Foreword

We are living in the Transformative Age. Fast-moving and unpredictable social, economic and geopolitical changes pose new challenges for government, and increase the urgency to solve complex, long-standing problems.

Current and emerging technology offers governments one way of meeting new demands and solving persistent problems. But while governments are making attempts to deploy digital technologies, many do not achieve the intended benefits from their investments. There are as many examples of costly implementation failures and cost overruns as there are tangible successes.

Analysis of the success or failure of government digital transformation projects tends to focus on the technology that has been introduced. Seldom discussed is the role played by organizational culture and by a government’s willingness to embrace new approaches and working practices.

This blind spot is a significant barrier for governments, preventing them from sharing best practice and learning from the experience of others who have been on the digital transformation journey. To shed new light on this area, EY and INSEAD have worked on a groundbreaking academic study, examining in depth five important digital implementations in Russia, the UAE, Spain, Italy and France.

The aim of the study was to look inside the ‘black box’ of digital transformation to find out what really goes on within the teams responsible for delivery. The study’s approach is unique in that it captures the nuances of the process of digital innovation, rather than merely measuring inputs and outputs. It teases out the importance of the individual characteristics of team members, team sentiment, organizational governance and the role played by cultural factors. In every case, the implementation journey involved ups and downs, advances and setbacks, but there were always valuable lessons to learn.

We hope this report will help deepen the collective understanding of what can be done to foster more rapid adoption of digital innovations and provide useful guidance for government and public sector leaders who are embarking on their own innovation journey.

George Atalla
Global Government and Real Estate Leader, EY
The study was conducted by a project team from INSEAD. It has benefited from the financial sponsorship of EY and from the support of various EY teams in five different countries. The authors would like to extend their sincere gratitude to all the EY teams and individuals who have helped us complete this study. We would like to particularly thank Mr. George Atalla and Ms. Julie McQueen from EY for their immense and steady support for the project. Last but not least, we extend our thanks to the individuals and teams in all government departments across all five countries for sharing with us their stories and giving us some of their valuable time.

Dr. Sami Mahroum is Senior Lecturer at INSEAD, Advisor at the Harvard AI-Initiative, a member of the WEF Regional Strategy Group for the Middle East and North Africa, and a Non-Resident Fellow at The Lisbon Council. He is the author of Black Swan Start-ups: Understanding the Rise of Successful Technology Business in Unlikely Places.

Najat Ferchachi is an Associate Director at INSEAD where she focuses on sustainable economic growth, innovation, education & employable skills, and public-private dialogue. She consulted previously in the GCC and East Africa on strategy and was Deputy Head – Economic Affairs at the representation of the Dutch Ministry of Foreign Affairs in the United Arab Emirates.

Dr. Allen Gomes is Affiliated Fellow of INSEAD Innovation & Policy Initiative. He has over 20 years experience in labour market, health, education, community development and innovation policy. He was previously a consultant fellow at the OECD in Paris, a senior manager in public policy research and evaluation for the New Zealand government, and a senior research officer at the Centre for Mental Health Services Research in Australia.
Introduction – Digital innovation in government: A challenging journey
It is sobering to note that despite 20 years of sustained investment, an estimated two thirds of all e-government initiatives have failed in large part or altogether, with the majority exceeding budgets and deadlines by over 50%.
Introduction - Digital innovation in government:
A challenging journey

The digital revolution has changed the world in unprecedented ways. The ability to share information instantaneously, regardless of distance or place, has opened previously unimagined ways of delivering everything from goods and services to entertainment and education. As sharing information gathered momentum, governments everywhere began to see the possibilities of harnessing it to transform the delivery of public services.\(^1\)

However, despite concerted investment and effort over two decades, the ensuing innovation journey has not been smooth. With success tempered by embarrassing failures, digital innovation in the public sector has come to resemble a black box for governments that feel increasingly uncertain about how to manage implementation.

The scale of the challenge is evident in the problems noted by the US General Audit Office following the very public failure of the Obamacare website in 2013. The cost ballooned from an initial US$91mn to US$1.7bn, and crashed within hours of its launch:

“Delays in decision-making, lack of clarity in project tasks, and the inability to recognise the magnitude of problems as the project deteriorated… and failing to properly manage its key website development contract.”

– Levinson, 2016.

Likewise across the Atlantic, national auditor Rigsrevisionen examined the failure of SKAT, a 1.5bn kroner initiative to modernise that country’s customs and tax administration system, and concluded that:

“SKAT is unable to provide any documentation concerning budgets and accounts for the individual projects, which means that the calculation of the total costs of the system modernisation is affected by uncertainty. Rigsrevisionen does not find it satisfactory that SKAT is unable to provide such documentation. Rigsrevisionen’s study shows that management was not adequately informed of the development in the economy of the individual projects on a year-to-year basis and, therefore, had no general overview of the direction in which the economy of the system modernisation was headed. The system modernisation projects have been delayed up to five years due to, among other things, the complexity of the projects, their inter-dependence, the overall management of the system modernisation and problems with suppliers”


If the Obamacare or SKAT debacles occurred in a fledgling nation state hampered by a corrupt civil service or these were early forays into digital innovation, some allowances might be made for why things went so wrong. However, Denmark is ranked least corrupt and the US is 16th least corrupt among the 176 nations assessed by Transparency International (2016),\(^2\) and their respective civil services have had the better part of four centuries to fine tune their craft. Indeed, countries like Denmark frequently are touted as models of good governance.\(^3\) Danes and Americans are far from novices in the digital government domain, but rather early adopters with strong track records.

In short, the SKAT failure and Obamacare website became major scandals because there was no plausible excuse to allow for such mismanagement to proceed unchecked over several years. Implementation became a black box that their respective governments never adequately understood or could control. For the first time in US history, an apology for a public-sector failure was delivered by a President in the White House Rose Garden. Likewise, the exasperation of the Danish Government was plainly evident in the remarks of its Minister for Taxation in conceding the failure of SKAT:

“It’s not a criticism of the individual worker, but rather of a system that has failed to deliver in the critical areas… So I’ve reached the conclusion that instead of using money on patching up a SKAT that doesn’t deliver, or if we are being completely honest has never really functioned, we should just completely stop SKAT from existing.”

– Wenande, 2017

---

\(^1\) Kreps & Richardson, 2007; Norris & Reddicks, 2013
\(^2\) Transparency International is a Berlin-based anti-corruption organisation. Its rankings are based on analyses of institutional data including from the World Bank and the World Economic Forum.
\(^3\) Mungiu-Pippidi, 2011
Looking around the globe, we see this same scenario repeated over and over in other countries with strong IT capabilities. For example, a formal audit in 2011 of the 10 largest information and communications technology (ICT) projects in the Australian state of Victoria delivered equally scathing criticisms:

“On average, projects will have more than doubled in cost by the time they are finished. Two of the projects will have more than tripled their original budgets in order to reach completion.”
– Brouwer, 2011, p.4

Among the systemic issues identified in Victoria were hasty and insufficient planning, vague project definitions and specifications, reticence among senior officials to act on clear warning signs, and project managers and steering committees with insufficient technical expertise to provide appropriate oversight. At the political level, agencies failed to provide politicians with adequate advice or to share risks early that may have led to better informed decisions. Department leaders felt that they needed to impress their political masters by presenting “grand visions” and cutting-edge solutions that increased complexity and risk.
– Brouwer, 2011

Like Denmark and the US, Australia is ranked among the top 20 nations in the world on key indicators such as ICT network readiness (18th place) and providing e-government services online (8th place in the Global Information Technology Report 2016).4 With such good infrastructure and track-record, by chance alone at least one or more of the 10 major initiatives in Victoria should have been delivered successfully. The fact that none were suggests its civil service consistently, albeit unwittingly, implemented them in ways that inadvertently courted failure. And, that the implementation became a black box that the Victorian Government could not adequately understand or manage.

It is sobering to note that despite 20 years of sustained investment, an estimated two thirds of all e-government initiatives have failed in large part or altogether,5 with the majority exceeding budgets and deadlines by over 50%.6 The litany of failed digitalisation initiatives in government that can be characterised by the inability of responsible agencies to come to grips with black box implementation is numerous.

This is a long-standing and global problem that a review by Kreps and Richardson blames on: poor cost management and scope; inadequate debugging of software; poor integration with legacy systems; inadequate stakeholder consultation; data integrity and confidentiality issues; insufficient technical expertise among civil servants; and the salient observation that governments become so enamoured with the promise of digitisation that usual precautions are set aside:

“In the midst of Implementing Electronic Government (IEG), the almost knee-jerk reaction of our political elite seems to be to embrace hugely ambitious information system solutions to public-sector operations. Problem after problem has been viewed as solvable by throwing some big IT at it. However, hindsight and a wealth of evidence and examples show that overly large-scale public-sector IT projects do not work and persistently end in failure and costly waste.”
– Kreps & Richardson, 2007, p.439

Digital initiatives in government have come to resemble what policy theorists such as Buchanan (1992) term “wicked problems” that require specialised knowledge and/or are frequently ill-defined because the operational parameters for newly introduced technologies are not foreseeable, and/or involve large numbers of internal and external stakeholders that heighten the propensity for conflict.7 Wicked problems cannot be solved by standard solutions nor simply by throwing more money at them.8 Nor can their creation be understood by comparing inputs to outputs and outcomes from the black box of implementation. Instead, we must unpack what goes on inside implementation teams that introduce innovative technology. Notwithstanding cultural differences in the way that the civil service may operate in various country contexts, we need to understand the personal and collective experience of the people involved. In particular, how they responded to the tasks and challenges that arose and the impact of structural factors. Shedding light on the inner workings of the black-box of implementation will help to answer all-important questions about how implementation teams should be chosen and governed over the process so that implementation objectives are fulfilled.

That is the central premise for this study: to understand the human element in the implementation of digital innovation and transformation by investigating cases in different country contexts from the perspective of the change agents who executed them. Such a focus on the human element marks a distinct step forward from previous work that has been largely based on the analysis of inputs, outputs and outcomes.

4 K Baller, Dutta & Lanvin, 2016
5 Mates et al., 2013
6 Wright & Capps, 2011
7 Head & Alford, 2015
8 Sørensen & Torfing, 2010
1.1 Current state of digital government

Given the previously discussed failures in digital innovation in so many countries, it is not surprising to see in the 2016 Global Information Technology Report that the uptrend in government’s promotion and use of digital technologies has recently slowed (see Figure 1). This is noteworthy because it contrasts sharply with individual and business applications where confidence in ICT continues to rise by comparison.

The report further shows that the impact of ICT on government efficiency has declined in most regions since 2013 (see Figure 2). While some of this may be attributed to the austerity measures introduced following the last global financial crisis, the findings suggest that government is failing to keep up with the rest of society in benefitting from digital technology. Taken together with results that show a recent levelling in government’s use and promotion of ICT, it would seem that policy planners are now less confident in the ability of government to realise efficiency gains and cost savings through ICT because of the rising number of expensive failures and growing wariness about black box implementation.

Table 1 from the United Nations e-Government Survey 2016 shows that the number of countries with Chief Information Officers or equivalent roles continues to increase significantly – indicating that more and more countries see e-government as a core strategic policy area. Likewise, Figure 3 shows that the number of government services available online has significantly increased in recent years. This confirms that governments remain committed to the digital domain and that the aforementioned slow-down is a sign of greater prudence in the commissioning of new initiatives.

The central premise for this study: to understand the human element in the implementation of digital innovation and transformation by investigating cases delivered successfully in different country contexts from the perspective of the change agents who executed them.
Digital initiatives in government have come to resemble what some policy theorists, such as Richard Buchanan (1992), called “wicked problems.”

Figure 1. Time trends for individual, business, and government usage, 2012-16. Adapted from the Global Information Technology Report 2016 (Baller, Dutta & Lanvin, 2016).

Source: NRI, 2012-2016 editions.
Figure 2. Impact of ICT on government efficiency. Adapted from the Global Information Technology Report 2016 (Baller, Dutta & Lanvin, 2016).

Table 1. Number of countries with Chief Information Officers or equivalent roles. Adapted from the 2016 United Nations e-Government Survey (Peña-López, 2016)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of countries</strong></td>
<td>29</td>
<td>32</td>
<td>60</td>
<td>82</td>
<td>111</td>
</tr>
<tr>
<td><strong>% of the 193 UN member states</strong></td>
<td>15%</td>
<td>17%</td>
<td>31%</td>
<td>42%</td>
<td>58%</td>
</tr>
</tbody>
</table>

Source: NRI, 2012-2016 editions.

Note: Regional groupings follow the IMF classification; “CIS”–“Eurasia.”
Figure 3. Online service delivery has significantly increased by governments in recent times. Adapted from the 2016 United Nations e-Government Survey (Peña-López, 2016)

<table>
<thead>
<tr>
<th>Service</th>
<th>2014</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply for a personal identity card</td>
<td>27</td>
<td>31</td>
</tr>
<tr>
<td>Apply for a drivers license</td>
<td>29</td>
<td>38</td>
</tr>
<tr>
<td>Register a motor vehicle</td>
<td>33</td>
<td>47</td>
</tr>
<tr>
<td>Apply for marriage vehicle</td>
<td>39</td>
<td>53</td>
</tr>
<tr>
<td>Apply for environmental permits</td>
<td>40</td>
<td>55</td>
</tr>
<tr>
<td>Pay for utilities</td>
<td>41</td>
<td>104</td>
</tr>
<tr>
<td>Pay fines</td>
<td>42</td>
<td>76</td>
</tr>
<tr>
<td>Apply for a birth certificate</td>
<td>44</td>
<td>55</td>
</tr>
<tr>
<td>Apply for social security benefits</td>
<td>46</td>
<td>63</td>
</tr>
<tr>
<td>Register a business</td>
<td>60</td>
<td>97</td>
</tr>
<tr>
<td>Submit income taxes</td>
<td>73</td>
<td>114</td>
</tr>
<tr>
<td>Personal account</td>
<td>101</td>
<td>142</td>
</tr>
</tbody>
</table>

Number of countries out of 193
Looking at the OECD countries’ experience shows that the complexity and lack of clarity of regulations and requirements on agencies can be a major barrier for e-government, as they increase the cost for agencies to collaborate and share information and services. – (OECD, 2008).

1.2 The logic behind digital innovation in government

Early investment in digital innovation was driven by the rise of New Public Management (NPM) theory in the 1980’s that made efficiency and cost savings a key focus for governments. Heavily predicated on free market ideology, it emphasised: the disaggregation of large bureaucracies; a move away from bureaucratic monopolies in favour of competition, outsourcing and deregulation; the use of incentives and/or pecuniary measures in performance management systems to increase efficiency. Initially dominant in advanced economies, NPM was transplanted around the globe through donor pressure and other international development mechanisms. Given that a key promise of digitisation is to reduce costs through more efficient storage and transfer of information, it fit this prevailing ideology. Scholars such as Margets and Dunleavy (2013) and Tassabehji, Hackney, and Popović (2016) argue that NPM currently is being superseded by “Digital Era Governance” (DEG), which emphasise service reintegration and more holistic delivery through digitisation while pursuing the same efficiency agenda:

“Digitisation will therefore play a key role to leverage this transformation of the public sector at large, given its potential to increase productivity and inclusiveness of service production and delivery in public welfare areas. In the short term, this digitisation will be a precondion for establishing and maintaining sound fiscal policies. In the longer run, it will be equally important to maintain public sector’s credibility in terms of efficient and effective delivery of high quality services that are shaped by and responsive to users’ needs, thus nurturing public trust in governments’ capacity to boost more inclusive processes and growth.” – OECD, 2016, p.7

A major consequence of NPM and its successor in DEG is that they have made efficiency and cost-effectiveness core criteria in assessing the merit of new proposals or those already in place. Policymakers were lured with a promise of answering important questions about value for money, effectiveness and efficiency. Secondly, such output or outcome evaluations are logistically simple to plan, budget and execute in the linear sequence that new initiatives are rolled out. However, the attraction of output or outcome in evaluating public projects overlooked important limitations. For example, if an initiative fails to be fully implemented, such evaluations cannot be executed. Which means they shed no light on how or why failure occurred, which is critical to learning and doing things better in the future:

“The focus on efficiency, effectiveness, and economy in ICT-enabled public sector reforms is limited, because it leads to research into the best practices and universal strategies for successfully implementing ICT, while downplaying the role of contextual dependent factors in shaping successful ICT projects and their implementation.” – Cordella & Bonina, 2012, p.513

---

9 KOsborne & Gaebler, 1992; Margets & Dunleavy, 2013; Savas, 2000
10 Sulle, 2010
11 Bannister & Connolly, 2014; OECD, 2016a
12 DeLone & McLean, 2016; Gronlund & Horan, 2005; Irani et al., 2012; Mates et al., 2013
Irani et al.’s (2012) analysis of the methodologies employed in 114 e-government evaluations found primarily outcomes and output measurement, with very few case studies, interviews or other qualitative methods to ask questions about process, personnel, organisational or other contextual factors that would shed light on black box implementation:

“Research should not be limited to studying outcomes or implications of e-government projects, but have a broader take on the phenomenon. Researchers emphasise that e-government projects require organisational changes and adjustments. Research on e-government still lacks examinations and explanations of the complex political environments in which e-government projects are initiated and decided upon, which is why there is a need for further research. In order to open the black box of e-government policy-making, the actions of actors involved in these processes need to be taken into consideration.”

