



# FROM SOFTWARE FACTORY TO REALDOLMEN DEVOPS FACTORY: why collaboration is the business model of the future

Rapid technological progress has changed our world forever. Thanks to the Internet and globalization, everything is within our grasp, and so we want to have everything instantly. JIT – Just In Time, also applies to end users, employees and consumers. Add to that the impact of disruptive start-ups and market saturation, and clearly the market has become difficult for companies to predict.

Software development is also unpredictable, because of its complexity, especially in a market where today's product has already been outdone by what is coming out tomorrow. Traditional development models deliver less and less added value. In these models, each phase of the process only starts when the preceding phase has been successfully completed, resulting in a lengthy overall timeline, and a late point of acceptance. Working sequentially and with limited contact with the client, leads to massive "handover waste", misinterpretation of endless documents and the very real risk that what is delivered no longer matches the actual needs of your client or the end user.

Unpredictability demands empirical behavior. If you were wandering around lost in the middle of the jungle, you would re-orientate yourself every few hundred yards by checking the position of the sun in order to find your way out. Short cycles of taking action, measuring and re-orienting, in consultation with the client, the service provider and the end user will make sure that you develop exactly the software that is required, without wasting time and money.

In this white paper, we demonstrate the value of the collaborative models used in a software factory. We outline the situations where this kind of model can drive your business to a higher level. Above all, we hope that the insights you gain from this white paper will inspire you to take action with both smaller and larger ideas.



# THE CHALLENGE: THE CONSEQUENCES OF DIGITAL DISRUPTION ON BUSINESSES AND PEOPLE

## Time to market: are you the quickest?

The new credo of "customer focus" is taking root more and more each day. Until a few years ago, it was the manager who decided on new IT projects within a company. This approach has now evolved to where the company's users are now asked what they want from IT. However, in order to be future-proof, you need to go even further than that. Your future customers will be generation Z, who were born with the digital gene. Without exception, they all want to work and live the digital way. You therefore also need to find out how your customers want to use digital technology and how you can make sure your business meets their desires.

The unpredictability of the market, with its broad accessibility and vicious competition, demands an ever faster time to market for both products and services. Today's hot tip needs to be available today, and preferably yesterday, because tomorrow it will be old hat. The classic sequential waterfall development model for IT projects falls woefully short of this target.

So what should you do?

Simple, everything needs to be faster and simpler.

You need a team that can quickly draw up requirements, distinguish what is essential from what is nice to have, anticipate how your client or end user is likely to change their minds, and adjust the requirements on the fly to changes in the market.

This also requires a different budget model. Assigning large amounts about a year in advance to the development of a project with a "big bang delivery" just increases the risk of spending too much money on something nobody wants. Flexible small budgets that you review after each intermediate delivery will save a lot of money in the long run.

You need an IT environment that supports this quick way of working and enables more automation of software development. The collaborative structure needs to become much simpler, with no hierarchies and using fixed teams with a "collective intelligence". No dyed-in-

### FROM A TWEET TO A SOLUTION IN 6 DAYS: A TEXTBOOK EXAMPLE OF RAPID TIME TO MARKET

Tesla drivers apparently love to get together over a leisurely coffee while their cars are hooked up to the recharging station. Even after the battery has long since recharged. The tweet sent about this by an irritated Tesla owner to Elon Musk not only received a reply within a few minutes, but also a solution in the Tesla software within six days.

Whether this quick fix is the right thing for the long-term will be decided by evaluating it. In any case, Tesla impressed a lot of people with its swift reaction and definitely connected positively with this customer.

Source: <http://bit.ly/2lOQiAy>



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the-wool specialists with a possessive attitude, but self-managing teams that divide up a number of tasks so that the workload is evenly spread and the team as a whole can be flexibly deployed.

An IT environment with this degree of flexibility is not something you can conjure up overnight in your company.

Collaboration models that go well beyond traditional IT outsourcing, such as software factories, have teams on stand-by to initiate projects with you and help you speed up your business.

