DIGITAL TRANSFORMATION FOR ATTRACTIVE PLACES

INSPIRATION, TOOLS AND APPROACHES

EXECUTIVE SUMMARY

Digital transformation is making its way into most industries and sectors of society. You may have heard that everything that can be digitalised, will be digitalised. Digital transformation goes beyond that. We are talking about both a new way of doing things, and the completely new products, services and societal solutions that digitalisation will enable.

In an ever-changing world there is a constant demand to deliver services with higher quality, more effective and efficient services, and services that are more accessible and easier to interact with. While citizens, the business community and visitors are dependent on a growing number of services, there is also political pressure to make sure that the cost to deliver these services does not skyrocket. One of the ways to solve this equation of making operations both more effective and efficient is through digital transformation.

The same goes for place attractiveness – in order for places to become more attractive to residents and companies as well as to attract visitors, investments, entrepreneurs and talent, digital transformation and digital innovation will play key roles.

This, in turn, requires both leadership and creativity – as well as new methods to solve problems and harness new opportunities.

This poses these questions:

How can digital transformation be used to create more attractive places?

What are the strategies, tools and activities to make digitalisation work for cities and regions?

These are the topics of this handbook.

"How can digital transformation be used to create more attractive places?

The handbook is the fruit of the Nordic collaboration, co-creation and innovation project *Digitalisation for Attractive Places*.

Against this background, the purpose of this handbook is to help cities and regions to use digitalisation and digital transformation in order to become more attractive places for residents, companies, investors, talent and visitors.

A few words about the content: In **chapter 1**, we introduce the concepts of digitalisation and digital transformation, and strive to describe WHY these are more important than ever.

In **chapter 2** we address the HOW, i.e. strategies and tools for digital transformation, both on a strategic level and on a more tactical, hands-on level. One key message is that introducing digital processes is not only a matter of technological change but also very much about organisational and human change.

In **chapter 3**, we outline the WHAT, that is digital enablers and activities that can be used to enhance the attractiveness of places.

Finally, in **chapter 4** we present eleven recommendations for working with digital transformation in a place attractiveness context.

TABLE OF CONTENTS

1. INTRODUCTION: WHY DIGITAL TRANSFORMATION?

INTRODUCTION – WHY DIGITAL TRANSFORMATION?

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PURPOSE OF HANDBOOK

The purpose of this handbook is to help cities and regions to use digitalisation and digital transformation in order to become more attractive places for residents, companies, investors, talent and visitors.

DIGITALISATION – WHAT IS IT?

Introducing digital solutions to develop an organisation's processes, services or solutions can broadly be categorized into three types of activities: *Digitisation, digitalisation* and *digital transformation*. These are described in figure 1.

Figure 1: Definitions of Digitisation, digitalisation and digital transformation

DIGITISATION	*Conversion from analog to digital form:* Creating a digital (bits and bytes) version of analog/physical things such as paper documents, microfilm images, photographs, sounds, e.g. health records, location data or identity cards.
DIGITALISATION	*The enabling process:* Turning interactions, communications, business functions and business models into (more) digital ones, combining a mix of digital and physical processes and tools.
DIGITAL TRANS-FORMATION	*The effects of digitisation and digitalisation:* Effects of technical adaptation by individuals, businesses, societies and nations, which comes as a result of digitalisation.

MAKING A CASE _
WHY DIGITALISATION?

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We live in a VUCA world: The world is currently experiencing rapid developments in the areas of production, technology, communication and mobility. Start-ups and tech companies – think Uber, Airbnb and Tesla – are fundamentally changing markets, breaking new ground and disrupting traditional business models – as well as societal models

In this environment, *volatility*, *uncertainty*, *complexity* and *ambiguity* have become almost 'normal'. Some even go so far as to call 'VUCA' the digital normality.

Figure 2: The VUCA world – the digital normality

Volatility: The speed of change is faster than ever. Whether technological, social or economic – innovation cycles are becoming shorter and shorter.

Uncertainty: Increasing lack of predictability and prospects of surprise, making understanding of issues and events harder.

Complexity: In the digital age, more and more is determined by data and networks – which are characterized by many interconnected parts and variables.

Ambiguity: Cause and effect relationships are unclear. No precedents exist – everyone faces 'unknown unknowns'.

Sources

https://hbr.org/2014/01/what-vuca-really-means-for-you,

https://en.wikipedia.org/wiki/Volatility,_uncertainty,_complexity_and_ambiguity,

https://medialist.info/en/2018/10/04/designing-digitalization-the-opportunities-of-the-vuca-world/

WHAT DOES IT MEAN FOR PLACES – CITIES AND REGIONS?

In this new world of accelerating change and uncertainty, coupled with higher demands from and new behaviours of citizens, consumers of public services and businesses, places need to improve their efficiency, agility and accessibility. Strategies and processes need to become flexible and dynamic in order to tackle challenges and reap the benefits of new, unexpected opportunities.

Cities and regions aim to grow their economies and improve the welfare of their citizens. Many services provided by cities and regional bodies are expected to be provided digitally or have digital applications to improve their impact. Whether it is healthcare, social services, traffic, utility systems, elderly care, education or open data for smart cities – digitalisation will affect cities and regions, and the services they provide. All in all, this places digitalisation high on the agenda of cities and regions.

A critical part of the attractiveness of cities and regions is the interconnected and interdependent systems and processes – the operations – that provide benefits through useful and attractive services. Most of these operations are already in place today, delivering the services that are expected of them.

However, in an ever-changing world. there is a constant demand to deliver services with higher quality, more effective and efficient services, and services that are more accessible and easier to interact with. While citizens, the business community and visitors are dependent on a growing number of services, there is also political pressure to make sure that the cost to deliver these services does not skyrocket. One of the ways to solve this equation of making operations both more effective and efficient is through digital transformation.

The same goes for attractiveness – in order to become more attractive to residents and companies as well as to attract visitors, investments, entrepreneurs and talent, digital transformation and digital innovation will play key roles.

Digitalisation can enhance attractiveness of a place in many ways. These are some examples, and trends that relate to place attractiveness:

- **Destination marketing and development:** The growing supply of smart services allowing travellers to make their travel experiences more seamless.

- **Investment promotion and business attraction:** More and more investors and businesses expect that cities and regions make it easy to showcase investment opportunities in an accessible way, as well as make it easy to obtain, for example, permits when an investment decision has been made. Digitalisation offers many such opportunities.

- **Talent attraction, retention and development:** Digital marketing offers new ways of contacting and connecting with talents. Digital platforms are useful for showcasing employers and jobs, as well as engaging talent in different ways. Online education can be used for skills development.

- **Smart city development** makes available new and more efficient services to residents and businesses – enhancing the attractiveness of the city.

- **Co-creation and involvement:** Digital solutions enable involvement of inhabitants and stakeholders in place development.

In order for a place to be more attractive through digital transformation, a vision that can be shared and communicated is required. There needs to be a cross-sectoral strategy that guides priorities, and the right approaches and tools to move from theory to practice. That said, many places struggle to foster a strategic approach to digitalisation, to involve stakeholders and citizens in creating new solutions or to understand which technologies offer most benefits.

In addition, several sectors and parties will need to pull in the same direction if transformation is to take place.

This, in turn, requires both leadership and creativity – as well as new methods to solve problems and harness new opportunities.

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ABOUT THE PROJECT BEHIND THE HANDBOOK

This handbook is the fruit of the Nordic collaboration, co-creation and innovation project *Digitalisation for Attractive Places*. The project has aimed at helping the participating cities and regions to become more attractive to residents, talent, visitors or businesses through digital transformation and digital work modes. The participating organisations were municipalities, regional authorities and regional and local investment promotion, destination and business development organisations. A total of 11 organisations from Denmark, Finland, Norway and Sweden participated. The participating organisations are outlined in the appendix.

Activities have included case studies of international best practices of places that have used digital transformation to improve their attractiveness (see full list of case studies in appendix). Furthermore, we organised workshops with guest speakers, experience sharing and prototyping sessions. In these, the project participants got the chance to map out and visualise the challenges they faced and what potential solutions – i.e. a prototype – might look like. The first such project workshop took place in September 2018 in Malmö Sweden.

The participants in the project 'Digitalisation for attractive places' chose to work on some of the following challenges and opportunities:

- How to attract more visitors to a destination through digital marketing and enhancing the destination experience through digital interaction platforms?

- How to create a digital platform for giving seamless service and access to funding to entrepreneurs and startups in a region?

- How to enhance the involvement of residents and make them co-creators of new public plans and policies of a municipality? *Case box 1* illustrates how such a solution was created in the Norwegian municipality of Arendal.

