

WHITEPAPER

THE 7 SUCCESS FACTORS FOR DIGITAL LABS

BY CHRISTOPH SCHMIEDINGER

Digitisation has now gained ground in even the most conservative sectors. Today, the question is no longer whether there will be changes, but what the scope of these changes will be. Anyone wishing to be among the winners of digitisation must act – but how best to deal with it?

One successful way is bundling digital initiatives in separate units largely independent of the parent organization. Whether they are called digital labs, digital hubs or digital campuses, they all pursue the same goal: making the company fit for digital change¹. But the change starts all the way at the top: top management and executives must define the mission of these digital exploratory units and ensure that they can be successful. The biggest danger at the beginning of such initiatives is that the motivation does not last long unless it is continuously rekindled. This fire includes an inspiring vision on the one hand and the right framework conditions on the other in order to lay the ground which the first successes can be achieved on. This in turn feeds the growth of the initiative after that.

WHY A DIGITAL LAB IN THE FIRST PLACE?

Those responsible in many companies wonder whether a separate unit for digital initiatives is necessary at all. Could such undertakings not be handled with classical matrix structures such as programs and projects?

Particularly when working with large companies, we very often see two key issues with the classic project setup, which in the worst-case scenario occur simultaneously:

“THE TIME-TO-MARKET OF THE RESULTS IS SIMPLY TOO LONG.”

“THE RESULT IS NOT SUCCESSFUL ENOUGH IN THE TARGET MARKET.”

Of course, there are many causes for this, but we encounter three major ones particularly frequently. These three causes depend very much on each other and the downward spiral they produce in the course of their interplay pushes the entry into the market ever further backwards: lack of focus, a lack of customer focus, yet even stricter governance for this very reason.

¹ For the sake of simplicity, we use the term “digital lab” as a synonym for all terms describing the bundling of digital initiatives.



1) THE FOCUS IS NOT STRONG ENOUGH

A familiar situation: employees are assigned – based on their knowledge – not just to one but several projects. The daily business is still to be done on the side. This is task switching at the highest level: everything is being done, but none of it with one's full attention. Amid this turmoil, the individual projects come up short – often the right expertise at the right time is missing. The overall project is inevitably delayed.

2) THE PASSION IS MISSING

Innovative, modern products are always born from a passion. It is precisely this passion that has been lost in most companies over the years. Only few employees have a burning passion for the projects that have just been assigned to them. There is no compelling vision or it disappeared into a drawer at some point. When the passion is missing, the enthusiasm and energy of the employees disappear as well. They slow down and thus the project ends up getting delayed as well.

3) LACK OF CUSTOMER FOCUS

Too much attention is often paid to a company's own interests, shifting the focus away from its customers. Yet it is customers' needs that lay the foundation for any profitable business model. Customers are also deliberately excluded from the development process and can therefore only judge the final product. However, more accurate assumptions can be made about the needs of users if they are given the opportunity to test the relevant interim product early on.

4) THE GOVERNANCE IS TOO STRICT AND TOO SLOW

Comprehensive status reporting, countless corporate bodies and many levels of escalation – that is the rigid governance reality in many companies, especially in large corporations. Those who expect quick decisions here, will wait for a long time: decisions only trickle back down slowly. And again, the project duration extends.

Since the old structures are too unwieldy, many companies see the answer in the creation of a digital lab. The hopes that are pinned on these initiatives are great, the expectations are enormous: "As soon as we have a digital lab, innovations will be churned out on an ongoing basis." But how does management ensure that these ventures will actually be successful? Besides all the opportunities, the venture naturally involves risks: expensively produced, but unprofitable gadgets are as much the pitfalls as the emergence of a complete parallel organization whose results can no longer be integrated into the parent company.

If you are considering setting up a digital lab for your digitisation initiative, we suggest that you think about seven factors that are critical to success.



