create solutions that are accepted industry wide. Human-machine fragmentation will also play a part in every industry for as long as there are processes in which "humans" have to enter data or make decisions.
- **Only temporal fragmentation is relatively easy to deal with,** namely by rethinking the way in which the company is structured. This requires suitable team hierarchies and standard processes for prioritising tasks and enforcing them.

This is a tricky dynamic which can only be efficiently solved by thinking out-of-the-box. This means: firstly, accepting fragmentation and – secondly – questioning previously held notions about digital transformation. The first step is to take a targeted productive approach. The second paves the way to sustainable solutions. Let's start by comparing the preconceived assumptions and reframing them to find solutions:

PRECONCIEVED ASSUMPTIONS	OUT-OF-THE-BOX ASSUMPTIONS
By their very nature, IT landscapes are fragmented and complex making them essentially unmanageable. →	Fragmentation in evolved IT landscapes can be controlled using middleware that treats data and processes as one.
Digital transformation can only be implemented by a large team of IT professionals with specialist knowledge. →	Digital transformation can be implemented decentrally in IT and business departments alike with the help of no-code technology.
Comprehensive digitalisation projects are best carried out as highly regulated big-bang projects with external support. →	Agile, gradual projects build acceptance and find support within the company itself through flexibility and manageable time horizons.
In order to avoid unpleasant surprises during project implementation (costs, delays, etc.), it is important to define the requirements precisely in a contract. →	Unlike rigid contracts, scalable agreements promote successful project implementation, so contractual requirements follow as the project evolves instead of hindering it.

4 HANDS-ON SOLUTIONS FOR MODERNISING YOUR IT!

Let's move on from blanket statements, and see how Lobster solutions could help you rethink your IT.

> Optimised internal workflows, transparent and clear ordering processes and 24/7 up-to-date data – this is what our business needs, and with Lobster, this is what we get.
>
> **STEFAN GRABNER**
> **CORPORATE IT, ALCAR WHEELS**

SOLUTION #1: MASTERING COMPLEXITY – WITH DATA-PROCESS MIDDLEWARE.

IT fragmentation is challenging for everyone. But it is also a by-product of the successes companies have achieved through growing organically. However, if this complexity does not offer added value, it should be reduced.

EXAMPLE: If a department has historically always used three different software solutions for one and the same process, it should focus on transitioning to only the one solution. The answer changes if three departments use three different tools for their respective parts of a business process. Why? Because the different tools support the activities of the individual departments with special features. For example, the ERP system, WMS and the PIM system all store article master data, so one might think he intricacy of this set-up is inefficient. However:

- The ERP system is used by the purchasing department, which maintains purchasing-relevant data on items and suppliers.
- The WMS is used by the logistics department and provides article-related specifications for the removal of goods: article 4711 should be picked using the FIFO method. However, full pallets are still preferrable, even if this breaks with the FIFO rule.
- The PIM system is used by marketing and holds shop-related and multimedia content such as images, videos, product descriptions etc.

Individual tools with specialised department-specific data can therefore undeniably create added value for the overall process. The issue here is the lack of interaction between the systems. In order to master complexity, data and processes must easily overcome the disruptions between the systems.

Only **a data-process-middleware like Lobster_data** can meet this requirement. A central hub allowing companies to integrate data and processes from other systems in a user-friendly way. Both within and between the individual departments as well as across companies. Depending on the context, this is where the technical terms EDI, EAI, API and data fabric come into play. Specialised middleware of this kind allows complex IT landscapes to be modernised. Because, in essence, integration means:

- laying automated information pipelines between internal company systems
- providing process-relevant information for external customers, suppliers and partners
- offering visually appealing portals (for customers, services, bookings) and process templates for mapping the human-machine interface
- using event triggering, business logic, rules and guidelines to automate processes.

