Part Three

Programme management

3.1 This part considers how the Department has managed Universal Credit. To manage a programme of this scale and complexity the Department needed to:

- use a programme management approach to help policy experts, operational teams and systems developers to work together;
- set out clear objectives so that people could make appropriate decisions and assess risks;
- establish effective governance processes and structures; and
- exercise financial management and control over many activities.

3.2 In our past reports we have shown that problems with major programmes often arise because of unclear objectives, inadequate governance and weak controls or reporting.[5]

Changes to the programme management approach

3.3 The Department faced several challenges in setting up the Universal Credit programme and defining its management approach. The Department needed to: identify an initial approach to support the timescales and ambition for the programme; implement its approach consistently in the face of existing cultures and processes; and adjust its approach as the programme developed.

The Department tried to use an agile approach to help meet ambitious timescales for the programme

3.4 In November 2010, the Department set out its timetable for introducing Universal Credit in its White Paper *Universal Credit: welfare that works*.[6] In November 2011, the Department confirmed plans to introduce the pathfinder stage in April 2013. The Department planned to use the pathfinder to test the systems it would use nationally. This reduced the time available for the Department to develop its IT system by a further six months.

5 For example, Comptroller and Auditor General, *Home Office: The UK Border Agency and Border Force: progress in cutting costs and improving performance*, Session 2012-13, HC 467, National Audit Office, July 2012; Comptroller and Auditor General, *Department for Transport: Lessons from cancelling the InterCity West Coast franchise competition*, Session 2012-13, HC 796, National Audit Office, December 2012.

6 Department for Work & Pensions, *Universal Credit: welfare that works*, Cm 7957, November 2010.

3.5 Stakeholders, commentators, and the Department's risk register recognised that the timetable was ambitious. The Department originally planned to lay regulations for Universal Credit by October 2012 but only did so in December 2012, four months before the pathfinder in April 2013. However, published draft regulations were available from June 2012.

3.6 In late 2010, the Department decided to use an 'agile' methodology to manage the programme. Agile approaches allow programmes to start technical work before requirements have been finalised, in contrast to traditional 'waterfall' approaches (**Figure 13** and Appendix Seven). The Cabinet Office encourages departments to move away from large ICT projects and expects that doing so will reduce waste, provide a more flexible approach to complex business requirements that are likely to change over time and reduce the risk of project failures.[7]

3.7 The Department estimated that the traditional 'waterfall' approach to programme management would not have been able to introduce Universal Credit until April 2015. Using this approach the Department would have finished setting policy before developing systems. The Department was unable to explain to us why it originally decided to aim for national roll-out from October 2013. It is not clear whether the Department gave decision-makers an evaluation of the relative feasibility, risks and costs of this target date.

Approach redefined several times

3.8 In 2010, the Department was unfamiliar with the agile methodology and no government programme of this size had used it.[8] The Department recognised that the agile approach would raise risks for an organisation that was unfamiliar with this approach. In particular, the Department:

- was managing a programme which grew to over 1,000 people using an approach that is often used in small collaborative teams;
- had not defined how it would monitor progress or document decisions;
- needed to integrate Universal Credit with existing systems, which use a waterfall approach to managing changes; and
- was working within existing contract, governance and approval structures.

7 In particular, the Cabinet Office, *Government ICT Strategy* (March 2011) and *Government ICT Strategy: Strategic Implementation Plan* (October 2011).

