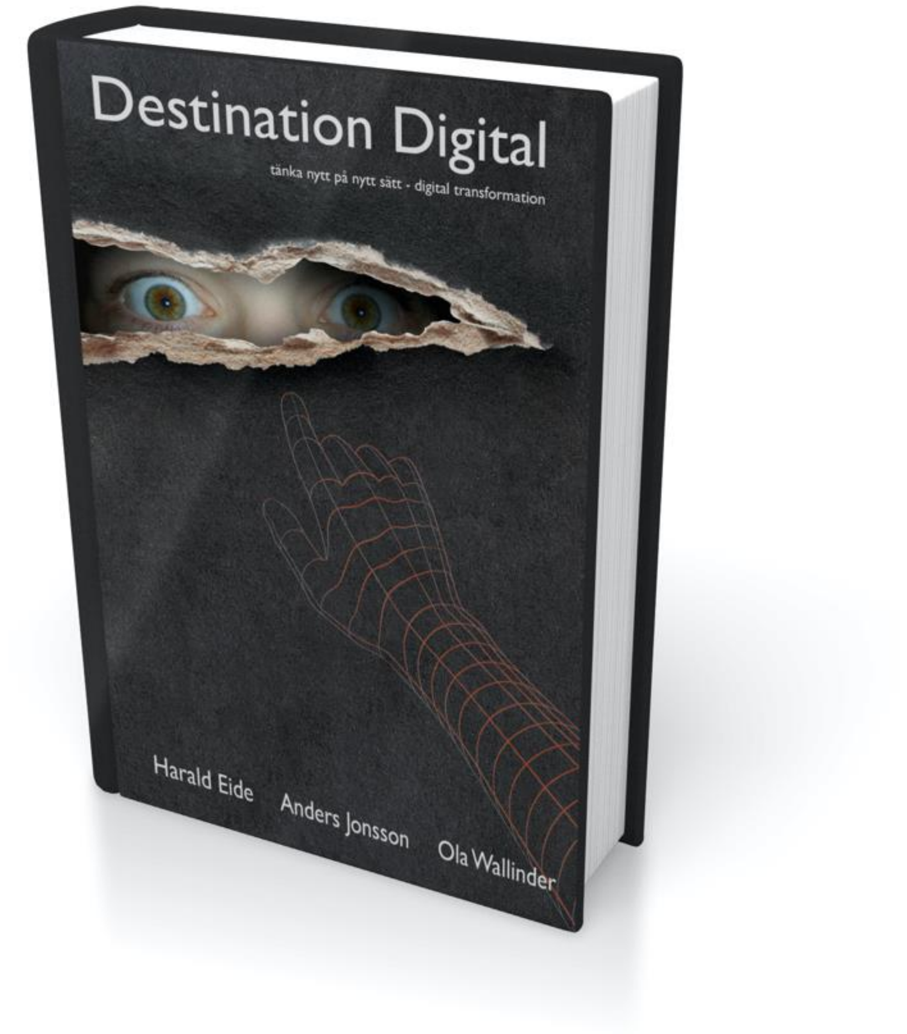
Digital Transformation in Practice – Rapid and Continuous

This whitepaper brings a compilation of learning and pragmatic experiences based upon five years of in-depth focus in guiding companies to drive digital transformation. An additional informative output from these experiences has been published in our 2017 book, Destination Digital.



Introductory thoughts

Presently, many entities talk about becoming data driven, creating new services for customers or end-to-end flow efficiency, maybe take a different position in the ecosystem or point blank, becoming better in using information or to carry through a digitalization – whatever that means.

But, once again, here we are, wondering where we are heading. All around us, technologies are being developed and combined in a never-ending accelerated pace. The customer behavior is changing, and new players are cutting the goodies out of our traditional value chains, while yet another is screaming that information is the no.1 driver of improvement.

And here we are…

Where to start in this complex area and environment? Maybe it is discussions about just that which hold us back. Especially as we realize that we must start out in all dimensions, simultaneously in a world of silos. D'oh! as Homer Simpson would have said.

Is our strategy relevant? If we have not defined our position and role in the ecosystem from the new prerequisites, then it's probably not. And actually, what do all the nice words in our strategy mean?

Are we in a hurry? It all depends on how we look at it. As soon as we have created our future picture and new ways of working in the ecosystem and in our main flows, we realize that every day passing without being in that state, we are not gaining corresponding value. However, one thing many have in common is the frustration, regardless of organizational level, asking ourselves why do we not develop and launch the services I have already talked to the customer about? Where is my app? Why don't they get that being in control of master data is a prerequisite to it all? And a plethora of other questions.

In summary, this whitepaper is focused to find practical roads ahead based on real experiences where companies wished for a digital transformation. To transform into the digital world in record time. To create a common focus, show value, bring cross-functional engagement and to get the prerequisites in place should not take more than six months. Naive? Perhaps. Possible? Yes. Everything in this whitepaper, Infobility has had the privilege to facilitate. So, if you are in the midst of a digital transformation, this subject matter is for your organization and particularly if the effort to transform has become stalled.

Well, why do these efforts sometimes get stalled? Among the reasons we find:

- Perhaps management feels a little insecure within this area and no one has visualized the value and put money on repositioning or information access.
- Without ownership, nothing will happen. The business doesn't talk information, but mostly processes, organization, applications, and systems. And no one owns the questions.
- Information quality and access is deficient, and we crouch under the odds for age-long projects. Where do we start more rapidly?

- The IT side of the company is often immediately addressed, but this is first and foremost a business matter. Repeating, a business matter!
- In some cases, a digital strategy is living a life of its own. To be over-explicit, the business and digital strategies must fuse and be integrated. Both business and information/digital capabilities must be built into the business plans.
- Even more so, information is of cross-functional nature, which is often times messy and complex. Silos are kingdoms and the “busyness” of and duplication of work the effect.
- Few understand why the need to invest in competence and infrastructure because of the lack of a context in a clear future picture with estimated value.

