National Audit Office

Report
by the Comptroller
and Auditor General

Cabinet Office

Digital transformation in government

Key facts

£150m

Government Digital
Service (GDS) budget
for 2016-17

£1.3bn

reported savings from
spending controls
since 2011

57%

proportion of GDS
budget over the next
four years allocated to
developing platforms

£455 million	funding for GDS agreed in the 2015 Spending Review for the period April 2016 to March 2020
25	digital exemplars identified in 2012
12	digital exemplars assessed by GDS in March 2015 as demonstrating positive net present value (of 22 where data were available)
1%	share of reported savings from spending controls for applications below £1 million
3,000	civil servants to be trained through the digital academy each year

Preface

Building blocks for transformation

1   Five years ago, we highlighted the importance of three major themes in tackling government's challenges:

- taking a structured approach to reducing costs;

- improving financial management; and

- using information effectively.

We argued that without significant progress in all three areas, government would not be able to transform services and achieve sustainable improvements and savings.

2   Our work over the last five years has identified some improvements in these areas. Across government, there is a much deeper understanding of the challenges and opportunities of transformation. But our work also shows that attempts to transform government have had mixed success. Many public services appear increasingly unsustainable. Those responsible for major programmes have continued to exhibit over-optimism and make slow progress towards their objectives.

3   Government's recent experience has highlighted several important building blocks for transformation:

- **Strategic business planning and management**

  Our report *Government's management of its performance: progress with single departmental plans* found that a strong planning framework is needed to counter problems in delivering new services successfully.[1]

- **Building and deploying capabilities**

  Our report *Capability in the civil service* highlighted the importance of getting the right skills and experience to support new ways of working.[2]

- **Improving the use of technology and data**

  Our work on major transformation programmes has shown how difficult it is to use technology effectively to enable transformation.

- **Managing evolving programmes and portfolios**

  Our work on major programmes has also shown how difficult it can be to assure and manage major transformation programmes, balancing more iterative approaches with robust programme and project management disciplines.

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1   Comptroller and Auditor General, *Government's management of its performance: progress with single departmental plans*, Session 2016-17, HC 872, National Audit Office, July 2016.
2   Comptroller and Auditor General, *Capability in the civil service*, Session 2016-17, HC 919, National Audit Office, March 2017.

4 These building blocks will help to counter tendencies to make decisions for tactical reasons without addressing wider considerations. They allow departments to balance short-term spending targets with long-term strategies. At the same time, better information and access to expertise will help to support and assure complex programmes.

Role of the centre of government

5 The centre of government plays a critical role developing the building blocks for transformation. In our reports on the centre of government, we outlined a range of ways for the centre to work with the rest of government, and showed how the centre's role constantly evolves in response to new demands.[3]

6 In particular, the centre has to achieve a difficult balance between supporting government departments and using more formal mechanisms to influence transformation. On the one hand, spending controls and strict standards can be blunt instruments; on the other hand, flexibility can sometimes be used as an excuse for poor control and coordination.

About this report

7 The last five years have shown how difficult it can be to get transformation right and how important it is to build the necessary capabilities and business planning processes across government. Our work will track how government puts in place the fundamental building blocks for transformation and ensures that work is prioritised effectively in the face of these challenges.

8 In this report, we consider the impact of digital transformation in government and the role of Government Digital Service (GDS). GDS's experience is an important illustration of how the centre of government can take different approaches to working with the rest of government, striking a balance between supportive and formal approaches.

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3 Comptroller and Auditor General, *The centre of government*, Session 2014-15, HC 171, National Audit Office, June 2014; Comptroller and Auditor General, *The centre of government: an update*, Session 2014-15, HC 1031, National Audit Office, March 2015.

Summary

1   Government faces significant challenges in providing public services. Continuing austerity has put additional demands on departments, which are already trying to tackle complex reforms with fewer staff and smaller budgets. Our work across government has highlighted the problems this can create for financial sustainability and the need to transform public services.

2   In 2011, the Coalition Government launched its Government ICT Strategy and set up Government Digital Service (GDS) as a centre of digital expertise within the Cabinet Office. Since then, GDS has worked to improve the quality of online information and help transform services so that they meet users' needs.

3   Transformation has not been straightforward. While many government services are now available online, departments and GDS have struggled to manage more complicated programmes and to improve the complex systems and processes that support public services.