8 National Audit Office, *A snapshot of the use of Agile delivery in central government* (September 2012) identified 34 projects at 16 government organisations reportedly using agile. Cost data for 26 of these projects totalled £2.9 billion. The Department is responsible for the two largest projects in this list, Universal Credit (£2.2 billion) and Personal Independence Payment (£646 million). The total cost of the 24 projects run by other government bodies was £25.7 million (less than 1 per cent of the total). Available at: www.nao.org.uk/report/a-snapshot-of-the-use-of-agile-delivery-in-central-government-4/

Figure 13

Comparison of systems development approaches

Agile allows development to start while requirements are still being finalised

	Waterfall	Agile
System development	Development begins once users agree the business requirements and the design document. System is developed in sequential steps based on user specifications.	Requirements emerge through user needs and prototyping and are not defined before starting. Users work with developers to improve requirements while computer code is written. System is developed in small, iterative steps lasting up to two weeks.
Perceived benefits	Governance and accountability can be clearly defined in contracts.	Development is rapid and can help to define requirements or identify complex issues early.
Perceived disadvantages	Systems take longer to develop because of the sequential development steps. Users may find that the end product does not meet their objectives because requirements were wrongly specified, or changed. There is no guarantee of successful implementation at the end of the development process.	There is often a high level of rework as business requirements are not clearly defined at the outset. There is no guarantee of successful implementation at the end of the development process.