## Digital maturity. Do CIOs need to go back to school?

Facing up to disruptive and flexible competitors forces companies to undergo a digital transformation – a process that is best managed by an expert. It would be a fatal error to think that digitization is not all that urgent. The customers of tomorrow are not just the "digital immigrants" in their forties, who can work with email, twitter and Facebook, but still remember how to send a fax. As mentioned above, there are also the "digital natives" or generation Z. The young people who were born with a smartphone in one hand, and who prefer to manage everything through a digital portal. Things

like declarations or inquiries to public bodies, but also a digital dossier for a permit to build a house and a digital insurance claim. The next generation of customers will always want digital portals in all areas of business.

Who is best placed in your company to lead the transformation?

Your CIO has earned his or her place in the company's top management over the years, but now CDOs (Chief Data Officers and Chief Digital Officers) are touting their digital credentials ever more frequently. Can your CIO lead the digital transformation, or are you better off scouring the job market for a CDO? Doubts either way.

From the "Digital Maturity Survey" (<http://bit.ly/2lC7Nqv>) from Delaware in 2015 it appears that many Belgian companies are scared of digital developments.

- 23% of the companies questioned believe that digitalization is too complex for them, and that if you start down this road you need to go 100% digital overnight.
- 17% think that they will encounter technological challenges and feel intimidated by the new, unknown technologies.
- And yet 89% of companies think that their digital activities will increase considerably in the coming years.
- Though only 8% have a digital support department.

## DIGITAL GROWTH – BUT HOW?

How can you steer digital growth in the right direction? We will summarize a number of focal points that Delaware also found from its research.

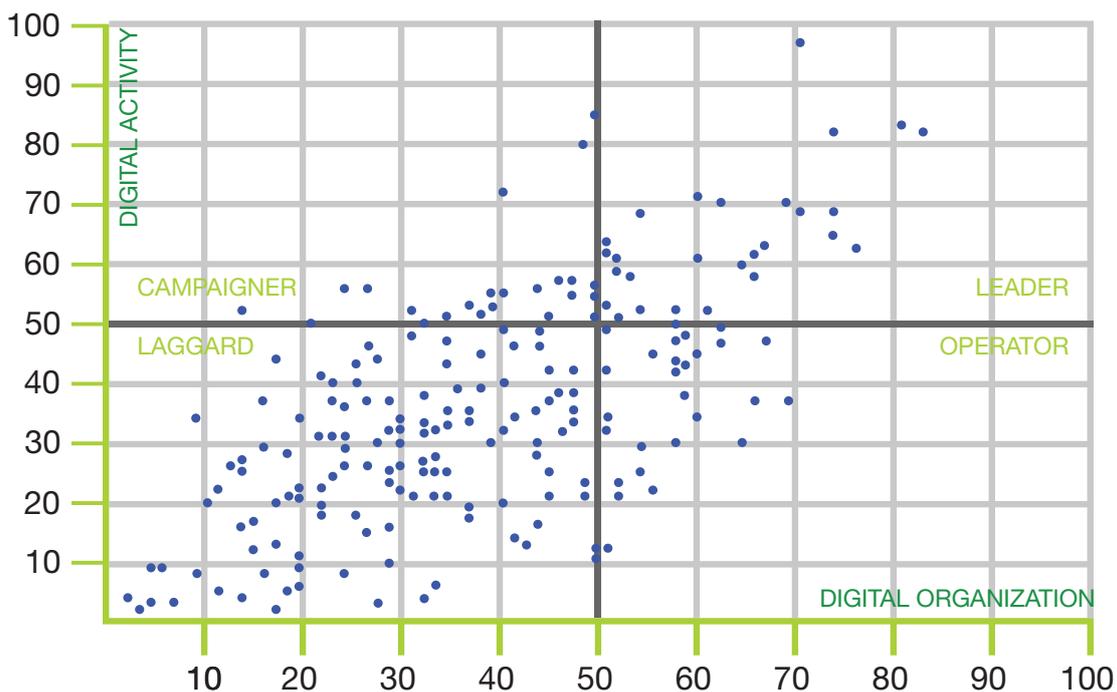
Using good **tools**, is one way. The right tool is the leverage for a consistent user experience. We are talking about advanced systems such as Product Information Management Software and Digital Asset Management Software. If these application names mean nothing to you, it is time to invest in some research and potentially a purchase.