- How to attract more talent and students to the city or region through digital campaigns and recruitment services or new experiences and/or online and offline target group engagement?

- How to create a regional digital strategy, supporting the digitalisation efforts municipalities, universities and businesses in the region?

After the first workshop, each participating organisation continued to work on their respective challenge and/or solution, with the support of coaching sessions with the project management team. A final project workshop took place in January 2019, where each participating organisation presented their progress and future plans and got feedback from the other participants as well as the project management. Here we also discussed and co-created around lessons learned and potential strategies for digital transformation discussed or applied on the project. The results of this process have been integrated into this handbook.

The project was carried out between May 2018 and February 2019.

A big thanks goes to the participants in the project, for their high level of engagement and motivation as well as their contributions to the project and this handbook. See full list of participating organisations in the appendix.

Also, thanks go to the interviewees in the respective case studies carried out in the project as well as the guest speakers at the workshops.

CASE BOX 1: ARENDAL MUNICIPALITY IN NORWAY ENGAGING INHABITANTS THROUGH A DIGITAL PUBLIC MEETING PLATFORM

Arendal's initiative *With a Heart for Arendal* ('Med Hjerte for Arendal' in Norwegian, or MHFA) started in 2012 as a collaboration between the municipality, voluntary organisations, and the organisation of municipalities in Norway ('KS') in order to develop a new welfare model and methods of co-creation. The initiative grew into a permanent network of more than 100 organisations, including the business and cultural sectors, research, and the municipality of Arendal. This specific case illustrates how a municipality and the network of MHFA use new technology to enhance and increase public participation and co-creation in developing an overall municipal plan to attain the 17 UN sustainability goals, with a specific emphasis social sustainability. A combination of digital and social meeting places and different communication possibilities have been developed and tested, both mobilising residents to contribute to the municipal planning process, as well as transforming the leadership model of such processes.

The initiative was started in 2016 by administrative and political leaders and representatives of cultural, business and research organisations (the board of the MHFA network), who collaborate on a regular basis. The key question was how to collaborate in a more engaging and democratic way, mobilise people and resources for a sustainable future and create a sense of belonging for everybody in Arendal.

The solution was to design a common process for public meetings using new methods and digital tools to strengthen collaboration and secure broad participation. Guidelines for co-creation were developed and a library of methods and tools was compiled to address participation, dialogue, collaboration and co-creation in municipal planning and development.

The implementation period started with a decision by the city council to design a collaborative platform supporting the principles for working together with civil society in Arendal. The municipality began the overall municipal planning process in 2018. The design of the planning process had been developed in a collaborative way, with meetings and workshops using tools like dialogue cafes, Kahoot etc. The planning process was then launched through mobilisation at several public meetings and workshops, which included the digital public meeting as an integral part.

The Arendal municipality Facebook page, Facebook events, and the official website were used to spread information about the ongoing process. The MHFA Facebook page used videos and other information to communicate and mobilise residents to take part in the planning process through an open Facebook group. People not on Facebook could interact by e-mail.

A clear success factor has been the leadership design of the process, with both political and administrative leaders in the municipality and representatives from civil society participating in the steering committee of the planning process. In addition, the combination of social meetings, workshops, information meetings and presentations have been successful in showing how digital public meetings are a tool to gather input continuously through the planning process. Just during the very first phase, connected to the hearing of the planning programme, more than 700 suggestions from engaged inhabitants have been sent to the digital public meeting. The previous review of the overall municipal plan in 2012, hardly had any input from civil society.

The next step is the main hearing phase of the overall municipal plan. The mobilisation and communication strategy is being revised continuously, and new target groups are being identified. There is an ambition to reach out to and involve people who are out of work, in school, or are in prison. This is an ongoing development and innovation process for a sustainable democracy and placemaking in Arendal. The last phase will be to analyse data collected from the digital platform which will give a unique understanding of what can be done to ensure welfare and sustainability for people in Arendal.

2. HOW TO DO IT: STRATEGIES AND TOOLS FOR DIGITAL TRANSFORMATION

HOW TO DO IT: STRATEGIES AND APPROACHES TO DIGITAL TRANSFORMATION

Introducing digital processes is not only a question of technological change – it is also very much about *organisational* and *human change*. In this chapter, we will introduce strategies and tools that will help guide you in your digitalisation efforts, both on a strategic level and on a more tactical, hands-on level.
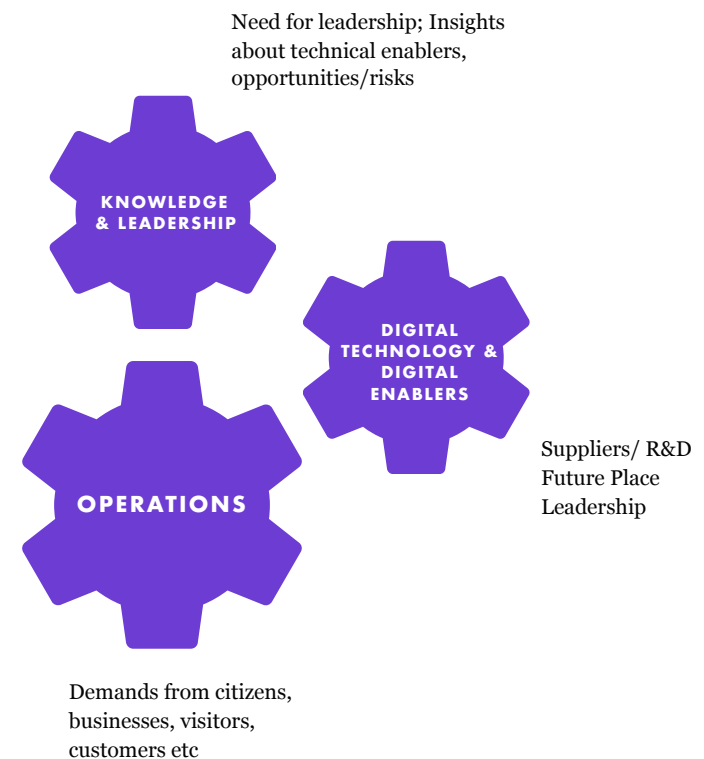
UNDERSTANDING THE INTERPLAY BETWEEN OPERATIONS OF CITIES AND REGIONS AND DIGITALISATION

Figure 3 illustrates the interplay between the responsibilities – i.e. the operations – of cities and regions, and various available digital technological enablers.

Operations are important work processes and activities carried out by cities and regions. These range from basic services for citizens to regional development, investment promotion and destination marketing. There is constant pressure from residents, companies and visitors to deliver services with higher quality, more effective and efficient services, and services that are more accessible and easier to interact with.

Digital technology and technical enablers include a host of digital services, devices and different combinations of hardware and software solutions. These can include everything from Artificial Intelligence and Virtual Reality to Internet of Things. The actors in the ICT – Information and Communications Technology – industry keep marketing and supplying ever more capable solutions, and research and development units are constantly improving their technical performance. Various digital enablers that can be used to enhance the *attractiveness* of a place will be introduced in the next chapter.

Figure 3: The interplay between operations and digitalisation

Need for leadership; Insights about technical enablers, opportunities/risks

KNOWLEDGE & LEADERSHIP

DIGITAL TECHNOLOGY & DIGITAL ENABLERS

Suppliers/ R&D Future Place Leadership

OPERATIONS

Demands from citizens, businesses, visitors, customers etc

The introduction of enabling technologies in various operations depends on the *knowledge and leadership* of the stakeholders involved. This includes understanding the capabilities of different technologies, the relevance of technical enablers to the objectives of the operations, and ultimately understanding the potential risks of introducing new technology. In this sense, *knowledge and leadership* translates into digital maturity.

Another aspect of *knowledge and leadership* relates to the ability to successfully implement new digital solutions to reach the objectives of the operations. This is where a change leadership approach can be applied and, to support the introduction of a relevant solution, service design methods are used.

