Trends in Digital Government

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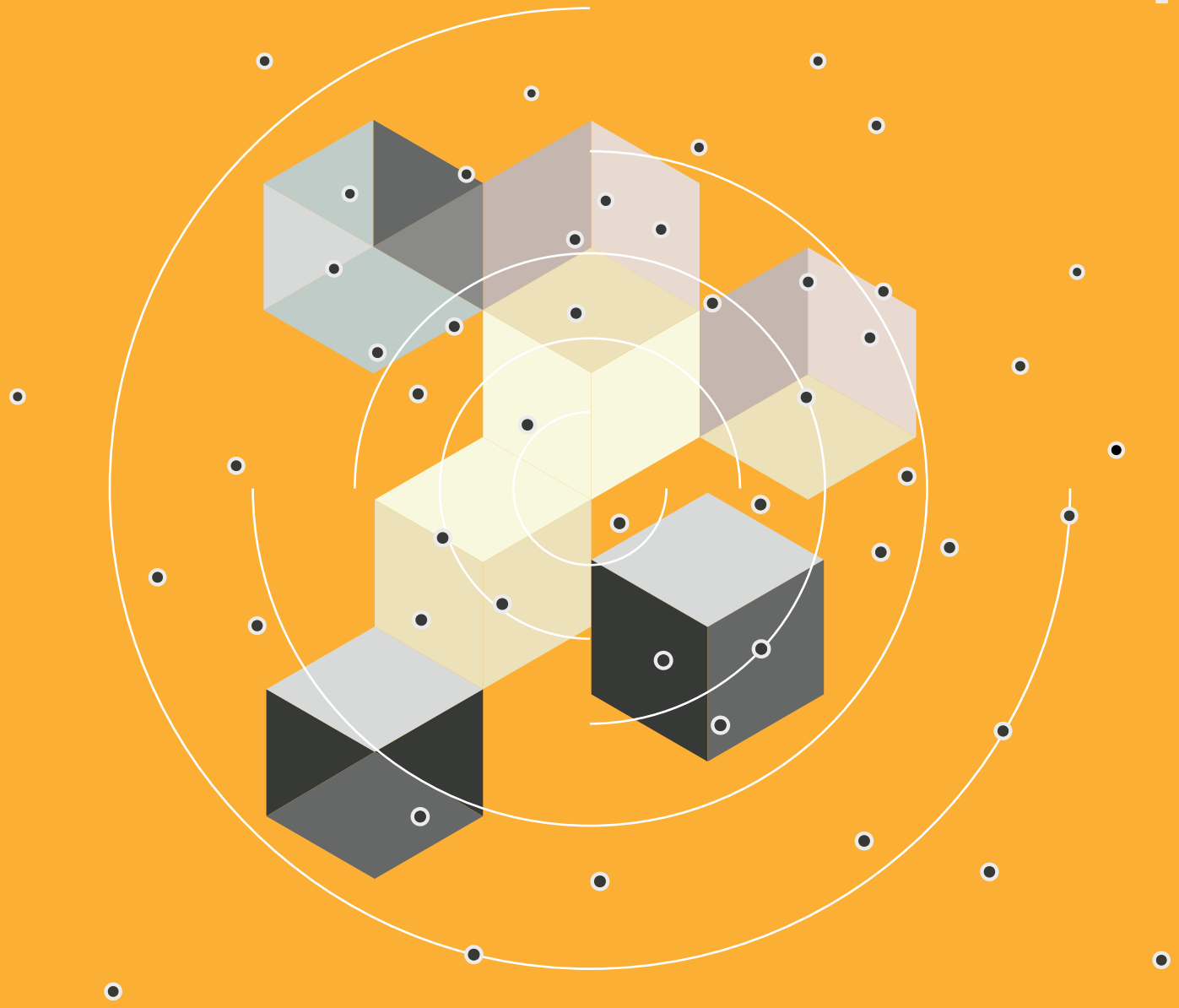

HOW TO ACHIEVE AND SUSTAIN GOVERNMENT DIGITAL TRANSFORMATION

Mike Bracken · Andrew Greenway

IDB

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Introduction

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The digital revolution, greater connectivity and the expanding availability of devices are increasing demand for digital services. Digitally enabled and hyper-connected citizens are demanding more and better services from their governments. Governments, however, have been rather slow in incorporating digital technologies into their delivery processes, let alone in opening fully transactional online services that allow citizens to deal with government without ever stepping outside of their homes or offices. Governments need to rethink the way they deliver public services.

The transformation of the state needs to go beyond digitalising existing bureaucratic processes to rethinking service delivery. In other words, transitioning from electronic government to digital government. A digital government can contribute to finding new approaches and strategies to serve its citizens. To make this happen, governments need to take advantage of the potential of technology to offer better services using a citizen-centred approach. This implies thinking beyond introducing digital technologies and reorganizing skills, regulations, responsibilities and processes to building a strong digital ecosystem that is resilient to political change.

Although Latin American and the Caribbean countries are actively implementing digital initiatives and using technology to enhance service delivery, few are designing institutional arrangements and whole-of-government strategies to make them sustainable over the longer term, in a fast-paced tech environment. They still depend on internal and often informal arrangements and individuals that inevitably change. Thus, in some cases, sustaining these initiatives beyond the political cycle is an issue.

As new governments assume office in the region, it is an opportune time to rethink approaches to mainstream digital government and devise cross-cutting digital transformation

strategies with the necessary political pulse and long-term vision. In this report, Mike Bracken and Andrew Greenway, co-founders of the United Kingdom Government Digital Service (UK GDS) share the lessons they have learnt and how to deal with the challenges of building digital government. They are practitioners and pioneers, their insights are very valuable and their perspectives are applicable to many other contexts.

We hope this publication encourages government leaders to think through their approaches to the digital transformation of government and allows public servants to address the challenge of making a strong, resilient and successful digital team that delivers quality services to citizens. This publication is part of a broader research and knowledge agenda of the Innovations in Citizen Services of the Inter-American Development Bank on the digital transformation of government in Latin America and the Caribbean.

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Introduction

Digital government is rapidly gathering global momentum as an effective way for nations and regions to increase their administrative efficiency, develop resilience and deliver simpler, clearer and better services for their citizens and businesses. This report will summarise the conditions and context needed to make government digital teams succeed and be sustained across different administrations.

