

The hidden obstacles to government digital transformation



Sally Howes
Tess Kidney Bishop

About this report

The Government uses digital transformation programmes to manage the introduction of new technology and associated changes. There are at least 19 such digital transformation programmes currently underway, together costing almost £38 billion.

Civil servants managing digital transformation are required to seek funding through business cases. This report examines current practice in how business cases are used within government departments' transformation teams. It suggests ways in which planning, implementation and leadership can be improved, leading to better outcomes for digital transformation projects.

Summary

The Government sees digital technology as a way of improving services and saving money. It uses digital transformation programmes to manage the introduction of new technology and associated changes required in business processes, staffing and organisations. There are at least 19 such digital transformation programmes currently underway, together costing almost £38 billion over their life.¹

Civil servants managing digital transformation are required to seek funding through business cases. We found that business cases are often not used effectively to establish and manage digital transformation. They fail to recognise the uncertainty inherent in digital transformation, locking programmes into fixed and unrealistic timelines. They contribute to a proliferation of programmes that become detached from the work of operational teams. Once programmes are established, executive teams delegate too much to those leading programmes, do not focus on changing culture, behaviour, the operating model and ways of working, and do not manage the connections between programmes actively enough.

Transformation leaders have developed new approaches to managing digital transformation that recognise the uncertainty in digital transformation and encourage testing, learning and adapting during the programme. However, these new approaches have not been consistently applied across government. Transformation leaders should work harder to share these new approaches, and business case guidance should be updated to take account of them.

Transformation departments' executive teams need to lead digital transformation more actively. Business plans should be clearer about the shape of future organisations. Digital transformation should be managed less through programmes and more through supporting services leaders to continuously improve their services. The 2019 Spending Review provides an opportunity for government to achieve a more strategic approach to digital transformation. This would involve more focus on business planning and less on business cases and programmes that are detached from operations.

Introduction

Digital transformation has great potential to modernise government and public services, and to make them more flexible. In recent years, there have been marked improvements in citizens' experience of new digital public services. However, overall progress towards transforming the way government operates and towards using data to understand organisational performance through better application of digital technology has been slow.²

Government uses the expression 'transformation programmes' for large investments in significantly changing the way departments and services work. A subset of transformation programmes involve a significant digital or technology element, and are described here as 'digital transformation programmes'.

The Institute for Government has previously looked at several obstacles to digital transformation and how to address them.³ This report looks at how well government manages the rules for approving the funding of digital transformation programmes within departments or public bodies – the so-called 'business case' process. Those seeking funding use business cases to make the case for a proposed new programme, aiming to demonstrate that it: has a clear vision and good rationale; represents public value; is commercially viable; is affordable; and is achievable.⁴ Business cases are assessed within departments. When departments are committing large sums, the Treasury is also involved.

To inform this report, we reviewed publicly available government and related documents and spoke to 30 current and former senior civil servants, academics and other experts involved in writing and approving business cases for digital transformation programmes, implementing them, providing assurance, and conducting external audit.

Our research has found that the ways in which business cases are produced, assessed and used to manage digital transformation programmes creates problems. This report proposes ways in which those problems may be overcome.

The recent history of digital transformation in government

The digital transformation of citizen-facing services was kick-started in 2011 with the creation of the Government Digital Service (GDS).⁵ In 2013,⁶ the Government launched its Digital Strategy, this identified 25 public services to be made 'digital by default'.⁷ Several of these improved the way in which citizens experience services, allowing them to apply for or manage various services online, accessing them through a single website: GOV.UK. It became possible to apply for a student loan, register to vote and renew a patent online.

However, those involved in these digital programmes recognised that while citizen experiences had improved, there had not been any fundamental improvement, or transformation, in the operational performance of the organisations running the programmes.

Digital transformation, as opposed to digital programmes that mainly focus on improving citizens' website experience, took on a broader meaning through the 2015 Spending Review. During this, the Chancellor promised "far-reaching reforms to create a more productive state, fit for the modern world", including £1.8 billion for digital transformation.⁸ Digital transformation became associated with more profound shifts in the way government departments operate and even with reshaping operating models across departmental boundaries when there are benefits for citizens from joining up services.