A common mistake in digitalisation efforts is to focus too much on technology and digital enablers initially – that is, WHAT to do to solve a problem – instead of first focusing on properly understanding 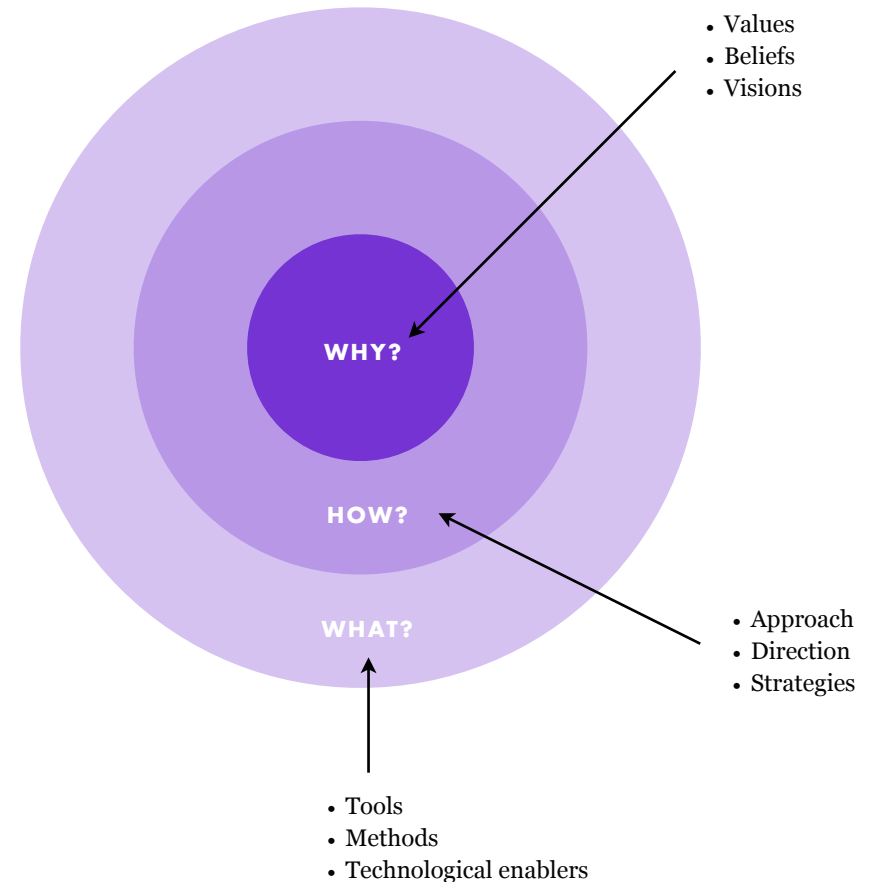the problem or challenge that needs to be solved, and then move on to find the appropriate technical solution to solve it. Here, addressing the question of WHY is a good approach, before moving on the HOW and WHAT questions. A helpful model in this regard will be discussed in the next section.

THE WHY – HOW – WHAT MODEL AS A STARTING POINT FOR DIGITAL TRANS-FORMATION

In most cases, when people are faced with a problem, the instinct is to approach it head-on; WHAT are we going to do to solve the problem? Once that is settled, the next natural question is; HOW do it? Although this appears to be an effective way to deal with a problem, it does not put the problem into context, and it does not allow for reflection regarding what we actually want from the solution. This requires the most fundamental question: WHY?

See our adaptation to digital transformation in a place context of the *Golden Circle model* by Simon Sinek in *figure 4*.

Figure 4: The parts of the Golden Circle model in a digital transformation context

- Values
- Beliefs
- Visions

WHY?

HOW?

WHAT?

- Approach
- Direction
- Strategies

- Tools
- Methods
- Technological enablers

Source: Simon Sinek, adapted to digital transformation by the authors

Asking and answering Why?

The answer to the Why question can be the most difficult to formulate. It typically reflects values or beliefs that a community or society share on a fundamental level. That digital services should be accessible, easy to use and safe to use, for example, is obvious when the Why question reflects the will to create a democratic, inclusive and safe society. The most common error is to confuse Why with the result or outcome. Lower cost, less time spent or higher revenue are all results, and consequently not the answer to Why.

The Why is also the level on which disparate stakeholders can agree, regardless of whether they are politicians, civil servants, businesses or citizens. It can be formulated as a vision that is constant over time, and continues to inspire and motivate, even on a personal level.

Asking and answering How?

Intrinsic to How, is the choice of an approach or direction – which is the best way to fulfill the Why? This is a strategic level which identifies your priorities and the directions which are most effective. The How question also focuses on who the target group is, and who the stakeholders are. A solution catering for citizens, businesses or visitors may need different approaches.

→ How to lead strategic change, involve stakeholders and understand target groups will be discussed in the coming sections on change leadership and service design.

Asking and answering What?

The What question in a digitalisation context, contains a further level of detail. Action plans, technical specifications, choice of technological enablers, tools or methods typically belong to the What issues. With the rapid development of digital technological enablers, it is imperative that they are decided in a What context, by the people who are closest to the solution and have the necessary knowledge and skills to make those decisions. Even if a specific digital technology becomes obsolete or is replaced, the fundamental Why and the choice of How is still likely to apply.

→ Technological enablers, tools and methods will be discussed in chapter three on tools and activities.

RECOMMENDATIONS

- When approaching a challenge or problem, start with WHY? HOW and then WHAT are next in sequence.

- The WHY typically reflects what you strongly believe, your values and vision

- Make sure that the WHY is shared by the stakeholders – it can help solve conflicts over HOW and WHAT.

- Make sure that technical details are handled in a What context, especially when technological development is rapid.

For more inspiration, watch Simon Sinek's seminal TED Talk 'Start With Why' (see link in footnote[1]).

Asking the Why question is also a critical starting point for creating the necessary sense of urgency needed to set in motion a larger, strategic change effort. Change leadership will be discussed in the section.

[1] https://www.youtube.com/watch?v=IPYeCltXpxw

DIGITAL TRANSFORMATION AND LEADING CHANGE

Digital transformation is also business and organisational transformation. Introducing digital processes is therefore not only about technological change – it is also about human change. New processes require organisational change, which in turn requires new behaviours by those working in or with an organisation.

Introducing digital processes in a place context creates additional layers of complexity, as change typically needs to happen in several functions within a city or regional government, as well as in several organisations in the place context. A place is – as argued in the introduction – a multi-stakeholder ecosystem of different actors that need to work together in an orchestrated, collaborative effort based on trust and co-creation.

This challenge is not to be underestimated – inducing change and new behaviours is a challenging task. Research from McKinsey and Company shows that 70% of all change efforts fail[2], and other research has indicated that up to 80% of transformation ef-

forts fail. The research refers to change in a single organisation – imagine the challenge to create real change in an ecosystem comprising several stakeholders.

So, how can we lead and manage the necessary changes to pave the way for digital transformation? What are the success factors? What are the strategic frameworks that can be used to facilitate and guide change? This is the topic of this chapter.

Two complementary frameworks for digital transformation are proposed:

1. Leading change through eight steps of change
2. Service design to define, prototype and test new services and solutions

"New processes require organisational change, which in turn requires new behaviours by those working in or with an organisation.

STRATEGIC CHANGE THROUGH THE EIGHT STEPS OF CHANGE IN A PLACE

To make any transformation successful it is necessary to change people's behaviour, which can be achieved when people have had the chance to first see, then feel and then change their personal behaviour.
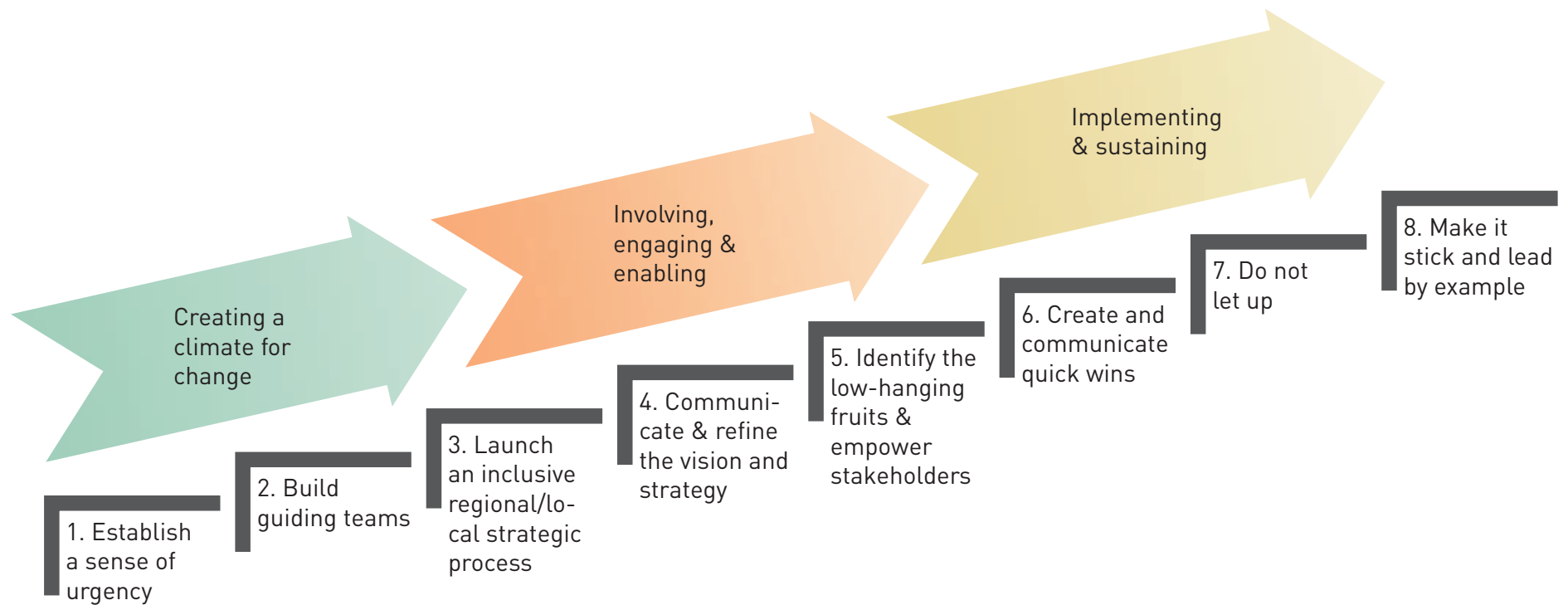
To meet these challenges, we introduce the eight-steps of change in a place context framework, which can be used as a starting point for a digitalisation change process. The framework is inspired by John P Kotter's Eight steps of change, but adapted to a place context by complementing it with the authors' experience in managing change processes in a local and regional place setting.