Embracing **mobile working** is a second point to address. If your customers want to be able to buy anywhere and any time, make sure that your communication with them is also available anywhere and any time. Also, that you yourself are able to provide the right information

"To meet our customers' demands, we have to invest in a customer experience that is fun, easy and efficient. To do so, we need to reach a higher level of digital maturity."

(source: Digital maturity survey 2015, Delaware)

# THE DIGITAL MATURITY OF BELGIAN COMPANIES MAPPED



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anywhere and any time to the right customer at the right time. So, go mobile.

A clear **strategy** for the future for your company is also a prerequisite for digital growth. Preferably linked to setting up a "digital support department". The obvious focus of this department will help your employees to develop the necessary flexibility and broaden their world view.

We would like to add to this research what is probably the most important part, namely unwavering **focus on your customer**. Digital maturity means embracing change. Developing flexibility in order to keep abreast of the changing needs of your customer that are stimulated by the market.

## War for talent

From the above focal points, it is clear that plenty of work is needed to become digitally mature. You not only need to go out and look for the right software to support you, but also the right people to support you.

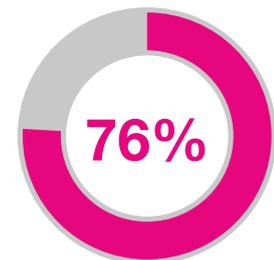
Of course you can look for staff who specialize in the latest technologies and market mechanisms, But the War for Talent rages on, as everyone now needs digital know-how. And each recruitment process eats up your time.

Innovation also involves constant change. The most agile companies are now the most successful, but that also means that every time the market changes, you need to have the right skills available in order to exploit it.

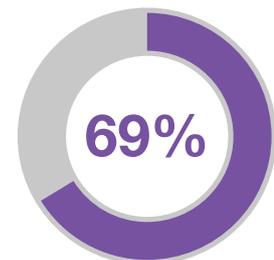
This is no easy task for the average small to medium-sized company.

One issue that arises in many companies today makes the digital challenge and the "war for talent" clearly visible. What do you do with your expensive legacy systems? According to a survey by Nutanix (<http://bit.ly/2lszZeF>) of 200 companies in the Benelux countries, it appears that at the end of 2015 only 13% of the IT professionals interviewed believe that their present IT infrastructure was suitable for dealing with the ever-changing demands of the present market. You can barely find the necessary skillsets on the labor market to deal with these out-of-date systems, and they cost a packet in license fees, maintenance, and integration with more modern applications. But there are often core systems running on mainframes or Unix, and that is not something you can just change overnight. Outsourcing the management of legacy systems and simultaneously phasing them out and starting to move over to new systems under a well-thought out, collaborative model with your provider can provide the cure for this.

## PERCENT REPORTING IMPROVEMENT SINCE DIGITAL TRANSFORMATION

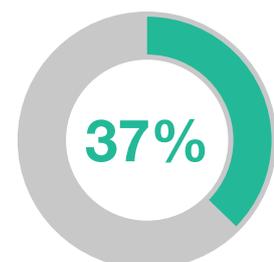


DIGITAL REACH



COMPETITIVE DIFFERENTIATION

## PERCENT IMPROVEMENT SINCE DIGITAL TRANSFORMATION (MAIN AVERAGE)



GROWTH IN NEW REVENUE/NEW REVENUE SOURCES



# THE SOLUTION: STRONG TOGETHER

Bringing in scalable help in the form of a software factory is a good alternative way to review and develop your digital transformation ideas, as well as to increase the digital maturity of your company.