The middleware's ability to be event-driven helps to manage complex processes in all departments, teams and systems. For successful digitalisation and IT modernisation, it is essential that data and processes are treated as one. All other strategies create inefficient and expensive processes, as illustrated in the following (simplified) scenario:

EXAMPLE: Goods are delivered to a warehouse. As the goods are textiles, a warehouse employee is responsible for the manual QA check. They randomly check the goods and enter the results into the WMS. If certain types of defects are entered, the goods are blocked for sale, meaning they are added to the WMS but cannot be picked for distribution. However, if the employee clicks the wrong button, the system saves the faulty goods as saleable. These errors are as common as their reasons are trivial and would be self-explanatory if you were standing in front of the old VGA monitor in the warehouse. The GUI of the WMS is so small, it is barely discernible for a warehouse employee who wears glasses, searching for the right drop-down entries in the small boxes on the monitor.

The fact that it is also cold in the warehouse due to the open ramp makes it hard for the employee to navigate the mouse over the small fields with their stiff hands. It becomes clear: a poorly implemented data entry process leads to incorrect data. But it doesn't stop there: the online shop system requests stock from the warehouse management system at regular intervals. The goods that have just arrived, and are actually faulty, are among the requested items. Accordingly, the shop shows potential customers that the item is available, so a customer orders it – and after receiving the goods, of course, submits a complaint. The result? The customer is dissatisfied, a return has to be arranged, the goods have to be unpacked and checked by hand when they arrive, a refund has to be issued, the company has to check the quality of the stored goods. We see: incorrect data triggers bad processes.

LEARNING #1:

Middleware for modernising IT landscapes must map data and processes – not just one of the two. Because processes are garbage without correct and complete data. And without well-designed and implemented processes, data is garbage. Garbage in, garbage out.

SOLUTION #2: DEMOCRATISING IT – WITH NO-CODE.

Many companies already have middleware. But who operates it? The central IT department because only employees with IT expertise can operate the software? If this scenario sounds familiar, your company has taken the first step towards modernising its IT. However, the responsibility lies with a small number of expensive IT specialists who first have to be trained in department-specific processes.

EXAMPLE: The export department would like to streamline communications between the transport management, warehouse management and customs clearance systems. Until now, the warehouse activity supervisor not only had to enter information from shipping and customs documents into the system, but also enrich it with data from the TMS and WMS. This process repeats – both for incoming and outgoing goods. We are essentially dealing with a trilateral interface where physical, accounting and legal considerations come together. However, explaining all the individual process steps and interdependencies is time-consuming. First, the IT department has to discuss ideas with colleagues from all three departments, this often brings up previously hidden problems. As the project is nearing completion, the IT team asks the departments for feedback. They respond with new requirements, adjustments are made – and the cycle repeats itself!

It is much easier and more cost-effective if employees in non-IT departments look after their own data and processes, taking a decentralised approach – even with limited IT knowledge! This resolves more fragmentation caused by the human-human interface.

Managing integration tasks decentrally calls for a **no-code-based middleware that can be accessed via a web browser,** with an easy-to-understand interface that can be opened from anywhere and can be operated

without coding knowledge[1]: instead of writing lines of code, employees configure their processes via visual elements and predefined modules.

Personal smartphones are a good example here: downloading applications, visually arranging them on the screen and configuring them to suit personal preferences is also no-code-based. This user-friendliness is standard for the Lobster_data middleware. After all, the lower the barriers to entry, the more people can participate in the digital transformation of the company. But no-code does not mean making compromises on features! As with the Windows interface, there is a beginner-friendly GUI and an expert level below it. No-code therefore streamlines efforts, without limiting results.

EXAMPLE: The more-for-less approach of no-code middleware becomes clear when considering e.g. its ability to generate readable documentation at the click of a button – a feature that not all software solutions on the market can offer. Employees setting up an interface between a company application and a partner system, or example, should always document their work in full, so that colleagues can easily pick up where they left off, should the originator not be available.

However, since writing documentation is a rather tedious task, there is potential for processes to be built without them, limiting third-party involvement. This makes a middleware solution such as Lobster_data, which creates the necessary documentation at the push of a button, all the more important!

Apart from relieving the central IT department, no-code also gives users a sense of autonomy. Department employees become citizen developers who can implement specific applications autonomously and ensure independence from external service providers.