In 2016, the heads of GDS and of the Infrastructure and Projects Authority (IPA) established the cross-government Transformation Peer Group. This brings together transformation Directors General from across government to develop a new common approach to digital transformation.⁹ The Peer Group leads a wider group of civil servants involved in transformation programmes, known as Transforming Together.¹⁰

In 2017, the Government published a Transformation Strategy,¹¹ which argued that departments had not taken transformation far enough, and which drew upon the thinking and experience of the Peer Group.

As of July 2018, government had approved over £80 billion to spend on 41 major transformation programmes across 10 departments and one public body. At least 19 of these, costing almost £38 billion, are digital transformation programmes.¹² These range from the Home Office's £145 million Smarter Working Programme, designed to improve workspaces, technology and operations, to HM Courts & Tribunals Service's £1.65 billion Reform Programme, intended to transform the courts' service including making more cases digital, to Universal Credit, which is replacing six means-tested benefits for working-age households by 2023 and currently estimated to cost £13.5 billion.

What the Government describes as the "delivery challenge of leaving the EU"¹³ is having an impact on digital transformation. For example, it has led HMRC to postpone some of its plans to make the tax system more digital.¹⁴ The prospect of Brexit has also created its own requirements for digital transformation, particularly to build services that can be adapted to future needs which are not yet clear. HMRC is focussing its efforts on customs systems, Defra will need to develop new digital services in areas such as fisheries support, and the Home Office will need to continue to make major changes to existing services, such as immigration.

The Government recognises that digital transformation programmes are "extremely challenging".¹⁵ However, building agility, efficiency and confidence into public organisations is necessary when programmes are being run to uncertain deadlines and specifications as a result of uncertainty about the terms of the UK's withdrawal from the EU and the future relationship.¹⁶

The risks in not transforming are also significant, jeopardising the future quality, value for money and relevance of public services. Yet the incentive to transform is often not present. Government bodies have historically adopted a 'no change' strategy and often use business systems and services well beyond their usable life. This is a short-sighted way to save money and has led to outdated working and management practices across

the public sector. Ways of working have become entrenched and, over time, leadership and teams have become more defensive in maintaining the status quo.

The National Audit Office (NAO) has estimated that “£480 billion of the Government’s operating revenues and at least £210 billion of non-staff expenditure, such as pensions and entitlements, were reliant to some extent on legacy ICT [information and communications technology]”.¹⁷ These estimates date from 2013, but many of the legacy systems remain, as the Government Transformation Strategy of 2017 recognises.¹⁸ Relying heavily on legacy technology creates several risks for organisations: data and security vulnerabilities; being locked in to uncompetitive support arrangements with a single supplier; and a proliferation of work around processes as systems cannot keep up with changing business needs. The organisation as a whole becomes less responsive, as it becomes costlier and takes longer to adapt public services to policy or other changes. One interviewee described legacy systems and operating models as imposing a “tax on change”. The reverse is also true – introducing modern platforms as part of new operating models creates flexibility that is not restricted to one service. This is why digital transformation has become a key strategy for government.

Parts of government recognise the need to get better at managing digital transformation. But we have found that leaders’ understanding of digital transformation and experience of transforming organisations have not yet been spread widely enough across government. This is hampering government’s efforts to secure the benefits it envisages from using digital technology to transform the way it works.

The problems with digital transformation business cases

The Government Transformation Strategy defines transformation as “a significant step change in the way a government organisation delivers its service and in the way it operates” including reducing “the cost and time to build, change and run government”.¹⁹ As the Transformation Strategy recognises, achieving this involves much more than new technology or simply automating the status quo. It requires different management culture and skills, alternative organisational structures, operating models and ways of working, and a focus on the integrity and use of data.

Business cases are used by those seeking funding for a project, within a department or from the Treasury. The Treasury produces guidance on how to appraise proposals for public spending, including those for programmes and projects, which is known as the ‘Green Book’.²⁰ Business cases are a first step in establishing the need for a project, making a claim for resources, and often provide a template for an implementation plan.