– Linnefèll, Hallin & Lægergren, 2014, p. 164

The 2016 Global Information Technology Report indicates that confidence in the promise of digital transformation has started to wane in the wake of so many expensive and embarrassing failures. This is not to say that output or outcome measurement is unimportant, but rather that governments have prioritised the study of the impacts of digital initiatives before understanding how to implement them.

1.3 Delving into the black box of digital transformation

Ironically, while the underlying digital technology continues to make spectacular advances, understanding of digital transformation in the public sector has not. An analysis of 84 e-government initiatives concluded that the underlying policy logic:

“Draws mainly from a weak or confused positivism and is dominated by over-optimistic, a-theoretical work that has done little to accumulate either knowledge or practical guidance for e-government. Worse, there is a lack of clarity and rigor about research methods alongside poor treatment of generalization.”

– Heeks and Bailur’s (2007 p. 243)

Introducing new technology is invariably associated with teething problems, but the failure rate for digital innovation suggests that there are deeper structural barriers, particularly for countries with otherwise good records in policy implementation.¹³ The most obvious challenge stems from underlying technologies, such as internet bandwidth and speed, mobile phone functionality and web-browser capability, that continue to advance in leaps and bounds rather than incrementally. This has forced many government agencies to gamble on untried solutions based on newer technology, rather than improving on existing solutions because the latter are held to be too outdated. Secondly, a perceived lack of in-house leading-edge expertise requires government decision-makers and managers to rely on the advice of whatever private sector providers they can source. This also compromises their subsequent ability to robustly monitor contractor compliance with technical requirements:

“The skills required for e-government are not simply technical, as general managers need broad skills to engage in e-government decision making. Necessary skills include a basic technical understanding (IT literacy), but also an understanding of information management and the information society. Managers must be able to lead (and not to be led by) the organisation’s IT department and outside partners, and must be able to integrate the organisation’s ICT strategy with its broader goals. A major challenge in OECD countries is to overcome the view, still held by employees and managers, that e-government skills are technical matters best left to specialists.”

– OECD, 2008, p. 6

Together with the frequent absence of sound policy logic and the complexities in introducing cutting-edge technologies, the black box of implementation includes the civil service culture, which can be a major barrier to digital innovation but is rarely planned for. It is important to remember that digital transformation involves innovation, experimentation and some risk-taking, which is at odds with the conservative and risk-averse traditions of the civil sector that exist to minimise failure and embarrassment to governments. In this respect, Lynn (2010, p99) dryly observes that digital transformation faces serious cultural obstacles:

“If you are an elected official, or an appointee of one, how much system-challenging experimentation that ends in failure are you eager to defend and protect because good government requires that creative people be given latitude and funds for trial and error? Everyone will claim credit for the successful innovation after the fact, but who will defend, against political opposition and lawsuits and negative evaluation findings and hostile media coverage, the several failures that are necessary to achieve a single success?”

Norris and Reddick (2013) argue that the misalignment between civil sector values and digital transformation runs much deeper than risk aversion alone. They argue that the civil service struggles with digitisation because it embodies the values of NPM. As noted earlier, digitisation has been a trojan horse for inculcating the values of efficiency, accountability and entrepreneurship into the psyche and practices of the civil service.

¹³ Almarabeh, & AbuAli, 2010; Brouwer, 2011
Albrechtslund (2007) notes that while an artful declaration of project objectives can be used to introduce new values into a system, what ultimately emerges is shaped also by existing and long-standing and well-entrenched cultural values within each implementation context that are hard to change.14

The digital age raises issues about the privacy, use and ownership of personal information that creates complex legal issues that fall in the black-box of implementation. For example, the communication and storage of an individual's healthcare data that was obtained from different agencies and service providers requires data sharing protocols that ensure data integrity as well as that individual's right to privacy and to access personal information. Achieving this requires a high and ongoing level of interagency cooperation that adds another layer of complexity and risk to implementation:

"Looking at the OECD countries’ experience also shows that the complexity and lack of clarity of regulations and requirements on agencies can be a major barrier for e-government, as they increase the cost for agencies to collaborate and share information and services. Another barrier is the presence of existing public management frameworks based on the assumption that agencies work alone (e.g., in terms of performance management and accountability frameworks), which also can act to inhibit collaboration and information sharing between organisations. Finally, privacy and security legislation and practices need to be put in place before online services can advance." – OECD, 2008, p.3

It stands to reason that there have been behind closed door reviews into the issues identified above. However, in an age where public sector entities are increasingly exposed to political scrutiny, the perceived consequences of publishing information about expensive program failures may result in designating such analysis for internal reference only. In this respect, a UK public sector review by Rutter (2011) notes that even at the highest levels of policy-making “many political decisions were driven by values rather than outcomes – and sometimes the ‘evidence-driven’ answer brought significant political risk.” That is to say, the details of such digital innovation failures are politically too risky to communicate publicly.

Disincentives to sharing information about failures undoubtedly have played an active hand in their perpetuation. This barrier to sharing lessons from previous implementation efforts is further exacerbated by the licensing and intellectual property agreements required by private sector ICT providers that constrain governments from publishing, copying, building upon or learning incrementally from existing initiatives already paid for from the public purse.

The fact that digital innovation in the public sector has not become easier after two decades is especially perplexing because governments in developed nations began the current century with a seemingly clear understanding of the potential issues and how to address them. In October 2000, technical experts and policy makers from OECD member countries gathered in Paris to identify problem areas in managing large public IT projects and to develop corresponding solutions. The resulting policy brief, “The Hidden Threat to E-Government: Avoiding Large Government IT Failures,” shows that governments were well aware of the potential threats to implementation and had seemingly sound strategies to manage them:

“To get IT right, governments should:
• Establish appropriate governance structures
• Think small
• Use known technologies
• Identify and manage risk
• Ensure compliance with best practices for project management
• Hold business managers accountable
• Recruit and retain talent
• Manage knowledge prudently
• Establish environments of trust with private vendors
• Involve end-users

The general lesson is not that governments should not take any risks; rather, they must identify risks, determine which risks they are willing to take, and manage those that are relevant within appropriate governance structures.” – OECD, 2001, p.6

Looking back at early predictions for the development of digital initiatives in government, results have fallen short of expectations, particularly with respect to understanding how innovation-driven change occurs in public entities. Together with a systematic failure to learn from successive implementation efforts, the lack of knowledge building is a primary causal factor in the poor strike rate of digital innovation in government.15
1.4 Mapping innovation-driven change

Innovations change the way that an organisation works and delivers its services. The public sector has had an historically hard time innovating because it is centrally structured to impede innovation. This paradox is essential for ensuring that its services are delivered consistently and equitably, and often to achieve a set standard. All of which impedes the ability of individual actors in an agency from marching out of step, even if this is due to a well-intentioned desire to make improvements.

This study focuses on what happens during the process of implementing a digital technology- enabled product, process or organisational innovation in a public entity. Digital technology- driven innovation is subject to the culture, customs and behaviour of an agency, the differences among individuals and groups within an organisation, and other external actors. Making sense of what Jang, Ko and Woo (2005) characterise as the “who, what, where, when, how and why” of a policy’s implementation requires a framework to conceptualise a complex process, such as that proposed by Bhaskar (1993) in Figure 4 which asks:

Who works together?
- What social structure determines who works on what and why?
- What tangible materials and resources are worked with and where?
- What are the change agents’ perceptions of events and their role?

Figure 4. Bhaskar’s four planes of process

Social Interaction

Transaction with Material...

Social Structure

Internal Processing/Perceptions...

The social structure plane in Bhaskar’s model is interesting because it exists on multiple nested levels, unlike the other three planes. For example, a shared sentiment develops among a team driving a digital innovation effort that shapes how they respond as a group, which is influenced by the governance structure and prevailing culture of the wider organisation. This, in turn, is located within and subject to the culture of the wider society.

---

**What is an innovation?**

The Oslo Manual for measuring innovation defines four types of innovation: **product** innovation, **process** innovation, **marketing** innovation and **organisational** innovation.

- **Product innovation**: A good or service that is new or significantly improved. This includes significant improvements in technical specifications, components and materials, software in the product, user friendliness or other functional characteristics.

- **Process innovation**: A new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software.

- **Marketing innovation**: A new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.

- **Organisational innovation**: A new organisational method in business practices, workplace organisation or external relations.

---

1.5 Internal versus external contexts

A change agent is subject to multiple-nested social structures that create a surrounding context that support or inhibit change as Pettigrew (1987) observes:

“Context is not just a stimulus environment, but a nested arrangement of structures and processes where the subjective interpretations of actors perceiving, learning, and remembering help shape process. Thus organisational processes are both constrained by features of context, such as tradition and technological commitments, and also shape contexts by, for example, preserving or altering technological strategies or corporate cultures.” (p. 341)

However, Pettigrew (1987) makes an important distinction between the inner and outer context in the process of change, where the inner-context is held to be subservient to the outer-context within which it sits, as shown in Figure 5. The latter includes economic, cultural and other social factors that combine to create a macro level climate that influences the inner context of the organisation's culture and the values, beliefs and behaviours commonly expressed by its members.

“Social processes are deeply embedded in the contexts that produce and are produced by them.”

Pettigrew’s model implies that any structural impediment in the outer-context of a change process will undermine a digital transformation effort within an organisation. This is exemplified in the following observation about perverse incentives in the wider political environment by the former Chief Data Officer for the City of Philadelphia:

“Social processes are deeply embedded in the contexts that produce and are produced by them.”
– Pettigrew, 1997

Figure 5. Framework for understanding change from Pettigrew (1987).

“"The process used by governments to deliberate and adopt spending plans is deeply flawed as it relates to encouraging innovation generally and adopting new technologies specifically. There are built-in disincentives in the public budgeting process for agencies to demonstrate large efficiency gains that result in the need to outlay fewer dollars... agencies inevitably see their dollars redirected to another agency or policy priority in the next budget cycle. However, most agencies see this outcome as unfavourable – a diminution of their mission and a loss for the clientele that they serve and are advocates for. It can be a powerful disincentive for agencies to use new technologies to create efficiencies that result in cost savings."
– Headd, 2014, p.1
1.6 Timing as another important often overlooked context

Together with the importance of studying processes across several levels of analysis to build holistic rather than linear explanations, Pettigrew (1987) also focuses on time as a contextual factor:

Pettigrew’s distinction illustrated in Figure 6, helps to explain why a policy initiative implemented successfully in one country fails in another regional or societal context, even though the organisational structure remains the same.

“Time is a central mobilising preoccupation of the process scholar. Without temporality, there is no scope to reveal the dynamics of the process; the relationship between the past, present and future; the interrelationship between different levels of context on the emerging process or the interdependent effects of context and action.”
– Pettigrew, 1997, p7)
1.7 Culture shapes action

The idea that the inner cultural context of an organisation is shaped by an outer-context is supported by the findings of Geert Hofstede and his collaborators who surveyed over 100,000 IBM employees in 50 countries, and later in the World Values Survey.\(^\text{17}\) The large body of data used to develop Hofstede’s Cultural Dimensions Theory (CDT) shows that practices within organisations vary systematically across countries due to cultural differences.

Hofstede argues that nationality and societal culture that are learned and reinforced from early childhood are deeply rooted and affect individuals independent of any change in their situational context. For example, immigrants often continue to communicate, dress and behave in ways that reflect the values, attitudes and symbols of the culture in which they were raised, even after many years of living in a new country.

Workplace culture, by comparison, is acquired upon joining and its values are far more context dependent. Its effects also tend to disappear easily if a person shifts to another workplace with a different culture. The key point here is that the culture of an organisation is more malleable and subservient to the wider societal culture which is more ingrained. Hofstede, Hofstede and Minkov (2010) use normative data from studies undertaken in 76 countries to show that the culture of any group, from organisations to entire nations, can be categorised on conceptually independent dimensions such as:

- **Uncertainty avoidance** denotes the degree to which uncertainty and ambiguity are tolerated. As shown in Figure 7, this trait is higher in places like Russia, Central Europe and the Middle East, but lower in English-speaking, Nordic and Chinese countries.

- **Power distance** measures the extent to which hierarchical authority is expected and accepted, and tends to be higher in East European, Latin, Asian, Middle Eastern and African countries and lower among Germanic and English-speaking Western countries.

- **Individualism-collectivism** is the tendency to prioritise individual versus collective achievements or rights. Individualism is more prevalent in developed and Western countries, but not so the Middle East and Eastern cultures, other than Japan.

- **Masculinity-femininity** denotes the predisposition for so-called masculine traits of assertiveness or competitiveness versus caring, which is classified as feminine in CDT. Italy and Mexico are renowned for machismo and the masculinity dimension is high there, as it is in German-speaking countries – while it is low in places like Russia, the Netherlands and Nordic countries.

Figure 7. National propensity for coping with uncertainty according to Hofstede’s theory.\(^\text{18}\)

Uncertainty Avoidance World Map

---

\(^\text{17}\) Hofstede, Hofstede & Minkov, 2010; Hofstede, 2015

1.8 Unpacking the implementation journey

This review aims to capture the process of digital technology-enabled innovations beyond simply measuring outputs and outcomes. Our objective is to shine a light on the elements inside the elusive black box of designing, developing and delivering innovation in a government context, by teasing out the various dimensions that frame process as illustrated by Bhaskar (see Figure 4). These dimensions can be operationalised in terms of the individual characteristics of change agents, how they interact is shaped by the cultural context, the governance structure that also is shaped by cultural context, and the emerging implementation process, as summarised in Figure 8.

To understand how a new digital innovation is managed, we need to understand characteristics of the change agents, such as their propensity for risk-taking, entrepreneurship, networking, empathy and openness to ideas. We also need to search for patterns in the way that a team of such agents responds collectively to emerging challenges.

To understand the uniqueness of each innovation context and transformation process, we will use qualitative research tools, including Rich Pictures, Journey Maps and self-report questionnaires. These will tease out the internal representations and heuristics of individuals, as well as the sentiment of teams, and help understand the impact of organisational governance and cultural elements that make up the black box of implementation. Doing so allows us to build a picture of the way that ideas are translated into action in different contexts.

Rich Pictures is a methodology that draws upon disciplines such as psychology, business development and design-based science, and was developed to elicit the tacit internal models of actors in complex situations such as change processes. Rich Pictures rests on a premise that the myriad of intuitive and often unconsciously held rules and beliefs that govern action in a complex situation are expressed more easily and immediately in symbolic form, rather than in words that are more the domain of the conscious mind and more susceptible to self-censoring.

Figure 8. Four perspectives on implementation adapted from Bhaskar’s four planes of social action.

---

19 Checkland, 1981; Checkland and Scholes, 1990
Rich Pictures aims to bring the totality of actors’ understanding of a situation into their conscious awareness, by encouraging them to express this in any freeform mix of cartoons, symbols, keywords and sketches the objective elements, connections, relationships and influences, as well as subjective features such as personal and situational characteristics, perspectives and any biases. This interaction between the participant who draws and their guide in the process, as well as other actors who may be present, ensures that the method yields more than just the ideas and impressions that first come to mind. What an actor initially commits to paper evolves as they discuss and explain it to others, and that leads to more informed holistic representations.

Like Rich Pictures, Journey Mapping is a reflexive storytelling tool that can help us to build a synthesised narrative of the implementation experience from a combined team perspective. Journey Mapping was originally developed as a market research technique for exploring the steps that a customer goes through in engaging with a supplier to consume its product or service, and whether each of these were positively or negatively experienced. Each point of interaction between customer and supplier is termed a touch point.

We adapt the Journey Mapping methodology to capture the significant events along the innovation journey of change management teams that have undertaken a digital transformation process. We ask the teams to discuss and choose one emoticon to represent their collective sentiment at the time of key events during their innovation journey. The choice of touch points and their explanations for their sentiments helps them and us to build an understanding of the impact of key events on their emotional state and how they coped as a team in responding to emerging challenges. A total of 47 people participated in the journey mapping exercises.

20 Monk & Howard, 1998
Russia: Federal Tax Service
“We sailed a long way. We faced storms and many obstacles. Now, a long way has been covered and still somewhere far away the land to reach.”

– FTS core team member.
Russia: 
Federal Tax Service

Summary
The tax administration that came into existence when the Russian Federation was established, has undergone several waves of modernisation in recent decades, most recently to incorporate digital technology. This case is about how the Russian Federal Tax Service (FTS) introduced an online delivery platform as its primary interface with taxpayers to improve efficiency, transparency and impartiality, and thus confidence and compliance among tax payers as well. Following the introduction of a new e-document system to facilitate the flow and tractability of tax declarations and payments, the FTS released a series of digital tools, such as an online cash register for retail businesses, a system providing real-time access to retail sales data for businesses and online tools for tracking manufactured goods. The delivery of each new digital service took an average of three years, including a one-year pilot evaluation in selected directorates and legislative changes prior to full implementation.