This work was commissioned by the Inter-American Development Bank (IDB) from Public Digital, a consultancy made up of the founding members of the UK Government Digital Service. Public Digital was founded in Autumn 2015, and has partnered with governments and large businesses based in over 20 countries to help them successfully deliver digital transformation at scale.

The findings in this report are split into three parts. The first explores the conditions needed to establish a digital team. The second looks at the conditions required to make that team successful. The third concludes with the conditions required to help that team sustain as an institution across different political administrations.

Many of the conditions considered in this report, such as team design, capability, reporting and governance, HR and procurement practices, official-level leadership and political alignment, are present at all three stages. Successful digital institutions are like successful digital services; they iteratively evolve and adapt to changing needs and circumstances. The only guarantee of failure for a digital institution is that it remains static, particularly as the context - political, official, technological and social - changes around it.

In our experience of e-Government and digital transformation around the world, the most effective institutions are those best able to manage the delicate balance of responding with the necessary flexibility and agility to change, while creating

the structures and processes that enable teams to achieve transformation at scale. The right balance will change as the digital team and the administration it operates within matures.

There is no single institutional model for digital transformation that works. Different countries have organised skills and accountabilities in a variety of different ways. The common theme among all of the most successful is their instinct for avoiding a particular form of hierarchy or chain of command as an organising principle. In traditional government institutions, one discipline - usually policy, finance or economics - consistently rises to the top. This often leaves the senior managers in those institutions too similar in their perspectives when it comes to addressing public problems or opportunities. This lack of diversity at the executive level of many institutions, public and private, is often what leaves them most vulnerable to the kind of rapid technological and social changes brought about by the rise of the Internet.

The solution that has been most successful in helping governments and large corporations adapt to the rise of digital is not to replace their existing expertise and leadership with an entirely new set of skills and attitudes. It is about returning some balance to the way by which the organisations think through challenges and solutions. Pairing design with policy, and qualitative user research with economic modelling, for example, has enabled governments to come to a more considered and empathetic view of the complex and uncertain world that confronts them.

The best digital teams working in governments today are those that have been most successful in introducing (or sometimes re-introducing) skills and attitudes that have been long forgotten as being a part of what the public sector should do. Reconstituting these professions and perspectives in a way that does not come across as politicised or gimmickry is the secret to achieving long-term changes in bureaucratic culture. This report explains how to begin.

Establishing a digital team

It is easy to assume that the best place to start for governments embarking on a digital agenda is to simply set up a new team that copies the capabilities and culture of those who have enjoyed success. In fact, going straight to this point is likely to lead to disappointment. Before launching successful digital teams in governments, most administrations have found that they needed four things.

1.1. A crisis

Bureaucratic reform is a difficult topic to build up momentum and political pressure behind. It is usually too complicated, technocratic, and nuanced to build a popular demand for. This is not always true; elections and changes in administration can present opportunities for positive change. Nonetheless, the best opportunities to embrace digital reform of government tend to be reactive, rather than proactive.

The nature of the crisis that creates a window for digital transformation can vary hugely. In Estonia in the late 1990s, the nation was newly emerging from a Soviet past that left very little administrative infrastructure behind. In the UK in the late 2000s, the country was emerging from a major recession and needed to reduce a substantial fiscal deficit.

While the overall political context may be different, the nature of the specific crisis turning your focus to building a new digital institution will almost certainly have a technology element to it.

In particular, they tend to come in response to a failure of 'Big IT'; huge, expensive and outsourced projects led by large technology suppliers. High profile IT system failures, such as Healthcare.gov in the US,[1] the NHS Programme for IT in the UK,[2] or Shared Service Canada's infrastructure collapse [3] affecting the collection of national statistics, all acted as wake-up calls clearly pointing at inadequacies in the prevailing orthodoxy of government technology.

Different types of technology crisis can occur; the delay of a flagship policy programme caused by the failure of Big IT to deliver on time or on budget, major public services or internal systems being hit by ransomware or other cyber attacks, websites crashing under volume of traffic in the event of national emergencies.

Technology crises in government are increasingly inseparable from crises of political legitimacy and competence. Failures in IT are not simply economic, they often leave thousands or even millions of people disadvantaged, disenchanted, or even at real personal risk as a result of organisational failings.

In many cases, the crises that precipitate political focus on digital reform do not always come as a shock to the public officials and ministers working within the bureaucratic system. While the consequences are often not public, the inefficiency and cost of old technology has become an open secret within the government itself. The worst response a government can make to this crisis is to believe that the problem is a lack of funding for technology. Focusing on IT spending, an output of government, rather than policy outcomes users actually need, is arguably the worst possible response to a crisis. It remains common, however,

1 https://www.theatlantic.com/politics/archive/2014/07/obamacare-website-has-cost-840-million/440478/
2 https://www.theguardian.com/society/2013/sep/18/nhs-records-system-10bn
3 http://www.cbc.ca/news/politics/ssc-shared-services-canada-foote-1.3686029

because it is (relatively) easy for governments to do, and gives the impression of political responsiveness. In our experience, we have found no correlation whatsoever between buying more IT and improved public services in any economy.

1.2. Political leadership for institutional reform

It is a rare politician who comes into the office with strong ambitions to change the machinery that now surrounds them. Most political figures tend to run because they have a particular set of policy objectives they want to achieve. These objectives are more important to politicians than the methods by which they achieve them. In many countries, politicians are actively discouraged from taking a strong interest in their bureaucracy, with a formal split put in place between the political and official worlds. The minister will tell the public servant what he or she wants, and the public servant will make that happen in whatever way they believe is most likely to succeed.

There are some very good arguments for avoiding this politicisation of public life. However, the preservation of an apolitical perspective in public service is not incompatible with innovation and change. Without external pressure acting on the bureaucracy to respond to forces like digital transformation, some officials inevitably fall into patterns that are protective of the status quo. This is does not always lead to good outcomes for the country's citizens.

To make digital transformation successful, a country needs a political sponsor for the project who is motivated by the challenge of changing the incentives that influence the behaviour of a bureaucracy, and has sufficient integrity to not be led by self-interested or political aims.

The ideal candidate will be willing to invest most of their political influence and energy on reforming government, rather than policy objectives. For this reason, the best political champions of reform tend to be senior, experienced figures, with 'less to prove'. They will have good, and preferably close relationships with figures at the very highest levels of the government. This generally means they have had a relatively long and successful career, and have sufficient political strength to win difficult arguments with their colleagues.