Our research has found that **business cases for digital transformation are not used as effective tools for establishing and managing digital transformations**. We have identified a number of reasons for this:

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- **Business cases are ineffective when the vision for a future digital organisation is unclear:** this is especially the case where digital transformation is not well understood and viewed too narrowly. Too many civil servants focus on new technology rather than the wholesale transformation of what an organisation does, how it operates and its culture.
 - **Business cases fail to represent large-scale and complex transformations:** the scale of the change required means that producing high-quality business cases for digital transformation is challenging. Legacy operating models, contracts and systems, which have often not received much investment for many years, make the transition to new systems complex. Those responsible for business cases try to deal with this complexity by writing long, detailed documents. If leadership is not clear on the outcome of transformation, attempting to please multiple stakeholders can add significantly to the complexity of business cases. Those responsible for reviewing business cases in departments and the Treasury find these documents often do not make the case for change clearly enough.
 - **Business cases often struggle to make a convincing economic case that can be approved when finances are tight:** because most government organisations do not have a history of continuous investment in keeping up-to-date and many have outdated management approaches, the level of investment typically needed to transform them is high, compared with starting a new operation from scratch.
 - **Business cases may be produced by staff who lack experience:** it takes time, considerable skill and confidence to produce an effective business case for digital transformation. With many transformations underway, not all programmes have access to people with sufficient experience and insight. Consequently, quality suffers.
 - **Business cases fail to effectively represent uncertainty:** the IPA, which oversees a portfolio of the largest and riskiest government programmes, identifies distinct characteristics of transformation and infrastructure programmes.²¹ Infrastructure programmes have defined outputs and it is possible to have a reasonable degree of confidence in their timelines and what they will deliver. This is not the case for transformation programmes. New guidance from the Heads of the GDS and the IPA on the '7 Lenses of Transformation' notes that transformation plans should "accommodate the fact that not everything can be known upfront".²² Given this reality, we found that those approving business cases for digital transformation often require unreasonable levels of certainty. This forces transformation teams to focus too early on one preferred option, before they have the evidence to be sure it is the right one.
 - **Business cases can lock programmes into fixed and unrealistic timelines and milestones.** One senior finance official argued that when costs and benefits are rigidly specified at the start of a programme, teams end up working towards those but "still go over budget and deliver different benefits".²³
 - **Business cases are not used as dynamic 'live' documents:** Treasury guidelines state that business cases should be dynamic management tools, and that there is no need for teams to be held to account for analysis and estimates that were made at the initial approval stage if updates to the cases are made throughout the programme and the learning and intent are clear.²⁴ Practice rarely follows this guidance: few programme teams maintain a

live business case. Pressure to implement quickly acts against teams re-assessing their progress throughout implementation against the business case, which they knew at the outset was unlikely to reflect the reality of implementation. Instead, once written, business cases are put on a shelf and forgotten. Boards inexperienced in transformation do not always provide an environment conducive to considering terminating or re-directing activities based on learning and changing conditions.

Regardless of the quality of individual business cases for transformation, many we interviewed felt that the current approach focuses investment and management attention too much on change through individual programmes, rather than on incremental change in, and adaptation of, operational services, which is more typical of digital organisations in the private sector. We identified several risks in attempting to **deliver transformation as an isolated programme**, not integrated with other programmes underway, or with the organisation's normal operational performance:

- **It is difficult to maintain management oversight over multiple complex programmes and operational performance.** Many parts of government have multiple transformation programmes underway at the same time, each managed by separate Senior Responsible Officers (SROs). It is easy for these to proliferate, conflict, overload, and even confuse the workforce. There are risks when a workforce has to absorb too much change at once, where important public services have to be maintained in parallel to major transformation efforts and then start using new systems and business processes. Adding uncertainty and rapidly changing situations to this makes leadership and governance a particular challenge to deliver, especially as transformation requires a high-risk appetite.
- **Wider benefits for the organisation or other parts of government are put at risk.** The impacts of transformation are often widely dispersed across an organisation or even beyond the organisation; this makes it difficult to manage these impacts within one programme. Senior Responsible Officers can become focussed on things for which they are directly responsible (managing the costs, risks and benefits of their individual programme), losing sight of wider benefits and of the dependencies between programmes.
- **Those responsible for delivering the long-term operational benefits of transformation are not always those driving change and this reduces the likelihood of success.** Separation of transformation programmes from operational teams stifles employee engagement. Operational teams are consulted but rarely able to lead decision making about transformation. Yet their experience is key to deciding how to secure improvements and what the organisation needs to look like in the future. Transformation teams often lack sufficient business insight, and one interviewee emphasised that the transition from implementation to 'live' or business as usual is more complex than often acknowledged. The involvement and sense of ownership of operational teams is certainly key to making the transformation happen.
- **Transformation through programmes risks demotivating the workforce.** At the end of a programme, transformation teams disband while operational teams are left to sustain the transformed operation, to learn new procedures and technologies, and to deliver

the benefits, without always having the right leadership or resources. Yet the programme team, rather than the operational team, gets the credit for improvement.