THE 7 SUCCESS FACTORS FOR DIGITAL LABS

We support companies in various industries in the development of digital labs. In doing so, we have seen time and time again that the right interaction between structure, leadership and skills is essential. These three areas can be further subdivided into 7 success factors:

1. **Optimal framework conditions**
2. **Modern management approach**
3. **Suitable employees**
4. **Absolute customer focus**
5. **Lean governance**
6. **Cooperation with external partners**
7. **Transformation of the entire organization**

1) OPTIMAL FRAMEWORK CONDITIONS

Innovation may well arise out of the routine, but a digital lab needs different conditions than those in the company's everyday life. This mainly concerns

- **the organizational setup and**
- **the physical infrastructure.**

Organizationally, a separate area/unit should be established for a digital lab. Whether to spin it off into its own company remains your decision, the important point is: the inadequacies of a matrix organization – e.g, the conflict potential arising from the split focus when there are several executive managers involved – should be avoided through the organizational setup. Those employees who work at the digital lab must be able to devote 100 percent of their attention to this initiative and be clearly assigned to the management within this unit.

The physical infrastructure is understood as the work environment of the employees of a digital lab. A digital lab needs premises where creativity can unfold and an atmosphere of good cooperation can develop. These include modern work space concepts² with open office space, flipcharts, whiteboards and possibilities for retreating. Important: working material must be available quickly and in sufficient quantity – if additional flipchart paper must be approved first and proper pens begged for, the brakes are put on the best of ideas.

² See also "Organisationsentwicklung, Ausgabe 2/16 - Schwerpunkt: Raum für Wandel" and FAZ - "Willkommen im Büro der Zukunft"
<http://bit.ly/1P33HhF>.

2) MODERN MANAGEMENT APPROACH

Whoever runs a digital lab must not be an administrator. What is needed here is a personality with an aura who can win over and motivate people with his or her visions. The vision is at the heart of the initiative and the thought of it should move the participants to stay involved in the process, and, of course, provide security and orientation. The continual spreading and re-sharpening of the vision is therefore a key task of the executives – one that places high demands on interpersonal skills. The ability to convey a vision is strengthened by extensive knowledge of the industry and the effects of digitisation on business.

This visionary leadership personality is the cornerstone of a flat, product-oriented hierarchy in which a lateral understanding of leadership³ is filled with life. Here, guidance occurs by enabling, not by means of control: the managers create the necessary conditions and provide support so that their employees can achieve successes and grow.

Scrum can be such a leadership concept with which responsibility is organized. Each product of the digital lab is built by one or more Scrum teams, each run by a ScrumMaster and a Product Owner. While the Product Owner lays out the technical path, the ScrumMaster takes care of the continuous further development of the team. A Chief Product Owner could be installed for the technical decision-making competence over several Scrum teams.

The inspiring of enthusiasm and the periodic rekindling of it are two of the most important tasks of a leadership which wants to create new things. This video⁴ of the launch of a Falcon 9 from SpaceX shows in a very impressive manner how the executives' own enthusiasm is reflected in the team and what passion and emotion it can trigger among employees.

3) SUITABLE EMPLOYEES

Passion and compulsion are mutually exclusive. Those who want to create passion and enthusiasm in their digital lab find the suitable staff by way of invitation. What this means is very simple: you publicly present your vision for the digital lab – and employees whom this appeals to can then volunteer or apply for collaboration. This has the advantage that the employees are already open for a new challenge and already bring the passion along that is so important.