The FTS’s shift to digital systems and client-focused service delivery has been embraced by Russian taxpayers with direct benefits to government coffers. The rate of filing tax declarations online increased from 0.5% in 2002 to more than 97% in 2017. Furthermore, the periodic Union of Industrialists survey shows that between 2008 and 2016, the number of Russian companies that believed that their tax administration impeded them from doing business fell from 43% to 7.6%. Finally, and most importantly, tax revenue in Russia rose to RUB 17.3 trillion in 2017, which represents a 224% increase over 2010.

2.1 The innovation context
Following the end of the Soviet era, a new taxation system and regulations were introduced. This relied on paper-based declarations that were difficult to process consistently and transparently over such a large geographical space involving so many different officials. Compounding this is a tax code which is not unified, but rather a somewhat disjointed sum of over 600 different acts legislated over 25 years that have made this paper-based system even more susceptible to inconsistencies in application.

The FTS is a large organisation that handles the taxation of 4.4 million corporate entities, 3.8 million self-employed business people and 156 million individual taxpayers. The FTS employs around 150,000 staff in 84 regional departments, 875 inspectorates and remote offices and 20 specialised interregional inspectorates, including two standalone inter-regional inspectorates for data processing.

The Commissioner of the FTS who led its shift to digital innovation had a strong understanding of IT as a graduate in computer-aided design and former Chairman of the International Computer Club. He also was involved in previous work to modernise its processor taxation agency between 1999 and 2004. He recognised then that such an organisation labouring under outdated practices had to embrace modern and organisational reform to improve its efficiency and effectiveness. He subsequently assumed other leadership roles in large public and then private sector organisations that gave him greater insights into the tax system from an end-user perspective. In 2010 he returned to the FTS and was tasked by government with leading a renewed effort to modernise its service and operations.

Culture
Hofstede’s study of Russian culture tells us that business and political power tend to be highly centralised. Decisions are made top-down with clear mandates that lead to detailed planning. Commands are accepted from above, however, dominant behaviour is not tolerated among subordinates who are instead expected to behave more modestly. Problems are approached in an analytic and pragmatic way, and Russian’s have a long tradition of persevering in the face of adversity.
2.1.1 Managing the innovation process

Hofstede’s work tells us that trust is key in Russian workplace relations, and the FTS Commissioner made an astute decision to form a core implementation team comprising individuals that he had previously worked with and who had worked with each other in various roles. This familiarity afforded an immediate feeling of trust among the team that allowed it to work together effectively from the outset.

Another key advantage for the team in a Russian cultural context was that they operated with the full authority of the Commissioner who located them in a central position with close proximity to the FTS’s hierarchical governance structure. During weekly team meetings in the presence of the Commissioner and his deputies, team members could seek decisions and approvals directly which expedited the implementation.

To support a forthcoming shift to client-focused digital tools, one of the first actions by the team was to setup a new department to change the way that FTS staff engaged with tax payers. The team worked with it to seek out and listen to external stakeholders and end-users, which was seen as a major step for this traditionally inward-looking entity. This work led to new client engagement protocols, handbooks and a training programme to build good practice across the agency.

The team introduced a new e-document system to facilitate the flow and track ability of tax declarations and payments online, which led to an upgrade of the organisation’s IT systems based on a review of international best practice. Specialists in external user experience were bought in by the team to work with the R&D department to revise and improve the usability of the end-user interface and to simplify the online forms being developed for tax payers. This also led to the creation of a public stakeholder council with representatives from the private sector, academia, and NGO’s, to provide feedback and input to help the FTS foster an outward looking customer service orientation in a way that engages the public. Progress in this respect is now monitored by tracking end-user satisfaction and feedback across all services departments, and periodically compared against key indicators to ensure that the FTS is tracking in this direction.

As the team moved forward with planning new digital initiatives, they actively engaged key interagency stakeholders from the Ministry of Finance and the Ministry of Economy. These relationships facilitated the acceptance of evidence from subsequent pilot projects in broader political processes to build and justify budget allocations, together with legislation to mandate changes, if necessary.

An important symbolic move showing its commitment to digitisation as a driver of further reform was its role in Russia’s decision to accept responsibility for organising the OECD’s Forum on Tax Administration in Moscow in May 2013. As a key player in this event, the FTS used it both to learn about international best practices, as well as to present its modernisation agenda to local and international audiences for discussion and feedback.

2.1.2 Sourcing the technology

While solid progress was made to advance government’s objectives around modernisation and efficiency through digital innovation, the team recognized that manpower and resourcing issues were likely to hinder further development and repurposing of the FTS’s emerging digital infrastructure. Finding, recruiting, retaining or replacing personnel within the HR practices of federal agencies like theirs was one such obstacle. A novel approach was taken by the FTS to create its own IT and R&D entity in NALOG Services. This provided an important advantage as it did not have to go through slow and cumbersome internal recruitment processes or tender and negotiate services from external suppliers of variable quality. Unlike permanent public-sector agencies, where it can be difficult to shift employees in a way that increases efficiency, this uniquely structured company allowed more flexibility with regards to a more efficient deployment of human resources. This arrangement also assigned full ownership of any new tools and assets to the FTS.

2.2 The innovation team

The collective aspect of Russian culture became clear when FTS team members were asked about their implementation experience. Their answers revolved around aspects of team work rather than individual accomplishments. It was immediately apparent that they had worked well together in analysing challenges and finding solutions. Describing problems as “exciting tasks” suggested that these were approached with confidence and that the team rarely felt out of their depth as the process unfolded.

“What I liked most about this project was working as a team of fellow thinkers.”
– FTS team member
While team members expressed pride that the FTS had received positive end-user feedback about innovations such as the new online system for tax declarations, team members felt that they could have done even better if they had not always been so pressed for time. Given more time and/or personnel resources to think through and plan the various digital initiatives more thoroughly, they could have delivered even more comprehensive designs and implemented these with much greater efficiency.

“Projects could have been implemented more efficiently (faster and without errors) if there was more time, sufficient funding and highly qualified staff.”
– FTS team member

When the FTS team was asked to rate themselves on key personality traits in comparison to others in their wider organisation, the majority of the respondents described themselves as more entrepreneurial, flexible and networked than their colleagues elsewhere in the FTS (Figure 1). However, only few said they were more risk-taking than was the norm at this entity. While it may seem odd that such a bold shift to digital operations and service delivery in this organisation was implemented by a team with such a limited appetite for risk, this was appropriate given what Hofstede has shown about the cultural or Russian organisations and the team’s proximity to the FTS’s governance and power structure. That is, they were chosen by a Commissioner who knew that with his full authority in a Russian context, the implementation team was unlikely to face obstacles from anyone less senior in the organisation. Therefore, he did not need a team of risk-takers and chose staff that he knew from previous experience would use his authority discreetly and conservatively in the manner expected in Russian workplace culture.

The other point of note in Figure 1 is that the implementation team was composed of a mix of personality types. On all personality dimensions, there were members who rated themselves the same, less or stronger on that trait than others in the FTS. For example, while the majority rated themselves as more entrepreneurial than the norm, only a few indicated they were the same as others in the FTS.
2.2.1 The innovation team journey

Members of the FTS team who participated in the Rich Pictures and Journey Mapping exercises revealed some unexpected insights about their implementation experience through the symbols they chose and their explanations. Compared to the earlier verbal descriptions of the experience, which suggested a systematic business-as-usual approach with no major lows, one representation of this journey as a rollercoaster instantly painted a different and more interesting picture. When asked to explain the symbolism, it became clear that their journey actually fluctuated between periods of inspiration when they worked well together in problem solving, as well as difficulty, satisfaction and anxiety during significant events.

This sense of undulating highs and lows was not apparent in their earlier descriptions, which inferred that the support and authority of the Commissioner was sufficient for them to affect change in a straightforward way. This theme also was present in the symbols used by other team members who depicted a long and ongoing voyage with occasionally fierce storms. The team responsible said the storms were unexpected events or crises that might sink their initiative, which had not reached the safety of the shore. This discussion revealed that, despite the progress that the initiative achieved on the surface, the FTS as an organisation has not yet fully embraced the shift to digital innovation and the client-focused orientation that underpins it.

“We sailed a long way. We faced storms and many obstacles. Now, a long way has been covered and still somewhere far away is the land to reach.”
– FTS core team member

The aforementioned symbols of the roller coaster or a boat voyage with occasional storms to describe their journey again was apparent when the FTS team undertook the Journey Mapping exercise. Here they were asked to work as a group to select one emotion to represent the predominant mood among them when faced with key emerging challenges. The results of their selections are shown in Figure 2, which follows their previous descriptions of undulating highs and lows.
Their journey commenced with the arrival of a new Commissioner in 2010. Hofstede’s study of Russian organisations shows that uncertainty is not tolerated and the transition to a new leadership agenda left this entire organisation feeling anxious about what the future held. The Commissioner’s selection of a core implementation team, who already knew and trusted one another, settled nerves quickly. The team felt inspired about the possibilities and encouraged by the strong leadership of the Commissioner who set out a clear way forward backed by his full authority. In terms of what Hofstede has identified about the importance of hierarchy and decisive leadership in Russian organisations, this approach ticked all the boxes; it is not surprising that his subordinates responded so positively.

This positive sentiment continued as they engaged with the FTS’s own internal R&D and tax payments department to begin developing client-focused digital solutions. Progress continued with the involvement of external specialists, resulting in the development of a new client interface and online tax declaration forms.

The same cannot be said for their subsequent efforts to introduce necessary legislative changes, as the team felt that they had very limited control over the political process. Here, the sentiment among the team was one of difficulty. However, the mood soon picked up again when this phase was completed and the team began to engage interagency partners to access budget support and move on to new project work.

The team felt inspired about the possibilities and encouraged by the strong leadership of the Commissioner who set out a clear way forward by his full authority.
2.2.2 Structural challenges along the journey

The FTS team was asked to rate the level of difficulty posed by key structural areas of implementation. As shown in Figure 3, this team rated budget, communication, efficiency and manpower issues within the highest quintile of difficulty. Ordinarily, such a high level of difficulty in so many areas might derail implementation. Yet surprisingly, the team also rated each of these as being under control. Hofstede’s work on Russian organisations says that adversity in this culture typically leads to pragmatic analysis and a will to persevere, which is what this team did. That led to unique structural innovations that brought these problems under control.

For example, the team recognised early that the FTS had a poor external reputation because its staff and operations were not client-focused. If this did not change, use of any new digital tools would be minimal and government’s goals for digital innovation would likely fail. In view of the severity of this risk, the team created a new communications department that was tasked with driving changes in the way that FTS staff engaged tax payers, particularly around digital tools.

Likewise, the team realised that they could not advance a digital agenda if they were continually hamstrung by structural inefficiencies such as cumbersome contracting processes, slow and inefficient HR recruitment processes and barriers to terminating underperforming staff. The team’s innovative and ruthlessly pragmatic solution was to create an outsourcing company from which the FTS could have unencumbered access to technical experts for its digital innovation projects.

Budget also was rated as a difficult structural issue because the team’s project plans were continually subject to an external and highly competitive federal allocation process that could scuttle any of them. Hofstede’s work on Russia highlights the primacy of relationships and trust in negotiations. The Commissioner and his team invested significant time and effort to build relationships with stakeholders in the broader political establishment and the Ministries of Finance and the Economy, and other public entities who had influence over the allocation process, to bring this risk under control.
Figure 3. Respondent perceptions of control

- Budget
- Efficiency
- Technology
- Manpower
- Communication
- Regulation

Legend:
- Maximum
- Under Control
- Level of Difficulty
Case insights

### Strategy

The modernisation strategy underpinning the FTS’s digital innovation journey was managed in an agile manner, with its scope widened to address structural threats to its goals of greater organisational efficiency and user-centric service delivery.

| Stable | Agile ✔ | Punctuated |

### Management

The FTS digital innovation journey was managed proactively. The governance structure empowered the implementation team to respond to emerging issues quickly and with authority.

| Cautious | Reactive | Proactive ✔ |

### Technology

Digital innovation at the FTS was underpinned by technology developed in-house or in partnership with an outsourcing company that the FTS created to supply it with technical personnel and services. This was without restrictive labour and contracting regulations and processes, and with strong intellectual property protection. This novel approach to outsourcing incurred short-term setup costs, but permitted more flexible and cheaper access to technical personnel and services in the long-term.

| Internal ✔ | Co-designed | 3rd Party |

### Structural challenges

The FTS digital journey faced major obstacles in the structural domains of manpower, communication and efficiency. Implementation of novel structural solutions to outsourcing and creation of a new communications department brought these issues under control.

| Not under control | Partially-controlled | Fully-under control ✔ |

### Team sentiment

At major points of change or when the team were dealing with a challenge that was not fully under control, the prevailing sentiment in the team dipped. The mood, however, remained generally upbeat thanks to the governance structure and effective strategic planning that empowered the team to resolve emerging issues in a timely manner.

| Stable mood | Pendulum ✔ | Rollercoaster |

### Individual sentiment

Individuals participating in the FTS digital innovation journey were largely ambivalent about the process, partially as they were embarking on something new for the first time and because they were not sure how far will they would be able to proceed with it.

| Certain | Some uncertainty ✔ | Ambiguous |
“I liked the innovation part of the journey and the openness of management to allow individual employees to experiment with their ideas.”
– HAAD team member
Summary

The Shafafiya online e-claims platform was introduced by HAAD to overcome a two-year backlog in the processing of paper-based claims that had steadily grown following the introduction of a new compulsory health insurance system.

The Shafafiya platform, which was developed in collaboration with healthcare sector stakeholders, quickly cleared the backlog and now handles over 25 million claims annually. It was so effective in supporting wider HAAD’s governance responsibilities and managing healthcare data generally, that its activities were expanded. It is now an integral component in the Abu Dhabi Healthcare Strategic Plan launched in 2014 as a core data source supporting evidence-based policy making.

Data collected through the portal has been used to develop a new provider mapping tool, which helps end-users or authorities to find healthcare facilities in any locality that are equipped to treat specific conditions. Together with cataloguing services available at various facilities and their contact information, the tool also permits appointments to be scheduled online.

3.1 The innovation context

Prior to the mid 1980’s, healthcare in the UAE was provided for free by its government. However, shrinking oil revenues and rising numbers of non-resident workers began to create unsustainable demands on this public good (WHO, 2006). Government initially responded by charging non-residents for some health services, but continuing growth into the new millennium required it to make health insurance compulsory.

Enrolling an entire population into health insurance created major administrative challenges. The ensuing volume of paper-based claims submitted and exchanged by individuals, providers, insurers and agencies, led to the build-up of a two-year backlog of unprocessed claims by late 2008. This was attributed to the creation and processing of claims without a common understanding of what information was required, nor a common terminology with which to communicate. There was no common system for tracking the status of unresolved claims or for following-up on errors or missing information. As a result, a claim was rejected, which took its toll on stakeholder confidence and the financial bottom line of healthcare providers, insurers and end-users alike.

Consistent with findings from studies of Hofstede’s model in UAE organisations, the team that was formed within HAAD to resolve the claims processing problem was managed under a hierarchical governance structure. Executives within HAAD overseeing this work reported to a Director General who reported to the organisation’s Commissioner, who is accountable to the UAE’s Executive Council.

Culture

Studies of Hofstede’s cultural model in the UAE reveal that it as a centrally organised and hierarchical society. In the workplace, subordinates expect their superior to give clear instructions. The UAE is also a collectivistic-oriented society in which loyalty and responsibility for fellow members takes precedence.

This culture has a low tolerance for uncertainty, and this applies to unorthodox behaviour or ideas, which can sometimes pose a barrier to innovation.
3.1.1 Managing the innovation process

Studies of Hofstede’s cultural model in the UAE show that it is a hierarchical society, so a clear mandate from HAAD’s senior leadership was sufficient for the team to obtain support and assistance from internal departments including HAAD’s Strategy and Health System Financing (HSF) departments.

UAE society is also based around a collectivistic culture. This means that mutual responsibility obligations exist for anyone who belongs to a group by virtue of kinship, social or business ties.

As such it was not surprising to see HAAD invite into its fold those external stakeholders who shared its interest in fixing the health insurance system, to tackle the challenge as a collective. Figure 1 outlines the mix of external healthcare and insurance provider stakeholders from both public and private sectors as well as the team’s internal partners at HAAD. Each were organised to contribute to aspects of the task that were most closely aligned to their vested interests or operational functions, such as data communication and processing, finance and public health standards.

![Figure 1. HAAD Internal Communications](image_url)
This collaborative approach rapidly facilitated the identification of the key systemic issues underpinning the delays in the processing of paper-based claims. A digital solution was chosen as the most parsimonious fit for the problems identified by stakeholders; and an initial model for an e-claims system was developed by HAAD’s Strategy department. From there, its Health Services Finance team supplied test data and its IT team helped with the addition of new capabilities as system requirements expanded. Representatives from key external partners such as the Abu Dhabi Health Services Company (SEHA), the insurer Daman, and Nas and Oasis hospitals contributed to its design and gave feedback to improve its operational feasibility from their respective perspectives.

Figure 2. Shafafiya Portal Stakeholders

HAAD maintained a concerted effort to involve as many stakeholders as possible in developing the platform. This task became steadily more challenging as the process evolved and the numbers of additional stakeholders grew (see Figure 2).