In short, digital transformation in a place context requires a shared vision, trustful relations between stakeholders and motivated key individuals.

How to achieve this? Following the eight-steps model will help. The framework is illustrated in figure 5.

Figure 5: Eight steps of change for digital transformation

Implementing & sustaining

Involving, engaging & enabling

Creating a climate for change

1. Establish a sense of urgency

2. Build guiding teams

3. Launch an inclusive regional/local strategic process

4. Communicate & refine the vision and strategy

5. Identify the low-hanging fruits & empower stakeholders

6. Create and communicate quick wins

7. Do not let up

8. Make it stick and lead by example

Source: Modified from John P. Kotter's Eight steps of change

STEP 1

Create a sense of urgency around a single big opportunity or crisis

When introducing new digital processes, it is critical to create awareness of the need for strategic change. Long-term change does not usually come from fear, but from pointing to a great opportunity. That said, a place that is facing a crisis or looming crisis may need to use this as a starting point for instilling a *sense of urgency*. This process is tightly linked to answering the Why? discussed in the previous section; a compelling answer to Why digitalisation is important for the place and its stakeholders may serve as a sense of urgency.

Also, benchmarking with frontrunner locations can be a concrete tool for creating a sense of urgency, collecting inspiring insights from the industry in question, as well as from other industries. The case of digital transformation in the destination marketing space in Skåne, Sweden, de-

scribed in case box 2, is an illustration of the importance of working with business intelligence and insights to trigger change.

STEP 2

Build guiding teams

Connect people to your change idea. Pull together a guiding team with the necessary credibility, skills and connections to provide change leadership. This team may represent one or several organisations in the location. The Tierp/Älkarleby case described in case box 3 illustrates the importance of building the team with motivated key individuals that quickly manage to develop trust within the team.

STEP 3

Launch an inclusive place-based process to create a vision, strategy and plan ahead

Involve key stakeholders in the place, in a strategic process to create a sensible, clear, simple and uplifting vision and a common strategy for digital transformation.

The importance of including different stakeholders in the strategy and vision making cannot be underestimated. The single most critical pitfall in a change process – in our experience – is to not include the users, who will work with a new strategy, process or solution. Fear of change can very often be mitigated by having a direct dialogue with – or even better, involvement of – those whose job or task may change as a result of a digitalisation effort.

In this step, useful tools for involvement include strategy workshops, focus groups, interviews and surveys.

In addition, using *service design* for creating a common objective and vision is a powerful tool. By visualising the challenges and potential solutions in the team, a shared vision and purpose may arise,

which later can serve as a common starting point and justification for the work ahead. Read more about service design in the next section in this chapter.

STEP 4

Communicate, seek commitment and refine the vision and strategy

Communicate the change vision and strategy ahead effectively, in order to create understanding and to relate to feelings. Keep communication simple and heartfelt, not complex and technocratic. Meet place stakeholders to get their commitment regarding the vision and plan ahead and use their input to refine it.

STEP 5

Identify the low-hanging fruit solutions and empower organisations and people to act on the vision

Identify areas that are easiest to change and begin working with these. Show how it's done by telling success stories. Try to remove obstacles that block action, like ineffective performance measurements, and try to mediate when there are conflicting interests between different stakeholders.

At this stage, new platforms for driving the change may need to be created; a team, project, partnership or even new organisation which is in charge of carrying out the strategy and realising the vision. Stakeholder involvement can be ensured via work groups, co-financing of common work and/or governance.

STEP 6

Create and communicate short-term wins

Show quick results in order to energise early adopters and other change 'helpers', enlighten the pessimists, defuse the cynics

and build momentum for the effort – and to legitimise the effort in the eyes of the different stakeholders. Celebrate the small steps and acknowledge the efforts undertaken are important aspects here.

Here digital prototypes, and so-called 'MVPs' – minimum viable product[3] – can play an important role in creating and testing early results and showing stakeholders that you are on the right track.

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[3] A minimum viable product (MVP) is a development technique in which a new product, software or website is developed with sufficient features to meet the needs of target users.

STEP 7

Do not give up

Continue with wave after wave of change and continue to show results. Do not declare victory too early. Keep the urgency up and remove or work around obstacles in the region. An effective way of keeping a sense of urgency is to utilise benchmarking: Show what other leading places are doing to communicate that you need to sustain the efforts.

STEP 8

Make it stick and lead by example

Leaps into the future can slide back into the past. Keep the change in place by trying to communicate and maintain a new, supportive culture – and leading by example is one of the best ways to do that.

"Continue with wave after wave of change and continue to show results. Do not declare victory too early. Keep the urgency up and remove or work around obstacles in the region.

CASE BOX 2: DIGITAL TRANSFORMATION IN DESTINATION DEVELOPMENT AND MARKETING – THE CASE OF SKÅNE, SWEDEN

The Region of Skåne, Sweden, as well as two of its main destinations, Malmö and Helsingborg, are inspiring cases of digital transformation in the destination development and marketing area.

The three entities – the destination marketing organisations (DMOs) of Skåne, Helsingborg and Malmö – have through digital work-modes and approaches fundamentally changed the way they work with destination development and marketing and how they service visitors in different stages of the traveller customer journey. They have, for example, closed their traditional tourism information centres and replaced them with a digital presence in other channels.

Key aspects of the digital transformation and change journey of the three entities have been:

1. **The realisation that travellers find information in new ways,** through digital and mobile means, most often on global, well-established platforms.

2. **Business intelligence, collecting insights and analysis** – both about consumer behaviour and technologies and innovations – have been essential elements for triggering and paving the way for digital transformation.

3. **Allowing for experimentation and innovation** – creating an atmosphere of experimentation, in which team members dare to do try new things and make mistakes have been important success factors.

4. **Bold leadership and political support** – many changes in the destination development space – such as closing a city's tourist information office – can provoke heavy criticism from the public, media and policymakers. Dealing with such criticism in a professional and coordinated way is essential to be able to sustain the transformation.

5. **Offering competency development** to both internal staff of the DMO and to the tourism industry in general are essential ingredients to facilitate and sustain digital transformation.

DESIGNING FOR DIGITAL TRANSFORMATION – CHANGE THROUGH SERVICE DESIGN

There are a lot of things to take into consideration when you aim to do a bigger change in your service system and ways of working, utilising the digital possibilities now at hand. Of course the dream is a one fits-all solution or some easy quick fixes to leverage a digital transformation cheap and fast, but we all know that reality needs customized solutions and time. Add to this that projects in the public domain are complex, especially in the multi-stakeholder setting of places. This means that the synergies cannot be readily predicted, because every change affects the other, and the causality can only be spotted in hindsight. Thus, solutions can only be found by testing, probing, sensing and responding to what is learned along the way.

In order to tackle this type of complex projects, there are two things that are key to success. The first one is to spend enough time and energy on understanding the domain and what the problem or situation that we are looking to change really is about, which dependencies and synergies are at play and how the different actors relate to each other. We need to go beyond our initial understanding and dig deeper, covering as many perspectives as possible – not only our own.

