National Audit Office

Report
by the Comptroller
and Auditor General

Ministry of Defence

Delivering the defence estate

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Ministry of Defence

Delivering the defence estate

Report by the Comptroller and Auditor General

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Sir Amyas Morse KCB
Comptroller and Auditor General
National Audit Office

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This report assessed whether the Department is now in a good position to manage its estate and whether it has addressed the barriers identified in previous reports.

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Contents

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Key facts

1.8%
percentage of UK land mass managed by the Ministry of Defence

£4.8bn
spend by the Ministry of Defence on its estate in 2015-16

30%
target reduction in the Ministry of Defence's 'built' estate by 2040

424,000	hectares of land and foreshore that the Ministry of Defence (the Department) owns or has access rights to in the UK as at 1 April 2016
30 million square metres	current size of the 'built estate'
55,000	the number of new homes to be built on land the Department releases between 2015 and 2020
£1 billion	amount the Department must make from land disposals between 2016-17 and 2020-21
£2.4 billion	overall financial benefit of delivering the Department's strategy for managing the defence estate (called the Footprint Strategy)
£8.5 billion	current estimated minimum shortfall in funding needed over the next 30 years to replace parts of the defence estate, according to operational lifespan and current condition and assuming successful implementation of the Footprint Strategy
£475 million	current estimated cost of the backlog of work to maintain the defence estate
£328 million	expected fees to be paid to the Department's strategic business partner over 10 years to improve management of the defence estate

Summary

Background

1 The Ministry of Defence (the Department) holds one of the largest estates in the country, accounting for approximately 1.8% of the UK land mass and valued at £31 billion. The defence estate is crucial to the country's defence capability. It includes land and also buildings such as offices, houses, storage units and training facilities (the 'built estate'). In 2015-16 the Department spent £4.8 billion (12%) of its budget on the estate, mainly on maintaining, building and upgrading the built estate.

2 Between 1987 and 2010 we reported five times on how the Department manages its estate, including its failure to align it with military need. Our past reports suggest that some of the reasons for this failure include a lack of agreement within the Department on the size, location and composition of the estate; poor management information on which to base decisions; and an inability to align the interests of different stakeholders. Additionally, most of the estate is in use and often cannot be disposed of without providing essential facilities elsewhere.

3 In 2011 the Department established the Defence Infrastructure Organisation (DIO) to manage the estate centrally. The objective was to cut costs, drive further rationalisation and create commercial opportunities for using the estate.

4 The government has set targets for the Department to reduce its built estate by 30% by 2040 and, as part of its Spending Review settlement, it must also make £1 billion between 2016-17 and 2020-21 by disposing of estate that it no longer needs. The Department is also the largest contributor to the government's objective of releasing land to build 160,000 new homes between 2015 and 2020, and has a target of releasing enough land to build 55,000 homes.

5 The Department has prepared a strategy for the defence estate for the period 2015 to 2030 which sets out its vision to deliver an estate "that is affordable and optimised to enable Defence capabilities, outputs and communities both now and in the future". The Department defines affordable as being able to fund the cost of sustaining an estate that enables it to meet its strategic commitments, at an acceptable level of risk to military capability.

6 Given the scale and complexity of the task it faces in regards to its estate, the Department recognises that it is not yet in a position to identify what an optimised estate should cost and then deliver it. Instead, it is focusing on rationalising its estate onto a smaller footprint that is more efficiently organised, more intensively used, with assets in better condition, and that enables it to meet the short-term targets it has been set.

Scope

7 This report assesses whether the Department is well placed to deliver the estate it needs to meet its strategic objectives, and has addressed the barriers to progress that we have identified in previous reports. In Part One we describe the defence estate, factors that influence how the Department manages it and the Department's vision for a more optimal estate. We then assess whether the Department:

- has a coherent strategy in place to provide a defence estate that meets defined military needs and is affordable within available resources (Part Two); and
- has an appropriate operating model in place to support its long-term strategy for the defence estate (Part Three).

8 Our study focuses on the UK estate managed by DIO because this accounts for most of the Department's spending on the estate. DIO's management of the overseas estate is not within the scope of this study.

Key findings

9 The Department faces a huge challenge in maintaining its estate. Because of long-standing pressure on its budget, the Department has carried out only essential maintenance on its estate since 2009. It only acts where the health and safety of those using the estate is at risk. As a result, there has been a steady decline in the overall condition of the estate. Increasingly, assets have needed to be replaced rather than repaired. In the longer term, this is more costly (paragraphs 1.8 and 2.6).

10 The constraints on funding for its estate are leading the Department to make decisions that are poor value for money in the longer term. Demand for funding significantly outstrips available budgets. To manage the estate within its budget, the Department has made decisions that subsequently offer poor value for money in the longer term, including the 1996 decision to sell and lease back the majority of Service Family Accommodation, which is now limiting the Department's ability to manage this element of the estate cost-effectively. The Department has adopted a portfolio approach of prioritised estate projects to try to achieve stability and certainty in what projects will go ahead and to focus its investment more effectively, similar to the approach taken to managing projects buying and supporting military equipment. However, the lack of contingency funds to meet unexpected costs and lack of certainty about future budgets undermine the Department's programme to invest in its estate (paragraphs 2.3 to 2.5 and 2.7).

11 **There is a significant risk that the poor condition of the estate will affect the Department's ability to provide the defence capability needed.** The estate is an important element of defence capability, enabling the Armed Forces to train and undertake operations, and providing accommodation for personnel and their families. The Department's inability to invest sufficient funds may jeopardise the delivery of new and existing capabilities. The Department now faces a shortfall of at least £8.5 billion in its future funding for 'lifecycle replacement costs', based on the expected size and condition of its estate, over the next 30 years. As the estate's condition deteriorates, some parts may wholly or partially close. This will exacerbate other risks and could reduce operational readiness. Furthermore, poor accommodation for service families is affecting the morale and the recruitment and retention of service personnel (paragraphs 1.8 to 1.11).

12 **Plans to delegate infrastructure budgets to the Commands have risks which must be managed if the anticipated benefits are to be secured.** The Department believes delegating estate budgets to the Commands, as it has done with the budgets for equipment and staffing, will enable them to balance demands across their budgets to better tackle the risks of the estate failing. However, the Commands' underinvested in the estate when they previously held this budget prior to 2011, which is a significant cause of the problems the Department now faces. Also, the Commands' budgets are already stretched. The Department will consider the balance between the estate, equipment and people as part of its 2017 budget planning (paragraphs 3.24 to 3.26).

13 **The Department has now set out a plan that supports the delivery of military capability and makes a significant contribution to government targets.** After many years of limited progress in determining the size and shape of the estate it requires, in 2016 the Department set out a vision for its estate in 2040 that supports military capability, while meeting government targets. The Footprint Strategy sets out innovative plans for making a significant contribution to the Department's targets to reduce the size of its estate by 30%, release land for new housing and secure disposal receipts for reinvesting in the estate. The Footprint Strategy built on the Army Basing Plan announced in 2013, which set out a future basing strategy for the Army, including bringing back troops from Germany (paragraphs 2.9 and 2.20).

14 **The Footprint Strategy is based on assumptions and estimates and the Department expects that its plans will evolve over time.** The Department expects to refine the information on which decisions in the Footprint Strategy to keep, dispose and invest in the estate are based. In doing so it expects to reduce the estimated cost of re-providing essential facilities. However, if the Department fails to secure the disposal proceeds predicted, or costs increase, this could reduce the financial benefits of the strategy and cause potential funding gaps. The Department anticipates that more than 40% of disposal proceeds will come from disposal of a few sites in London, which are uncertain. The Department does not have enough funds to finance the strategy in full and is exploring other finance models, including Private Finance 2, which could be more expensive and less flexible than direct government financing (paragraphs 2.16 to 2.19).

15 **Successfully implementing the Department's Footprint Strategy will be extremely challenging.** The Department has set out at a high level how it intends to deliver the Footprint Strategy. However, at the current time its plans are untested and based on a number of assumptions. Many of the estate disposals, re-provisioning of essential facilities and personnel moves are interdependent. If the Department fails to keep to its timetable, or to achieve the forecast proceeds from disposing of sites or keep within its forecast for re-provision costs, there is a significant risk of long delays in implementing the overall strategy. Our case studies illustrate the many complications with disposing of the estate. Sustaining focus over the 25-year life of the strategy will be difficult, with yearly budgeting cycles and five-yearly strategic defence and security reviews (paragraphs 2.21 to 2.24).

16 **The risks to military capability from the estate will continue unless further actions are taken to address the shortfall in funding to sustain the estate.** Due to the scale and complexity of the challenges facing the Department, it was never the Department's intention that these would be fully addressed by the Footprint Strategy. The Department is aware that even after successful implementation of the Footprint Strategy, current assumed budgets will only allow for a partial reversal of the decline of its remaining estate and that there will be a gap of at least £8.5 billion in relation to the funding required to sustain the estate. As a result there will be continuing risks to its ability to support military capability. It is considering further proposals for reducing the cost of its estate and achieving a better balance between the estate, personnel and equipment it needs to deliver military capability. However, it has not yet set out a strategy for achieving an optimised estate that can be sustained at acceptable risk within planned funding levels (paragraphs 1.14 and 2.25 to 2.27).

17 **There were fundamental weaknesses in the Department's contracting with a strategic business partner.** The Department let a novel contract in 2014 to a private sector consortium, led by Capita, to become its strategic business partner running the organisation and helping it achieve savings which had already been removed from its budget. The Department failed to set contractual safeguards to ensure savings are achieved from operational improvements, which was the primary aim of the contract, rather than one-off cost-cutting. The key performance indicators regime set in the contract to measure DIO's performance has weaknesses. Around half of the contract's key performance indicators were not in place at the start of the contract. Also, the Department assessed that reported performance against the indicators did not reflect the Commands' perceptions of how DIO was performing (paragraphs 3.4 to 3.6, 3.9 and 3.10).