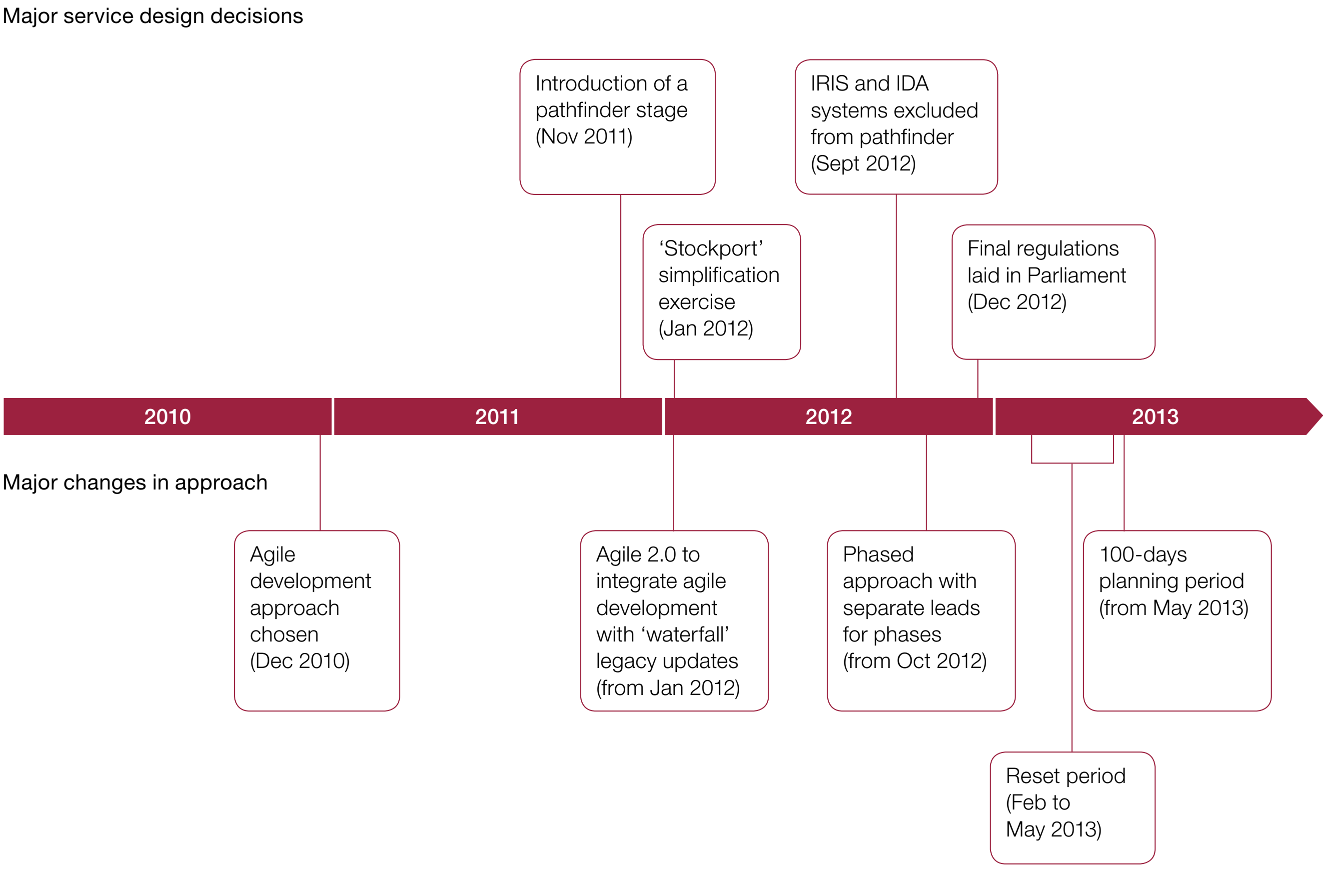
Source: National Audit Office

3.9 To tackle concerns about programme management, the Department has repeatedly redefined its approach (**Figure 14** overleaf). The Department changed its approach to 'Agile 2.0' in January 2012. Agile 2.0 was an evolution of the former agile approach, designed to try to work better with existing waterfall approaches that the Department uses to make changes to old systems. After a review by suppliers raised concerns about the achievability of the October 2013 roll-out the Department then adopted a 'phased approach' and created separate lead director roles for the pathfinder (phase 1), October roll-out (phase 2) and subsequent migration (phase 3).

3.10 The Cabinet Office does not consider that the Department has at any point prior to the reset appropriately adopted an agile approach to managing the Universal Credit programme.

Figure 14
Timeline of service design decisions

The Department has repeatedly adjusted its approach



Note

1 IDA (Identity Assurance) ensures that all digital public service users can assert their identities safely, securely and simply; IRIS (Integrated Risk and Intelligence Service): a central hub which analyses data and intelligence on fraud and error.

Source: departmental documents and business cases

The source of many problems has been the absence of a detailed view of how Universal Credit is meant to work

3.11 The Department has struggled to set out how the detailed design of systems and processes fit together and relate to the objectives of Universal Credit. This is despite this issue having been raised repeatedly in 2012 by internal audit, the Major Projects Authority and a supplier-led review. This lack of clarity creates problems tracking progress, and increases the risk that systems will not be fit for purpose or that proposed solutions are more elaborate or expensive than they need to be.

Unanticipated security problems, from putting transactions online

3.12 The Department decided, in early 2011, to adopt a demanding interpretation of the principle of 'digital by default' for claimant interactions with Universal Credit.[9] The Department expected claimants to use services online whenever possible; including to make sensitive changes to bank account and personal details. This increased the level of security requirements for the programme's IT system.

3.13 In October 2012, the Cabinet Office rejected the Department's existing IT hardware and networks (infrastructure) proposal. The proposal was for a highly secure, strategic infrastructure, capable of supporting national roll-out and other departmental reform programmes at a cost of £55 million. The Cabinet Office rejected this on the grounds that the Department did not have a clear strategic plan more widely, and their infrastructure proposal was unnecessarily elaborate and offered poor value for money for the delivery of pathfinder. In response, the Department changed its proposed infrastructure to the minimum necessary to support the pathfinder. The Cabinet Office accepted this proposed short-term solution at a cost of £2 million.

3.14 The Department continued to develop its plans for a long-term strategic security solution. In January 2013, the Universal Credit security solution was over-complex according to the technical director of CESG[10] and other reviewers. This would have conflicted with the programme's objective of encouraging claimants to go online.

3.15 Following the recommendations of the Major Projects Review Group to pause the programme, the Department stopped developing systems for national roll-out and focused on short-term solutions for the pathfinder. The Department provided the minimal architecture solution in time for the pathfinder, but could not complete operational testing of systems before systems went live. This increased risk to the Department and suppliers but testing was subsequently completed during live running.

3.16 The reset team recommended, in May 2013, that the Department reconsider 'digital by default' and instead adopt a principle of 'digital as appropriate'. The Department is now reviewing which activities should be conducted online.