You join an advanced model of cooperation with an existing platform, professional tools and extensive resources. The main advantage of this model is that you are closely involved in the development of your ideas right from the start. You do not just convey your requirements to the project team; you are part of the team and you contribute to the development. As the process continues, you give feedback, you make adjustments and you determine when the software goes into production. You do all this with the support of the right competencies, which are supplied by your own company or by the provider.

In the Realdolmen DevOps Factory, for example, we create a joint multidisciplinary team, where business and IT are structurally integrated. The collaboration and ongoing dialogue with you as the client is an integral part of this. Software development, tooling, method-

ology and coaching are customized to your needs on this platform, in discussion with you and according to the actual demands of the market.

## Going for a Minimum Viable Product

Magazines and online articles talk endlessly about Scrum teams, user stories, daily stand-ups, product owners, etc. This is because agile development is genuinely a development method with many benefits. Agile is a way of thinking that is almost completely the opposite of the more traditional models.

You start by asking the question: how can I offer a solution as of day 1 on this changeable market, and so generate the maximum "value"? How do I get exactly what I want given a fast-changing market reality?

Not like  
this ...



Like  
this!



Bron: <http://bit.ly/1QnUnVO> - Henrik Kniberg



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The answer: simplicity and adjustment. Start from the minimum viable product.

For the development of a new webshop that might be, for example, a simple landing page with the company name, logo, company colors and a field to capture an email address. This is a simple example to help explain, so that you do not fall into the mistake that people frequently make when thinking about agile development: a minimum viable product is not a half-finished product!

If you apply the use of an MVP correctly, including for large-scale projects, then it is the ideal way to be able to show your business colleagues fast results and help lift a little of the pressure off the CIO's shoulders. Regular deliveries also require the close involvement of the business in the development process, which will only benefit the end result.

Such a simple start makes it unnecessary to write all possible functionality for the coming year. The market needs will have changed by then anyway. You also do not need to set up a complete infrastructure and database yet. Your development is step-by-step. After every step, you evaluate the result and you adjust. This does not only save you time and money; it also ensures that you only develop what your customer needs.

When you combine agile development with a software factory, you gain leverage that allows you to turn ideas into projects very quickly. Because you are involved yourself in development throughout the

process from start to finish, and you take an iterative approach, you get exactly what your users or customers need.

## The cost of shelfware tools

The final argument to convince you of customer centric thinking, is one we found in a recent survey by 1E. From their Software usage and waste report 2016 (<http://bit.ly/2lZQsse>) it appears that a mighty 38% of software that is purchased or developed is used either rarely and/or never. This adds up to a wasted 34 billion dollars.

Do you need any more reasons to just develop what the user wants?

### THE HIGH COST OF UNUSED SOFTWARE





# WHAT IMPACT DOES THIS WAY OF WORKING HAVE ON YOUR COMPANY?

Collaboration and co-creation may well be the business model of the future, that does not mean that it is easy to just reshape your company strategy overnight. The new business model also has an impact on company results – a positive impact – and on your employees who may need to start working and thinking in a different way.

## Employees with a digital gene

The good news here is that the younger generation of employees who are gradually coming into your company were born with a digital gene. They are smartphone and tablet wizards. They communicate in a lightning fast chat language spattered with emoticons. This is a generation that has a strong visual focus, they grew up with selfies, YouTube videos and chat apps. The virtual platforms of a software factory, and the way that analysts, developers, the business, testers and key users have to interact constantly with each other in the project team is what this generation of employees grew up with.

These young people also prefer to work together in small groups without strong hierarchies and with a lot of responsibility. It is the whole project team that works for the best possible result, not the individual employee or provider or client.

So we can learn from the next generation of employees that collaborative models deliver success.