You need experienced experts in order to develop innovative products. In essence, the following four core competences must be covered:

³ See also "Selbstorganisation braucht Führung" by Boris Gloger and Dieter Rösner

⁴ "SpaceX Makes History" – <https://youtu.be/brE21SBO2j8>

- ▶ **Technical industry & digitisation knowledge**
 - ▶ Experts who know the industry like the back of their hand as well as forward thinkers who can envision business models of the future
- ▶ **IT and technology knowledge**
 - ▶ Experts who are skilled in state-of-the-art technologies and can be deployed as generalists in several areas (for example software developers instead of Java developers).
- ▶ **Knowledge about user experience and design**
 - ▶ Experts who model smooth customer journeys⁵ and design the usage process in a way that's simple, intuitive and graphically appealing.
- ▶ **Knowledge of processes and methods**
 - ▶ Experts who are familiar with modern creativity techniques such as Design Thinking⁶, work tools such as Kanban⁷ software, and entire frameworks such as Scrum.

In addition to the selection of employees from your existing pool, the focused handling of digital opportunities also means the targeted recruiting of outside experts. Many professions required in a digital lab are still rarely, or not at all, found in companies. These include User Experience Designers, Data Scientists⁸ or Growth Hackers⁹.

Suitable employees are prepared to work in interdisciplinary and cross-functional teams. If teams are equipped with all the necessary skills required for solving the problem, then dependencies can be reduced and all the necessary expert perspectives can flow into the design of the product. This ensures that the best possible product is developed within the required parameters and that risks are identified and managed early on.

All of them should share a positive, open attitude towards digitisation as well as the ability to recognize the opportunities within this challenge. Mutual respect regardless of hierarchies, the development of an error culture and the support of continuous further education are also characteristics of an innovation-friendly culture.

4) ABSOLUTE CUSTOMER FOCUS

Putting the customer and user at the center of product development is essential in times of digitisation. This is achieved, for example, with design thinking: through continuous feedback from users, first prototypes are developed in iterations from hours to days. In doing so, the focus is on the user's observation and the interaction with the prototype in order to identify and address existing (but not consciously perceived) needs.

⁵ See also "Von User Experience Design, Agilität und Personas" – <http://bit.ly/2qVEM9M>

⁶ See also "Von Design Sprints und anderen Design Thinking Ansätzen" – <http://bit.ly/2vpvBn6>

⁷ See also "Kanban: Successful Evolutionary Change for Your Technology Business" by David J. Anderson

⁸ FAZ – "Digitalisierung – Irgendwas mit Daten" – <http://bit.ly/2cflhUG>

⁹ GrowthHackers – <https://growthhackers.com/>

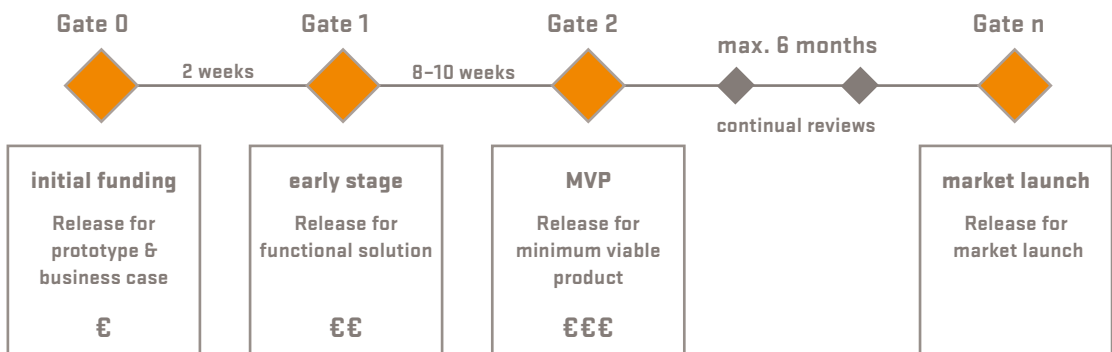
Empathy for the user is an essential success factor in the further course of product development. This empathy can be developed, for example, by personas¹⁰. Personas are fictional representatives of a target group, which are described by a resume and individual characteristics. It is important that these personas are generated or at least validated in a data-driven manner in order to avoid incorrect decisions. In the development process, personas are used to model customer journeys, prioritize target groups and identify specific needs in the form of functionalities and/or user interface designs.

