



Research paper

# Doing Digital for Impact: Study on Digital Transfor- mation in the Public Sector

# Preface

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Why do some countries do digital better than others? This was our starting point as we began initiating this study at the end of 2021. We are a consultancy whose business is shaping digital transformation in several European countries, and, in 2021, we were seeking a deeper understanding of the factors that help transformation initiatives succeed. After analyzing 357 surveys responses, 22 interviews, 8 internal review sessions, and 2 panel discussions, three topics stood out:

## 1. IT has become a part of politics.

Powerful technologies such as cloud, big data, and AI raise difficult questions for governments regarding their economy, sovereignty, and innovativeness. We see the alignment between politics and IT as a crucial factor for successful digital transformation.

## 2. A new type of business-minded leader drives digital transformation.

We discovered a new type of manager in key roles. These individuals often have a private sector background, develop cross-agency collaboration, and reach out to players outside the system to gain trust, expertise, and innovation. They are also more successful with their transformation initiatives.

## 3. Organizational complexity is a drag.

We only found weak correlations to explain the e-government rankings in our survey data. Though, there is an elephant in the room: On average, more centralized countries have a better e-gov ranking. (And of course, some authorities have doubts as to how valid the rankings are in the first place).

These three topics will return in the subsequent sections of this study. The study is directed at politicians as well as at managers working for public sector organizations.

We trust that this study will provide valuable insights and stimulate thoughtful discussions.

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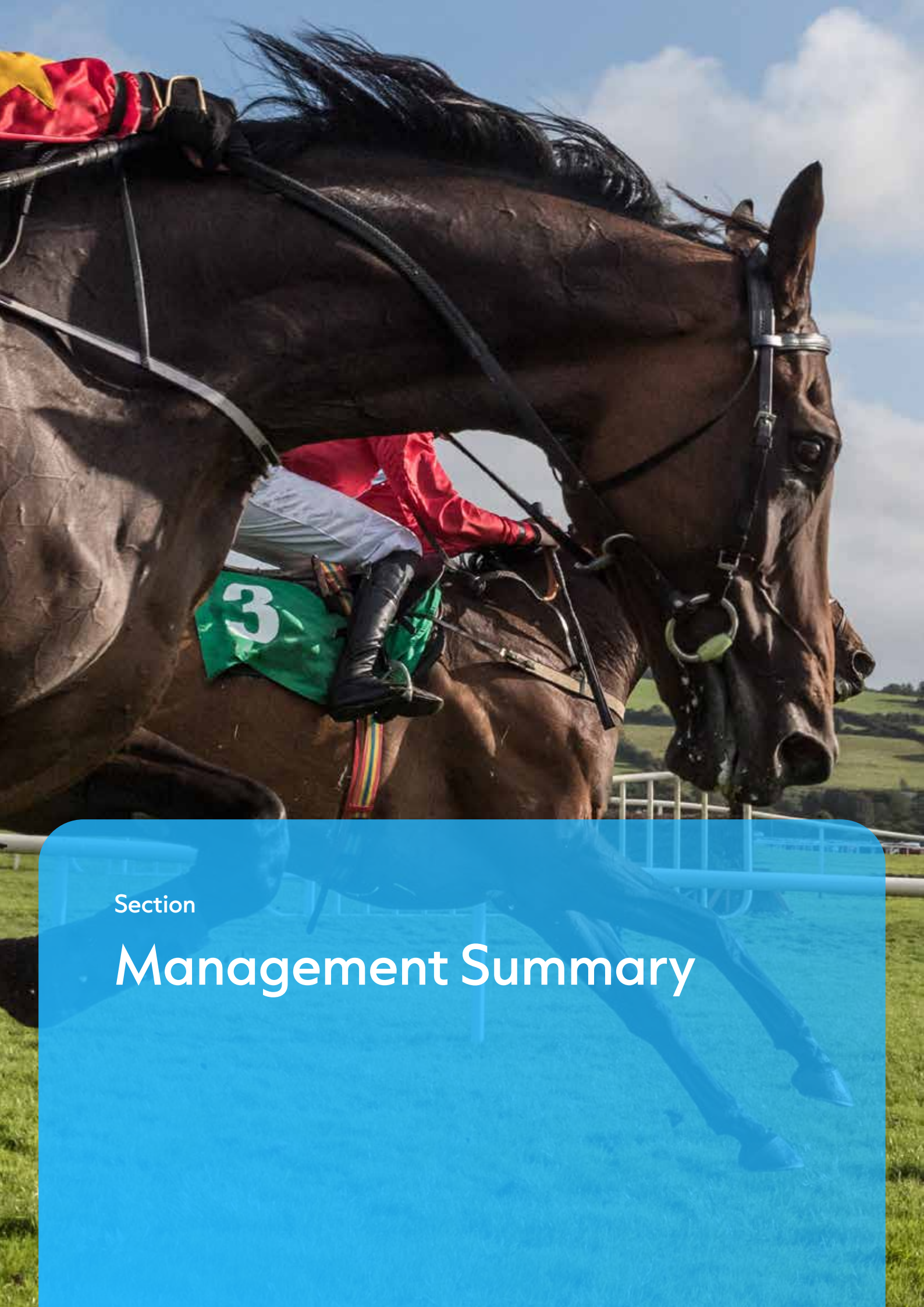
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Section

# Management Summary

**“Governments of different creeds are struggling – and frequently failing – to meet the expectations of citizens, as evidenced by a lack of confidence in government institutions and events in recent political history. New thinking is needed to address changes in technology, media, and public expectations.”**

**The Hon Alexander Downer AC,  
Executive Chair of the International School for Government, and former  
Australian Foreign Minister and High Commissioner to the UK**

This is a telling statement and one that demands addressing by governments who seek to keep the public optimistic and engaged, particularly in today's variable environments worldwide. Even more importantly, the journey to satisfying public expectations extends further to include the challenging task of creating and adding public value.

Our study points directly to this statement by The Hon Alexander Downer AC. It aims to address the necessary “New Thinking” by means of successful technology implementation, that then goes to the heart of increasing public value.

### **What is this “New Thinking” and how does it work?**

Quite simply, in terms of this study, it is the intentional act of creating a thriving environment for the needed changes to take root and grow. It builds on the insight that digital transformations in the public sector need to happen at multiple levels, especially at the levels of system & policy and organization & ecosystem.

The good news is, that this study provides a practical guide for stakeholders and decision makers to follow at all government levels. Roles and responsibilities are presented along with a set of requirements and tasks, thereby ensuring the common goal of generating public value, and with it, meeting public expectations.

For digital transformation, the stakes are high. The public has increasingly high expectations and, at the same time, the failure of big IT projects is often front-page news and attracts public outcry. Fortunately, people generally remain optimistic.

### How can the public sector leverage this optimism and build more confidence for the digital transformation?

Public value is a helpful concept for designing the outcomes of digital transformation in the public sector. It includes both social (such as inclusion, democracy, transparency, and participation) and economic value (e.g., GDP per capita). Thereby, it highlights the broader benefits that should be realized for society and, ultimately, the planet. Public value also points to building trust through collaboration.

Our survey shows that digital transformation is still mainly seen as improving an administration's efficiency and effectiveness. However, 88% of the survey respondents also believe, that in the future, initiatives should focus more broadly on creating public value.

**"While the current pace of digital transformation in Government is unprecedented, it is still (arguably) failing to keep up with demand and the required pace of change. As a public sector CIO, I am continuously seeking to learn from other high-performing countries and adapting their areas of strength for application in my own country where possible. I therefore welcome this report, which not only benefits from extensive research, but offers really useful insights and templates to maximise the chances of successful digital interventions across public services in all our countries."**



**Barry Lowry**  
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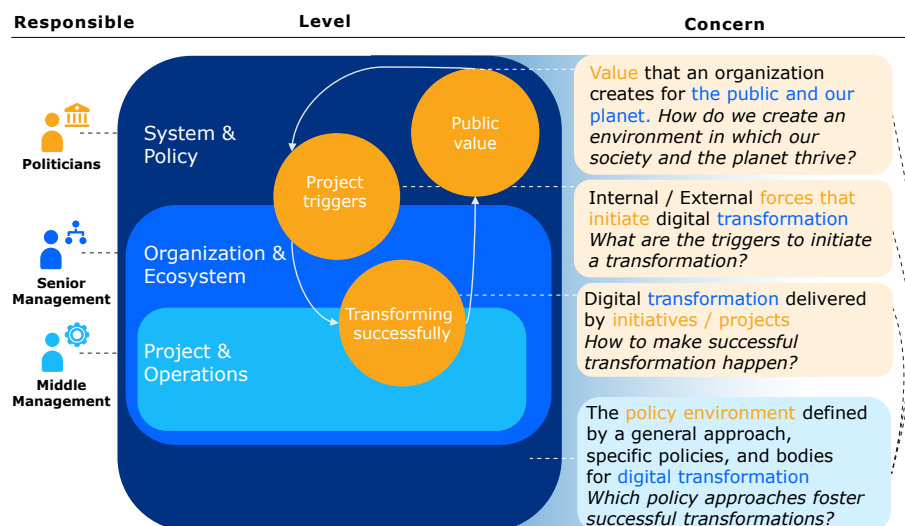


## Key Messages

- Governments frequently fail to meet the expectations of their citizens when it comes to digital. While politicians push ever more digital transformation initiatives, **government IT projects are plagued by budget overruns, delays, and failures.**
- The standard remedy for improving the delivery of IT projects, seen as the “workhorse” of the digital transformation, is to employ better planning and tighter controls. Although, the additional, requisite **rules and regulations tend to have the opposite effect, and essentially suffocate output** and discourage those persons responsible for the project.
- The more promising method for making real progress in transformations is for politicians and senior managers to **create favorable preconditions for digital success.** They can do this by redesigning the organizational ecosystem, reshaping the legal landscape, and by putting specific policies into place.
- This study provides a **simple framework that brings clarity to the steps that politicians and senior and middle management** can take to improve the success rate of digital transformation in the public sector. Project limitations can be avoided through strategic capability planning and by doing the necessary preparatory work well in advance.
- **IT has become** an inextricable **part of politics.** Powerful technologies such as cloud, big data, and AI, raise difficult questions for governments regarding their economy, sovereignty, and innovativeness. We see the **alignment between politics and IT as a crucial factor for successful digital transformation.**
- The **adoption of these powerful technologies is still challenging** due to unresolved privacy and sovereignty concerns at both the national and supra-national levels.
- **A new type of business-minded leader drives digital transformation.** We discovered a new type of manager in key roles. These individuals often have a private sector background, develop cross-agency collaboration, and reach out to players outside the system to gain trust, expertise, and innovation (the so-called “triple helix”). These leaders also prove more successful with their transformation initiatives. Therefore, **it may be time for more salespersons to become engaged in public administrations.**
- Organizational complexity is a drag. Our study points to an elephant in the room: **More centralized countries have a better e-gov ranking.** We recommend simplifying the digital operating models for public administrations by centralizing and creating **shared service centers.**

With this broader perspective in mind, it becomes clear that a narrow focus on optimizing IT project delivery is not enough to bring about public value. Successful organizations do not only master the art of IT project management, but also work both on the ecosystem of the organization and the surrounding system and legal framework. For example, a deputy secretary highlighted how they develop model contract clauses on privacy and security safeguards. This makes it easier for businesses to use cloud services across country borders. A CIO commented on their successful transition to work-from-home during the COVID-19 lockdown as the result of 10 years of hard work in streamlining the organizations and systems that had been inherited from different, previous organizations.

To this end, we have created a framework that structures the concerns at the level of system & policy, organization & ecosystem, and project & operations (Figure 1). These concerns correspond naturally to areas of responsibilities for politicians, senior management, and middle management, respectively. Our recommendations will specifically refer to these areas of responsibilities.



Critical points for digital transformation are typically at the boundary of two adjacent levels:

- First, how do we create an environment in which our society and, ultimately, the planet thrive?
- Second, what are the triggers for initiating a transformation?
- Third, once an initiative is started, how do we ensure it succeeds?

Figure 1: Doing digital for impact framework

The framework thereby helps to clarify specific tasks for every level of leadership that have shown to increase success and to foster dialogue across hierarchies (see Figure 2):

- At the system & policy level, politicians define the general conditions and the overall direction of a transformation initiative. In this context, the job of politicians is the one of a “government investor” and “stakeholder representative”
- The organization & ecosystem level is where the transformation takes place. Senior managers are “organization builders” and “businesspersons”
- At the project & operations level, we are in the “engine room” of digital transformation. Middle managers are “solution builders” and “subject matter experts”




| Role  | Job description  |
|---|--|
| <br><b>Politicians</b>         | As a “ <b>government investor</b> ” and “ <b>stakeholder representative</b> ”, <ul style="list-style-type: none"> <li>• define the public value outcomes that need to be brought about by specific transformation initiatives</li> <li>• work with senior management and key stakeholders on a political mandate and on a guiding coalition</li> <li>• support projects as an idea sponsor</li> <li>• frame political debates on critical parts of new legislation and help to build simple (IT-)solutions (political/IT alignment)</li> <li>• evaluate current policies and channel the needs to design next generation policies for better public value outcomes</li> </ul>  |
| <br><b>Senior Management</b> | As an “ <b>organization builder</b> ” and “ <b>businessperson</b> ”, <ul style="list-style-type: none"> <li>• align your desired mandate with stakeholder needs and reflect it in the context of the respective political agendas</li> <li>• have a solid business case at hand to be able to pitch your story to your «investors» and foster collaboration with industry and academic partners to build trust and to tap into pools of expertise and innovation</li> <li>• make the goal concrete and tangible to help provide orientation for your team and your partners</li> <li>• connect strategy to execution, building on best practices &amp; customer-centric behaviors</li> <li>• use strategic capability planning to formulate policies needs and to design future projects &amp; operations</li> </ul>   |
| <br><b>Middle Management</b> | As a “ <b>solution builder</b> ” and “ <b>subject matter expert</b> ”, <ul style="list-style-type: none"> <li>• build credibility by providing reliable value-added, i.e., leadership, executive excellence, and intimate client knowledge</li> <li>• foster a culture of ownership by enabling your team to decide on the way in which they work, how they support the implementation of changes, and the ways they ensure that issues that need a coordinated approach by senior management are resolved in a timely manner</li> <li>• collaborate with industry and academic partners to build trust and to tap into pools of expertise and innovation</li> <li>• implement best practices concerning projects &amp; operations</li> <li>• foster continuous improvement by making learnings on capabilities and policy needs visible up in the ladder</li> </ul> |

Figure 2: Proposed job descriptions for public sector digital transformation

The results of the study are summarized below in Figure 3. It shows our guiding insights and the recommendations for each role.

| Guiding insights  | Recommendations   | Responsible  |
|---|---|--|
| <div>  <h2>1. Doing digital for impact</h2>  </div>   |   |  |
| <ul style="list-style-type: none"> <li>• 88% of the survey respondents believe that public value will become more important.</li> <li>• System transformations such as the switch to renewables are complex, span long time horizons, and, as such, are not tangible.</li> <li>• Often, there is no need to develop a custom framework as there are many useful ones available (e.g., UN's SDG's or OECD's Doing Digital toolkit).</li> <li>• In contrast to countries with strict fiscal policies, investment plans in the Anglo-Saxon culture facilitate long-term business cases.</li> </ul>   | <ul style="list-style-type: none"> <li>• <b>Start with the end in mind</b> to make the goal concrete and tangible. This involves defining the public value outcomes with politicians and creating strategic clarity with senior management.</li> <li>• <b>Connect strategy to execution</b>, build on best practices &amp; customer-centric behaviors.</li> <li>• <b>Use the right tools to deal with complexity.</b> Dynamic systems or strategy capability planning are two examples.</li> </ul>  | <div> <span>●</span> <span>●</span> </div> <div> <span>●</span> <span>●</span> </div> <div> <span>●</span> <span>●</span> </div>                               |
| <div>  <h2>2. Getting your initiative off the ground</h2>  </div>   |   |  |
| <ul style="list-style-type: none"> <li>• Without a political mandate bigger initiatives are likely to face problems of legitimization.</li> <li>• Aligning around stakeholder needs drives their satisfaction.</li> <li>• The strongest driver for digital transformation is the need for immediacy in the face of "burning" platforms and crises.</li> <li>• A business mindset helps to design win/win-situations for successful project launches.</li> <li>• Successful digital leaders collaborate with industry and academic partners to build trust and to tap into pools of expertise and innovation. This approach is called the triple helix model.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Use effective triggers to get your initiative off the ground.</b> This will be a team effort to align the initiative around stakeholder needs, to work on a political mandate and on a guiding coalition, and to turn the tables (e.g., a crisis) to push the initiative forward.</li> <li>• <b>Approach initiatives with a business mindset.</b> Have a solid business case at hand to be able to pitch your story to your "investors" and foster collaboration with industry and academic partners to build trust and to tap into pools of expertise and innovation.</li> <li>• <b>Gain expertise and trust through collaboration.</b></li> </ul> | <div> <span>●</span> <span>●</span> <span>●</span> </div> <div> <span>●</span> <span>●</span> </div> <div> <span>●</span> <span>●</span> <span>●</span> </div> |
| <div>  <h2>3. Transforming successfully</h2>  </div>  |   |  |
| <ul style="list-style-type: none"> <li>• There is an accessible body of empiric research on (IT-)project management and agile practices.</li> <li>• The "perfectionist" bias seems to be specific to the public sector. It can lead to overtasking already heavy projects and thereby kill them.</li> </ul>   | <ul style="list-style-type: none"> <li>• <b>Follow best practices.</b> They will get you far.</li> <li>• <b>Leverage success and failure factors.</b> E.g., include a "voice of the customer", work on transparency, perform regular success-oriented project check-ups by peers.</li> <li>• <b>Resist perfection.</b> Foster a culture of learning that favors public value outcomes and the pareto principle (80-20-rule) over perfection.</li> </ul>   | <div> <span>●</span> <span>●</span> </div> <div> <span>●</span> <span>●</span> </div> <div> <span>●</span> <span>●</span> </div>                               |

Figure 3: Result summary





## 4. Switching the play



- The need for manual signatures, other outdated form requirements, non-uniform definitions in tax law, and the like, create legal roadblocks for the digital transformation.
- Privacy and sovereignty challenges slow down the adoption of digital technologies such as cloud services, AI, and data-flows. Sometimes conflicting opinions are voiced by different government bodies.
- These technologies shift the power balance and need a response (diplomacy, law).
- The digital skill gap limits progress.
- On average, more centralized countries have a better e-gov ranking.
- For IT, it is generally preferable to have one IT-solution per business concern. Though, decentralized countries typically have many solutions per business concern.
- Our own survey data only weakly correlates with the e-gov rankings.
- **Harmonize and simplify the law for digital.** ● ● Politicians should set binding targets enabling broad value gains. Design new legislation with an “outcomes and principles” approach and avoid explicit rules. Senior management should research, design, and track harmonization and simplification efforts with academia and industry.
- **Face privacy and sovereignty challenges.** ● ● Work on national data use and sharing policies. Help providing clarity (cf. tax rulings where a tax authority gives a legally binding decree).
- **Bring digital diplomacy into the play.** ● ● E.g., frame the issues, give public servants a whole-of-government mandate to pursue the national interests, form supra-national alliances.
- **Invest in digital skills and digital literacy.** ●
- **Limit organizational complexity.** Assess the effectiveness of the operating model for the digital transformation from a whole-of-government perspective. Set a process in place that ensures horizontal authority and control on all matters digital from this perspective. ●