But, without information at the fingertips when and where it is needed, we will not gain from any efficient flows. Without data and information access, we cannot create services. Without structure for innovation and information management, there will be no translocation in the ecosystem. All of this, we must manage in and through a digital transformation. In far too many companies, services and innovation are discussed without fully understanding the prerequisites.

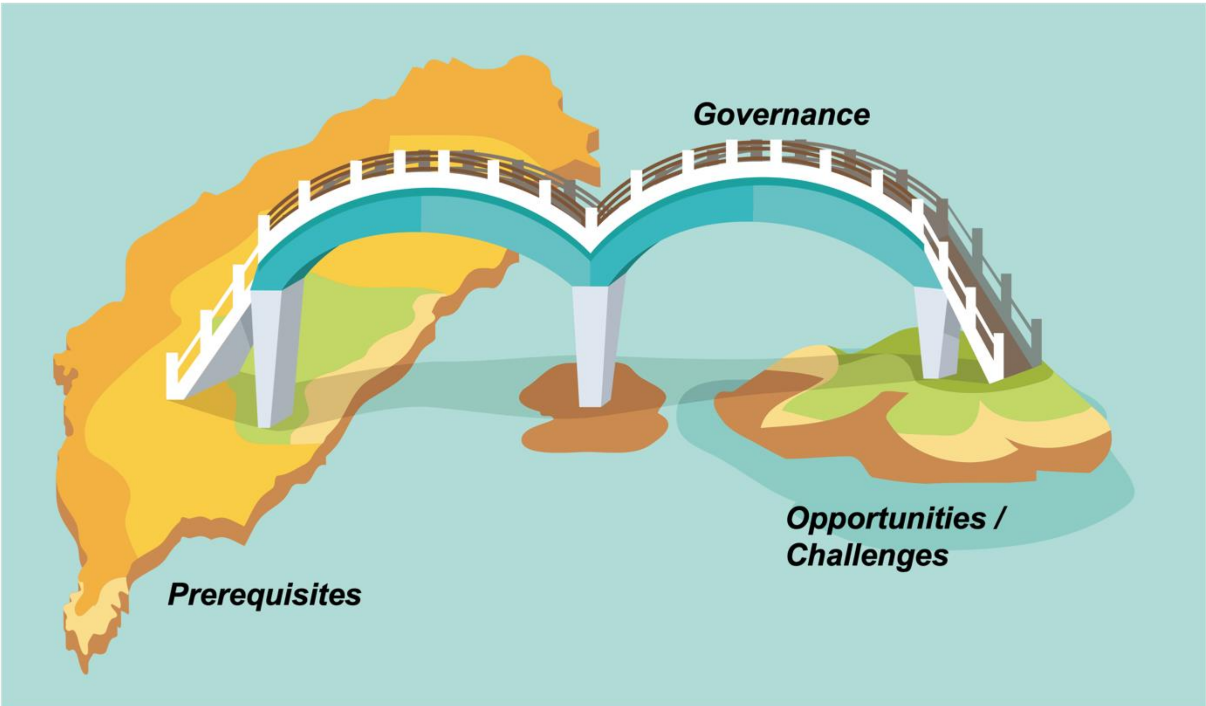
We cannot claim to have transformed into the digital world without the business living and breathing information and the opportunities that come along. It must be built into the business. However, this demands a couple of things, especially regarding the issues we’ve just touched upon:

- We must be able to see the value from customer experience, growth, profitability, and effectiveness, and to understand how this aligns with the company strategy.
- We must, easily and quickly, be able to visualize the comprehensive view and how it all glues together; from scenarios to capabilities to the structures we must have in place. Otherwise, we will be running around like giddy geese not understanding why we should invest in things that are only prerequisites to value creation.
- We must be clear and focused in the ability to work in parallel and simultaneously with all these questions within a common comprehensive view.
- Lastly, the business’ relation to data, information and its resulting intellectual property along with knowledge, information-based services, and value must be dead easy.

This is exactly what this whitepaper is all about – how to, in the most effective and efficient way, reach that pivotal point and begin to transform – commit to the journey and the critical foundational keys as required.

However, it will only get as good as it gets if we do not speak the same language from the start. We must be able to tell what the scope and content of a digital transformation contains. A simple tip is to use the parable of two land areas and a bridge. We have tried this concept and it works. One land area we call “The Challenge” or “The Opportunities”. This is where customer and business value are created. The other land area we call “The Prerequisite”, where the foundation is in place to create value. Finally, the two land areas are connected by a bridge we call “Governance”.

Land of Opportunities/Challenges: This consists of two parts and is purely a business matter; Innovation and Operational Excellence. These parts, in turn, consists of two parts each. Innovation, by way of ecosystem repositioning and development of information-based services to market. Operational Excellence, by the way of information at fingertips to make good decisions and information access among different roles to work with continuous improvements and end-to-end flow effectiveness where so-called Information Value Streams will be key.
Land of Prerequisites: It doesn't matter how much we focus on opportunities if the prerequisites are not in place. This basis contains e.g., master data, information lifecycles, data quality, information sharing, flexible architecture etc. But also, principles for information management and service/information modularization.
Bridge of Governance: The two land areas are connected by the structures and roles regarding ownership of and responsibility for repositioning, information management, technology pushing innovation and efficiency, all the way to data quality, access, and security. In many cases, it is necessary to get governance in place at an initial stage.



In addition, we may create a one-sentence definition for digital transformation, like Vial did in 2019: "A process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies".

Okay, now we may start our journey. We will e.g., touch upon cross-functional teams, piggybacking the most critical business initiatives/projects, establish a framework, show value as we go, a red and a green door that is the only thing the business needs to relate to when it comes to data, information, and services. And much more.

Focused start by business piggybacking

When we, as in this case, wish to swiftly set up the foundation of a true digital transformation, two things are in focus; 1) where we want to go and 2) where we presently stand. To know where we stand and what maturity we have is easily visualized by asking a couple of question to relevant people. We get a good, grounded base for discussions.

However, and this is important, we cannot understand the present and the dignity of today's issues unless we understand where we would like to be and what our future picture looks like. Therefore, it is a good idea to, at least, have an idea about what the future picture looks like, which stories we would like to tell and how it all interacts with the strategy. Thereafter, we can specify our questions about the present.