## A software factory has its own dashboard.

Using a software factory as a development method brings people and tools together, all the team members from all of the client, the

partner companies and the nearshore colleagues. This close collaboration in a single team of which you are an equal-ranking member ensures that by making constant adjustments throughout the development process, fewer mismatches occur between the dream and the solution, and applications can also be delivered more rapidly.

To make this process a success, good communication and integration tools are essential.

## Better and faster user adoption

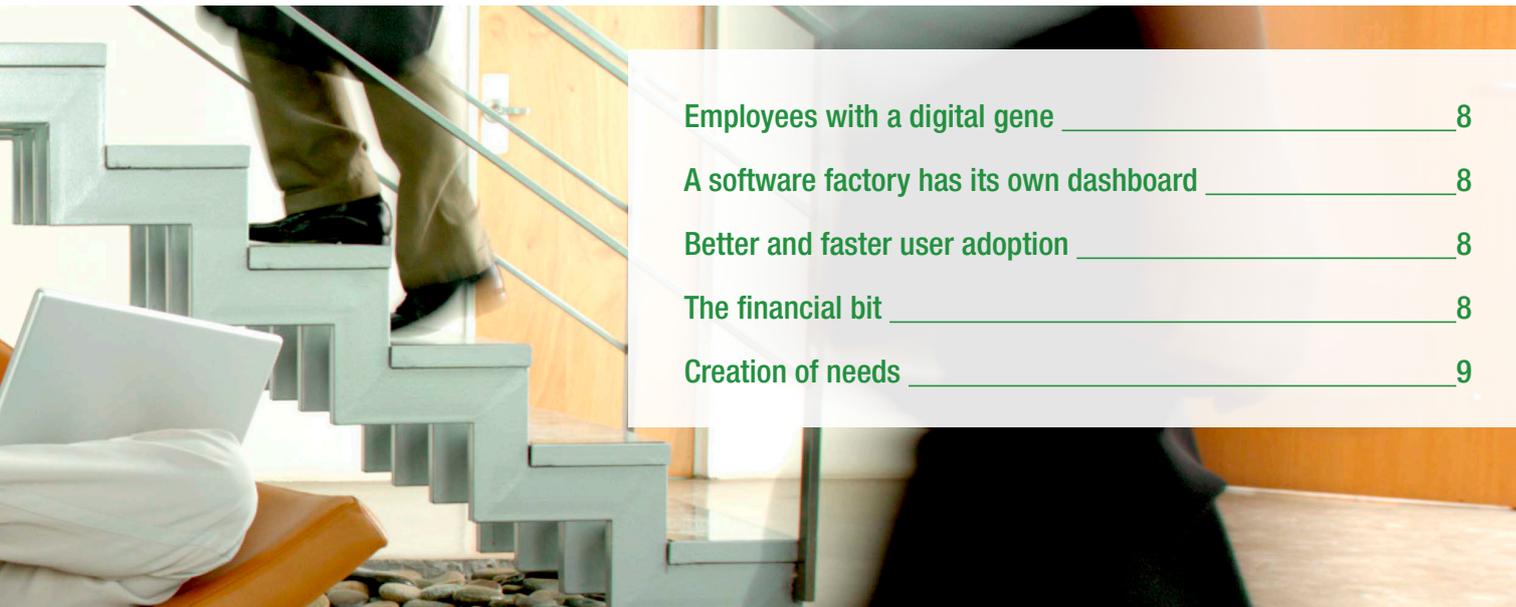
Collaboration in a software factory produces another important advantage, which is often overlooked. The close cooperation between business experts and IT experts ensures that your end users – or their representatives, the key users – are involved in new projects from the very beginning. The new tool, procedure or software is therefore tested almost automatically and is no longer a surprise to the end users during the rollout. This means that the test and acceptance period lasts just 1 sprint instead of months.

## The financial bit

Some financial consequences of collaborating in a software factory are already well known: the benefits of scale and the short iterations push the financial scales in the positive direction.