The consultation process identified a set of core design parameters and the need for robust checks and balances. This was to minimise errors in claims submissions and processing, and to support HAAD in its mandate to monitor stakeholder interactions among patients, insurance providers/payers and healthcare providers. The process also identified the need for an online dictionary of terminology and rules to standardise the process and form of communication between system users.
3.1.2 Sourcing the technology

An external private company was commissioned to develop, implement and host a new e-claims portal capable of functioning as the sole conduit through which claims-related documents could be uploaded and exchanged. This was to ensure that claims-related information was transmitted to the correct recipients without delay, and to assist HAAD as the regulator in monitoring the status of claims or other demands for information in real time.

However, the development of this beta version was beset with delays due to a mix of internal and external constraints. First, HAAD’s in-house technical capability and know-how was over-stretched, making it difficult for its team to consistently exercise consistent oversight and provide guidance. This resulted in the external service provider making decisions that ultimately proved unsustainable. For example, it placed the platform’s server offshore, which increased security risks and made developmental iterations difficult to perform in a timely way. HAAD’s leadership concluded that the first beta version of the portal was unsatisfactory and that it was not feasible to remedy its shortcomings with the existing provider given its logistic setup and approach.

HAAD terminated this arrangement and secured another provider capable of hosting platform servers in the UAE. This company was also a new start-up and eager to win market share, which meant that it was highly determined to succeed. This proved to be an advantage to HAAD in finding solutions to the various implementation issues that had stymied the previous provider. As a result, the Shafafiya portal was successfully completed at this second attempt.

3.2 The innovation team

The strongly hierarchical dimension of UAE culture was apparent in the response from the members of HAAD’s team who were queried about their implementation experience. In a tribe, deference towards the clan chieftain and the need for his approval and patronage are critical to accessing resources and support from others. The same applies to UAE organisations in which the superior’s support is all important. The responses from the team focused on the value of the mandate and ongoing support from HAAD’s leadership that facilitated their access to help from other parts of the agency, and to pursue a riskier innovative path.

“I liked the innovation part of the journey and the openness of management to allow individual employees to experiment with their ideas.”
– HAAD team member

Looking back with the benefit of hindsight, the team thought that a more thorough consultation with other internal departments at HAAD could have helped identify opportunities to broaden the portals functionality; that did not become apparent until much later. In the future, they thought that significant benefits would flow from the creation of a new unit in HAAD, dedicated to helping the agency to better understand and use the data collated by the portal.

When members of HAAD’s team were asked to rate themselves on key personality dimensions, the majority described themselves as being more risk-taking and flexible than the rest of their organisation (see Figure 3). Half also indicated that they were more entrepreneurial than was the norm at HAAD. The dominance of these individualistic traits is not however what one would usually expect to find in a culture with a collectivistic orientation, according to Hofstede’s model. Nonetheless, we can see in the way that the implementation unfolded that these traits were instrumental in how key challenges were approached. For example, when it became clear that the first provider for the portal was unsatisfactory and that the team had failed to recognise the warning signs earlier, this team was willing to take the risk of replacing them with a start-up company that had no track record to show they could do any better.

What is also noteworthy in Figure 3 is that the team was comprised of a mix of personalities. That is, even though there was a predominance of risk-taking maverick personalities, there were also members who said that they were even less risk-taking than the norm. The same can been seen for each personality category, indicating that there was still a diversity of perspectives in the way that issues were discussed and approached.
3.2.1 The innovation team journey

Members of the HAAD team who participated in the Journey Mapping exercise were asked to discuss and collectively select one emoticon to characterise the predominant mood at key points in their implementation journey. We see from Figure 4 that their moods fluctuated regularly in response to these events.

Despite the pressing need to find a solution to address the claims processing backlog, the team began on a good note as the hierarchical governance structure and clear mandate from HAAD’s leadership put them on the right footing. From a cultural standpoint, Hofstede’s model holds that a top-down approach in a hierarchical culture will facilitate cooperation from subordinates. We see that the team immediately had support from HAAD’s other IT and HSF departments.

“What I like the most is the open support from the leadership to implement the project.”
– HAAD core team member

The team needed to rebuild confidence among health system stakeholders, who also had much to gain from developing a more efficient claims processing system. The mood remained upbeat as they engaged these stakeholders with a message that was also in tune with a collectivist culture that exists in the UAE: everyone in the healthcare sector shares this responsibility and stands to benefit from fixing this problem, so let’s work together. Which is what happened as the stakeholders quickly agreed to help the HAAD team to identify key causes of the processing delays, as well as contributing to a constructive review process that led to the decision to establish an on-line e-claims processing portal.
However, as work commenced on building a beta version of the portal, the team’s mood became increasingly anxious as manpower and technical capacity issues took their toll, particularly because these could not be easily resolved due to local labour market shortages. The team’s technical personnel became increasingly overstretched and were unable to fully monitor the portal development phase. The mood did not improve when the first beta trial failed and some members were angry that the external provider had failed to deliver when the stakes were so high.

The selection of a new start-up company as a replacement service provider led the mood to steadily climb again. The team breathed a sigh of relief upon discovering that the new start-up was enthusiastic, highly cooperative and extremely determined to build its reputation by overcoming the problems with the first version.

The successful introduction of the Shafafiya e-claims infrastructure brought the project to the attention of national decision-makers, who decided to expand the team’s mandate to repurpose it to play a part in Abu Dhabi’s e-health strategy. Delivering on this expanded mandate has been challenging, but the team feels inspired about what can be achieved by further exploiting the portal’s capabilities into the future.

3.2.2 Structural challenges along the journey

When asked to identify which major structural domains of implementation posed the most difficulty, the team gave structural efficiency the maximum possible rating for difficulty (see Figure 5). This was followed by regulations, manpower and technology. Trying to develop a platform that shared technology with different collaborators was difficult to achieve efficiently, as was training so many different stakeholders to use the new system in an efficient way.

There were also challenges in establishing a regulatory framework to handle complex claims acceptance and adjudication rules, and an agreed communication and data standard among the various healthcare stakeholders. However, the consistency of purpose across collaborators meant that compromises and solutions were found by the HAAD team that kept these issues under control.

Unfortunately, the same cannot be said for technology and manpower issues that became sources of stress because they introduced risks that were never under control. These issues were a direct consequence of the shortage of technically skilled workers in the UAE labour market, which meant that the team always lacked enough capacity to perform or oversee critical technical aspects of the task. For example, problematic decisions by the external contractor that led to a failed beta version of the portal might have been avoided if the team had sufficient capacity to exercise adequate technical oversight.
Figure 5. Respondent perceptions of control
# Case insights

## Strategy

The strategy approach that led to the creation of the Shafafiya e-claims portal followed a steady path up to the launch. At that time it became more agile, as HAAD's leadership searched for different opportunities to use the data that the portal collected and its infrastructure to support other healthcare, research and policy needs.

<table>
<thead>
<tr>
<th>Stable</th>
<th>Agile ✓</th>
<th>Punctuated</th>
</tr>
</thead>
</table>

## Management

HAAD's digital innovation journey was managed proactively. Its governance structure and the strong support from its senior leadership empowered the implementation team to engage internal and external stakeholders with authority, to pursue innovative solutions and to take calculated risks that resolved challenges and kept the initiative on track.

<table>
<thead>
<tr>
<th>Cautious</th>
<th>Reactive</th>
<th>Proactive ✓</th>
</tr>
</thead>
</table>

## Technology

The technology that underpinned the digital innovation at HAAD was initially planned by its in-house IT department and subsequently developed in partnership with external suppliers.

<table>
<thead>
<tr>
<th>Internal</th>
<th>Co-designed ✓</th>
<th>3rd Party</th>
</tr>
</thead>
</table>

## Structural challenges

HAAD’s team faced structural issues in relation to efficiency and regulations that were brought under control through its collaboration with stakeholders. However, related problems in manpower and technology were not as easily resolved and created serious risks. These were both due to labour market shortages of skilled technical personnel that were out of the team's control.

<table>
<thead>
<tr>
<th>Not under control</th>
<th>Partially-controlled ✓</th>
<th>Fully-under control</th>
</tr>
</thead>
</table>

## Team sentiment

An empowering governance setup and a strong start to the project was matched by the team's upbeat mood. HAAD's innovation journey finished on the same note as the project, which was a widely-lauded success. However, there was a period when much darker sentiments were felt when an external provider made decisions that put the project in jeopardy – in part because the team lacked the manpower and technical capability to adequately supervise them.

<table>
<thead>
<tr>
<th>Stable mood</th>
<th>Pendulum ✓</th>
<th>Rollercoaster</th>
</tr>
</thead>
</table>

## Individual sentiment

Individual team members felt less certain about the project’s end result as expectations grew and the final target shifted in line with increased levels of sophistication.

<table>
<thead>
<tr>
<th>Certain</th>
<th>Some uncertainty ✓</th>
<th>Ambiguous</th>
</tr>
</thead>
</table>
Spain: BiscayTIK
“Bringing technology closer to people of all ages, circumstances and places and more specifically to Biscay.”

– BiscayTIK core team member
SPAIN: BiscayTIK

Summary

A law change in Spain in 2007 gave citizens the right to access public services via the internet. This created a problem for smaller municipalities in territories such as Biscay in Spain’s Basque country that lacked the finances or technical expertise to readily comply. Biscay’s provincial government proposed to create the BiscayTIK portal as a shared online platform for these municipalities to deliver their services online.

Biscay municipalities, however, were used to functioning independently and implementing this initiative required a comprehensive stakeholder engagement process to woo their participation, together with the training of over 1,100 public servants to deliver 7,700 different municipal services online. The resulting BiscayTIK platform now serves as a “digital public office” through which 108 Biscay municipalities deliver services online to over 1.2 million locals. To date, 64,000 procedures have been filed through it digitally.

4.1 The innovation context

Spain’s Basque Country region has a decentralised administrative structure with a semi-autonomous provincial government managing health, education and territorial security. At the next level down, regional authorities administer taxation, social and infrastructure services. Finally, 122 local municipalities have a high degree of autonomy in the way they manage local planning, waste management, local security and sporting facilities. While the municipalities vary in size, the majority are small, with an average population of approximately 5,000.

In 2007, many of these municipalities operated with modest budgets and little or no expertise in digital technologies. This posed a major challenge following a law change that year which required them to make their services available online. To address this issue, the Biscay provincial government established BiscayTIK as an independent foundation to administer a new digital platform for any of its municipalities to adapt to deliver their services online.

It is important to note that the high degree of independence with which municipalities operated was tightly held, posing a natural barrier for collaborating with other public entities. While the Spanish Government had decreed that all public entities must make their services available online, the Biscay provincial government had no authority to direct the municipalities to join BiscayTIK. Instead the plan was to seek consensus agreements from the municipalities by appealing to their self-interest.

Three goals were set for the BiscayTIK platform:

1. Offer a standard set of tools and a digital system to municipalities in Biscay.
2. Encourage government to become closer to citizens through the implementation and use of digital technology.
3. Become an international reference standard in the field of local digital innovation. The Biscay authorities were interested in having up-to-date services offered under their proposed platform. They wanted to avoid an outcome in which municipalities agreed to participate in their 21st century service delivery platform, but used it to deliver out-dated content that would undermine public confidence in digital innovation.

Culture

International studies using Hofstede’s model provide normative data about Spain – but not its individual regions such as the Basque country that is known for its unique language and aspects of culture. This means that there may not be a 1:1 correspondence between Basque and Spanish cultures generally.

Studies of Hofstede’s model nonetheless show that Spain is a collectivist and decentralised culture with a benevolent disposition toward its poor and needy, and that its people prefer consensus solutions in all facets of life. Schools teach children to seek harmony rather than take sides and bosses in workplaces tend to consult workers rather than issue directives. While people like to be asked rather than told, uncertainty is not tolerated and clear structure and well-defined plans or rules are the norm, particularly in organisations.
A relatively flat governance structure was established to oversee BiscayTIK’s implementation. Regional political representatives formed a high-level board that sat above an executive group overseeing implementation and administration of the proposed platform. This executive group was led by BiscayTIK’s general manager and heads of the three primary regional departments. Under this governance framework, the board convened three times a year and made key decisions on strategic direction and budgets, leaving day-to-day affairs of the project implementation to the executive team. The flat structure facilitated efficient decision-making because it enabled team members to present emerging issues and solutions and to obtain approvals from the executive team at a weekly meeting.

4.1.1 Managing the innovation process

A relatively small core team of eight civil servants managed the implementation of this initiative. Their efforts were supplemented by an extended team of contracted personnel that grew in size to around 50 persons during the peak of implementation. This arrangement was chosen due to budget constraints at the outset and a desire to maintain a stable core of persons with flexibility to add capacity as task demands grew and soft budgets permitted.

Notwithstanding the fact that BiscayTIK was being offered for free to municipalities, it was a new entity without a track record. Moreover, it was proposing to interfere with the way they had traditionally served their communities. Given that the participation was voluntary, the primary challenge for the team was to convince municipalities to join. An extensive consultation process was instigated with about 20 persons working in consultation meetings with each council to present BiscayTIK as a technological partner whose purpose was to help them to serve their constituents online.

Appealing to the strong individual identities of the various municipalities, councils were shown how the appearance of the platform could be customised to reflect their respective identities. The team also explained that a technical helpdesk service would be created to handle end-user technical queries and that this function would receive ongoing funding, thereby minimising future operational costs for municipalities. These presentations also explained the benefits of a rich common database for their wider planning and administrative needs. Lastly, the team emphasised the economies of scale that would allow participating councils to achieve a significant technological upgrade in service that none could realistically afford on their own.

Fundamental to the success of BiscayTIK’s stakeholder engagement process were the actions of special project brokers in securing local buy-in, especially from some smaller councils that delivered limited services and who were otherwise content to maintain the status quo. One such broker was BiscayTIK’s Head of Customer Support, whose 20 years prior experience in working closely with local councils in other capacities lent credibility to the initiative.

The team discovered that each municipality also had to manage their own local stakeholders in agreeing to participate in BiscayTIK. This led to variations in the way that the initiative was communicated, understood and responded to at a local grassroots level. Some municipalities encountered resistance from middle-management fearing change or other constituents who wanted to maintain the status quo. While the vast majority eventually agreed to join when BiscayTIK was launched, some councils, such as Bilbao, agreed only to use a limited range of the total services available. The BiscayTIK team, nevertheless, were instrumental in breaking through the silo mentality in most councils and in fostering regional cooperation. This was evidenced by the working groups of local councils that subsequently were formed to develop optimised applications and services based on best practices in different municipalities.

The BiscayTIK platform was revised as councils regularly sought changes; for example, to remove the public tendering module because councils did not require it. Optimising the platform, however, was driven primarily by feedback from BiscayTIK’s Customer Support team that had been formed to support municipalities and end-users. This team was able to identify and signal emerging issues and areas for improvement to the core team, resulting in a stream of incremental improvements. For example, the generic Open Government mobile app was tailored into different versions to reflect the unique identity and services offered by the respective municipalities. Likewise, the screen interface that end-users viewed when they accessed BiscayTIK was iteratively re-designed to become more user-friendly.

The BiscayTIK platform was tested initially in a pilot involving five municipal councils in 2010. Lessons learned from these sites were used to optimise platform specifications and the process for a subsequent large-scale deployment in 58 municipalities in 2011. The remaining 50 sites then were rolled out progressively. This phased approach provided time to run a parallel process to familiarise and educate end-users about this new way of interacting with public administration, through classes and meetings in public offices and community centres.
4.1.2 Sourcing the technology

Because the available budget for permanent staff was small, the core project team was restricted to about eight people. Their efforts were supplemented by technical and other experts outsourced from private companies, and paid for from more easily accessible fixed-term budget funds. The logic was that as demand grew, it would be easier to find funding of this kind to secure additional contracted personnel.

The success of the initiative indicates that the model was effective. However, it was severely tested when the global financial crisis unexpectedly struck and government budgets were cut, including fixed-term budgets. While the core team’s lean structure allowed it to remain intact, outsourcing of the supporting personnel had its limitations. In particular, when some smaller private suppliers of technical specialists were forced out of business by the crisis. This impacted the efficiency of implementation. More tasks had to be completed by fewer people, accumulated tacit project knowledge was lost when contractors left the project, and recruitment costs were incurred in finding replacements when the budget crisis subsided.

4.2 The innovation team

When asked about their implementation experience, team members cited the innovation that BiscayTIK brought to the region and the technology embodied in the platform.

"Bringing technology closer to people of all ages, circumstances and places and more specifically to Biscay."
– BiscayTIK core team member

But so too were the collectivistic and social orientations that underlie the region’s culture: team members spoke about the pleasure of having worked well as a team, with no mention of individual accomplishments. The fact that the innovation helped to improve the quality of life for ordinary citizens was a significant point of satisfaction.

“What I really liked about the experience was the team I worked with and the innovative technology used for it.”
– BiscayTIK core team member

The consequences of managing such a large and drawn out project with such a small core team was apparent as team members reflected on the project with the benefit of hindsight. Several members observed that they had felt pushed throughout to meet tight deadlines for legal reasons, which resulted in errors or compromises. There was a concerted view that many of these could have been avoided with a larger budget, particularly for personnel.
“If we had more time and people I wonder if we would have had fewer problems.”
– BiscayTIK core team member

Access to services online was a big step forward for the region. The lack of supporting infrastructure and the mindset needed to transact with government in this way presented a challenge for the team.

