Overtaking the Future

Danish Businesses Sprint their
Way to Growth

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Foreword

By Christian Bason, CEO of the Danish Design Center

The Danish economy and Danish SMEs are among those which have best weathered the coronavirus pandemic so far. But we are facing an uncertain 2022, and the world is once more holding its breath, as COVID infection rates continue to rise. Now is the time to learn from the earliest phases of the pandemic and identify concrete solutions which can help Denmark's many SMEs through the next phase.

There is one thing we know for certain: The ways in which we produce, transport, and consume are going to change. Digitization is no longer just a matter of competitiveness – it is an indispensable tool for anybody who wants to steer their business or enterprise through an unpredictable future.

Over the last three years, DDC - Danish Design Center has worked with several leading design agencies in the Sprint:Digital project to help more than 100 Danish SMEs future-proof their businesses by developing new digital services or products. The process is known as a design sprint and involves mapping out, developing, and testing a brand new digital solution over the course of just five days. The magic formula behind this ultra-compact program is design methods that shorten the distance between thought and action, effective collaboration, and firm user and customer focus throughout the entire process. The effect has been significant: a quarter of participating businesses report that the process has already yielded concrete results in the form of increased turnover, more customers, exports, or job creation, while 66% expect to attain these results in the future. Moreover, 75% expect that the sprint will increase their growth potential going forward. A remarkable outcome after a five-day development process that for many SMEs would have taken months to implement independently. Subsequently, 96% of the companies confirm that they could not have attained the same level of value creation without support. As one company owner puts it in his evaluation:
"*Design thinking and sprints are effective methods. I wish that I had been introduced to them sooner in my life as a self-employed entrepreneur. Without a doubt, they can accelerate development processes as the product concerned becomes fully defined.*"

The effect was amplified during the 2020 coronavirus lockdowns. Overnight, SMEs were confronted with a surreal reality in which physical encounters bet-

ween people were prohibited or considerably restricted in scope and scale. Hair salons had no customers, local restaurants were forced to close their doors, and bookings were canceled at hotels all over the country. Sadly, many businesses were forced to close permanently as a result of the lockdowns. But others found new ways to ensure the survival of their businesses. When we opened registration for a number of special corona sprints in the spring of 2020, all spots were booked within one week. One of the participants was Jyllandsakvariet, and for them, the sprint helped to save their peak season in the summer of 2020. But design sprints can also be used to gain a long-term competitive edge. This was the case for sustainable furniture start-up TAKT who describes on page 17 how they were able to build a platform for the recovery of used items of furniture to be recycled. TAKT also shows how digitization can be a decisive driving force in the green transition and more sustainable growth.

As sprint founder Jake Knapps succinctly puts it, a design sprint is an effective time machine for developing and testing future products in a very short span of time. Many Danish SMEs have already benefited from this and no doubt many more will be able to benefit from such a machine in the future.

It has been a great pleasure to work with so many innovative and bold Danish SMEs and designers, and to experience the strong willpower and creativity that can emerge in people when they are given the capacity and the platform to create something new.

It is entrepreneurs like you who ultimately ensure future growth in Denmark, and we look forward to helping even more of you on your continued journey to growth.

"Design thinking and sprints are effective methods. I wish that I had been introduced to them sooner in my life as a self-employed entrepreneur. Without a doubt, they can accelerate development processes as the product concerned becomes fully defined."

Foreword

By Simon Kollerup, Minister for Industry, Business & Financial Affairs, November 2021

There is huge potential for a more digital future in Denmark. The high level of digitization that we have here in Denmark has been crucial in our approach to the COVID-19 crisis which has underlined once more the need for digitization. It has become yet even clearer how digitization can exert a positive effect on the productivity and growth of companies. Digital tools have played a prominent role in helping companies to maintain functions and to restructure parts of their businesses. It is for that reason that we must use new technologies and facilitate the ability of companies and society at large to think digital.

If we dare to invest and seize the opportunities offered by digital technologies – not just in the wake of the COVID-19 crisis – then we can strengthen Denmark, Danish companies, and the Danish economy into the future. For even if Denmark is one of the most digital countries in the world, we know that Danish SMEs are generally less digital than larger corporations. Two out of every three private-sector jobs are in SMEs, and so we must support these companies in their digital transformation and in taking a firm hold on the opportunities that digitization opens up to us.

Companies need the right framework in place to make a good start in their digital transformation. Thus the programs run by Sprint:Digital, which help Danish small and medium-sized enterprises to innovate technological solutions and to digitize their businesses, are a crucial key in unlocking the digital potential of our economy.

Within government, we are keen to collaborate with private industry to ensure that Denmark can grasp the opportunities that digitization presents to us as a society. That is why in the spring of 2021, we established the Digitization Partnership which has presented recommendations on what important steps we should take next in the digitization of Denmark.

The government is now in the process of following up on these recommendations as part of a national digitization strategy. The forthcoming digitization strategy shall help even more companies to reap the fruits of digitization, allow Denmark to retain its digital lead, and to support the digital industries and jobs of the future.
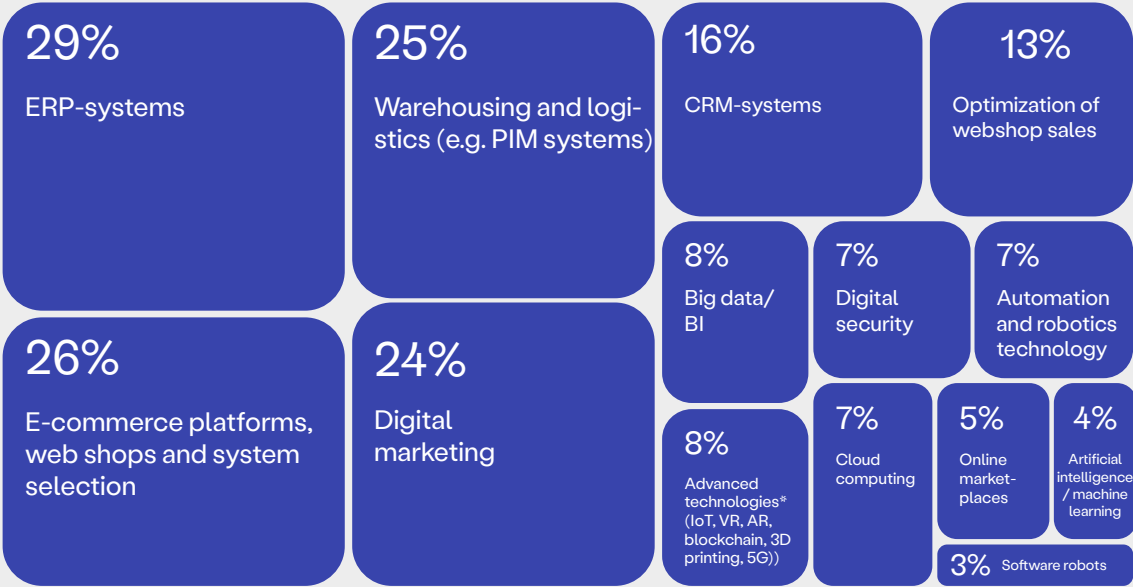
The time has come to press ahead with the digital agenda – for our digital transition is our path into the future. Enjoy your reading!

Danish SMEs and digitization in numbers

Danish SMEs have the will to embark on digital journeys and digitization leads both to increased turnover and greater productivity. This is according to data from the Danish Business Authority's SME:Digital program of which the Sprint:Digital initiative forms a part.

Focus on technology in applications to the SME:Digital grant program

29%
ERP-systems

25%
Warehousing and logistics (e.g. PIM systems)

16%
CRM-systems

13%
Optimization of webshop sales

8%
Big data/BI

7%
Digital security

7%
Automation and robotics technology

26%
E-commerce platforms, web shops and system selection

24%
Digital marketing

8%
Advanced technologies* (IoT, VR, AR, blockchain, 3D printing, 5G))

7%
Cloud computing

5%
Online marketplaces

4%
Artificial intelligence / machine learning

3% Software robots

* Note: All of these technologies are each named in fewer than 3% of all SME:Digital applications.

The grant from SME:Digital was a decisive factor in our company choosing to procure private consultancy

1,8%	1,6%	6,6%	19,7%	70,4%
Strongly disagree	Disagree	Neither nor	Agree	Strongly agree
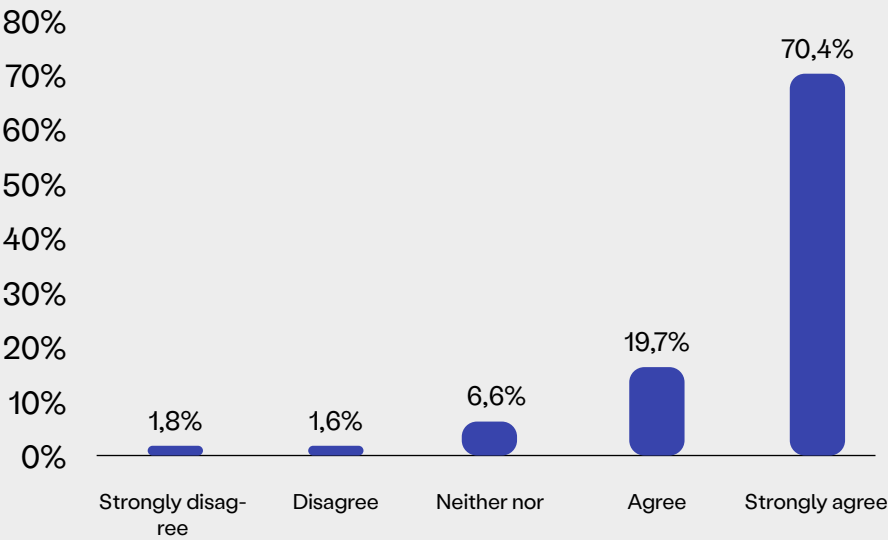
Our participation in the project has given us the courage to continue our digital journey

1,50%	0,30%	1,60%	14%	82,70%
Strongly disagree	Disagree	Neither nor	Agree	Strongly agree
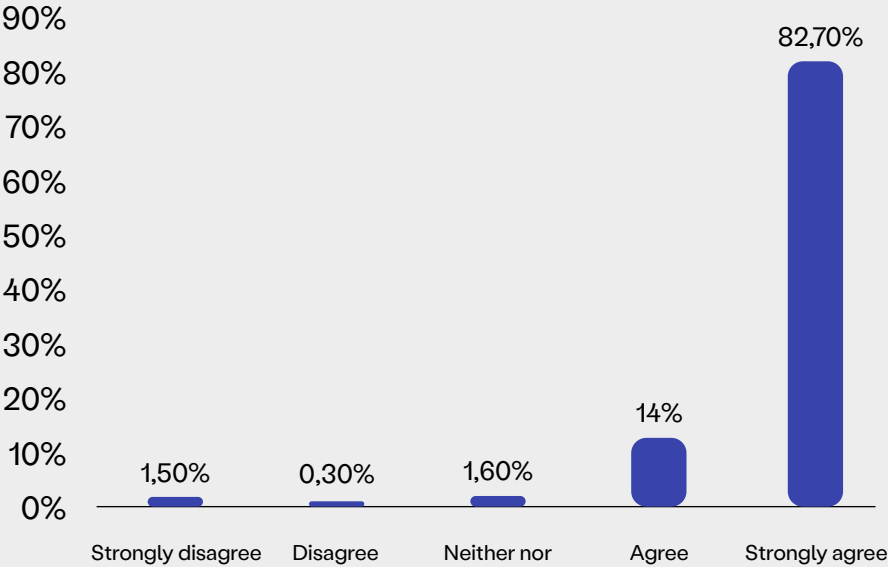
Has the project contributed toward boosting productivity in the company?

Category	Percentage
Yes	46,90%
This is expected but not yet realized	46,20%
No	5%
Don't know	1,90%

Has the project led to more employees at the company?

Category	Percentage
Yes	20,6%
This is expected but not yet realized	43,0%
No	30,2%
Don't know	6,3%

Has the project contributed toward increasing turnover in the company?