18 **The Department failed to transform DIO prior to contracting with the strategic business partner, which limited the benefits of the contract.** The Department's intention was to first transform DIO and then contract with a private sector partner to bring in new management with specialist skills to deliver the savings the Department could not achieve on its own. However, the Department failed to deliver the transformation it expected to before the partner joined DIO, including putting in place an effective operating model supported by a single IT system. This failure has affected the partner's performance and created complexity in relation to the Department's ability to hold the partner to account for its performance. It also meant that the strategic business partner took on an organisation that was less capable, and therefore presented greater risks that DIO could be improved as per the contract (paragraphs 3.7, 3.8, 3.11 and 3.12).

19 **Although there have been some improvements, the strategic business partner's performance has not met all expectations and has not made a notable difference in transforming DIO to better meet the needs of the Commands.** The Department recognises the partner's success in turning around some of DIO's troubled programmes and developing the Footprint Strategy. But the partner has not met all milestones or performed adequately against agreed key performance indicators. The Department also considers that the partner has failed to manage certain key contracts adequately or improve internal controls effectively, and that many stakeholders across defence have lost confidence in DIO's ability to deliver the requirements of the Commands. The Department acknowledges that some factors have been outside the partner's control, including the underfunding of the estate and decisions that the Department has taken in the past. The Department paid the strategic business partner £90 million between June 2014 and July 2016 (paragraphs 3.13 to 3.17).

20 **The Department does not yet have an overall model for managing the estate effectively.** In 2011 the Department undertook large-scale change of how the estate was managed. It believed that both creating DIO to centrally manage the estate and prioritising the Commands' estate needs would improve its management and enable it to cut costs. In 2014 it made further changes by contracting with the strategic business partner to manage DIO and upskill staff. However, the overall model for managing the estate has not worked. Roles and responsibilities are unclear, governance arrangements are confused and DIO still does not have the skills and capabilities it requires. The Department is undertaking a fundamental review of how its estate is managed and the role the private sector will play. Further change, coupled with poor staff morale within DIO, may lead to delays rationalising the estate and could compound the risks to military capability from infrastructure (paragraphs 3.18 to 3.35).

Conclusion on value for money

21 The Department has started to improve its management of the defence estate. It has recognised demand for funding significantly exceeds budgets. Past actions it took to live within its means are now leading to increased costs overall and creating risks to military capability. In response the Department has developed a strategy which identifies the estate it needs and the 25% of its estate it can dispose of by 2040 to reduce costs. However, the success of much of this strategy is uncertain. There is a risk that anticipated financial benefits will not be realised and that long delays and gaps in funding will emerge. The strategy and current funding levels also allow only for a partial reversal of the decline in the condition of the remaining estate. The Department has not yet set out how it will fully address the significant challenges it faces sustaining the whole of its estate and the resulting risks to military capability.

Recommendations

22 The Department should:

a **Develop a more comprehensive view of the estate liabilities that will remain following the implementation of the Footprint Strategy, including what it will need to spend sustaining the entire estate.** Until the Department improves its visibility of its future commitments, and how these will be affected by the Footprint Strategy, it cannot target available funding to achieve optimal value for money from its estate.

b **In light of the above, undertake a detailed review to assure itself that it has optimised the strategic balance of investment between the estate and other elements of capability, such as personnel and equipment, at the departmental and Command level.** In the absence of this, there is a significant risk that the poor condition of the estate could jeopardise the delivery of military capability.

c **Develop detailed plans that set out how the Department will close the gap in funding to sustain the estate to an acceptable level of risk to military capability.** The Department is aware that even after successful implementation of the Footprint Strategy, it will not be able to afford to sustain its remaining estate and that this will present continuing risks to its ability to support military capability.

d **In the longer term, the Department should work out what the estate should cost in the context of the military capability it needs to deliver its strategic commitments and a plan to achieve this estate.** The Department's current approach aims to better align its estate with available resources in order to meet government targets and as a first step towards achieving optimal value for money. The Department is not yet in a position to identify what an optimised estate should cost and then deliver it.

e **Engage early with stakeholders critical to delivery of its Footprint Strategy, including local authorities, the Department for Communities and Local Government and the Cabinet Office.** Greater certainty about the Department's future plans provides an opportunity for it to address complications relating to disposals in advance of their scheduled delivery date.

f **Work with HM Treasury to identify financing options for the Footprint Strategy which do not place significant restrictions on the Department in relation to its future use of the estate.** The Department is considering the cost and flexibility of alternative financing options.

g **Provide clear information to Parliament on how it is managing the complex risks to delivery of its Footprint Strategy.** It should do this by reporting regularly both on progress to date and projected performance against its long-term strategy and medium-term implementation plan. Regular reporting will help the Department sustain focus on the strategy and enable Parliament to monitor its progress.

h **Ensure that, whichever overall operating model it decides upon to implement its estates strategy, responsibility and accountability for managing the estate are aligned and those who use the estate are incentivised to do so cost-effectively.** Without clear lines of accountability it will be difficult to improve the Department's performance in relation to its management of the estate.

i **Put in place strong safeguards, prior to delegating estate budgets, to ensure that the Commands give the estate the attention it requires and that they have the incentives, information and skills they need to manage their estate assets and budgets effectively.** Delegating the estate budget to Commands should put them in the best position to make difficult trade-offs but would create a risk that they will under-invest in the estate in favour of equipment and staff.

Part One

The scale and organisation of the defence estate

1.1 In this part we describe the defence estate and the factors that influence how the Ministry of Defence (the Department) manages it. We also set out the Department's strategy for achieving its vision for its estate, which we assess in Parts Two and Three.

The scale of the Department's estate

1.2 The Department holds one of the largest estates in the UK. It owns approximately 220,000 hectares of land and foreshore and has access rights to a further 204,000 hectares (a total of 424,000 hectares). Together, these comprise around 1.8% of the UK land mass. In addition, it manages a further 200,000 hectares of land overseas.

1.3 The defence estate is an important element of our national defence capability. It includes living and training facilities for military personnel, is a base from which to operate and deploy, and contains offices, technical facilities, and storage and support for military equipment and inventory.

1.4 The estate comprises a huge variety of assets which together are valued at £31 billion.[1] The estate includes land and also buildings such as offices, houses, storage units and training facilities (the 'built estate'). The built estate includes more than 115,000 separate buildings covering about 30 million square metres. In 2015-16 the Department spent £4.8 billion (12%) of its departmental budget on the estate, mainly on maintaining the estate, utilities and accommodation.[2] Of this, £2.7 billion was spent by the Defence Infrastructure Organisation (DIO), which manages the majority of the built estate.

1.5 In 2011, partly in response to our 2010 report, the Department established DIO to centralise management of the estate.[3] DIO was expected to cut running costs significantly, drive further rationalisation and create commercial opportunities for using the estate.[4]

1 Sum of net present values as at 31 March 2016 of estate assets: land and buildings, land other buildings, dwellings and other buildings. Ministry of Defence, Annual Report and Accounts 2015-16, pages 144–145.

2 Percentages are calculated on a 'cash basis' and do not include depreciation, impairment costs and movements on the fair value of financial instruments.

3 Comptroller and Auditor General, *A defence estate of the right size to meet operational needs*, Session 2010-11, HC 70, National Audit Office, July 2010.

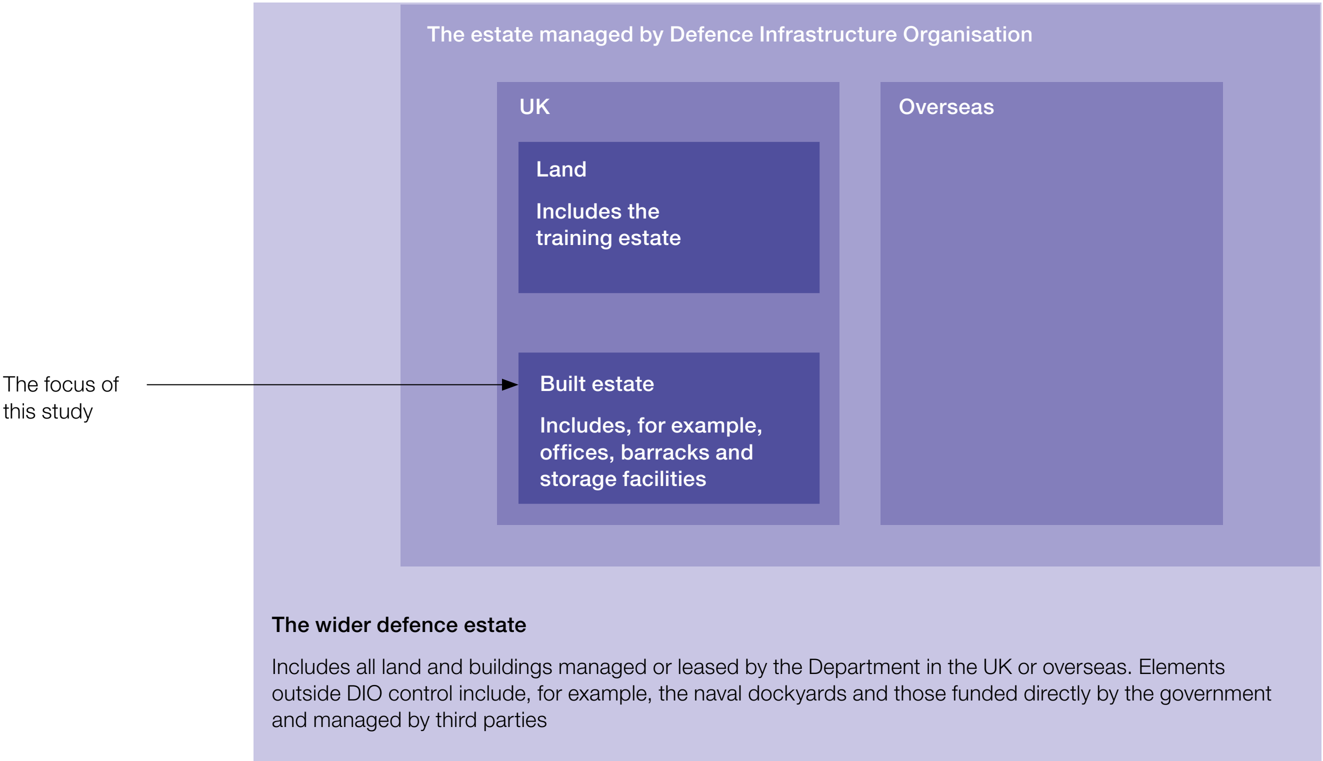
4 DIO delivers its responsibilities through six core activities: construction; strategic asset management; hard facilities management (such as maintenance works); soft facilities management (such as cleaning); guarding and security; and accommodation services.