Ideally, real users are directly integrated into the iterations of the product development. In this way, the development team can get feedback early on and can ask questions. The real users should also always be compared with the personas in order to either verify or reject the hypotheses. By the way: the integration of users is not exclusive to the development of B2C products, but is also worthwhile in the B2B area.

5) LEAN GOVERNANCE

One of the best reasons for outsourcing a digitisation initiative to a digital lab is the deliberate streamlining of the governance. In principle, a Product Owner should be commercially responsible for each product or opportunity. He or she has sole decision-making power over the scope of the product within the predefined vision and the associated constraints.

Management has the role of the venture capitalist for the individual products and opportunities which can be controlled with a lean variant of the stage gate process. In this concept, the risky (due to being innovative) opportunities of the digital lab are financed in much the same way as venture capital financing rounds for start-ups: based on current information, more budget is gradually released in the gates. It is important that these decisions are made quickly and based on real data such as tests or surveys.



¹⁰ See also "Von User Experience Design, Agilität und Personas" – <http://bit.ly/2qVEM9M>

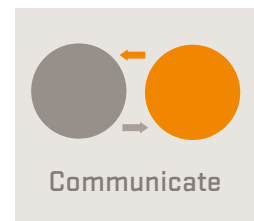
The figure shows an exemplary stage-gate process according to the venture capital principle. In the initial gate (0), the Product Owner pitches his or her product idea and possibly receives an initial small financing. With this budget, e.g. a first prototype can be built and tested together with users. The result of this first phase and the feedback on it lead to the next gate (1), where the next major funding is pitched for. In the case of a positive decision, a first product can already be developed with this budget. The process is continued until the product is placed on the market. As a rule, this process should not take longer than nine months for innovative products. At the same time, the process leaves the freedom to decide at each gate not to pursue the opportunity any further. The capital employed can thus be limited and recorded as costs for information acquisition.

It is key to maintain the focus of the digital lab which means not to develop too many ideas at the same time¹¹. An agile portfolio management helps in this process: The projects currently being handled are visualized on a board using the stage gate process, for example. This provides an overview in the truest sense of the word and it becomes clearer which value-oriented decisions should be taken. It is also useful in this context to identify the bottlenecks in an initiative by means of the theory of constraints¹² and to remedy these bottlenecks as best as possible

6) COOPERATION WITH EXTERNAL PARTNERS

External perspectives help one break out from a tunnel vision and point to pitfalls that would otherwise go undetected. Emerging startups bring fresh perspectives and therefore cooperation could be an appropriate approach. One should be aware of the fact that there are different possibilities for a cooperation, and each of these should also be evaluated financially. There are three main forms of cooperation with start-ups:

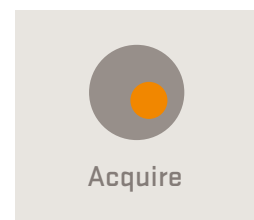
1. Communicate: In the course of conferences, community meet-ups or informal meetings, information and knowledge are exchanged in order to learn from each other. The cooperation is limited to this exchange and is not further intensified. Established companies thus keep up with the latest developments and can anticipate trends.



2. Collaborate: Cooperation with a start-up creates a business relationship which is designed according to the purpose pursued. If it is all about the technology of a start-up, the licensing and use of a white label solution or a software-as-a-service approach is an option. A variant of closer cooperation is the creation of an accelerator¹³ or a joint venture: the startup is supported, for example, by providing infrastructure.



3. Acquire: If the objectives of the start-up overlap with those of the company, a purchase can be considered. In this case, the integration strategy is essential so that the key players of the purchased company remain in the team for the long run along with their know-how.