We need an approach that enables us to look out of the box. A future picture that gives priority to certain scenarios, shows our position and value creation, together with the capabilities we need. Capabilities that are often to be found in the business in the form of competence, ways of working etc., rather than in the technology area. A future picture shared and embraced by everyone, securing a common priority and that we are heading in the same direction. The alternative is confusion and duplication of work.

But, someone argues, we will never possess the opportunity of visualizing that picture to top management. The understanding and interest **is** not there. In that case, we recommend what we call, the internal guerilla unit. Pick some soulmates and a delimited area, a product, or a market. Visualize the future position, ways of working, the customer and internal value, and what it takes. Present your findings to management and we promise that there will be curiosity and interest. It is all about the value, or as one CEO said: "One can argue that this will be expensive, but one could conversely argue that it is a very small amount of money to reach that huge a value." Besides, how many times hasn't indirect investments in, for example, master data, been turned down due to not being presented as a critical prerequisite in a comprehensive future picture.

Instead, let's presume that management has the understanding to get on track. We also assume that management wishes to involve the company on a broad scale. We proceed from that assumption. Of course, in many cases it would be best to pick a pilot and then spread the insights and learnings, but in the continuing text everyone is involved on a broad scale.

The most practical and efficient way to start out is to establish a cross-functional team driving the transformation. A team with management support and sponsorship. A team that meets on a weekly basis. A typical participant is a respected, committed and reasonably knowledgeable person at some level of management. In this team we should also find some IT architects and representatives from Human Resources and Communications. The architects are needed to be able to address issues regarding data and complexity in real time. Human Resource and Communications are needed as this, to a large extent is a cultural journey and we must be able to communicate great examples and what we are doing.

Furthermore, it is crucial to have a good facilitator as a driving force, preferably in a line position. This facilitator keeps it all together and leads the team and the work forward. A work where top management is involved on a regular basis to integrate with the strategy and to bring their aspects. A work that is iterative, interactive and creates value as we go.

As mentioned initially, nothing will happen if there is no accountability and responsibility. We do, perhaps, already have governance in place, or we do not. But how do we put a governance structure in place without knowing what to develop and create? A chicken and egg situation.

We realize that we need responsibility for each information domain, or network as someone may call it – responsibility for customer information, product information and so forth. We realize that every part of the business needs someone who feel***s*** responsible for the data and information management and who is there to help when issues arise. This can very well be a prerequisite to even start a transformation.
Instead of spending a lot of time to initially set up a governance structure and organization in a classical fashion, we choose the practical approach to let the representatives in the cross-functional team temporarily take on those tasks in a temporal structure to later be decided. This is done in parallel with the transformation. The cross-functional representatives will also act as “data managers” for their home function or process and will ultimately recommend the permanent set-up and persons acting as information owners and data specialist/stewards etc.

Please, observe that this is a part of driving the transformation in and through the line organization from start. We are not perceiving digital transformation as a project, even if we are talking objectives, time ambitions and are following up.

Anyhow, the cross-functional team starts out by creating one or many future pictures with appurtenant storytelling. It can be done together with management or by the team itself for later management alignment. Such a future picture may contain the most credible ecosystem scenario, our position, desirable information flows, information at the fingertips and how to develop new services constantly and swiftly. Furthermore, how information can be used as an improvement driver, how the data can be trusted regarding quality and access, and the capabilities needed to be able to act in this world. All to get a feeling for our desirable direction and the possibilities at hand. The difference between the future picture and present situation, what it means and the value prospect, is discussed. Finally***,*** it is wise to visualize the meaning of the most important words expressed in the strategy and the capabilities accompanied.

Now, we are ready to define the area and what it all means. We can define the framework, and toolbox needed to succeed in our endeavors. We can also define the most critical business initiatives/projects, ongoing or planned, to piggyback to instantly start the combination of learning and value creation.

Let’s talk somewhat about piggybacking, while we leave the framework to the next section.

For the same reason as we established the cross-functional team, this is a way to create real business involvement and engagement. Experience shows that the importance to support and visualize real cases is overwhelming.
One example: Assume that a business area is facing a new product or equipment launch from which a lot of new data will be available. To properly prioritize, identify the value and getting the right focus from start, this project will need support from an information perspective. The cross-functional team not only has to offer a sound methodology, but, with all means, bring instant help to get hold of all data needed and how to manage that data. But also, to help visualizing the case and value creation for all to understand and being able to spread the good example.

The method indicated may consist of the answer to some questions:

- Which ecosystem roles are affected?
- What information access and services would they thrive from?
- What value would that bring to us and others?
- How do we visualize that value?
- Which areas do we prioritize short-term?
- Which parts of the information/data needed are available?
- Where is data stored?
- How do we manage access, infrastructure, and regulations short- and long-term? How do we secure and measure the value?
- And how do we visualize the value to spread a good example?

Not surprisingly, this requires a cross-competence in real time, from business knowledge to architecture, to walk through.