While still politically active, the ideal sponsor knows full well that public service reform is no vote winner. However, they also know that if they wish to achieve anything with significant personal and political impact - the reason they got into their difficult jobs in the first place - they need to come to grips with means as much as ends. To take on the hard task of changing government demands someone who understands the high cost of leaving the status quo alone. The most successful champions of digital transformation are often (but not exclusively) ministers who have served in two or more different administrations.

The ideal political sponsor will also hold a ministerial position in a department that can legitimately exert influence over a wide range of government business. This generally means they will be in a central department with a transversal mandate, often a finance ministry. This gives them a fulcrum to intervene in the affairs of other departments; hence their sponsor's need to be a politically strong figure. There is also an argument to say that the political sponsor should not be too senior. Delivering change in the face of inertia takes a lot of time and energy as well as political capital. Presidents and Prime Ministers who need to spread their resources over a very wide field will struggle to devote the time required; digital agendas too closely associated with a specific executive may also struggle to endure when the individual moves on.

Examples of successful political sponsors of digital transformation include Francis Maude, who was essential to the success of the

UK's Government Digital Service, Scott Brison and Deb Matthews in Canada, and Malcolm Turnbull in Australia during his tenure as Minister for Communications.

1.3. Strong local capability

It is impossible to achieve digital reform of a government without changing the people who work in it. The Internet-era digital and technology skills government needs to run basic services simply no longer exist in many areas of public life. At best they are found in small, isolated and disempowered pockets. Some may be employed by suppliers engaged by a department to cover the gap. More often than not, they just aren't there.

Before a country can really begin on a journey of digital transformation, it needs to find those people. In the months preparing to set up a new digital institution, this does not need to be a large number of people. An excellent product manager, a two or three developers and designers, and two user researchers and analysts will get you off to a strong start. Excellent descriptions for what these roles do can be found in the UK government's service design manual. Most successful digital teams have begun in government with no more than 10 people devoted to them full-time; but crucially, a significant proportion of these have always been technically - skilled 'builders', not just generalist officials. We will talk more about the skills needed for a successful digital institution in Part II.

Finding the right talent is harder to achieve in some countries than others, but it is extremely rare that there are no skills available at all. People with the right ability and attitude are inevitably found somewhere in the local job market. Skilled coders can be found gathering at civic technology meetups (such as Product Tank), or talking on social media. A well-qualified diaspora working in other

nations can often be tempted back by the opportunity to deliver something for the public good in their home country.

1.4. Setting a mission and a goal

The disadvantage of presenting digital transformation as the solution to a crisis is the danger of scope creep. If you pull one thread of government, a hundred things begin to unravel. The interdependence of problems in public service makes it very easy for people to put forward objections or delays.

There is only one response to these kinds of objection, and it is an uncomfortable one for public servants. If you want to deliver change, it is imperative you set a single, clear goal of something you will deliver, preferably by a specific date. Descope the initial ambition of digital transformation to fit with reality. In the UK, this was the new GOV.UK website. Getting GOV.UK done on time required the team to ignore many other requests and come up with temporary solutions to deep structural problems, until such time that the organisation was ready to have those conversations.

The initial goal you set does not have to be the same as your mission. In fact, it is often better if it is not. The ultimate aim of digital transformation may be to save millions of dollars, improve public services for users, and transform government. That is what inspires a political leader and attracts a strong team. However, the digital team's initial goal should stick to something smaller, tangible, realistic, low-risk. It should nonetheless be strikingly different from what is 'normal for government'.

It is important that this goal should have cross-party support. Picking an area that is a political battleground, or that confers credit or

blame solely to one political clan, creates an unnecessary risk to making the change you want to achieve be sustainable over the long term. The right kind of political sponsor will support this strategy. The launch of a good national website on time and on budget is exactly the kind of pleasant surprise you want to create. Failing on a hopeful promise to fix all the government's IT problems is not.

An early challenge for a new digital team in government will be to prove that it can deliver something that works on the web far quicker than public servants have ever been able to before. This is a relatively low bar. The goal should really be to produce something that is not just a little bit more timely and attractive, but an order of magnitude faster, more beautiful and of genuine value to users.

Producing working code must be a far higher priority than writing strategy papers that explain what you're up to, defining your organisational structure or getting your office space just so. All these things are important, but secondary. Other teams in government have proved themselves perfectly capable of doing those things. They haven't put working prototype digital services in front of citizens in a few weeks, tested them, and made them better based on user feedback. If a digital team cannot do this either, there's not much point in them being there.

When we say quick, we mean weeks, not years. A working alpha version of GOV.UK was built and launched to a public audience in 13 weeks. The UK's e-petitions service went live having been delivered from scratch in 11 weeks to a hard deadline set by Parliament. The Peru governments' beta site, GOB.PE, went from drawing board to public beta in less than 4 months. Those services were not completely finished; all are still being iteratively improved today. All began small, simple, clearly designed and user tested. They were good, rather than perfect, and got better.

As a digital team, you should always have certain questions in mind when selecting early projects:

- How many people will this benefit, and how much?
- Is this solving a problem common across the government?
- How institutionally complex is it?
- Is it a new service or building on existing services?

These four things are not an exhaustive list of conditions to give you the best chance of starting a successful digital team in government. Finding like-minded people in parliament and the press, economic pressures on the government to change direction, and a digitally literate private sector are also a real help. Without these four things in place, however, even getting started with digital transformation is formidably hard. It is better to take the time to ensure these are in place than rush to begin without them.

1.5. Summary

• The primary challenge of digital transformation is to overcome inertia. Crises - economic, political, social or institutional - offer an opportunity to do that.

• No new digital institution or agenda can succeed without a strong political sponsor, excellent people, a clear mission and a deliverable goal.

• It is far better to invest time and effort in creating these conditions for success first rather than rushing to launch a new digital team that has no realistic chance of achieving its goals.

• Focusing on delivering quick wins that build momentum and acquire political capital is more likely to build a lasting mandate that can later be used to tackle more lengthy and complex problems.

Succeeding as a digital team

Having created the conditions that a new digital team can successfully work in, the institution now needs to establish credibility with colleagues, ministers and the public. The strongest way to establish this credibility is through successful delivery; building digital products and services that are demonstrably simpler, cheaper and better than what preceded them. Building that reputation for delivery requires several conditions to be in place.