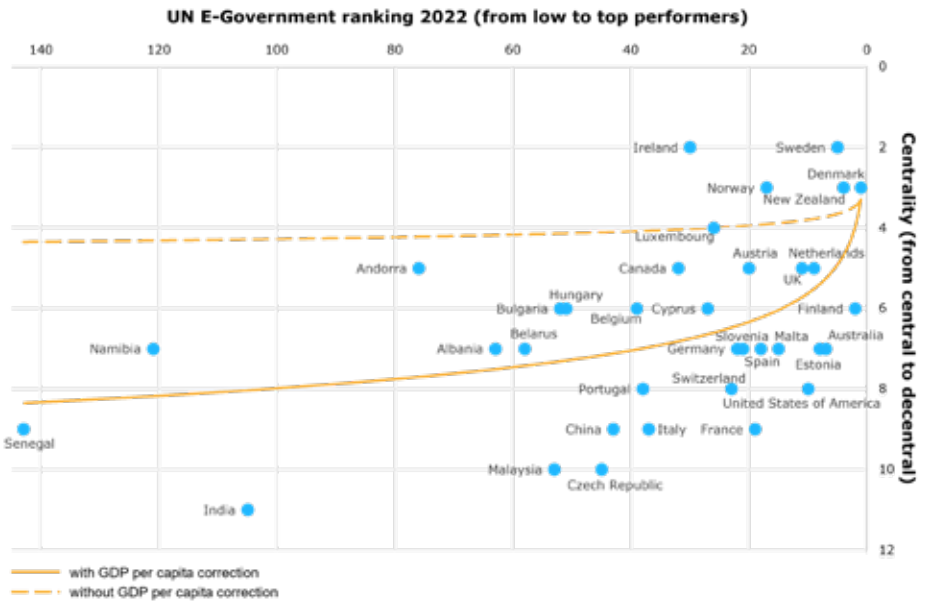
## 5. Designing organizations



- Customer-centricity has measurable positive effects, e.g., on stakeholder satisfaction
- Reinforcing cross-agency collaboration is critical. Otherwise, the digital potentials are not realized. The business and IT alignment remains a problem area. Digital service teams can help but create issues on their own. Adding a third party to a relationship between that which is already “complicated” creates more friction. Sometimes this friction is used to reset existing power dynamics. We see evidence that IT is entrusted with digitalization in organizations that have a healthy business-IT-relationship.
- Traditional divide and conquer style of management is seen as not fit for purpose.
- Agile ways of working are often still limited to software development. Business agility is not yet integrated in the organization’s operating model.
- Innovation labs seem to have limited effects in the public sector setting. Often, bigger benefits can be realized by using digital technologies well.
- **Bake purpose into the organization through customer-centric behaviors.** ● Develop the organization into a „customer-centric learning machine“ and close feedback-loops.
- **Create incentives for cross-agency collaboration.** ● ● A tailored combination of several approaches is often most effective, e.g., through a common boss and a public obligation.
- **Evolve your management system.** ● Keep the way the organization is managed in sync with agile delivery of its services to avoid frictions. This involves experimentation by senior and middle management.
- **Use digital service teams (only) as your catalysts for change.** ● ● Cf. our thoughts organizational complexity. Typically, we would expect more benefits from simplifying the digital operating model.
- **Don’t overdo innovation.** ● There is obviously a place to challenge the status quo and to foster customer-centric behaviors. Though we would only expect few benefits from dedicated labs without business integration.

Section 4, “Switching the Play”, details how we only found weak correlations to explain the e-government rankings in our survey data. Though, there is an elephant in the room: On average, more centralized countries prove a better e-gov ranking. Considering the arguments for designing organizations for IT systems (known as “Conway’s law”), we recommend simplifying the digital operating models for public administrations by centralizing and creating shared service centers.

Scatterplot (Centralization level vs. E-Government ranking), original analysis:



Foresight and preparatory work are necessary to avoid projects running into problems. We see benefits from using strategic capability planning. The lead times to work on changes in the respective areas of influence are highlighted in orange.

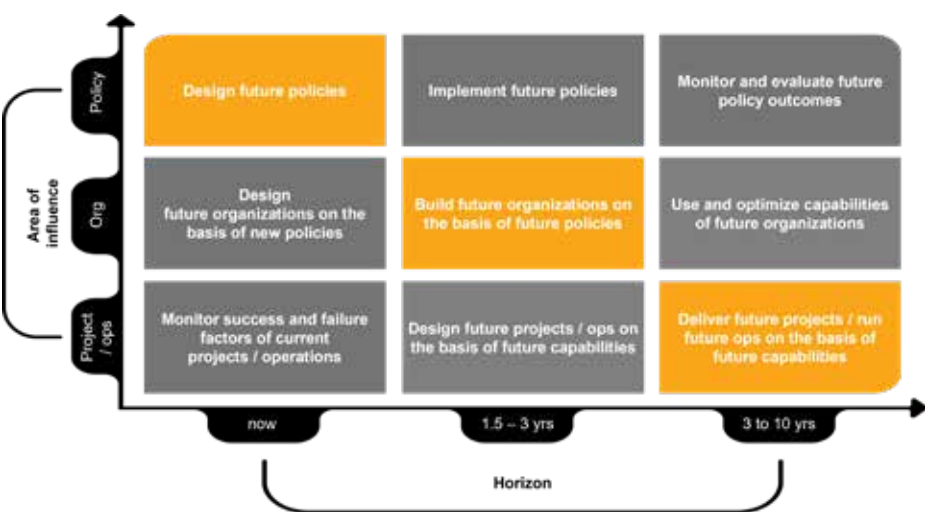


Figure 4: Scatterplot (Centralization level vs E-Government ranking), original analysis.

Figure 5: Strategic capability planning for digital transformations – The lead times to work on changes in the respective areas of influence are highlighted in orange. The policy & organization needs are not only determined by politics but also by unmet needs, e.g., from the planned and ongoing transformation.

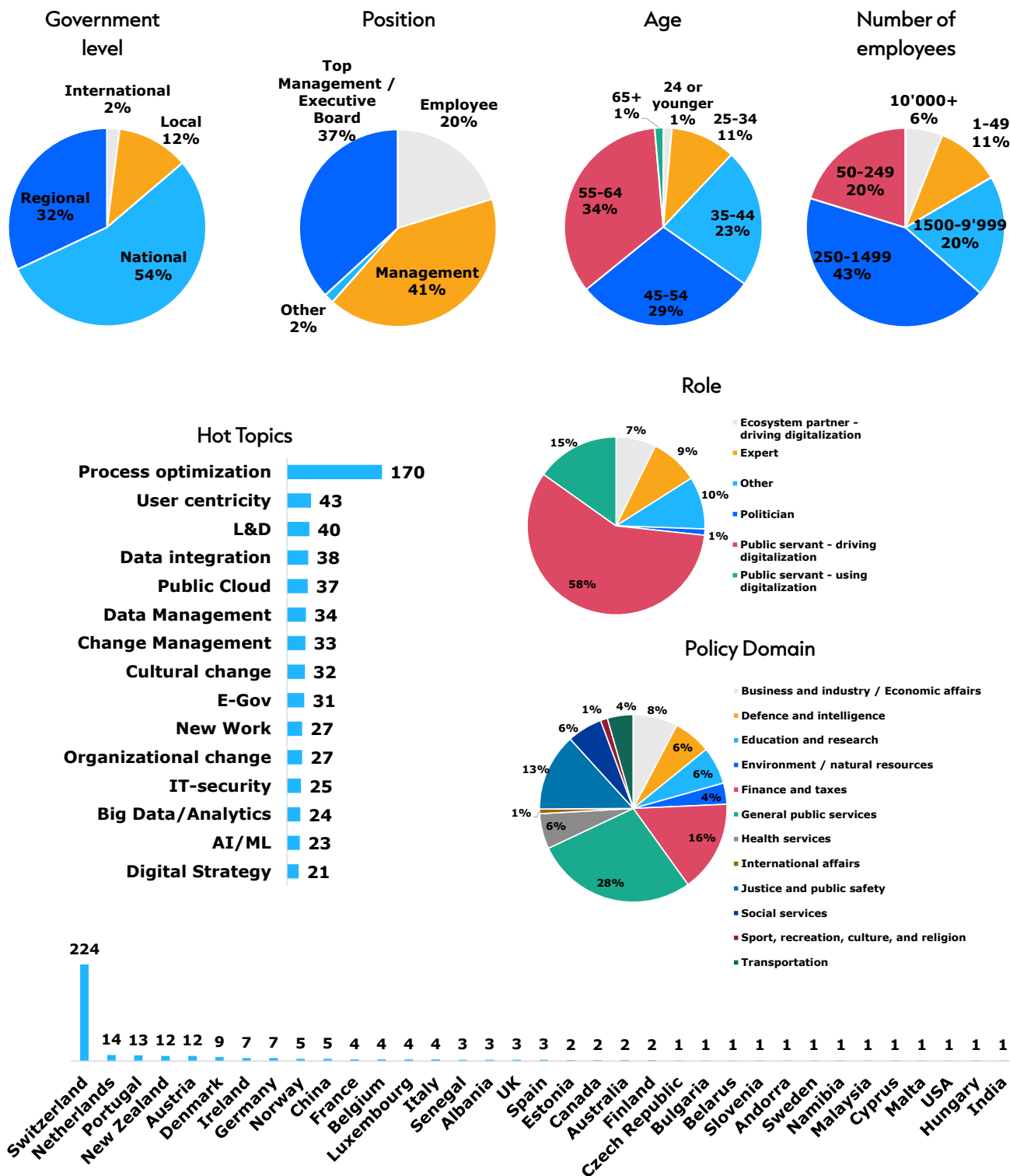
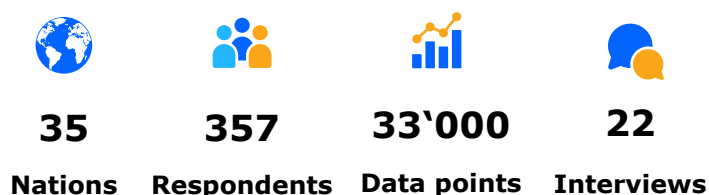


Section

# About the study participants: Facts & Figures

## Facts & figures

An extensive online survey was sent to public sector organizations around the world. 22 interviews with people from 14 nations complemented the data. A team of more than 40 experts has been consulted to assess our findings and to provide insights.







Section

# Introduction

Digital transformation has become a major force of change, reshaping the way we live, work, and communicate year, after year. It also challenges the status quo in public administrations in many ways. Until recently, many haven't foreseen the series of shocks that came with COVID-19, severe climate events, and the war in Ukraine. These events have intensified an orientation towards public value. Taken together, these forces and developments caused us to ask: How can we enhance the chances of success as well as ensure a good outcome for the ongoing digital transformation?

Different e-Government rankings, such as OECD, EU, UN, or The World Bank, track the developments. We sought to identify the influenceable factors that explain the rankings, especially as the drivers for these rankings show that they can enable nations to shape their digital agendas better.

This study is a practical guide to help decision-makers on all government levels to focus on the common goal of generating public value. Each section addresses the topic from a cross-role perspective.

Our extended research started in October 2021 and continued until February 2023. It was conducted by Eraneos, with King's College London's International School for Government acting as academic advisor. The study includes desk research, 22 interviews with experts across 14 nations and 33'000 datapoints from 357 survey participants across the globe. The anonymous survey remained open between 17 May and 30 September 2022, and was available in Dutch, French, German, English, and Spanish. The survey was announced to points of contact for digitalization and social media, as well as public sector contacts. The interviews were administered according to a guided script and were conducted in German and English. Interviewees were selected based on their organizational roles, their state level, and their country, with the fundamental goal of including diverse international perspectives, comparable to OECD countries.

In our study, we combine valuable, direct stories from our interviewees together with facts, trends, and insights that have been gleaned over our many years of consulting experience. Each section is followed by a table that summarizes the findings and content, creating tailored recommendations for politicians, senior management, and middle management. People with limited time are encouraged to read the content selectively. Reading the recommendations for your specific role in the summaries offers a good overview of the topics discussed. For a broader understanding across different roles, the sections are highly recommended.

We have structured the study contents with the following elements:

**Recommendations** summarize actionable and tailored recommendations for politicians, senior management, and middle management.

**Stories** showcase insightful first-hand accounts from our interviewees.

**Insights** provide a deep dive into a specific topic, including pointers to written references.

**Explanations** are used to offer more accurate interpretation and context to certain statements or charts.

This study is structured around the idea that transformations in the public sector need to happen at multiple levels. To drive digital transformation 5 essential aspects need to be aligned across Project & Operations, Organization & Ecosystem, and System & Policy.

Section 1 focuses on the “why” of digital transformation. Sections 2 and 3 analyze how projects are successfully triggered and managed. Sections 4 and 5 on the other hand, look at how the ecosystems in which these projects are embedded can be improved. These 5 sections will answer the following lead questions:

- 1 Doing digital for impact: How to create a thriving environment?
- 2 Getting your initiative off the ground: How to turn ideas into projects?
- 3 Transforming successfully: What drives results?
- 4 Switching the play: How to work policy for good outcomes?
- 5 Designing organizations: What makes for excellence?





Section

# 1 Doing digital for impact: How to create a thriving environment



Governments all over the world are busy bringing their work into the digital realm. According to our survey, effectiveness and efficiency are unsurprisingly the main reasons for doing so. **91% of the respondents feel positive about how it has been done in their administration/sector. 88% of the survey respondents also believe, that in the future, initiatives should focus more broadly on creating public value.**

**How do you feel about the digital transformation in your administration/sector?**



**Do you consider public value outcomes as gaining in importance in the future?**



We will explore this new value thinking. We propose to start with the end in mind, to work on the connection from digital strategy to execution, and to use the right tools to deal with the complexity such transformations bring with them.

- Recommendation 1:** Start with the end in mind
- Recommendation 2:** Connect digital strategy to execution
- Recommendation 3:** Use the right tools to deal with complexity

Figure 6: Survey results on public value and the status quo of digital transformation

# Recommendation 1: Start with the end in mind



By starting with the end in mind, goal directedness, or purpose, is added to the transformation process. 74% of the survey participants are digital drivers or experts. Logically, they tend to focus on goals that are capable of being influenced by “tech people”, such as privacy protection and security, to improve efficiency as well as accessibility.

Figure 7 shows the aspects of public value that are most often taken into consideration. Arguably, as goals, they are insufficient for creating a thriving environment. As civil rights activist Padeluun puts it:

“We absolutely should have public value debates. Public value should start from first principles and then look to using technology in new ways.”

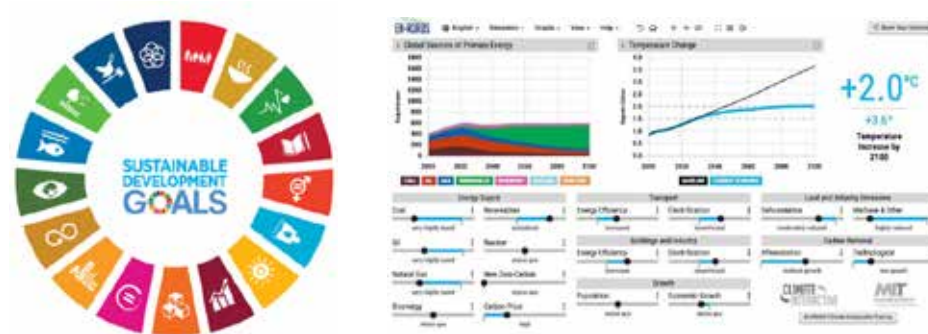
According to our survey, public value goals can be directly influenced by the administrations themselves. Most frequently, the inclusion of these goals is requested by the national government as well as internal functional roles, as shown in Figure 8. Surprisingly, we would have expected more demands from external stakeholders (e.g., from citizens or businesses).



Figure 7: Most often considered aspects of public value by people who see public value as gaining importance in the future.

Figure 8: Who generally requests the inclusion of public value goals? (n=229)

To ensure public value in the required breadth, many countries use the United Nations' Sustainable Development Goals (SDG) as a common scheme to select specific contributions. Digit-al can contribute a good deal towards tackling complex interconnected policy challenges, such as climate change. A good example is En-ROADS, a global climate simulator that allows users to explore the impact of roughly 30 policies —such as electrifying transport, pricing carbon, and improving agricultural practices—on hundreds of factors like energy prices, temperature, air quality, and rising sea levels (Figure 9).



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#leadershipintransformation  
#governanceforchange

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Other approaches such as Smart Cities / Smart Regions programs can help to make tangible goals that are needed to ensure a safe and good life for current and future generations. Reducing traffic jams, improving public transport, safety, and affordable housing all profit significantly from the insights open data and algorithms provide.

A great deal of expertise is required to address these complex system-level challenges properly. Many leaders and experts in public organizations engage more in international networks and use best-in-class examples for fine-tuning alignment. Public organizations find support in their culture of open exchanges to gain insights from each other.

Overall, considerable value stems from ensuring goals are simple and tangible. Established frameworks can help to achieve this. Ireland's CIO **Barry Lowry**, who brought the country ahead of the curve, advised us not to overthink the approach: "Don't start from scratch – just apply OECD's playbook."

Figure 9: Two examples to make goals and policies concrete and tangible: The United Nation's Sustainable Development Goals framework and En-ROADs, a global climate interactive simulator that allows users to explore the impact of roughly 30 policies.

In our conversations, it became apparent that the EU's digital compass and Digital Economy and Society Index (DESI), as well as the OECD's Going Digital Toolkit, are widely adopted and deemed capable of doing the job. The interviewees found that these playbooks are good communication tools for guiding and orchestrating transformation activities at scale and for creating acceptance. Often, their application is more pragmatic than strictly by the letter. Conversely, the opposite value of making things simple and tangible can also be true: Survey respondents stated that projects failed due to a lack of strategic clarity.

| Guiding insights  | Recommendations   | Responsible  |
|---|---|--|
| <div> <div>Recommendation 1: Start with the end in mind</div> <div>    </div> </div>   |   |  |
| <ul style="list-style-type: none"> <li>88% of the survey respondents believe that public value will become more important.</li> <li>Public leaders are under pressure to create an environment in which our society and the planet can thrive. By starting with the end in mind, goal directedness or purpose is added to the transformation process.</li> <li>System transformations such as the switch to renewables are complex, span long time horizons, and, as such, are not tangible.</li> </ul> | <ul style="list-style-type: none"> <li><b>Make the goals concrete and tangible</b> – For example, Systems Dynamics Prof. John Sterman did so by building a climate simulator. It was used in the UN climate change negotiations and helped to shape programs</li> <li><b>Define the public value outcomes</b> with politicians and create strategic clarity with senior management</li> </ul> | <div> <div>    </div> <div>    </div> </div> |





## Recommendation 2: Connect digital strategy to execution

---



65% of our respondents see a connected strategy as a critical success factor. With our interviewees, we talked about what this means in practical terms. In the context of the public sector, a connected strategy should comprise the elements as shown in Figure 9.