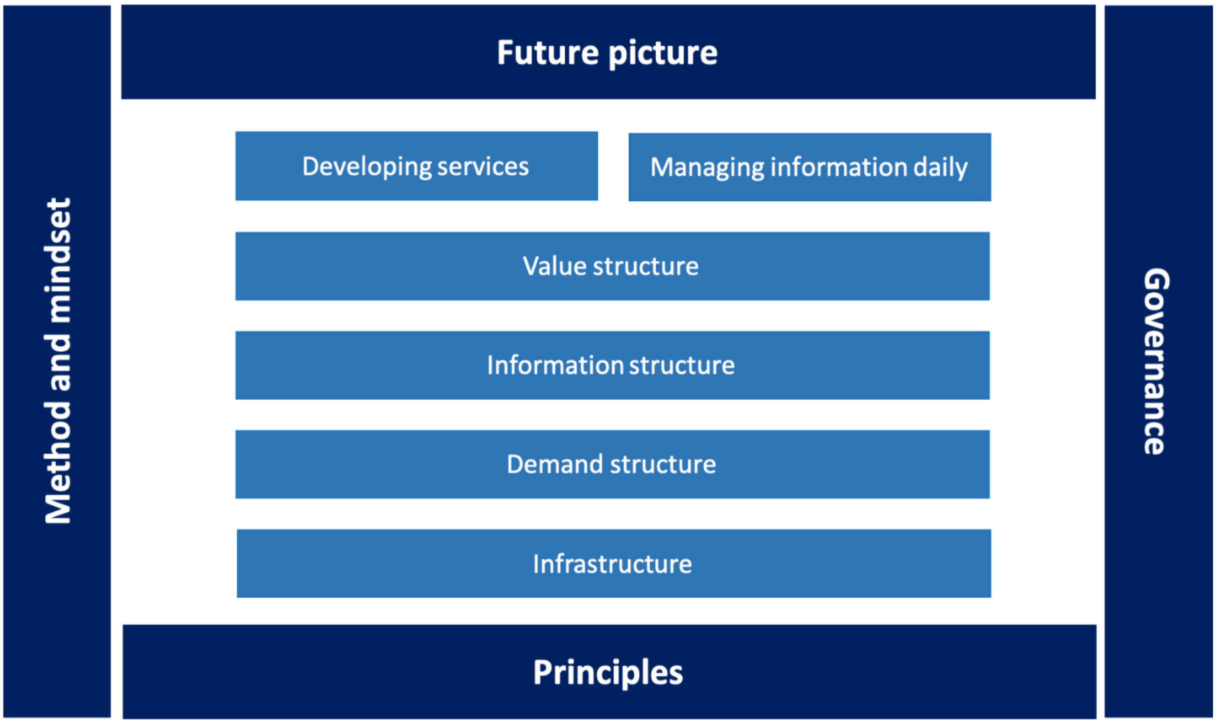
Business piggybacking of projects, aiming at either customer value or internal efficiency, is to create business pull and engagement. But more importantly, to bring learning back to the cross-functional team. The importance of instantly creating business drive and realism cannot be exaggerated. Experiences and learning will be used in the creation of the framework mentioned.

The framework expressing what we need

We have a cross-functional team in place driving the transformation. They have identified the most critical business initiatives/projects to piggyback to create value and learning. They have created a preliminary future picture alongside a description of the present situation. This is needed to have a clue of what we are talking about. An intermediate governance structure is also established. Now, the main question is which areas that must be put in place to call ourselves data driven, insights driven or whichever expression we have chosen. It is time to specify this in, what we can call, a framework. And it is not as dull or bureaucratic as it may sound.

The framework set-up constitutes the foundation of the whole transformation, from now to future picture. Once agreed upon the headlines, the cross-functional team outlines the content. This a good way to create consensus. (You know that terrifying Swedish desire, this state of consensus.) It all aims at making the foundation available and useable to be able to act in the digital world. Simple and visual, not multitudes of Excel sheets.

Before continuing, let us look at a framework example that one company used. The frame consists of four supporting ingredients, and on the inside, we find the structures needed. There could easily be a separate whitepaper for each ingredient, but for our purpose we choose to briefly touch upon each ingredient. Somewhat technocratic, but decisive. So, stay tuned.



Future picture: Here we find visual pictures and storytelling at different levels from which every coworker can relate and comprehend the overall direction, their role and why we have chosen a given priority and focus. A world where we use information and information-based services to create value throughout the ecosystem. A future picture that explicates the strategy. We will return to the future picture in next section.

Principles: Here we find principles for both managing information and how I, as a leader, should act in the forthcoming world. Principles that should be carved in stone, that will set the cultural dimension. If we already considering ourselves as a principle driven company, we must relate what we are doing to the house or pillars of principles in place. Further, it all must be aligned with the culture we like to embrace. An example of an overall principle could be "treat information as a corporate asset". Other examples of principles could be "one source to the truth" or "information is right from me". Herein, we also may find principles and strategies for the important area of partnership.

Method: When it comes to managing data and information and how to transfer it all to value, we must speak the same language and embrace the same mindset. Earlier, we touched upon a set of questions used when the cross-functional team went piggybacking. At this spot in the framework the straightforward method needed to analyze information opportunities in any type of initiative/project is described.

Governance: Unfortunately, we have experienced shortcomings in many companies regarding accountability and responsibility for areas from innovative and strategic opportunities to different information domains/objects, e.g., data quality. Here we specify different areas of responsibility, fora, and roles necessary to have in place. We will touch upon this in the section where we discuss the mysterious green and red doors earlier indicated. Please, don't forget that we already have an intermediate governance manning in the cross-functional team. Furthermore, don't forget that close to the source, real time and value should be our guiding stars when it comes to governance. And to use what we already have.

Service development & Daily information management: We will walk through these things when we get to the green and red door. So, let us save this for a moment. However, common structures and ways of working are what it boils down to in the end.

Value structure: The company should have a common and simple way to estimate and visualize value and to create a business case for different initiatives. This is too often falling short when it comes to indirect investments or data/information included in such templates. Distinct principles and templates on how to create our business cases will be described here.

Information structure: Here we find our information and data models, e.g., managing master data. But we may also save all information analyses made in different areas in a structured way for future use. This will make work ahead simpler.

Demand structure: Sometimes, a huge problem is that business demands and requirements are not described in a distinct and prioritized fashion. By built-in cross-functionality and sitting down together from start, we cover some of this, but in the end, we must agree upon simple templates. This goes for business, functional, and non-functional requirements alike. Prioritized maps of business capabilities related to information and data models comprise a common communication platform.

Infrastructure: Here we find the future picture for the infrastructure aimed at supporting the possibility to become data driven. Ability to store and read data, fishing data from a lake, systems strategies based on data, analytics, intelligence capabilities and much more. And don't forget, the starting point is the company capability map and its prioritizations. A map to which information and data models are aligned, and in the end, systems and applications. In that way, a common view and a proper management understanding is created.

The different members of the cross-functional team are responsible for certain parts of the framework. They bring back learning and experiences from piggybacking projects and elsewhere. The full cross-functional team is involved in discussing the findings, hence a common and aligned framework will emerge. Besides straightforward and visual, good enough is the key. Still, we will never figure every detail out in our closet. And, furthermore, we will never finish.