The other thing is to approach solutions with an experimentation mindset. If we're attentive, we will still find out new things about our problem also when we're about to change it. In order to get the effect we're hoping for, it's important to adjust to those new insights. We will need to try, test and probe and possibly fail a couple of times along the way in order to find out the best approach and search for cohesion in the complex situation. The initial experiments need to be kept small and inclusive so that insight comes quickly, and when the time comes to invest big chunks of taxpayers' money, we are sure that the solution will give the right return to the community.

SERVICE DESIGN IN A PLACE CONTEXT

The Digitalisation for attractive places project included a number of separate projects with the public sector as lead partner, each in a different stage of development. In order be able to give useful input to all of them in their unique situation, we designed a custom process using practices and frameworks from the field of Service design. By mixing alignment, exploration and ideation exercises we hoped to provide both concrete methods, and a step-by-step experience how to look at the entire lifecycle of a project from a service design perspective. We also created a boiled-down worksheet to provide for an easy overview of this adapted process, illustrated in figure 6 on page 31.

The process we used in this project

Usually, when we at ustwo meet clients, we start off with a Service Definition workshop, were we carefully explore these steps together over a few days in a facilitated process. The worksheet we designed for the Digitalisation for attractive places-programme aims to cover the most important

parts of this for a good service design foundation, but on a "bite size" level. The first main part focuses on visualising the problem space and/or idea so that the groups could start seeing the relations, dependencies and expectations between stakeholders, users and service providers. For the next part, we put the users' needs in the centre, identified the main target users for the respective projects and tapped into what was known about their motivations and pain points.

The goal with this process has been for the participants to identify which underlying assumptions their projects were built upon. We wanted them to reach agreement of the purpose of their projects, start evaluating what kind of knowledge they actually had, and then where they needed to start looking for more insight. What do we need to learn more about in order to be able to move the system to where we want it to be?
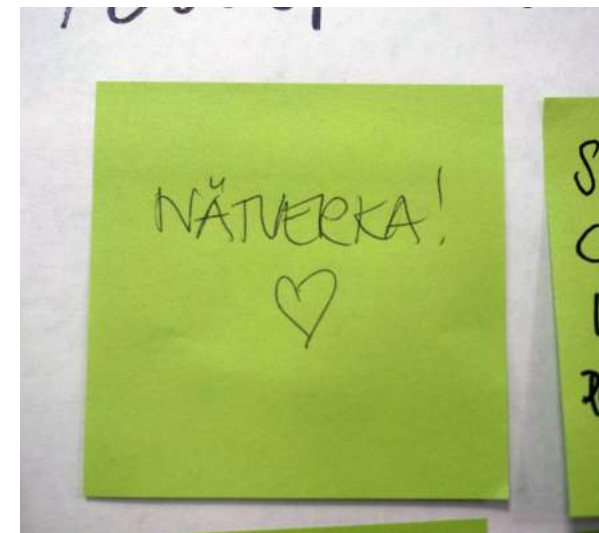
Figure 6: Worksheet

STARTING WITH THE BIGGER PICTURE – VISUALISATION AND SERVICE MAPPING

To playfully map out the different aspects and dependencies of your service makes you see things and identify gaps and connections that sometimes is hard to get a good overview of. Building out an idea or vision using Lego, Play-Doh and drawing is a powerful tool, because it forces the group working on the problem to visualise and make things concrete. Discussing the often abstract parameters of the problem space and solutions, making them physical and visible helps the stakeholders to align and spot the areas and questions that needs most attention. The goal here is not to solve any problems, but to make sure everybody is set out to do the same thing for the same reasons. That is the necessary foundation of any change project.

THE IDEA – THE VISION AND THE WHY OF THE PROJECT

Now it's time to put the outcome from the previous exercise down in writing. The visual model is hard to interpret for those who weren't in the room when it was conceived, and not suited to be the only thing to bring back and communicate to the organisation at home. Then it's important to synthesize the decisions into succinct statements about the project idea, and the intention behind it. Boiling this down to just a couple of sentences is a good way to set a vision and guiding star for the project. Specify what you are you trying to do and for whom you want to make a change, how you think it can be done and the reasoning behind choosing this specific strategy. The why provides purpose and background and finding the right one can be a game changer when it comes to implementation and engaging people. Working with digitalisation is mainly about working with human behaviour and this is where changes in tools and processes meet their ultimate challenges. Implementing changes means having the people within the systems and organisations buying into the why.

USER-CENTRED DESIGN

Doing an analysis of who will be using the service is crucial to be able to design right but also to test and validate. Who are the core users? Who are also directly affected? Who are indirectly affected? When having identified and prioritised – which is often a case of making hard choices – you have identified a core user. Now it's time to find out their needs, their motivations and what pains or obstacles might be in their way. This could be done by user interviews or surveys, or at a first stage based on assumptions and the group knowledge at hand. If based on assumptions, it's extra important to validate and learn more from real users as soon as possible.

WHAT NEEDS TO BE IN PLACE?

You now know what you want to do, why you want to do it and who you are targeting. In order to start, what needs to be in place? Doing a gap analysis and identifying these things will make it easier for you to spot in what order things needs to be done, hence where to start and who you need to involve. To what extent and when do you need to involve your stakeholders? After having done this part thoroughly, you'll be able to identify where to start, and you can make a first stab at a somewhat realistic timeline for the project.

PROTOTYPING

One of the most powerful methods in order to learn and think about and communicate your ideas is to prototype. Creating 'quick and dirty' prototypes to test the relevance and comprehensibility of what you want to do ensures that your focus and money go in the right direction. Creating paper sketches to test user flows or setting up testing stations in relevant places gives you invaluable answers. Identifying a smaller test group or narrowing the focus temporarily in order to start building something relevant is also a way forward. Except from learning and testing, making prototypes also sharpens your thinking and makes it easier to identify the right questions to ask. To identify what to prototype is an important step in order to start validating and getting answers to your questions.

MAKING IT HAPPEN

So... off you go then! Making action plans, booking meetings with the right people and developing your ideas into something tangible. In the *Digitalisation for attractive places project* we asked our participants to make a high-level plan and offered them a set of coaching sessions to be distributed freely over the months to come. The coaching and follow-up sessions are not a luxury reserved only participants in programmes like this one, you can set up processes of your own to make sure you become accountable for progress.

For instance, steering group meetings, public feedback/input sessions, stakeholder presentations, peer group feedback or just regular check-ins with anyone whose feedback you think is important will help you do the job. In order to get people to buy into your project and the change it will lead to, involvement and engagement are key. Using reference groups, user testing and open feedback sessions will help you create an engaged community. In short, designing to bring the relevant people onboard already from the start will help you create both ambassadors and harvest knowledge and insights you might have
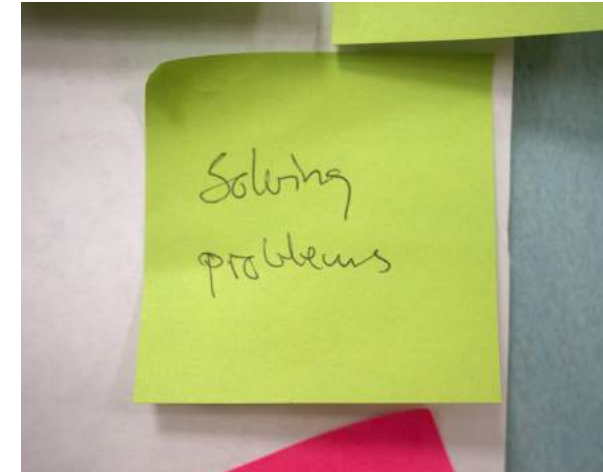
missed otherwise. Remember, digital transformation is as much about implementing tools to make it easier for the individual to interact and solve their needs as it is about nudging general human behaviour in ways to leads to gains for society.

Let's make great things happen!

CASE BOX 3: TIERP AND ÄLVKARLEBY MUNICIPALITIES IN SWEDEN – BUILDING A COMMON DIGITAL DESTINATION EXPERIENCE THROUGH SERVICE DESIGN

The case illustrates how the two municipalities applied service design methods as a work mode to drive the digital transformation process of the common destination experience forward. It also illustrates how service design can constitute an integral aspect of change leadership processes.

Early on, the two municipalities began collecting insights about how digital services could be used to enhance the joint destination experience of the two municipalities. Thereby they got new inspiration at the same time as it allowed them to avoid mistakes that others have made in their digitalisation processes. Reaching out to experts, networks and other places to collect experiences and lesson learned was an important step in this regard.

The next step was to form a team of civil servants with complementing competencies, such as destination development, business development and IT. Here an important success factor for the work has been that the desired change was not imposed from upper management or the policymakers in the municipality. Rather, there has been a high amount of trust between up management and the team of civil servants which has given the team a high degree of freedom to find new solutions.