9 This approach was in line with the government ICT strategy, which says "… the Government will work to make citizen-focused transactional services 'digital by default' where appropriate …" (Cabinet Office, *Government ICT Strategy*, March 2011, paragraph 45).

10 CESG is the UK government's national technical authority for information assurance. It provides policy and assistance on the security of communications and electronic data.

Reliance on other Department-led programmes

3.17 The Universal Credit programme planned to use a system called 'IRIS' (Integrated Risk and Intelligence Service) to assess the riskiness of online transactions and allow Universal Credit to fast track low-risk claimants, add additional checks for other claimants, or prevent transactions when there was a high risk of fraud. IRIS is a separate programme that the Department is developing in consultation with HM Revenue & Customs, to help reduce fraud and error across government.

3.18 The Department was unclear about how far its security solution depended on the IRIS 'trust' component, which assesses and establishes confidence in a user's identity. The Department did not know what would be required to make it work in combination with other security components, what information would need to be exchanged or how the risk rating process would really work. The pathfinder uses an interim solution because the Department has delayed development of a strategic risk and trust system.

3.19 The Department is also reconsidering its plans for identity assurance (IDA) of online users. It originally planned to develop an IDA solution for Universal Credit and Personal Independence Payment, which would ultimately form the basis of a cross-government approach. In December 2011, the Cabinet Office decided that the proposed solution was too expensive and unfit for cross-government purposes. During 2012, the Department continued with developing its own solution but there were delays in securing funding and finalising the tender for IDA providers.

3.20 In January 2013, the Cabinet Office took responsibility for several strands of the cross-government IDA platform from the Department. The Department and the Cabinet Office IDA Programme Team will resume work later in 2013 to bring the cross-government IDA solution to Universal Credit.

Governance has not been effective at addressing concerns when they arose

3.21 Major programmes rely on three 'lines of defence' within governance arrangements: internal programme management and control over suppliers; departmental challenge and oversight; and independent review or assurance. Despite raising and recording a number of risks these lines of defence did not lead the Department to address concerns effectively.

Lack of transparency and challenge

3.22 The Department has particularly lacked IT expertise and senior leadership. The chief information officer role was filled on an interim basis for five months from March 2012. The director of Universal Credit IT was removed from the programme in late 2012 and the Department has replaced the role with several roles with IT responsibilities. During and since the 'reset' the Government Digital Service has helped to redesign the systems and processes supporting transformation.

3.23 The culture within the programme has also been a problem. The Department intended to ring-fence the Universal Credit programme from cost savings being made in other areas. It decided to deliver the programme through a single delivery organisation within the Department. Both the Major Projects Authority and a supplier-led review in mid-2012 identified problems with staff culture; including a 'fortress mentality' within the programme. The latter also reported there was a culture of 'good news' reporting that limited open discussion of risks and stifled challenge.

Inadequate control over suppliers

3.24 The Department had to manage multiple suppliers. Three main suppliers – Accenture, IBM and HP – developed components for Universal Credit. The Department commissioned IBM to act as an Applications Development Integrator from January 2012, providing some oversight and overall management of IT development, but creating risks of supplier self-management.

3.25 Various reviews have criticised how the Department has managed suppliers. In June 2012, CESG reported the lack of an agreed, clearly defined and documented scope with each supplier setting out what they should provide. This hampered the Department's ability to hold suppliers to account and caused confusion about the interactions between systems developed by different ones. In February 2013, the Major Projects Authority reported there was no evidence of the Department actively managing its supplier contracts and recommended that the Department needed to urgently get a grip of its supplier management.

3.26 The Department has exercised poor financial control over the Universal Credit programme. The Department commissioned an external review in early 2013 of financial management in Universal Credit. The review found several weaknesses including poor information about the basis for supplier invoices, payments being made without adequate checks and inadequate governance and oversight over who approved spending (**Figure 15** overleaf). The review team checked a sample of invoices against the timesheets of suppliers and found no evidence of inappropriate charging, although timesheet information is not complete and cannot be linked to specific activity.