Hence, it is important to work on the requirements upfront and to have a plan to deal with issues that will come along during the execution.

We will focus on these elements more in-depth, later in this study. Highlights are here below:



### Partners & Political Mandate

Public programs need legitimization, guidance, and support. Without these factors, it becomes difficult to get them launched and deliver the promised value. For Ireland's CIO Barry Lowry, this was a question of how to empower all the stakeholders so they would get involved. His systematic approach did just that and created universal buy-in by giving them power and visibility from strategy development through to deliverables.

► more in Section 2

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Figure 10: Elements of a connected strategy in the public sector

## Change Story

With the political mandate, the initial launch is secured, yet big programs need to sustain momentum over a long period. To this end, robust relations with all ecosystem partners must be built and nurtured through systematic stakeholder management and communication. The instrument of choice is a change story, used for conveying the Why, What & How to all stakeholders, and including the answer to the essential question "What's in it for me?".

## Business Case

The business case links the strategic goals from the political mandate and the change story to the value proposition that is needed for the necessary funding commitments. With the focus on value creation, a business case ensures the due diligence required for spending taxpayer money and for making the convincing argument to internal stakeholders.

For Swiss Federal IT director **Dirk Lindemann**, this meant having a clear business case in support of the tax project he was in charge of. It comprised an FTE count-reduction to create new capabilities and overall to save recurring operating costs. The efficiency gains were created by automation over process groups and higher process maturities.

► more in Section 2

## Operating Model

Big programs require a lot of thought and experience to execute them well, with participating organizations typically undergoing changes themselves. This is why it is helpful to identify projects and programs as transformations that start from an "as-is" operating model to a target operating model. To ensure changeability, organizational complexity must be kept to a minimum. Program execution should take success and failure factors into account. The necessary pre-conditions and post-conditions for each new phase need to be explicitly tracked. Typically, this will require reworking the legal landscape, designing new technological capabilities, and improving business agility to build organizational resilience for a model that can thrive during times of volatility and uncertainty.

► more in Sections 4 and 5

## Commitments

According to our survey, insufficient skills and personnel are the two main factors in explaining why projects can fail. Usually, digital transformation initiatives involve many (external) project partners and require cross-agency collaboration. It therefore becomes imperative, that a strategic priority must be the focus on building digital skills, and this must involve politicians, public servants, and their partners.



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Director

**Federal Office of IT and  
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Dirk Lindemann has been the Director of the  
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private sector, Dirk Lindemann moved to the  
federal administration in 2013 and initially  
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**Colin Holden**

General Manager System  
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**Spend now, realize the profits later?** - Our interviews also highlighted another important factor as the need and ability to invest in the digital transformation. Countries with an Anglo-Saxon culture have long experience with the instrument of investment plans. This allows them to actively support the long-term business cases that digital transformation represent.

**"We focus on getting better results from the money we spend now on digitalization by providing agencies with clear direction, support and incentives to consider all-of-government outcomes when making investment decisions,"**

clarifies **Colin Holden** from New Zealand.

In contrast, countries with strict fiscal policies, like Switzerland or Germany, must strive for a balanced budget in each fiscal year. This can limit or slow down the ability to invest in digital transformation. In such situations of high uncertainty, effectuation might be the method of choice, focusing on following a series of small steps that are feasible within the given circumstances and time.

► more in Sections 3, 4, and 5

### High-level Roadmap

**"The waterfall model is unfit for big programs. They are too complex. You must do them in an agile manner."**

Dirk Lindemann







Yet, managing people's expectations by providing them with deadlines and budgets are key elements for ensuring trust in the process.

Using a high-level roadmap could be a useful communication tool with stakeholders. However, in real life it is very challenging to create enough value right from the beginning of the program to meet people's expectations.

Quick wins on existing systems not only shorten lead times but can also help the teams to better understand the legacy platforms they need to work with while also preparing them for the bigger changes that will follow later in the transformation.

Nevertheless, Ireland's CIO Barry Lowry successfully executed an approach that goes against this conventional wisdom: "Prioritize by highest public value and level of frustration (e.g., births, deaths, moves)." He's also an advocate that you need to "earn the right to ask for more", be that resources, political support, etc. Dirk Lindemann's recipe is do that by surpassing expectations: "Work perfectly to create a compelling event, build on the "wow!-effect", and let your stakeholders want to get more from you".

► more in Sections 2, 3, and 5

| Guiding insights   | Recommendations   | Responsible  |
|--|---|--|
| <b>Recommendation 2: Connect digital strategy to execution</b>    |   |  |
| <ul style="list-style-type: none"> <li>• Often, there is no need to develop a custom framework as there are many useful ones available (e.g., UN's Sustainable Development Goals or OECD's Doing Digital Toolkit).</li> <li>• 65% of our respondents see a connected strategy as a critical success factor. With our interviewees, we talked about what this means in practical terms. In the context of the public sector, we identified a total of six elements that should comprise a connected strategy.</li> <li>• In contrast to countries with strict fiscal policies, investment plans as experienced in the Anglo-Saxon culture facilitate long-term business cases (spend now, profit later).</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Connect strategy to execution</b>, build on best practices &amp; customer-centric behaviors to ensure value-orientation.</li> <li>• <b>Pick an established framework</b> for the digital transformation and limit adaptation within the realm of organizational integration.</li> </ul> |   <br><br>  |

### Recommendation 3: Use the right tools to deal with complexity



**“There is a lot of inertia in the public sector – partly because it is a whole-of-business issue.”**

Professor **David Eaves**

The complexity we feel in digital transformation initiatives is very real. It's the result of different elements. David Eaves points to one: People and their organizationally mediated collaboration.

Technological components bring their own set of interactions. The resulting cyber-physical system has non-trivial dependencies, leading to delays and deviations in unexpected ways. When asked how they dealt with this, our interviewees answered: “There is no silver bullet.”

Yet, their successes can be directly attributed to their methodological approaches and the stringent work flows they mapped and followed. For example, **many governments' IT efforts excelled during the COVID-19 crisis**. The sudden switch to have millions of public servants work from home was, in most cases, smooth. According to Denmark's IT director **Michael Ørnø**, “IT really enabled our daily business to function, at that time.” He went on to mention that a decade of dedicated work in IT integration and harmonization truly paid off, making working from home secure and feasible. (We will highlight the “Corona Momentum” in our next section.)



**David Eaves**  
Associate Professor in Digital Government  
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David Eaves is Associate Professor of Digital Government and Co-Deputy Director of the Institute for Innovation and Public Purpose at University College London. He has helped train numerous cohorts of Code for America Fellows, White House Presidential Innovation Fellows and Code for Canada Fellows.

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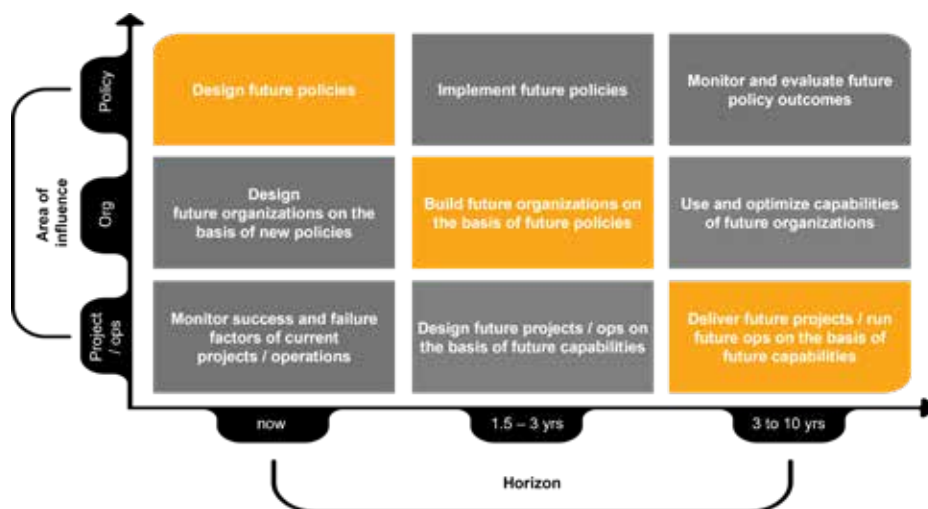


**Michael Ørnø**  
Director General  
Agency for Governmental IT, Denmark  
Michael has been in IT-operations management for 20+ years in companies such as PostNord (DK/SE postal service) and Scandinavian Airlines.

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The takeaway here is the “how” of needing to manage a portfolio of strategic activities that influence the areas of policy, organization, and projects/operations on different time horizons:



Current projects are bound by current capabilities, policies, and resources. Though often enough, digital initiatives are pushing the boundaries. Using the logic of strategic capability planning, helps identify these constraints. Using backward planning is effective if a certain capability is needed to deliver on a project.


| Guiding insights  | Recommendations  | Responsible   |
|---|--|---|
| <b>Recommendation 3: Use the right tools to deal with complexity</b>  |  |   |
| <ul style="list-style-type: none"> <li>Often, there is no need to develop a custom framework as there are many useful ones available (e.g., UN’s Sustainable Development Goals or OECD’s Doing Digital Toolkit).</li> <li>To deal with complexity one needs to manage a portfolio of strategic activities that influence the areas of of policy, organization, and projects/operations on different time horizons.</li> </ul> | <ul style="list-style-type: none"> <li><b>Use strategic capability planning</b> to formulate policy needs and to design future projects / operations.</li> <li><b>Data-driven methods and dynamic systems</b> are examples on how to deal with complexity.</li> <li><b>Evaluate current policies and capabilities.</b></li> <li><b>Channel the policy and capability needs</b> to senior management and politicians to improve future projects and operations, and contribute to their shaping.</li> </ul> | <br><div> <span>●</span> <span>●</span> <span>●</span> </div><br><div> <span>●</span> <span>●</span> </div><br><div> <span>●</span> <span>●</span> <span>●</span> </div> |

Figure 11: Strategic capability planning for digital transformations – The lead times to work on changes in the respective areas of influence are highlighted in orange. The policy & organization needs are not only determined by politics but also by unmet needs, e.g., from the planned and ongoing transformation.



Section

## 2 Getting your initiative off the ground: How to turn ideas into projects

We asked people how digital transformations get started in their organizations and identified the most important factors for success. Once a specific need has been identified, money, human resources, and, last but not least, a political mandate are required to get an initiative off the ground. Partnerships help to create trust and momentum, and offer beneficial ways to collaborate, to ensure the desired public value outcomes.

**Recommendation 1:** Use effective triggers



**Recommendation 2:** Approach initiatives with a business mindset



**Recommendation 3:** Gain expertise and trust through collaboration



## Recommendation 1: Use effective triggers

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We have identified three effective triggers to launch transformation initiatives in the public sector:

- Align your projects to stakeholder needs
- Get a political mandate
- Turn the tables (i.e., create momentum from moments of crisis)

### Align your projects to stakeholder needs:

According to our survey data, an initiative is more likely to succeed when a sense of urgency surrounds it. This can be achieved through a combination of external and internal factors (Figure 12).

The figures show that organizations tend to start projects as a reaction to external influences such as new demands from outside stakeholders. Stakeholder expectations play a key role in all top project triggers. Understanding key stakeholders and acting on their needs is therefore critical to the successful launch of transformation initiatives.

When looking at the correlation between the project triggers that participants experienced most, and their perceived stakeholder satisfaction, we see which triggers could have a higher impact.

**Perceived stakeholder satisfaction** Survey participants were asked to rate how satisfied they perceive their stakeholders to be from “very low” to very high”.

**Organizations that experienced more project starts due to expectations by citizens, businesses, or other end-users (correlation +0.28) and due to market developments (correlation +0.26) perceive their stakeholders to be more satisfied.**

When it comes to internal triggers, unreliable systems are the strongest driver for transformation. Interestingly, this factor shows no correlation to the perceived stakeholder satisfaction of the participants. In second place, come employee expectations. Organizations that listen to this signal, will feature the strongest correlation among the internal triggers (+0.25) with stakeholder satisfaction. Organizations that listen to this signal will benefit.

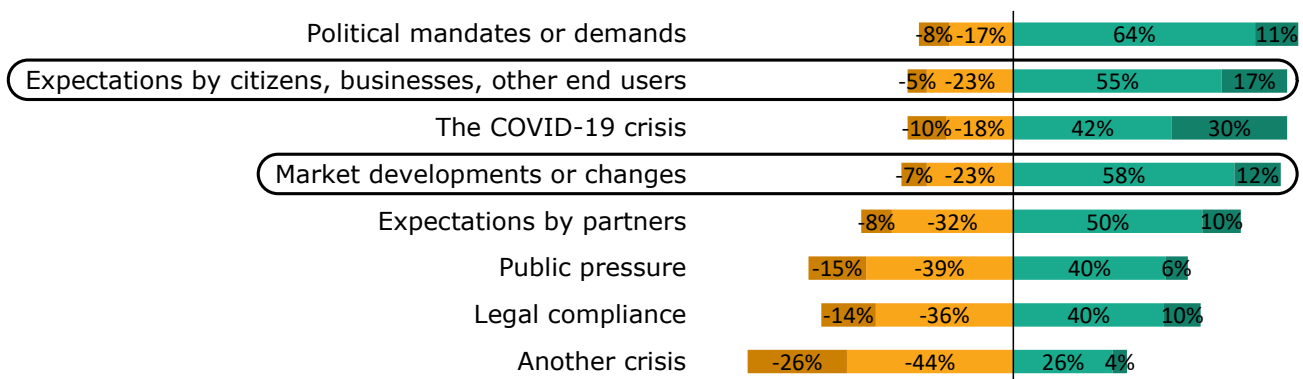
Early testing of such benefit hypotheses in the process helps to validate the needs and acceptance. Simple experience prototypes are a way to achieve this.

In our interviews, leadership changes figured prominently in the context of transformation programs. These changes can also happen naturally when digital natives take charge. Survey respondents, on the other hand, classified a change in leadership as the least important trigger. An explanation for this discrepancy

could be that it was not the personnel change itself that triggered a project, but that the change was supportive so that certain projects could be launched or successfully completed. One state CIO we talked with was the third incumbent within a short period of time and succeeded in pushing the country's e-gov ranking into the leading third. Another state CIO wanted to leave after the first difficult years, decided to stay, and eventually delivered a major achievement with cross-department IT centralization.

Outside of Switzerland (n=133), budget pressure is not regarded as a trigger (42%); while severe problems of existing systems are a more important driving factor (58%).

### External factors that triggered projects



### Internal factors that triggered projects

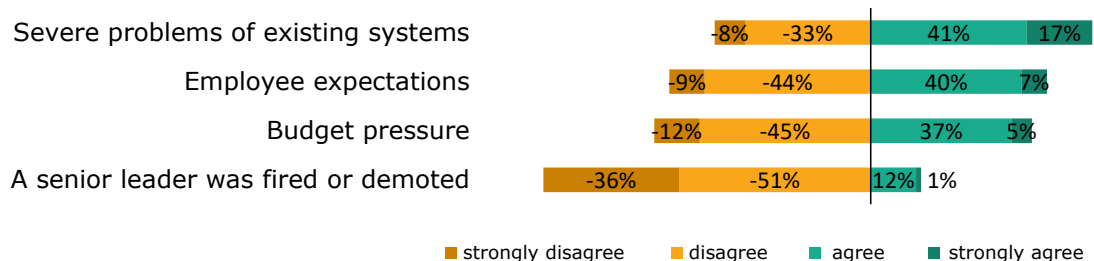


Figure 12: External and internal factors that triggered projects (n=254).



**Rony Medaglia**

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Rony conducts research and teaches on  
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## The controversy around the E-Government rankings

“Naturally, you compare yourself with your neighboring countries and want to be ahead in the game.” (A country’s digital transformation representative.)

Comparison of country positions across different rankings:

| COUNTRY        | UN RANKING 2022 | EU RANKING 2022 | OECD RANKING 2019 |
|----------------|-----------------|-----------------|-------------------|
| AUSTRIA        | 20              | 13              | 20                |
| CANADA         | 32              |                 | 6                 |
| COLOMBIA       | 70              |                 | 3                 |
| FINLAND        | 2               | 6               | 28                |
| GERMANY        | 22              | 21              | 26                |
| JAPAN          | 14              |                 | 5                 |
| NETHERLANDS    | 9               | 5               | 21                |
| SPAIN          | 18              | 11              | 7                 |
| UNITED KINGDOM | 11              |                 | 2                 |
| SWEDEN         | 5               | 15              | 33                |

The benchmarks are seen by experts to be a good tool to create global awareness. However, the experts question ranking reliability. “They do not create an objective, scientifically sound comparison between countries,” said **Rony Medaglia**. Problem areas concern:

- 1 Multi-dimensional scales are reduced to a single ranking function.
- 2 The defined key performance indicators typically lag since new technologies are inadequately considered.
- 3 Due to survey length restrictions, the ranking functions are limited. They are not able to distinguish between qualitatively different situations, so the comparisons may lack accuracy.

For example, practitioners in the UK told us their country usually ranks high because they have a portal. However, the UK still lacks a basic building block, a national digital ID, which limits the available e-gov services.

Practitioners still often refer to these rankings. The reason being that even if you contest parts of the rankings, they are a good communication tool to convey a sense of urgency. For example, the digital strategies many European countries follow explicitly use KPIs from these rankings to track their progress. An example is the availability of broadband internet infrastructure – a goal dimension that is present in different rankings.



### Get a political mandate:

A strong political mandate is the biggest factor that gets projects off the ground. It is crucial that the initiative is backed by politicians and civil society for legitimization. **Politicians can be seen as enablers.** They have the power to channel the voices of their constituents into actionable transformation projects.

The interviewees often reported that a combination of several factors served as a trigger. Aging core systems inflict a lot of pain on organizations: The technology becomes brittle, available expertise shrinks, functional changes become hard to implement, operating costs and risks grow. A case in point is provided by tax administrations, which invested early in technology, and therefore face the most urgent need to modernize their aging systems. Many of these very complex projects were successful but also led to major project failures, scandals, and high-profile firings in countries such as Switzerland, the Netherlands, Germany, or Denmark.

Dirk Lindemann successfully relaunched a significant tax project by focusing on value creation, striving to provide new business value to enterprises and employees while also cutting costs. These benefits secured the political mandate for his initiative. Another CIO of a large tax office engaged politicians directly to win them over for his project. He faced the situation that politicians tend to make changes to tax law every year, which means most resources are already consumed by implementing the new legal requirements. Older systems that are optimized for straight-through processing are unable to cope well with such changes since they are not designed to support different business rules for each tax year. He opted to enter the political debate and talked to the politicians directly. This way, they understood the technical options and constraints better in advance of deliberation of new policies and laws. **These examples show that we need to take business / IT alignment one step further for public administrations: We need good politics / IT alignment to get initiatives off the ground successfully.**

### Turn the tables:

Crises like the COVID-19 pandemic or the war in Ukraine not only trigger initiative but often speed them up to an astonishing degree (see the stories from “IT in times of crisis” below). This is apparent in the survey results Figure 13 and was underlined by many of our interviewees. **Organizations need to learn how to navigate through crises and seize them as a chance to push initiatives forward.** This requires pre-planning on several levels to be ready to execute when the next emergency inevitably arises. A modern, tested technology platform must be available, plans to develop critical capabilities need to be kept up-to-date, and building political momentum takes time.