“We faced unstable systems; there were few electronic services for citizens; and there were lots of problems when electronic certificates were first used.”
– BiscayTIK core team member

When team members were asked to rate themselves on key personality traits relative to what they understood was typical of civil servants in the Biscay region, we see that many rated themselves as more empathetic and receptive than the norm (see Figure 1). Consensus building is the norm in Spanish culture and these associated traits were clearly present in the team.

Consistent with the way that organisations operate within cultures that do not relish in uncertainty, less than half of team members said they were more risk-taking. While the process of implementation stretched out over several years, a clear plan for consultation and phased implementation was established. The team systematically expedited this with no significant risks that would circumvent the outcome. Likewise, the propensity for entrepreneurial behaviour was not high. Half of the team’s respondents rated themselves the same as the norm, with only one third saying they were more entrepreneurial.

While Figure 1 shows slightly more team members indicating they were more risk-taking, receptive and empathetic than the norm, the pattern of results generally shows that the team was composed of a mix of personalities. Even where the majority rate themselves higher than what is normal for Biscay public servants, there were always others who rated themselves the same or less than the norm.
4.2.1 The innovation team journey

The previously discussed feedback from the team points to the pressures on a small team to deliver on time with scant reference to their work in engaging the municipalities. The symbols and representations that they used in the Rich Pictures exercise, however, showed that this aspect of their innovation journey exacted a significant emotional toll.

The team discovered that some of the municipalities were used to working alone in silos and perceived BiscayTIK as a threat to their independence. Winning the confidence of middle management to explain that this was not a threat, but rather a tool to enhance their autonomy as local entities was a struggle. And eventually, when the councils came on board, there was an incessant stream of requests to tailor the system to suit their idiosyncrasies. Team members represented this process as climbing a mountain and having to push uphill while continually finding ways around obstacles, interspersed with falling over occasionally due to unexpected pitfalls and having to get up again and continue. This sense of pushing the project along was also apparent in the symbol of a heavy truck, increasingly weighed down by demands from councils being pushed along by the team members. The culturally-driven preference for consensus building and the historical autonomy of municipalities required a patient approach from the team. However, it exacted a heavier toll on the implementation than was foreseen.

Another drawing from the team that showed this theme of dogged team effort and of battling to respond to stakeholder demands, was a platoon of soldiers taking on a relentless series of challenges from councils. The incessant demands of stakeholders and the uncertainty it created within a relatively small team was discussed by a participant involved in creating it “as an ever-growing puzzle that had a known beginning but an unspecified end.” It is not surprising that such ambiguity and uncertainty have been identified in studies of Hofstede’s model as a cause of stress and anxiety in Spanish workplaces.

Figure 2.
“Selling the product was simple, but when the entity was affected it became difficult.”
– BiscayTIK core team member

The emotional toll of working with some of the more intransigent municipalities came through again clearly when members of the implementation team participated in the Journey Mapping exercise, where they were asked to discuss and collectively select an emoticon to represent the predominant feeling during key stages of their journey. The results in Figure 2, show that the team’s mood followed an oscillating trajectory.

The team’s mood was decidedly upbeat when the project commenced, with everyone feeling inspired about initiating such an innovative project. This feeling continued into the initial engagement with municipalities and as work began on developing a platform and a plan for implementation. The team obtained agreement from five councils to participate in a small pilot that would be monitored and evaluated to develop and fine tune their plans for the full rollout. The data gathered through this base-line effort also gave the team confidence that they had ironed out most of the bugs prior to engaging the majority of Biscay municipalities.

However, finding consensus around an organisational model for BiscayTIK was not straightforward with so many individual municipal interests involved. Moreover, as noted in the previous discussion of the Rich Pictures exercise, there was resistance primarily from middle management who viewed the new mode of service provision as a threat to their autonomy and existing spheres of influence. Obliged to accept resistance because of their commitment to a consensus-building approach, the team found themselves quietly rolling their eyes in bemused exasperation.

The workload for this small team grew as the consultation expanded with the continuous stream of requests to modify the proposed platform. This included feedback from stakeholders via the customer support team that required engaging IT specialists to redesign and improve various aspects of the client interface while it was being implemented. Together with securing the cooperation of the 122 councils, the team then had to work each to reorganize and upgrade any out-dated content before it could be added to the portal. Finally, the team had to dedicate time and effort to build awareness and to educate end-users about BiscayTIK and how to use it. Dogged perseverance was the order of the day as they worked through the final full implementation phase.

While the workload was heavy, the team observed that the relatively flat governance structure helped information flows to decision makers in a timely manner and the team was able to identify and respond to emerging issues through the weekly meetings. Solutions were addressed quickly before problems grew large enough to threaten the overall effort. As each of these were resolved, and as each council was added, the team began to feel a growing sense of relief.

4.2.2 Structural challenges along the journey

As to the question of which structural aspects of implementation the team found most difficult and stressful, dealing with regulations topped their list. As shown in Figure 3, challenges of this type were perceived to be those where they had the least amount of control. A range of clerical laws had to be drafted and passed to permit certain types of services to be transacted online. Likewise, rules and regulations had to be created for identifying an end-user online and determining how and under what circumstances to use an electronic signature in legally binding ways. Laws related to areas such as privacy, transparency, public contracting and accounting had to be created or amended. Given that regulations are set through a political process where the team was not directly involved, they found that making any changes was very difficult and largely out of their control. In particular, the legal deadlines in legislation for the platform to be operational and serving end-users in municipalities became a major source of stress, as requests for changes continued to come in from councils.
There were very tight delivery times in order to meet legal deadlines. Making any changes was very difficult.
– BiscayTIK core team member

Challenges arising from technology and manpower were rated as next most difficult and, again, were never areas where the team felt they were fully in control. Introducing advanced technology into municipalities for the first time and developing a single platform that could accommodate the needs of 122 different councils was no simple task. Together with the time required to educate and train over 1,100 municipal employees in how to deliver over 7,000 services through the platform, the team continually received feedback that required changes to the interface or back-end systems. The team was pressed to incorporate the latest technical advances, which required specialised programming languages that made revisions complex and expensive.

As noted in their previously discussed feedback, a price was paid for having such a small core team manage such a broad consultation and technically intensive innovation with major regulatory ramifications. While outsourcing allowed the team to add IT specialists and legal professionals as demand grew, the strategy was not effective in the wake of budget sensitive events such as the global financial crisis where the loss of technical and legal specialists contacted through private sector firms went out of business. Important tacit knowledge that these individuals knew about what, when, where, how and why implementation occurred in the way that it did was lost with their departure.

Figure 3 indicates that this sense of constantly being overwhelmed by task demands affected all areas of implementation, with participants rating the level of difficulty consistently higher than their capacity to control them.

While the workload was heavy, the team observed that the relatively flat governance structure helped information flows to decision makers in a timely manner and the team was able to identify and respond to emerging issues through the weekly meetings.
Figure 3. Respondent perceptions of control

- Budget
- Efficiency
- Technology
- Manpower
- Communication
- Regulation

Maximum Under Control Level of Difficulty
## Case insights

### Strategy
A relatively stable strategy was developed to guide BiscayTIK’s innovation journey. Despite difficulties in managing a large stakeholder engagement and consultation with such a small core team, a highly iterative development process for a shared platform and a staged implementation process, the team never substantially departed from the broad outlines of their original plan.

<table>
<thead>
<tr>
<th>Stable ✔</th>
<th>Agile</th>
<th>Punctuated</th>
</tr>
</thead>
</table>

### Management
A flat governance structure and a client help desk which were BiscayTIK’s eyes and ears on the ground, helped its implementation team to identify and respond to emerging issues quickly.

<table>
<thead>
<tr>
<th>Cautious</th>
<th>Reactive</th>
<th>Proactive ✔</th>
</tr>
</thead>
</table>

### Technology
The small size of BiscayTIK’s team required it to outsource tasks such as the technical development of its online platform.

<table>
<thead>
<tr>
<th>Internal</th>
<th>Co-designed</th>
<th>3rd Party ✔</th>
</tr>
</thead>
</table>

### Structural challenges
Delivering services online raised a myriad of complex legal issues that required new regulations and amendments. The shortage of legal specialists and the lack of direct control over the legislative process made this very difficult to manage. Pressure from some councils to include cutting edge elements made the development technically complex. The small size of the team made it hard to feel like they were in control.

<table>
<thead>
<tr>
<th>Not under control ✔</th>
<th>Partially-controlled</th>
<th>Fully-under control</th>
</tr>
</thead>
</table>

### Team sentiment
A flat governance structure allowed the team to make a positive start. However, as they began the consultation and technical development phases, more and more problems emerged and the workload for such a small team took its toll on the mood. The team is relieved to have achieved success, but uncertain as to what the future holds.

<table>
<thead>
<tr>
<th>Stable mood</th>
<th>Pendulum ✔</th>
<th>Rollercoaster</th>
</tr>
</thead>
</table>

### Individual sentiment
The BiscayTIK individual team members had a clear idea of direction and the ultimate desired result throughout the process, primarily because the goals were the same as those of the project.

<table>
<thead>
<tr>
<th>Certain ✔</th>
<th>Some uncertainty</th>
<th>Ambiguous</th>
</tr>
</thead>
</table>
Italy: AgID (PagoPA)
Historically, Italy has not been a country where online payments are the norm. PagoPA therefore was developed as a hybrid model that allowed citizens, business and non-profit associations to choose from among a variety of options.
Italy: AgID (PagoPA)

Summary

PagoPA is an online platform that allows Italians to make payments to any public entity in their country. Previously, each entity was responsible for administering its own payment systems resulting in costly duplication and a myriad of payment systems for end-users to negotiate. Today, any local who connects online to a public entity and wants to pay is redirected to PagoPA, which asks them to choose their preferred payment method from a wide list. Upon payment, PagoPA reconciles this information with the public entity and issues a receipt.

The successful implementation of PagoPA realized a fivefold increase in digital payment transactions through 450 payment service providers to public entities – from 700,000 in 2014 to 3.8 million by 2017, and 6 million in 2018.

In the first quarter of 2018 alone, this corresponds to €278mn in digital payments equating to approximately half of all government payments being made in this much more cost-efficient way. The continuing growth in end-user participation shows that PagoPA is well on its way to delivering on the Italian Government’s underlying innovation and efficiency objectives.

5.1 The innovation context

Following an EU-wide agreement to pursue public sector transformation through digital innovation, the Agency for Digital Italy (AgID) was established in 2012 to manage the implementation of a national digital agenda and to coordinate strategic initiatives.

In 2013, the Italian Government passed legislation that gave AgID responsibility for establishing rules and procedures, in compliance with the regulations of the Bank of Italy, for private citizens, businesses and associations to make electronic payments to public entities. AgID also was assigned the task of developing and administering PagoPA, a secure payment platform capable of interfacing with information and payment systems of ministries, regional authorities and municipalities.

This platform:

- Allows end-users to find information and pay debts to these entities, with a choice of payment options and any commissions charged
- Could seamlessly reconcile payments made through various payment providers against a debt held by a public entity
- Reduces duplication of databases and payment system controls across public sector entities

While the legislation supported AgID’s task in so far as it compelled public service entities to participate in PagoPA, it included an unusual impediment in the form of a caveat stipulating that the platform did not become the sole means of paying for public services in Italy. This created an unexpected

Culture

International studies using Hofstede’s cultural model show that Italian society is driven by an individualistically-oriented ethos in which happiness is pursued through personal rather than group fulfilment.

Children learn to compete and that to win is important in life. This makes work a place where people compete rather than seek to collaborate.

The country is well known for its complex bureaucratic rules and regulations that try to impose order on Italian life. Italians do not tolerate uncertainty or ambiguity. Together with being competitive, this create a recipe for stress and other expressive emotions when things do not go as planned, which is why outsiders frequently view this as an expressive and passionate culture.
conundrum for AgID. In theory it was tasked with creating a highly capable system that could win the confidence of public and private stakeholders, but not one that was so superior that it rendered other payment systems redundant.

Governance over the project was hierarchically structured with decision-making centralised, while the team functioned in a flat structure. Key stakeholder representatives were organized into working groups to monitor their respective vested interests. A banking institution group focused on issues affecting their sector and compliance with financial regulations. A public administration group provided oversight on the interface between its entities and PagoPA. Non-profit associations and software provider groups supervised developments in their respective areas. While there were many eyes in this overarching structure, the executive team at AgID only had to report to these groups on their areas of interest and were otherwise left alone to direct day-to-day implementation work.

5.1.1 Managing the innovation process

The implementation team faced the major task of engaging a large and diverse group of federal, regional and municipal entities to modify their individual accounting and IT systems and standards to interface with a new platform. The team had to brief and update the stakeholders to maintain their attention. They also had to organise and coordinate the working groups. Through this consultation, they were able to identify and address a myriad of technical and security issues and to develop solutions tailored to different types of entities. For example, a plug and play solution with minimal implementation cost was developed for small municipalities that also could be used by larger entities alongside their existing solutions.

Private sector payment providers such as banks were not legally obligated to participate. Some held concerns that PagoPA might reduce their share of the payments market and others were concerned that a single solution in such a diverse market was technically unworkable. Together with allaying these concerns, the team persuaded them that PagoPA could expand their technically unworkable. Together with allaying these concerns, the team at AgID only had to report to these groups on their areas of interest and were otherwise left alone to direct day-to-day implementation work.

Historically, Italy has not been a country where online payments are the norm. PagoPA therefore was developed as a hybrid model that allowed citizens, business and non-profit associations to choose from among a variety of payment options and to opt-in at their own pace. Physical options included over the counter payments. Digital options included online banking, ATM payments, and Paypal mobile App.

Notwithstanding the various challenges, AgID’s project development of PagoPA moved swiftly with the planning, design and consultations taking about 18 months. From its inception in 2013, the first pilot trial to integrate systems with the Ministry of Justice took place a year later. By 2015, the first 200 transactions were performed and in 2016, the full rollout and live operations across the vast majority of public entities. As this phase moved into full swing, the team coordinated a comprehensive suite of education and training sessions for the various stakeholder groups.

The implementation of PagoPA was successful in embedding a new system into public administration entities and payment providers. While this was recognised in the Italian Commissioner’s post-implementation audit, it also was noted that the end-user interface needed to be more user-friendly. The team sees this as the next logical step in development, together with ongoing fine-tuning to further improve and optimise system efficiency.

5.1.2 Sourcing the technology

The implementation team began as a small core of five AgID staff that was progressively expanded to 10. This group was supported by 15 others seconded from various strategic partners to provide technical and other assistance. The AgID implementation team were organised around two fronts: 1) new development, which included the need for new functionalities and improvement strategies; and 2) management, which provided for the system and platform to remain operational together with customer support.

Overall, the core team’s competency and background included a deep knowledge of banking procedures and payment systems. For instance, both the project leader and the project designer, who contributed to the project from the beginning, have worked for more than 20 years in the banking sector, covering planning and management for the Italian saving banks’ payment systems. In addition, platform implementation is managed by the interbank network manager to exploit payment systems’ know-how, such as from SIA Ltd. This deep experience and knowledge of the banking sector payment systems has contributed significantly to the architecture and framework of the PagoPA platform.

5.2 The innovation team

Given the prevalence for competition among workers in Italian workplaces (according to studies of Hofstede’s cultural model), it was surprising to discover that when team members were asked about their implementation experience, many focused on teamwork and the dialogue with one another and that which they facilitated among stakeholders.
“What I liked was the dialogue and cooperation created between different stakeholder banks, public administrations, IT providers and regulators.”
– AgID core team member

There also was a sense of pride among the team in having implemented PagoPA and a curiosity about how large it could grow in terms of entities and PSP’s involved. They wondered how it might evolve in the future with greater input from citizens and serve other purposes such as accepting payments for private non-profit associations.

When asked to compare themselves to others in the wider AgID organisation, the vast majority of the implementation team characterised themselves as more inclined to risk-taking as shown in Figure 1. This is consistent with studies of Hofstede’s cultural model in Italian organisations that show that Italian culture is individualistic and ambitious and people are expected to do what it takes to succeed. This cultural value, however, was not reflected when it came to entrepreneurship, with a relatively even mix of members rating themselves more or less the same as their colleagues elsewhere in AgID.

The AgID team was well equipped for the engagement and consultation aspects of the implementation with most of them rating themselves as more receptive, empathetic and flexible than the norm for their organisation. These results reflect their aforementioned focus on the effectiveness of their teamwork and the dialogue they facilitated among stakeholders when they commented on their implementation experience.

5.2.1 The innovation team journey

Themes of connection, hard work and vigilance were apparent in the images and symbols used by the AgID implementation team participating in the Rich Pictures exercise. Some of them characterised their PagoPA implementation journey using metaphors for connection, such as a bridge or passageway connecting old and new digital worlds, to describe both the journey as well as the final product. One participant cautioned that while their drawing of a pathway showed it in a beautiful landscape, this also contained dangerous pot-holes signifying internal and external threats to implementation that required constant vigilance.

Figure 1. Respondent profile compared to organisation

![Graph showing respondent profile compared to organisation](image-url)
This cautionary point also was evident by other participants who drew parallels in boat voyage where they had to work hard to reach a distant shore, while also watching the waters around them carefully for sharks. The emphasis on hard work was apparent in mountain climbing where participants said that several times during the journey they felt they had reached the top – only to discover that the actual summit was further off and that more work and perseverance was required.