4   In February 2017, the government published its Government Transformation Strategy. The strategy sets out GDS's new approach to supporting transformation across government and its aims for the current spending review period.
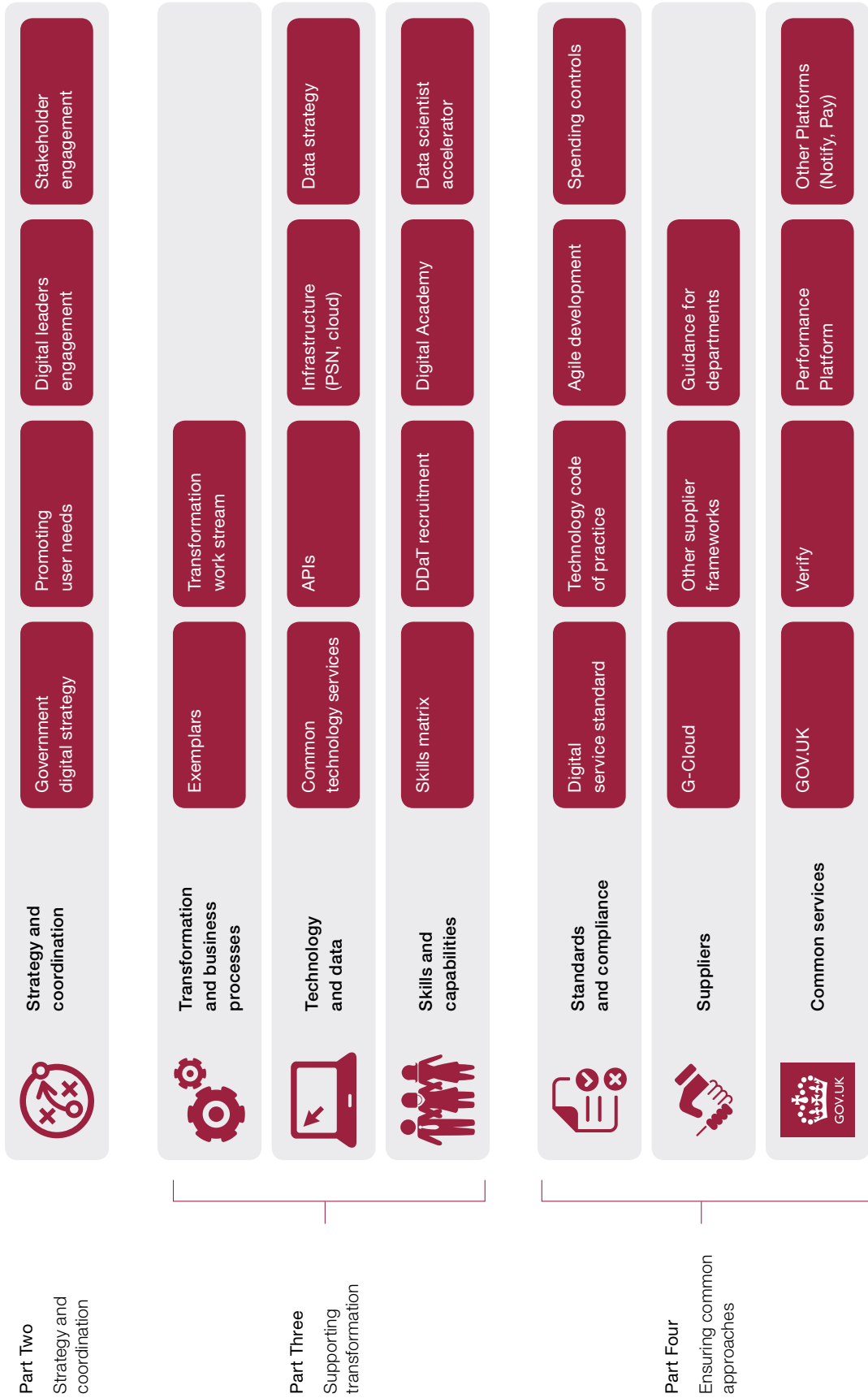
5   In this report, we review the role of GDS in supporting transformation and the use of technology across government. Our report is structured as follows:

●   Part One describes how GDS has evolved and sets out some of the questions that a central technology function needs to consider.

●   Part Two considers GDS's role in coordinating and setting strategy across government.

●   Part Three looks at how GDS has supported other departments, including by promoting new technologies and uses of data.