The causes of problems

A siloed programme approach

Where a department has multiple digital transformation programmes, we have heard that they are often not well integrated and this limits success. This has three causes.

First, **departments are not making enough use of portfolio management.** Portfolio management helps to provide management oversight of different transformation programmes so that decision-making is more informed, integrated and relevant. It is not just an intellectual exercise, it provides models, tools and data to undertake sophisticated scenario analysis and planning for uncertain and highly dynamic situations. It is starting to be used in departments such as HM Revenue and Customs (HMRC) and the Department for Work and Pensions (DWP) to manage their complex transformation portfolios. Both say they need to invest further in specialist skills and technology to undertake the level of sophisticated portfolio management required.

The second cause is that **there is too much delegation to SROs and not enough focus on the portfolio of digital transformation programmes by accounting officers, executive teams and Boards.** The Transformation Peer Group place emphasis on the role the Board plays in setting the single vision, integrating all different aspects of transformation and daily operation into one comprehensive and joined up organisational effort. Where responsibility for fundamental redesign of the organisation is delegated to a programme SRO, progress is limited. An SRO typically finds that some of the established cultures in the organisation are too tough to tackle unless addressed by executive management. The slow progress of the Ministry of Defence's change programme shows how transformation can be stymied if cultural change is not led by the senior team.²⁵

The Boards of HMRC, DWP and DVLA have clear visions of how their organisations should change to benefit from digital technology. This has enabled more effective transformation to be achieved. They have maintained an emphasis on widespread business transformation of culture, behaviour, their operating model and ways of working, and avoided an unhelpful focus on new technology as an end in itself.

The third cause is that **departments do not have business plans that are specific about transformation.** Many departments have already included digital transformation to some extent in the Single Departmental Plans (SDPs) that were published in May 2018:²⁶ eleven departments referred to transforming the way they work internally,^{*} and eight departments mentioned transforming the services they deliver.[†] But most of the

* Ministry of Housing, Communities and Local Government; Ministry of Justice; Department for Work and Pensions; Department of Health and Social Care; Department for Education; HM Revenue and Customs; Department for Business, Energy & Industrial Strategy; Foreign & Commonwealth Office; Cabinet Office; Department for International Trade; Department for Environment, Food & Rural Affairs.

† Department for Business, Energy & Industrial Strategy; Home Office; Foreign & Commonwealth Office; HM Revenue and Customs; Ministry of Justice; Department for Work and Pensions; Department of Health and Social Care; Northern Ireland Office.

published SDPs do not provide a vision of how organisations can benefit from digital technology and are not specific enough to link different efforts together and allow the executive team to maintain effective oversight.²⁷

Misuse of business cases

Digital transformation is necessarily complex and high-risk. Our research indicates that the quality of business cases for digital transformation is not as high as it should be. Documents are being produced to satisfy the system and achieve funding approval, but too often they do not help to establish a solid basis for digital transformation to be successful at a meaningful organisational scale.

Government has developed promising new approaches to managing digital transformation, but these have not been consistently applied across government. There is a mismatch between the new approaches in the '7 Lenses' guidance, the Green Book guidance and how approval teams actually work in departments and the Treasury.

According to the 7 Lenses guidance, programmes "invariably need multiple interdependent elements to be delivered concurrently". Managing these programmes well requires a new approach to leadership, which is about more than traditional programme management. While major infrastructure programmes rely on an SRO with strong programme management capability and technical skills specific to the programme, transformation requires a wider set of skills, primarily leadership of organisations and cultural change, organisational design, communications and business insight.

Successful digital transformation requires experience, a high-risk appetite and an understanding of the long-term, incremental nature of transformation. Boards of departments and public bodies, notably the HMRC and DVLA, which have adapted their style and tone of leadership to create the right enabling environment for transformation, have been more effective. The 7 Lenses guidance says that "whereas leadership of traditional projects tends to be about minimising uncertainty, transformation leadership is about creating the right amount of uncertainty to generate productive organisational distress".²⁸ The transformation community is advocating downplaying detailed initial planning and taking higher levels of risk, with active management of those risks supported by cycles of testing and learning. They are seeking to encourage adaptive and creative leadership that rewards innovation and where staff are confident they will be supported if failures occur, rather than the traditional programme management skills associated with infrastructure programmes. This is counter-cultural for government. Experienced transformation leaders are trying to operate with greater agility through the lifetime of a transformation programme but can find that those approving and periodically reviewing their work, for example in finance, internal audit or the IPA, are applying more traditional project management approaches and have different expectations.