Figure 13: Top 12 success factors and their correlation (corr.) stakeholder satisfaction (n=273)



**Gulsanna Mamedieva**

Director General of Directorate for  
European and Euro-Atlantic Integration  
Ministry of Digital Transformation of  
Ukraine

Gulsanna and her team have launched the  
development and implementation of Ukraine's  
integration strategy into the European Digital  
Single Market, including online safety, open  
data, digital skills, e-commerce, etc.

#digitalpolicy #digitaltransformation  
#innovation

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## IT in times of crises

**Gulsanna Mamedieva** is a director general in the Ukraine's Ministry of Digital Transformation and works as a liaison officer to the EU for digital transformation in Ukraine. In our interview, she outlined phases of the country's digitalization before and after the onset of the war. Ukraine's mobile first approach helped the state function when most public life was disrupted. Helping refugees migrate to other countries and securing IT to defend against cyber attacks became critically important; deciding the fates of many lives. To operate under such conditions, decision making and execution needed to be more centralized. "The war is accelerating our digital transformation processes," she added.

The COVID-19 crisis was also a tipping point for digital transformation in many countries and allowed IT experts to shine. According to Michael Ørnø, "IT has really enabled our daily business to function at that time." He explained that a decade of intensive IT integration and harmonization made working from home secure and feasible. Dirk Lindemann told us how trust could be established: "Rolling out the COVID-certificate in no time showed the public that we can do it." Colin Holden also saw a shift in his country's digital strategy: "Our country was not ready for digital only or digital first, but COVID showed that it is a priority to deliver all services digitally."

Elena Liria shared with us how she experienced the pandemic in Madrid. Her organization was not only providing the digital infrastructure to deal with the challenges but it was also saving lives. Moreover, the solidarity from partners was astonishing. "It was at an all time high and shows what is possible when everybody works towards the same goal." The IT budget saw a rise of 30% after the crisis.

These testimonies prove that crises plays a pivotal role in digital transformation. Technology can provide relief at scale and should therefore be part of any crisis management plan. Crises also act as transformative catalysts by facilitating access to crucial resources. Often hard won over time, the moment of crisis can serve as the tipping point to release financial and human resources. This is how the COVID-19 pandemic catapulted the digital transformation in the public sector: resistance to change could be overcome, funding and senior sponsorship could be secured.

## Recommendation 1: Use effective triggers



- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>• <b>The politics / IT alignment is insufficient.</b> Policies and legislation are not a validated basis for implementation. Often, the issues land on the table of the CIO who needs to resolve them with scant resources to support.</li> <li>• An initiative is more likely to succeed with a <b>sense of urgency</b> surrounding it.</li> <li>• Aligning around <b>stakeholder needs</b> drives their satisfaction.</li> <li>• A <b>strong political mandate</b> is the main enabler for getting projects off the ground. It is crucial that the initiative is backed by politicians and civil society. Politicians can be seen as enablers. They have the power to channel the voices of their constituents into actionable transformation projects.</li> <li>• The strongest driver for digital transformation is the need for immediacy in the face of <b>"burning" platforms and moments of crisis.</b></li> </ul> | <ul style="list-style-type: none"> <li>• <b>Institutionalize the politics / IT alignment.</b> This involves hearing each other out and "reality checks" to find simple solutions.</li> <li>• <b>See building momentum as a team effort</b> to align the initiative around stakeholder needs, to work on a political mandate and on a guiding coalition, and to turn the tables (e.g., a crisis) to push the initiative forward.</li> <li>• <b>Work with senior government leaders and key stakeholders</b> on a political mandate and on a guiding coalition; make sure to reflect and position your desired mandate in the context of the respective political agendas.</li> <li>• <b>Consider timing</b> (e.g., votes and elections to find common ground for agreements, momentum through compelling moments of delight, crises / urgencies, system outages).</li> <li>• <b>Test and validate the needs and acceptance</b> of a solution early with experience prototypes.</li> </ul> | <div>● ●</div> <div>● ● ●</div> <div>● ● ●</div> <div>● ● ●</div> <div>● ● ●</div> |
|---|--|--|



## Recommendation 2: Approach initiatives with a business mindset

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The value of approaching initiatives with a business mindset became a recurring topic in the interviews we conducted. Many of the digital leaders we talked to were well-versed in business, which defined their approach. They prioritized nurturing personal interactions, creating value through win/win/ win-deals, and leveraging opportunities.

► see next recommendation on how to build trustworthiness for personal interactions and Section 3.5 for more on personalities

Projects in the public sector are often affected by inertia. We found that business cases help to communicate the value of an initiative and unify a team behind a certain goal. A comprehensive and transparent business case is a great way to establish the common understanding and to see the benefits of an initiative for all stakeholders. To avoid stalemate situations where cases need to be continuously refined, one should regard them as strategic bets with benefit hypotheses that should be reworked as the involved parties learn more. Loosening up this control at the beginning of an initiative needs to be balanced with oversight of the benefits over the full life cycle.

### The real cost of IT

An IT director shared a particularly strong story with us about business managers in other agencies that are opposed to centralizing their IT: "They don't know the real cost of IT. [...]" Before we integrate them, we do a business case and due diligence – in fact so far, no one knew the cost of it operations and infrastructure. Most often, the cases turn out to be positive, sometimes they are neutral, seldom negative. But then these agencies have been lying – for example, they omit the personnel costs." A trait many successful digital leaders shared was a business-like approach to identify mutually interests and to find areas with common values. Strong people skills and a sales mindset helped them drive the agenda forward and create value.



## Recommendation 2: Approach initiatives with a business mindset



- **A business mindset** helps to design solutions for successful project launches.
- Successful digital leaders **collaborate with industry and academic** partners to build trust and to tap into pools of expertise and innovation. This approach is called the “triple helix model”.
- Projects in the public sector are often affected by inertia. We found that **business cases** help to communicate the value of an initiative and unify a team behind a certain goal.
- Oftentimes, different needs of different people can be settled with the same solution or at least similar components. It is your job to connect the dots and make this visible. By bundling scattered needs together, you create a major force that can accelerate change and make projects more actionable.
- **Have a solid business case at hand** to be able to pitch your story to your “investors”: the politicians and top government executives. Use it facilitate consensus.
- **Allow business cases to be tentative** – or as we’d like to see them: as strategic bets with benefit hypotheses that are validated as the involved parties learn more. Loosening up this control at the launch of an initiative needs to be balanced with oversight on the realized benefits over the full life cycle.
- Public projects are characterized by the involvement of different stakeholders with different interests. **Make explicit assumptions** and show how you will subsequently test them.
- **Identify win-win-win situations** with your stakeholders. Think from the perspectives of your stakeholders to create a common understanding: What do they need? What’s in it for them? How can they support you? Which role do they have: Who are the decision makers? Who is influencing whom? – Stakeholder maps are a good way to visualize and guide your stakeholder management activities.



## Recommendation 3: Gain expertise and trust through



**Alessia Neuron**

Head of Digital Administration  
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Switzerland

Alessia Neuron is the Head of the Digital Administration and E-Government Division of the State Chancellery in Zurich. She is a social scientist and researcher on the topic of eGovernment. She was a professor at the Bern University of Applied Sciences, where she led the Public Sector Transformation Institute.

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Around the globe, digital leaders in the public sector often face system-wide transformations. For example, the cross-border movements of goods at customs authorities, airports, or harbors are tightly integrated in supply chain networks. Core systems for taxes need to be modernized and offer end-to-end automation. The use of portals and e-gov services require data integration and service-oriented organizations.

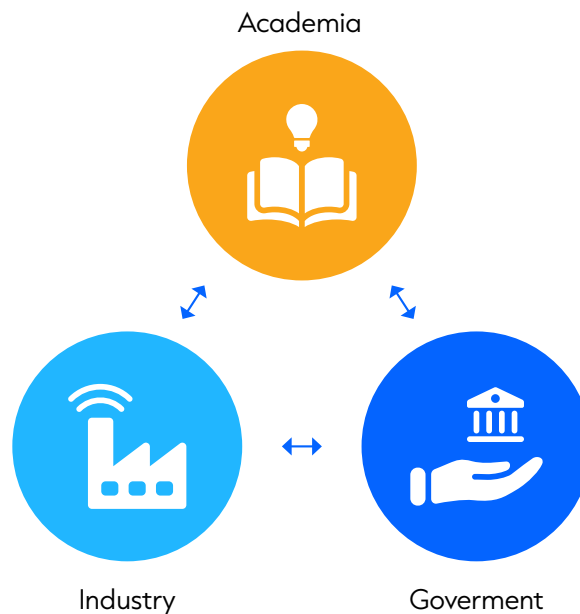
How do you pull off such complex transformations that will take 5-10 years to complete? In our conversations, reaching out and working with external parties figured prominently.

"You have to have international peers in your advisory board," according to Barry Lowry. This enables the sharing of best practices and lessons learned with those who have relevant and diverse expertise. Likely, such persons will be from other countries if it concerns a system-wide reform.

The importance of collaboration was mentioned in numerous interviews throughout this study. **By working with the public, national, and international industries and academia, governments can only become more innovative and effective, as well as help to create public trust in the chosen approach, provide access to expertise, and build momentum.** We will turn to innovation in Section 5 where we discuss the role of innovation labs in the public sector.

Barry Lowry explained that the close partnership with academia to develop best practices for data privacy, helped reassure the public of the trustworthiness of their solution. By collaborating across sectors, each stakeholder can focus on what they do best. **Universities have the resources to do research, or as Alessia Neuron put it: "They actually have time to think."** Businesses can adapt and execute much quicker. Governments can bring institutional stability, resources, and power to the table.

Alessia Neuroni recommends co-creation with external parties as a principle. This strategy secures expertise and innovation and thereby supports trust, efficiency, and the creation of public value. In this “triple helix” (Figure 14) approach, universities, governments, and businesses are on a level playing field. Partnerships between these three entities can lead to innovation by combining their respective competence and knowledge areas. This does not only enhance the quality of the innovation but ultimately increases credibility and trust.



### The Nordic way: How high trust helped to drive the digital agenda forward

The Nordic countries rank high in the recent EU and UN benchmarks (► **see Section 2**) with Denmark and Finland being among the top 5 countries. According to Professor Rony Medaglia, a main reason for this ranking is that they are **high trust societies** where citizens exhibit a high trust in the government. For example, financial statements on companies operating in Sweden can be accessed through Swedish Companies Registration Office (Bolagsverket). In Denmark, the state has access to your bank statements to calculate the amount of taxes to be paid.

This enabled the countries to consistently work on digitalization – a second reason Professor Rony Medaglia mentions: **strong and early data integration**. Denmark, for example, was working since the 1960s on harmonizing the citizen data registration and collection, called CPR. The third reason is the high digital literacy. Especially Denmark is known for **early and high impact investments in digital skills and tools**.

Figure 14: The Triple Helix Model for Innovation through collaboration across boundaries



**Rikke Hougaard Zeberg**  
Sector Director DI Digital  
DI Digital, Denmark

Rikke Hougaard Zeberg is the industry director for DI Digital. DI Digital, a national trade organization, is the largest industry community for digital businesses in Denmark with over 700 members. She is also the former director of Denmark's Agency of Digitalization.

These factors are mutually reinforcing. Denmark earned its high public trust over years. They have high credibility thanks to their digital skills and collaboration mindset; they are perceived as reliable thanks to the success of past initiatives to increase public value, a point that also **Rikke Hougaard Zeberg** stressed who shaped a phase of substantial leaps. What helped the case for digitalization was that after the 2008 recession, Denmark faced **budget pressures** and realized that it could only maintain its welfare state if the public services could be delivered more efficiently.

As Ireland accelerated and moved up to the group of digitally leading countries, public trust also proved a highly relevant factor for advancing the digital transformation, according to Barry Lowry. "If the public doesn't see the system as trustworthy, no one will use it." They worked hard for public trust: Early and broad consultations, academia involvement, transparency, and the installation of safeguards, such as a data governance board, were some of the efforts to earn public trust.

In contrast, the same cannot be said about Germany, according to Professor Rony Medaglia. "In countries like Germany, there is less trust in how to use data. There is more suspicion there. This becomes an obstacle for data integration." So, a **lack of trust can become a showstopper**.

In the case of Switzerland, there was a severe abuse of trust by the government in the late 1980s where the intelligence community created secret files on 20% of the entire population (Fichenskan-dal). With this event, any trust in the government for handling data responsibly was destroyed. Subsequently, prohibitive safeguards were put into place that practically brought any advancements of Talinn's "one only" principle to a halt.

"Trust is built in drops and lost in buckets," Kevin Plank.

### Building trust using the trust equation

As we have seen, there is a strong relationship between what others let you do and how much they trust you. In other words, the total amount of trust you have acquired determines the goals and scope of your initiative. An influential way to make sense of trust, has been put forward with the “trust equation”, first announced in the book “The Trusted Advisor” by, David H. Maister, Charles. H. Green, and Robert M. Galford (2000). Their model conceives of trustworthiness as the result of credibility, reliability, and intimacy divided by self-orientation.

$$\text{Trustworthiness} = \frac{\text{Credibility} + \text{Reliability} + \text{Intimacy}}{\text{Self-Orientation}}$$

#### Credibility

People need to believe what you are suggesting. A great way to improve credibility is through collaboration (see above). Governments can improve credibility and thereby trust by building support around their approach with external partners from the private sector and academia.

There was another element that was mentioned in multiple interviews and that falls into the same category: a charismatic personality. Three interviewees mentioned that the person driving the change is successful, at least in part, because of their charismatic personality.

“A charismatic person can push the project forward by motivating people and gaining trust,” Barry Lowry, Ireland’s CIO.

“However, our prime minister is also acting as a rockstar and uses his charisma to push a shared agenda forward. Our prime minister is a star campaigner. He is a driver – his presence has great impact,” Satish Kumar.

#### Reliability

This factor does not depend on external partnerships but is mostly a result of the commitment and competencies shown. Being reliable means delivering on time, in budget, and in the expected quality. All these elements can be managed by working on the success factors above. We will turn this in Section 3.



**Intimacy**


This element is all about the people-orientation models. Intimacy refers to the sense of safety and security that people get when interacting with someone. This particular item takes more effort to build than the first two factors do. A certain level of intimacy can be established and won by respecting emotional concerns and taking them seriously.

**Self-Orientation**

The lower the score of this factor, the higher the trustworthiness. In essence, this is about the perception people have – on whether you care, or not. This can be most notably achieved by paying undivided attention to others, especially when they air their concerns.

As an organization we do not have full control over these variables. But what we can do is foster a culture and adopt norms that favor these variables. A CIO shared with us how they made senior people co-chairs of the steering committee and got universal buy-in by giving them power and visibility.



| Guiding insights   | Recommendations  | Responsible   |
|--|--|---|
| <b>Recommendation 3: Gain expertise and trust through collaboration</b>   |  |   |
| <ul style="list-style-type: none"> <li>• Digital leaders in the public sector face <b>system-wide transformations</b>.</li> <li>• <b>Reaching out and working with external parties</b> helps to tackle such challenges – the “triple helix” model for collaboration among government, academia, and industry actors is seen as useful to get advice, support, and to show the legitimacy of your approach.</li> <li>• <b>The trust you have limits the scope of the initiative</b> and the organization’s “zone of proximal development”. That is, you need to develop the scope of the initiative together with what the public accepts and supports.</li> <li>• Building trust requires effort and time. Conceptual tools such as the <b>trust equation</b> can help to work on the weakest links over time.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Work on the trust the accountable organization has towards key stakeholders.</b></li> <li>• <b>Show public support</b> for critical digital transformation initiatives. Using the key messages, reiterate the reason why support of the initiative is vital.</li> <li>• <b>Work on reputation and standing by being a solid and capable performer.</b> Ensure reliability (define and measure SMART goals, create transparency – especially for times when things are not going according to plan). Be a role model for the expected behavior of your organization and hold your team fully accountable. Regularly lead and participate in key meetings to ensure the desired outcomes.</li> <li>• <b>Provide leadership, executive excellence, expertise and intimate «client knowledge».</b></li> <li>• <b>Foster a project environment of collaboration, growth,</b> learning, and information sharing (also define reasonable limits to it).</li> <li>• <b>Develop credibility through cooperation</b> with national and international peers and partners from the industry and academia. Align around mutual strengths and interests, and balance relationships with mutual gains. Outsource what others can do better. E.g., academia has more time to “think” and do research. This does not only improve the quality of the result itself but also legitimates your intentions and shines light on blind spots.</li> </ul> | <div>● ● ●</div> <div>● ●</div> <div>●</div> <div>●</div> <div>● ●</div> <div>● ●</div> |



Section

## 3 Transforming successfully: What drives results

IT project success is widely recognized as the result of interplay between many factors. With the perception of spectacular fails in the public sector, the topic has drawn a lot of public scrutiny. It might be an area where public administrations have not only learned their fair share but have also overcompensated with corrective measures, such as adding tighter controls and oversight. Since most government IT-projects are undertaken together with IT vendors and consultancies, a more complete picture must also include suppliers and the resulting tensions. (For example, public tendering favors sharp calculations and leads to "scope change" discussion to cover the project expenses, while the internal vendor management function is often under-staffed, and suppliers struggle as they are often prevented from employing their own tested standards, etc.)

Our main interest was to define which issues are public sector specific and what alternatives exist. Otherwise, one risks "flogging an already dead horse". Additional, requisite rules and regulations tend to have the opposite effect, and essentially suffocate output and discourage those persons responsible for the project. **The more promising method for making real progress in transformations is for politicians and senior managers to create favorable preconditions for digital success.** Following best practices will get you a long way when combined with leveraging success and failure factors and resisting perfection.

**Recommendation 1:** Follow best practice



**Recommendation 2:** Leverage success and failure factors



**Recommendation 3:** Resist perfection



## Recommendation 1: Follow best practice

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Every conversation we had touched on project management. Since we believe that this area has received a lot of coverage and since there is an accessible body of empiric research on (IT) project management and agile practices, we limit ourselves to providing the pointers we find helpful and focus on insights from our consulting practice.

### **The Art of Creating Value: Project Management**

In 1994, the Standish Group launched its CHAOS report which kick-started the scientific study of critical success and failure factors. This line of evidence-based research has been highly beneficial to improving the odds of success.











Modern approaches to the science are the State of Agile Report and the State of DevOps Report. They incorporate agile practices in development, as well as in operations.

Insights and advice from our consulting practice:

- Professionalize your delivery capabilities and adhere to a lean application of best practices; work with HR and your leadership team to implement measures, such as a focused skills management, advancements to the training & development function or launching coaching / mentoring approaches in project-based-learning settings.
- Implement organizational learning mechanisms & knowledge management practices to pave the way for the next wave of projects.
- If developing your internal capabilities is not a feasible option in your organization, source a partner and put your internal focus on project steering, requirements management, and supplier management.
- Keep your measures lean and focused on specific goals. A good plan includes assessments on your project and adopting portfolio management practices to work on the right issues.
- Consider lean guardrails, such as periodic project reviews by peers, to foster a learning culture rather a culture of control.