●   Part Four examines how GDS has developed a more common approach to digital development across government through setting standards, establishing reusable central systems and controlling spending.

6   **Figure 1** overleaf outlines how our report considers GDS's activities.

Figure 1

Government Digital Service's activities by area

Government Digital Service (GDS) undertakes a range of activities relating to technology and transformation

Part Two	Strategy and coordination	Government digital strategy	Promoting user needs	Digital leaders engagement	Stakeholder engagement
	Transformation and business processes	Exemplars	Transformation work stream		
Part Three	Technology and data	Common technology services	APIs	Infrastructure (PSN, cloud)	Data strategy
	Skills and capabilities	Skills matrix	DDaT recruitment	Digital Academy	Data scientist accelerator
	Standards and compliance	Digital service standard	Technology code of practice	Agile development	Spending controls
Part Four	Suppliers	G-Cloud	Other supplier frameworks	Guidance for departments	
	Common services	GOV.UK	Verify	Performance Platform	Other Platforms (Notify, Pay)

Part Two: Strategy and coordination

Part Three: Supporting transformation

Part Four: Ensuring common approaches

Source: National Audit Office. See Glossary for fuller explanation of abbreviations

Key findings

Coordinating and setting strategy

7   GDS has successfully reshaped government's approach to technology and transformation. In its early years, GDS showed that government could quickly introduce digital service standards for users based on those used for GOV.UK. In our previous work, we have found that methods promoted by GDS, such as agile development, are used widely across government, and that digital leaders are perceived as breaking down traditional barriers between IT and other functions (paragraphs 1.6 to 1.8 and Figure 8).[4]

8   GDS has found it difficult to redefine its role as it has grown and transformation has progressed. GDS has expanded significantly. In 2015, it received £455 million in funding over the four years of the current spending review period. At the same time, departments have moved ahead with transformation programmes. We found widespread views across government that GDS has struggled to adapt to its changing role. In July 2016, GDS's Advisory Board identified a need for a high-level vision for GDS (paragraphs 1.14 to 1.16, 2.6, 2.7, 2.15, Figures 3 and 4).

9   The 2017 Government Transformation Strategy has relaunched GDS's approach to supporting transformation across government. GDS intends to support end-to-end transformation. It will continue its work on improving digital services for users and developing new central systems for cross-government use, but will also tackle the more immediate challenges of changing existing services, systems and processes (paragraphs 1.3, 1.4, 1.12 and Figure 6).

Supporting transformation across government

10   Initially, GDS supported exemplars of digital transformation. In 2012, it identified 25 services across government for end-to-end service redesign. It aimed to show how new approaches could make it easier for people to access services online and help remove unnecessary costs. By March 2015, 15 of the exemplars were providing live online services and a further five were available to the public in trial form. Other services have since become available (paragraphs 3.2 to 3.4).

11   Major transformation programmes have had only mixed success. In a lessons learned exercise in 2015, GDS identified positive net present values for only 12 of the 22 exemplars for which data were available. In nearly two-thirds of the exemplars, GDS found that improvements in online services did not result in existing systems being reconfigured or becoming more efficient (paragraph 3.5).

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4   See National Audit Office, *A snapshot of the use of Agile delivery in central government*, September 2012 and National Audit Office, *The digital skills gap in government – Survey findings*, December 2015.

12   GDS is now adopting a more collaborative and flexible approach to supporting departments. GDS will base its approach on individual departments' circumstances and take account of the importance of managing existing systems. It announced plans in September 2016 to take responsibility for a cross-government digital academy, aiming to train 3,000 civil servants a year. It is trialling work with the Complex Transactions Team and Infrastructure and Projects Authority to offer multidisciplinary advice on areas such as IT contracts (paragraphs 2.4, 2.7, 2.8, 3.16 and 3.17).

13   Roles and responsibilities are evolving. In March 2016, the Infrastructure and Projects Authority established a cross-government Transformation Peer Group to share good practice between departments. It is not yet clear what role GDS will play in relation to the group, or the extent of its responsibility for transformation as opposed to digital services and technology. We also identified areas where GDS might address gaps, including taking a stronger role in managing data-sharing and monitoring security (paragraphs 3.6 to 3.15 and Figure 9).

Developing a common approach

14   GDS has established strong controls over spending and service design. GDS reported that controls have reduced spending on IT by £1.3 billion over five years to April 2016. Digital expenditure of over £100,000 is subject to these controls. Our analysis shows that requests for approval for amounts of up to £1 million accounted for 47% of the time GDS staff spent on spending controls but only 1% of savings in 2015-16 (paragraphs 4.2 to 4.5, Figures 10 and 11).