After, perhaps, two months' work, the framework is at a reasonable level and the visual descriptions from business projects are at hand. Now it is time for the next step regarding business involvement. We are talking about future pictures and business plans of our main flows/processes and functions.

Business understanding and commitment

From earlier, we now understand why we should engage in a digital transformation.

- We have a preliminary and overall future picture.
- We have a cross-functional team that drives it all.
- We have piggybacked on the most vital business projects to learn and create value as we go
- We gather our learning in the framework that defines the ingredients needed for our journey.

Now we are ready to manifest it all in real commitment from the business.

As we might recall from the first section, one of the common themes is that the business is acting in silos, regardless of true process/flow ambitions. The difference, from where we now stand in the transformation, is that we have a common preliminary future picture and a common view on the ingredients we need and how they are related. Thus, we can carry out exercises in the different parts of the business, main flows or business areas, separately. Experience shows that this is most practical, even though every exercise includes the most important cross-relations. Especially, if we, in hindsight, secure that the overall view is aligned at top level.

Now we wish to gather management and the most relevant people for each part for about one day. We are talking about main flows/processes or main business areas. By the way, for you who are interested in how to conduct workshops in the best of ways, we recommend a visit to infobility.se to take part of the Flight concept. The Flight has, throughout the years, been used to solve the most complex issues as well as getting a flying start to any project. All ending up in participants themselves visualizing the results to management.

Well, let us plunge into the exercise. Starting in an introduction including visual examples and opportunities/learning from business projects earlier mentioned, together with the most basic ingredients in the framework, it all sets out by creating a future picture for the process/function in question. The future picture emerges and blends from different perspectives taken by different breakout groups, often using different cases to improve to excellence.

As noted above, this future picture may contain how to create customer value, new business models and how to reposition in an innovative way. The value created externally and internally will come from new services and from being able to work in a completely different way. In many cases, effectiveness and efficiency may be improved by 50 percent and is in short term often found in flow improvements. If useful, everything could be summarized in a business canvas. Please note that everything we do must relate to the strategy and the business plans. What this relationship looks like, is another matter. Perhaps someone wants to talk about the digital sustainability journey, whilst someone else would like to see total integration with customers and partners information wise.

Let's remain a while in the realm of business cases. It is decisive from start to be able to estimate the value of entering "the new world" and what could be achieved short-term. If not, there will be an uphill struggle to bring through investments in capabilities and infrastructure. A business case can be viewed from two perspective: one dimension concerns growth and customer profitability/loyalty, the other dimension improvement in flows/processes and decision-making. If we like, we can instead talk about innovation and operational efficiency, or something else.
The most practicable way to get a sense of a business case, is to estimate to what degree a certain thing is depending on new information access. Is it 25, 50, 75 or 100 percent? That percentage multiplied by the gains will suggest how much becoming insights- or data driven will contribute.

So, we have the future picture and corresponding value. Now it is time to identify the capabilities needed to transform and work in the way we fancy. We are talking about business, information, and technological capabilities. It may concern everything from the ability to manage flows end-to-end or leadership and learning capabilities to business analytics and data structuring. It may concern the ability gather the most relevant people around a prioritized and agile task or secure competence and resources. It all boils down to the need of different roles being able to act in a desirable way.

As an outset, we have got the embryo of capability maps, starting to emerge within our framework. For example, if we are a supplier in the construction or energy business and want to move our positions upstream, it is a good thing for our representative to e.g., participating in the first construction planning meeting. That person needs to have the right information at the fingertips and to possess the proper analytical skills. It can also concern something as basic as to be able to charge customers for services or to coordinate product and customer information. What's more, are we aware of which competence we need to develop or hire?

Unfortunately, it is quite common to try to cut corners and make a leap, from the services or total solutions we would like to offer, directly to the technical solution. "Just bring us the new system or platform and we will be up and running." Nothing could be more wrong. Experience shows that it is business and information capabilities, rather than ditto technology, that draws the largest amount of effort.

Let's continue to the most important part… securing true business commitment. How do we connect what has appeared and emerged to the overall strategy and business plans? We will now enter the painful land of prioritization. A prioritization crucial to a common focus within the company and to secure the right prerequisites and infrastructure. We will get back to that. Where we presently stand, the most important thing is that every part of the business can view the future and makes a commitment to give priority to the most important areas, short- and long-term. But also, being able to show how to support the keywords in the overall strategy.

Wait a minute, someone is shouting. Now we have different future pictures and ambitions for different parts of the business. Not good, the silo issue is not solved. No, the ones who facilitated the exercises has done so from a common ground and view. However, it is at this stage important to gather the business areas/flows management and top management, for maybe a day. Respective future picture and their consequences are discussed, and the overall ditto is updated. We have a common ground for overall prioritization and a common leverage in moving forward. And that is exactly what we need in the complex and divergent digital world.

The communication of what we are doing, and the top management commitment can not be overrated. Storytelling and communication of great examples emerged throughout our journey by piggybacking etc. are mighty tools. So are management expressing "data driven", or whatever we like to call it, as one of the key corporate capabilities. Everything we do should be transparent and every leader is called upon to show interest and to ask question about information. The keynote, not as farfetched as you may think, is that we should be able to put our future pictures and commitments on the reception wall for all to see.

In this context, a minor comment is in order. We often get stuck on the 5 percent where we do not agree, although we agree upon 95 percent. Don't walk into this trap. Let's promptly start in what we agree upon. Spots of friction will disappear when we have reached new and common enlightenment.

We have now created the basis for business involvement and the cross-functional team continues its persistent transformation efforts. The following sections will discuss how to, in a practical manner, secure that data and information will become easy, fun, and valuable for the business to deal with. We will talk about a green and a red door.