Replacing legacy systems is hard and often prone to failure. Prepare the organization to tackle the systems as the topic becomes more relevant. This will also involve a redistribution of resources so that CIOs have the time, space, and money to do their jobs to modernize and migrate from aging systems. An insightful book on legacy system modernization focused on public sector experiences is Marianne Bellotti's 2021 book, "Kill it with fire."



| Guiding insights  | Recommendations   | Responsible   |
|---|---|---|
| <b>Recommendation 1: Follow best practice</b>                  |   |   |
| <ul style="list-style-type: none"> <li>There is an accessible body of empiric research on (IT) project management and agile practices.</li> </ul> | <ul style="list-style-type: none"> <li><b>Follow best practice:</b> You will go a long way just by following best practices in project management. Be sure to implement them in a lean manner to avoid bureaucracy.</li> <li><b>Provide clarity, relevance, and simplification</b> to the launched initiatives. Thereby, you contribute to better outcomes and actively de-risk them. Overall, keep the focus and help realize the business case you were presented.</li> <li><b>Hold the executive branch accountable for project success.</b> Insist on a lean distribution of decision rights and empower decision makers by providing political backing. However, resist the temptation to make the system apparently more fail-safe by demanding more controls and oversight. Demand transparency and ownership and evaluate the leadership time according to this standard. Otherwise, risk-averse behaviors are reinforced.</li> <li><b>Make it a habit to inform everyone, including the public, on your projects regularly and transparently</b> – in good times and in bad times. This is a precondition for trust and can provide an alternative to tighter controls and formal inquiries.</li> <li><b>Prepare your organization to work with suppliers.</b> This includes setting up vendor management capacities and adopting supplier standards when possible.</li> </ul> | <ul style="list-style-type: none"> <li> </li> <li> </li> <li> </li> <li></li> <li> </li> </ul> |



## Recommendation 2: Leverage success and failure factors



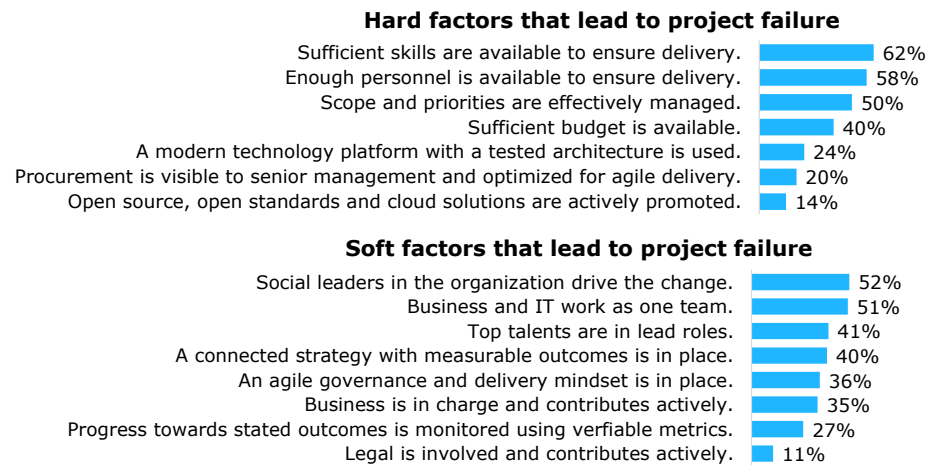
We asked the survey participants to rate the importance of success and failure factors for their initiatives, taking hard, soft, external, and internal factors into account. Seasoned project managers will find their efforts confirmed as our data replicates well known facts, in particular: Have clarity on outcomes, implement SMART goals, manage scope to avoid a moving target or unrealistic expectations, have a guiding coalition and a management sponsor to support the project, have the right people with enough time on the projects. Yet, consistent follow-through is difficult since there is no single factor that ensures success. It is always the experienced and skilled interplay that improves the chances for success.

Figure 15 ranks the top 12 success factors according to our survey. The participants told us to which degree these factors contributed to the success of their initiatives. All of them seem to have had a certain positive impact on one or more initiatives. Especially the COVID-19 pandemic seems to have contributed a significant amount towards the success of some more recent initiatives. In our survey, participants were also asked to rate how satisfied they perceive their stakeholders to be. If we use these numbers as an indicator for the public value that results from transformation initiatives and look at the connection between the stakeholder satisfaction and the success factors that contributed the most, we begin to see an interesting picture: **Almost all top-rated success factors seem to have a low to medium positive correlation to stakeholder satisfaction, which in the end reinforces their relevance.** The one exception is the COVID-19 pandemic. By this logic it cannot be said that initiatives mainly driven by the pandemic had a major impact on stakeholder satisfaction, nevertheless it still contributed to project success.



Figure 15: Top 12 success factors and their correlation to stakeholder satisfaction (n=273)

We also wanted to know which hard and soft factors contributed most to failure (Figure 16).




The main factors that contribute to failure revolve around people and organization culture. According to our research, a large number of initiatives fail because the people involved do not possess the skillsets needed to ensure successful delivery. Organizations often assign project responsibility to subject matter experts who are familiar with the topic and who usually have extremely high professional competence. However, this alone does not guarantee their suitability as project managers.

Another major factor responsible for the failure of initiatives is the lack of commitment. When there are no social leaders in organizations that drive the change, it is very difficult to succeed, thereby validating change management frameworks (e.g., Kotter). Still, it seems to be a major challenge that countless organizations face. "People need to work together – for this, they need to have the critical skills for their interaction," David Eaves. Therefore, **it is about having the right people in the right positions**. This would imply that organizations know their people, their skills, and their interests.

We have seen good results coming from a practice of peer coaching where project reviews are less about stating mistakes but more about useful forward-oriented feedback on what to do better. As such, it reflects the agile "inspect and adapt" rituals where the team owns the outcome. It is also about adding an element outlined in the strategic capability planning logic in section 1: This feedback loop helps you to prioritize the focused development of capabilities that your organization needs in order to do better in the future.

► See Section 5 for more on organization design

Figure 16: Factors that were lacking, causing unsuccessful digital transformation initiatives (n=263).

| Guiding insights   | Recommendations   | Responsible   |
|--|---|---|
| <b>Recommendation 2: Leverage success and failure factors</b>   |   |   |
| <ul style="list-style-type: none"> <li>• In our survey data there are many success factors that seem to have contributed significantly.</li> <li>• Especially the COVID-19 pandemic seems to have contributed a lot.</li> <li>• The main factors that contribute to failure on the other hand revolve around people and organization culture.</li> <li>• According to our research, many initiatives fail because the people involved do not possess the skillset needed to ensure successful delivery.</li> <li>• Organizations often assign project responsibility to subject matter experts who are familiar with the topic and who usually have extremely high professional competence.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Provide strategic direction.</b> Reflect your role as «Government investor» and idea sponsor. As such you need to prioritize resources for the most promising or urgent initiatives. Also think about creating financial instruments that allow strategic investments into digitalization over several years.</li> <li>• <b>Provide sponsorship to strategic initiatives:</b> Ensure that each strategic initiative has assigned a senior leader that provides active support and assumes accountability to you. Provide personal support for early-stage ideas when the heat is on.</li> <li>• <b>Provide legislative channeling:</b> Support initiatives by providing «legislative channeling» for the project teams in the executive branch. I.e., actively frame political debates on critical parts of the new legislation and help to build consensus.</li> <li>• <b>Include a “voice of the customer”:</b> Highlight and assess needs of users. Connect relevant stakeholder groups with the project team. Use your influence to create mutually shared expectations.</li> <li>• <b>Perform regular success-oriented project check-ups by peers.</b> Make sure to also identify where the governance and management practices must be adapted to enable (double loop) learning.</li> <li>• <b>Put the right people in key roles:</b> Make sure that key roles in projects are identified as such and assess the staffing decisions with your leadership team.</li> <li>• <b>Build an organizational capability to introduce new technologies</b> and to modernize aging technology that needs to be replaced.</li> </ul> | <ul style="list-style-type: none"> <li>●</li> <li>● ●</li> <li>● ●</li> <li>● ●</li> <li>● ●</li> <li>● ●</li> <li>● ●</li> </ul> |

### Success story: AI for agriculture

According to the UN, around 720-811 million people worldwide were suffering from hunger in 2020. With a growing population and uncertainties on the supply side, agriculture has become a priority. Digital leaders from India and China, and even from Europe, reported that the topic is on their agenda.

**"I have only one wish. May technology evolve even faster in the healthcare sector, e.g. big data applications, to improve the health standards of a larger population." (A department manager of a Social Solution Division in China)**

This department manager shared some insights on their initiative, "AI for Agriculture". Their story is a perfect example that showcases how a **combination of success factors** can lead to more favorable outcomes. The goal of this initiative is to improve the production plants while reducing the costs. They developed a web platform, endpoint software, and a mobile app for the solution. They have experienced big success in recent years and have dozens of these production centers up and running throughout China. He identified multiple reasons for this success. Mainly:

- Usage and understanding of advanced technology
- Profound industry knowledge
- Understanding of China's local market

He is very proud of this initiative as it helps China solve the problem of food production and supply. With that, they managed to provide the potential for centralized management of plant growth. This initiative started as a part of the national strategy. They then analyzed the social and technological trends and finally formed the company strategy. He believes that leading companies should always identify trends and act upon them to proactively create public value. His organization cultivates a culture of **openness, proactiveness, flexibility** and, most importantly, it takes on social **responsibility**. And, as a manager in a technology-oriented company, he feels very little resistance to change. There are two things that he wishes to cultivate to even broader success. First, his employees should have more of a **business-mindset**. "They should be more aware of the costs and profits and not only focus on the technological part." Second, collaboration with the other members of the group works smoothly but could be improved by being aware of cultural differences. By doing so they could take actions to improve the smoothness for technology transfer.

In the future he wants to keep finding talents who are team players and have an acute awareness of advanced technology and industries. He clearly sees the bigger picture and does not get lost in the technological side of it. His end goal always seems to be generating **public value** and tackling bigger problems for society.

## Recommendation 3: Resist perfection



**Ralf Resch**

Managing Director

VITAKO e.V., Germany

Ralf Resch represents Germany's local government ICT service providers and focuses on the digitization of the complex German administration ecosystem.

#vitako #public\_service

[linkedin.com/in/ralf-resch-6028a33](https://www.linkedin.com/in/ralf-resch-6028a33)

**Ralf Resch**, the CEO of the German network of communal IT service providers, showed us that out of all the factors that slow down digitalization, cultural biases and mentality are the hardest to crack. Ralf Resch's organization faces three main challenges that he summed up in the following points:

First and foremost, the **perfectionist mindset**: There is only place for perfect solutions, and MVPs are rejected altogether. While at first, this preference for quality may sound like a positive trait, it also slows down transformation and creates a major obstacle to innovation. Digital solutions need to be conceptually complete, cover all edge and corner cases, and resolve legacy functionality from the beginning. Redefining the status quo thereby becomes the only viable option for moving forward.

Second, the **decentralized federal state**. A decentralized structure makes collaboration more difficult; it can amplify silo-mentality or lead to legal challenges (different legal landscapes). Simplifying processes across different government entities and standardizing a common system becomes difficult to achieve.

► see Section 4

Third, there is a **default preference to just digitizing processes instead of rethinking them from first principles**. As a result, opportunities to simplify the future services are then missed out on. Ralf Resch observes that in many cities, IT is not "at the table" when laws are discussed.

## "The problem is: No one is listening. Bills get passed lacking any expertise."



**Padeluun**

Co-Founder and Board Member

Digitalcourage, Germany

Padeluun is a media artist and internet activist. He campaigns for (digital) civil and human rights, consumer protection, privacy, freedom of information and related issues.

#art #freedom #fedverse

[padeluun.de](https://www.padeluun.de)

**Padeluun**

civil rights activist and consultant to the German government

These challenges however are not unique to Germany. Alessia Neuroni said that she sees the same problem with perfectionism in **Switzerland**. "We aim at perfection, but we should go for 80/20," she says. One should not focus on perfection but on public value.



### Recommendation 3: Resist perfection



**The “perfectionist” bias seems to be specific to the public sector.** It can lead to overtasking already heavy projects and thereby kill them. It consists of three main challenges:

- **Perfectionist mindset:** Only allowing perfect solutions and rejecting MVPs can slow down transformation and be a major obstacle for innovation.
- **Decentralized federal state:** Collaboration is difficult within a decentralized structure. It can amplify silo-mentality or lead to legal challenges.
- **Digitizing instead of digitalizing:** Instead of rethinking processes from the first principles they are often just digitized. That way valuable opportunities to simplify the future services are lost.

- **Foster a culture of learning** that favors public value outcomes and the pareto principle (80-20 rule) over perfection. To this end, principles-based approaches like the lean startup method and the Agile manifesto can provide orientation.





Section

## 4 Switching the play: How to work policy for good outcomes

**“The technology is often the easy part. It’s the humans, business processes and institutions that are hard.”**

**Professor David Eaves**

There is a need for policy level approaches for good outcomes. The survey respondents indicated a wider problem of digital transformation that goes beyond technology:

- Objections and concerns by the data protection authorities
- Missing legal basis for using and linking data (also hinders simplification of IT)
- Scant willingness to contribute to the success of an operation or project proposed by a different department (political envy and jealous power dynamics)
- Complexity of the ecosystem (lack of cooperation between involved agencies and private actors)
- Lack of a broadly accepted digital identity and binding standards in general

We will expand on these issues with insights from our interviews with digital leaders from around the world. They are concerned with issues at the boundaries of connected systems, ranging from local over regional, national to supranational. They are not static and will likely evolve over time.

**Recommendation 1:** Harmonize and simplify law for digital



**Recommendation 2:** Face privacy and sovereignty challenges head on



**Recommendation 3:** Bring digital diplomacy into the game to defend your national interests



**Recommendation 4:** Invest in digital skills and digital literacy



**Recommendation 5:** Limit organizational complexity for streamlined delivery and operation



## Recommendation 1: Harmonize and simplify law for digital



Delivering a good service requires a well-researched user journey, starting from first principles and having access to all relevant information. This requires a solid understanding of the data and its purposes in different areas. On this basis, data sharing, fair use principles, and legal control mechanisms according to privacy regulations need to be integrated into the current body of legal texts.

A former CIO of a foreign affairs ministry told us: "Every time a problem occurs, a new control or a new reporting duty is invented. At some point, I spent 50% of my time on compliance. 7 reporting bodies were overseeing what we were doing." **The loss of efficiency and flexibility incurred by such growing regulation goes unmeasured but are substantial, according to our interviewees.**

In our discussions we became aware of a sizeable resistance to simplify regulations, often attributed to legal experts and data protection officers in the public sector. Whatever the truth, denying the problem even exists will not make it go away. Hence, **embrace it to solve it.**

### Germany's Child Benefit going digital: A poster child meets Kafka

In 2017, Germany passed the "Online Access Law" (Onlinezugangsgesetz) stating that all public services must be available digitally by the end of 2022. A nationwide digitalization program supports the implementation. "One for all" is one of its guiding principles. With this, good solutions should be developed once and then be scaled up or be reused, to avoid wasting time and resources for reinventing the wheel.

In this spirit, the state of Bremen created a solution for parents to receive child benefits more easily. When they wanted to adopt this solution across all German states, they hit a roadblock: The benefits are calculated, among other things, based on income. However, "income" has no uniform definition across Germany. Either German tax law needed to be streamlined, implementing the legal business logic for each state, or the project needed to be abandoned - which is what has happened (so far). Further challenges stem from outdated form requirements, in particular manual signatures.

In this story, they have started out with the best intentions but have ended up in a Kafkaesque situation.

In hindsight, the only long-term solution is to rework the law on the regional and national level.

## Recommendation 1: Harmonize and simplify law for digital



- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• The need for manual signatures, other <b>outdated form requirements</b>, non-uniform definitions in tax law, and the like, create legal roadblocks for the digital transformation.</li> <li>• <b>Digital services need legal support:</b> Data sharing, fair use principles, and legal control mechanisms according to privacy regulations still need to be integrated into the current body of legal texts.</li> <li>• <b>Substantial regulation costs are incurred</b> through a growing body of unoptimized regulation.</li> <li>• <b>A sizeable resistance to simplify the legal landscape</b> was reported.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Set binding targets enabling broad value gains.</b> Highlight areas that need to be reworked. Monitor international developments (e.g., the UNDP report on Enabling Cross-Border Data Flow, UK's national data strategy, etc.)</li> <li>• <b>Research, design, and track harmonization and simplification efforts</b> with academia and industry. Design new legislation with an "outcomes and principles" approach – avoid over-explicit rules as technology will continue to move faster than law</li> <li>• <b>"Take out cruft":</b> Simplify your regulation, redesign your activities from a service-design perspective. Reflect on whatever is adding to the complexity of your operations and the involved IT-systems.</li> <li>• <b>Respect cognitive limits of humans:</b> the team members collaborating with each other need to grasp what to do. 1000 pages of requirements are not feasible.</li> </ul> | <div>●</div> <div>● ●</div> <div>●</div> <div>●</div> |
|--|--|---|



## Recommendation 2: Face privacy and sovereignty challenges head on



### Do cloud technologies make for strange bedfellows?

With the adoption of cloud technologies, governments are faced with unprecedented challenges to privacy and sovereignty. The resolution of these issues has been slow, however. According to the survey, managed technology platforms and advanced services are increasingly used as Figure 17 shows. The figures below show which countries are using cloud technologies.