Category	Percentage
Yes	26,5%
This is expected but not yet realized	63,1%
No	7,4%
Don't know	2,9%
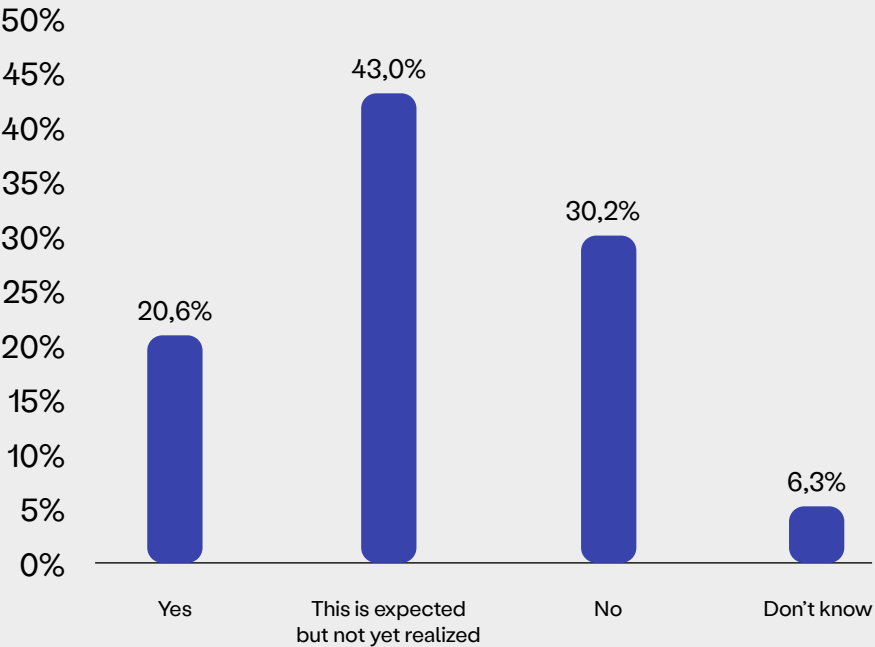
Has the project contributed to increasing exports in the company?
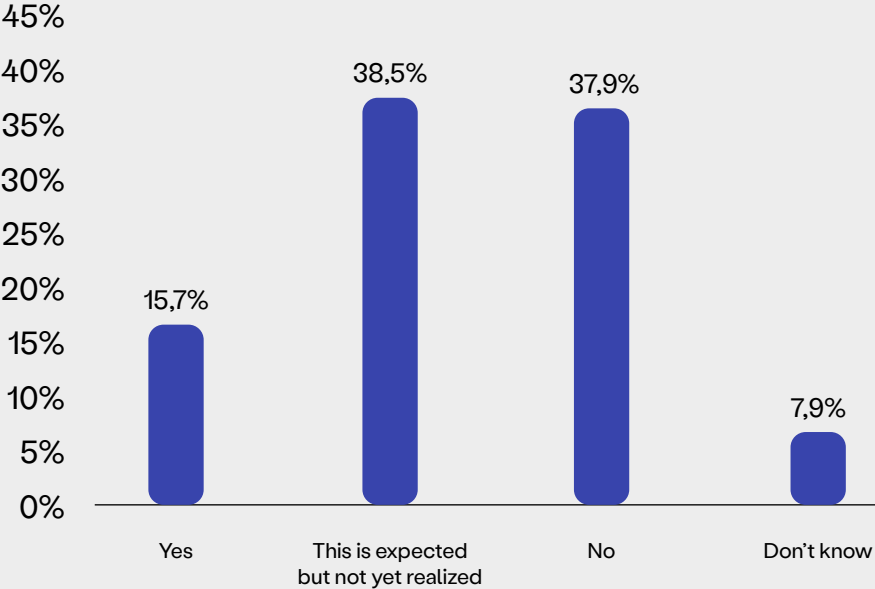
Category	Percentage
Yes	15,7%
This is expected but not yet realized	38,5%
No	37,9%
Don't know	7,9%

Overtaking the Future

Case

TAKT

Design sprint secures a strategic edge for a Sustainable Furniture Company

The young furniture startup TAKT used a design sprint to ensure a strategic edge within the recycling of sustainable design furnishings.

TAKT is a young furniture company that entered the market in 2019 to rethink, sell and distribute furniture, adopting sustainability as the mega-trend to guide all of its endeavors.

"*Everything we do is about creating a sustainable furniture company. That's why we extend the lifetime of our pieces by taking a component-based approach to design, using certified timber, textiles, and leathers, and shipping our products in flat packs to keep CO2 emissions down. We monitor our climate footprint, we offset our emissions, we hold B Corp certification and we sell directly to our customers without going through a wholesaler. Sustainability will only make a difference once a great many customers take it to heart, and that's why all TAKT furniture needs to boast both good quality and an attractive price for the market*," explains marketing manager and co-founder Jens Jermiin regarding the core idea behind his young start-up.

But TAKT was still lacking something to achieve full circularity and thus be true to the company's entirely central focus on sustainability.

"We were missing a platform for product recovery that would allow us to take back used products and make sure they were renovated and resold – for example, a kind of peer-to-peer sales platform. Establishing a digital platform which can facilitate that user journey is a strategic digital project of ours and something that we knew we wanted to implement," explains Jens Jermiin.

TAKT received an inquiry from digital design agency Flip Studio, who could assist in seeking funds for the project, and together they got the project approved. The design sprint was a kick-starter for TAKT. Because before then, Jens Jermiin had been in doubt as to how the company should go about getting started with such a strategically important project.

Being true to their name

"*The experience for us has been very positive. Flip Studio had a very condensed and effective process, and we knew what we wanted to achieve, so we were able to draw up a very sharp brief which was developed to incorporate all possibilities over the course of the sprint. Things took shape at lightning speed so we were able to really move forward. The process was fast, effective, and highly inclusive of the three employees from our team who took part,*" explains Jens Jermiin.

Flip Studio provided communication specialists and digital graphic designers who helped to streamline the concept, build templates, ensure a good customer journey, and visualize the whole thing so that TAKT could then go and validate it on the market and test the platform among real potential users. The company got very specific feedback and input which allowed them to quickly make decisions. "*Speed was a crucial factor for us. We set firm dates early on and the sprint really did live up to its name. We have only great praise for the process. It worked really well,*" says Jens Jermiin.

Keen to set the agenda

For TAKT, this new digital recovery platform is something of huge strategic importance. Not least because it will hit the accelerator on living sustainably when it comes to furniture while simultaneously setting the company apart on the market.

"We were missing a platform for product recovery that would allow us to take back used products and make sure they were renovated and resold – for example, a kind of peer-to-peer sales platform. Establishing a digital platform which can facilitate that user journey is a strategic digital project of ours and something

The Crisis as an Accelerant

By Sidsel Winther, Senior Anthropologist and Project Manager, DDC

The coronavirus pandemic has had a huge impact on Danish companies, especially on small and medium-sized companies which do not have the same capacity to survive sudden and unforeseen challenges as larger companies. Particularly within the digital arena, Danish SMEs have been left with no choice but to quickly adapt and transform themselves in order to survive.

In that sense, the crisis has been a sort of accelerant which brought forward and made visible a range of problems that would have hit many SMEs eventually, no matter the circumstances. These digital challenges rose quickly to the surface and Danish SMEs were forced to start doing things differently – often in radical ways – in order to adapt and transform. Design as an intervention has been and remains a particularly good tool for facilitating precisely this kind of development.

Design processes are good at pushing us forward quickly and in unison, and this is something that we are in great need of right now as the very foundation we stand on suddenly begins to shift.

The crisis as a launching pad
"The sprint enabled a whole new analysis of internal and external processes which we would not have honed in on otherwise." – **Sprint participant**

The vast majority of SMEs wanted to use the crisis as a launching pad to transform their companies as they knew that digitization and future-proofing are synonymous terms, but mental reserves were in short supply at the height of the crisis with most energy being channeled into simply keeping things afloat.

"It was only because Regndans (design partner and sprint facilitator) knew us and the business that any of this was possible. I didn't have the energy to explain from scratch how we do things, and how the business works. The crisis was all-consuming. We found ourselves in a situation where what we were doing no longer worked and we had to find another solution fast." – **Kellers Badehotel**

The fresh perspective from the sprint and the sprint facilitators was crucial in mobilizing the right resources within the SMEs, driving development forward, and keeping it in focus during the crisis. This allowed SMEs to fully exploit the po-

tential for digital transformation. In the case of Kellers Badehotel, this meant building a new online food ordering solution that could buoy the company's revenue streams at a time when the hotel and restaurant sector was under lockdown.

Design sprints based on the needs of each SME
The SMEs in the Sprint:Digital program have generally felt that the sprint method and format have been particularly well suited to their company, almost as if custom-designed.

"The strength is that a small company like ours can get help to really understand what is possible and to create value within the realm of digitization." – **Sprint participant**

Using the sprint format, external facilitators were able to put the specific needs, wishes, challenges, and circumstances of each company at the core of the digital development process. This made the sprint process feel like a tailored program designed for the individual company, even if its original format is broadly used in many contexts.

"Our need for digitization was met across a wide range of internal processes and succeeded in unleashing the potential that we believe lies ahead of us. We are now ready for the digital journey that we are going to embark upon going forward." – **Sprint participant**

Speed up!
When the crisis hit, it happened suddenly and with such far-reaching consequences for the economy that very few could have seen it coming. The challenges to Danish SMEs became clear overnight, as did the huge need for solutions that could be developed and implemented at equal speed. As its name indicates, the sprint program is designed to do just that. The sprint turbocharges ordinary development processes which would otherwise take months or even years, and within the space of just one week, it turns ideas into a solid physical or digital prototype that has been tested on a target group. As one participant in Sprint:Digital puts it:

"Design thinking and sprints are effective methods. I wish that I had been introduced to them sooner in my life as a self-employed entrepreneur. Without a

doubt, they can effectively accelerate development processes as the product concerned becomes fully defined." **Sprint participant**

The design sprint is thus a valuable resource for solving new and complex problems in an effective and time-saving manner, and this is one of the advantages that the SMEs highlight following their participation. Time to market has been crucial:

"*The sprint meant that we were able to get back in the market very quickly. We are beginning to move once more in regards to marketing. We effectively used our time to develop and that is something we want to show the world.*" **Ungliv.dk**

"The sprint meant that we were able to get back on the market very quickly. We are beginning to move once more in regards to marketing. We effectively used our time to develop and that is something we want to show the world."

Case

Svane Shipping
Founded in 1926
Headquartered at the habor of Kolding
30 employees

Svane
Shipping

A successful digital sprint ensures effective growth at Svane Shipping

"We went in with some general ideas and we left with two pieces of card which we still use even today," says Svane Shipping from Kolding.

Svane Shipping is based at the Port of Kolding Each day they load between 50 and 100 trucks with goods to be sent onward all over the world. The company has been doing this for almost 100 years and their work process has traditionally involved pushing around tons and tons of paper, as CEO Jesper Hansson puts it himself.

"*We've been operating since 1926, so how do we even start to go about digitizing our business? Who exactly were we supposed to call for firm ideas as to what we needed to do?*" Jesper Hansson wondered.

At the Port of Kolding, he got in touch with the design cluster D2i (Design to Innovate) which suggested a digital sprint. Two employees from the office, one from the warehouse, and Jesper Hansson himself were led through the sprint which lasted a week. The program allowed Svane Shipping to test and validate ideas as to how they could streamline their loading process while simultaneously establishing an efficient warehouse management system without all the towering piles of paper.

"*We went in with some general ideas as to what we wanted and they were firmed up over the course of the sprint. After just five days, we left with two prototypes sketched out on two pieces of cardboard. The miracle in all of this is that these two prototypes still work for us even today,*" explains Jesper Hansson.

No queues and fewer errors
The ambition for the sprint was, among other things, to ensure that truck drivers would not need to go into the office as soon as they arrived at the Port of Kolding to load their vehicles. Warehouse staff at Svane Shipping can check big screens and tablets in their cabs to see what vehicles are coming, who is loading what, and whereabouts they are located. Moreover, the new digital solution also collates important data for traceability concerning what products have been transported and by which trucks.

"*We can now prevent queues from building in our warehouse and traceability is important in relation to the goods we move, plus the probability of errors has now fallen considerably which is fantastic*," explains the company's director, adding:

"*For years I had been pondering how to bring ourselves into the digital age and to attain better efficiency which could provide a competitive edge and better service for our customers. We also wanted to be a first-mover in our sector within digitization and to future-proof our business. Getting started was difficult, but the outcome has been a resounding success,*" says Jesper Hansson who estimates that the time it takes to manage and load a truck has now been reduced by up to 50%.

Simple tool for growth
The digital solution also makes it easier for Svane Shipping to realize the company's plans for growth.

"*We aim to expand to more locations than what we have today. Our digital solution means that we won't need an administrative set-up comprised of two to three employees pushing paper back and forth whenever we open up in new locations. Having the fundamental tools in place will make growth easier for us to achieve,*" says Jesper Hansson.

In addition, he also emphasizes that digitization has not been a cost-cutting exercise even if this was a concern among employees in the beginning.

"*I have learned that it is important to involve as many people as possible in the process along the way. Ideas should stem from employees in order to allay reluctance and worries about job losses, even when growth and more employees are the ultimate ambition. It is important to involve and to include people. But naturally without allowing the process to descend into chaos,*" Jesper Hansson concludes.

Svane Shipping is now preparing to launch version 2.0 of the company's digitization process.

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A useful time machine in a time of crisis

What exactly is a design sprint, and why are they particularly useful in a time of crisis?