The third step was a prototyping workshop, aimed at mapping the needs of the core user in this case potential visitors to the destination, and potential solutions to meet the needs. The final result of the prototyping workshop was a visualisation of a digital platform that enabled the two municipalities to market themselves as one destination. According to the team, this co-created visualization has served as a strong, compelling joint vision to collaborate around. It has also made it easier to plan and visualise subsequent steps in the process. One success factor has been trust that everyone in their team will deliver what they have promised to deliver.

A fourth step has been to fine-tune the potential solution by identifying the target groups and defining and describing a number of 'personas' – that is, specifying characteristics of the main target groups. This has been done by surveys and interviews, and by forming a reference group of tourism industry companies.

The fifth step has been to define the main performance criteria of the digital platform and commission a software provider that will help create the platform.

3. DIGITAL ENABLERS AND ACTIVITIES FOR PLACE ATTRACTIVENESS

DIGITAL ENABLERS AND ACTIVITIES FOR PLACE ATTRACTIVENESS

The purpose of this chapter is to outline a range of digital enablers and activities that can help enhance the attractiveness of a city or region, with the aim of providing inspiration for cities and regions to find new ways of making their place more attractive to their target groups.

Useful digital enablers and activities for enhancing place attractiveness are:

- Digital marketing

- Virtual reality/Augmented reality (VR/AR)

- Open data

- Massive Open Online Courses (MOOC)/e-learning

- Artificial intelligence (AI)

- Geodata

These will be discussed in the following.

DIGITAL MARKETING

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What is it?

Digital marketing is the marketing of products or services using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium. Often a combination of digital marketing channels is used to create maximum outreach and impact.

The Copenhagen case, in case box 4, illustrates how a combination of online advertising, content marketing, social media marketing and email marketing have been combined into an efficient and cost-effective inbound marketing funnel.

Some of the most common channels and types of digital marketing include:

Search engine optimisation (SEO) is a process that focuses on affecting the online visibility of a website or a web page in a web search engine's unpaid results—
often referred to as 'natural', 'organic', 'earned' or 'editorial' results.

Search engine marketing (SEM) is the process of gaining website traffic by purchasing ads on search engines.

Social media marketing (SMM) focuses on creating and sharing content on social media networks in order to achieve marketing and branding goals. Social media marketing includes activities like posting text and image updates, videos, and other content that drives audience engagement, as well as paid social media advertising.

Social media optimization (SMO) is the process of increasing the awareness of a product, brand or event, by using a number of social media outlets and communities to generate viral publicity. The types of social media involved include RSS feeds, social news and bookmarking sites, as well as social networking sites, such as Facebook, Twitter, video sharing websites and blogging sites.

SMO is similar to **SEO (search engine optimisation)** in that the goal is to drive traffic to a web site.

DIGITAL MARKETING

Influencer marketing is a type of marketing which focuses on influential people rather than the social media market, as a whole. It identifies the individuals who have influence over potential customers and focuses marketing activities around these influencers.

Email marketing is the use of email to promote products and/or services and to develop relationships with potential customers and/or clients. Using customer segmentation techniques to ensure that the message is appropriate for the group it is sent to and use personalisation techniques, so the recipient is addressed as an individual, are ways of adding sophistication to email marketing.

Online advertising is a form of marketing which uses the Internet to deliver promotional marketing messages to consumers. Displaying banners or ads on other websites belonging to the same niche is the most common form of online advertising. Online platforms such as Google AdSense allows for automatically serving ads on other content sites.

Content marketing is a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly defined audience. The main goal of content marketing is to make viewers interact with the content by reading, sharing, and commenting on it. It can be used together with other types of digital marketing such as SEO or SEM. High-quality content also allows a place to persuade an audience about the expertise of the place and its businesses in a certain niche.

How can digital marketing be used to make cities or regions more attractive?

The potential in using digital marketing to create awareness among and directly attract visitors, businesses and talent to a city or region are immense. If combined with community and inbound marketing approaches, digital marketing is one the most cost-efficient and powerful marketing tools there is. The possibilities to measure return on investment is also a strong reason why digital marketing is gaining ground at the expense of more traditional marketing approaches. The opportunities to address individuals and engage directly with them are also considerable strengths of digital marketing.

Some of the uses of digital marketing include:

Talent attraction: By combining several digital marketing forms into one funnel or platform, a city or region can build an effective marketing machine to attract talent. As the Copenhagen case illustrates (case box 4), a combination of content, such as the quality of life of the place, the dynamism and innovativeness of a specific sector (such as life science or fintech), the number of interesting employers in that sector and, finally, available jobs create an attractive whole that attracts talent to the city and its companies.

Destination marketing: DMOs have been the frontrunners in employing digital marketing to attract and engage with visitors. Common uses include using *social media* to showcase the destination and to engage with potential, present and former visitors (for example by encouraging visitors to tag photos from the destination with the destination's name in the hashtag). An increasing number of DMOs are also closing their traditional tourism information centres and replacing them with digital presence in other channels, especially social media channels, as illustrated in case box 2. *Influencer marketing* is also on the rise: Destinations share content with influencers in the hope that they will re-share or directly pay them to talk about the destination.

Business attraction: Digital marketing offers many opportunities for cities and regions that want to attract and retain investors, that are yet to be harnessed by most locations. *Content marketing* could be one viable strategy, for example by sharing content about a specific regional or local stronghold industry which is helpful to others, thereby positioning the location as a hotspot for know-how in that industry.

CASE BOX 4: COPENHAGEN – AN EXAMPLE OF A SUCCESSFUL DIGITAL CITY MARKETING EFFORT TO ATTRACT TALENT

Many cities want to run a marketing campaign. Few do it well and achieve results, even fewer do it when they have done the necessary homework that will make the marketing bear fruit in the long run. *Copenhagen Capacity* **has done all of these things in the right order.**

The Danish capital's investment promotion agency first created a strategy for Talent Attraction Management and focused on starting to take care of its international talent by involving the international students in ambassador networks. City of Copenhagen and other stakeholders helped by creating International House Copenhagen, a one-stop-shop providing easy to access soft-landing services for internationals.

Then the time was right to start inviting the rest of the world to Copenhagen. The Greater Copenhagen brand along with its visual identity was already there when in 2016 they initiated their first digital campaign "There is more to happiness". This talked about the promises of the Scandinavian lifestyle and work-life balance. To date, 16 digital campaigns have launched, gradually becoming more focused on their target groups. While still using the happiness background story as Emotion Selling Points, Copenhagen Capacity has been focusing on attracting international talent to the capital by teaming up with companies and going after gaming, health tech, fintech, engineers and other talents. 121 international talents have been hired thanks to these campaigns. Including the indirect value (e.g. spending) that these people bestow on the local economy, the net profit to the taxpayers is ca 32 million euros, according to Copenhagen Capacity's estimation.

Three success factors for Copenhagen's achievements stand out:

1. **A good landing page, with a strong and concrete value offer for career and lifestyle.**

2. **A very clear understanding of the target group.**

3. **Using social media and other appropriate websites to reach them.**

The results have been clear and measurable: A good example is the gaming talent campaign where the Greater Copenhagen and Skåne gaming industry with 11 companies started a 13-week long campaign. It resulted in more than 11 million people receiving the message that Greater Copenhagen is looking for game developers. Nearly 1 000 specialists browsed among the 40 jobs on the landing page that the campaign marketed to foreign computer specialists, programmers and other developers in the gaming industry.

Social media used were Facebook, Twitter, LinkedIn and YouTube. On average, 64 % of the international talent clicked several times or submitted their contact data. The messages were tailored to the audiences (for example, young coders most likely do

CASE BOX 4: COPENHAGEN – AN EXAMPLE OF A SUCCESSFUL DIGITAL CITY MARKETING EFFORT TO ATTRACT TALENT

not want to read about superior Scandinavian daycare offers). The messages contained both work and leisure opportunities. 498 people sent an application through a campaign site to one or more of the 40 vacant jobs. 102 were invited to a job interview through Copenhagen Capacity's team of Talent Managers who helped to select the appropriate candidates for companies. In addition, 475 applied directly to the companies. 24 game developers, 14 from abroad, received got a job contract with possibly more to come, as career and relocation decisions take time.

VIRTUAL REALITY/ AUGMENTED REALITY

What is it?

Digital technical enablers are constantly improving our ability to experience physical objects in a new way. Digitization is the transformation from analogue to digital format, like a physical document, for example, that can be viewed on a screen or a monitor. The next step, which has been enabled by technology, is the virtual.