1.6 In recent years, the Department has focused on making more cost-effective use of its built estate, which accounts for a significantly greater proportion of running costs than the land.[5] This report concentrates on the Department's efforts to use the proportion of the built estate managed by DIO in the UK more cost-effectively. It does not include the overseas estate because DIO's work is mainly focused on the UK. **Figure 1** shows the elements of the defence estate that are covered by this study.

Figure 1

The defence estate and scope of this study

This study focuses on the UK built estate that is managed by Defence Infrastructure Organisation



Source: National Audit Office

5 The Department estimates that 17% of the running costs of its estate relate to the overseas estate, 10% to land or volunteer estate in the UK, 63% to the built estate in the UK and 9% to other costs.

1.7 Although other departments face similar pressures to reduce the size of their estates, the scale and complexity of the task facing the Department is arguably the greatest in government. This is in part because of the need to re-provision essential facilities before disposing of some of the estate, and the cost of doing this. Since 1987, we have reported five times on issues relating to the defence estate, including the Department's failure to align the size of its estate with its requirements.[6] These reports, and further analysis in this study, suggest the reasons for this include:

- underinvestment in the estate, both now and in the past;
- lack of agreement about the size and shape of the future estate;
- poor management information on which to base decisions;
- an inability to align stakeholders' interests in order to make and then carry out decisions quickly and effectively;
- organisational structures that do not provide incentives for managing the estate cost-effectively; and
- gaps in the skills and capabilities required to manage the estate effectively.

The condition of the Department's estate

1.8 The condition of much of the Department's estate is poor and deteriorating. In 2009, in response to financial pressure at the time, the Department abandoned its aim of improving the estate to 'target condition' and keeping it at that level through a planned maintenance programme.[7] Instead, it reduced the service levels to those necessary to provide a safe and legal estate. The Department intended that, by adopting this policy, it would avoid investing in estate that it was not using. However, without a clear plan regarding the future size, location and composition of the estate on which to base decisions about spending priorities, the result has been a general deterioration.

1.9 The Department recognises the risk that the condition of its estate could affect its ability to deliver the defence capability that it needs to meet its strategic objectives. A June 2016 Defence Board paper on the risk to people and capability posed by the estate noted that: "the poor condition and fragility of infrastructure across the estate, present[s] a significant risk that buildings and facilities will need to be wholly or partially closed due to failures of assets or mandatory inspections."[8] **Figure 2** illustrates how the estate has the potential to jeopardise defence capability.

6 Comptroller and Auditor General: *A defence estate of the right size to meet operational needs*, Session 2010-11, HC 70, National Audit Office, July 2010; *Managing the defence estate*, Session 2005-06, HC 25, National Audit Office, May 2005; *Identifying and Selling Surplus Property*, Session 1997-98, HC 776, National Audit Office, June 1998; *Management and Control of Army Training Land*, Session 1991-92, HC 218, February 1992; and *Control and Management of the Defence Estate*, Session 1986-87, HC 131, National Audit Office, January 1987.

7 Target condition is the point at which the asset meets operational requirements and future maintenance costs are minimised.

8 The Defence Board is the senior committee in the Department and oversees how defence is managed, including strategy, performance, risks and plans.

Figure 2
Possible impact of failing estate on carriers

The Department has commissioned two new aircraft carriers, the first of which, HMS Queen Elizabeth, will arrive in Portsmouth during 2017. The total cost of building the carriers is forecast to be £6.2 billion. The Department has also been investing to upgrade the estate assets necessary to enable the carriers to operate. This includes building a new jetty and dredging a channel deep enough to enable the carriers to sail into the port. A dedicated power supply to the first carrier berth was completed in summer 2016, and the remaining works to directly support the carrier will be completed in January 2017, ahead of the Queen Elizabeth's anticipated arrival.

However, elsewhere on the base, funding pressures have meant that the Department has not invested in other ageing estate assets which are needed to support all of the ships which dock in the naval base, including the carriers. For example, the cables that supply power for wider activities on such as stores, offices and workshops are approaching the end of their lives and also need replacing. The Department advised us that it is planning further life-cycle replacement works and intends to start this in 2017-18 in a programme that will run for at least six years.

Source: National Audit Office analysis of Ministry of Defence data

1.10 In some situations the Department can take action to mitigate the risk relating to the estate by undertaking additional activities. For example, inspections of fuels infrastructure at RAF Brize Norton in 2015 identified that a lack of maintenance meant that this facility had to be shut down for safety reasons. To maintain operations, temporary storage was put in place and for a limited period changes made to refuelling and air transport flights. However, a departmental paper in June 2016 noted that, while such actions reduce the risk of 'failure to deliver the defence estate' from a high likelihood of having a severe impact on capability, there remains a medium likelihood of a major impact on capability.

1.11 The estate has a strong impact on the quality of life of service personnel. In its recent report on Service Family Accommodation, the Committee of Public Accounts stated: "Service families have been badly let down for many years and are not getting the accommodation service they have a right to expect."[9] It also expressed concern about the impact on morale and retention in the armed services.

Government targets on the defence estate

1.12 The government has set targets for the Department to reduce its built estate by 30% by 2040 and, as part of its Spending Review settlement, make £1 billion between 2016-17 and 2020-21 by disposing of estate that it no longer needs.

1.13 The government recognises that under-used public land can play a vital role in delivering new homes. In the Autumn Statement 2015 it announced its intention to release enough public sector land to build 160,000 homes between 2015 and 2020.[10] The Department's contribution to this figure is 55,000. DIO is responsible for meeting this target, which we have covered elsewhere.[11]

9 HC Committee of Public Accounts, *Service Family Accommodation*, Ninth Report of Session 2016-17, HC 77, July 2016.
10 HM Treasury, *Spending Review and Autumn Statement 2015*, Cm 9162, November 2015.
11 Comptroller and Auditor General, *Disposal of public land for new homes*, Session 2015-16, HC 87, National Audit Office, June 2015; and *Disposal of public land for new homes: a progress report*, Session 2016-17, HC 510, National Audit Office, July 2016.

Post publication this page was found to contain an error which has been corrected (Please find Published Correction Slip)

The Department's vision for the defence estate

1.14 The Department has prepared a strategy for the defence estate for the period 2015 to 2030, which sets out its vision to deliver an estate "that is affordable and optimised to enable Defence capabilities, outputs and communities both now and in the future". Given the scale and complexity of the task it faces in regards to its estate, the Department recognises that it is not yet in a position to identify what an optimised estate should cost and then deliver this. Instead, it is focusing on better aligning its estate with available resources in order to meet government targets and as a first step towards achieving optimal value for money. The strategy's focus for the period 2015 to 2020 is:

- developing a Footprint Strategy and supporting implementation plan that will enable the Department to develop and optimise the defence estate so it supports better defence outputs, capabilities and communities; and becomes affordable in support of Joint Force 2025;[12] and
- establishing a healthy organisational structure that will set clear governance mechanisms for holding to account, and clear roles and responsibilities that will ensure staff are more effective and efficient in support of the strategy's objectives.

1.15 In this report we review progress against both of these objectives and examine whether the Department:

- has a coherent strategy in place to deliver a defence estate that meets defined military needs and is affordable within available resources (Part Two); and
- has an appropriate operating model in place to support its long-term strategy for the defence estate (Part Three).

1.16 Appendix One describes our audit approach and Appendix Two sets out our evidence base.

1.17 This report is part of a series that we are publishing on departments' management of their estates. To support comparisons between departments we have summarised our findings against a common framework, which can be found here www.nao.org.uk/report/delivering-the-defence-estate.

12 To be able to deploy a force of around 50,000, drawn from a Maritime Task Group, an Army Division, an Air Group and Joint Forces.

Part Two

The Department's estate strategy

2.1 In this part we examine whether the Ministry of Defence (the Department) has a coherent strategy to deliver a defence estate that meets defined military needs and is affordable within available resources.

Investment in the estate

2.2 In 2015-16 the Department spent £4.8 billion on its estate, 12% of its annual budget. It spent £13.7 billion (34%) on equipment and £11 billion (27%) on staff.[13,14] Around half (£2.7 billion) of the estate budget is spent by the Defence Infrastructure Organisation (DIO).[15] **Figure 3** overleaf shows the breakdown of where DIO spent its budget in 2015-16.

2.3 When DIO was formed in 2011 it inherited a large number of projects from across the Department at varying stages of development. To better manage these projects within the overall allocated budget, the Department created a list of all the estate investment programmes for which it was responsible (the Capital Infrastructure Programme) and scheduled delivery of them over the following 10 years. It also established a process for prioritising only essential projects, which reduced the number of projects it planned to deliver from around 350 in 2014 to 53 in 2016. Some projects that the Armed Forces (the Commands) deemed important were not included.