15   GDS has not sustained its framework of standards and guidance. We found instances of overlapping guidance, for example blogs as well as service manuals being used to communicate guidance on contract management or the use of application programming interfaces. In some cases, guidance had been removed and web links broken. Standards were set as broad principles, leaving scope for interpretation and disagreement. GDS has not provided detailed guidance on how to implement standards in practice (paragraphs 4.7 to 4.9, 4.12 and Figure 12).

16   The combination of strict controls and uncertainty about guidance has made it difficult for departments to understand assurance requirements. Spending controls can play an important role in enforcing consistency and ensuring that departments adopt standards. However, it is difficult to understand the status of different forms of guidance, and departments told us it can be hard to anticipate how GDS will interpret their performance against standards. GDS is now introducing approvals and assurance mechanisms that consider departments' overall portfolios and reduce burdens from controls (paragraphs 4.2, 4.6 and 4.9).

17   Cabinet Office controls have helped to increase flexibility in departments' IT contracts. GDS has worked with the Crown Commercial Service to diversify the supplier base. GDS has also introduced frameworks such as G-Cloud and the Digital Services Framework, now replaced by the Digital Outcomes and Specialists framework, to improve contracting with small and medium-sized enterprises (SMEs). Government data show that up to November 2016, 64% of sales were to SMEs via the G-Cloud framework. However, most spending continues to be with large enterprises; in 2015-16, we found that they accounted for 94% of spending, one percentage point lower than in 2012-13 (paragraphs 4.11 to 4.14).

18   Take-up of Verify has been undermined by its performance and GDS has lost focus on the longer term strategic case for the programme. The current business case is based on reducing duplication or simplifying the way new services are developed. But Verify has been difficult for some people to use, departments have taken longer and found it more difficult to adopt than expected, and GDS has had to soften its approach to mandatory use. Nine of the 12 services using GOV.UK Verify can now be accessed using both Verify and a department's chosen way of allowing users to log-in to services. This parallel access undermines the current business case and risks creating confusion for service users. Verify presents a strategic opportunity to improve the way that personal data is used across government enabling better use of data, based on a single secure view of identity. But this strategic case has not been sufficiently developed, tested and communicated (paragraphs 4.19 to 4.28, Figures 13 and 14).

Conclusion

**19   **GDS's early impact across government shows that there is a key role for it as a central function responsible for promoting new approaches and developing expertise. The importance of technology and data in supporting transformation is now widely accepted across government. Both GDS and departments are learning from their experiences of the last five years.

**20   **There is, however, a long way to go. Digital transformation has a mixed track record across government. It has not yet provided a level of change that will allow government to further reduce costs while still meeting people's needs. GDS has also struggled to demonstrate the value of its own flagship initiatives such as Verify, or to set out clear priorities between departmental and cross-government objectives.

**21   **GDS's renewed approach aims to address many of these concerns as it expands and develops into a more established part of government. But there continues to be a risk that GDS is trying to cover too broad a remit with unclear accountabilities. To achieve value for money and support transformation across government, GDS needs to be clear about its role and strike a balance between robust assurance and a more consultative approach.

Recommendations

22 As GDS embarks on the next phase of its work to support transformation in government, we recommend that:

a **Roles, responsibilities and plans for delivering the new transformation strategy are more clearly defined.** GDS, departments and other parts of the centre of government should clarify responsibilities for transformation, including the role of the Transformation Peer Group. GDS should undertake a further phase of planning with clear costs, timescales and monitoring arrangements.

b **GDS works closely with the rest of government to establish common principles for balancing departmental and cross-government priorities.** GDS should develop a more systematic analysis of what needs to be done centrally rather than by departments, in particular in strengthening government's approach to the effective use and management of data. It should review its continuing development of central infrastructure such as Verify to ensure that it meets a proven need.

c **GDS improves the clarity, relevance and consistency of guidance and technical standards.** It should work with departments to develop more detailed technical standards, in particular relating to maintaining or migrating existing systems. It should make clear the relative status of guidance documents and publish how and why changes are made over time.

d **GDS should ensure consistent monitoring and robust assurance of performance and spending.** It should track performance against clear technical and programme measures, working with the centre of government to establish proportionate but robust approvals and controls over spending.