Working out exactly where to start is not easy for a new digital team. There are three big challenges any government about to embark on a digital overhaul will face. The first is that they will be expected to start by fixing whatever crisis precipitated their arrival in the first place. While that seems sensible, the crisis that created the space for digital transformation is often just a symptom of deeper structural problems. Solving the

immediate crisis will provide some clues as to what those issues are, but is also likely to be a dirty, lengthy and very difficult process, with no guarantee of success. New digital teams should be very wary of allowing their focus to be drawn towards remedial work; this will distract them from demonstrating the new ways of working expected of digital public institutions.

The second problem is that many officials will believe that they have seen this all before. Officials learn that most ministerial enthusiasms and fashions have a short shelf-life, and simply wait for the initial momentum for reform to fade. Meanwhile, anybody joining the public service bearing promises of 'change - and for real this time' is likely to be greeted with caution, if not outright cynicism. Change fatigue is a common problem; that sense of exhaustion experienced when an organisation is always transforming but not getting any better.

The third challenge for new digital teams is being greeted with a vast set of problems that seem to need fixing right away. Security issues may be endemic, significant vendor contract renewals are arriving or already overdue, good employees are poised to walk out the door. Coming in as a new team charged with reform, it takes a great deal of discipline to resist getting involved in all these challenges. In some cases, tackling some of the urgent issues is essential. Often, however, allowing some elements of the status quo to continue can be a wise tactical move. Many of the problems with government IT will have been true for some time before a new digital institution starts work, often for several years. It is important to resist the cry of false urgency.

2.1. Setting out principles

The most successful way for a digital team to avoid falling into these early traps is to set itself a clear philosophy and approach based around meeting user needs. One of the first tasks a new team attempting digital transformation of government should set itself is creating a set of working principles that codify its approach to working. This approach should be one that is user centred, multidisciplinary and based on constant iterative improvement.

In the UK, one of the first things that GDS published was the Design Principles. There were 10.


1
Start with user needs
2
Do less
3
Design with data
4
Do the hard work to make it simple
5
Iterate. Then iterate again
6
This is for everyone
7
Understand context
8
Build digital services, not websites
9
Be consistent, not uniform
10
Make things open: it makes things better

Many governments - the US, Canada, Australia, New Zealand - have since adopted something very similar to the Design Principles, and they have been endorsed by the World Bank, [4] among others.

There are several reasons to publish a set of design principles. The most important is to start capturing a new approach that can work at scale for the whole of your government.

Choosing the word ‘design’ to accompany the principles has important implications. Designing and delivering services are often tasks that government institutions have not done themselves, with their own staff, for a long time. They have been outsourced - tasks that public servants pay companies to do on the government’s behalf. Many bureaucracies have instead tended to focus on some version of ‘commissioning’ or ‘tendering’ for services.

By giving companies responsibility for designing and delivering public services, governments believe they passed the responsibility - and therefore the risk - on to them. However, in technology projects, the reality has often been that the political fallout of failure has reflected directly back on the politicians, not the companies. Framing a digital team’s principles as design-led represents a statement; taking some control and responsibility for delivery back into public institutions. That does not mean government will bring all digital and technology work back in house. It means governments begin rebuilding some in-house delivery experience, and becoming more aware, intelligent buyers of technology services from the market.

Principles can be very powerful. It is important to be aware of their potential consequences. Distilling the way you work down into a handful of very short statements makes it easier to explain and enthuse about building a digital culture across government at scale. There are many advantages to making it easy for those messages

[4] http://blogs.worldbank.org/ic4d/why-world-bank-endorses-principles-digital-development

to filter through huge organisations. However, the reality of delivering in government is invariably messier than those messages reveal. Those involved in drafting them at the outset must be clear that these principles have to be combined with pragmatism. The most important principle for any digital team should be to break any of these rules sooner than do anything barbarous.

2.2. Team structure

Most governments are full of talented generalist public servants. Policy polymaths are multidisciplinary individuals. They write well, feel comfortable with numbers, and are economically and historically literate. The best of them can turn their head to most problems. However, public service relies only on brilliant generalists at their peril. Over dependence on their abilities creates problems. An organising principle based on individual generalists becomes dangerous when leaders see and frame problems through the same lens. Groupthink becomes a real risk, while making breaks from the norm become a painful (and potentially costly) career decision.

Many of the skills needed for digital transformation of government are not new. Some governments have a long and proud history in design and technology. Unfortunately, as these skills are outsourced, knowledge bleeds out of the institution, with public bodies becoming progressively less well informed buyers or hirers of specialists.

Part of building a successful digital institution means introducing - or reintroducing - specialist skills into an organisation that has lost them, and forgotten how to manage or arrange them. Having acquired them, the next crucial step is putting those specialists into agile, multidisciplinary teams, working together with generalists towards a shared goal, service or product. In digital government, the unit of delivery must be the team, not the individual.

In the UK, the digital team grew rapidly, from 30 to 180 people in its first 18 months, to nearly 400 two years after that. From our experience in other countries, a team of 150 - 200 people is a good benchmark for a capacity that allows for teams focused on the delivery of good digital services while others create the institutional conditions to move faster.

Your first digital products will define the trajectory of your digital institution and what it does. Your first digital team will therefore define the working culture and how things are done. All successful versions of these teams include certain hires.

Depending on the project and the individuals you find, some of these roles can be conflated in the very earliest stages. One person can double up as Product and Delivery Manager, for example, or a designer can also act as a front-end developer. Dual roles cannot be sustained for long. Most of these early hires will be the first people known by their job title in the organisation. They will effectively define that role.

For the latter, as well as digital specialists, you will need generalists who have a deep understanding of the bureaucracy and institutions they are working within. Getting things done in large public institutions requires a special blend of dogged determination and skill. It means knowing the unwritten rules. The longevity of government produces great inertia. Any successful digital team needs skilled bureaucrats who are able to navigate this challenging environment, removing blockers to the delivery teams' ability to ship working services.

The best candidates for these roles are intelligent, experienced public servants who have worked for the institution long enough to understand the weaknesses, and are passionate enough to challenge them. They will understand how decisions get made, how to set up appropriate governance, and how the formal papers should be written.

They will know where to call on expertise from elsewhere in the public service. They know how to engage ministers and their offices.

It is crucial to combine these skills with digital expertise in a single team with a shared objective, rather than maintain separate, loosely - joined teams of specialists.