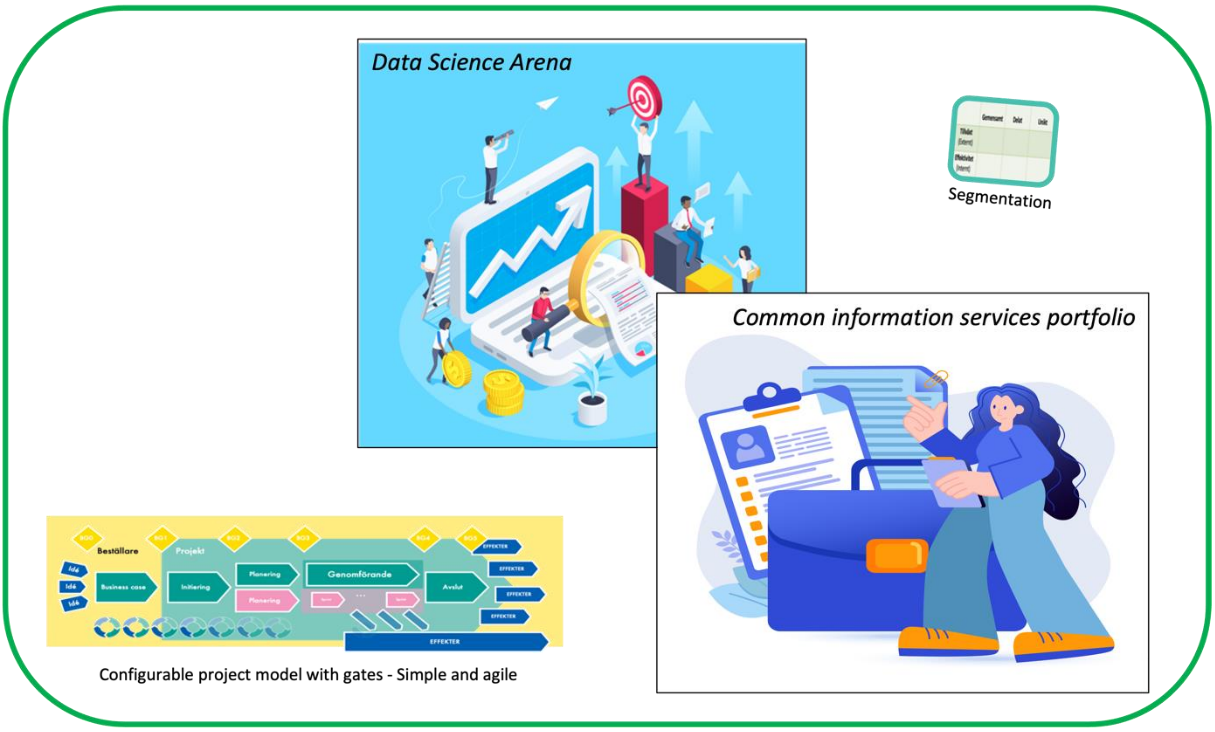
The green door

We have created a grounded base, or foundation, by putting most of the framework in place, reached consensus and know which capabilities must be implemented to obtain the foreseen value. Perhaps, we have given this four month duration. As we are detailing and making the framework become a useful tool, continuing communication and training, conveying future pictures and principles, there are some substantial things we have to put in place to secure true business support, response, engagement and value over time.

As far as data and information are concerned, there are actually only two major situations that I, as a coworker or leader, will be facing.
I can find myself in a situation where I, the customer, some partner, or my coworkers have a hypothesis that certain sets of data and information could be combined into some information-based service, for the benefit of the customer or internal flows. In that case, I should easily be able to open a green door, enter the green room and find support moving forward.
I can also find myself in a situation where I experience that data or information quality, access or what have you, is deficient. In that case, I should easily be able to open a red door, enter the red room and everything will be dazzling brilliant.

Obviously, concepts like door, room, green and red are merely metaphors and we could as well be talking about opportunities or issues. But the plain imagery is important. The green and red room structures can easily be created by gathering relevant people during some day workshop or a Flight.

In this section we will discuss the green door, i.e., the situation where we see an opportunity to create services towards the marketplace or to improve our flows, ways of working or decision-making. Let's open the green door.



When I open the green door, I may stand on the threshold with either a vague hypothesis which I would like to test, a relation or connection I would like to examine, or an outline of a new service. The first thing I run into in the green room is a place where my ideas can be tested and evaluated. We can, as one company did, call this place Data Science Arena. A place where I meet analysts and business minded developers. They can either come from different parts of the business or be directly bound up with the Data Science Arena. These are roles often considered a bottleneck and, when that is the case, appropriately gather in one spot to deal with what is most highly prioritized to the company.

At the Data Science Arena entrance, I will get help formulating my idea/hypothesis in a simple and standardized way. If, occasionally, overload will emerge at the entrance, prioritization criteria will be applied. Criteria applied throughout the green room. Once inside the Data Science Arena, I will participate in eight-hour learning cycles where a team is focusing on my question formulation. An important prerequisite is that Data Science Arena has its own budget to be able to test ideas and hypothesis without bureaucratic delays. The dual governance is a prerequisite to innovation. At the arena, perhaps 70 percent of the time is occupied by testing hypothesis and to support the business finding co-movements. Remaining time is used for innovatively playing around with data to find interesting ideas to visualize.

If my idea or hypothesis is confirmed and found worthy of further exploration, there are different ways to proceed. If the hypothesis is unique to my own part of the business, I march back home and call upon the own budget. If the hypothesis affects many, i.e., is shared or common, it should be treated as shared or common. In that case, I will get help at the arena exit to fill in a plain and simple business case including aim, value, usage, industrialization, estimated resources etc. to proceed and to find a sponsor if I haven't found one already. To segment ideas/hypothesis and, subsequently, services in this way is very helpful.

To create a common ground for all, it is convenient that the ingredients and steps in the green room are related to the project gates and models already in place. However, it is important to make things as simple as possible and that support is around every corner. The nature of information-based services development is rapid and agile, partly because we just have a narrow time window for reaching the market.
Not only necessary, but mandatory, is to secure the resources before pushing the button. This is as cardinal item, and we must not be a part of the sickness of initiating things all over the place without business and IT resources secured.