> Before Lobster_data, we did everything ourselves, re-programming every change ourselves. Everything is now much easier – and that despite over 1,000 mappings.
>
> **HANS HOPPE**
> **HEAD OF DATA MANAGEMENT**
> **ASWO INTERNATIONAL**

No more requests, meetings, planning and feedback: no-code empowers business employees to take digitalisation into their own hands!

This advantage also facilitates recruiting: no-code software lowers barriers to entry, alleviating staffing problems. This allows for a larger pool of candidates to be considered that aren't trained IT developers, such as applicants with so-called micro degrees, i.e. individual IT certificates or coding bootcamp participants.

Interest in this category of candidates is growing, as evidenced by a survey published by Indeed (2017), which found that 80% of tech managers in the US had already selected candidates who had completed a coding bootcamp programme. 99.8% of these managers said they would do so again.

LEARNING #2:

Decentralising integration tasks succeeds with no-code software that can be operated without programming knowledge. It allows non-IT employees to implement applications independently, increases the scope of digital projects within the company and reduces dependence on external service providers.

1 Übrigens: Die häufig in diesem Zusammenhang erwähnte Vorstufe der No-Code-Technologie, das sogenannte Low-Coding, erfordert immer noch Programmierkenntnisse. Die Arbeit würde weiterhin in der IT-Abteilung bleiben.

SOLUTION #3: NO MEGA PROJECTS – BUT STEP-BY-STEP DIGITALISATION.

By using no-code-based middleware that maps data and processes as one, companies have taken the most important step towards modernising their IT. Digital transformation can then be approached in a structured manner: by developing a reliable database and meaningful workflows as well as involving all relevant players in the company. This integrative approach makes for coherent digitalisation projects. No matter the team, the department, or departmental and company boundaries. There are two methods for broaching digitisation projects: either big bang or step-by-step.

Consulting firms, IT service providers and CEOs often favour the **big bang approach.** The day X when everything will be better. That magical day when operational accounting sheets and income statements are laid side by side. However, large-scale projects ask a lot of those involved. First, you need a detailed POC. Which is broken down into to-dos for all stakeholders. If one cog in the machine is delayed, another has to wait and so on. With big bang projects, the requirements of the future have to be defined today. This pressure sets the stakes unachievably high, encourages micromanagement and leads to constantly shifting goalposts.

The **step-by-step approach,** on the other hand, is agile: a medium-term goal has all parties pulling in the same direction. Thanks to no-code, the departments implement their goals independently – first locally in individual departments, then gradually across the board. Of course, step-by-step will need realigning as well. Conversely to the big bang approach, however, it's possible to monitor concrete results. In addition, it's not so much a case of managing as it is moderating. When it comes to mega projects with extended timelines, employees don't always understand the part they play in the bigger picture. A step-by-step approach has a much more tangible effect.

EXAMPLE: Step-by-step digitalisation starts with small administrative processes such as booking company cars with a portal solution or setting up an API for transport service providers. The process owners get to grips with the no-code system around other business-critical processes. Their motivation is high, as the positive impact of the solutions they have implemented themselves makes their own work more enjoyable. Once these positive experiences have been made, digitalisation efforts can be taken up a notch and involve two or more departments. Discussing how best to design the respective process to meet the needs of both departments. What data should be brought in from which pipeline? Finally, phase three: customers, suppliers and partners get involved – and consider all areas where value can be added through digitalisation. It is not always necessary to pull out all the stops for a digitalisation process to be successful. Digitalisation can gradually diffuse through the entire company (network) and gain inherent value by involving all parties.

> Before choosing Lobster, we worked with around 10,000 different workflows. One for every customer and every supplier! With the help of Lobster_data, we have been able to bring this down to less than 100.
>
> **MICHAEL WOHLGEMUTH**
> **EDI/E-COMMERCE DEPARTMENT, GERRY WEBER**

LEARNING #3:

No-code step-by-step digitalisation involves employees in the transformation of their company with manageable time frames. The fact that there is no rigid long-term goal allows for a responsive approach with adjustable objectives, room for dialogue, a budget-conscious approach, and no need for external consultants.