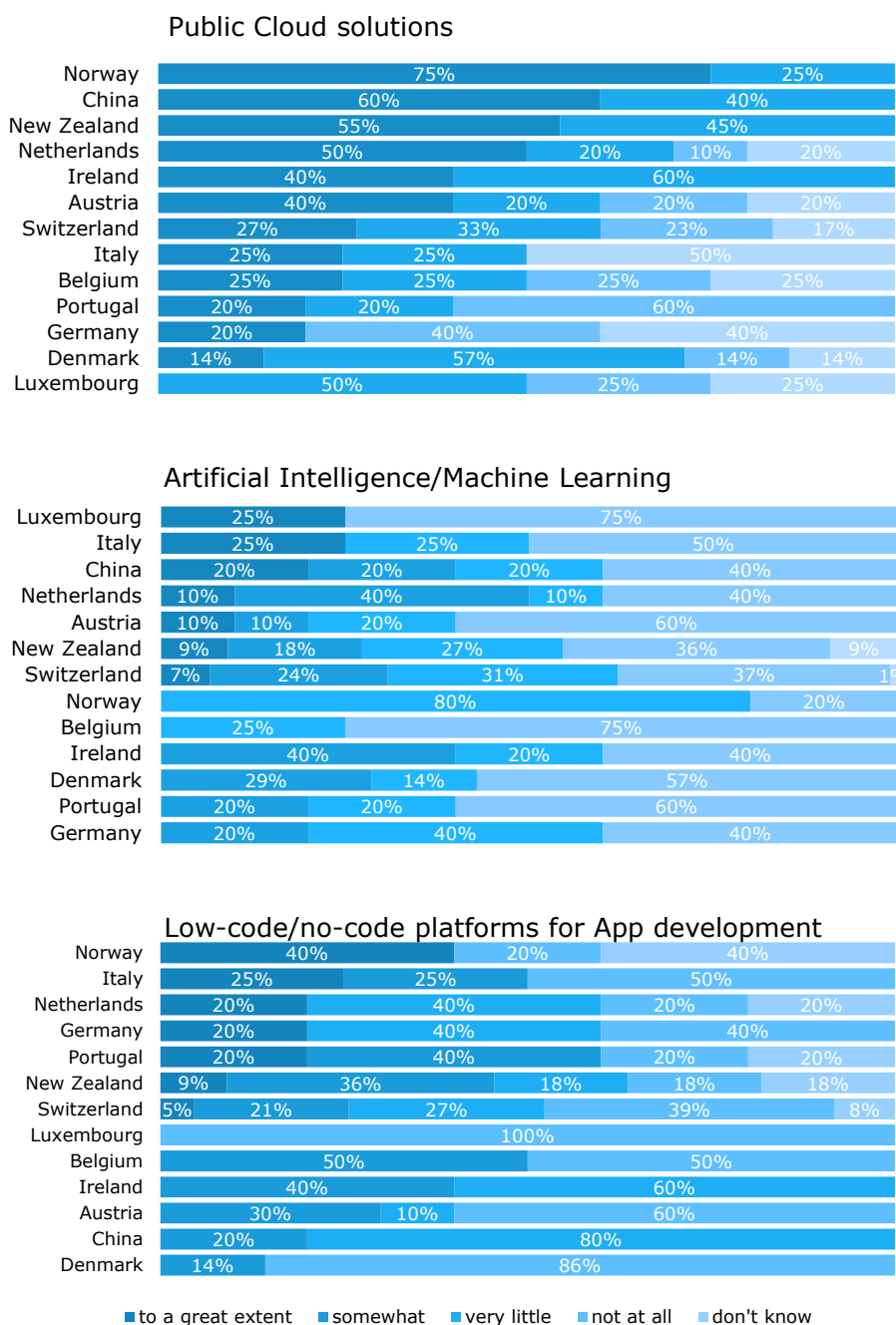
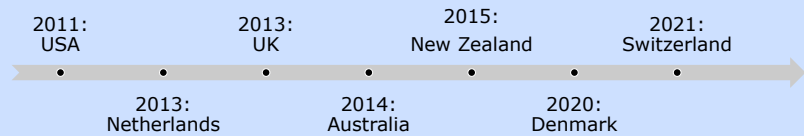


Figure 17: Usage of different technologies sorted by country.



## Challenging the journey to the cloud: Beyond “cloud first”



After a decade of “cloud first policies” in many countries, only a few have made substantial progress in the transition. Here are a few examples of what turned out to be challenging:










- In 2015, New Zealand reaffirmed its cloud first policy. As of now, few services are delivered through public cloud service providers due to privacy and sovereignty objections and concerns. Local data centers by public cloud providers should now help.
- In 2020, Denmark published a guide easing the use of modern cloud technology. This guide was itself an answer to a need to support the use of cloud services. Although, as of now, few services are used, also due in large part to privacy and sovereignty concerns. A European boundary should now do the trick: A vastly reduced list of allowed data processors whose operational personnel is obligated to be located in Europe.
- In 2022, the use of Microsoft Teams was forbidden in many schools in Germany due to data transfers to the USA that do not meet a comparable data protection level according to the European Court of Justice.
- In the same year, the Swiss national data protection officer contested a risk-based method by a private law firm to assess data transfers to countries without an adequate data protection level.
- In addition, the Swiss supreme court was invoked after a “concerned citizen” was dissatisfied with the official answer regarding the legal basis upon which public cloud services have been procured by the Swiss federal administration.
- Also in 2022, 9 years after its cloud strategy, the Netherlands published a decision framework on how to safely use public cloud services.

It becomes clear that these concerns need to be addressed. It seems best to tackle the underlying issues upfront with a politically legitimated policy on how to deal with privacy and sovereignty.

With technology and data being at the center of attention for modern states, their ramifications need to be re-assessed. Traditional approaches often focus on the legality of action. However, according to our interviewees, **it is more about risk assessments and the ways to deal with them**. It seems that public administrations around the globe have a preference for stability and clarity that is not faring well with the “VUCA world” we live in.

These attitudes can lead to “checkmate situations” where digital progress is not possible since the public administration is busy avoiding the difficult questions around privacy, fairness, and sovereignty.

We find the approach of tax rulings inspiring where a tax authority gives a legally binding decree on how to deal with a certain situation. Such an approach could be adapted to deal with privacy and data sharing questions, relieving the public and private organizations from having to undergo processes on the same issues, again and again.

| Guiding insights  | Recommendations   | Responsible  |
|---|---|--|
| <b>Recommendation 2: Face privacy and sovereignty challenges head on</b>   |   |  |
| <ul style="list-style-type: none"> <li>• <b>Privacy and sovereignty challenges slow down the adoption of cloud technologies</b> (cloud services, AI, and data-flows)</li> <li>• Sometimes <b>conflicting opinions</b> are voiced by different government bodies</li> <li>• According to the survey, <b>managed technology platforms and advanced services are increasingly used</b></li> <li>• <b>Risk-based approaches to legal questions</b> are not yet widely used</li> <li>• Not answering to open legal questions around privacy, fairness, and sovereignty creates “<b>check-mate situations</b>”</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Work on national data use and sharing policies</b> enabling integrated end-to-end services, balancing protecting, transparency, and the private interests (data economies)</li> <li>• <b>Balance oversight and consulting roles</b> to avoid “professional naysayers”. Public administrations primarily need simple solutions that have been declared to be “ok”. We find the approach of <b>tax rulings</b> inspiring where a tax authority gives a legally binding decree.</li> <li>• Work on whole-of-government or at least “whole of sector” <b>clarifications</b> (e.g. “rulings” for topics like “education” or “cloud services”)</li> <li>• <b>Collaborate broadly to identify alternative approaches</b> (Re: Triple helix, international best practices)</li> </ul> |  <br><br> <br><br> <br><br>  |

## **Treating data as a strategic asset: Learning from Ireland and the UK**

Governments are starting to integrate data into their policy frameworks.

For example, Ireland adopted a public service data strategy in 2018. It details a vision “with a set of goals and actions to deliver a more joined-up whole-of-government approach to how data is used and managed in the public service.” The Irish Government then underpinned its strategy with legislation, the Data Sharing and Governance Act 2019, to create a strong legal basis for increased data sharing. The strategy went together with the national Gov.ie digital services platform. As Barry Lowry put it: “If the public doesn’t see the system as trustworthy, no one will use it. So you have to work on trust. You have to respect privacy concerns.” He pursued this goal by having broad consultations early on, by involving academia, and by having built-in transparency, e.g. through the installation of safeguards such as a data governance board.

The UK went one step further in 2020 and set a National Data Strategy in place that encompasses not only the data foundations but the economy’s overall value-creation within clear regulations. At the same time, some of the more persistent problems that the Gov.uk portal has unmasked will be addressed, as GDS manager pointed out to us. In the Anglo-Saxon evidence-based tradition, the strategy will undergo empirical evaluation.

These approaches show that digital public services must be evolved together with a clear national data strategy. While time-consuming, the creation of the strategy fosters a public debate on the checks-and-balances needed to legitimate the future data sharing and linking in the wider ecosystem. Thereby, the different interests can be balanced and aligned around the public value potentials the digital economy creates.

### Recommendation 3: Bring digital diplomacy into the game to defend your national interests

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With the advent of widespread applications such as ChatGPT, AI has become a game changing technology. They show that world-class talent, a big stash of data, and enormous computer resources are needed to succeed. Given the strategic relevance, there is a war for talent, data inflow, and supercomputing supremacy between the bigger new blocks USA, China, India, and Europe. This conflicts with the need for advice from best-in-class administrations to get system-wide digital transformations under control. Also, it goes against the tradition of open collaboration by public administrations across the globe. Hence, we see **a need for a new form of diplomacy that we call "digital diplomacy"** to offer the means and experience to deal with tensions among states, including the ability to resolve them and to agree on shared and enforceable ground rules.

#### Data and AI: The case for digital diplomacy

UK's national data strategy also features another important priority area that transcends national borders: cross-border data flows.

This element is also very present in Singapore's digital strategy, building on the nation's culture of collaboration, as Jimmy told us. This has to do with the fact that as a small country, Singapore profits from being part of big alliances. The country tries to be a kind of "universal adapter" so that it can "plug in" everywhere. One approach Singapore pursues is creating model clauses for contracts among ASEAN countries that help businesses to use digital services and data across borders. These clauses are built on the principle of "good enough" and not full legal equivalence since this would inhibit economic development. Or as Jimmy succinctly puts it: "The new digital agreements are the new version of free trade agreements."

The quest to use data flows as a new form of national assets hints at a new development. As Professor Rony Medaglia elaborates, the new digital environment creates zero-sum games. Potent technologies such as cloud and AI provide countries with a competitive edge over each other. He foresees an unfolding battle for data inflows, computing superiority, and talent.

The fast application of new technologies can also lead to horrible mistakes and disasters. The “toeslagenaffaire” scandal in the Netherlands has shown how things can go wrong very quickly when an AI-based system for awarding social benefits discriminated certain groups, among them a disproportionate number of immigrants. The mistake was only discovered in 2019, after 20'000 parents had been wrongly classified as fraudsters for over 6 years, thereby excluding them from payments they were eligible for. As a result, the Dutch government resigned on January 2021.

These developments point to a need on the international level for mutually agreed mechanisms to deal with conflicts and to resolve them. As it turns out, this is what diplomacy provides.

On a totally different level this is a topic of **public procurement**. In our conversations, there was no one that spoke up in favor of the current WTO Agreement on Government Procurement (GPA). **The public procurement procedures and regulations have been described to us as being prohibitive, complicated, bureaucratic, and delaying.** In many countries, practices have been developed to better cope with this situation. Just to mention a few: Awarding multi-year partnerships, building lots for small and big suppliers, having broker entities for smaller open-source software ecosystem players or less formal tenders after a qualification round. However, these are workarounds and not solutions.

## 5. Designing Organizations: What makes for excellence

| Guiding insights   | Recommendations  | Responsible  |
|--|--|--|
| <b>Recommendation 3: Bring digital diplomacy into the game to defend your national interests</b>    |  |  |
| <ul style="list-style-type: none"> <li>Given the strategic relevance of <b>cloud technologies</b> (cloud services, AI, and data-flows), there is a war for talent, data inflow, and supercomputing supremacy between the bigger new blocks USA, China, India, and Europe.</li> <li><b>AI has become a game changer</b> (e.g., ChatGPT).</li> <li>This <b>conflicts with the need for advice</b> from best-in-class administrations to get system-wide digital transformations under control.</li> <li>Also, it goes <b>against the tradition of open collaboration of public administrations</b> across the globe.</li> <li>Hence, we see <b>a need for a new form of diplomacy that we call "digital diplomacy"</b> to offer the means and experience to deal with tensions among states, including the ability to resolve them and to agree on shared and enforceable ground rules.</li> <li>The "toeslagenaffaire" scandal in the Netherlands has shown how <b>things can go wrong very quickly</b> when an AI-based system for awarding social benefits discriminated certain groups. As a result, the Dutch government resigned on January 2021.</li> <li><b>Public procurement is seen as prohibitive, complicated, bureaucratic, and delaying.</b></li> </ul> | <ul style="list-style-type: none"> <li><b>Frame the issues</b> (e.g., ethical AI, cross-border data flows).</li> <li><b>Help articulate the national interests</b>, the value of cooperation, and conflict resolution.</li> <li><b>Give public servants a whole-of-government mandate</b> to develop diplomatic means to pursue these interests.</li> <li><b>Form supra-national partnerships and alliances.</b></li> <li>Once, the political framework is established, <b>design international operative structures</b> to bring identified issues to a resolution.</li> <li><b>Modernize public procurement</b> to provide speed and flexibility for digital goods and services (e.g., exemption clauses, rethinking thresholds, switching from formal procedures to transparency).</li> </ul> |  |



## Recommendation 4: Invest in digital skills and digital literacy



Maybe the most frequently mentioned “wish” during our conversations was the wish for skilled talent. The counterpart ranked high in the survey: Missing digital skills was reported to be the main hard factor accounting for project failure (Figure 15). The challenge for digital leaders is complex:

- 1 **To deliver innovative projects**, you need to have people with the digital skills in all positions and organizations, in particular business, IT, industry, and policy.
- 2 **To operate and maintain the solutions and the core infrastructures**, you need to retain your talent and manage the knowledge. This increasingly becomes a daunting task. The founder generation that has originally built the applications and systems is retiring.
- 3 **To build and maintain trust, the public**, media, and schools need to have basic digital skills to have well informed public debates. Otherwise, instead of a common understanding, myths and biases will dominate.
- 4 **To boost productivity and improve the well-being** of professionals in the job market, a high demand for digital occupations needs to be satisfied, including 1. computer and data analysts / administrators, 2. software developers, programmers and engineers, 3. ICT technicians, data entry clerks, and 4. ICT and HR managers / marketing specialists. (OECD)

Tackling these challenges remains difficult but pays off. Leading digital countries like Denmark have systematically invested in digital skills from early on (Recommendation 3: Gain expertise and trust through collaboration). Nevertheless, the European Commission reports that “[t]he Digital Economy and Society Index (DESI) shows that 4 out of 10 adults and every third person who works in Europe lack basic digital skills.”

Because of this scarcity, public organizations are putting serious efforts into attracting talent. Companies in the private sector, however, seem to have an advantage over the public sector as the private sector enjoys fewer regulations so they can employ more incentives. When asked how the public sector might compete with that, **Elena Liria** shared her experience from Madrid with us. While the public sector often cannot compete on salaries, it can offer three unique things that are difficult for the private sector to match:

- 1 **Exceptional projects**: Digital Justice, a digital citizen account featuring your social history are not projects you find every day. The public sector can offer once-in-a-lifetime projects.
- 2 **Impact**: Projects in the public sector often have a direct and positive impact on the lives of many citizens.
- 3 **Job Security and conditions**: Public sector jobs offer, on average, more job security. (Over-)Time arrangements can be better and include more holidays.











**Elena Liria**  
CEO

Agency for the Digital Administration of the Community of Madrid, Spain  
Elena Liria spent a part of her professional career in the private sector in consulting before joining the Agency for Digital Administration of the Community of Madrid in 2005.

[linkedin.com/in/elena-liria](https://www.linkedin.com/in/elena-liria)

While the exact combination is hard to replicate in different regions, the array of modern HR instruments that administrations around the globe use, is impressive. It includes social media presence, employer branding, employee experience, active sourcing, modern workplaces, skills and knowledge management, training and development, project-based learning, and job rotation. Based on our professional judgement, still only a few organizations work strategically on their (digital) skills. Yet, the ones that do, seem to be leaders in their respective peer groups.

| Guiding insights   | Recommendations   | Responsible  |
|--|---|--|
| <b>Recommendation 4: Invest in digital skills and digital literacy</b>   |   |  |
| <ul style="list-style-type: none"> <li>• <b>The digital skill gap limits progress.</b></li> <li>• Missing digital skills was reported to be the main hard factor accounting for <b>project failure</b>.</li> <li>• <b>The public sector has a unique employee value</b> proposition that – given its purpose and impact – is hard to match, yet seldom fully utilized.</li> <li>• <b>Digitally leading countries like Denmark have early and systematically invested in digital skills.</b></li> </ul> | <ul style="list-style-type: none"> <li>• <b>Create attractive work conditions for talent:</b> This involves flexible and competitive overall packages, supporting new work styles, balanced job protection that enables change.</li> <li>• <b>Review and support STEM and tech education</b> and work with industry and education partners on live-long learning programs.</li> <li>• <b>Develop digital skills on all levels</b> – from the board to operations teams. Enabling the leadership team will provide a role model to the organization and help the team to better navigate complex situations created by projects and the technology.</li> </ul> | <br> <br> <br>   |



## Recommendation 5: Limit organizational complexity for streamlined delivery and operation

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**There is a price for complexity that decentralized states incur. Digitalization profits from simplicity.** Technically, one key driver is to have a simple and sound IT-solution landscape where each business concern is addressed by a few solutions. Since there is an intimate relation between how IT systems look like and the organizations that build them (see Conway's law), we believe that **it is critical to see organization design to be a policy-level choice.** This might appear to violate the organizational design principle that the demand-side (here: politicians) should define the "What" and the supply-side (here: the administration) should determine the "How". It is the job for politics to create the legal basis for a smart government organization design.

### Conway's Law and the Inverse Conway Maneuver

Conway's law captures the observation that architectures of software systems are similar to the organizations that built them. It has been highly influential ever since. Mainly because the problem of badly designed systems is very real. Melvin Conway stated it, as follows, in his 1968 article: "Any organization that designs a system (defined broadly) will produce a design whose structure is a copy of the organization's communication structure." In his 1975 book "The Mythical Man Month" Fred Brooks referred to it as "Conway's law".

One response to it is the "Inverse Conway Maneuver", so called by Jonny LeRoy and Matt Simons who wrote in 2010 about dealing with legacy platforms. The Inverse Conway Maneuver asserts the validity of Conway's law and recommends evolving your organization to promote the desired architecture. The whole field became an area of active organization research well beyond IT software. A good book on the topic is by Matthew Skelton and Manuel Pais: Team Topologies.

In our conversations, government leaders pointed out that the interaction within government agencies, even if limited to a single state level, is perceived as very taxing. The underlying reasons often seem to reside in the different missions defined by the respective laws, resource constraints, and different priorities. The result is that coordinative efforts grow with every additional party exponentially. Faced with this situation, there is a preference for autonomy, i.e., each agency goes for its independent solution. This creates the problem that the IT-solution landscape becomes very complex. For integrated services you also need the systems to talk to each other and without an organizational governance that understands this, integrated services are not possible.

Nevertheless, interviewees such as Colin Holden (NZ) or Gulsanna Mamediiyeva (UE) had a lot of praise for the simplicity their nations ICT-centralization encompasses. According to Colin Holden, the single level government allows for easy executive access as well as fast and pragmatic decisions.

We tested this insight and found a country's centrality (corrected by GDP per capita) correlates with its e-Gov ranking. Decentralized countries, such as the federal states Switzerland or Germany, incur a complexity that is detrimental to their digital transformation (Figure 18). The correlation is relatively robust using different e-Gov rankings. Outliers can often be explained by additional factors. While we don't believe that centralization provides a silver bullet, there are sound reasons to believe that overall, it has a significant positive influence.

Centralization also has its risks and the potential pitfalls should be mentioned: Central bodies can create a bottleneck. They can also pool risks in adverse situations. For example, Professor Rony Medaglia shared a failure story that was caused by the centralized approach. Their preference for standardization means a suboptimal fit to local needs. Their size might go against adaptability.

1  
Number of state levels  
(e.g., only federal, regional, local): The more state levels there are, the more complex communication and decision-making becomes across these levels.