We sat down with sprint method founder Jake Knapp to find out more

Q: Q: Jake, you have previously referred to design sprints as a time machine that lets us leap to a finished product in the future. But nobody could have predicted the coronavirus pandemic and many companies are now in need of urgent change. How can sprints help us in the situation we're in now?

J: J: *Design sprints are a perfect tool in a time of crisis. The sprint method is optimized for instantly tackling challenges as it helps companies to rapidly respond to fundamental questions such as: "How will this new service or this new product actually work in practice? Are my customers interested in it?"*

For example, a good friend of mine started a new healthcare business during the pandemic. The idea was to meet patients one-on-one over the phone instead of in a large office space, and the service would be made available on a subscription basis. But before she left her day job, she wanted to know whether or not customers would even be interested. She used the sprint method to learn more about this kind of service and its pricing, to develop a prototype, and to show it to five potential customers. She learned a great deal from these customer interviews and was able to finetune her service before finally launching the business. Today, it is both off the ground and fully booked.

Q: Then there's digitization. The pandemic meant that products, services, and even entire business models suddenly had to go digital from one day to the next – so what are the advantages and drawbacks of a design sprint for digitization?

J: *Digitization projects can seem overwhelming. There are so many elements to consider, including where to get started. A design sprint helps you to choose one target group and one goal and thus to take a decisive step forward. Once your sprint is over, you can then build from there. Just getting started is a considerable milestone. But the design sprint also enables you to quickly use digital tools without needing a wide range of skills or the perfect software. You make a realistic prototype in just one day, so for example you might knock up a website using a platform such as Squarespace or put together a prototype app made up from some screenshots. This provides an opportunity to break past theoretical discussions on the "right" way to build things and to focus instead on what your customers are actually interested in. It also provides reassurance that you are on the right path and able to navigate a new field vv*

Q: The sprint method is becoming more and more popular around the world – and it is popping up in many different formats. So let's just pin this down once and for all: what exactly is a design sprint?

J: *A design sprint is when a small team undertakes one week of focused work on a large project. They go through all five of these steps: map out the challenge, sketch out competing solutions in detail, decide how to test the solution, build a realistic prototype and test it on a target group. Participants use a structured*

process along the way to ensure less talk and more action. I believe that we learn much more by thinking, acting, and reflecting than we do by discussing.

Q: What is it about the sprint method that makes it so popular? Why does it work so well for larger projects?

J: *It hasn't become popular because it's easy, that much is for sure! Clearing out your calendar for an entire week and focusing intensely on a project, perhaps even repeating the process several times, is a very difficult thing to do. I think the process has become popular because it works. People tell me that they save months, that projects developed using the sprint method experience greater success and more demand on the market, and that it is simply more enjoyable to work with colleagues in this way.*

S: Are there any situations in which a design sprint might not be the right way to go for a small company

J: *t's important to keep in mind that it takes time and energy to put together and complete a design sprint. A whole team needs to clear their calendars for a whole week – and likely a week or two afterward for follow-up.*

If there's nothing major at stake and no idea as to what you want to achieve then it might not be the best approach. If you run a restaurant and you're considering adding a new soup to the menu, all you need to do is make the soup one evening and see how it goes! In this example, it doesn't take much effort to whip up one new soup one time, and the risk that nobody buys it is not one to lose much sleep over. But in a situation characterized by greater challenge and more uncertainty – say for example you want to change the whole menu but you don't know what to put on it – in that case, a design sprint makes sense.

And when everything is on the line – as it has been for many businesses during the global pandemic – then it definitely makes sense to get started on change quickly.

S: What mindset should a company adopt going into a sprint to get the most out of it? And what is the best way to prepare?

J: *Energy is crucial because a design sprint is an intense week. It is best to come well-rested, take proper breaks, eat nutritious food, get plenty of sleep at night and avoid overdoing things. I would urge people NOT to cram in extra work and meetings after office hours. Hopefully, everyone will come with an open mind without being too attached to a particular idea, but even if this does happen, their view is likely to change by the end of the week. The steps of a design sprint are shaped to get everybody onto the same track.*

About Jake Knapp

Jake Knapp is the inventor of the design sprint and a New York Times bestselling author.

Jake spent ten years at Google and Google Ventures, where he created the Design Sprint process He has written two books, Sprint and Make Time, coached teams at places like Slack, LEGO, IDEO, and NASA on design strategy and time management, and he has been a guest instructor at MIT and the Harvard Business School.

jakeknapp.com
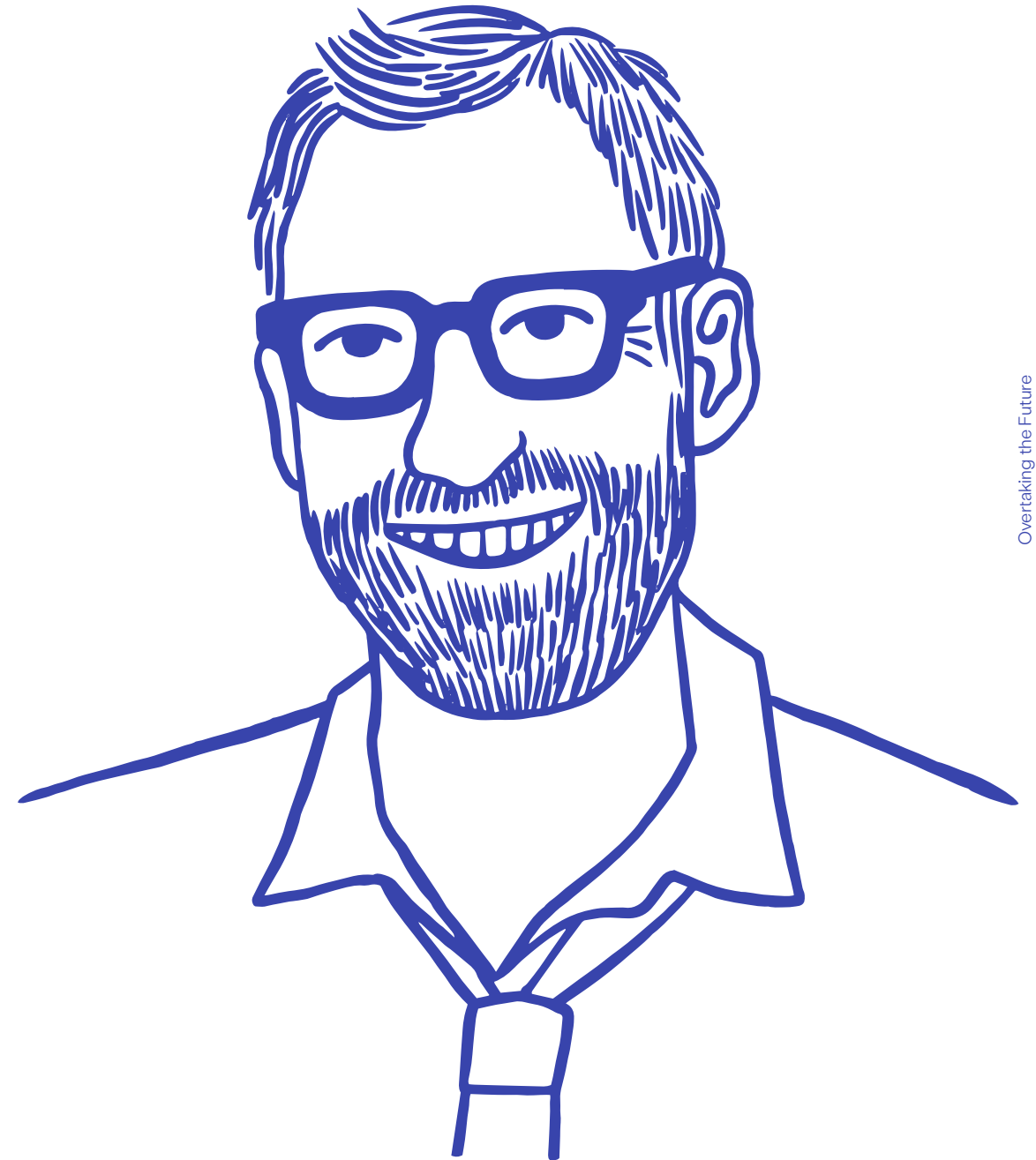
Case

PFP

Digital sprint created order from chaos in a complex chain of communications around countertops

PFP A/S is Scandinavia's oldest supplier of countertops for kitchens, bathrooms, and other industries with unique requirements and needs. Their business model requires extensive communication between multiple parties throughout the process. A digital sprint streamlined their communications across all stages of a complex work process.

Most people who have had a new kitchen installed have probably learned that the countertop, in particular, is a whole science unto itself. Just when you thought the kitchen was almost finished, dealing with measurements, production and assembly can seem cumbersome and requires coordination between multiple parties. But if you ask Peter Damkjer, Group Managing Director at PFP, he will tell you that there are many even more tricky and difficult communication processes going on behind the scenes. It was for this reason that PFP decided on a digital sprint to design a communication platform that could allow all parts of the complex process to flow smoothly, to minimize the risk of time and money going to waste, and to boost satisfaction among everyone involved.

"Countertops are a complicated size," says Peter Damkjer from PFP. *"We're talking about heavy, expensive, and dimensioned items which may need to be installed, say, on the fifth floor of an old building with slanting walls, and which we'll need to hoist in through a window from the backyard by crane. At the same time, it is increasingly a part of our business model for us to take responsibility for the entire process. We, therefore, needed a common platform which all parties – i.e. the end customer, the kitchen company, the fitter, the carpenter, the crane operator, our production department, and others – could use to communicate and effectively agree upon and document what has been and will be done in the process."*

Working together
Peter was already familiar with the sprint process and very enthusiastic about the method. *"It generates progress and gives you a prototype after just five days. This puts the problem in focus and helps develop an effective solution that is built around specific needs. Rather than have a consultant present us with an oven-ready solution, we get somebody with an interest in developing what we need and who is not necessarily there to try and sell us something,"* explains Peter Damkjer.

The sprint resulted in a digital communications platform that is both effective and time-saving for all parties, and which also enables PFP to take on more jobs and thus to generate growth and create more jobs, according to Peter Damkjer. *"The new platform gives us the possibility to grow. We took something that was very time-consuming and based on memory and undefined procedures, and we made it digital. This has meant less time being spent on each task, which in turn means we can accept more orders and minimize the risk of errors because our communication is now more thorough and everything is documented in writing. This is a solution which our kitchen-company customers are very pleased with and which they feel confident about. For even if they offload the financial risk to us, it can still cause great hassle and cost both money and reputational damage if anything goes wrong in this often expensive process. So for us, the digital sprint resulted in a go-to tool which has both helped us to grow and given us a competitive advantage,"* says Peter Damkjer.

Barriers were broken
For PFP as a company, the sprint has made them more open to digitization in general.

"Often it is hard to know where to stop or finish and this can be a real spanner in the works for a digitization process. There are many prejudices and mental barriers which we have been able to break down by being a part of this project. We are no longer so afraid to admit when we don't know something and now we do know where to go to seek help," Peter Damkjer explains.

Peter believes that using public funds to support the digitization of companies is a good investment as it generates both growth and employment in Denmark.

"Often it is hard to know where to stop or finish and this can be a real spanner in the works for a digitization process. There are many prejudices and mental barriers which we have been able to break down by being a part of this project. We are no longer so afraid to admit when we don't know something and now we do know where to go to seek help."

Ethics is a design challenge

Interview with Peter Svarre, Digital Strategist and Lecturer,
and Christian Bason, CEO of the Danish Design Center

How can we ensure that digital services and products are developed ethically when things are developing at pace? Danish Design Center CEO Christian Bason and digital strategist and author Peter Svarre share their views on how Danish companies can best avoid ethical pitfalls.

In 2020, the Danish Design Center devised four very different scenarios for the future of Danish design. However, there was one significant parameter that recurred across the board: ethics.
"*No matter what kind of future we envision, ethics is one component which simply must feature,*" *says the CEO of the Danish Design Center, Christian Bason.* "*But the question is how each company can achieve this in practice.*"

Together with digital strategist and author Peter Svarre, he appeared on the 2019 AM Copenhagen Podcast Series 'Design Kan …' which placed focus on both the usability and the dark side of artificial intelligence. A few days before, both Bason and Svarre came together with 148 other participants at a think tank held as part of the Tech Festival to formulate the Tech Pledge – technology's answer to the Hippocratic Oath.
"*The pledge was a good springboard for further contemplation and development,*" *says Peter Svarre.* "*The question which followed was what exactly can we do to implement and live up to the pledge in our daily work?*"

This was the starting shot for the Digital Ethics Compass – a training program and educational tool which equips companies and organizations to incorporate ethics into their digital products and services.