Finally, the digital specialists and dedicated generalists will need a strong leader. This role - usually titled as Chief Digital Officer (CDO) - is that of disruptor-in-chief. Even for an incumbent with an incredibly strong personality, that task is not an easy one. To succeed requires them to openly ask uncomfortable questions about the expectations of an organisation they have already forged a relatively long and successful career in. To some extent, they need to challenge the legitimacy of their own path to win seniority and trust. All CDOs must have the right to ask what seem to be very obvious questions of the government they are working in. Having a clear, open-minded impression of the organisation they are joining is an essential prerequisite for any new senior leader. However, the CDO must combine their lack of prejudice with a very clear vision for how the organisation should change. The risk of being open-minded and pragmatic to a fault is that the strong culture of a government will envelope them entirely.

The best candidates for the role are not necessarily those who have cut their management teeth in digitally native organisations: companies like Google and Amazon that were created during the Internet-era. Those candidates may have only ever worked in a culture responsive to the new expectations that the web has set for consumers, citizens and employees alike. Digital natives will not have had to challenge legacy practices and technologies. The leaders likely to most flourish in transforming government will therefore be of the Internet-era, but understand what is required to change the direction of an organisation operating with significant amounts of technological and human legacy.

Good CDOs should also be technologically literate. They are able to explain what actually happens when you click on a hyperlink, and what API stands for. They will also espouse Internet-era working practices - agile teams, iterative development, light-touch governance - and visibly back their staff to stick by them when times get tough.

2.3. Choosing the right exemplar projects

With a fledgling new digital institution now taking shape, its focus must turn to shipping products and services that meet user needs and are sufficiently integral to what the organisation does on a daily basis for it to matter.

In the UK, the initial proving ground for the Government Digital Service was two services. GOV.UK, a website for publishing information that would replace the 2,000-plus separate websites managed by the government with a single domain, and e-petitions, an entirely new service commissioned by Parliament to allow any UK citizen to submit a formal petition. There were three factors that made these strong candidates as early exemplars.

Greenfield

One of the things digital exemplar projects need to be able to demonstrate is pace. The great advantage of choosing 'greenfield' services - those without legal precedent or previous attempts - is that they have few connections to other bits of government business. Greenfield services have no legacy technology to worry about, no other teams in government who claim responsibility for doing something similar already, and no accretion of laws or regulations to be aware of. Having a blank sheet of paper allows teams to move far more quickly.

With a greenfield service, digital teams can focus all of their energies on testing assumptions and coming up with the best possible answer to meeting the user needs, rather than delicately balancing stakeholder views within government.

Simplicity

Simplicity is a rare quality in government, but an essential one. A new digital team must not embark on a wholescale reform of the welfare system or setting up a fully electronic driving licence as a first project. Grand plans carry great risk and cost, and often fail. A good place to find small, simple exemplars to tackle is the small tasks where the government's current web estate is forcing public officials or the market to resort to inefficient workarounds. One of the first mini-services created on GOV.UK was a page that showed when the next national bank holiday was. It was easy, searched for millions of times a year, and there wasn't a single, easily - found official answer anywhere on the web.

Visibility

The great advantage of doing something that is technically and intellectually simple is that it should be quite difficult to get wrong. The prevailing expectation most people have of government online services is that they will be terrible experiences, if they work at all. This gives the digital team a very low bar to clear. With a low risk of failure, you can comfortably ratchet up the number of people who will be exposed to the new service you build without too much risk.

To get a sense of just how visible a service will be, you will need access to data. The web traffic logs on existing government websites should give an indication of where to focus attention, as will call centre data.

2.4. Reporting and governance

Establishing strong relationships between the digital team and the departments it works closely with is essential to making transformation work at scale. In order to avoid this kind of stakeholder management becoming a huge drain on time and effort, the digital team needs to establish a governance structure that creates a group of senior, empowered departmental digital leaders.

Even if just for practical reasons, corralling a group of people who are empowered to represent all the various parts of the complete organisation keeps the number of conversations the digital team has to have at a manageable number.

Good candidates for this first group of digital leaders are people one step away from board-level in their department; senior enough to carry their organisation's view, but not so far up in the gods they're unlikely to turn up to the meetings. In the first year of transformation, the department's digital leader tends to be a self-selecting position; if they're curious and optimistic enough to take on the role, they're likely to be a decent candidate.

In the UK, the Digital Leaders group met monthly. It was clearly positioned as a decision-making body, not a discussion group. Digital leaders, representing all the constituent parts of a government, were responsible for arriving at collective agreement to the government's digital strategy between themselves at official level, recommending it to their respective ministers. This collegiate approach strengthens digital transformation by bringing coherency across government to how departments handle supplier relationships, HR policies and design standards, among other issues.

The value of setting up a Digital Leaders group was two-fold. Not only did it create a single decision-making body for digital issues

that had representatives from right across the organisation, it also provided a licence for shutting down the plethora of digital and technology boards and meetings that had proliferated all over government. A good general rule for a digital institution operating in government is never start up a new board without shutting down at least two existing meetings.

2.5. Open communication

All too often in government, thought is only given to communication with the outside world right at the end of the policymaking process. A good digital team should ensure open communication from the outset to explain what it is doing, and use Internet-era tools to do it.

The biggest challenge facing any new digital institution set within a huge organisation - government or otherwise - is explaining what it is doing, how and why. To succeed, it must communicate this on a grand scale, leaving potentially hundreds of thousands of people in no ambiguity about the intentions and vision you have. Government is full of great writers; elegant constructors of the white paper and legislative amendment. These logical, structured outputs aren't designed to transmit at scale.

The default position for a digital team working anywhere - but especially in government - should be to publish what it is up to. One of GDS' first acts was to set up a blog for the team to explain their progress on building GOV.UK for all to see and comment on. Blogging and social media is not additive to a traditional communications approach; it is there to largely replace it. Openness needs to be the default across the digital team. The blog is where digital institutions put their news, admit mistakes and celebrate successes. If people

want to know what is going on in the digital institution, be they colleague, journalist, or just interested member of the public, they go to the blog to find out.

Everyone in the digital team, be they developer, researcher, designer or leader, is expected to contribute to the flow of communication. To some, it will feel like a distraction from the daily business of shipping products. Imposing the discipline needed to openly communicate about how a product is developing can feel painful and distracting, but it is an excellent indicator of the team's health. If a digital team cannot write clearly about what it is trying to do, then there are probably some bigger questions the team needs to face up to.