What may be less well known, but equally interesting are the flexible contracts. If the evaluation following delivery of an iteration shows that the goal has been reached, or that the needs of the target public have changed in the meantime, then you step away from the project<sup>(\*)</sup>. Agile.

<sup>\*</sup> Possibly bound by contract



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The end result is a faster time-to-market for your project, so that you can apply the remaining time and budget to additional wishes, yours or your customers'.

## Creation of needs

We will round off this chapter with what we believe is one of the nicest benefits of collaborating in a software factory: "needs creation". A collaboration platform supports you from the first flash of an idea, and makes it possible to create a need that did not exist before.

Take Uber, for example. Most people were not exactly waiting for a taxi company to make use of their neighbor's car. Until one day, someone toyed with the idea of making all those cars in all those garages available to society. In order to develop such an idea, you need technological support: a database of available cars, a phone system, an online reservations platform... The creator of Uber searched and found their technological platform and today, there is customer potential with a real need for an Uber taxi.

## THE REALDOLMEN DEVOPS FACTORY'S DASHBOARD

The task board with the colored post-its is a well-known image of agile software development. Team software in combination with devices such as the i3Huddle take this method into the digital era. Gather your team members around the board either physically or virtually, discuss the scheduling and use your fingers to move data around the board. Touch screens are especially suitable for people who are "on site", but others can also see the task board and can make changes to it during the conference call.

If you want to discuss the project in a small group without any disruption, the Realdolmen DevOps Factory in Ghent can make available so-called "engines". These are seating areas for two to four persons, which also include a videoconference screen to involve other team members and partners on location in the discussion. All the data on the digital task board are also available and editable with this tool.

The Realdolmen DevOps Factory uses a number of nearshore experts. Because cooperation is a key concept in agile software, the team members have the opportunity to be connected with each other permanently live. The big screen for "permanent presence" in Ghent shows you live images of our nearshore colleagues, for example. They in turn also see the team members in Ghent. They can even see them enter the office. This makes going to see someone virtually to ask a question the most natural thing in the world in location-independent projects.

Communication in virtual teams requires the base information to always be up-to-date everywhere. This is ensured by integration within the toolset: because the data from different tools are integrated with each other, all the information about the application you are developing will evolve with the project and will always be up-to-date and accessible to everyone.

In addition, there is an integrated view available to everyone on the project of the budget, scope, planning and quality. Using the dashboard you can track KPIs, availability (in development, test and production) and performance.

# DECISION

The digitized customers of tomorrow are already thinking much more quickly than ever before. Their needs are changing with the evolution of technology. If you want to respond to this as a company, you need to be strong enough to be able to experiment with your ideas.