We will now take the sponsor by the hand a proceed in the green room towards the company's common portfolio for information-based services. If my idea is consistent with the priorities, my business case is acceptable and I have secured business and It resources, I may get instant funding. The common portfolio also got its own budget for the benefit of innovation. As the case may be, when it comes to service development, we do not always know if the business case is up to scratch before we have developed and launched. If my idea becomes a project and is added to the portfolio, I have passed the next gate. Gates that will be opened and closed by the common portfolio at exceptionally efficient meetings with a standardized agenda focusing on gate passages, deviations, and new proposals. Efficient meetings in a relevant, cross-functional group. A group that also has the place covered regarding which partners to use, derived from the partner strategy. Clarity regarding ecosystem partnership cannot be overrated.

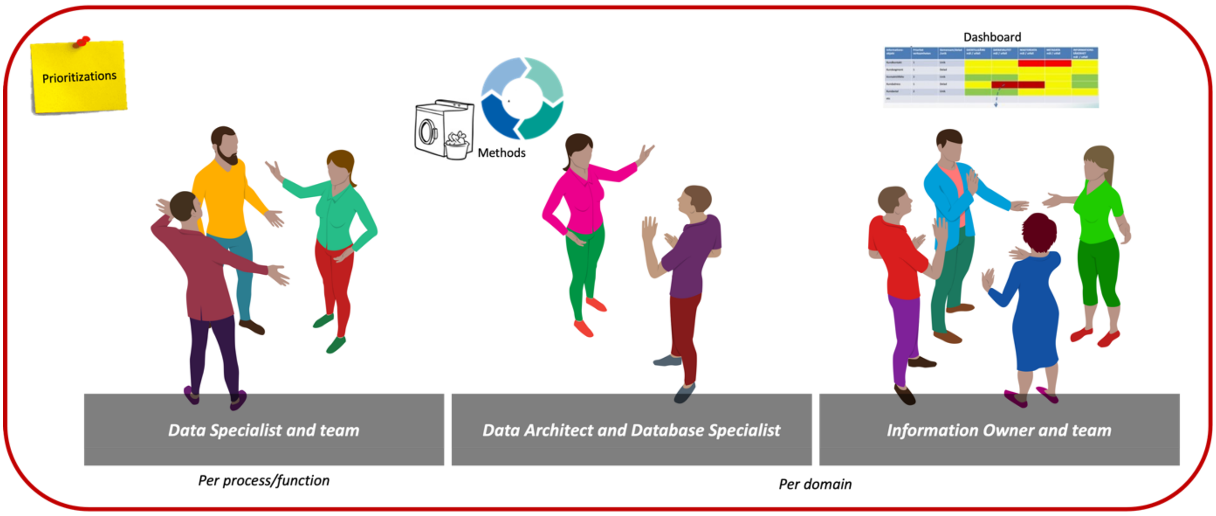
The reason for a common portfolio is to avoid duplication of work and to focus the efforts maximizing company value. But also, and this is important, to give the management the possibility to view and understand if the efforts are enough to move in the direction and at the speed desirable. As a manager, I would like to see which services we are offering today, and which services are under development. Is this in line with our strategy and do we have any blank spots? To fill the blank spots, the prioritization criteria for both the Data Science Arena and the common portfolio should be revised.
But I also would like to see how many ideas/projects that has been put on hold due to lack of resources. This indicates if we must act upon resources and how it all relates to our overall competence plan. Hereby, a constructive dialogue could take place within the company. The same goes for discussion about the innovation climate and how to improve. But that is a theme for another whitepaper.

This was a brief and overriding walk-through of the green room, where opportunities can become reality. In the next section, we will open the red door to manage all issues that may arise regarding data and information.

The red door

We have concluded that there are only two situations for the business to care about when it comes to data and information. Either we see an opportunity to develop a service, or we have a challenge with some sort of issue.

Assume that you experience deficits regarding data quality, information access, security, methods, ways of working or the like. Then it is time to open the red door and enter the red room. In that room everything will be in place to instantly take care of your issues.



It is important to have someone close in control and with responsibility concerning data and information. Someone within your own function or process. We can call this person a data specialist, in some companies called data steward. A role, so far, temporarily manned by the cross-functional team. She or he is the first one you meet when opening the red door.

The data specialist has made sure to be surrounded by a team of e.g., process leaders and business developers. Everything is now aiming at solving the issue on location inspired by the principle “as close to the source as possible”. And a question like data quality often has its solution in the business, not in the technology. Important to remember is that the data specialist is in full control of the business prioritizations when it comes to data and information. Something that has emerged in relation to the future pictures earlier discussed. Therefore, the prioritization of the issue can be made in real time.

However, it might be the case that the data specialist is not able to solve the issue on location. Therefore, the data specialist needs support. In the red room there is access to someone we can call data architect related to respective information domain, network, or capability. A domain could be customer information or product information. You may compare the data specialist to a general practitioner at a health center and the data architect to a specialist doctor at a hospital. But even the specialist doctor needs support from e.g., a radiologist or an anesthesiologist. Thus, we probably will need a role called database specialist within each domain, dealing with address registers or what have you.

If the problem you brought through the red door, good grief, is to complex or comprehensive to the roles mentioned, you must move forward in the red room. The data specialist and data architect help us to fill in a simple “issue order document”. We take that to the part of the red room where the mighty information owners and their teams houses. One team per domain that, as we saw in the green room, has its own budget to swiftly get things going. A team including, among others, data architect and maybe data specialist. A team that gathers for a short session each week with an efficient agenda.

The information owner and respective team can initiate and coordinate initiatives. In some cases, the issue may involve more than one domain. It could e.g., be to combinate customer and product information. Therefore, coordination between different information/data owners is important.
Anyway, each information domain has its own portfolio where deviations are followed up. There is also a dashboard where information object KPI’s and objectives can be viewed. This means that the information owner and team proactively can initiate actions, besides the ones initiated by the business.

These information teams, or fora, has maybe formed out of earlier existing teams/fora that has been more application/system oriented. Perhaps we have been guided by the principle “use what we have” in doing so. This means that an already existing backlog has been carried over. However, in one company something interesting happened. The information owner suggested frankly to scrap the backlog in full. Why? Well, he argued, now the business has come together around its priorities and therefore the former backlog is no longer valid. He was right.