13 This includes both resource and capital spending. However, only capital spending by DIO on the estate is included because the Department does not separately record whether non-DIO capital spending is on the estate or on other assets. The Department expects the majority of non-DIO capital spending to be on equipment.

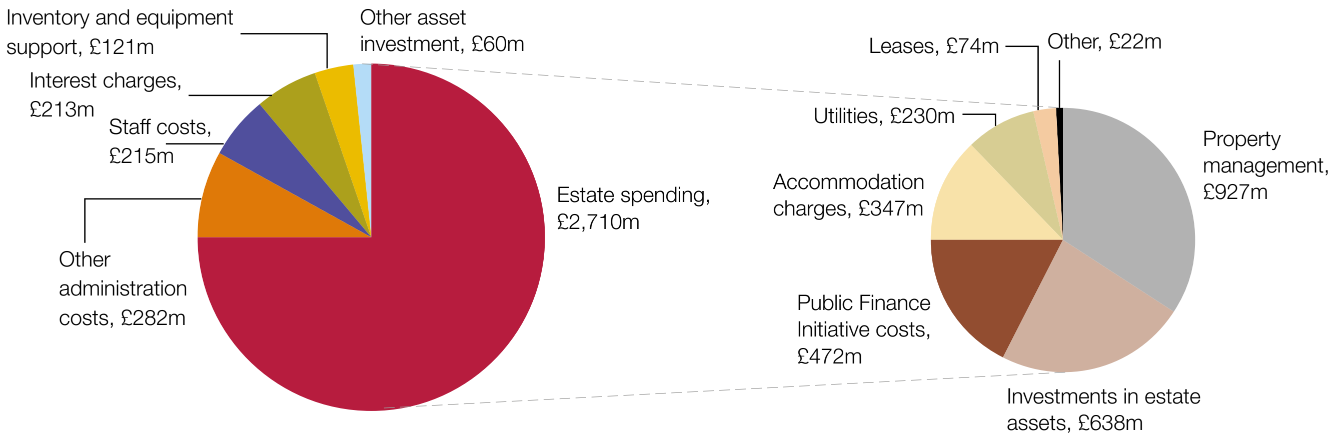
14 Percentages are calculated on a 'cash basis' and do not include depreciation, impairment costs or movements on the fair value of financial instruments. We have used a mixture of financial reporting and budgeting reporting bases to analyse the Department's spending. As a result, not all figures in this report are directly identifiable in the Department's Annual Report and Accounts.

15 Joint Forces Command accounts for £1.5 billion of the remaining £2.1 billion. The majority of this spending is on IT infrastructure.

Figure 3

Defence Infrastructure Organisation's spend in 2015-16

DIO spends the majority of its budget on estate-related costs



Notes

1 Percentages are calculated against gross DIO spending, ie income received is not netted off.

2 Excludes income of £654 million, primarily from disposal of estate and rental payments from personnel, which is netted off DIO's and total spend in-year.

3 Figures do not include non-cash costs of depreciation, impairment costs and movements on the fair value of financial instruments.

Source: Ministry of Defence

2.4 The Department has sought to create a stable infrastructure investment programme by applying some of the lessons it learned from its approach to managing its Equipment Plan.[16] These include programming projects over 10 years and being more realistic about how quickly it can deliver projects. However, this approach has been undermined by cuts to its budget. The Department reduced DIO's funding for the programme by £350 million in 2015-16 and by £150 million in 2016-17. As a result, the Capital Infrastructure Programme does not have sufficient funding in the early years to cover the projects it has prioritised and committed to.[17] In addition, there is no contingency budget to accommodate unexpected costs that arise in the early years. Therefore the Department must regularly re-prioritise projects both between, and within, years to meet urgent requirements. As we have noted in our work on the Equipment Plan, budgetary imbalance forces the Department to slip or make cuts to projects and programmes, which can be poor value for money and cause delays. This is also the case with the estate.

16 Comptroller and Auditor General, *Ministry of Defence: Major Projects Report 2015 and the Equipment Plan 2015 to 2025*, Session 2015-16, HC 488-I, National Audit Office, October 2015.

17 In 2017-18 and 2018-19 there is a shortfall of £82 million and £46 million respectively.

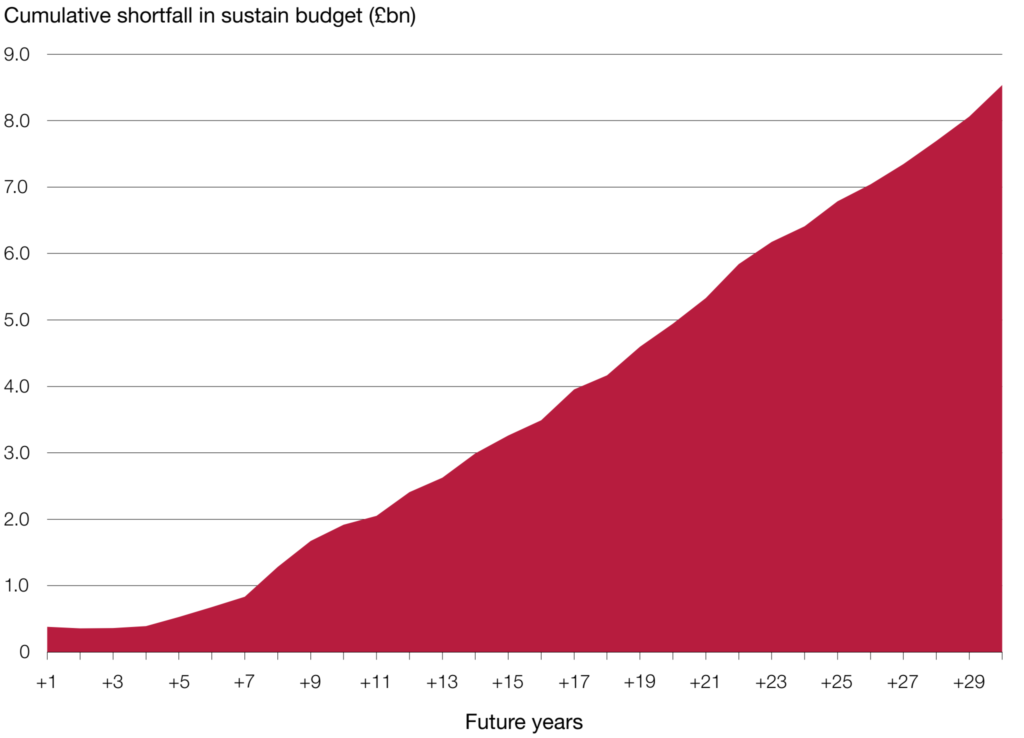
2.5 Despite the Department's efforts to improve the way it manages estate projects, in relation to both capital and running costs, demand still significantly exceeds the funding available. In our 2015 report *Strategic financial management in the Ministry of Defence* we reported that the Department could only afford to fund 50% of the value of estate projects that the Commands considered necessary.[18] The Department also faces a backlog of overdue work to maintain its estate of £475 million, of which £32 million is currently funded.

2.6 The legacy of underinvestment has resulted in a cumulative increase in future requirements to undertake capital investment to sustain the estate. On the information it has available, the Department has undertaken modelling which forecasts a shortfall of at least £8.5 billion in "life-cycle replacement" funding over the next 30 years (**Figure 4**). This modelling is based primarily on the 32,000 buildings maintained by DIO and does not include other elements of the built estate such as Service Family Accommodation and the naval dockyards. Inclusion of these elements would increase costs. The Department expects to improve its assessment of life-cycle replacement costs as it improves its data on the estate.

Figure 4

The life-cycle replacement model

There is a cumulative increase in the shortfall in funding required to sustain the estate



Note

1 The base year is 2016.

Source: Ministry of Defence

18 Comptroller and Auditor General, *Strategic Financial Management in the Ministry of Defence*, Session 2015-16, HC 268, National Audit Office, July 2015.

2.7 The squeeze on the Department's funding for its estate is both the main reason why it wants to make more cost-effective use of its estate, and the main barrier to doing so. If the Department can reduce its estate, it will also decrease the future costs associated with upgrading and maintenance. However, funding constraints are leading the Department to make decisions that are poor value for money in the long term. Pressure on its estate budget is further increased by the consequences of decisions the Department has taken in the past (**Figure 5** and **Figure 6**).

Figure 5
The impact of a lack of maintenance on RAF Valley

RAF Valley is one of the RAF stations where future F-35 jet aircrew and search and rescue pilots and crew are trained. The station medical centre developed a hole in its roof, resulting in water leaking into areas used by patients. A project to replace the medical centre had been proposed within DIO's Capital Infrastructure Programme for a number of years, but was not funded. This, combined with limited funding for maintenance works, meant fixing the leaking roof was a low priority. While the new build project was repeatedly delayed due to lack of funding, the roof deteriorated so that to keep medical services running, DIO had to have it replaced. DIO expects to let the new build contract later in 2016, when the current building will be demolished.

Source: National Audit Office

Figure 6
Annington Homes

In 1996 the Department sold four-fifths of its Service Family Accommodation to Annington Homes for £1,662 million. The Department retained the freehold but Annington held a 999-year 'head lease' while the Department rented the properties back from Annington on a 200-year 'under-lease'.

The Department's objectives for the deal, as stated at the time, included transferring to the private sector property which the Department did not need to own itself; improving the management of Service Family Accommodation through greater involvement of the private sector; raising funds to improve the quality of this accommodation; and achieving value for money through a competitive sale.