SOLUTION #4: SWAP RIGID CONTRACTS FOR FLEXIBLE, SCALABLE AGREEMENTS.

Flexible costs are another benefit of agile step-by-step digitalisation. Because something that grows gradually does not need the infrastructure and computing power of a final product right from the word go.

EXAMPLE: Large-scale IT projects, often encounter the following issue: the project schedule requires IT service capacity XY to be available on day X – but in which increments should it be activated? The provider wants to send his invoice as quickly as possible even if the project is delayed. For the company concerned, this can mean paying for a project scope that it does not yet need. However, if they – conversely – want to complete a project ahead of schedule or at short notice, the company must repeat the time-consuming cycle of requesting a quote, scheduling a meeting, waiting for the quote, negotiating, etc. Although the need is already apparent "today".

Modern IT providers therefore work with scalable, flexible deployment solutions. Whether on-premise software, managed cloud solutions or the use of the company's own cloud. Companies that want to digitalise must be prepared to manage large volumes of data. It's best if the environment grows with the requirements. Like a modular chair that can support both the child and the young adult. The transition is done either by the customer or by the cloud provider. But it is not only the scalability of a cloud solution that counts. The ability to migrate between technologies is just as important: starting with on-premise, then moving to a managed cloud and finally migrating to your own cloud or vice versa.

> We chose Lobster because the program's functionalities aligned best with our requirements. Plus, the fair pricing model allows us to scale obster_data whenever we want.
>
> **WERNER KÖCHLE**
> **HEAD OF COMMERCIAL IT**
> **ARCELORMITTAL**

The services on offer should also be considered: those who prefer to leave operating a no-code middleware to the professionals, no matter how user-friendly it may be, should also be able to have their data pipelines and processes managed. Although this means outsourcing, it is in a context that is not awkward and incoherent, but where the customer stays in control and can take the reins if necessary. A third option is to take a purely consultative approach. Along the lines of: "Help me with your expert knowledge – I'll take care of the implementation myself".

LEARNING #4:

The IT market and its requirements are constantly changing. Therefore, the long-term success of a digitalisation project with external partners also depends on the flexibility of the contractual arrangements, e.g. swapping between possible deployments or using managed services.

5 REASONS FOR CHOOSING LOBSTER.

1. 15% higher net promoter score than our competitors.
2. Our incredible 98.3 % customer retention rate proves just how happy Lobster customers are.
3. More than 80 % of all customers cover all their use cases using Lobster_data.
4. Over 90 % of all Lobster customers fully integrated Lobster_data in less than 24 days.
5. Over 97 % of Lobster_data customers quickly see a positive ROI.

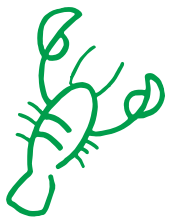
With Lobster, digitalisation is not a closed book, but accessible for every industry and companies of all sizes. **So, work smarter not harder. And stop seeing complexity and fragmentation as roadblocks on the way to modernising your IT.**

Lobster offers software solutions that absorb the tried-and-tested structures of your legacy systems, turn weaknesses into assets and let you as a company take the wheel.

With the middleware Lobster_data, which maps data and processes as one and by taking a no-code approach, you can now implement your digital transformation as flexibly as you need. In an agile contractual setting that gives your company room for manoeuvre.

You can't wait to start your own digitalisation journey?

Then get in touch:
https://www.lobster-world.com/en/contact/



At the Lobster Group, we believe in questioning conventions and pushing for digital progress. In addition to competitive pricing, we always puts people at the heart of our digitalisation efforts.

Having started out in logistics, the we have spent the last 20 years becoming the leading provider of industry-agnostic integration solutions in Europe.

Starting with the continued further development of our flagship no-code software Lobster_data, and moving on to our other products, Lobster_pro for automating business processes, Lobster_pim for efficient product information management (PIM) and the cloud-based logistics platform logistics.cloud – our software range stays true to our core conviction: **reimagining digital transformation – for every company, in every industry.**

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