Ethics is a competitive advantage
Danish companies have increasingly become more digital over the course of the coronavirus pandemic and digital ethics have gone from being something we should consider to something we must consider, according to Christian Bason.
"*Consumers will increasingly demand more digital security in the future. This means it will be advantageous for companies to start building their ethical muscles right away,*" he says. And while consumers in other countries such as China and the USA may not ask the same critical questions about ethics as consumers in Denmark, it is nonetheless wise for Danish companies to set the bar high, Christian Bason believes. "*We are seeing that people are becoming more and more skeptical about things such as how companies use data. There is also a clear*

discrepancy between what the law forbids and what we would consider unethical. This makes ethics a clear advantage for companies wanting to set themselves apart in an international market."

Legislation is not enough
When companies design new digital solutions and products, the aim is often to quickly produce prototypes that can be tested on both a small and large scale. In achieving this, design methods such as the sprint method can help to generate huge value for companies. However blind spots often emerge over the course of a design process, and they are not always issues that will be covered by compliance alone, explains digital strategist Peter Svarre. Because even if you might not have any problems from a legal perspective, this does not automatically mean that everything will be ethically sound.
"*Compliance is very black and white, but ethics is more of a gray space*," explains Peter Svarre. "T*here is no single checklist that the product manager can quickly run through at the very end. It can also be a huge challenge for a company to recognize the problems in its own product.*"

According to Christian Bason, the challenge is "*bringing all ethical considerations on board*" no matter whether it is a simple program or artificial intelligence we're dealing with. Even in the case of companies that are aware that ethics is something that needs to be considered, the exercise itself is not always an easy one. From the pixel designer and programmer to the product manager, there are many steps along the way and even more design decisions that need to be made. This creates a dilemma in terms of who has the final responsibility.
"*Ethics means constant trade-offs and it will always entail some tough decisions*," says digital strategist Peter Svarre. "*Ultimately it is not a legal question that you can return to and hold somebody accountable for.*"

A systematic approach to designing ethically
It is precisely for that reason that Peter Svarre believes that ethics needs to permeate the entire organization. "*If you're in a situation where the goal is simply to get a product over the line, then it is important to be trained in ethics when getting started so that you understand digital ethics in your role as an employee and have a way of articulating it*," says Svarre.

In essence, we should always conceptualize ethics not as the means but as the end itself," he says. *"Design methods and UX methodologies may sometimes entail an ethical blind spot because they focus on much narrower target groups and perspectives,"* he says. With their ethical goggles on, companies are forced to broaden the horizon and to bring in more perspectives. According to Peter Svarre, the trick is often to introduce ethical stop signs into the course of the design process. This is where tools such as the Digital Ethics Compass can come in handy as a useful resource to help ask the right questions at the right time.

"*Ethics is only becoming more important,*" says Christian Bason. "*That is why it is important to develop tools that make it easier for everyone in the company to think ethically. Ultimately, it is about asking ourselves: what kind of world do we want to live in?*"

Read more about the Digital Ethics Compass at: https://ddc.dk/projects/the-digital-ethics-compass/

Case

UngLiv

Digital sprint brings balance and product development to youth counseling enterprise

For the company, UngLiv.dk and its founder, psychologist Marianne Schøler, the digital sprint program has placed focus on balance in communications, something which is crucial for a venture that seeks to help young people in distress.

For psychologist Marianne Schøler, the pathway into the sprint process began with her own thoughts on how her ambitions to grow and her company's profile were starting to grate against what she describes as a somewhat outdated digital profile.

"*Our messaging and the signals we were sending out did not suit our purpose. Our entire image was unfortunately too dull and one-sided,*" explains Marianne when discussing the reasons which led her company, which she founded in 2006, to do a digital sprint.

UngLiv.dk provides therapeutic counseling services to vulnerable children and young people. The company's digital communications seek to reach three primary target groups: vulnerable children and young people, their relatives, and professionals who work with vulnerable kids and teens.

"*This is a large and diverse target group and we were well aware that this posed a challenge to us. Our messaging was too disorderly and we needed help to streamline our platform and our communications,*" explains Marianne Schøler.

But for a small company, it can be difficult to find a clear way forward through a problem like this. What tools should they invest in? What is needed to make a difference? These were questions to which Marianne needed answers. First and foremost, there was a need to clarify and establish exactly what it was that was going to help UngLiv.dk. They needed to land on a solution, and preferably one with long-term prospects.

"*We didn't want to just buy a cut-and-dried solution, rather we wanted to make sure that our growth ambitions and our values would be integrated into our digital messaging,*" she explains..

A brand new perspective

The actual sprint process was very different from what Marianne Schøler had anticipated. She found it difficult to prepare as she was unsure what it was exactly that her company needed.

"*Once we got started, it became completely clear what the sprint process would be able to do for us. The method forced us to look at our company from brand new perspectives. We finally got to grips with our thoughts on what expertise we have and what services we offer – but with greater focus placed on our three target groups. We were pushed into taking a very solid position on the messages we wanted to convey and how we prioritize them. The need for a sharply defined hierarchy of priority became clear to us,*" explains Marianne Schøler who took part in the sprint herself together with a handful of colleagues in different roles. The group then went on to decide how their communications should be formed and conveyed to their three target groups.

The sprint became an impetus for a new website for UngLiv.dk. But the company also became aware of other new products which stretched beyond their original conceptualization as to what they had to offer and provide.

"*Among other things, we discovered that users on our website often searched for information on things such as psychiatric disorders, and this has helped sharpen focus on precisely what we want to post about and link to. For example, this might be information on ADHD, or links to visual materials, patient associations, or articles. This doesn't necessarily drive footfall, so to speak, but it is a service*

which we hope is in line with the values we want to emanate,*" explains Marianne Schøler about the new design of their website, UngLiv.dk.

Informing without selling

Another important lesson which Marianne Schøler and her colleagues have learned from the digital sprint is the importance of balance between overselling and under informing. "*Before the sprint, we were perhaps a little too modest and we didn't say all that much about the things we are great at. The sprint showed us that this was something we ought to do. We are proud of our professional expertise and it is not something we want to hide. So it's perfectly in order for us to blow our own trumpet a little bit and highlight what we do well,*" she says.

According to Marianne, striking the balance in a company that offers psychiatric services means not creating a need.

"*Landing on the right mix is a very delicate balance. We need to be careful not to inflate our products and skills in such a way that they lure people into making purchases. There is an element of both ethics and sustainability which we need to incorporate into all of our messaging. It's the balance between encouraging people to seek help but without overselling. I believe that the sprint process helped us to find a sober and proper balance in regards to this,*" Marianne Schøler continues.

The sprint has also given the entire company a new way of thinking about the work they do on a daily basis.

"*First and foremost, we have consistently learned the importance of adopting our clients' perspectives. We stop and critique whether what we believe is right is also what will be right for them. It has become a reflex for us now to constantly stop and consider how recipients will interpret our messaging,*" says Marianne Schøler.

"Before the sprint, we were perhaps a little too modest and we didn't say all that much about the things we are great at. The sprint showed us that this was something we ought to do. We are proud of our professional expertise and it is not something we want to hide. So it's perfectly in order for us to blow our own trumpet a little bit and highlight what we do well."
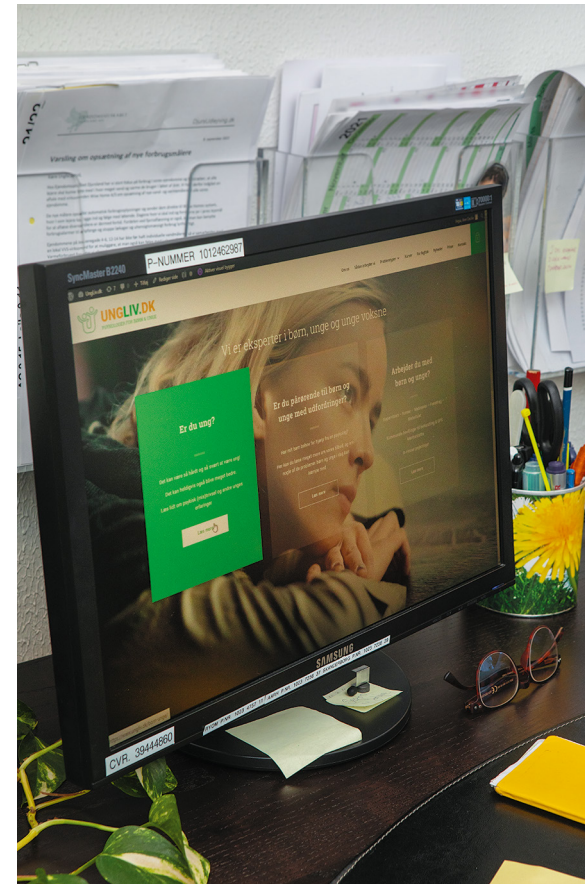
Design can do a lot, but can it do everything?

Interview with Sidse Ansbjerg Bordal, PhD, Postdoc, Design School Kolding, DDC

**Over 100 Danish SMEs have used design sprints to undergo rapid transfor-
mations as part of Sprint:Digital. As a follow-up researcher on the project,
postdoc Sidse Ansbjerg Bordal has looked at how the method works – and
what happens in those cases where it doesn't.**

According to Sidse Ansbjerg Bordal, postdoctoral researcher at the Design
School Kolding and associated researcher on the Sprint:Digital project, the
need for design thinking in Danish companies has only become more obvious
during the pandemic. "*We have seen that SMEs, in particular, have become less
risk-averse during the coronavirus pandemic. They suddenly have time to do
something different – and they can't afford to stand still and do nothing,*" she
explains. No matter what industry you're in, "*we know that design can do so-
mething,*" says Sidse. But she also emphasizes that from a research perspective,
there is a risk in assuming that design can do everything.

Important to be adaptable
From its very beginnings, Sprint:Digital has been configured around a desire to
validate and document the effect of the sprint method. But the large range of
industries combined with the many diverse issues facing companies has formed
both the project and its format along the way. For precisely that reason, it has
been difficult to get a firm handle on Sprint:Digital from a research perspective.
"*I had assumed that the sprint format was a constant – that I would be able to
do various rounds, collect knowledge and then feed it all back into the project,*"
explains Sidse. However, the reality proved to be quite different.

For Sidse, the challenge in Sprint:Digital did not lie in demonstrating the effect
of a design method. Rather, it was about understanding how to target the design
effort toward the profile and needs of the company or venture in question.
"*If you want to create new knowledge and to learn something from what you
get involved in, you will only yield truly new insights provided that you were not
previously in a position to predict what you might learn,*" says Sidse.

What really stood out was actually when the sprint method did not work. "*It is
always exciting to discover what it is that is standing in the way of progress,*"
says Sidse. "*When things go awry or fail to work, then it is out of this that the
opportunity to learn emerges.*"

The four steps
Among other things, Sidse discovered that the sprint format did not always
harmonize with the needs of the company. She found that the suitability of the
sprint process was more or less pegged to the degree in which a particular task
was narrow or broad.

In the case of very well-defined issues, companies were often frustrated by the
need to go through the initial, more exploratory stages of the process. "*They had
to ask themselves if this is what they really wanted even in cases when they were
already quite sure,*" Sidse explains. On the other hand, there were also compa-
nies facing highly complex issues who felt that the sprint moved at too quick a
pace.
"*Sometimes very complex tasks end up being trimmed down in order to fit the
forma*t," says Sidse.

Based on her research, Sidse has developed a so-called task ladder which diffe-
rentiates between four different task levels. The task ladder looks at how open or
closed a particular task is at the beginning and to what extent it must be rejigged
or curtailed by the design agencies involved. Between steps zero and three, the
task ladder helps to define how clear the companies are in relation to their pro-
blems and how far along they have come in their handling of the problem.

Burning platforms light the way
"*I*n its original form, the sprint is best suited to tasks which are more toward the
narrow end of the scale,*" says Sidse. In a situation such as a global pandemic,
the sprint method is, therefore, a suitable tool for helping companies to come
out successfully on the other side. "*Once the platform starts to burn, it suddenly
becomes very clear where the fire is. But this does not mean that the solution is
simple. Just that companies have a better idea as to where they should direct
their efforts.*"

Going forward, Sidse sees great potential in looking more closely at the broa-
der side of the scale and those tasks which are less well defined. "*The whole
process is about identifying what mechanisms we have to create new things
and what circumstances are in place that might influence them, and that is so-
mething which I think is well worth mapping out and taking stock of,*" she says.

If research projects are to generate the greatest possible value for companies going forward, however, then Sidse believes that a somewhat different approach is needed.
"Scoping often falls outside the actual work itself. If research is to help generate value for companies, then it also needs to be incorporated from the very beginning so that the research design becomes a part of the actual project formulation," she says.

This makes it possible to ask the right questions and simultaneously to map out what exactly design thinking can achieve. According to Sidse, it is about mapping out "*what it actually is that we do with design which creates a new idea that can then go on to develop within a company."*
"This is where the change actually happens, and where the sparks begin that ultimately make things become truly interesting," Sidse Ansbjerg Bordal concludes.