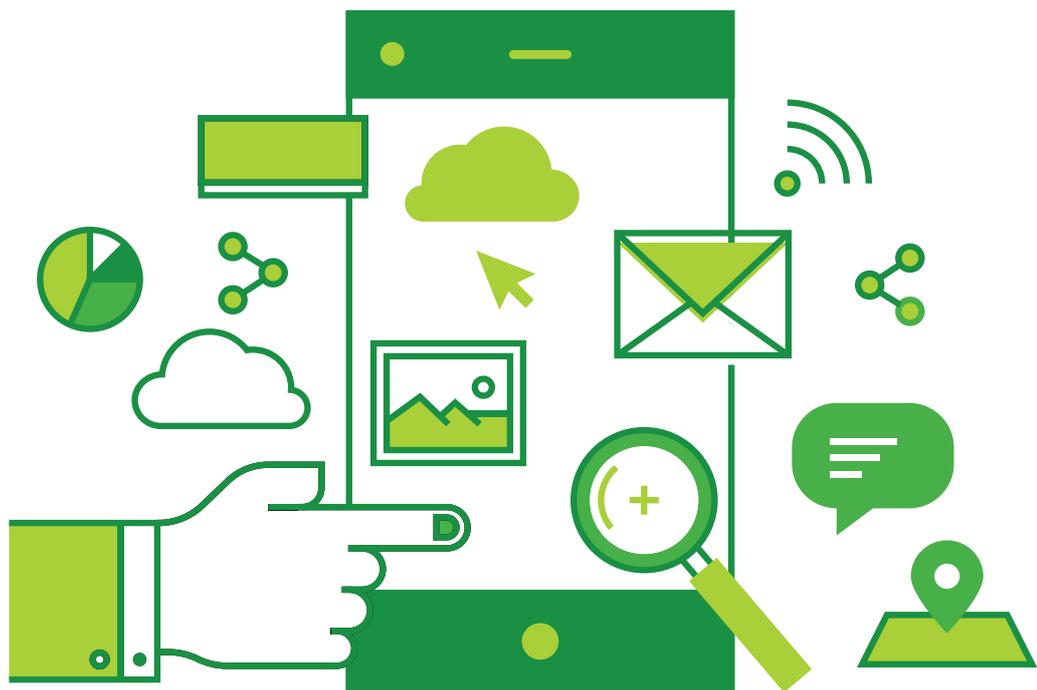
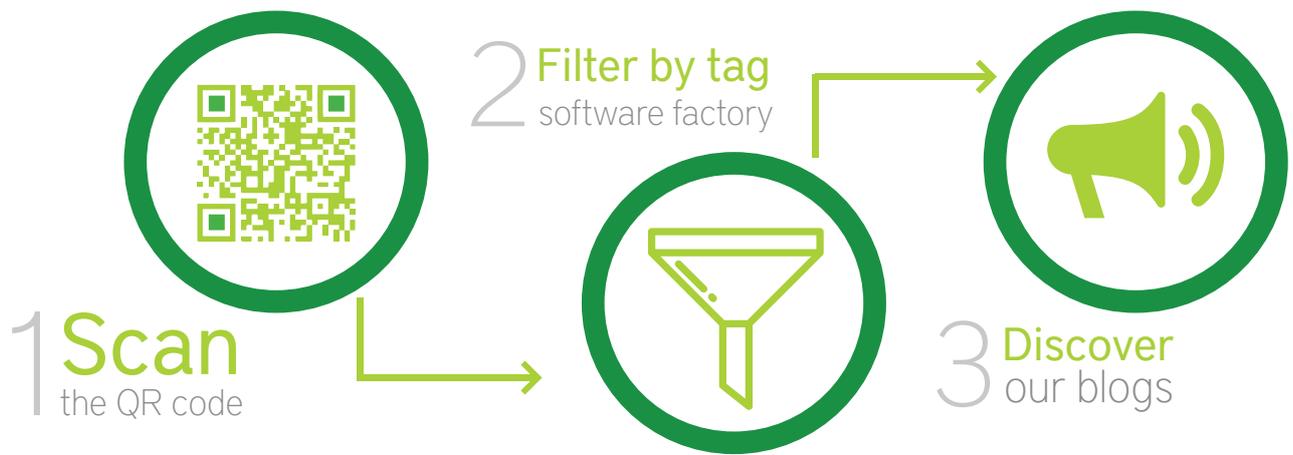
A collaboration model such as the Realdolmen DevOps Factory offers your business a platform for trying out an idea and investigating what is and is not possible with prototypes and small sprints.

Do not leave your ideas lying in the drawer, but start creating the next new need now that will make your business grow.

## THE REALDOLMEN DEVOPS FACTORY:

- Thinking together
- Moving ahead step by step together
- Building software together
- Innovating together
- Responding more quickly and flexibly to questions from your customers
- Anticipating new developments, trends and innovations
- Fast time-to-market with interim working deliverables

# BLOGPOSTS



## About the Realdolmen DevOps Factory

RealDolmen is your partner to take end-to-end responsibility for your entire IT environment. Together, we will investigate which departments you can and want to outsource. For more information, feel free to contact us at

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to get there, together