This exercise revealed aspects of the implementation experience that are noteworthy and which were absent from the team’s previously discussed comments about their implementation experience. Given the sheer number of project stakeholders involved, it was not surprising to hear that hard work and perseverance were required. Likewise, that the project was instrumental in connecting stakeholders and helping end-users access government. However, the apparent need for vigilance against internal and external threats was not expected and implied that the team had to defend the project. This sentiment related primarily to resistance shown by some unscrupulous banks and payment providers which were concerned about the transparency inherent in PagoPA that might curb their previously lucrative earnings from undisclosed commissions in the payments market. Also, as this project was a consequence of a wider EU initiative, within Italy it lacked a local political champion which left the team feeling that their upcoming budget funding was vulnerable given the tight competition for departmental funding.

“There were some dark moments, especially when entities did not see the value creation and resisted the project.”  
– AgID core team member

The themes of hard work, perseverance and vigilance again apparent when team members undertook the Journey Mapping exercise. They worked collectively to select an emoticon to represent how they felt when dealing with each emergent challenge in their implementation journey.

From the start the team felt they had to work hard and persevere through the drawn-out task of engaging public and private entities who were either preoccupied with their own objectives and viewed this as a distraction, a draw on their resources, or were wary of unwelcome changes that might come with PagoPA. They faced scepticism too, given the technical obstacles to devising a system and methodology that could interface with a diverse variety of existing accounting and payment systems. Moreover, there were dark moments when stakeholders refused to be convinced of the value of the project or actively resisted it, or when they agreed to participate but then reneged. The team also discussed their disappointment when a champion acting within a stakeholder entity encountered obstacles.

The team’s perseverance through this rocky start however paid off. The consultation process unearthed technical problems that could be dealt with by the specialist IT providers that...
were engaged to integrate PagoPA's architecture with entities. Payment providers that had been initially reluctant about losing their earnings from hidden commissions or market-share in payment services came on board when the team showed them that they would have access to the large portion of payments that were previously conducted through dispersed small post offices. From a rough start, the team was able to overcome these early hurdles (see Figure 2).

The mood of the team remained positive through the next stages of work in which they systematically fine-tuned the legislation and regulations to accommodate different partner entities. This followed by relief when PagoPA passed an intensive audit by the office of the Italian Commissioner responsible for digital transformation policies. High stakes were at play as a poor result could have jeopardised the initiative given the perceived climate of political support. The team now felt that it had advanced the project beyond a point of no-return. Seeing the PagoPA payment symbol publicly in places like local tobacconists filled them with pride that the initiative that they had put so much into was now entrenched in everyday Italian life.

Having largely achieved the initial objectives for the system, the team is working on a three-year plan to improve the system and to expand its capabilities and benefits. Because AgID, PagoPA and Italy’s digital agenda all stem from a previous EU-wide agreement to undertake public sector digital transformation, future developments remain subject to broader EU agreements evolving in slow-moving cross-state processes. Given the culturally low tolerance in Italy for uncertainty, it is not surprising to find that the team is once again “grimacing” as they face an uncertain future.

5.2.2 Structural challenges along the journey

When the AgID implementation team members were asked to rate the level of difficulty from problems arising in key structural domains of implementation, a clearer picture emerged about how these challenges affected the team. It was not surprising to see that the team rated communication and efficiency given the logistics involved in communicating with over 450 public entities, numerous private sector stakeholders, and a wider Italian public unused to making payments online. More than the sheer size of this task, it was that winning hearts and minds to cooperate required time and space to build trusting relationships that was in short supply. For example, the public service entities which had their own business objectives were obliged to participate with PagoPA with no additional resources, making it hard sometimes to cooperate effectively as a team.

With so many different types of private and public entities involved, communicating and making improvements or updates to the rules and regulations or the platform was time consuming.

“The complexity of working with public administration made it difficult. And, it was hard to keep the system up-to-date with continual changes in technology and regulation.”

– AgID core team member

Regulations were the next highest rated area of difficulty for the AgID team. By law, AgID had responsibility for developing regulations and protocols with the Bank of Italy to facilitate online transactions while protecting the security of information.
exchanged between diverse end-users, public entities and payment providers. Developing regulations was complicated further by the opposing legislative requirements to build an advanced payment platform in a way that would not render all competitors redundant. Despite the work involved in crafting regulations in such a complex environment, the team never felt fully in control because they were not part of the political process for passing legislation. Thus, there was no strong support for the project from political representatives who viewed it as an EU compliance requirement.

The relatively low level of difficulty posed by technology was surprising given the major technical challenges that were apparent at the outset. The team noted that the inclusion of members with strong IT and project management capability permitted this aspect to be managed effectively. Despite the relatively small core team, manpower also was not rated a major area of difficulty. This highlights the effectiveness of the staffing model, based on access to an additional 15 persons for technical and other assistance, and the outsourcing of IT development work.

What is clear from Figure 3, is that the team did not perceive any large shortfalls in the levels of difficulty posed by any of the listed domains and their ability to cope as a team. Believing they could cope with the challenges indicates that the demands of implementation did not stretch the team too far beyond its combined capability.

Figure 3. Respondent perceptions of control
### Case insights

**Strategy**

AgID's innovation journey followed a consistent strategy. Along with technical development of the platform and regulations to allow online transactions, the plan was to build relationships with stakeholders to gain cooperation and identify needs, and subsequently to modify systems to interface with PagoPA. When faced with obstacles, AgID's team persevered rather than change direction.

<table>
<thead>
<tr>
<th>Stable ✓</th>
<th>Agile</th>
<th>Punctuated</th>
</tr>
</thead>
</table>

**Management**

The AgID innovation journey took place within a governance structure with centralised decision-making shared by working groups representing key stakeholder interests. The project was managed cautiously with a constant eye on stakeholder issues and a systematic approach to meeting the legislative requirements for PagoPA.

<table>
<thead>
<tr>
<th>Cautious ✓</th>
<th>Reactive</th>
<th>Proactive ✓</th>
</tr>
</thead>
</table>

**Technology**

In-house personnel and stakeholder working groups developed specifications that external IT providers used to develop the PagoPA platform and systems to interface with PSP’s, public entities and end-users.

<table>
<thead>
<tr>
<th>Internal</th>
<th>Co-designed</th>
<th>3rd Party ✓</th>
</tr>
</thead>
</table>

**Structural challenges**

Communicating with such a large and diverse number of stakeholders and obtaining timely cooperation from busy public entities were significant structural issues in this innovation journey. The complexity of drafting laws and limited influence over the legislative process created another structural barrier that the team did not feel they could fully control.

<table>
<thead>
<tr>
<th>Not under control ✓</th>
<th>Partially-controlled ✓</th>
<th>Fully-under control</th>
</tr>
</thead>
</table>

**Team sentiment**

The project started with numerous obstacles that required the team to persevere until they cooperated together to systematically address technical and regulatory issues. From here the mood was positive, with a strong sense of relief when the system was successfully launched and passed a formal audit. The team once again persevered through a period of uncertainty about the project's future given the lack of strong local political support.

<table>
<thead>
<tr>
<th>Stable mood</th>
<th>Pendulum ✓</th>
<th>Rollercoaster</th>
</tr>
</thead>
</table>

**Individual sentiment**

While the project goals were clear, several team members remained uncertain, given the complexity of the social-political structure of the country, that they could achieve these results.

<table>
<thead>
<tr>
<th>Certain ✓</th>
<th>Some uncertainty ✓</th>
<th>Ambiguous</th>
</tr>
</thead>
</table>
France: Pôle emploi
The CEO was keen to mobilise and leverage the organisation’s talent beyond that specified in position titles and job descriptions.
France: Pôle emploi

Summary

Pôle emploi is a large French public entity that administers unemployment benefits and delivers training and other assistance to registered job-seekers. Following a new government directive, its CEO set the organisation on a new course in 2013 to become more publicly transparent and results driven, and to improve its services to job-seekers through digital innovation. Beyond an initial requirement to place existing services online, the initiative was not conceived to create a specific digital product. Rather, it was an endeavour to seek opportunities to use digital technology to improve services and enhance performance. As such, the team never reached a point where implementation was complete. Instead, it was a continual process of seizing emerging opportunities, optimising existing initiatives or spinning-off new ones.

Thanks to a collaborative initiative in which over 80 external job-boards agreed to work with the agency, over five million vacancies can now be searched on Pôle emploi’s new site. This represents a five-fold increase over what was available before this digital journey began in 2012. Traffic to its new Emploi store (offering over 300 services with the aid of 200 partners), has passed 10 million visitors and its new app has been downloaded over two million times. All of which indicates that job-seekers are catching on to the innovative direction that Pôle emploi is taking with digitisation.

6.1 The innovation context

Pôle emploi has 55,000 employees spread over 920 offices in 130 territorial directorates divided in 13 regions.

Based on directives mandated in tripartite agreements involving the agency, the Secretary of Labor and Unédic, its CEO introduced a theme of transparency and quarterly reporting of key unemployment statistics in a bid to make the agency more open and performance driven. In 2013, Pôle emploi commenced work on a strategic plan to evolve the organisation through to the year 2020. With the aim of delivering better and more intensive personalised services and counselling to registered job seekers, this strategy set priorities for achieving this through digital innovation and results-driven management.

While the governance arrangement was hierarchical (IT, innovation and digitisation teams reported to the CEO, and the CEO reported to the Secretary of Labor and social partners), a high degree of autonomy was afforded by senior executives to the three management groups. This permitted a relatively flat decision-making in the day to day running of most aspects of the project.

Culture

According to Hofstede, France scores a relatively high 68 on the Power Distance pillar of culture. Hofstede suggests that Power Distance is indoctrinated from early childhood, as children are raised to be emotionally dependent, to a degree, on their parents. This dependency is then transferred to teachers and later on to superiors. It is, Hofstede says, a society in which a fair degree of inequality is accepted. Power is not only centralised in companies and government, but also geographically. Just look at the road grid in France; most highways lead to Paris.

Many comparative studies, Hofstede says, have shown that French companies have normally one or two more hierarchical levels than comparable companies in Germany and the UK. Superiors have privileges and are often inaccessible. CEOs of big companies are called Mr. PDG (President Director General), a more prestigious abbreviation than CEO. These PDGs have frequently attended the most prestigious universities called “grandes écoles” or big schools.
6.1.1 Managing the innovation process

The initiative was implemented by a core team of 10, drawn from the IT (DSI) and Operations (DEUD) departments of Pôle emploi. Over the course of the initiative, around 100 other employees from across the organisation worked with the core team to implement changes, together with external service providers in cases where specialist technical assistance was required.

An initial goal was set to make Pôle emploi’s existing services available online by February 2014, and to consolidate these within a bespoke online platform, “Emploi Store”, by June 2015. Previously, given that the organisation’s wider strategic plan wanted digital innovation to be used as a tool for improving these existing services and creating new ones, the team had begun work at the behest of the CEO to build an internal website – Innov’Action – to seek input and ideas from Pôle emploi’s employees about what the organisation could change or develop to improve its services and their delivery to jobseekers.

The CEO was keen to mobilise and leverage the organisation’s talent beyond that specified in position titles and job descriptions. Recognising that Pôle emploi’s staff had first-hand experience of its systems and clients, he made it known that he wanted to use their insights. The website, based on an inclusive bottom-up approach, yielded over 4,000 ideas.

The success of this approach led the team to extend the crowdsourcing concept in 2015 to tap into ideas from outside the organisation. They opened the Emploi Store Idées site where anyone can submit and exchange ideas to help Pôle in its mission. A suggestion from this site led the team to open an Emploi Store Dev site as a collaborative space for innovation, where Pôle emploi’s data is made available in de-identified form for creative developers and startups that want to create new applications to support jobseekers.

“La Bonne Boîte” is an example of another original idea from staff that harnesses the power of online crowdsourcing. This service uses algorithms to identify businesses that hire even when not formally posting a vacancy. It shows jobseekers which companies respond to unsolicited applications, thus enhancing their opportunities within the “hidden” job market. “La Bonne Formation” is another such example. Here, user feedback ratings on available training courses are made available to clients to show them the courses that other job-seekers have found most useful.

An idea from the staff for making Pôle emploi more externally transparent and accessible led the team to launch the “100% web” project in 2014. Capitalising on rapidly expanding mobile and web access in France, the system allows registered job seekers with an internet connection to remotely access Pôle emploi services and its counsellors via webchat and webcam. Consistent with the goal to improve service delivery, the team set out to persuade “job-boards” (private employment market operators) to upload their available vacancies on a new Pôle emploi website. This would give job-seekers more efficient one-stop-shopping for all job offers available in their area or region that matched their criteria, instead of having to search the existing Pôle emploi site and all other job boards that post similar vacancies.

The team, however, found it difficult to persuade the job boards that if job-seekers no longer had to come to their site, it would reduce web traffic and revenues. It took an average of six weeks to allay concerns and negotiate collaborative agreements with each of the job-boards. Eventually 83 partners, such as Regionsjob, Viadeo, MétéoJob and Keljob.com, signed up. By 2015, over five million job offers were being posted on Pôle emploi’s site, representing a five-fold increase since the start of the change effort in 2012.

The concept of one-stop-shopping was expanded with the 2015 launch of Emploi Store as a major initiative to provide access to all employment assistance services, such as training and business creation, through a single online platform. Hosting over 300 web or mobile services from over 150 private and public-sector partners, job-seekers can access information and resources in the form of MOOC’s and other e-learning tools and mobile applications. The team also has used his infrastructure to host virtual salons at job fairs to facilitate job searches for people with disabilities.

In 2015 Pôle emploi held workshops about its digital services in its client centres so that job-seekers could prepare for online registration; tens of thousands of people attended. While this attendance is impressive alongside Pôle emploi’s client satisfaction rating of 91% for its digital services, the same cannot be said about the Emploi Store. Site traffic to the Emploi Store is surprisingly low at around one million visitors compared to the 20 million who visit Pôle emploi’s home page. While the latter figure may be inflated because it is the portal for compulsory online registration for benefits, a current optimisation challenge for the team is to attract more genuine job-seekers to the Emploi Store. This may require more than a simple marketing effort because historically, the Pôle emploi brand has not been synonymous with innovation. Many may see it as no more than a bureaucratic hurdle to accessing unemployment benefits. Concerted public education and rebranding may be required to acclimatise job-seekers to the new reality that Pôle emploi is here to help them with a multitude of resources for finding work.
Optimisation is required to fine tune the delivery of digital services to enhance rather than detract from the quality of the interactions that Pôle emploi has with its registered job-seekers. For example, while the development of webchat and webcam tools are laudable for their role in helping remotely located job-seekers to access a counsellor and other services more easily, they can compromise the quality of the interaction in ways that leave some clients feeling like they are a number rather than a person.22

6.1.2 Sourcing the technology

As noted earlier, the technical ideas that drove the development of digital innovation were crowdsourced, initially from Pôle emploi’s employees with first-hand experience of its systems and clients with good insights about what was needed, then subsequently from anyone outside the organisation who wanted to help it achieve its stated goals. The subsequent iterations of the crowdsourcing concept led to the Emploi Store Idées and Emploi Store Dev sites that not only allow people to submit ideas, but to discuss, develop and test them using Pôle emploi’s data in unidentified form.

The pace of implementation was slowed by the absence of enough technical specialists to implement the new digital initiatives. Because Pôle emploi had strong historical associations with the administration of unemployment, it was not seen at first glance and before the digital transformation began, as a place where IT developers would find interesting work. As such, the initiative was affected by a shortage of talent, in part because people with the required skills did not see it as an attractive destination.

6.2 The innovation team

Autonomy and trust emerged as important themes for the team on their innovation journey because they bucked key elements of the pre-existing culture. Power in French organisations is typically very centralised and structured hierarchically. Superiors issue directives that subordinates use to develop detailed plans for approval and action. From as high as the CEO, management afforded this team considerable autonomy in deciding how digitisation would be used to improve client services and raise organisational performance.

The team recognised that this was a rare opportunity, given the way that French organisations usually work, and they really believed in the possibilities that digital innovation could bring to Pôle employ.

“This was a chance to work on a project that I really believe in and which has real meaning.”
– Pôle emploi core team member

Moreover, despite the fact that French culture does not tolerate uncertainty well, this team trusted in their capacity as a team to deliver results and to commence a journey without a clearly defined plan or end-goal in sight.

22 Clement, 2014.
“I liked that we had the trust to reach without knowing exactly where we would arrive.”
– Pôle emploi core team member

With the benefit of hindsight, the team said they could have achieved more with a better budget and wished they had been able to attract more job-seekers to use the tools they had developed.

“We had a very low budget so we did a very frugal innovation… and it worked!”
– Pôle emploi core team member

They also said that support from upper levels of senior management did not extend to the operational side of the organisation which continued to operate in a more conservative way. For example, there was lower than expected traffic to the new sites due to a low-key communication with job-seekers.

“Pôle emploi’s communication is not ‘offensive’ enough… the Communications team is still very scared as employment is a sensitive issue and they prefer to keep a low profile.”
– Pôle emploi core team member

Despite having strong support from the CEO, the team and their activities were not owned by the rest of the organisation.