2.6. Summary

· Set clear principles to establish what the digital team will do, and how it will do it.
· Build a multidisciplinary team of digital specialists and skilled generalists, led by an Internet-era Chief Digital Officer.
· Pick digital exemplar projects that are relatively simple, visible and greenfield.
· Create a group of empowered, departmental digital leaders to coordinate cross-government effort.
· Communicate throughout delivery, in the open, using digital tools.

Sustaining a digital team

Digital transformation is an agenda that requires several years to embed within a government bureaucracy. The changes involved - in terms of culture, process and personnel - all represent major shifts in perspective from what has gone before. It is also a task that is never finished; the organisation going through digital transformation will be making a constant series of small steps towards better user-centred outcomes and greater efficiency.

Without careful planning, government organisations are prone to relapsing into past habits. Political changes can also disrupt the momentum behind a successful digital institution. Keeping digital transformation as largely technocratic and politically neutral agenda is a necessary element of mitigating this risk, but not sufficient. To embed sustainable digital change within public institutions, the digital team must challenge the basic framework of incentives that shape the behaviour of public officials. The focus of a digital team over time oscillates

between creating the conditions to do the right thing, and using those conditions to actually deliver improved experiences for users. The more ambitious and transformative you become, the more conditions you need to put in place to have a chance of realising bigger benefits.

The first set of conditions that a new digital team needs to put in place, set out in Part II, are largely about making sure that a new kind of organisation, capable of agile, user-centred delivery, could be transplanted into a large bureaucracy without experiencing cultural tissue rejection. After putting those in place, digital teams can successfully deliver a certain kind of digital product or service. The best exemplars are small, low-risk and greenfield products that could exist and thrive independently from the legacies attached to the bigger bureaucracy.

However, for digital transformation to sustain and redesign services that are deeply embedded within the government

bureaucracy, these conditions are not enough because they do not enable a broad transformation of the whole business. Creating the environment for this kind of change to happen requires the digital team to acquire a new mandate, and win a new set of arguments. Part III sets out these conditions.

3.1. Organisational alignment

If the digital team has reached the stage of delivering greenfield products and services relatively easily but is floundering when faced with legacy, it is time to put in place a stronger mandate that aligns the whole organisation behind digital transformation.

Mandates vary in two ways. They can operate through a different mix of powers; some combination of soft (via influence, personal relationships, exchanges of favours) and hard levers (controls, rules, spending limits). They can also vary according to the range of issues that the mandate covers; recruitment, money, technology choices, laws, and so on. The central mandate your digital institution needs depends entirely on the organisational context you happen to be operating in.

Deciding the right balance of hard and soft power is a choice that you can shape according to the organisation around you. The scope of your mandate - the areas of the business that you get the right to shape and guide - should be determined by what is blocking delivery. Again, this will vary between governments.

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There are at least three areas that always require a high degree of organisational alignment in order for digital transformation to succeed.

Information technology (IT)

Digital and IT often have as troubled relationship. There are three common reasons for this: misunderstanding, mythology and contracts.

Misunderstanding may creep in as aconsequence of your bureaucracy believing digital is just another way of doing IT. Many IT teams in big organisations have got used to there being little understanding of what they do, especially at a senior level. By bringing technical skills back into the organisation - people who can ask the right questions of IT - digital teams appear to pose a threat to existing IT functions. This is not a good place from which to begin a healthy working relationship.

IT is often used as an excuse for why government online services are so poor. Officials blame old and inflexible back-end systems for the poor user experience. IT security is often used as an excuse for why services or processes cannot be changed. At their worst, IT myths actually lead to organisations taking on bigger risks - forced to rely on unusable old technology at work for fear of being hacked, staff eventually turn to unsecured personal devices to get things done.

Furthermore, as a consequence of outsourcing, many IT teams in big organisations have been captured by suppliers. Denuded

of their own technical capabilities they have been reduced to the role of contract managers. Without the skills needed to properly interrogate suppliers' offerings, they buy inflexible, expensive systems. All this is anathema to designing and running decent digital services.

It is almost impossible to redesign or transform a digital service without tying it back in some way to the legacy IT. To have a chance of success, a digital mandate must make it possible to stop poorly conceived, hugely expensive and long IT contracts from being let go. It must also ensure people with genuine technical knowledge are given the opportunity to interrogate new investments in IT; to ask the basic questions that may not have been raised in decades. Good IT managers will embrace the chance to bring new skills into their teams and have the business pay them strategic attention.

Human resources (HR) and people

Many governments have set themselves up to bring in the same sort of people on an industrial scale. This happens partly out of necessity; as officials change jobs or leave, ready-made replacements have to be ready to step into the breach. Logically this dictates the creation of standard, template recruitment processes and rules.

Trying to transform a large organisation is therefore pretty much impossible without disrupting the rules applied to hiring people. The way civil servants are hired is similar in most governments. Applicants complete a long paper form, writing lengthy answers to provide evidence and experience against certain competencies. This is then followed by interviews, where similar questions are asked. This process is heavily biased towards generalists, and works especially strongly against people who aren't strong writers.

Digital teams need to bring in skills that can not be effectively tested through this kind of process. It is impossible to draft your way to proving yourself a great designer or coder. Nor can a generalist confidently assess whether a technical architect is qualified through an interview. Changing the way you assess applicants' employability is an essential part of the digital mandate. To build a digital institution capable of transforming the wider organisation, a digital team will have to challenge cultural norms that keep the bureaucracy hiring in its own image. That means looking at pay and introducing more options within the balance of rewards (not everyone will value a good pension pot or longer holidays over cash), and reviewing performance management systems with few options for rewarding alternative career paths.

The digital team's mandate must include permission to test and experiment with different versions of these rules. Many of the existing guidelines will actually be perfectly sensible, but interpreted into rigidity by HR professionals. It is this that a successful digital team will effectively challenge, while supporting departments. GDS helped other departments hire over 150 new senior digital leaders over two years between 2013 and 2015.

Budgeting and investment appraisal

The business case processes typically applied by governments and large organisations to budgeting and investment are a perfect example of a one size fits all process. They tend to serve a certain kind of project well. Through standardising certain processes, many governments have got better at delivering certain projects on time and within budget. Large infrastructure projects tend to offer well understood problems, tackled many times before. The materials, behaviours and challenges at play are known. In these cases, doing lots of upfront thinking in preparation for releasing one substantial chunk of money to get the work done is wise.