"Scoping often falls outside the actual work itself. If research is to help generate value for companies, then it also needs to be incorporated from the very beginning so that the research design becomes a part of the actual project formulation."

Facts:

The Jutland Aquarium / Iskunsten
Founded in 1996
Number of employees: 30

The Jutland Aquarium (Jyllands-akvariet)

A digital sprint saved the summer season for newaice sculpture exhibition in Thyborøn

The Jutland Aquarium (Jyllandsakvariet) in Thyborøn is a family attraction centered around marine life and the water. The aquarium had plans to open a new ice sculpture exhibition, but radical corona regulations threatened to cost this small business its entire high season. A digital sprint helped the aquarium to find both a digital and physical solution – and one which ultimately helped to save their high season in the year 2020.

In an old cold-store warehouse by the harbor in Thyborøn, visitors and tourists alike can experience Iskunsten, an ice sculpture exhibition that changes regularly and is open all year round.

Iskunsten is the latest addition to the many attractions that owner Michael Madsen has brought to the north-Danish town of Thyborøn since he first opened the Jutland Aquarium 25 years ago.
"The Jutland Aquarium is for families and kids. It's a world of adventure and discovery which attracts many families and invites you to dip your fingers, get sand on your knees, and touch the things around you. Since our opening, we have expanded to offer outdoor tours and activities and so today we make use of the entire area around us," explains Michael Madsen.

His business has grown over time and he currently has 30 employees.

Iskunsten and its ice sculptures represented an entirely new area of growth for Michael Madsen. The idea was to create an attraction that would appeal to a more adult and cultured crowd and draw them to Thyborøn. But then the coronavirus pandemic struck, and with it the risk of losing out on the entire summer season. "Ours is an industry which was hit hard by lockdowns. We had to close our doors and when we reopened it was only for a short time before we had to close again, and then came a whole host of new restrictions in terms of social distancing, hygiene, and visitor numbers," explains Michael Madsen.

For obvious reasons, it was not possible to move the ice sculpture exhibition outside to comply with the restrictions in place.

Time was of the essence
Michael Madsen was also in need of a graphic identity for his new attraction.
"We needed to find a name and create an entire graphic identity around Iskunsten. In addition, we also needed to spread out our visitors both over time and the square footage we had available. And we had to do all this at breakneck speed if we were to be ready in time for the summer season," explains Michael Madsen, who participated in the digital sprint alongside a handful of employees and the design agency Flying October.

During the sprint, they worked actively to combine physical and digital user experiences with controls in the form of lights, sounds, and screens that could guide guests through the exhibition in a single flow and thus avoid agglomerations along the way.

"Working in another form, it would no doubt have taken us half a year to develop the solution we ended up with, but all focus was placed on making a concerted effort and that helped us to quickly deliver on the coronavirus requirements in place. When you're working in my sector, it just doesn't do to have attractions that won't be ready to open until October. So time truly was of the essence," explains Michael Madsen as he goes on to add that:
"The solution meant that we were able to bring in the revenue from summer 2020 that we really needed."

New skills
For Michael Madsen, this will not be the last time that he undertakes a digital sprint.
"We will definitely use this method to develop other areas and products within our business. Initially, it was a little difficult to hand over control and trust external consultants to deliver something which is so fundamental to a business that I know so well and which I started myself. But you have to trust in the process in much the same way you have to trust in a plumber, a banker, or an IT technician who possesses specialist knowledge that you don't. I believe that many small and medium-sized companies could benefit from hiring an agency to help with this kind of development process," says the founder of Jutland Aquarium and Iskunsten in summarising his experience.

"Working in another form, it would no doubt have taken us half a year to develop the solution we ended up with, but all focus was placed on making a concerted effort, and that helped us to quickly deliver on the coronavirus requirements in place. When you're working in my sector, it just doesn't do to have attractions that won't be ready to open until October. So time was of the essence."

"All SMEs should gift themselves a design sprint for Christmas"

The pandemic has highlighted digitization as a driving force to ensure growth and competitiveness. But even if Denmark as a country ranks very well when it comes to digitization, it can be difficult for Danish SMEs to keep up. That is why several design agencies, including Gejst, have chosen to serve as consultants in digital sprints.

Gejst is a strategic design agency and innovation house located in Aarhus. From 2013 onward, they have worked actively to advise on digital strategies and solutions which can help to make companies and organizations more competitive. "*Gejst works to create solutions which, to one degree or another, are innovative and which not only advance our customers, but also the entire sector they are active within*," explains André Falsig, Strategic Designer at Gejst.

According to André Falsig, defining events over the past six months have shown that Danish companies are often more reactive than proactive. "*It can be difficult to muster up the will to innovate in a hectic everyday situation. Often it takes either burning ambition or a burning platform*," he says.

The need for more digitization
André Falsig believes that all companies need to get better at thinking sustainably and at making long-term plans. "*All companies have one mark or another that they need to think over. Quite simply, it's about creating new and sustainable revenue streams.*"
It is in this regard that digital solutions can be the key – and it's no longer a red Ferrari that we should be saving up for over the years, according to Falsig. He finds that many SMEs hold back from launching themselves into an innovation project because they fear that it will cost a fortune in both time and money. But in the year 2021, undergoing a digital transformation can actually be both cheap and simple.
"*Using the sprint method, it is possible in just a few days to develop a concrete and visual solution which can validate the value that you want to create,*" says André.

A design sprint under the Christmas tree
As the Danish economy grows, so too does the need for green transformation and digital solutions. According to the report Rebooting Denmark's SMEs [Gen-

start af Danske SMV'er] by the Danish Board of Business Development, SMEs in Denmark are in a position where they need to both retain their productivity advantage over other countries at the same time as they must also adapt to new agendas within both the green and digital spheres. The sprint method is an effective tool in this situation as it allows companies to quickly begin experimenting with new solutions, in the view of André Falsig.
"Many small SMEs do not possess design expertise in-house, so the cracks begin to show when it comes time to bring a prototype to life. A design sprint makes it possible to quickly test out ideas, focus energy on good solutions and simultaneously to validate your point of departure."

But if companies are to succeed with a design sprint, it is important to collaborate with design agencies rather than an external supplier, says André.
"A good collaboration with a design agency can yield just as much value as a good collaboration with the bank. Good ideas can come from anywhere. The more we are involved, the more robust the solutions developed will be," he says.

Within a digital sprint, it is advantageous for the design agency to take on a facilitating role. "The sprint has been a great experience for us because it meant that we didn't have contact with just a CFO, but that we were able to reach all parts of the company," says André. Moreover, their facilitating role has also made it possible to bring in other experts when the need has arisen.
"Companies are exposed to perspectives that they have not considered before. And then suddenly they are brought into contact with each other as well, and this creates a great spillover effect," André says.

Digitization going forward
The pandemic hit the accelerator on the digital transformation of Danish SMEs. And according to André, even more companies will come to place focus on their innovation units.
"*The lifespan of business models has grown shorter,*" he says. "*Growing is one thing, but there's also the question of how to grow. Digitization is a streamlining process but not a strategy in and of itself, and the question is what position digitization can ultimately help a company to achieve.*"

André Falsig believes that bridges are currently being built between execution

and consultancy, and that this creates new financial challenges for companie in the country. *"Take digital marketing, for example. Before, companies could manage their Facebook ads alone, but it is now increasingly necessary to bring in experts in that area. It is no longer enough simply to say what it is that needs to be done, we also need to say how. And as more and more experts get involves, the level of resource pressure on companies grows in tandem. If we look five to ten years into the future, this may mean that innovation units are no longer kept in-house."*

For this reason, design methods such as the sprint will only become increasingly relevant in the future. *"All SMEs should gift themselves a design sprint this Christmas season,"* André Falsig concludes with a smile.

Mouritsen

Facts:

A merger between the sister companies Airtech A/S and Pieter Mouritsen A/S
Founded in 2007
Headquartered in Vejle
Approx. 35 employees

Manilla tags were swapped out for digital service inspections

Mouritsen's workshop in Vejle conducts service inspections on equipment after it has been hired out and used offshore, where treacherous weather conditions and the risk of explosion mean that extra attention needs to be paid across the board. A digital sprint removed manila tags, paper and manual input work from their servicing process.

Mouritsen is one of Denmark's leading suppliers of solutions and know-how within the areas of surface treatments and fluid handling. They also hire equipment to the offshore industry, a sector which places lofty requirements on documentation and certifications in connection with servicing processes.

For the company's CFO Helle Rind Møller, there was no doubt that the company needed to optimize the way it documented processes during the servicing of equipment.

"*We were seeing an increased need to work more digitally in relation to our customers, but we also saw many new opportunities in the digitization of our equipment servicing concept which previously required a great deal of administrative work. We began peering into this new digital world of the future and we thought to ourselves: okay, but where do we start?*" explains Helle Rind Møller, CEO of Mouritsen.

There are multiple different processes which make up a service inspection and they all need to be documented. Filters which need to be replaced and registered, for example. At Mouritsen, all that information was recorded in paper form and then input manually. Staff would put a manila tag on the machines in the workshop to indicate that they had been serviced and from then it would be possible to print out a certificate.

"*The whole sprint was about digitizing this process so that we could register service inspections in real time and then simply click the send button and deliver a certificate to the customer immediately,*" explains Helle Rind Møller.

In addition to streamlining the process, the process also aimed at creating a system which would allow staff to share certificates with customers at any time.

The pieces came together

In total, Mouritsen sent five employees to participate in the sprint. All came from different areas within the business, from the workshop and the admin department to the managing director.

"*We had decision-making power, and that was important. It was an exciting week and one that we could never have gotten through without support, even if it was also frustrating at times because we often had to consider the same problem several times before we could box it up and move on. But above all it was enriching, and we gained a common understanding as to how our processes look from the customer's perspective,*" says Helle Rind Møller.

The week ended with the presentation of a prototype.

"T*he pieces started coming together and we experienced a sense of unity as a team because we had worked together to develop and design a good method and found the way to become more efficient as a company*," says Helle Rind Møller who puts great emphasis on the fact the new digital solution prevents errors and thus boosts quality. The sprint has set in motion a bigger and necessary focus on digitization across the entire company. At the same time, the company has also used vouchers from the project to draw on further advice.

Design methods as a tool

"*In the long run, this has meant that we now use design methods and that we have spread the method among our employees, for example, concerning con-*

cerning the development of new business models," says Helle Rind Møller. The corona lockdown fostered yet even more thoughts and ideas around the development of digital strategies at Mouritsen. This time to the benefit of other business areas and with particular focus on the use of data collection to provide servicing to customers on their premises. "*The process has opened our eyes to just how important a digital strategy is for our business. We have learned a great deal around how business development is underpinned by design methods and how we can generate more turnover using the same resources, but also about how we can reach customers and what services we can offer them via data collection,*" Helle Rind Møller summarizes, "*and we gained a common understanding as to how our processes look from the customer's perspective,*" says Helle Rind Møller.