“Although we had a great strategic sponsor in the CEO, I wish we had better operational sponsorship.”
– Pôle emploi core team member

The comments from implementation team members reveal an unusual project in a French cultural context. Both in terms of the relatively unplanned approach they took to facilitating innovation and the autonomy that they were allowed, which included organising their work. In this respect, it was also clear that other parts of Pôle emploi were uneasy about this unprecedented arrangement.

The disconnect in style between the implementation team and the rest of Pôle emploi is immediately apparent when the team was asked to rate themselves on key personality traits. As shown in Figure 1, the majority rated themselves as more risk-taking. The entire team said they were more flexible and more than half rated themselves as more entrepreneurial and receptive to ideas than their colleagues elsewhere in Pôle emploi. A picture starts to emerge of a group of “mavericks” within Pôle employ who do not follow rules like everyone else and who try new things and take risks that most would not. In Hofstede’s work on French culture, these characteristics typically are more associated with the privileged management class. Viewed together with their close support from the CEO and the high degree of autonomy that they operated with, it starts to feel as if they were the mavericks among the rest of the organisation. In short, their setup, dress and conduct led them to feel that what they do was not well understood by everybody in the organisation.

Figure 1. Respondent profile compared to organisation

<table>
<thead>
<tr>
<th>Trait</th>
<th>Same as Organisation</th>
<th>More than Organisation</th>
<th>Less than Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk-Taker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receptive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Networked</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathetic</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.2.1 The innovation team journey

Many of the issues in the comments from the team emerged again in greater detail in the Rich Pictures exercise. Interestingly, team members frequently used the symbol of light with evangelical connotations to indicate they were on a mission to spread the word about the exciting possibilities afforded by digital innovation, as well as a new way of working.

In one drawing, the team is shown as a group of shepherds carrying a bag of change, following a light (of change) taking them to places where they can give their gift of change. This depiction captures the uncertainty over the direction that the project took and the serendipitous way that the team looked for ways or places to use digital innovation to improve client services or organisational performance. Another representation depicted a lighthouse shining its light across Pôle emploi. For the members who drew this picture, the light was symbolic of the way that they showed the rest of the organisation a more productive, meaningful and inspired way of working. Members of the team who produce a drawing dominated by a large fog that obscures a route ahead until a sun emerges, discussed the difficulty they encountered inside and outside the organisation until others understood and accepted the possibilities and benefits of digital innovation.

Other team members presented the project as an uphill battle with storms always on the horizon. These members thought the project required them to work hard to develop a large amount of knowledge and expertise. The storms represented the points during the journey in which they had to seek and negotiate cooperation from other internal or external stakeholders. The team found this difficult, with much effort required to overcome resistance.

In this drawing, surreal imagery was used to depict team members with numerous eyes, hands, and feet dressed in casual sneakers to represent the way that they had to simultaneously monitor multiple areas while working on multiple tasks, as well as the more laid back and informal way that they worked as a team. It is noteworthy that this drawing includes onlookers dressed in classic corporate wear to powerfully symbolise the sense of alienation that the team felt from the rest of the traditionally-oriented organisation who looked upon them as weirdly dressed and behaved. With the backing of the CEO, it is easy to see how the team felt emboldened to do things differently. The Rich Pictures exercise indicates that they steadily evolved a corresponding in-group culture in isolation from what was the norm for the wider organisation.

Figure 2.
Inside the black box

The results of the Journey Mapping exercise revealed the emotional impacts of key events on the implementation team. Overall, we see in Figure 2 that their journey began and ended on a positive note but that it was not always easy in-between.

With the CEO and board behind them as project champions and inspired by the CEO’s message encouraging all staff to contribute ideas and have management take them seriously, the team thought this was their moment to seize. They were excited to pursue whatever possibilities digitisation might bring to their organisation. Their early enthusiasm continued as the internal website seeking ideas from staff was launched and the Pôle emploi platform for job-seekers developed.

The positive mood, however, subsided as they moved to their outreach strategy aimed at linking job-boards on to the new platform, when they encountered resistance from some stakeholders who feared that they might lose on-line traffic and revenues. But this initial hesitation waned over time. The team also found it harder than expected to use ideas from staff in every region in France. In short, the team found themselves doggedly persevering through these stakeholder engagement tasks with limited reward.

As the team moved to improve the supply of services by developing new digital delivery channels, the mood picked up since this was a creative activity and they had over 4,000 internally solicited ideas to work with. Converting this into reality, however, involved complex and time-consuming data analysis that left those involved feeling constantly anxious until a final selection was made.

The team had mixed emotions as it worked to consolidate the Emploi Store concept. From pleasant surprise at the creativity and benefits of the solutions sourced internally to anxiety and disappointment when they realised how little site traffic was actually going to the Emploi Store. The team is currently working with external startups to develop new client solutions and data mining is being used to develop algorithms to further improve personalisation. Both of these creative activities have lifted the mood of the team.

“We had great strategic sponsorship from the CEO … to open the organisation and work with the ecosystem.”

– Pôle emploi core team member
6.2.2 Structural challenges along the journey

When the Pôle emploi team was asked to rate their ability to cope with demands in the major domains of implementation (see Figure 3), manpower emerged as both the most difficult and least under their control. Part of the issue is that Pôle emploi is not seen as an attractive destination for IT developers, data scientists and other technical specialists because it is primarily known as an administrator of unemployment benefits. This issue was compounded by a perceived lack of support from HR.

“Pôle emploi is not an attractive brand for the talents we need… and the HR department doesn’t help us enough. But when candidates come and talk with us and discover how we work, most are positively surprised.”
– Pôle emploi core team member

As a tradition-bound culture, it is unusual for French workers to change careers or even departments within a workplace. A strong cultural preference for hierarchical structuring in large organisations also makes some of its middle managers possessive of their personnel, all of which made recruiting from elsewhere in Pôle emploi difficult.

“The organisation doesn’t offer many possibilities for people to change their position.”
– Pôle emploi core team member

Given the manpower shortage of IT specialists, it is interesting to observe that the team rated technology as their least difficult source of problems. Here they indicated strong technical ability within the team to understand technology requirements, but said that they lacked enough manpower to implement these in a timelier way.
Case insights

<table>
<thead>
<tr>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pôle emploi commenced its innovation journey with broad objectives to use innovative digital technologies to improve its services and organisational performance. The focus of its strategy was revised enroute to capitalise upon emerging opportunities.</td>
</tr>
<tr>
<td>Stable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pôle emploi’s innovation journey took place within a hierarchical governance structure with centralised decision-making. The project was managed cautiously with a constant eye on stakeholder issues and a systematic approach to meeting the legislative requirements.</td>
</tr>
<tr>
<td>Cautious</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pôle emploi’s implementation team included members from its IT department, who it also called upon for assistance to develop its various digital initiatives.</td>
</tr>
<tr>
<td>Internal ✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Structural challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty in recruiting IT specialists and limited HR support made manpower a major structural barrier on this innovation journey; one that the Pôle emploi team could not bring under its control, and that slowed implementation. Despite implementing cutting edge digital innovations, the high level of in-house capability kept issues related to the technology under control.</td>
</tr>
<tr>
<td>Not under control</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Team sentiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pôle emploi’s innovation journey featured many highs and lows as each new project brought unexpected challenges. While the team enjoyed high-level management support and working together introducing digital innovations, their morale was affected by the growing distance between themselves and the rest of the organisation.</td>
</tr>
<tr>
<td>Stable mood</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individual differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pôle emploi’s innovation journey featured many highs and lows as each new project brought unexpected challenges. While the team enjoyed high-level management support and working together introducing digital innovations, their morale was affected by the growing distance between themselves and the rest of the organisation.</td>
</tr>
<tr>
<td>Certain ✓</td>
</tr>
</tbody>
</table>
Cross-case analysis
Differences across the five cases appear to be a function of both institutional legacy and cultural context.
Cross-case analysis

The aim of this investigation was to shine a light on the black box of implementation that has stymied so many governments pursuing digital innovation. Looking across the five cases, a number of observations emerged on how teams approached and managed the challenges they faced. Patterns also were evident in the way that digital innovation journeys unfolded, which shed light on how such initiatives should be managed to maximise their likelihood of success.

Governance

It is interesting to observe the relationship between governance arrangements in the five cases and the associated country scores on Hofstede’s cultural dimension of Power-Distance, which measures propensity for hierarchy in a culture.

As shown in Figure 1, normative data from studies of Power-Distance in the countries where the five cases were located shows that those that scored highest on this cultural dimension also elected to govern their digital initiatives in a hierarchical manner.

Governance and decision-making were structured in a hierarchical top-down manner at HAAD where the prime decision-making group was the UAE’s Executive Council, at the FTS where its Commissioner and Ministry of Finance directed the implementation, and at Pôle Emploi where major decisions had to be ratified through four layers of governance (see Table 1).

In contrast, BiscayTIK in Spain’s Basque country employed a relatively flat governance framework with a high-level board of regional political representatives making decisions on strategy and budget, but leaving the day-to-day implementation to supervising executives. While AgID’s executives in charge of PagoPA were empowered to make decisions, this was somewhat offset by the horizontal complexity of having to ratify major decisions with working groups representing public entities, banking associations, non-profit associations and software providers.

Differences in the governance structures across the five cases thus appear to be a function of both institutional legacy and cultural context. HAAD, FTS, and Pôle Emploi are all well-established hierarchically-structured bureaucracies in countries that have a cultural preference for hierarchy, and it follows that their digital initiatives are managed accordingly. BiscayTIK and AgID, on the other hand, are relatively new entities that have not had time to establish multiple layers of bureaucracy, and are in countries with a lower preference for social hierarchy.

Figure 1. Country scores on Hofstede’s cultural dimension of Power-Distance

<table>
<thead>
<tr>
<th>Country</th>
<th>Power-Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>High</td>
</tr>
<tr>
<td>UAE</td>
<td>Moderate</td>
</tr>
<tr>
<td>France</td>
<td>Low</td>
</tr>
<tr>
<td>Spain</td>
<td>Lower</td>
</tr>
<tr>
<td>Italy</td>
<td>Very Low</td>
</tr>
</tbody>
</table>
Project champions

Except for BiscayTIK, the cases all featured very senior internal sponsors who gave the implementation teams a mandate for change as well as very public support. Both of which endowed them with credibility to engage stakeholders inside and outside their organisations. BiscayTIK’s board of regional political representatives served a similar function, albeit expressing support less overtly.

Except for the case from Italy, the implementation teams also had strong public support from their respective political establishments who enacted legislation that gave life to their projects as well as binding mandates for change. AgID and the PagoPA initiative, on the other hand, were the result of a wider EU directive for Italy to undertake digital reform. The corresponding lack of sponsorship by Italian politicians had an undermining effect on the implementation team. The importance of high-level support and mandate in all five cases indicates that the chances of success may have been significantly diminished without the backing of strong internal and/or external project champions.

Table 1. Governance arrangements

<table>
<thead>
<tr>
<th>MOSCOW</th>
<th>ABU DHABI</th>
<th>BISKAY</th>
<th>ROME</th>
<th>PARIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of finance</td>
<td>Executive council</td>
<td>Biscay Regional Government</td>
<td>Council of Ministers</td>
<td>Ministry of Labour</td>
</tr>
<tr>
<td>Commissioner</td>
<td>Chairman</td>
<td>Board</td>
<td>AGID Direction Committee</td>
<td>Board of Directors</td>
</tr>
<tr>
<td>Executive Team</td>
<td>Director General</td>
<td>Executive Team</td>
<td>Director General</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Internal and external project champions

<table>
<thead>
<tr>
<th>MOSCOW</th>
<th>ABU DHABI</th>
<th>BISKAY</th>
<th>ROME</th>
<th>PARIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commissioner</td>
<td>Chairman</td>
<td>BiscayTIK Board</td>
<td>AGID DG</td>
<td>CEO</td>
</tr>
<tr>
<td>Political</td>
<td>Political leadership</td>
<td>Political leadership (Biscay Regional Government)</td>
<td>Political leadership National Digital Agenda</td>
<td>Prime Minister</td>
</tr>
</tbody>
</table>
Team characteristics

Except for the BiscayTIK case where the core implementation team was recruited specifically for the project, the remaining teams were drawn from other departments in their respective host organisations. However, while the PagoPA team was permanently assigned to new roles like BiscayTIK, the teams at HAAD, FTS, and Pole Emploi were only temporarily assigned as shown in Table 3.

The permanent assignment to roles at BiscayTIK and PagoPA was necessary because these initiatives were designed to create standalone entities requiring permanent staff. HAAD, FTS, and Pôle Emploi, on the other hand, were aiming to transform their existing systems and services through digitisation. Once the change was completed, the staff on these projects were destined to return to their previous roles.

The core implementation teams were of 10 people, but the rationale for this varied according to the contextual environment at the time of their creation. Labour market shortages in the UAE meant that HAAD’s team were short on staff with technical expertise. BiscayTIK’s core team was kept small due to fiscal constraints and expectations that monies would be found to pay external contractors to support them when demand rose. The AgID and Pôle Emploi teams were supported by personnel temporarily seconded from internal or external stakeholder partners, respectively. The cultural importance of trust in Russian working relationships was a factor in the FTS Chairman’s selection of individuals who had previously worked together with him and one another in various other roles.

The variation in character traits of the implementation team members across the five cases was surprising. No particular trait was strongly present in all cases. Comments from team members also suggested that the implementation experience may have enhanced some traits. For example, most of the HAAD team rated themselves as being more risk-taking and entrepreneurial than the norm, which is unusual for a collectivistic culture such as the UAE. However, comments from this team indicated they felt emboldened by their senior leadership to take risks throughout the process.

With the exception of the French team from Pôle Emploi, there were a mix of members in each case who reported being more, less and the same as the norm on all traits. This suggests that there were different perspectives expressed when members worked together on analysing, planning or problem-solving tasks. By contrast, almost everyone from the Pôle emploi rated themselves as more risk-taking and flexible than the rest of the organisation. Such a polarised perspective may explain why they felt increasingly alienated from the rest of their organisation who came to see them as maverick elements.

Table 3. Implementation teams

<table>
<thead>
<tr>
<th>MOSCOW</th>
<th>ABU DHABI</th>
<th>BISKAY</th>
<th>ROME</th>
<th>PARIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated from other departments into a core team</td>
<td>From core departments; remained under home department umbrella</td>
<td>Recruited for the entity upon establishment</td>
<td>From core departments; one project manager with full oversight</td>
<td>Existing staff forming a task team. Dispersed across the organization-mainly IT &amp; Strategy</td>
</tr>
<tr>
<td>Ad hoc liaison for project duration</td>
<td>Ad hoc liaison for project duration</td>
<td>Permanent Assignment</td>
<td>Permanent Assignment</td>
<td>Ad hoc liaison for project duration</td>
</tr>
<tr>
<td>Trusted by Commissioner</td>
<td>Non-technical management team</td>
<td>Stable core team</td>
<td>Team of 5 expanded to 10</td>
<td>Alien to rest of organisation</td>
</tr>
<tr>
<td>35-50 Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Process
While the situational and cultural context across all five cases varies, there were commonalities in the way that the implementation processes unfolded. As shown in Table 4, all were designed to introduce significant technological advancements that were worked on continuously over multiple years.

The BiscayTIK, PagoPA and Shafafiya platforms were conceived and implemented as discrete projects that, upon completion, were expanded in scope to address additional issues. Both the FTS and Pôle emploi looked at digitisation as a vehicle for modernising and improving their operations and service delivery.

<table>
<thead>
<tr>
<th>MOSCOW</th>
<th>ABU DHABI</th>
<th>BISKAY</th>
<th>ROME</th>
<th>PARIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-year long project cycles</td>
<td>Punctuated</td>
<td>Continues</td>
<td>Initiative</td>
<td>Project</td>
</tr>
<tr>
<td>Initiative</td>
<td>Project</td>
<td>Initiative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Deliberative, involving multi-stakeholders, not fitting existing structures, non-standard technology, evolving scopes

Team sentiment
Except for the PagoPA team in Italy, all teams began and ended their innovation journeys on a high note, while experiencing a dip in the middle as illustrated in Figure 2. Buoyed with high expectations about the benefits of digitisation and empowered with clear mandates to pursue organisational change, these teams commenced their work with a positive mood.

Structural barriers that were not easy to overcome caused team sentiment to drop as the team sought solutions to unexpected challenges and toiled away at their task until the goal was reached – with a sense of relief and achievement. The experience of the PagoPA team, however, was the inverse of the other teams. That was due, in part, to their scepticism about the ability to enact change within the existing structural problems in the Italian public administration. With the lack of strong political sponsorship in Italy and the sense that this project was only happening due to EU obligations, there was no great excitement about the possibilities of digitisation that was present in the other cases. With the scale of consultation required and the significant technical obstacles ahead, they had to persevere until these issues were resolved. The mood picked up sharply as they made progress, though there was a sense of relief when the project was completed.