However, for tasks that take place in less controlled or stable contexts - especially those involving rapidly - evolving technology of any sort - the standard business case templates tend to perform less well. The market for digital technology moves too fast for the process, as does the digitised world in which the new policy or service is supposed to flourish. Spend two years economically justifying all the requirements you demand of your new employee communications system, for example, and the component price of technology will have changed in the meantime.

Creating a cumbersome process for releasing even relatively small amounts of money stymies rapid, iterative development of digital services - or anything where a 'fail fast' attitude applies. If it takes you a year to write a business case, you want the investment it supports to last a lot longer - five or ten years, at least. Again, this is not a motivation well suited to the rapidly evolving world of digital technology.

As a digital team, the focus - beyond adapting the default process to stop it from breaking agile projects before they begin - is to help make sure that the people making investment decisions in finance ministries or elsewhere understand technology and the market conditions where they are buying it.

3.2. Performance metrics and measurement

Performance measurement and targets have become very fashionable in governments. Their impact is mixed, and controversial.

Digital performance metrics should be treated like warning lights on a dashboard. They do not necessarily provide the people managing the services day-to-day with the detailed insight needed to make incremental improvements to services; that is a job for more detailed

web analytics packages. Digital performance measures should be indication of relative progress, and a measure of momentum.

Many governments look at some version of four performance metrics for digital services: digital take-up, completion rate, cost per transaction and user satisfaction. These four cover the primary strategic aims of most digital teams: getting more people to use online government services, building services that worked first time, saving money and meeting user needs.

Digital teams are often strongly encouraged by colleagues (and ministers) to set a target number; a goal that they will strive to hit by a certain point in time. It is debatable how much value there is in setting hard, absolute targets.

To some observers, targets are simple and cheap way of pointing a complex bureaucratic machine in one direction. To others, they are dangerously blunt tools, responsible for creating perverse incentives and questionable outcomes. Targets have undoubtedly helped drive improved performance in some fields. They tend to be especially good in fields where direct comparisons are relatively straightforward and there is a low chance for human beings to game the system. But where the scope for variation and gaming is high, problems arise.

The measurement of digital take-up illustrates this. A digital team could set itself a target for 80% online take-up for all of its government digital services. However, for certain services, such as registering to vote, the simplicity of the transaction and nature of the demographic using it mean that aiming for a target far nearer 95% might be more sensible. Applying for a a disability benefit, on the other hand, is a far more involved process with a very different user group. Reaching 60% digital take-up would be a significant achievement. As a point value, 80% manages to be wrong in both directions, as would any other number.

If a digital team were to take 80% digital take-up as an aggregate target across all government digital services, there would be a strong argument for them to focus their effort and resources on improving the simplest processes used by the most digitally confident users, just to make the numbers work. This is neither equitable nor efficient.

Targets and performance measures can be more effectively used on a service-by-service basis, if set relative to a baseline: to cut cost per transaction by a third, or increase completion rates by 10%. Publishing regular data on these measures, and the success stories they illustrate, is a powerful way to make the case for continuing digital transformation across multiple political administrations.

Some metrics are especially difficult to trust. User satisfaction, for example, is extremely difficult to draw conclusions about the quality of government digital services from, no matter how it is measured. The problem, and one that government services face everywhere, is that it is possible for a service to meet user needs impeccably while leaving people dissatisfied. It is a rare person indeed who concludes the process of paying the government a substantial chunk of tax money by leaving a thank you message for the smoothness of the experience. Measuring user satisfaction often picks up false signals; about how happy people are about paying tax, even about how happy they are with the government's performance in general. These are not things that any digital team can do anything about.

3.3. Setting standards and controls

Standards, manuals and playbooks have become a signature of many aspirational digital institutions that are enduring through

political cycles. The UK's digital service standard and manual - itself inspired by a similar effort in New Zealand - has been adapted around the world. Australia and Scotland have created their own versions. The U.S. Digital Service and 18F built a playbook. Even the University of St Andrews has one.

In setting standards, the role of a digital institution is to do two things. First, to give the rest of the organisation the confidence to abandon those rules that are unhelpful or widely ignored. Second, and more importantly, to provide replacement standards that give the rest of the organisation some clear cues about what good should look like.

Standards are only truly valuable when they codify power. In the UK, the digital service standard formalised how GDS would apply one of its two powers - domain power. As an institution, GDS had the final say on what was good enough to go on GOV.UK. As GOV.UK was the single domain for government, if a department could not get on GOV.UK, it effectively could not launch an online government service. The standard spelled out what expectations everyone in government would be held to.

In terms of sustaining digital transformation, standards and the guidance supporting them are one of the most powerful ways to change the incentives acting on officials, at scale. At their best, they provide those in the government with the cover to do what they already know users need, while preventing 'bad' behaviour.

The digital service standard is fundamentally a creative control, designed to make it easier for teams in government to build user-centred digital services. Money would be saved as a result of people moving from offline channels to the online

version, as a result of the redesigned online service being preferable to use. Nonetheless, success was really measured in terms of putting better services in front of millions of people.

The flip side of this coin, and another powerful means of sustaining digital transformation, is spending controls. Success in terms of spending controls was measured in pounds and pence as a result of consolidating, renegotiating or stopping supplier contracts that delivered poor value for the taxpayer.

Whereas service standards can be deliberately ambiguous in places to allow for best practice in digital service design evolving over time, spending control rules should be more definitive 'red lines'. They emphasise avoiding practices that are known to be a bad idea in the technology market. In the UK, for example, a technology spending control was introduced that forbade any government contracts for IT exceeding a total lifetime value of £100m. These kinds of contractual arrangements had repeatedly turned up at the scene of major technology disasters. Technology spending controls, with ministerial backing, put a hard stop to them. Seven years after their introduction, the spending controls continue to shape the UK government's technology procurement behaviour. In 2016, the UK's National Audit Office confirmed that spending controls alone had saved the UK £1.3 billion since they were introduced in 2011.

Redefining the government technology market through setting new procurement behaviours and processes is particularly important. Prior to GDS' creation in the UK, over 80% of government IT contracts were awarded to just 11 firms. After GDS introduced the Digital Marketplace and G-Cloud services, 64% of government technology contracts were awarded to SMEs (small/medium-sized enterprises) in 2016.