As a result of the contract that the Department drew up and entered into, it has not benefited from the rise in house prices over the period and has had to pay higher rental costs to Annington (the average rental price per property has increased from £2,575 in 1997 to £4,865 in 2016). As part of the conditions of the contract, the Department must return the property to Annington Homes in a reasonable state or pay compensation to Annington at the point it terminates the lease. As a result of the Department's lack of investment in Service Family Accommodation, the average dilapidation payment is around £14,000 per property. This limits its ability to manage Service Family Accommodation cost-effectively.

The lease allows for a rent review every 25 years, with the first review in 2021. Until now the Department has benefited from a 58% reduction reflecting: the fact that the Department retains responsibility for maintaining the properties leased to Annington; a bulk discount; and the benefit to Annington of guaranteed payments. Failure to secure an equivalent reduction in 2021 would exacerbate the funding shortfall in the Department's budget.

Note

1 The rental prices in 1997 and 2016 have not been adjusted to take account of inflation. Under the conditions of the sale the rent that the Department pays to Annington Homes is aligned to market rents.

Source: National Audit Office

2.8 Due to the scale and complexity of the task facing the Department in aligning its estate with defined military need and available resources (paragraph 1.7), the Department is not yet in a position to identify what an optimised estate should cost. Instead, it is focusing on rationalising its estate onto a smaller footprint that is more efficiently organised, more intensively used and with assets in better condition. It recognises that achieving an estate that enables optimal value for money is a longer-term ambition.

The Footprint Strategy

2.9 In April 2012 the Department committed to producing a strategy setting out the future size, location and composition of its estate, which would help it to support the delivery of defined military capability within available resources. In March 2013, as a first step towards achieving this commitment, the Secretary of State for Defence announced the Regular Army Basing Plan. This plan involves providing the facilities to enable more than 100 army units to relocate, reconfigure, disband or re-role to deliver the government's commitment to bring all units back from Germany by 2020. The Department committed to investing £1.8 billion in infrastructure investment to implement the Plan. It currently anticipates that all military personnel and their families will have returned to the UK by 2019.

2.10 In September 2016, the Department finalised the first version of its broader Footprint Strategy, which set out its approach to delivering the future estate it believes it requires by 2040. We have assessed the quality of the Footprint Strategy by considering whether it:

- displays a good understanding of the estate (paragraphs 2.11 and 2.12);
- supports delivery of military capability (paragraphs 2.13 to 2.15);
- delivers more benefits than it costs (paragraphs 2.16 to 2.18);
- is affordable (paragraph 2.19); and
- enables the Department to achieve government targets (paragraph 2.20).

Understanding the estate

2.11 In developing its Footprint Strategy, the Department has had to consider how to achieve target reductions in its estate, while meeting future military needs set out in Future Force 2020 and Joint Force 2025.[19,20] It has also had to take into account government targets to release land suitable for building homes, and future changes to the model for accommodation for military personnel. Although these requirements are aligned at the 'UK defence estate' level, there is often conflict between them when making decisions about individual sites. For example, a site considered surplus to military needs may not be suitable for housing.

2.12 In our 2010 report, *A defence estate of the right size to meet operational needs*, we found that the Department did not have good data to inform decision-making about its estate.[21] This included information about: operational importance; how heavily a site is used; potential receipts; running costs; and condition. The Department has since focused on collecting information about the sites that fall within the Footprint Strategy. These represent 85% of the 'addressable' running costs and 82% of the built estate by size.[22] For these sites the Department now has a relatively complete picture of the information it needs to inform its decisions. Paragraphs 3.30 to 3.32 examine wider issues about data relating to the estate.

Delivery of military capability

2.13 In designing the location, size and structure of its future estate, the Department has had to ensure that it supports future military capability requirements, while challenging the Commands to use space as cost-effectively as possible. To do this, it drew up a list of principles, which included consolidating the estate around 'centres of gravity', and sharing locations and facilities across Commands, units and, if appropriate, other government departments. Using these principles and detailed discussions with the Commands, the Department developed its plans using an iterative process (**Figure 7**).

19 Planned size, shape and structure of the Armed Forces to meet planning assumptions on how the military will be deployed from 2020.
20 Revised plans from 2025, building on Future Force 2020.
21 Comptroller and Auditor General, *A defence estate of the right size to meet operational needs*, Session 2010-11, HC 70, National Audit Office, July 2010.
22 The Department spends around £1.9 billion a year on its built estate, of which it considers £1.35 billion could be reduced. The remainder is committed in the long term through private finance initiative deals.

Figure 7

How the Department developed its view of the future size, location and composition of its estate

The Department took an iterative approach to developing the Footprint Strategy

Stage of development of the Footprint Strategy

Stage 1	Stage 2	Stage 3	Stage 4
Hypothetical minimum base laydown	Infrastructure base laydown	Cross-defence base laydown	Proposed future laydown
Description: Proposed laydown based on the hypothetical number of sites that could deliver the required output.	**Description:** A refined laydown based on additional infrastructure information and incorporating information on military capability requirements.	**Description:** A confirmed list of sites to be retained based on information on infrastructure, military capability requirements, and cross-defence costs and benefits.	**Description:** A plan confirming the sequencing of planned site interventions supported by a finance and funding model and implementation plan.
Date delivered: June 2015	**Date delivered:** November 2015	**Date delivered:** April 2016	**Date delivered:** June 2016

Breakdown of sites under consideration within the Footprint Strategy

Stage 1	Stage 2	Stage 3	Stage 4
Core: 123	Core: 166	Core: 200	Core: 205
Under consideration: 134	Under consideration: 72	Under consideration: 0	Under consideration: 0
Dispose: 47	Dispose: 80	Dispose: 118	Dispose: 113

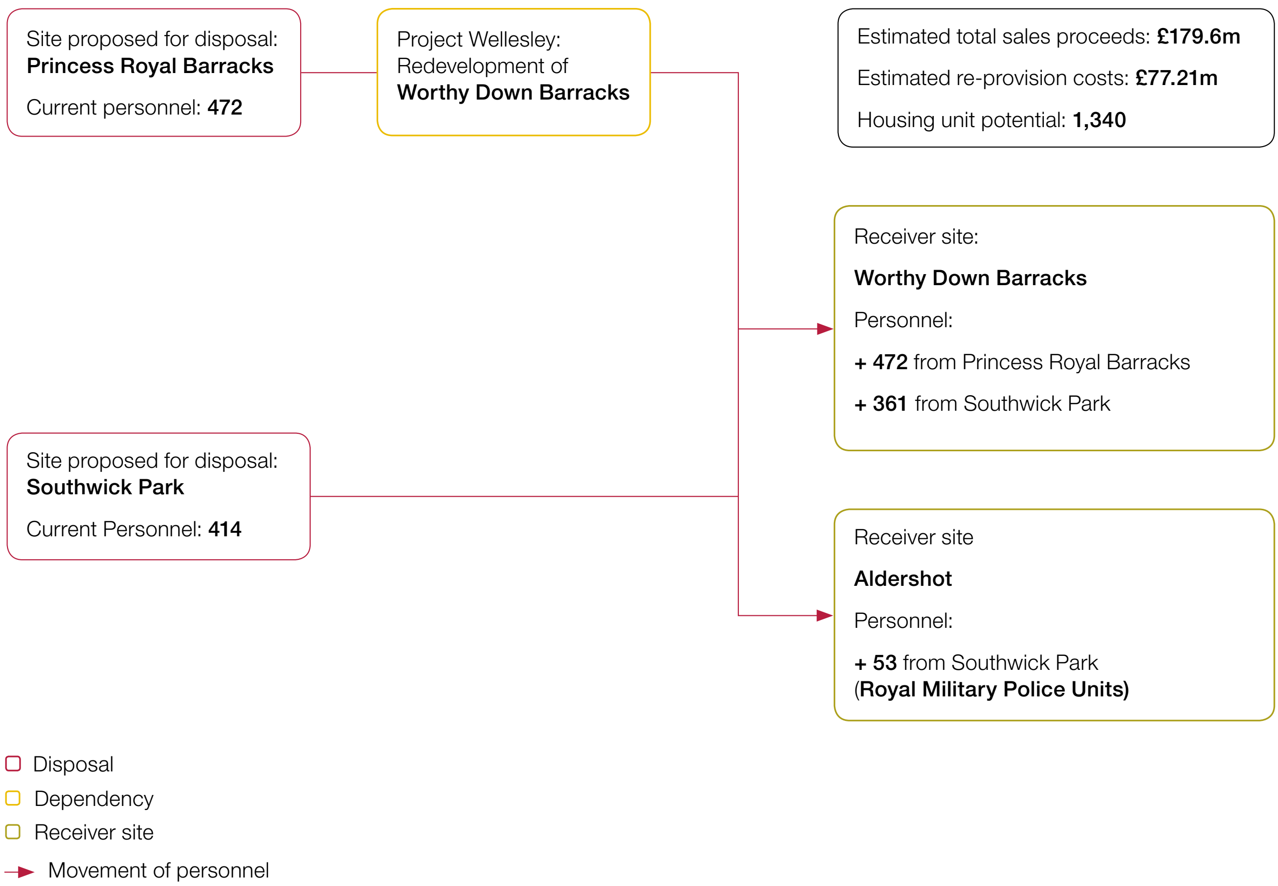
Source: Ministry of Defence

2.14 Following this exercise, the Department developed 37 business case groupings. These set out a series of disposals, moves and activity to re-provision essential facilities currently delivered on sites that are to be disposed of, based either on geography (for example, Wales) or capability (for example, Signals) (**Figure 8** overleaf). Included within this is a group of disposals that the Department can pursue immediately, and which will help it achieve its disposal targets. The proposed moves have been approved by the Commands, who agree that the proposed future location, size, structure of the estate and planned re-provision investment will enable them to deliver their planned future capability. The Department recognises that the strategy will need to be updated as the strategic situation changes. The Deputy Chief of the Defence Staff with responsibility for Military Capability will be accountable for updating it, including after strategic defence and security reviews.