Furthermore, in the red room we find methods and tools needed for solving and implementing. It can be generic methods intended for agile learning cycles or specific methods for fixing issues in different areas. One company decided to create, what they called, the data dishwasher to fix data quality issues. For extensive cases the pre-wash was used, but in more direct cases only the main wash was used.

As probably noticed, governance constitutes a main ingredient in the red room. This is naturally aligned with the overall company governance structure, where the information domains have their steering committees and so forth. Governance is decisive to succeed. If no one owns the questions, nothing will happen. Or a lot happen, like ineffective duplication of work. But beware, a bureaucratic and slow governance kills. We should have the principle, or at least the vision, “real time, as close to the source as possible”.

Meanwhile at the IT side of things, manning and governance is directly connected to what we discussed above. We have already mentioned a couple of roles of importance. The portfolios mentioned must be mirrored in an IT/Technology portfolio. Important when it comes to manage this portfolio, is to be able to directly respond to resource requests from both the green and red room.

The grounded base and foundation are now in place to help us to act in a powerful way. In the last section we will discuss how to maintain and further develop what we have put in place. To live and breath our intentions. However, everything new created and all changes always face an initial threat. The threat of the belief that it is safer and more convenient to do like we’ve always done. The threat of someone’s power position is being challenged. The threat of people getting sick of tired of too slow progression or that progression is being countered.

Endurance and persistence

A cross-functional team has driven and managed the journey that, among other things, has given us the framework we need, results from projects used as good examples together with structures in place to support the business whenever a problem occurs, or services will be developed. We have created an environment where information is vital and where the business is now talking and embracing information as a driver of innovation and improvement. Something that is also included in the business strategy and business plans. Bear in mind that only six months may have lapsed since we started out, if we have been focused and dedicated that is.

But... how often does history show positive improvements and changes returning to previous state? We must be persistent and perseverant. We must be constructive and forgiving. Constantly reminding ourselves about why we entered this journey. Let’s start out in the management team, regardless of level.

Roughly speaking, the two most important leadership characteristics are to show the direction and way forward, and to make coworkers feel and experience that they are seen. Regarding the direction, it is decisive to always keep our future picture before our eyes, preferably in a visual way at the management meetings. In the top management team, this future picture constitutes of an ecosystem view and the positions of different actors. The

constant question to ask is whether we are happy or if there are any innovative opportunities through repositioning, new services, or partnership.
Next to the visual ecosystem, we find the portfolios of what we offer today to the ecosystem and end-to-end flows and what is in pipeline. Are we happy about the portfolios or should we discuss changing the prioritizations in the green room? Should we boost the innovative part of our culture?

Besides a traced direction and showing interest, it is crucial to the trustworthiness that the management stays on the toes to bring support if patrol is encountered anytime or anywhere. Maybe there is some malfunction at the Data Science Arena, maybe we are lacking resources for cleansing data, maybe power positions are threatened, maybe everyone has not bought in to the future pictures or the new ways of working. To assist with resources and inspiration is decisive for people not to despond. But also, in general and for instance, see to that information owners constantly meet, exchange experiences, and bring things to yet another level.

Beyond constantly paying attention to and asking about information, an important management task is to communicate good examples. Remember that we involved Communication and Human Resources from start in the cross-functional team. Communication is vital. As is the culture. From the things we discussed above, principles, arenas and rooms stand out as the most important cultural drivers. The principles will not become reality unless they are related to at every decision and activity or is built into the project gates etc. At arenas and in rooms we act cross-functionally and together, and a common language will emerge. This, and a lot more, will be a part of Human Resources' and others ambitions to develop the culture in desired direction. Everything manifested in the visual competence and "cultural movement" maps around which all Human Resource work is centered.

Regarding degree of maturity and cultural development, it is proper to commit simple and recurring measurements as a basis for an ongoing discussion about the way forward. Human Resource has, with the competence (road)map as basis, the indeed important task to identify the competence gap and to make sure to close it by retraining and/or recruitment. But it will become as good as it gets if not every leader practice what we preach in words, but first and foremost in deeds.

The green and red rooms constitute the very hub to become info centric or whatever we like to call it. If these rooms not become what we aim at, we may face a backlash. Therefore, it is important that roles, Data Science Arena, and other significant ingredients to get the support needed. And one more thing. One might get the impression that many new roles are proposed. Someone may argue that there are no resources for that. Firstly, the role often does not take up full time. Secondly, the role may already exists in another form. Thirdly, if we compare to all additional work and the waste earlier non-structured ways of working brought, that comparison will very rarely back up the former ways of working.

A huge mistake would be to break up the cross-functional team too early. There will be volumes of issues and questions to be addressed and lots of training and facilitation are needed. This should appropriately be handled by the cross-functional team. So, let this team continue for at least another year.

Another important task is to secure that data and information actually is built into the business as a driving component in improvement work, into improvement teams and into the line work. To get to a state where everyone is talking information and data. One aspect can be the usage of so-called information value streams to identify which roles need which information to bring, e.g., an order from A to B. But also, to secure that decision-making is becoming "data driven" and to build in the information dimension into project gates. This can be facilitated by the cross-functional team.

To be blunt, endurance and perseverance is about constant scrimping and indoctrination. To follow-up, take necessary measures and to secure resources. But perhaps most important, to keep the answer to WHY in front of the eyes and in top of mind. Getting in control of our own and the whole ecosystem's information spectra, we create slack and maneuverability to being first on the ball and initiate innovative actions. We avoid being outsmarted or blindsided and we create the pre-conditions of using our full potential in the digital world.

Everything and everyone has its limitations. Something that applies for this whitepaper as well. You certainly miss many details and ingredients. However, the purpose has been to bring an overview of what must be in place to conduct a digital transformation practically, rapidly and continuously. Nothing is pulled out of the air but had been implement at different companies. The swift approach and journey may seem naive but is fully possible. However, and this is important, everything must be adapted to the company culture, where the company stands and everything that has already been done. If not, we will fail even before we get started.