Figure 7: From physical to digital to virtual

Physical   Digital   Virtual
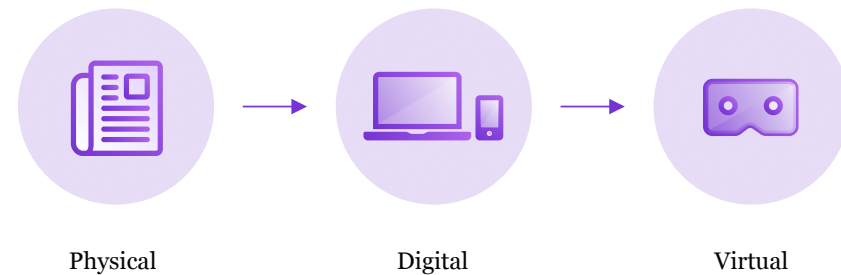
Virtual reality (VR) is best understood by first defining what it aims to achieve – total immersion. Total immersion means that the sensory experience feels so real, that we forget it is a virtual-artificial environment and begin to interact with it as we would naturally in the real world. In a virtual reality environment, a completely synthetic world may or may not mimic the properties of a real-world environment. A realistic three-dimensional image or artificial environment, which is enabled with a mixture of interactive hardware and software, can be presented to the user in such a way that it is accepted as a real environment. This means that the virtual reality environment may simulate an everyday setting (e.g. walking around the streets of a city), or may exceed the bounds of physical reality by creating a world in which the physical laws governing gravity, time and material properties no longer apply.

Augmented reality (AR) is a type of interactive, reality-based display environment that takes the capabilities of computer-generated display, sound, text and effects to enhance the user's real-world experience. Augmented reality combines real and computer-based scenes and images to deliver a unified but enhanced view of the world.

How can VR/AR be used to make cities or regions more attractive?

Visitor experience and destination marketing: By definition, VR enables you to experience objects, buildings, and places that may or may not exist physically. For objects and places that do exist, the virtual experience could mean that you can benefit from not having to travel, hence saving time and money. This is a sort of *virtual tourism*, which can potentially be used to inspire and attract visitors to real places. This is already available in readily accessible 360-degree videos for Paris, Rome and London, for example.

Urban planning and business attraction: For objects and places that don't exist, it is a possibility to experience and assess simulated environments without actually having to physically create or build them.

Simulating objects and places that don't exist, can be useful for urban planning or allowing future customers and tenants to experience how real estate will look upon completion. This case has great potential for participatory development where city planners and citizens can experience in a new way how their city could develop.

This could also be a useful tool in business attraction when "pitching" real estate to possible investors. The possibility to customize the VR property with the expected features can both pique the interest of the investor and elicit confirmation that the expectations have been correctly understood.

OPEN DATA

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What is it?

Open data is the idea that some data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control. One of the most important forms of open data is open government data (OGD), which is a form of open data created by public sector institutions.

The purpose of open data can be to empower citizens, strengthen democracy, help small businesses, welcome and guide visitors or to create value in some other positive, constructive way.

How can open data be used to make cities or regions more attractive?

One of the most obvious benefits of providing open data is that it can spur new activities, services and innovations that can help make the place more attractive, for example to businesses, residents or visitors.

The City of Aarhus in Denmark has, for example, set up an open event database in which different institutions and event organisers themselves can add events and happenings. The DMO of the city, Visit Aarhus, uses the event database to showcase events on digital screens in the city.

Combining different sets of data with geodata can spur new business opportunities in niches that were not possible with analogue data. By combining for example data from different sources such as mobile phone tracking, wireless connection counting, visual surveying and ticket purchases, enhanced or new services to residents or visitors could be developed.

Many DMOs, for example, aim to get an overview of the flow in the destination of tourists from different countries to be able to inform the tourism industry, thereby encouraging them to provide better services for tourists.

MASSIVE OPEN ONLINE COURSES/E-LEARNING

What is it?

A *Massive Open Online Course (MOOC)* is an online course which is accessibly to a wide range of participants and that can be made interactive by means of the Web. MOOCs provide participants with access to course materials that can be used normally in a traditional education setting; lectures, videos, study materials, examples and problem sets. In addition to this, MOOCs can offer interactive user forums, which are extremely useful in building communities for students, teaching assistants, and professors.

Today, *e-learning* have become a reality in schools, universities and workplaces, even though the participants may meet regularly with each other and with their teachers or instructors.

In fact, the research on e-learning indicates that technological enablers have vastly improved distance education as we know it. However, face-to-face education (between teacher and student and between students) still has advantages that are difficult to bridge, which is why blended learning, a combination of e-learning and face-to-face learning, is the optimal solution.

The advantage of e-learning is that it is scalable and can be used for large numbers of self-paced students. The content can be accessed any time and communication between teachers and students and between students themselves, can be asynchronous using email, electronic messaging or shared documents. Blogs or discussion boards allow further interaction among students, and evaluation functionality can be included in the systems used.

How can MOOCs and e-learning be used to make cities or regions more attractive?

Sharing knowledge and positioning the place as a hotspot in a certain field: Places which have a university or other teaching institution can, by making some of its courses openly available to everyone, promoting their place (city or region) and university. The awareness of both the teaching institution and the geographical place are increased locally, regionally, nationally and internationally. The awareness and goodwill created by offering valuable courses online contribute the attractiveness of the place, potentially both for visitors and students who may apply to pursue a traditional education, inspired by the MOOC availability. A reputation can be built around a specific area of expertise that characterizes the place in question.

Talent and skills development – improve technical and vocational skills of a city or region: Places that do not have a university or other teaching institutions can nevertheless offer courses through MOOCs to its citizens, workforce and students since it is available globally. If the courses are selected and packaged, perhaps with a theme (sustainability, industry 4.0, smart cities, tourism etc.), a city or region can become more attractive to different target groups. In order to provide lifelong learning opportunities for all and the flexibility to introduce a workforce to new skills, cities and regions can explore the advantages of e-learning and training provided by employers. The self-paced aspects of e-learning make it ideal to pursue during free time or after work.

Using e-learning to make entire cities into learning environments – learning cities: Through e-learning education is moving off school campuses and into the world of everyday life. According to Institute for the Future, communities will develop new tools and processes for peer-to-peer learning. Cities seeking to develop both their communities and their economies will tap these bottom-up movements to begin systematically developing themselves as learning platforms. Where school systems once defined the best neighborhoods, urban learning platforms will define the best cities. Over the next decade, these learning cities will emerge as leaders in 21st-century urban development. One example in the Nordics is the town of Kotka in southern Finland, which has a vision of innovating the education system by making the whole town a platform for learning through digital means[4].

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[4] Read more here: https://www.shipfestival.org/how-a-small-town-in-finland-is-revolutionizing-the-way-we-learn-in-the-next-century/

ARTIFICIAL INTELLIGENCE

What is it?

Artificial Intelligence (AI) relates to the broader concept of machines being able to carry out tasks in a way that we would consider "smart", initially by reproducing capabilities such as calculating (arithmetic) or storing information (memory). With improved technology the concept of AI has evolved from complex calculations to mimicking human decision-making processes and carrying out tasks in ever more "human" ways.

AI – devices designed to act intelligently – are often classified into one of two fundamental groups – applied or general. *Applied AI* is far more common – systems designed to intelligently trade stocks and shares, or manoeuvre an autonomous vehicle would fall into this category.

Generalised AIs – systems or devices which can, in theory, handle any task – are less common, but this is where some of the most exciting advancements are happening today. It is also the area that has led to the development of *Machine Learning* (ML). ML is an application of AI based around the idea that if given access to relevant data, the machines can learn for themselves.

**How can AI be used to make cities or
regions more attractive?**

A prerequisite for AI applications is access
to vast amounts of relevant data regarding
a specific area of interest. For example, ac-
cess to Geographical Information System
(GIS) data and customer/visitor prefer-
ences have the potential to impact business
attraction and the tourism sector, respec-
tively.

Some examples are:

Business Attraction: Solutions based on
GIS technology can provide a tool for
places of any size to easily match their
available properties with investors. This is
an example of the widening range of ap-
plications known as Proptech – property
technology – enhancing the commercial
segment of the real estate market.

In order to extend the reach of their avail-
able real estate, investment promotion ac-
tors like Locate in Kent have started to use
a GIS platform, and Berlin Partner has de-
veloped its own GIS platform. The imme-
diate benefit is that prospective investors
being able to browse the web and look at

online datasets but this also enables pre-
dictive models and AI solutions to discover
insights into these investors' decision mak-
ing and, ultimately, matching properties
and investors.