"We were seeing an increased need to work more digitally with our customers, but we also saw many new opportunities in the digitization of our equipment servicing concept that previously required a great deal of administrative work. We began peering into this new digital world of the future, and we thought to ourselves: okay, but where do we start?"
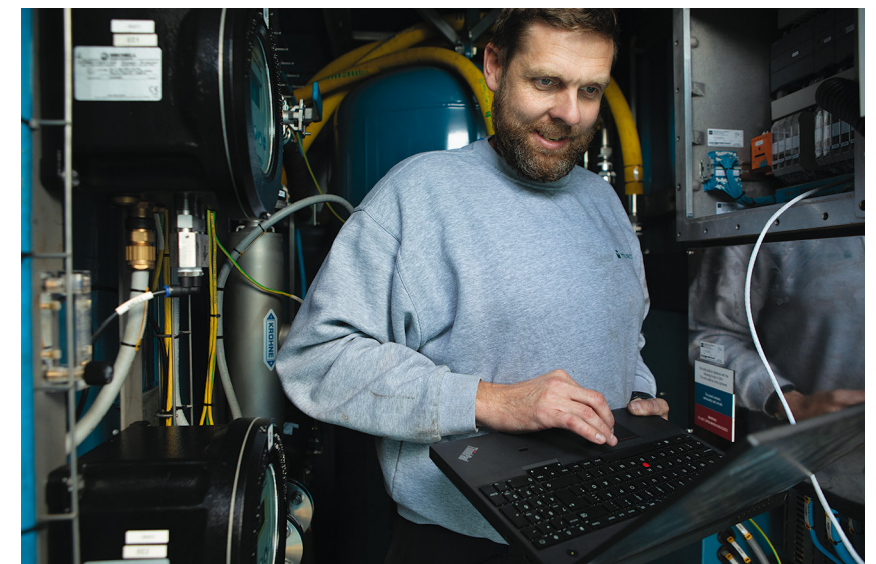
Companies experience with design sprints

Through Sprint:Digital, the Danish Design Center in collaboration with 17 design agencies has assisted 132 Danish SMEs in digitizing their businesses through new digital services or products.
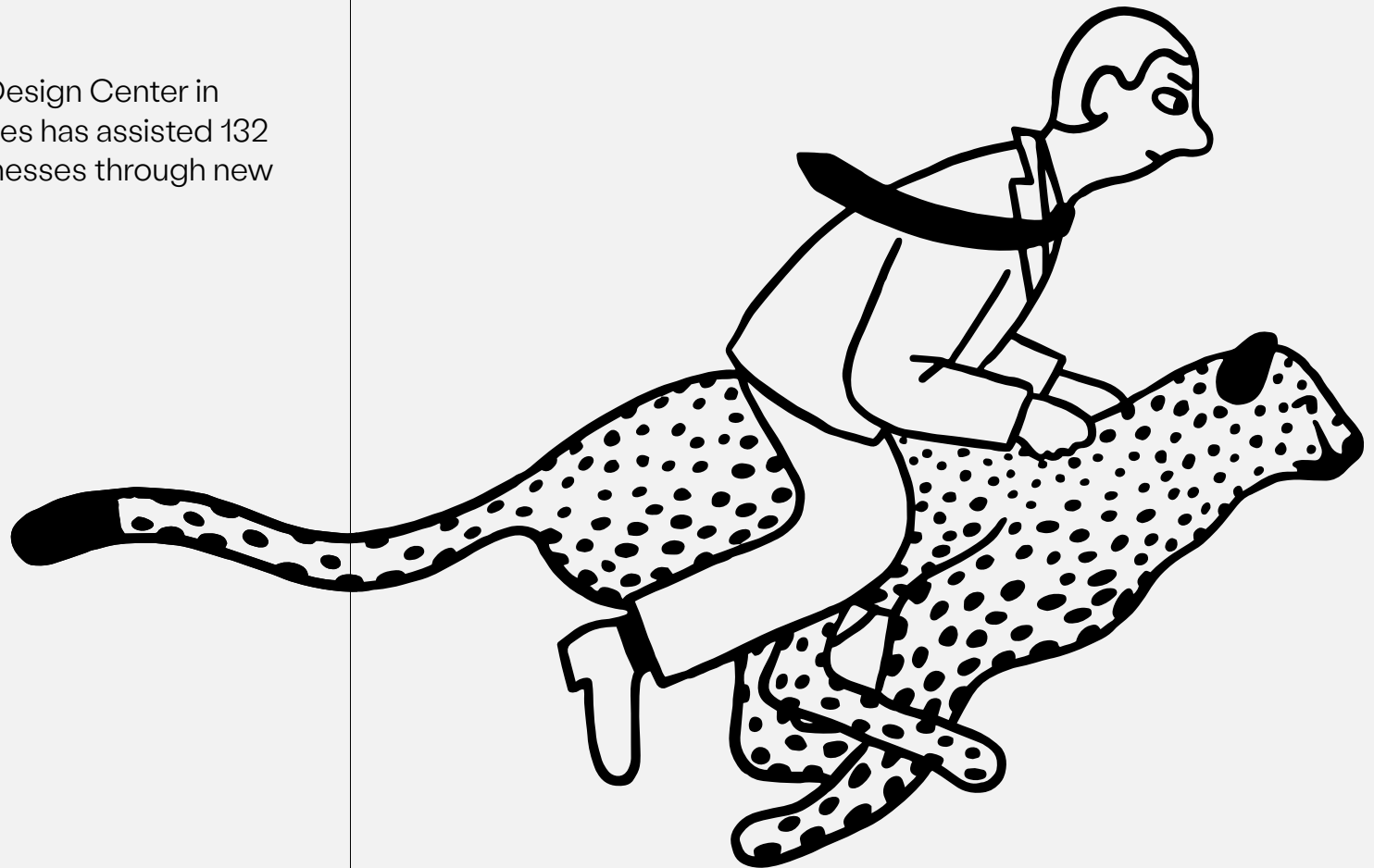
Figure 1. Company challenges in the coming years

Chart bars (left to right):
- Sala and marketing: 37
- Developing and attracting digital competencies: 35
- Sufficiently skilled labor force: 35
- Remaining competitive: 35
- Visibility on the market: 34
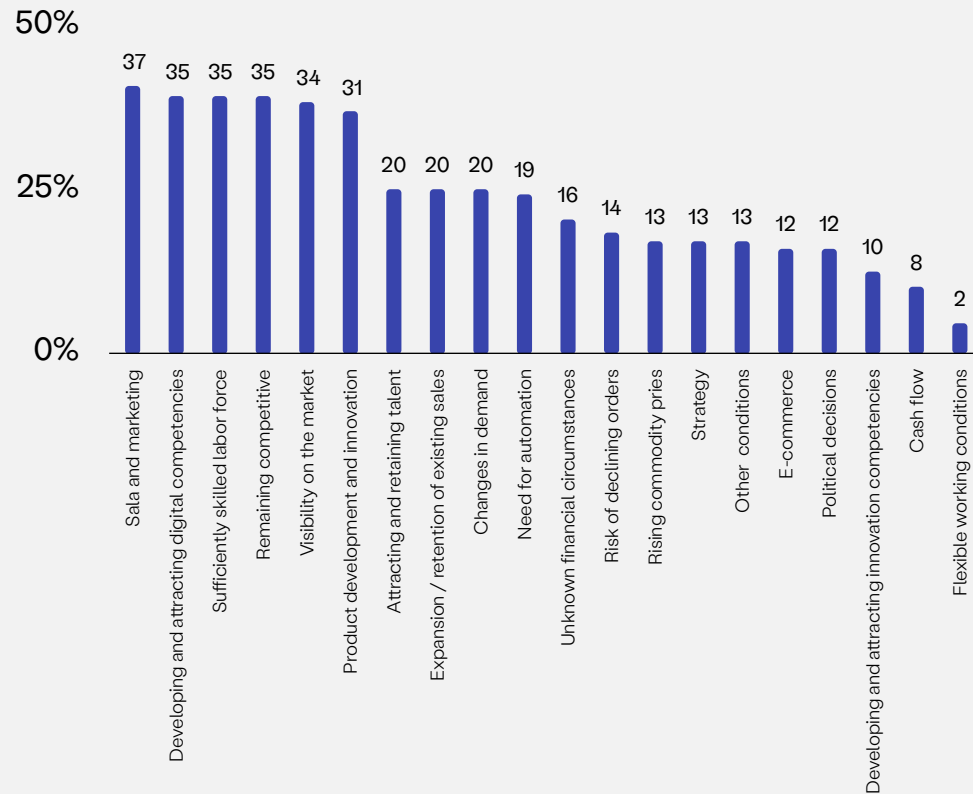- Product development and innovation: 31
- Attracting and retaining talent: 20
- Expansion / retention of existing sales: 20
- Changes in demand: 20
- Need for automation: 19
- Unknown financial circumstances: 16
- Risk of declining orders: 14
- Rising commodity pries: 13
- Strategy: 13
- Other conditions: 13
- E-commerce: 12
- Political decisions: 12
- Developing and attracting innovation competencies: 10
- Cash flow: 8
- Flexible working conditions: 2

Note: Figure is based on responses from 99 participants

The focal point for the project is the sprint method developed by Jake Knapp. A digital sprint provides companies with a professionally facilitated process that takes five days and results in:

• A mapping of the company's digital opportunities.
• Development of ideas and concepts that can solve the digital challenges facing the company.
• User testing and feedback on the company's concept to ensure that the digital activities truly hit their mark.
• An action plan for implementation of the company's digital activities plus three vouchers for use of a digital expert.
• Practical experience with the design sprint method.

The majority of the companies which have participated in the project have 10–49 employees (45 %) or 50–249 employees (23 %) and just under a third of them can be categorized as industrial and manufacturing companies. Companies from a further nine other industry groups are also represented in the project.
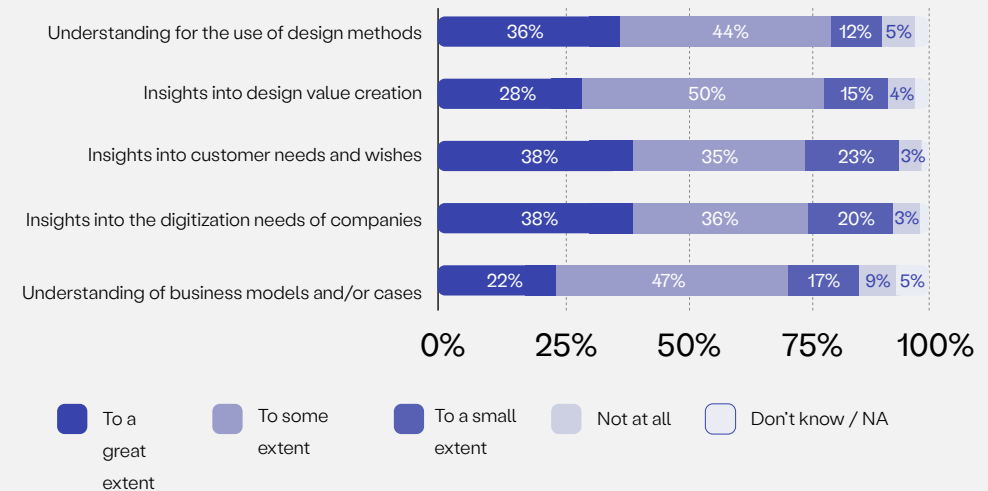
Companies that have participated in the project often consider that they are facing various different challenges in the coming years. More than a third of all participants point in particular to six areas:

- Sales and marketing
- Developing and attracting digital competencies
- Sufficiently skilled labor force
- Remaining competitive
- Visibility on the market
- Product development and innovation

Cash flow and flexible working conditions are two areas that companies typically consider less challenging, cf. figure 1.

The companies consider that the project has primarily given them an understanding as to the use of design methods (80 %) and insights into design value creation (78 %) from a business perspective. The project has also yielded insights into customer needs and wishes (73 %) and into the digitization needs of companies (74 %), cf. figure 2.
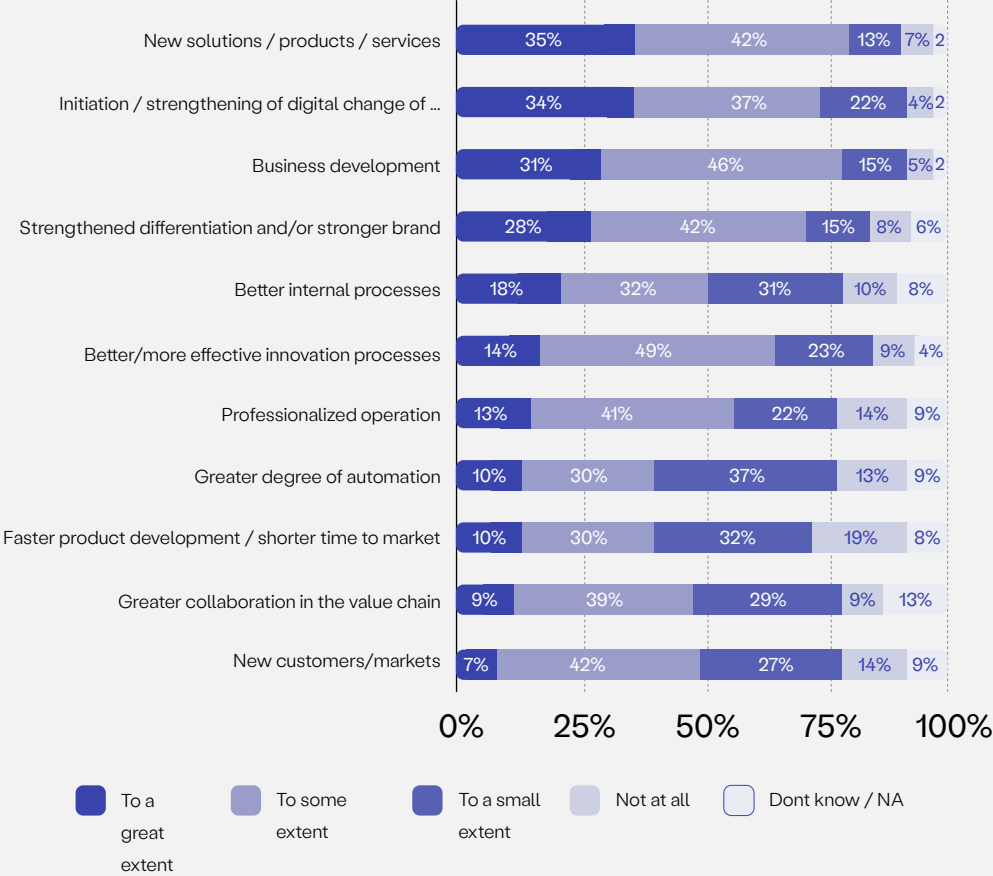
Figure 2. Building new competencies

	To a great extent	To some extent	To a small extent	Not at all	Don't know / NA
Understanding for the use of design methods	36%	44%	12%	5%	
Insights into design value creation	28%	50%	15%	4%	
Insights into customer needs and wishes	38%	35%	23%	3%	
Insights into the digitization needs of companies	38%	36%	20%	3%	
Understanding of business models and/or cases	22%	47%	17%	9%	5%

Note: The figure is based on responses from 100 participants

Virksomhederne er generelt positive i deres vurderinger af de forretningsmæssige effekter af deres deltagelse. Særligt virksomhedernes forretningsudvikling (77 %), igangsættelse eller styrkelse af den digitale forandring i virksomheden (71 %) og nye løsninger, produkter eller services (77 %) er i høj eller nogen grad blevet styrket. På andre parametre oplever mere end 50 % af virksomhederne, at de allerede har fået styrket deres forretning som en del af projektet, jf. figur 3.