Figure 8

An example of the moves and disposals planned within one business case grouping

Many business case groupings require implementing a series of moves and disposals



Note

1 This diagram represents the Department's assessment and plans in relation to this business case grouping as at June 2016. The Department expects that some business case groups may be merged into programmes as the Department implements the overall strategy.

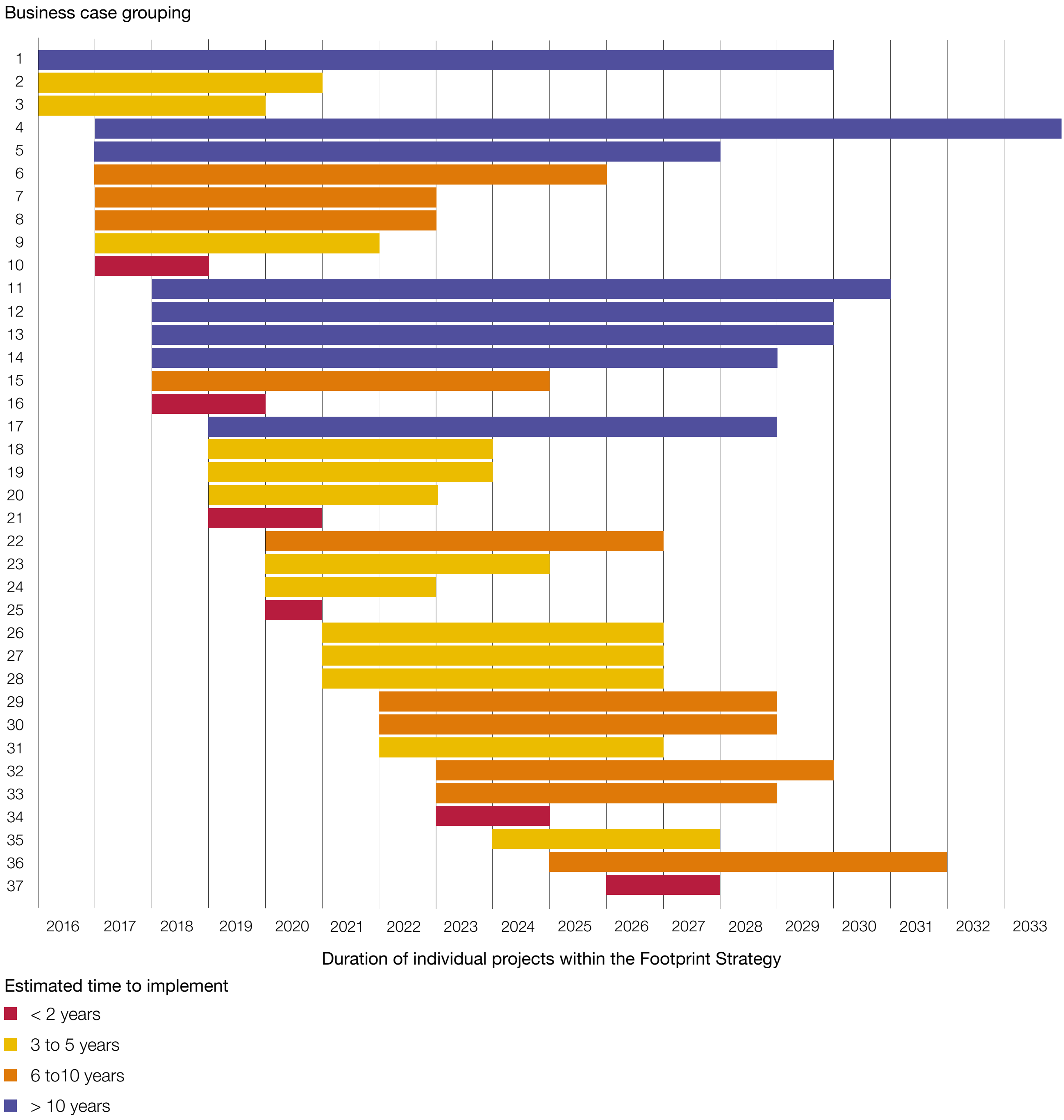
Source: Ministry of Defence

2.15 DIO has used the information from all the business case groupings to schedule all disposals and activity to re-provide essential facilities currently delivered on those sites, up to 2033 when the Department anticipates that this re-provisioning will be complete. **Figure 9** shows there is significant variation in the time to implement the different projects, ranging from 120 days to 16 years. **Figure 10** on pages 26 and 27 shows a map of the key sites now and in 2040.

Figure 9

The estimated time to implement the projects within the Footprint Strategy, 2016–2033

There is significant variation in the time it will take to implement the different projects



Notes

1 The Footprint Strategy covers the period from 2016 to 2040. This figure illustrates the expected duration of the business case groupings within the Strategy. The Department expects to receive disposal receipts up to 2040.

2 The Department expects that some business case groups may be merged into programmes as the Department implements the overall strategy.

Source: Ministry of Defence

Figure 10

Map of the UK regular defence estate in 2016 and 2040

The size of the defence estate will reduce between 2016 and 2040

- Future footprint
- Existing footprint

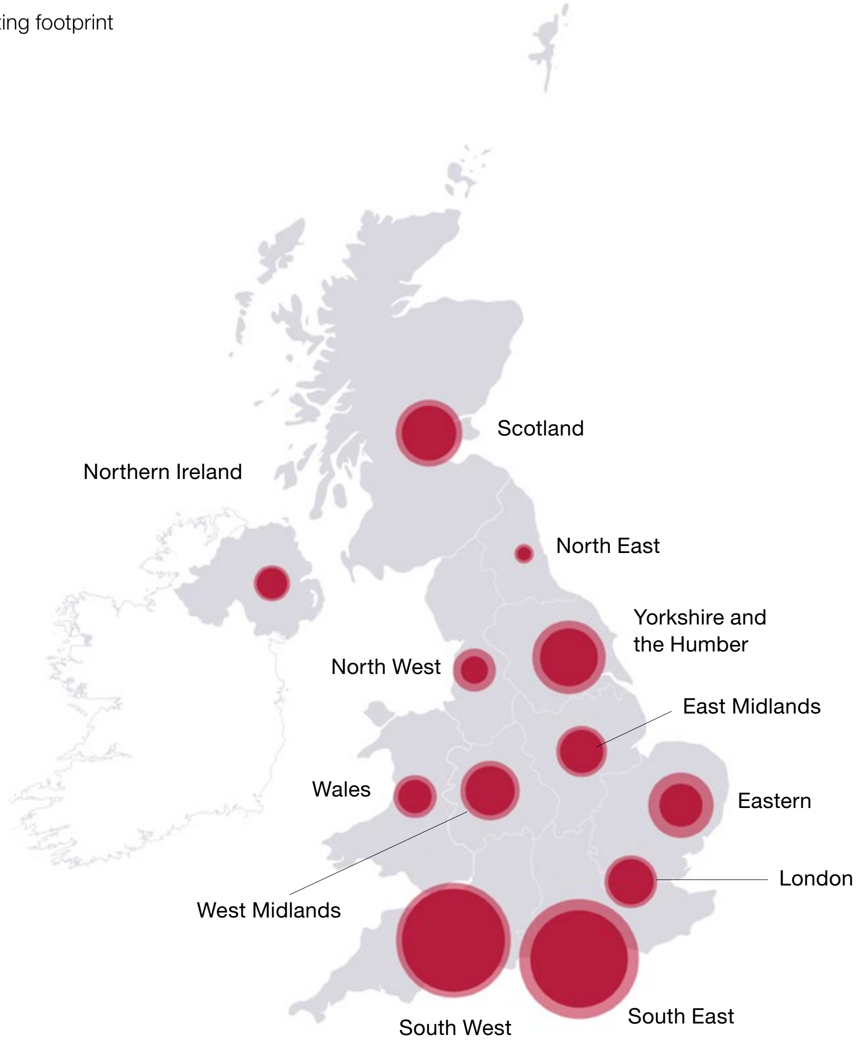


Figure 10 *continued*

Map of the UK regular defence estate in 2016 and 2040

Region	**Existing sites covered by the Footprint Strategy**	**Sites announced for disposal**
South East	77	23
South West	71	12
Yorkshire and the Humber	29	10
Scotland	24	8
Eastern	23	11
West Midlands	19	5
London	15	5
East Midlands	14	4
North West	10	6
Wales	10	4
Northern Ireland	7	3
North East	2	0
Total	**301**	**91**

Notes

1 Of the sites marked for disposal in the Footprint Strategy between 2016 and 2033, the Department plans to release details of only those sites earmarked for disposal within the next 10 years. This is to avoid uncertainty and distress for affected personnel and their families. For sites earmarked for disposal from 2026 onwards, the Department expects to announce details closer to their intended disposal date.

2 The larger circles indicate the current footprint, and the smaller circles indicate the change in footprint the Department considers will be needed by 2040. The Footprint Strategy and supporting programmes will continue to assess future requirements.

3 The figures stated for each region are the number of sites that have been announced for disposal (as at November 2016) as part of announcements in January 2016, March 2016 or October 2016 reflecting work on the Footprint Strategy.

Source: Ministry of Defence

Cost and benefits of the Footprint Strategy

2.16 The Department estimates that implementing the Footprint Strategy will have a net present value of £2.4 billion. This figure is determined mainly by: the amount the Department expects to gain from the proceeds of estate disposals and from avoiding running costs; and the amount it expects to pay to re-provide essential facilities on sites to be disposed of. **Figure 11** overleaf sets out the costs and benefits the Department expects from the Footprint Strategy. It believes that there will also be wider benefits, both for defence and for the UK.