Customizing the visitor experience:
Through access to large amounts of data
regarding the habits and preferences of
tourists to a destination, AI can be used to
learn what visitors are looking for and gen-
erate customized and targeted offers that
are more likely to be converted into a pur-
chase.

With a growing number of competing des-
tinations, success depends on being able to
predict and respond to customers' expecta-
tions with the development of innovative
services to accompany them at each stage
of their journey before, during and after
their stay. As an example, a number of
cities in the Nordics are employing AI to
answer routine questions from tourists
about e.g. opening hours of different at-
tractions, thereby freeing up capacity of
destination developers to focus on the
strategic development of the destination
experience and marketing.

GEODATA

What is it?

Geodata consists of geographical location information in a digital format. The digital format is important because it means that the data can be managed by a host of devices and systems, like geographic information system (GIS), and that it can be transferred and shared readily.

How can geodata be used to make cities or regions more attractive?

Urban planning and physical environment:
Geodata is fundamental to making planning processes more efficient and enabling cooperation on the Nordic, national, regional and municipal levels. In terms of digitalisation for cities and regions, this is a very relevant area to focus on. Geodata and the management of digital maps will stimulate efficient solutions for storing, accessing, and sharing geographical data. The processes and work flows of city planning and building permits, for example, will be enhanced to save time and effort benefitting the practitioners and civil servants.

Another hands-on example is how residents can participate in the management of coastal areas through digital maps, such as cleaning plastic, which is being used in Arendal, Norway. By registering areas that needs maintenance or monitoring on the map, the public can inform the municipality officers to come and pick plastics up.

Services to citizens and business: The services to businesses and citizens applying for different types of permits, for example, can be made more accessible

and easier to use. Use of geodata by cities and regions is also a way to enable the development of new innovative e-services.

Destination experience: Making services based on geodata available to visitors is a common use of geodata, for example through a downloadable city app.

An example is Helsingborg in Sweden, that has launched an app called *Guide Helsingborg*, which is a digital guide that helps the visitor to find their way around the destination and find attractions as well as the story behind the attractions, through sound and audio-guides, pictures and video. It can also be used to follow what is happening at the destination from distance or for planning the visit. All the major attractions are part of the app, and more and more attractions are continuously added. There are also around 20 thematic tour guides in the app, for example a 'city tour', 'flower tour' and 'recommendations by locals tour'. The audio-guides in the app are built on *beacons technology*, allowing the app to activate content when someone approaches a specific attraction, say a painting in a museum.

4. FINAL WORDS OF ADVICE

– 11 recommendations for digital transformation in the place context

FINAL WORDS OF ADVICE

11 recommendations for digital transformation in the place context

Here we outline eleven recommendations for working with digital transformation in a place attractiveness context: These recommendations have been co-created by the participants in the project, and are based on their hands-on experiences of applying digitalisation to their place attractiveness challenges and opportunities. The recommendations have also been complemented with lessons learned from the case studies carried out as a part of the project.

THE 11 RECOMMENDATIONS ARE:

1. **Start with 'the Why?':** Digitalisation is a means to an end, not an end in itself. It's therefore important to always keep in mind why a certain change or new solution is needed and for whom it is done. This will help shift the focus from technology to people and the actual solution solving people's needs.

2. **Continuously link 'the Why' with the 'the How' and 'the What':** Make sure that you not only keep the Why in mind, but also think about what it means for how things are done and what the final solutions will look like.

3. **Define needs and problems first, then think about solutions:** Digital transformation is primarily about people, not technology. By focusing on needs of the target groups and end users at all times, the full potential of digitalisation can be unlocked. Here prototyping as a tool can help define and validate complex problems and make informed choices.

4. **Find your team and define roles:** Make sure you build a transformation team that both have the right skills and motivation to make things happen, and make sure everyone understands their role in the work ahead.

5. **Management support:** Make sure that top management, both civil servants and politicians, in the organisations involved in the change understand why the transformation is necessary and delegate trust and a mandate to really change things.

6. **Stakeholder engagement and mobilisation:** Engage and include those that have a stake in the transformation. This will increase the likelihood that the necessary changes are in fact implemented.

7. **Find your early adopters, champions and ambassadors:** Identify people in your organisation and the wider place ecosystem that are inspired by improving operations and that want to work with you in changing things.

8. **Communication and 'storydoing':** Show that it is possible to achieve change and transformation by communicating success stories and create a story by getting things done.

9. **Have the courage to try, fail and try again:** Digital transformation and innovation require courage to experiment and try new things – and to fail and learn from the mistakes to improve solutions in an iterative process.

10. **Make time for reflection and learning:** Leading and organising complex processes with many stakeholders in a place context are one of the most challenging tasks there is. Make sure that the agenda is not only filled with meetings and hands-on work, but also with time for reflection and learning.

11. **Be curious, creative and make sure you try to understand the world around you:** New knowledge and inspiration are drivers of transformation. Continues business intelligence to identify and understand new trends and developments in technology, organisation, consumer behavior and expectations and business models is a must.

GOOD LUCK!

5. SOURCES

SOURCES

Web:

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https://en.wikipedia.org/wiki/Volatility,_uncertainty,_complexity_and_ambiguity

https://medialist.info/en/2018/10/04/designing-digitalization-the-opportunities-of-the-vuca-world/

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Kotter J. P. (2012), Leading Change, Harvard Business Review Press, Boston, MA, USA

APPENDIX

CASE STUDIES

Carrying out case studies of international best practices of places that have used digital transformation to improve their attractiveness has been an integral part of the project.

The overall purpose of the case studies has been to show the relevance of digitalisation and digital transformation strategies, methods and activities to making cities and regions more attractive. In addition, each case study has had a specific purpose to illustrate or analyse a particular strategy, work-mode, tool or activity for making a city or region more attractive through digital transformation.

A number of more comprehensive case studies have been produced in the project, each of which has been published as a stand-alone report. These are:

1. Digital transformation in destination development and marketing – the case of Region Skåne, City of Helsingborg and City of Malmö, Sweden (short version in case box 2)
2. Smart cities and digital transformation – the case of Amsterdam and Barcelona
3. Technical Enablers of Digitalisation I – Artificial Intelligence (AI), Virtual Reality/ Augmented Reality (VR/AR) and Blockchain
4. Technical Enablers of Digitalisation II – Massive Open Online Courses (MOOC)/e-learning, Geodata & positioning and Internet of Things (IoT)
5. Facilitating access to open data – the case of Open Data DK and Copenhagen City Data Exchange

In addition, a number of more brief cases have been drafted, for the purpose of illustrating digitalisation strategies, tools or activities in this handbook. These are:

6. Arendal municipality in Norway engaging inhabitants through a digital public meeting platform (case box 1)
7. Tierp and Älvkarleby municipalities in Sweden – building a common digital destination experience through service design (case box 3)
8. Copenhagen – an example of a successful digital city marketing effort to attract talent (case box 4)

PARTICIPATING ORGANISATIONS IN THE DIGITALISATION FOR ATTRACTIVE PLACES PROJECT

Arendal municipality, Norway

Business Region MidVest, Denmark

Region Östergötland, Sweden

Sävsjö municipality, Sweden

Telemark Country Municipality, Norway

Tierp municipality, Sweden

Tranås United, Sweden

Turku Business Region, Finland

Viborg municipality, Denmark

Värnamo municipality, Sweden

Älvkarleby municipality, Sweden

APPENDIX

ustwo

Future Place
Leadership™

About ustwo

ustwo is a digital product and service studio. Our mission is to launch products, services and companies that have a meaningful impact on the world. With studios in London, Sydney, New York and Malmö we work together with startups, public organisations and some of the biggest brands in the world, helping them define and build the next level digital services.

In the field of emerging needs and trends, we work with solutions for how technology can transform lives for the better. We believe that besides the craft of designing and building great digital experiences, the real differentiator is HOW you do it.

Collaboration and working as one team unleashes the collective genius, bringing out the strength in what we can do together.

www.ustwo.com

About Future Place Leadership

Future Place Leadership is a Nordic management consultancy specialising in the development, innovation and marketing of places.

Our mission is to make places more attractive, connected and sustainable for people and business, by helping them to turn challenges of our time into opportunities.

In short, we make places great.

We offer four types of services: Inspiration to start new place-based initiatives, analysis, strategy support and help with execution of new activities. One of our specialties is that we help our clients and partners innovate and develop new ways of dealing with challenges and opportunities.

Our expertise lies within talent attraction for cities, regions and countries, business attraction, place branding and place marketing, digitalization, change leadership and placemaking.

www.futureplaceleadership.com