2  
ex (Kingdom): Was there a monarchy in place within the past centuries, years that might have shaped the nations' structure to this day? (yes = 0, no = 2)

3  
Number of inhabitants:  
The number of inhabitants indicates the complexity of the system. ( $x < 10M = 0$ ,  $10M < x < 50M = 1$ ,  $50M < x = 2$ )

4  
Unitary state: Is the central government the supreme authority? (yes = 0, no = 2)

5  
Central ICT: Is there a central organization that steers or delivers ICT? (low = 2, medium = 1, strong = 0)

6  
GDP per capita: Richer countries have opportunities to improve their digital transformation practices that others do not have. Inefficiencies can be compensated. By including the GDP per capita in the formula and utilizing a corrected centrality score, this factor is considered. ( $x < 46'000 = 4$ ,  $46'000 < x < 72'000 = 1$ ,  $72'000 < x = 0$ )

### Country centrality

We define the centrality score of a country as follows:

$$\text{State levels}^1 + (\text{ex})\text{Kindgom}^2 + \text{Citizens}^3 + \text{Unitary state}^4 + \text{Central ICT}^5 + \text{GDP per capita}^6$$

Therefore, a state counts as more centralized if it has few state levels, a monarchic tradition, is relatively small, has strong central institution and steers or delivers ICT centrally. We correct for wealth (a high GDP per capita can compensate for centrality).

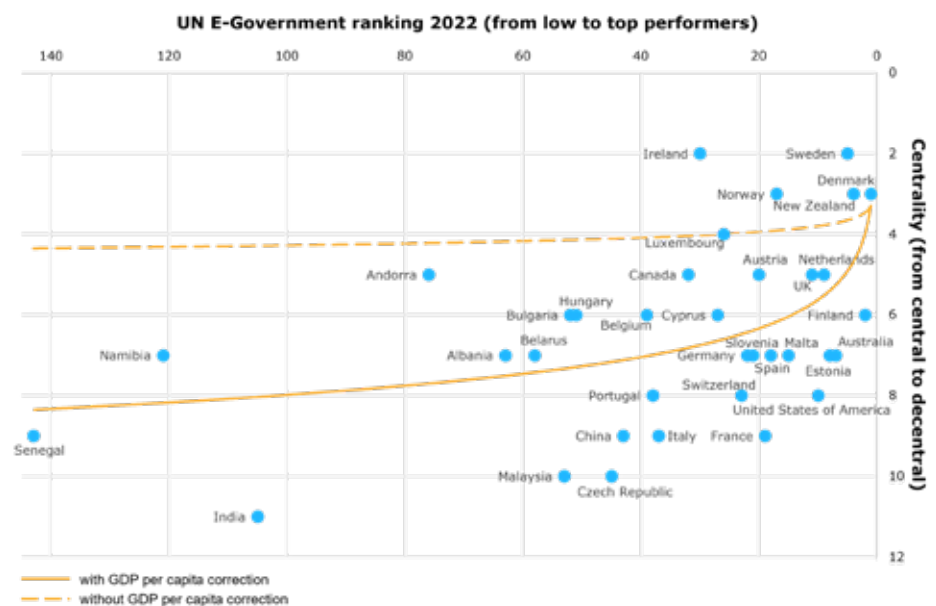




Figure 18: Connection between centrality and UN E-Government ranking 2022

| Guiding insights  | Recommendations  | Responsible   |
|---|--|---|
| <b>Recommendation 5: Limit organizational complexity for streamlined delivery and operation</b>    |  |   |
| <ul style="list-style-type: none"> <li>Our research shows a robust correlation between a country's centrality (corrected per GDP per capita) and their e-Gov ranking.</li> <li>That is, on average, <b>more centralized countries have a better e-gov ranking.</b></li> <li><b>Decentralized countries such as the federal states Switzerland or Germany incur a complexity tax</b> that is detrimental to their digital transformation.</li> <li><b>Digitalization profits from simplicity:</b> For IT, it is generally preferable to have one IT-solution per business concern. Though, decentralized countries typically have many solutions per business concern.</li> <li>Since there is an intimate relation between how IT systems look like and the organizations that build them (see Conway's law), we believe that <b>it is critical to see organization design to be a policy-level choice.</b></li> <li>Our own survey data only weakly correlates with the e-gov rankings.</li> </ul> | <ul style="list-style-type: none"> <li><b>Assess the effectiveness of the operating model</b> for the digital transformation from a whole-of-government perspective and decide as a team on the guiding design principles and criteria to evaluate future options.</li> <li><b>Set a process in place that ensures horizontal authority and control on all matters digital</b> from a whole-of-government perspective.</li> <li><b>Simplify your organizations IT-landscape</b> by using a tailored solution for each business concern (i.e., strengthen enterprise architecture management).</li> </ul> |  |







Section

# 5 Designing organizations: What makes for excellence



Transformation initiatives put stress on the participating organizations and create new demands. By this definition, they act as catalysts for change.

Embracing a strategy for organizational excellence ensures that organizations are fit for purpose, connecting people, processes, and technology. At its core are customer-centric behaviors that provide purpose and help to create end-to-end services, forming a “whole-of-government” approach. For this, agencies need to collaborate and evolve their management system to deal with and benefit from the continuous insights they acquire. Adopting agile business practices support efforts although we foresee only limited benefits from initiating digital service teams or innovation labs.

**Recommendation 1:** Bake purpose into the organization through customer-centric behaviors



**Recommendation 2:** Create incentives for cross-agency collaboration



**Recommendation 3:** Evolve your management system



**Recommendation 4:** Use digital service teams (only) as your catalysts for change



**Recommendation 5:** Don't overdo innovation





**Satish Kumar**

Assistant Director

Ministry of MSME, Govt of India

Satish Kumar is an Assistant Director at the Ministry of Small and Medium Enterprises. His responsibilities include advisory services and the implementation of IP tools and technologies for their intellectual property-related needs.

### Cut out for leadership? – Personality traits of a new generation of digital leaders

The digital leaders we met during our study stood out in several ways:

- They have worked for the private sector, bring industry experience, and are considered, to some degree, as outsiders to the public sector.
- They have a business background, rather than IT or politics.
- They approach issues with a business-mindset by emphasizing personal interactions, value creation, win-win deals, and opportunities up front for all their activities.
- They are ambitious, want to build something great, and have a can-do attitude.
- They regard realized business cases and customer satisfaction as measures of their success.
- They are used to working in dynamic business contexts and have an international network.

"However, our prime minister is also acting as a rockstar and uses his charisma to push a shared agenda forward. Our prime minister is a star campaigner. He is a driver – his presence has great impact." **Satish Kumar**

This entrepreneurial spirit diverges from the average public sector manager profile. The question remains: How do you attract and retain this caliber of talent for your organization?

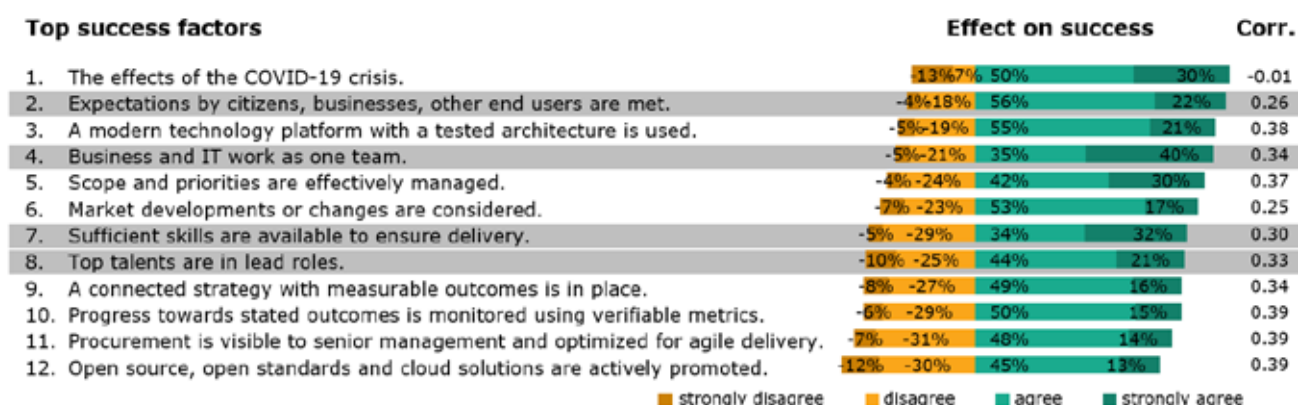
## Recommendation 1: Bake purpose into the organization through customer-centric behaviors



Aligning with your stakeholders is key throughout all phases of creating digital solutions, from getting it off the ground (section 2) to driving project success (section 3). Perceived stakeholder satisfaction correlates positively with factors relating to people skills (Figure 19).

Systems of engagement, like the GOV.UK portal, are key and useful resources providing highly relevant and immediate insights about their users. For example, during Brexit and COVID-19, “policy people”, as **Markland Starkie** calls them, would refer to this portal daily; “they love actionable data.” The portal allowed them to observe the users’ digital journeys and then understand and pinpoint what worked and what did not.

### Top success factors



**Markland Starkie**  
Deputy Director

Francis Maude Associates, UK

Markland's background is user-centered design and strategy. Prior to his current position he was head of GOV.UK content at the UK's Government Digital Service.

#usercentereddesign

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Managing the full customer experience life cycle is a must for governments who are invested in working in a customer-centric way. Letting your users down at any one point in their journey will disappoint and eventually alienate them. This seems to be a difficult requirement to fulfill: Both in our survey as well as in our conversations, we were unable to observe or identify governments that were capable of fully managing the customer experience life cycle.

According to our survey, 42% believe their organization's digital public service is only average. Some 35% believe that stakeholder satisfaction is high, 4% very high, 17% low, and 1% even deem it to be very low.

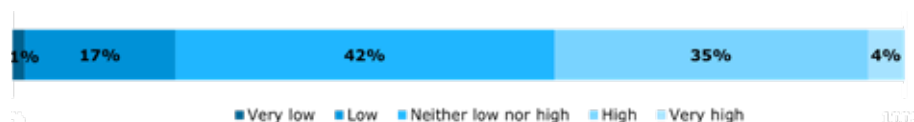


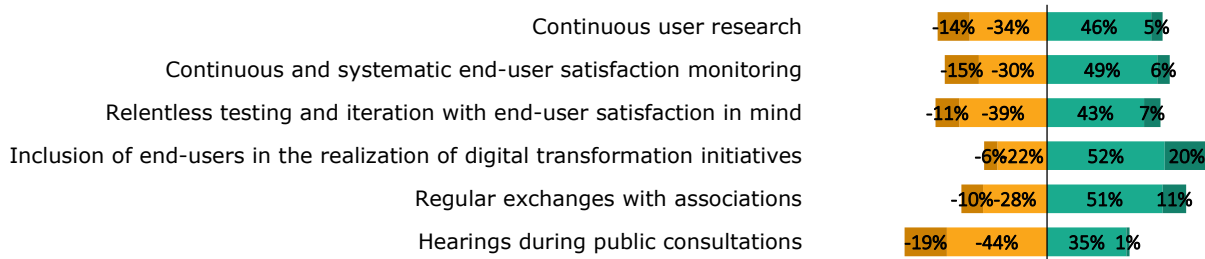
Figure 19: Factors that contributed to success and their correlation to stakeholder satisfaction (n=273)

Figure 20: Perceived stakeholder satisfaction in the respondent's organization's digital public service

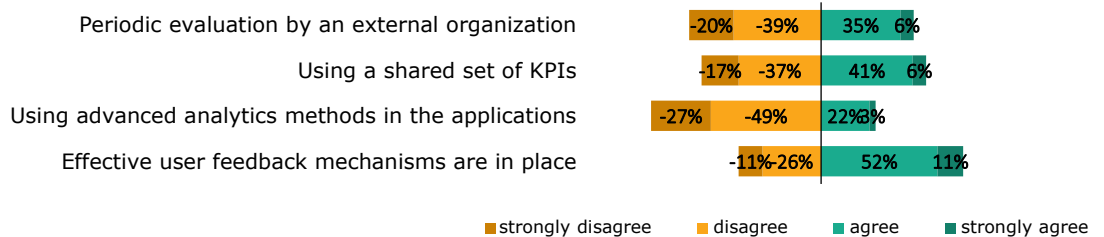
On average end-user satisfaction is not systematically measured – this according to our respondents. Still, 63% believe that effective feedback mechanisms are nevertheless in place:

To a similar degree, the respondents state that the building blocks for customer-centric behaviors using user-research and -testing are in place:

### How organizations ensure end-user satisfaction





### How organizations measure end-user satisfaction



Yet, we see front-runner organizations like the UK's Government Digital Service (GDS), or steady movers like Ireland which effectively climbed the digitalization rankings, systematically endorse customer-centric behaviors and close feedback loops to continuously improve their digital performance. As digital leaders from GDS and Ireland told us, they see improved trust and acceptance result from these close and frequent interactions. As Markland Starkie explained, "They feel that you listen to them and act upon it. They think that you know your stuff and they come to you when they are looking for advice."

However, customer-centricity will most likely not benefit from an "app-by-app" approach if each organizational department launches its own solutions. Platforms like GOV.UK bring a lot of instrumentation, supporting services, and talent to effectively own the customer experience. It therefore becomes a strategic question to decide on the systems of engagement a government wants to focus on. Insights can be drawn from digital marketing and the mobile app space. Digital leaders like Gulsanna Mamedieva (Ukraine) or Barry Lowry (Ireland) were quick to go through key metrics like active users, net promoter scores, conversion rates, and how they deal with bounces.

Figure 21: How organizations ensure and measure end-user satisfaction (n=224)

| Guiding insights   | Recommendations  | Responsible  |
|--|--|--|
| <b>Recommendation 1: Bake purpose into the organization through customer-centric behaviors</b>    |  |  |
| <ul style="list-style-type: none"> <li>• Customer-centricity has measurable positive effects, e.g. on stakeholder satisfaction</li> <li>• For governments to work in a customer-centric way, the full customer-experience life cycle needs to be managed.</li> <li>• According to our survey, 42% believe their organization's digital public service is only average.</li> <li>• On average, end-user satisfaction is not systematically measured, according to our respondents. Still, 63% believe that effective feedback mechanisms are in place.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Close the loops:</b> Develop your organization into a "customer-centric learning machine" and measure progress.</li> <li>• Make sure that your projects are embedded in a project and portfolio management that implements lean controls as guardrails and <b>continual improvement through feedback and review mechanisms.</b></li> <li>• <b>Evolve your management</b> system to ensure that it is fit for purpose as the organization becomes more agile and customer-centric (see recommendation).</li> <li>• <b>Invest in your learning &amp; development function:</b> Ensure that your learning &amp; development function is adapted to the needs of project organizations. Most people should have basic project management skills. People regularly in project roles should have professional training and certifications. Blended setups (on-the-job / off-the-job, formal &amp; informal formats) prove to be highly efficient.</li> </ul> |  <br><br> <br><br> <br><br>  |



## Recommendation 2: Create incentives for cross-agency collaboration



Throughout our conversations, the necessity for cross-agency collaboration was a major issue.

The provision of end-to-end services often requires a “whole-of-government” approach. However, the goals, priorities, and resources of the participating organizations are often insufficiently aligned. We learned about different ways to create incentives that are often combined (see Table 1).

In Switzerland, several high-profile initiatives have been launched in the finance department ensuring a common reporting line, alignment of goals, and adherence to public obligations. The UK’s Government Digital Service unit (GDS) is part of the Cabinet Office that directly reports to the Prime Minister. In Finland, a former CIO reported directly to the Treasury and thus had influence to make things happen. Likewise in Ireland, the CIO reports to the Minister responsible for Public Expenditure. The key alternative we see is to simplify the organization (see section 4, recommendation 5) to limit excellence complexity in the first place.

|   | Pro   | Contra   | Prerequisites  |
|---|---|--|--|
| Create dedicated funding for common goals | <ul style="list-style-type: none"> <li>Supply of a critical resource</li> <li>Creates a bargaining chip for cooperation</li> <li>Control on outcomes through a portfolio of initiatives and their business cases</li> </ul> | <ul style="list-style-type: none"> <li>Amplifies tendencies for myopic proposals in one agency’s self-interests (fixed sum game)</li> <li>Controls can lead to bureaucracy</li> </ul>  | <ul style="list-style-type: none"> <li>Clear decision criteria based on value and priority</li> <li>Simple decision rights</li> <li>Transparency on spending, progress and outcomes</li> <li>Clear accountability and oversight</li> </ul>   |
| Assign a common boss                      | <ul style="list-style-type: none"> <li>Desired organizational behavior through leadership and power</li> </ul>  | <ul style="list-style-type: none"> <li>Option not available if cooperation is across boundaries (e.g. state level, different departments)</li> </ul>   | <ul style="list-style-type: none"> <li>If no common boss is available, consider delegating authority by the participating organizations to ensure the desired outcomes</li> <li>The common boss needs to hold the involved parties to account</li> <li>Need for transparency on progress and outcomes</li> </ul> |
| Create a formal obligation to the public  | <ul style="list-style-type: none"> <li>Part of public administrations’ DNA to comply to formal obligations</li> <li>Public announcements are known to be effective</li> </ul>   | <ul style="list-style-type: none"> <li>“Dead letters” are alone not sufficient to create the necessary momentum</li> </ul>   | <ul style="list-style-type: none"> <li>Need for transparency regarding compliance with the obligation, e.g., through reporting and oversight mechanisms</li> </ul>   |
| Offer a “free” service                    | <ul style="list-style-type: none"> <li>Opt-in through perceived value</li> <li>Solves a problem for the participating agencies</li> <li>Helps realize a technologically capable target architecture</li> </ul>              | <ul style="list-style-type: none"> <li>Onboarding / migration costs are often still substantial</li> <li>Perceived loss of control and complexity</li> <li>Initial speed not sufficient</li> <li>Dependencies can slow down further developments or a service’s fit for purpose</li> </ul> | <ul style="list-style-type: none"> <li>Need for mechanisms to intercept agencies choosing not to use shared service, e.g., spending controls, veto powers</li> </ul>   |
| Organize work in cross-unit teams         | <ul style="list-style-type: none"> <li>Makes project organizations first class citizens</li> </ul>  | <ul style="list-style-type: none"> <li>Multiple lines add complexity</li> </ul>  | <ul style="list-style-type: none"> <li>Provide clarity on how the matrix works (e.g., decision rights, resource management, HR)</li> <li>Provide air-cover to protect the organization and to resolve issues</li> </ul>  |



**Recommendation 2: Create incentives for cross-agency collaboration**


- Reinforcing cross-agency collaboration is critical. Otherwise, the digital potentials are not realized.
- The provision of end-to-end services often requires a "whole-of-government" approach. However, the goals, priorities, and resources of the participating organizations are often insufficiently aligned.
- Larger organizations employ different approaches such as dedicated funding, common boss, public obligations, "free" services, cross-unit work teams.
- Limiting organizational complexity itself can improve the situation.
- **A tailored combination** of several approaches is often most effective, e.g., through a public obligation and a cross-unit work team.



## Recommendation 3: Evolve your management system




Digital transformation is a “whole-business” approach, as Professor David Eaves points out. This is a stressor for traditional “divide and conquer” organizations. Newer, agile ways of working are usually limited to solution development. Only 62% of respondents state that an agile governance and delivery mindset for the whole organization is in place (n = 273). This shows that **business agility is not yet integrated in the operating models of public sector organizations. This then creates frictions and dissatisfaction** in the organizations since the ways software is developed and solutions are operated does not match the decision, planning, steering, operation, and control processes that are in place.

Successful organizations work on their organizational learning capabilities and adapt their management and operation practices to make sure that they are fit for purpose. The digital leaders we interviewed had the curiosity to inspect and adapt their organizations on an ongoing basis. They reflect with their teams on failures and frictions in “blameless post-mortems” (after-action reviews). They change processes as opportunities arise, and they experiment with how to scale new approaches.