Figure 11

Costs and benefits of the Footprint Strategy over 25 years

Benefits	£m	Costs	£m
Proceeds from disposals of land and buildings	2,061	Re-provisioning costs	(2,564)
Running cost savings	1,690	Public Finance 2/leasing costs	(1,308)
Residual value of new-built assets	950	Costs to develop community infrastructure	(41)
Reduction in the amount of capital expenditure required to sustain the estate	1,595	Cost of external advice on options for re-provisioning	(4)
	6,296		**(3,917)**
Net present value			**2,379**

Notes

1 All figures have been discounted using a rate of 3.5%. Benefits are a combination of budgetary savings and cost avoidance.

2 The value of £1,595 million for the reduction in the amount of capital expenditure to sustain the estate is less than replacements costs avoided shown in paragraph 2.27 because a discount rate of 3.5% has been applied to calculate the net present value.

Source: Ministry of Defence

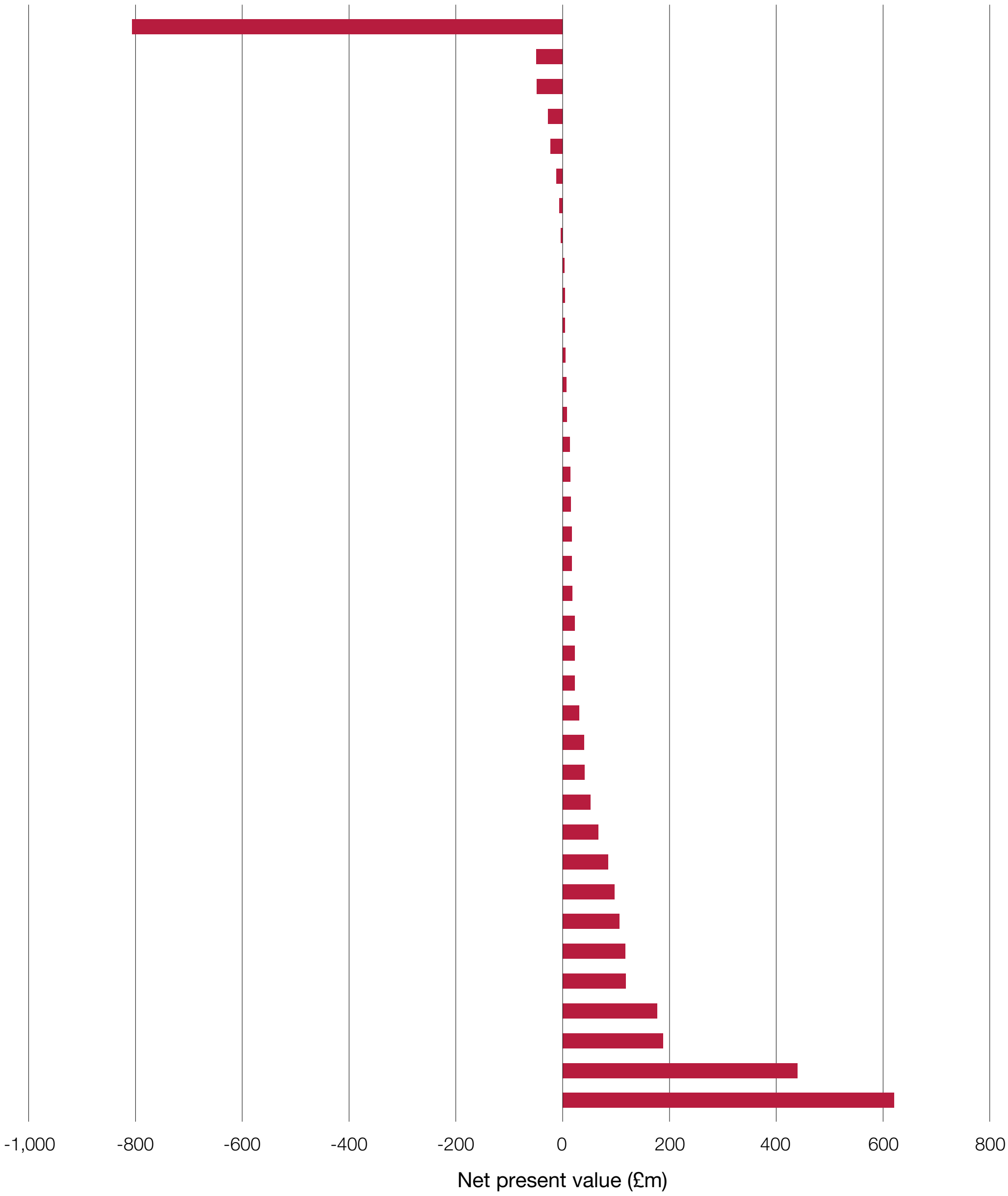
2.17 The net present value of £2.4 billion will be affected by changes to any of the estimated costs and benefits. The Department anticipates that more than 40% of disposal proceeds will come from disposal of a few sites in London. Our review has indicated that there is considerable uncertainty regarding whether the disposal of these sites will proceed as planned and the value of anticipated receipts associated with these sites, which due to their nature are inherently difficult to forecast. If it fails to achieve the forecast receipts it will reduce the net present value, and consequently the value for money of the programme. The Department is seeking to reduce the cost of re-providing essential facilities and is confident that the strategy will yield a positive net present value even if it fails to achieve its forecast disposal proceeds. It has undertaken sensitivity analysis, which shows that a 30% reduction in capital receipts and a 30% increase in re-provision costs would reduce the net present value of the strategy but that it would remain positive with a value of around £1 billion.

2.18 The Department has calculated a net present value for each business case group, but acknowledges that it will need to refine these before seeking internal approval to make the investment (**Figure 12**). Eight of the 37 groupings have a negative net present value, but the Department intends to proceed on the basis that they will deliver wider military capability benefits or release significant amounts of land for housing. The Department is exploring alternative options for re-provision of essential facilities and expects to improve the net present value of these cases.

Figure 12

Business case grouping net present values

There is significant variation in the net present value of individual business case groupings



Notes

1 The Rotary Wing Capability grouping has a negative net present value of £806 million. The Department intends to proceed with this grouping because it should contribute to the strategic objective to reduce the size of the estate and potentially release land for approximately 6,395 homes. The Department is exploring alternative options to reduce the forecast costs.

2 The Department expects that some business case groups may be merged into programmes as the Department implements the overall strategy.

3 As at June 2016.

Source: Ministry of Defence

Affordability of the Footprint Strategy

2.19 Before disposing of a site the Department may need to re-provision essential facilities elsewhere. In some years of the Footprint Strategy, and particularly over its first half, the Department predicts that it will have insufficient capital available to fund its re-provision requirements. It is therefore exploring a range of alternative options for obtaining £1.7 billion of finance and is working with HM Treasury to explore best use of Private Finance 2 or alternative funding arrangements. The Department recognises that the cost of private finance is higher than public funding, but believes it is justifiable where this accelerates the generation of a positive net present value that would otherwise be unavailable. If the Department fails to achieve its predicted disposal receipts or secure funding as planned, this could compromise its ability to fund its planned re-provision activity and jeopardise its planned delivery schedule for the Footprint Strategy overall.

Achieving government targets

2.20 The Department has been set targets to reduce its built estate by 30% by 2040, and release land for building 55,000 homes by 2020.[23] As part of its Spending Review settlement, it must also generate capital receipts of £1 billion between 2016-17 and 2020-21. The Department thinks that these are ambitious targets, given that much of the estate is in use. It estimates that implementing the Footprint Strategy will enable it to reduce the built estate by 25%. It is supplementing this with work on estate that lies outside the Footprint Strategy so it can meet the 30% reduction target by 2040. It also estimates that the Footprint Strategy will contribute around 15,000 towards the housing target by 2020 and contribute £1.1 billion of capital receipts up to 2026. The remainder of the land required to meet the housing target will be met through ongoing estate optimisation work; transfers to the Homes and Communities Agency; release of homes owned by Annington Homes; and new-build Service Family Accommodation.

Risks to delivery of the strategy

2.21 To achieve the benefits of implementing the Footprint Strategy, the Department will need to successfully manage a number of significant risks. These relate to programme management, sequencing and funding.

2.22 The complexity and funding challenges associated with moving essential facilities from sites to be disposed of to new sites require the Department to implement the Footprint Strategy over a long period of time. Sustaining focus over 25 years will be challenging. Between 2016 and 2040 (the estimated date when the strategy will be fully implemented) there are likely to be four strategic defence and security reviews. Each will re-evaluate threats to national security and require the Department to assess whether it needs to modify its estate plans. The Department faces similar challenges in relation to its management of its Equipment Plan and is applying lessons learned, by developing Footprint Strategy implementation around 1-year, 10-year and long-term planning horizons.

23 The built estate includes all buildings and infrastructure assets but excludes the overseas estate, Service Family Accommodation, and the defence training estate.

2.23 Sustaining focus will also be essential to ensure that the Department disposes of estate according to its planned schedule. The moves set out in the Footprint Strategy are sequenced so that disposal receipts contribute towards the costs of re-providing essential elements of the estate and enable the Department to relocate personnel and equipment. There are many interdependencies between the moves. If the Department fails to keep to its timetable; meet its forecast for disposal receipts; or secure the required funding, there is a significant risk of long delays in implementing the overall strategy. Our online case studies, which can be found here www.nao.org.uk/report/delivering-the-defence-estate, illustrate some of the complications arising from current disposals. These include an inability to find alternative sites for essential facilities currently provided; difficulties associated with local planning; and problems with aligning stakeholder interests. Early engagement with relevant stakeholders to try to address potential issues associated with disposals will be essential if the Department is to stick to its planned schedule.