The Rich Pictures and Journey Mapping exercises revealed much deeper insights into how teams conceptualised their implementation experience than what was evident in their individual statements. The rollercoaster analogy offered by the FTS team contrasted sharply with individual statements that implied they had kept cool heads throughout.
Individual sentiments

Individual sentiment about the certainty of the direction taken varied across the cases, but still correlated with the so-called “progress principle.” In the latter, a “best day” occurs when progress is achieved by the individual or their team, while a “worst day” denotes a significant setback. \(^{23}\) This is illustrated by a reinforcement of the positive and negative experienced project stages in the Journey Mapping exercise. For this exercise, team members were asked to discuss and collectively select an emoticon to represent the predominant feeling during key stages of their journey. It is apparent that the chosen emotional status corresponds with challenge or achievement, i.e., we find that a smiley is chosen when project stages denote a form of achievement, whereas anxiety or perseverance is chosen for challenging project stages. Embarking on the respective projects with perceived clear goals, sufficient resources, and time to execute triggered motivation, which contributed to an inspired emotion at the first project stage for instance. Likewise, increasing project complexity and project delays lead to more challenged emotional depictions.

\(^{23}\) The Power of Small Wins, Teresa Amabile and Steven J. Kramer. HBR, MAY 2011 ISSUE.
Structural barriers

All teams encountered significant structural impediments to their implementation efforts as shown in Figure 4. The FTS case stood out because of this team’s ability to overcome serious manpower, communication and efficiency problems through a novel outsourcing solution and the creation of a new communications department. Other teams were not able to gain control over all their structural barriers. Problems arising from regulations posed a threat to all of the cases because these were legally complex to resolve and the teams had no direct control over higher political processes required for legislative change (see Figure 5). Due to its small size and inability to secure the tenure of its contracted support staff, the BiscayTIK team lacked the manpower to control the problems within any of the implementation domain shown in Figure 4.

Figure 4. Perceived control over structural domains of implementation in cases
Figure 5. Perceived control over structural domains of implementation overall

- **Budget**: High control with a level of difficulty around 3.
- **Efficiency**: High control with a level of difficulty around 3.
- **Technology**: High control with a level of difficulty around 3.
- **Manpower**: High control with a level of difficulty around 3.
- **Communication**: High control with a level of difficulty around 3.
- **Regulation**: High control with a level of difficulty around 3.

Legend:
- **Maximum**
- **Under Control**
- **Level of Difficulty**
Emerging insights

The team
The innovation teams consisted of a small core of staff from the host agencies that were tasked with driving specific facts of digital innovation. While most teams were over-represented in terms of the numbers of risk-takers and those entrepreneurial minded, there also were teams such as the FTS in Russia that were more risk averse. Across the cases, we see a consistent mix of personality traits, indicating that no trait was dominant and that there were different perspectives shaping implementation.

Organisational champions played an essential role in driving innovative and change. These were individuals in senior positions who created a sense of being on a quest to achieve a certain goals that team members felt strongly about.

However, we argue that the presence of such effective organisational champions poses risks for digital innovation in so far as the dependency they create exposes a team to disruption following a leadership change (for example, in Abu Dhabi and Russia). Under such conditions, a project champion cannot leave while a project is not fully implemented and is vulnerable without their support to the extent that project champions and their teams become “locked-in” or “captured” by their project.

The governance
Team leaders depended on three sources of support to succeed over their innovation journeys. Firstly, they all relied on high level political support for a mandate. Secondly, they created strong supportive team identities and a sense of cohesion and superiority over the environment that was an emotional buffer against major challenges that emerged. Finally, they were effective in keeping their key stakeholders satisfied.

Across all five cases decision-making, planning, and implementation was affected by competing interests within the host organisations, or within other public entities, or actors outside of government. For example, banks in Italy, service providers in Abu Dhabi, large taxpayers in Russia, or job search companies in France. Getting buy-in required an unexpectedly high level of effort and commitment by each of the teams. This was to build relationships and trust in order to consult, discuss and negotiate solutions with stakeholders who were often initially recalcitrant. In their own words, the process of stakeholder engagement and negotiation felt like “pushing a heavy truck,” or “hard work on a long boat voyage but with sharks in the water.”

While all five innovation journeys were triggered by political decisions to initiate organizational and/or service delivery reform through digitization, complying with regulations or developing new ones to support specific innovations was a major issue in all cases. This was because it was technically complex and the implementation teams had no direct influence over the higher-level political processes required to amend or create legislation.

The technology
In all five cases, the innovation teams sought to build bespoke technical solutions rather than modify existing products or systems. The preference for non-standard designs made each case susceptible to “uniqueness bias” in which the teams came to see their projects as unlike anything else in existence; this impeded their ability to learn from other existing digital initiatives. For example, all of the teams sought to introduce innovations that had been tried by other government agencies in whole or part in other contexts. Yet, none of the teams seriously explored the option of copying or borrowing existing solutions.

The process
In most of the cases, project scope and ambition evolved as understanding developed among teams and stakeholders about the wider potential of the innovations introduced. For example, in Abu Dhabi, HAAD’s task evolved from an initial goal of overcoming a backlog in the processing of health insurance claims and streamlining payments, to providing intelligence supporting the UAE public health system. Both in Italy and France, the goal of introducing digitisation to expedite and simplify payments to public entities and searching for jobs, evolved to creating more sophisticated services and to serving wider outcomes.

In all five cases, teams were committed to a specific project concept; for example a certain platform design, at an early stage, often in response to a high-level political desire or dictation.
It is arguable that this resulted in “lock-in” or “capture” that limited analysis of potentially better alternatives and which constrained teams from changing direction later on. This means that while the social and political environment warranted a high level of agility, "lock-in" to a specific design actually made the teams less agile. In fact, as the implementation process moved on, sometimes seemingly without an end in sight, the projects and their champions became hostages to one another – leaving teams to feel like they were on a long journey, a trip to a faraway land or a remote island, and sometimes lost on the way.

**The sentiment**

In all five cases, the innovation process was like a pendulum that moves between excitement and anxiety, and continuously prevents a state of stability from being reached within the teams. Small wins and progress drove up their sense of excitement, while setbacks brought down their mood. Notwithstanding the difficulties they encountered, a strong sense of resilience and pride was evident among all of the teams. They were proud of being part of something big and important despite the difficulties they endured. “A road in a beautiful landscape, but with holes” is how an Italian civil servant described his digital innovation journey. Like “facing storms,” said one Russian member of the digital innovation team, “like climbing a mountain, falling down and standing up again,” said another from the Basque Country, and “feeling rebellious for not being taken seriously,” said a member of the French team. All of which captures the rising sense of ambiguity among the teams half-way through the implementation journey as new expectations and demands emerge, all while the anxiety of going public with a new or redesigned service kicks in. It felt like “finding the way through fog,” said a member of the Pôle emploi team, and “like pieces of a puzzle put together and expanding piece by piece,” said another from the BiscayTIK team.

A “best day” occurs when progress is achieved by the individual or their team, while a “worst day” denotes a significant setback.
Appendix
## Appendix 1: The FTS journey

<table>
<thead>
<tr>
<th>Emergent Problem/Need</th>
<th>Journey Stages</th>
<th>Touch points</th>
<th>Emotional Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boosting Trust in Tax Authorities/</td>
<td>Cut the number of inspections</td>
<td>Set up the change team</td>
<td>Unamused</td>
</tr>
<tr>
<td>Fighting Corruption</td>
<td>Consolidate activities of directorate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Create a new standards for operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organize around specialized functions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Developing a IT System</td>
<td>Working with internal R&amp;D department</td>
<td>Inspired</td>
</tr>
<tr>
<td></td>
<td>Training staff on new system</td>
<td>Working with internal R&amp;D department</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The development of new Protocol documents</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mainstream new system and standards to reach a new stabilization level for the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>operation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Integration with existing system</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make continuous adjustments to the system as needs arise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003–2007</td>
<td>Re-launch purpose of changes</td>
<td>Organize an international conference in Moscow to signal new era</td>
<td>Unamused</td>
</tr>
<tr>
<td></td>
<td>Initiative necessary internal reform to accelerate change in the desired</td>
<td>Accelerate Digitalization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>direction.</td>
<td>Introducing e-Documents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Problem Scanning</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tech. upgrade</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creation of a single delivery unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010–2013</td>
<td>Make users feedback central to planning and evaluation.</td>
<td>Hiring new staff</td>
<td></td>
</tr>
<tr>
<td>Acceleration Efficiency Service Orientation</td>
<td>Engage with OECD Tax forum to learn from best practice</td>
<td>Working UX Specialists</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Track international trends in user orientation</td>
<td>Improving User Interface</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make every department track its customer satisfaction performance</td>
<td>Seek know-how providers</td>
<td></td>
</tr>
<tr>
<td>2013–2015</td>
<td>Making customer satisfaction an organizational culture</td>
<td>Make customer satisfaction an organizational culture</td>
<td></td>
</tr>
<tr>
<td>Customer Satisfaction Improved Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widened services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>Keeping up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making customer satisfaction an</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>organizational culture</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix 2: The HAAD journey

<table>
<thead>
<tr>
<th>Emergent Problem/Need</th>
<th>What is the innovator trying to do?</th>
<th>Journey Stages</th>
<th>Touch Points</th>
<th>Which department/Organization supports this touchpoint?</th>
<th>Emotional Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal Healthcare</td>
<td>Technology Platform</td>
<td>Regulation Development</td>
<td>Payers &amp; Providers</td>
<td>Strategy Department</td>
<td>Inspired</td>
</tr>
<tr>
<td>Clarity &amp; Disease Prevalence</td>
<td>E-Claims</td>
<td>Design &amp; Funding Model</td>
<td>Consulting Company</td>
<td>Strategy Department</td>
<td>Inspired</td>
</tr>
<tr>
<td>Capacity Issues</td>
<td>E-Claims</td>
<td>Going Live BETA</td>
<td>Single Hospital/ Tech-operation ADNIC</td>
<td>Strategy Department &amp; HSF</td>
<td>Rolled Eyes</td>
</tr>
<tr>
<td>Capacity Issues</td>
<td>Website Awareness</td>
<td>Incentives to Enroll, More Agencies/ Expansion</td>
<td>SEHA (Public Health Providers) &amp; Other Providers</td>
<td>Strategy Department &amp; HSF</td>
<td>Anxious</td>
</tr>
<tr>
<td>Health Intelligence</td>
<td>Intelligence &amp; Data Analysis</td>
<td>Hiring a company to do the Analysis</td>
<td>Data Warehousing Company</td>
<td>Strategy Department &amp; HSF</td>
<td>Angry</td>
</tr>
<tr>
<td>Health Intelligence</td>
<td>Data Consolidation</td>
<td>Re-contracting a new service provider</td>
<td>Newly Set-up Company</td>
<td>Strategy Department &amp; HSF</td>
<td>Smiling</td>
</tr>
<tr>
<td>E-Health Strategy</td>
<td>Data Consolidation</td>
<td>Reflection &amp; Evaluation</td>
<td>Executive Committee Review + Consultation</td>
<td>Strategy Department &amp; HSF</td>
<td>Anxious</td>
</tr>
<tr>
<td>E-Health Strategy</td>
<td>Data Consolidation</td>
<td>Merging &amp; Linking E-claims Data with Public Health Data</td>
<td>Public Health Division &amp; IT</td>
<td>Strategy Department</td>
<td>Relived</td>
</tr>
<tr>
<td>E-Health Strategy</td>
<td>Unrefined health Records</td>
<td>Developing Partnerships</td>
<td>PPP Partners</td>
<td>IT Department</td>
<td>Inspired</td>
</tr>
</tbody>
</table>
### Appendix 3: The BiscayTIK journey

<table>
<thead>
<tr>
<th>Emergent Problem/Need</th>
<th>What is the innovator trying to do?</th>
<th>Journey Stages</th>
<th>Touch Points</th>
<th>Which department/ Organization supports this touchpoint?</th>
<th>Emotional Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-services</td>
<td>Comply with law 11/2007</td>
<td>Study legal implications</td>
<td>Lawyers</td>
<td>Biscay political establishment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Establish foundation to support compliance to law 11/2007</td>
<td>Political establishment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>New core team</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support local councils</td>
<td>Provide information session &amp; presentations</td>
<td>Constitutions</td>
<td>Visits</td>
<td>Biscay TIK core team-Customer Support team</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inspired</td>
</tr>
<tr>
<td>Platform building</td>
<td>Develop the platform</td>
<td>Develop specifications</td>
<td>Ploting</td>
<td>Biscay TIK core team-Developer team</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Same providers didn't survive the 2008 down turn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inspired</td>
</tr>
<tr>
<td>Gamer buy-in from the councils</td>
<td>Ensure councils are onboard and committed</td>
<td>Harmonization of procedures</td>
<td>Councils</td>
<td>Biscay TIK core team-Customer Support team</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unamused</td>
</tr>
<tr>
<td>Implementation</td>
<td>Offer public services online</td>
<td>Legal compliance</td>
<td>Muncipal</td>
<td>Biscay TIK core team</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re-organization inside the councils</td>
<td>Councils</td>
<td></td>
<td>Rolled Eyes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re-designing &amp; improving procedures</td>
<td>Citizens</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>info &amp; awareness raising to citizens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modification &amp; Stabilization</td>
<td>Monitor and optimize the applications</td>
<td>New groups that are joining</td>
<td></td>
<td>Biscay TIK core team</td>
<td></td>
</tr>
<tr>
<td>Roll-out</td>
<td>Have a phased roll out for enhance ment monitoring</td>
<td>Ongoing support to the councils</td>
<td></td>
<td>Biscay TIK core team</td>
<td></td>
</tr>
<tr>
<td>EU Law 2015</td>
<td>Comply with new EU regulations</td>
<td>Study new requirements</td>
<td>Layers</td>
<td>Biscay TIK core team</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plan for change/integration</td>
<td>Political establishment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Develop new specifications</td>
<td>Basicay TIK core team</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implement</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Appendix 4: The PagoPA journey

<table>
<thead>
<tr>
<th>Emergent Problem/Need</th>
<th>What is the Innovator trying to do?</th>
<th>Journey Stages</th>
<th>Touchpoints</th>
<th>Which Department/Organization supports this touchpoint?</th>
<th>Emotional Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making payments easier</td>
<td>Adopting EU standards</td>
<td>Invite public administration entities, banks and trading associations to adopt the standards</td>
<td>Negotiators</td>
<td>▶ Associations &lt;br&gt;▶ Companies (service providers) &lt;br&gt;▶ Regional government</td>
<td>Preserving</td>
</tr>
<tr>
<td>The will &amp; capacity to implement Pago PA</td>
<td>Produce acceptable solutions</td>
<td>Reading market solutions from suppliers</td>
<td>Smiling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve primary Legislation &amp; Regulations</td>
<td>Simplify and clarify</td>
<td>Refining the code</td>
<td>Relived</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engage major service providers</td>
<td>Improve the User-experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passing the Commissioner’s assessment</td>
<td>Digitalize all payments</td>
<td>Developing the plan &amp; monitor the system</td>
<td>Ongoing improvement with team stakeholders, service providers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working on feedback form the Commissioner’s assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 year action plan for Pago PA to digitize Government payments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expansion &amp; Enhancement</td>
<td>Evolution of the system</td>
<td>New EU regulations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Innovator trying to do?}

Journey Stages

Touchpoints

Which Department/Organization supports this touchpoint?

Emotional Status

- Preserving
- Smiling
- Relived
- Grinning

*Appendix 4: The PagoPA journey*
## Appendix 5: The Pole Emploi journey

<table>
<thead>
<tr>
<th>Emergent Problem/Need</th>
<th>What is the innovator trying to do?</th>
<th>Journey Stages</th>
<th>Touch Points</th>
<th>Which department/ Organization supports this touchpoint?</th>
<th>Emotional Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under-supply of service</td>
<td>• Making the Existing process more efficient • User needs discovery</td>
<td>• Bottom-up design approach • Interactive website with counselors</td>
<td>External suppliers</td>
<td>IT/Innovation/ Strategy/Digital/ Prime Minister</td>
<td>Inspired</td>
</tr>
<tr>
<td>Reaching out to Stakeholders</td>
<td>Preparing for other services</td>
<td>Site visits</td>
<td>Job boards &amp; the Association of job boards</td>
<td>• Decentralised regions managing ideas • Budget to develop new ideas</td>
<td>Perserving</td>
</tr>
<tr>
<td>Limited services supply</td>
<td>Digital channels</td>
<td>CEO as sponsor of input driven Approach</td>
<td>Internal ideas Generation</td>
<td>Enterprise IT</td>
<td></td>
</tr>
<tr>
<td>Consolidation of different projects</td>
<td>Launch Employ Store</td>
<td>• Expanding the offer and access • entrepreneurship</td>
<td>Branding and comms</td>
<td>Digital team Internal startups</td>
<td></td>
</tr>
<tr>
<td>Services expansion through data</td>
<td>Open data</td>
<td>• Work with startups • Become a platform for digital innovation</td>
<td>Open innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalisation of data using open data &amp; algorithms</td>
<td>Personalized services</td>
<td>• Personalize services • Use of avatars • Search engine</td>
<td>Built internally</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emotional Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smiling</td>
</tr>
<tr>
<td>Crying</td>
</tr>
<tr>
<td>Perserving</td>
</tr>
<tr>
<td>Surprised</td>
</tr>
<tr>
<td>Disappointed</td>
</tr>
<tr>
<td>Inspired</td>
</tr>
</tbody>
</table>
References