Some organizations endorse DevOps principles like CALMS (Culture, Automation, Lean, Measurement, Sharing) or have adopted agile frameworks such as SAgE to develop their business agility capabilities. Their results are mixed. To avoid friction and unnecessary overhead, tailor the efforts with the end in mind and align the activities around the chosen goals (see section 1).

Continuously evolving the organization’s operating model and management systems reduces the frictions between IT, business, and politics. Measures taken can range from decentralizing a certain amount of authority and accountability, to paradigm shifts such as integrating controls directly in the processes (thereby avoiding layer upon layer of rules and regulations). By measuring the impact of such organizational measures, the organization learns how to adapt better. Lean guardrails such as a “definition of ready” and a “definition of done” help to ensure good outcomes along the way.

| Guiding insights   | Recommendations   | Responsible   |
|--|---|---|
| <b>Recommendation 3: Evolve your management system</b>    |   |   |
| <ul style="list-style-type: none"> <li>Traditional “divide and conquer” forms of management are deemed as not fit for purpose.</li> <li>Agile ways of working are often still limited to software development. Only 60% of respondents state that an agile governance and delivery mindset is in place</li> <li>Frictions and dissatisfaction result from not adopting business agility: The ways software is developed and solutions are operated does not match the decision, planning, steering, operation, and control processes that are in place.</li> </ul> | <ul style="list-style-type: none"> <li><b>Keep the organization managed in sync with the agile development and delivery</b> of its services to avoid frictions. This involves experimentation by senior and middle management.</li> <li><b>Experiment, inspect &amp; adapt:</b> Foster a culture of ownership by letting your team decide on the ways they work, support the implementation of changes, and ensure that issues that need a coordinated approach by senior management are resolved in a timely manner.</li> <li><b>Lean guardrails</b> such as a “definition of ready” and a “definition of done” help to ensure good outcomes along the way.</li> </ul> | <ul style="list-style-type: none"> <li>● ●</li> <li>● ●</li> <li>● ●</li> </ul> |

## Recommendation 4: Use digital service teams (only) as your catalysts for change

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Public administrations around the globe are considering digital service teams as a new centralized organization for digital transformation, of which the UK's Government Digital Service unit (GDS, see break-out box) is a prime example.

### **The rise and fall of GDS: A new start with a new leadership team**

A poster child for digital service teams, the development, and early successes of GDS are well known. The unit was formed in 2011, incubating the GOV.UK portal that replaced a total of 1,882 websites. GOV.UK currently has around 14m users weekly, and handles more than one billion transactions annually.

Lesser known is that after its setup phase, GDS's influence dwindled. Many GDS employees came from the outside and were seen as "young, arrogant people without experience". Furthermore, the "GOV.UK Verify" program to develop an official personal digital identity was delayed and ran significantly over budget (total cost: £ 233.38m). "GOV.UK Verify" was shut down after the Infrastructure & Projects Authority (IPA) recommended termination of the "huge nightmare" of a program, despite the lack of an alternative for departments that were using it. Failure to deliver significantly tarnished GDS's reputation and the unit was split into two smaller parts. At this point, many from senior leadership left the organization.

Brexit and Covid gave GDS a second lease of life. The new GDS units moved away from the old: "we tell you what to do" approach that was seen as a form of lecturing by the departments. The Cabinet understood the power of GOV.UK; that it can be much more than just a website. It provided near real-time insights on policy decisions by integrating policy into digital services instead of launching traditional information campaigns. A case in point was the "Brexit-checker" that helped small and medium enterprises to prepare for Brexit.

The new GDS leadership played a key role in the organization's re-birth. The selling point has become: "we are at the center and can pull departments together and get them to work together in a way that the others are unlikely to do." The need and demand for a central shaping force to create oversight, direction, and leadership was recognized, leading to a seat at Cabinet meetings – and to a new and more focused digital personal identity program.

The confusion around GDS points to a bigger issue, as became clear when we started to reflect on our experiences with Professor David Eaves – and he should know. David Eaves was nominated by the Apolitical community as one of the 20 most influential people in digital government. He was often invited to do workshops for Presidential Innovation Fellows, Code for America and Code for Canada fellows and is now consulting for governments around the world to promote working better with technology.

**Apolitical** is a community of public servants and policymakers from around the world working to make government smarter. These are our community values.

As David Eaves sees it, **digital service teams are often a response to dissatisfaction: On the one hand, IT lost capabilities over time as it has been managed as a cost center and has been more and more outsourced as a support function. On the other hand, business then has no digital capacity and is yet reliant on IT to deliver.** “The very fact that many governments have set up digital service team suggests there is some frustration with the outcomes by traditional approaches to IT,” as David Eaves says with a wink.

In further interviews on digital service teams, the story was usually that **digital service teams have not been fully integrated into the government structures: Collaboration with them is sometimes considered optional; inter-agency collaboration is not mandatory. Unfortunately, and importantly, this puts a critical part of their value proposition at risk: their promise to create better human-centric services.**

**Moreover, adding a third party to a relationship that is already “complicated” creates more friction.** Existing teams and their leaders feel threatened. Turf battles could ensue. Conflicts and attrition can build up. This can be a strong reason to introduce a digital service team: It will operate as a change agent and help to reset existing power dynamics. It brings movement into situations where the IT-function or the business needs to evolve to become fit for purpose. However, **those involved still need to work together.** Hence, it becomes critical to lead by example by demonstrating collaborative behavior and to make sure that teams have the critical skills to do so.

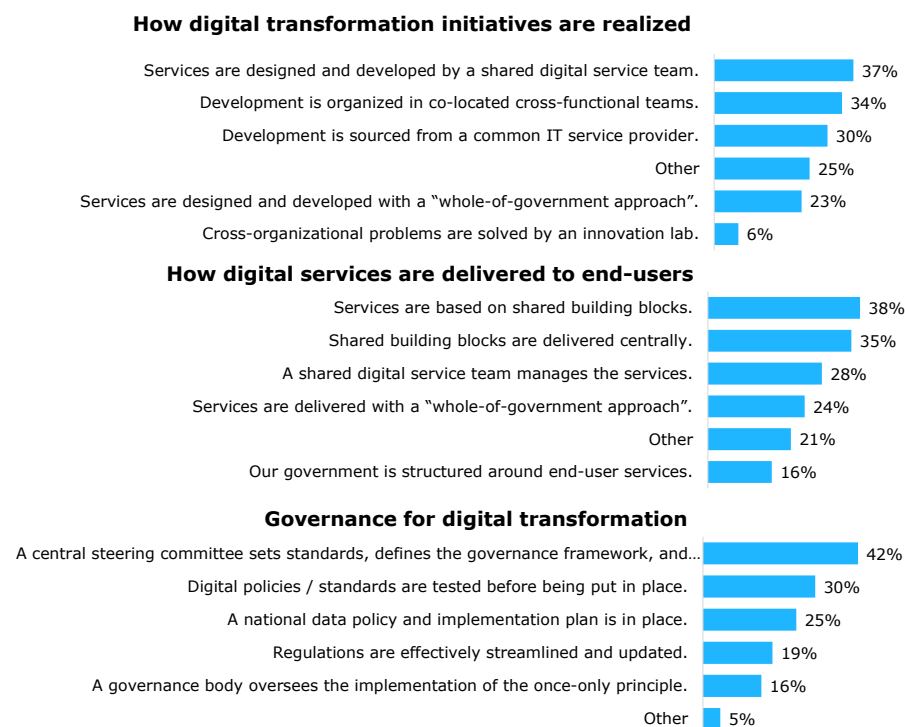
### Survey results

In our survey, we were interested to find out how digital services are developed and operated as well as what governance is in place.

37% of respondents state that their digital services are designed and developed by a digital service team. Interestingly, a “whole-of-government approach” is only used in 23%. Innovation labs are only used in 6% to solve cross-organizational problems (see recommendation below on innovation labs).

The questions relating to the delivery of digital services show a similar distribution: 28% respondents state that the digital service team manages the services. Slightly more, 35% report that shared building blocks are delivered centrally. According to 24%, a whole-of-government approach is used to deliver the services.

The governance is often in place to enable streamlined development and operations (see Figure 22). Interestingly, central tenants to ensure good outcomes such as overseeing the implementation of the once-only principle and streamlining and updating existing regulations are not yet commonplace.









| Guiding insights  | Recommendations  | Responsible  |
|---|--|--|
| <b>Recommendation 4: Use digital service teams (only) as your catalysts for change</b>   |  |  |
| <ul style="list-style-type: none"> <li>The business and IT alignment remains a problem area.</li> <li>Digital service teams can help but create issues on their own. Adding a third party to a relationship between that which is already "complicated" creates more friction.</li> <li>Sometimes this friction is used to reset existing power dynamics.</li> <li>We see evidence that IT is entrusted with digitalization in organizations that have a healthy business-IT-relationship.</li> </ul> | <ul style="list-style-type: none"> <li><b>Use digital service teams (only) as change catalysts.</b> Cf. our thoughts organizational complexity. Typically, we would expect more benefits from simplifying the digital operating model.</li> <li><b>Assess and strategically develop the IT and digitalization skills and capabilities</b> of the involved organizations with your partners (e.g., business units, service providers, steering units). Use the insights and identified gaps to design a high-level roadmap forward, including a target operating model. Discuss organizational changes, new roles, and powers thoroughly and implement the chosen option after deliberation.</li> </ul> |   <br><br>  |

Figure 22: Realization, delivery, and governance for digital transformation (n=234)

## Recommendation 5: Don't overdo innovation

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Innovation labs remain a disputed topic. Whole books have been written on the difficulties of reconciling productive exploitation versus open exploration. Public sector experts have seen innovation labs fail due to not delivering sufficient business value. Usually, these failures are attributed to a mismatch between management's willingness to redesign the services, the organization's capabilities and governance systems, and the ability to directly influence the required changes. New service offerings, for example, might require legal changes to collaborate and share data between different organizations. They require resource reallocations while the operations side must ensure ongoing activities. Hence, without a proper integration of innovation practices into the "run-the-business" and "change-the-business" parts of the organization, the chances for innovation labs to succeed remain dim.

Looking at our survey data, no connection was found between organizations that realize digital transformation initiatives through an innovation lab and their perceived stakeholder satisfaction. We found that organizations that solve cross-organizational problems with an innovation lab do not perceive their stakeholder satisfaction to be different from those that do not (n = 68).

The "no use" interpretation is that innovation labs do not directly lead to higher stakeholder satisfaction since public administrations with their size and strong traditions tend to be less adaptive and open to change. Though, more specific innovation research reports positive effects (see for example the case library of OECD's Observatory for Public Sector Innovation). Indeed, technology by itself might provide sufficient innovation potential that the additional value of an innovation lab is marginal. Together with our take on digital service teams, we believe that bigger rewards result from a system-wide assessment of IT and digitalization organization, skills, and capabilities to craft a high-level roadmap, including a target operating model.









### **It's all about learning: How innovation is promoted in Singapore**

"It's always about learning," a digital leader told us, as he shed light upon Singapore's iterative innovation practices and their effect over time. For example, one social benefit program was started just by providing IT hardware to job seekers. Realizing that this measure was not enough, the program evolved. Over the following years, an integrated service approach that also included training for job seekers, was adopted, based on stakeholders' feedback. The seeds of this approach were planted by a design consultancy that trained public servants in user-centric innovation practices.

Another way Singapore encourages innovation is through job rotation. By moving employees between different agencies, they get a broader view and understand the need to find good solutions for the whole of government. Or, as our expert summarizes it: "Don't sabotage the agency where you might end up next."

### **Survey results: How innovative are our public servants?**

According to our survey, public servants are like the overall population when it comes to innovativeness, which we measured using Goldsmith's formula for consumer innovativeness. There were hardly any differences in the distribution among different age groups, nationalities, and positions. We found that the distribution for each of these factors always skewed towards a lower innovativeness level.

| Guiding insights   | Recommendations   | Responsible   |
|--|---|---|
| <b>Recommendation 5: Don't overdo innovation</b>    |   |   |
| <ul style="list-style-type: none"> <li>Innovation labs seem to have limited effects in the public sector setting. Often, bigger benefits can be realized by using digital technologies well.</li> <li>Looking at our survey data, no connection was found between organizations that realize digital transformation initiatives through an innovation lab and their perceived stakeholder satisfaction.</li> </ul> | <ul style="list-style-type: none"> <li><b>Resist the temptation to create dedicated innovation labs</b></li> <li><b>Integrate innovation</b> practices in “run the business” and “change the business” activities, always making sure that feedback loops are closed (see recommendation 1). Make sure that systematic technology adoption is part of it.</li> <li>OECD’s <b>Observatory for Public Sector Innovation (OPSI)</b> provides useful cases and approaches for innovation</li> </ul> | <ul style="list-style-type: none"> <li></li> <li> </li> <li> </li> </ul> |

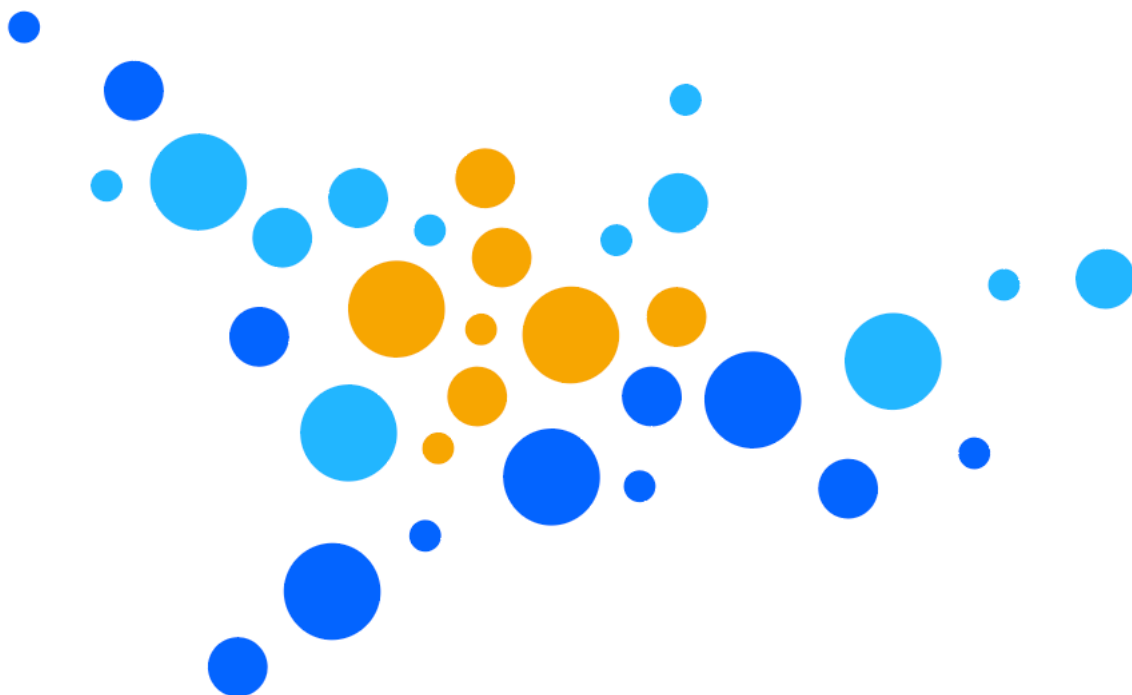
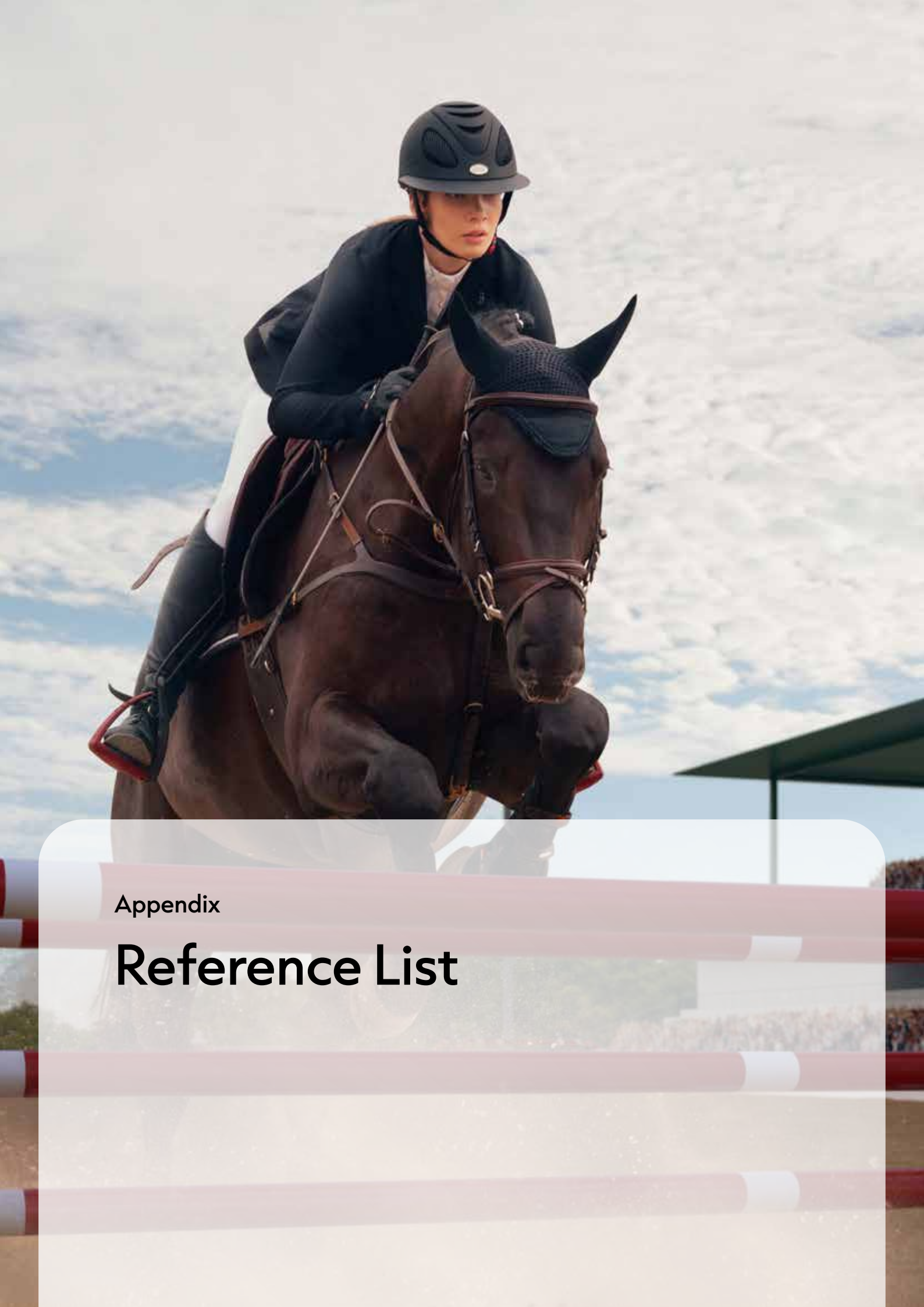


Figure 23: Innovativeness level (n=330)



Appendix

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