Figure 3. Commercial areas already improved by the project

	To a great extent	To some extent	To a small extent	Not at all	Dont know / NA
New solutions / products / services	35%	42%	13%	7%	2
Initiation / strengthening of digital change of ...	34%	37%	22%	4%	2
Business development	31%	46%	15%	5%	2
Strengthened differentiation and/or stronger brand	28%	42%	15%	8%	6%
Better internal processes	18%	32%	31%	10%	8%
Better/more effective innovation processes	14%	49%	23%	9%	4%
Professionalized operation	13%	41%	22%	14%	9%
Greater degree of automation	10%	30%	37%	13%	9%
Faster product development / shorter time to market	10%	30%	32%	19%	8%
Greater collaboration in the value chain	9%	39%	29%	9%	13%
New customers/markets	7%	42%	27%	14%	9%

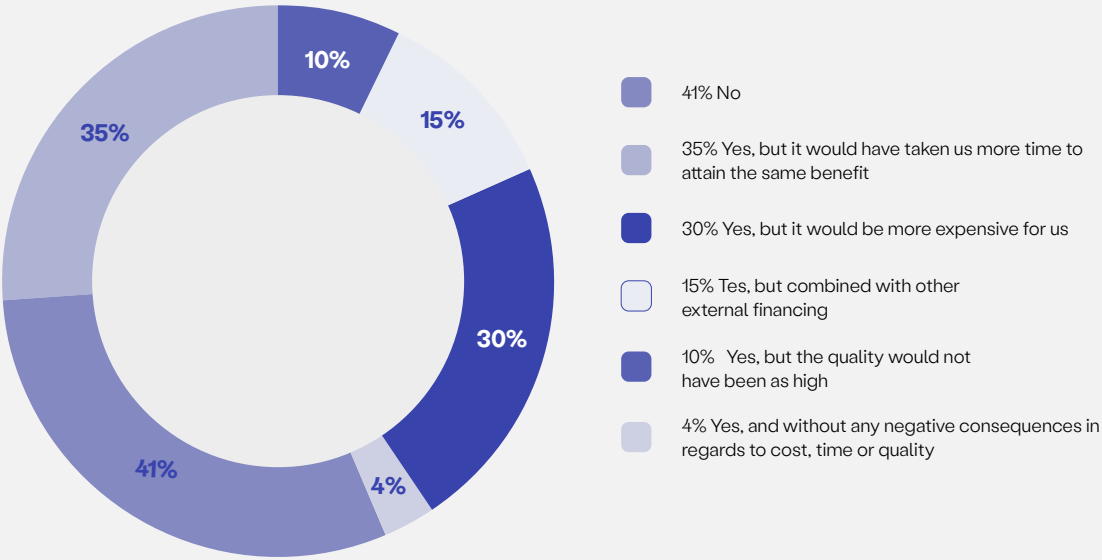*Note: The figure is based on responses from 99 participants*

Within 1–3 years, the companies expect that digitization in the project will strengthen their companies across multiple different business areas. The companies' business development (77 %) and new customers and markets (81 %) are expected to grow stronger by a large or to some extent within 1–3 years.

14 % of the companies consider that the project has already strengthened their potential for growth while 75% expect that this will happens. The companies have also assessed whether or not they have seen any concrete benefit in the form of increased turnover, increased number of customers, exports, or job creation as a result of their participation in the project. This has already been seen by just under a quarter of the companies while 66 % consider that this is something which they greatly expect to happen soon. The vast majority of the companies (81 %) expect that the best part of the benefit from participating in the project will be achieved within two years from its conclusion.

The companies have also assessed whether or not they could have attained the same benefit on their own. On this point, 41 % consider that they could not have

attained the same benefit on their own account, while 35 % believe that they could have attained the same result but that it would have taken them much more time. Only 4 % consider that they could have attained the same benefit without any negative consequences in regards to costs, time or quality, cf. figure 4.

Figure 4. Possibility to attain the same resources independently

- 41% No
- 35% Yes, but it would have taken us more time to attain the same benefit
- 30% Yes, but it would be more expensive for us
- 15% Tes, but combined with other external financing
- 10% Yes, but the quality would not have been as high
- 4% Yes, and without any negative consequences in regards to cost, time or quality

Note: The figures are based on responses from 112 participants

66 of the participating companies have provided written feedback in which they assess what they consider to be the project's greatest strength and which they would like to see in more business development initiatives. 46 companies highlight the project's choice of methods and the support provided by design agencies as the project's greatest strength. 11 companies highlight access to new competencies and an external perspective on their business as its greatest strength. Among other things they state:

"*Design thinking and sprints are effective methods. I wish that I had been introduced to them sooner in my life as a self-employed entrepreneur. Without a doubt, they are able to effectively accelerate development processes as the product concerned becomes fully defined.*"

"*When a company is on a digital journey, they are not always aware as to their specific and concrete needs. The sprint method has enabled us to think freely and it has given us the financial leeway to innovate. We are in no doubt that this brings along other tasks as well and this is something we are willing to pay for. For us, it means growth and new tasks for our partners.*"

"We very decisively had our need for digitization met across a wide range of internal processes and succeeded in unleashing the potential that we believe lies ahead of us. We are now ready for the digital journey that we are going to embark upon going forward."
"The strength is that a small company like ours can draw on help in order to really get to the heart of what is possible and creates value within the realm of digitization."

"The advantage is that we very quickly got a good and solid overview over our challenges and what we need to do in order to strengthen our business."

"The sprint enables a whole new analysis of internal and external processes which we would not have honed in on otherwise."

"Good support and a common understanding within the business for the need met by the solution from several angles. This provides further motivation to keep going and to implement our finished solution."

There is a huge difference between the number of hours put in and the size of the cash investment made by the different companies as part of the project. The average number of hours is 200. The majority of the companies invested around DKK 50,000 on the project.

83 companies expect their turnover to increase as a result of their participation in the project.

If you are interested in using the sprint method, you can contact any one of the following design agencies which have all assisted with digitization as part of the project:

Artlinco
Design Concern AS
Designit
design-people
Developa
EGGS Design
/et al
Flip Studio
Flying October
Futu
Gejst Studio
Implement Consulting Group
Innovation Lab, København
Lead the Talent
Permanent Beta
Regndans
Tokerød +

"Design thinking and sprints are effective methods. I wish that I had been introduced to them sooner in my life as a self-employed entrepreneur. Without a doubt, they are able to effectively accelerate development processes as the product concerned becomes fully defined."

The Hablab

Design sprint ensures better contact between citizens and staff in the care sector

The Hablab has developed a welfare technology platform that makes it simple and intuitive for citizens who are dependent on care and treatment at home to remember everything they have to do over the course of a day. The platform also serves as a digital tool for care staff in the home, at the care home, and in hospitals. A digital sprint helped Hablab to attain better visualization for both citizens and staff.

The Hablab, spearheaded by founder Cristiano Cairo, works to provide citizens with better safety and peace of mind by providing them with a way to follow their often vital treatment plans in their own homes. The care sector in Europe is under massive strain as a result of labor shortages. By 2035, the EU will be short 13 million nurses who are needed to undertake critical tasks at homes, care homes, and hospitals, according to data from healthcare researchers. Hablabs digital platform thus gives care staff better methods and more knowledge in what is often a high-pressure work environment. "*We work in a sector in which the citizens themselves must follow their treatment plans and remember many things every day, from drinking water and performing physical exercises to remembering critical medicines. At the same time, caregivers do not receive the knowledge and data as to whether or not citizens complete necessary tasks when they are alone,*" explains Cristiano Cairo regarding the background for the Hablab.

Communication between citizens and healthcare staff is an additional problem and one which is often hampered further by language barriers or issues such as vision and hearing impairments, memory loss, and time pressure. "*Imagine that you are a nurse from Latvia visiting an older citizen in their home. It's hard to communicate and you have no information about what the citizen may or may not have done between visits,*" explains Cristiano Cairo.

Sprinting out of the tunnel vision

It is for these reasons that Hablab developed a digital platform with hardware components with unique alert sounds to remind citizens to take their medicine, to drink water, or to do their daily exercises. Using this platform, caregivers can track what citizens have done and also find out whether anything important may have been forgotten. Such as a citizen forgetting to take vital medicine, for example.

"*We needed a better digital solution with icons and sound alerts for things such as water or medicine and which would work for both citizens and caregivers. A process like that can risk running aground without fresh eyes from the outside to glance over and contribute,*" says Cristiano Cairo on Hablab's road into its digital sprint.

"*We are very satisfied with the sprint process and the partners we collaborated with. It's easy to get tunnel vision and to stall in a process like this, so it was really invigorating for us to receive some help for our next breakthrough. The sprint consultants were really great at pointing out what we needed and the process advanced really quickly, but not too quickly*," explains Cristiano Cairo. The Hablab sent front-end people, their CTO, and product manager to participate in the entire sprint process, while Cristiano himself also took part in the initial stages.

Ready for international growth

In addition to improving Hablab's platform in terms of user-friendliness and crucial communication between citizens and care staff, Cristiano Cairo also predicts that his company will prove itself to be in a better position than their competitors when they come to expand all across Europe.

"For the partners that we work within the care sector, we can see that our products have become more attractive because they work better in practical working situations. In the long-term, our user design is a stepping stone that will allow us to compete on the market," explains the Hablab founder. In fact, the sprint method has proved so successful for Hablab that they plan to undertake yet another digital sprint in the fall.

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Distributed Design

By Mads Ohland-Andersen, Project Manager, DDC
and Frederik Lean Hansen, Senior Project Manager, DDC

What would happen if we shut down all the patent offices and liberated access to designs?

Open source and distributed design represent a whole new approach to how we design, produce and consume products. They represent an approach which makes it possible to develop products locally and from sustainable materials – and which in some cases can save lives.

When the coronavirus pandemic first reached Europe, we saw how a lack of ventilators forced staff at Italian hospitals to make difficult ethical decisions on matters of life and death. We saw how PPE and face masks were ripped from shelves and how prices rose sharply in line with demand. When solutions and remedies were finally available, our ability to distribute, to optimize and to undertake local adaptations was massively impeded both by patents and by material shortages. And now, a year and a half after the world first shut down, we find ourselves during a supply crisis. As cargo ships wait to dock at ports, companies all across the world seek to outbid one another in the battle for materials, machines and tools.

Things are moving too slowly
The pandemic has shown us just how vulnerable the world's supply changes are to change. In pursuit of the lowest possible unit price, production has been centralized around linear chains which begin on low-wage assembly lines. In order to transport these goods from the other side of the world, we make ourselves dependent on a string of complex systems and often inflexible interrelations.

Fortunately, we appear to be on our way out of the pandemic. But the climate crisis is waiting for us on the other side and the solutions are still not yet in place. Despite political reforms and climate summits, we have still not managed to take the necessary steps in the right direction. Instead, we allow silo thinking and the mechanisms of the market to determine what solutions we can use, how much they should cost and who can gain access to them. But in a narrow race against time, can we really afford to sit around and wait for the ships to dock?

The enormous elephant in the room is the fact that we need to profoundly restructure our entire society. An essential part of this responsibility lies with companies. Both citizens and companies therefore stand before a critical choice: do we want to continue getting our goods and resources through supply chains which are overloaded, unethical and utterly rigid? Or do we want to open our minds to alternative solutions – and the shapes these may take?

Homemade face masks
"What if?**"** – that classic question we often ask ourselves and each other. What if we liberated access to designs and closed down our patent offices?

We need to drastically change our approach to the way we produce and distribute goods. Fortunately, the coronavirus pandemic has shown us that a new direction is possible. Because even though PPE supplies dwindled, the need remained and ordinary people found their solutions online. YouTubers, bloggers and healthcare staff all across the globe shared designs for homemade face masks that anybody could make using materials from around the home. Since then, fashion companies have taken the pulse of the market and made face masks a staple in their collections. New companies have hopped on the band wagon and made good money from specially designed face masks. All while the original design remains freely available for consumers and designers to access online.