3.4. Embedding leadership

The models of digital transformation we have described in this report have tended to be driven from a powerful centre of government giving momentum to the whole. Experience tends to show that this is the only way to drive this kind of major change through a complex bureaucracy.

However, gripping change from the centre is a strategy that can only been sustained for so long. Controlling everything from the middle is neither sustainable nor desirable for the long-term. To embed the new course set by a central digital team, they will need to help bring in digital leaders who can take charge of the agenda in the ministerial departments or regional governments.

The first step on this process is challenging any leadership culture were ignorance of technology remains acceptable. The bar of technology embarrassment is still remarkably low in most old, big organisations. Every government still has senior managers that insist on printing off every email they are sent. Too many officials are comfortable with displaying incompetence in technology that would be unacceptable in finance, economics or policy.

The biggest indicator of digital transformation sustaining over time is the capacity of the original digital team to leave behind leaders who are able to keep the momentum going. Their task is to bring in a new waves of leadership to operate at department board-level. Two different types of leader are usually required.

Chief Digital Officer (CDO)

The CDO is the individual responsible for the user's end-to-end experience of the organisation. They are the person ultimately accountable for ensuring the services provided by the department are simpler, clearer and faster.

WIthin the organisation, the CDO is the loudest voice on the board speaking up on behalf of the user. They will also be the strongest advocate and backer for the digital ways of working outlined in this report; agile, multidisciplinary, bringing together digital skills with more traditional corporate competencies. They will support and educate the board on the practices and operating models of the Internet era that they may not be familiar with.

Chief Technology Officer (CTO)

If the role of the CDO is to open the organisations' eyes to the why and how of transformation, the CTO is there to bring deep technology knowledge back into the heart of the strategic conversation.

When faced with technology questions with fundamental implications for their businesses - moving data into the public cloud, investing in new systems, experimenting with artificial intelligence or Merkel tree encryption - far too many senior officials are forced to basically guess. For advice they are left to rely on technology suppliers, strategy consultants, press articles or the managerial instincts that have served them to date.

The CTO is there to guide the board away from making decisive technology calls that are logical to people with a limited understanding of technology and the market conditions associated with it, but are strategically dangerous to somebody in the know.

3.5. Summary

· Achieving organisational alignment in HR, IT and finance with digital transformation is essential.

· Performance measurement should focus on user-centric metrics and indicators of momentum, not hard targets.

· Standards and controls that codify power can change official behaviours at scale.

· Hiring Internet-era CDOs and CTOs in ministries and regions to embed digital transformation is the most powerful way to sustain it for the long-term.

Annex A Sustainable Digital Institutions: Attribute Framework

The main objective of this report is to set out the main attributes that increase the effectiveness of teams in charge of designing and implementing national digital strategies. The table below provides a summary framework of attributes that countries should consider as part of their planning and implementation.

Establishing a digital team

1		Political leadership and context	• Is there a senior political sponsor for digital transformation? • Does digital transformation align with broader political goals? • Are there external actors able to shape a strong political direction on digital transformation that provides the team with its initial mandate?
2		Clear mission and team goals	• Is the team's ambition clear and understood by the rest of government? • Does the team have a very clear sense of what it will not become involved in? • Has the team set short-term delivery goals that can deliver early political successes?

3		Situational awareness of existing strategy	• Is there an explicit, public articulation of the scale of digital transformation that is required? • Is it clear what existing institutional conditions are likely to slow progress? • Does the team know how many services will require digital transformation?
4		Strong local digital capability	• Has the team identified meet-ups and networks of local digital talent? • Has the team ensured that HR and/or procurement rules allow for recruiting necessary skills?

Succeeding as a digital team

1		User-centred design principles	• Is the team prioritising meeting user needs over government needs? • Has the team published a set of design principles?
2		Co-located, multidisciplinary teams	• Do delivery teams combine a variety of digital and policy skills, working in the same location? • Has the team hired developers, designers, user researchers, data analysts, product managers and technical architects?
3		Clear project selection criteria	• Has the team initially picked greenfield, visible and relatively simple services to deliver? • Does the teams' project selection emphasise citizen benefit and political importance?

4		Agile reporting and governance	• Is the time and effort required for spending approval proportionate to the amount requested? • Is governance and reporting part of delivery, or a separate, paper-based process?
5		Open, Internet-era communications	• Has the team got a blog and social media presence? • Does the team publish updates on how it is doing things, as well as what it has delivered?

Sustaining a digital team

1		Organisational alignment	• Do political and senior official leaders offer visible support for digital transformation? • Is there a strong central actor able to ensure all departments follow the digital strategy?
2		Performance metrics and measurement	• Does the team avoid metrics or targets that create false or perverse incentives? • Is real-time data on service performance publicly available? • Is there a clear account of the savings expected from digital transformation?

3		Setting standards and controls	• Does the team have a clear mandate to set controls on IT and digital spending across government? • Is there a clear standard that all new and redesigned digital services must meet? • Can the team define and set new rules in areas slowing down digital transformation (e.g. procurement, security, legal constraints)? • Are standards and controls overseen by digitally skilled assessors?
4		Embedding digital leadership	• Does the central team actively support other departments in attracting and recruiting skilled digital and technology leaders? • Is there a single, cross-government group for making strategic decisions on digital and technology strategy?

Annex B Digital transformation timeline

The sequencing of a government's digital transformation is one of the most critical factors in its likely success. The order and speed at which problems are tackled has a direct influence on the momentum of the team, and therefore the political value it creates. This high-level timeline sets out the sequencing and pace of the UK's digital transformation, to illustrate how tasks were prioritised and how long they took.

Age of administration (months)	Activity
0	Controls set on all government IT and digital spending; senior minister for digital appointed
3	Mandate for a central digital team publicly set by external influencers and ministers
6	First product team hired; begins building early versions of new digital services, and communicating in the open
9	Creation of new central digital institution and Chief Digital Officer formally announced; office space allowing for multiple co-located teams found
12	Several small exemplar digital services publicly launched, designed and built over 10 - 16 weeks

18

Design principles launched; first major digital platform publicly launched (GOV.UK)

24

Cross-government digital strategy paper launched, economic case for digital transformation published, digital service standards set

Several major digital service transformation projects delivered in other government departments

36

New cross-government procurement, communications, governance and HR processes introduced to support successful digital service delivery

48

Cross-government platform services built, launched and adopted