Government business case guidance encourages unreasonable certainty in timelines, costs and benefits. The Green Book, which is used to appraise programmes, encourages upfront assessments rather than testing, learning and adaptation. In 2014, Treasury and GDS published supplementary Green Book guidance for approving and getting approval for digital and IT programmes, which allows for phasing, testing and

learning.²⁹ This has been useful, but it does not go far enough in requiring testing, learning and adapting for all digital transformation programmes.

The impact of digital transformation can be dispersed and difficult to quantify, which makes it hard to use business cases and programmes to manage transformation. By definition, digital transformation involves significant change. That change often has an impact outside one service and one department, whereas business cases are typically written by one department and often relate to one service.

The processes for approving financing in the Treasury and departments have encouraged the use of individual programmes to manage transformation, rather than incremental change managed by the leaders of services. It has generally been easier for departments to get new capital investment for programmes than to increase their resource spending to cover transformation, especially in the current fiscal context.³⁰

Recommendations

The Government is taking steps to build a better framework and codify best practice for implementing digital transformation, but these are at an early stage and the emerging best practice is not yet widely known or trusted beyond the Transformation Peer Group. Many of the new approaches being proposed are counter to how the civil service works traditionally and to its experience with delivering successful major infrastructure programmes.

In this context we make recommendations in two key areas intended to increase the effectiveness of approvals processes for digital transformation.

1. The new strategic approach to digital transformation needs to be adopted more widely

We have flagged the risks of managing digital transformation through programmes that are detached from other transformation programmes, and from daily operations, and that do not capture the wider benefits of transformation. To address these:

- Accounting officers, executive teams and Boards need to lead, not delegate, digital transformation in their organisation, and to integrate all different aspects of transformation including through better portfolio management.
- This more coordinated approach should be reinforced by departments, the Treasury and Cabinet Office by ensuring that digital transformation is more central to SDPs and aligned to the Government's transformation strategy.
- These SDPs should be actively used to manage digital transformation and measure progress, including by providing funding to those running public services and other business services to manage continuous improvements and prevent legacy systems building up.

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- The 2019 Spending Review provides an opportunity to achieve a more strategic approach, with more focus on business planning and less on business cases and digital transformation programmes.

2. Business case guidance needs to be improved and applied better

The 7 Lenses guidance has captured a great deal of experience in leading transformation. However, there is limited knowledge of how to produce effective business cases and some suspicion across government as to what the 7 Lenses guidance is trying to achieve. We have found misunderstandings and different expectations between those producing and assessing business cases. To address these:

- The Transformation Peer Group should continue to codify best practice, assemble more evidence and collect convincing examples of delivering value for money from transformation. It needs to work harder to share the benefits of its experience and new learning as it emerges.
- The Transformation Peer Group should ensure that new approaches are understood and applied consistently by transformation practitioners as well as those leading, approving, financing and governing transformation. The Group has an important role to play in increasing the capability and trust between these different constituencies and in ensuring their perspectives are reflected in best practice.
- The Treasury should update its guidance so that it aligns with the 7 Lenses guidance. This means that the Treasury should amend existing supplementary guidance for “agile digital and IT projects” so that it covers digital transformation programmes, and encourages testing, learning, and adaptation of programmes. The Treasury and others involved in approving business cases should put more weight on observing the results of that testing than on the unrealistic degree of certainty in initial business cases.
- Digital transformation brings benefits which are important but hard to measure and quantify. Treasury guidance should recognise benefits which are hard to quantify, such as the capacity to respond more flexibly to policy changes, and the ability to develop more responsive services.

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About the authors

Sally Howes manages a portfolio of non-executive and advisory positions for private and public sector organisations, specialising in digital transformation and cyber-security. She is a Transformation Associate for the Infrastructure and Project Authority in the Cabinet Office, is a lay member of the Council of the University of Surrey and chairs the Surrey Research Park at the University.

Tess Kidney Bishop is a Researcher at the Institute for Government. She has worked on Treasury policy, infrastructure policymaking, the Ministers Reflect interview programme and digital government. Prior to joining the Institute, Tess completed an internship in public diplomacy at the Australian High Commission in London.

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