¹² See also "The Goal" von Eliyahu M. Goldratt

¹³ Institution which helps startups to develop quickly through support/coaching (see also <http://bit.ly/2a8BDvF>)

A digital lab can benefit from any kind of cooperation with partners - usually a combination of all variants is the key to success. But you do not have to go the whole way immediately. Start with small experiments as part of your initiative, for example, by using a startup as external support. This allows you to evaluate the benefits, but also allows a spark-over of the startup's spirit to your digital lab.

7) TRANSFORMATION OF THE ENTIRE ORGANIZATION

A digitisation initiative – even when launched in a digital lab – is to be integrated into the parent company on a permanent basis. As a rule, the digital lab needs support from the existing line organization – examples are the interfaces to legacy systems¹⁴ or the use of shared services such as legal experts. The differences in mindset, working style and development speed will necessarily result in conflicts which need to be addressed. If this is not done in time, the gap will become increasingly bigger. In a worst-case scenario, the digital lab may even be repelled by the mother organization.

The fact is that the parent organization must also move and be gradually and continuously developed when a digital lab is established. It all starts with an open information policy: from the outset, the objectives of the digital lab and the medium-term strategy for positioning this unit in the context of the entire organization should be clearly communicated. The obstacles identified in the digital lab should serve as indicators of further development potential in the overall organization. In addition to the rapid resolution of these obstacles in the digital lab, it is therefore always important to evaluate how a long-term solution can be designed and implemented for the entire organization. And finally, the continuous exchange between colleagues of the digital lab and the parent organization is crucial. Beyond the mere exchange of information, work assignments may help to understand the positions of the other group and thus help create an organic flow of information.

borisgloger consulting supports several large companies in their digitisation initiatives and in the development of digital labs. Based on your initial situation and your goals, we commence our work at various points:

- ◆ Together, we develop a sustainable digitisation strategy, work with management on an agile understanding of leadership and develop a suitable organizational set-up for your initiative.
- ◆ In a second step, we work on the necessary framework conditions to ensure the best possible start of the initiative and the employees involved in it.
- ◆ Operationally, we build up your team's knowledge of agile work, user-oriented product development and modern technologies so that your employees can act independently as quickly as possible.
- ◆ Finally, we support you in effectively anchoring agile values and practices across your entire organization so that the organization can react to future market developments and customer needs in a nimble fashion.

¹⁴ Existing legacy systems that have grown historically and are therefore usually difficult to expand.

Let's talk about your challenges!

The trust between you and us is the absolute prerequisite for the successful implementation of your digitisation strategy. We will gladly visit you for a non-binding first meeting and show you who we are, how we work and what we can do for you. We look forward to it!

Your Contact Person: Christoph Schmiedinger

As systems engineer, project manager and Product Owner, Christoph Schmiedinger has successfully carried out several complex, scaled development projects in the safety-critical domain with agile methods. This expertise is now incorporated into his work with major banks, which he accompanies in the course of digitisation initiatives. He advises management on the necessary strategic measures and develops the appropriate implementation measures.

E-Mail: christoph.schmiedinger@borisgloger.com

LinkedIn: <https://at.linkedin.com/in/christoph-schmiedinger-083b268b/en>

XING: https://www.xing.com/profile/Christoph_Schmiedinger

About borisgloger consulting GmbH

Based in Baden-Baden and Vienna, borisgloger consulting GmbH is one of the leading management consultancies in the field of agile change management and agile product development in the DACH (Germany, Austria, Switzerland) region. The focus is on the management framework Scrum. Founder and Managing Director Boris Gloger is the world's first certified Scrum trainer and has trained over 5000 managers and project teams in this iterative process model.

borisgloger consulting offers training and consulting for specialists and managers in the area of agile management. Founded in 2008, borisgloger consulting GmbH currently employs 40 people.

More information, visit www.borisgloger.com

borisgloger consulting GmbH

Lichtentaler Straße 7

D-76530 Baden-Baden

T +49 (0) 72 21.398 737-0

F +49 (0) 72 21.398 737-10

office@borisgloger.com

www.borisgloger.com