In other words, companies can earn money from a product even though anyone can find free instructions for how to make it online and for free simply by typing a few words into Google. Ventilators are naturally a different kettle of fish compared to face masks, and producing them is much more complex. But what if we had done the same thing with ventilators as we had with personal protective equipment? How many lives might we have saved throughout the pandemic if we had?

Open source is a success
We have previously – and with great success – seen even more complex physical products be replicated, adapted and distributed via open licences. The 3D printer is an excellent example. Before the company Prusa3D shared the design with the world, the 3D printer was an inaccessible product. The exclusive reserve of only a few specialist companies. But through open licenses, the company made it possible for anybody to build and develop their own 3D printer. As a result, Prusa3D has attained a huge user base at the same time as their original printer has also been improved upon and replicated the world over. And the company has built up an extremely good business from the back of it.

So if it is both possible and lucrative to open designs up for collective access – as we have seen from examples within electronics, electric cars and semi-industrial machines which make plastic recyclable – then why not do the same for machines which can save lives?
ner, der redder liv?

What is open source?

Open source is a set of principles and methods that give everyone free access to a certain innovation or design via open licenses rather than restrictive patents.

It began in the world of software where the open sharing of source codes allowed programmers all over the world to collaborate on a whole new level and to considerably improve both the speed of development and the quality of their designs. Since then, the concept has spread to everything from educational tools and vehicles to electronics, furniture, and plastic recycling.

Open and free access to designs, drawings, and material lists often open the door to new directions and improvements and it makes it possible to adapt solutions and designs to local resources and needs.

Open source benefits both NGOs and movements as well as commercial companies given that business models today often place greater emphasis on services, platform models, and certification than on traditional product sales.

What is distributed design?

Distributed design is essentially about decentralizing the open design process. Instead of transporting materials and products around the globe, global connectedness is leveraged to transport data. This access makes it possible to use local materials and digital manufacturing techniques such as 3D printing in order to manufacture products locally.

Distributed design results from the coming together of two global trends: the maker movement and digitization within the design discipline. This has led to the emergence of a new approach to design whereby creative individuals have free access to digital tools. This enables them to design, produce and manufacture products themselves or to establish connections to a global network of collaborators.

Case

CA+

Job and career service moved from the physical world to the digital world

Unemployment insurance fund and career partner CA used a digital sprint to develop a platform for flexible and efficient online discussion and feedback around CVs and applications at times which suit the customer.

When CA's customers seek a new role or want to change job, CA provides advice on how they can best complete their application or adapt their CV to the company they are applying to. In a demanding job market, the demands placed on applications and CVs are constantly in flux. For many years, CA offered their customers the opportunity to send their papers to CA's career advisors in advance of a personal discussion and feedback session held in person.

"It was a good service and highly appreciated by our customers, but it was resource-intensive on our end. We decided to discontinue this service much to the frustration of our customers," explains Anette Munch Pierce who is an innovation consultant with CA.

Another challenge was that customers already at work rarely had the possibility to come down for meetings with their career advisor from CA during ordinary working hours. Thus CA took the decision to undergo a design sprint to create a digital solution that could allow them to retain their service but in a less resource-intensive and more flexible form.

"The idea was to enable customers to get feedback on their CVs and applications in a fast and flexible way, without the need to meet in person or to make appointments with us. After all, our customers who are ready in work but want to change jobs most often work on their applications in the evening and at weekends," says Anette Munch Pierce.

CA specializes in serving members with more extensive educational backgrounds who work for private companies within domains such as IT, design, business development, HR, and sales.

Customer involvement
The design sprint itself was attended by eight employees and a handful of CA customers. Following the sprint, CA involved several customers to take part in targeted texts and to provide feedback, according to Anette Munch Pierce.

"It was an eye-opener for us to see how significant it is to involve members in tests before firming up the finished solution. After the sprint, we were left with a strong and convincing argument for just how important that was. The sprint was a quantum leap in terms of convincing our whole organization to involve members when developing and testing new products. So we now do that much more often and in different areas as well," she explains.

High customer satisfaction
At CA, there is broad consensus that the time spent during the sprint to really dig down, work together, illuminate problems from multiple angles, and to spend more time in a focused and creative process have all led to the company now using the method for other tasks as part of their daily operations. The new digital solution, which was a direct result of the sprint, means that CA's customers can now upload digital CVs and applications in both Danish and English and receive immediate feedback on their work. The solution is based on a combination of both coding and artificial intelligence. The design also incorporates elements of

gamification/gaming strategy to the delight of their customers.

"After a degree of fine-tuning, we are now sitting at a customer satisfaction rate of 95%. I think that's pretty great for a service that does not cost us a great deal in resources. In addition, customers now also have the opportunity to use our service 24/7 and it plays a role in both attracting new customers and retaining our existing ones," Anette Munch Pierce explains.

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The LEGO bricks of digitization are waiting for you

By Christian Villum, Entrepreneur and Digital Strategy Consultant

Just imagine that you are sitting on the floor with a big pile of LEGO bricks. A voice tells you: "build a house." So you get started. You don't know exactly what form the house is going to take, but you start building anyway. And sure enough, before long you have built a house. Perhaps not the prettiest one ever built, but a house nonetheless. If a passer-by were to walk past they would nod appreciatively and no doubt concurs: "that's a house, nice."

How did you know where to start? How did you manage to build something when the objective was so diffuse? The answer is because as a child, no matter whether you played with LEGO or not, you learned enough about the function and the principles behind the bricks to be able to build basic things on command. Are you a world champion? No, you're not. But you can certainly build.

Now imagine that you're teleported to a construction site where you are surrounded by building materials. This time the voice says: "build a real house" to which you respond: "I don't know how." The voice replies: "okay, then draw the house on paper and tell me how you want to build it."

You will then most likely draw a rough sketch depicting walls, windows, a roof, and foundation, and you will describe where you want the plugs, the cables in the walls, the pipes, and so on. You might not be able to build a house, but you can describe almost everything about how one's put together. Once again, these are things you know even if you've never once taken a trowel in your hands before.

Now imagine you're transported in front of a a computer. The voice says: "build a digital service." And that's where you hit the wall. Digital service? You haven't the faintest idea where to start. Even though you might have a fairly good understanding of what AI, 3D printers and VR are all about, you have no idea how to go about building these things.

I'm sure you can see what I'm driving at here: the fact that we as citizens – and especially as business leaders – should know more about the building blocks of digitization in order that we may help to build them. Bingo. You've heard it before: we need more people who can write code. But we also know that it is difficult to find the time and the motivation to realize this ambition. So we shrug our shoulders and say pass. But there is another and a considerably easier path. One very similar to the LEGO blocks you know already.

The American designer John Maeda has been quoted for saying: "before you can get machines to do what you want, you'd better learn to speak their language." By language, he doesn't mean that we all need to learn how to understand computer code. Rather it's about doing what you learned as a child to do with LEGO bricks. To learn just enough about their function and principles to understand how they can be connected together and built into something else. And don't worry, nobody expects you to become the next world champion in LEGO building. But rather just to understand how we can assemble things together at a level that is just functional enough for those who walk past to recognize what you have built.

Maeda calls this computational design. He has written the book How to Speak Machine (2019) which is highly recommendable for a non-technical audience. Start there and you will soon realize that building digital services is perhaps not the alien concept it may appear to be at first. Then the next step is to go back to the LEGO pile – because now it's time to start building.

This is possible because there is a new way to build digital technology which is based on the same principles you know from LEGO bricks. The phenomenon is known as no-code and involves tools that allow you to build fairly advanced digital technology without the need for technical background. You simply click things together. Want to train your own algorithm? Then use Teachable Machine or Obviously AI. Want to build a mobile app? Look no further than Glide or Bubble. Need to build a web platform? Then Webflow or Notion is your path forward. Do you need everything to communicate? Zapier or Automate.io have got you covered.

Disclaimer – you can't build everything with no-code. But just like with your childhood LEGO building, you can easily learn enough to take yourself from diffuse objective to functional prototype. You won't be winning any competitions, but you'll be able to do anything to get on-lookers – i.e. your customers – nodding in recognition as they say: "Now that's a digital service, how cool!"

The LEGO bricks of digitization are waiting for you.
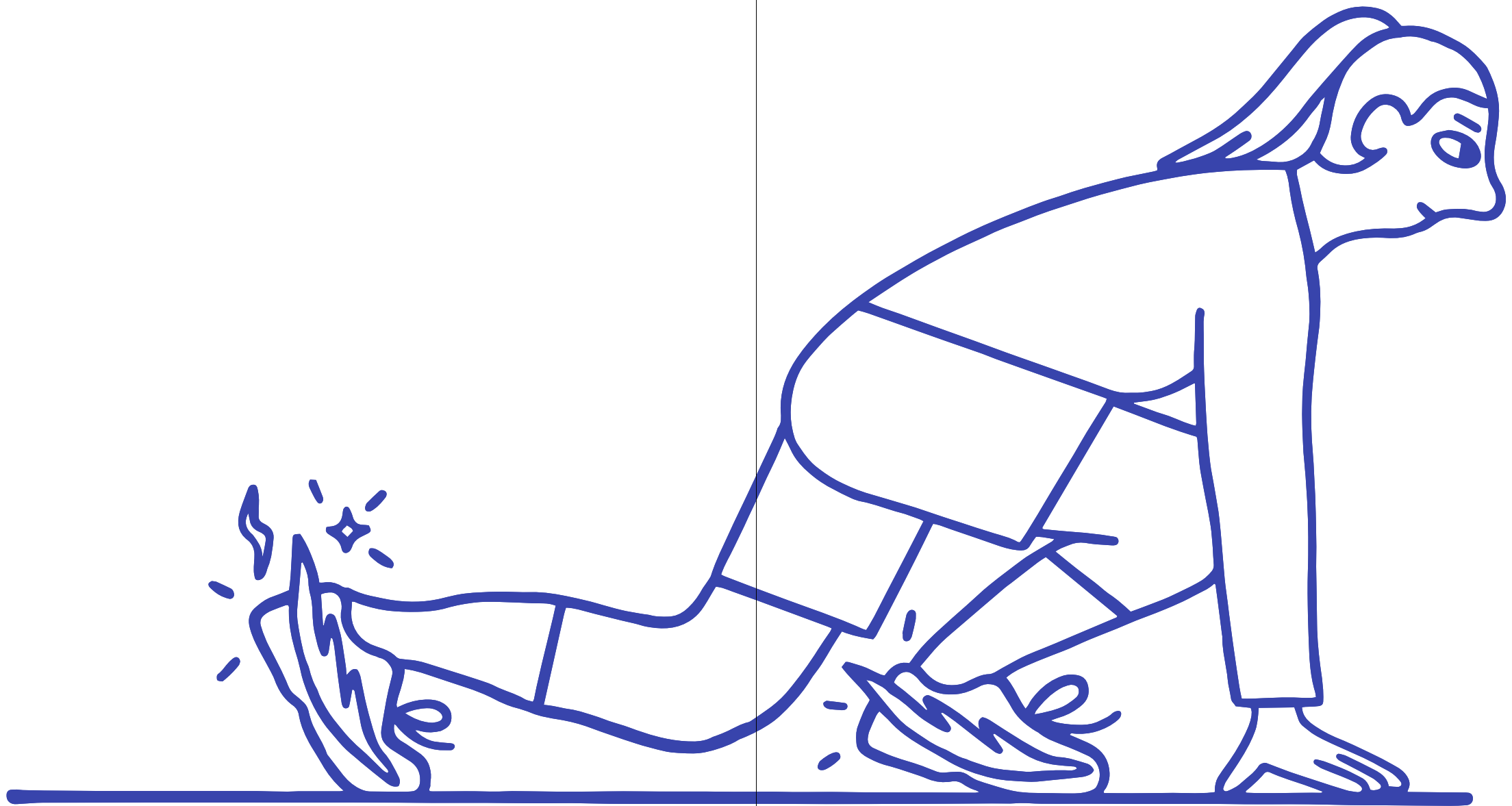
The DCC is Denmark's national center for design. We use design as a method to enable Danish and international companies to identify and pursue new opportunities for sustainable growth. Through experimental processes of innovation and practical tools, we build the knowledge and expertise to drive green, digital and social change. As part of our daily work in both Copenhagen and Kolding, we reach hundreds of organizations as well as small and medium-sized companies across Denmark and abroad. In fact, each year we collaborate with more than 2,000 business leaders, designers and decision-makers and we can see that our efforts pay dividends. Companies which work strategically with design experience more growth on their bottom lines, greater returns for their shareholders and bolstered competitiveness.

Read more at ddc.dk