2.24 Overall, the Footprint Strategy sets out an innovative approach to tackling a complex problem. But some of the detail, including assumptions on costs and benefits, will be subject to change. The Department has set out at a high level how it intends to deliver the Footprint Strategy, including the formation of an Estate Optimisation team. It is in the process of developing the detail of its approach, which at the current time is untested and based on a number of assumptions. One of the biggest risks to successful implementation is whether the Department has the right structures, skills and capabilities to deliver the strategy successfully. We cover this in Part Three.

Achieving an affordable and optimised estate

2.25 Defining an affordable defence estate is not possible in isolation from consideration of the other elements of defence capability, primarily people and equipment. The Department defines affordable as being able to fund the cost of sustaining an estate that enables it to meet its strategic commitments, at an acceptable level of risk to military capability. The growing risk from the estate in relation to capability indicates that the estate is becoming increasingly unaffordable. If it does not take action this trend will continue and the estate will not meet the demands placed upon it.

2.26 In the past the Department has used funding for the estate to balance its financial position and to enable it to afford the military capability it believes it needs. This has contributed to the challenges it currently faces. The work it has undertaken to bring together the Footprint Strategy has enabled it to develop a better picture of what the estate will cost it in the future and given it greater visibility of the gap in the funding it has allocated to the estate. However, the Department is not yet able to articulate what an affordable estate should cost in the context of its strategic commitments.

2.27 The Footprint Strategy will make the defence estate more affordable in the future and enable it to prioritise investment in the estate more effectively. However, it will only partially reduce the costs of sustaining the future estate. Even if the Department delivers the Footprint Strategy to schedule and achieves all of the planned benefits, the Department estimates that the Footprint Strategy will only enable it to avoid life-cycle replacement costs of approximately £2.5 billion. It will still face costs of at least £8.5 billion over the next 30 years. The Department expects to reduce some of the remaining gap by better targeting of existing resources, informed by the Footprint Strategy; by broadening the strategy to encompass other parts of the estate; and by implementing other initiatives to encourage the Commands to operate more efficiently.

Part Three

The model for managing the defence estate

3.1 In this part, we assess whether the Ministry of Defence (the Department) has an appropriate operating model to support its long-term strategy for the defence estate. Our analysis considers:

- roles within the Department;
- efforts to transform the Defence Infrastructure Organisation (DIO); and
- the current model for managing the defence estate.

Roles within the Department

3.2 DIO is responsible for managing most of the defence estate. The Armed Forces (the Commands) are the primary users of the estate.[24] They specify the estate they need to deliver military capabilities. The Department's Head Office oversees DIO's performance and has wide-ranging responsibilities, including setting policy, prioritising estate improvement projects and approving investments (**Figure 13**). The Defence Infrastructure Governing Authority, part of Head Office, manages DIO's contract for a strategic business partner.

Transforming DIO

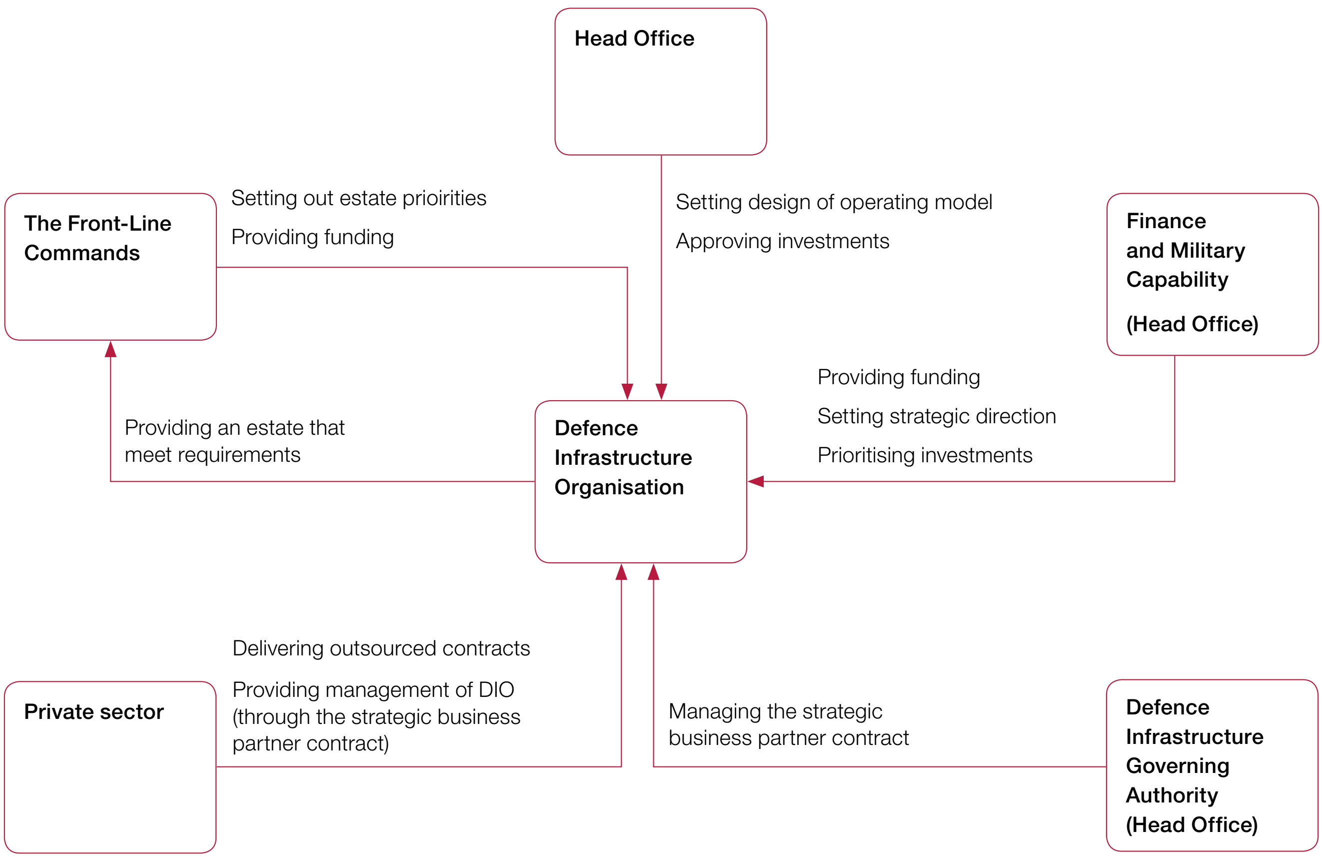
3.3 Between 2011 and 2013, DIO implemented a significant transformation programme to achieve £1.2 billion of savings up to April 2015. It planned to outsource more services, becoming largely a contract management organisation, rather than deliver services itself. Staff numbers in DIO reduced by 59% from some 7,000 staff in 2011 to around 2,800 in 2015.[25]

3.4 In 2012, DIO concluded that these reforms would not enable it to achieve the savings needed, so the Department contracted with a strategic business partner to run the transformed organisation.[26] DIO intended that the partner would insert new management into the organisation with specialist estate knowledge and high-quality skills, sharing resultant savings with the Department. The partner would also work on improving DIO's ability to manage projects and deliver a strategy for the future footprint of the estate.

24 Navy, Army, Air and Joint Forces.
25 Of 2,800, 500 posts were vacant. In addition, DIO employs around 2,000 staff to guard military sites.
26 The contract was let on 3 June 2014 and became effective on 3 September 2014.

Figure 13
The operating model for the defence estate

Infrastructure operating model



Source: National Audit Office

3.5 Contracting with a strategic business partner on the basis of sharing savings from improvement activities is novel within government. Our previous work on government contracts indicates that to achieve value for money from this type of arrangement a body should:

- set and maintain a robust baseline against which to measure savings;
- already have made any savings within its control;
- put in place strong governance and oversight arrangements; and
- have safeguards to prevent savings being achieved by lowering performance.[27]

27 Comptroller and Auditor General, *Outcome-based payment schemes: government's use of payment by results*, Session 2015-16, HC 86, National Audit Office, June 2015; *Payment by results: analytical framework for decision-makers*, June 2015.

3.6 In 2014 the Department signed a 10-year gain-share contract with Capita, supported by AECOM and PA Consulting. However, there were fundamental weaknesses in its approach, in particular:

- DIO had not yet transformed and started operating effectively before the strategic business partner became involved. These conditions were essential to gaining maximum value from its decision to engage the private sector in this way (paragraphs 3.7 and 3.8);
- the Department had not maintained a robust baseline of costs within the contract, and contractual safeguards do not ensure that savings from how DIO operates are sustainable, which was the primary aim of the contract, rather than one-off cost-cutting. The contract does also allow the partner to agree one-off savings with the Department (paragraphs 3.9 and 3.10); and
- the contractual regime to measure performance is underdeveloped (paragraphs 3.11 and 3.12).

DIO transformation

3.7 DIO's transformation programme was not completed as planned and was not operating effectively at the point of contract award. The Department and Capita were aware of this before the contract was signed in June 2014. DIO's new operating model was not fully implemented, the new IT system underpinning the model was delayed, and DIO had not yet outsourced soft facilities management to reduce costs.[28] Both parties acknowledge that this has affected the strategic business partner's performance (paragraphs 3.13 to 3.15). It has also created complexity in relation to the Department's ability to hold the strategic business partner to account for its performance.

3.8 We have previously reported where the Department has struggled to put arrangements in place that are important to the successful involvement of the private sector. Our report on the Department's *Army 2020* programme found that the Department failed to deliver the IT systems to support Capita managing the recruitment of regular and reserve soldiers on its behalf.[29] This resulted in a reduction in the forecast financial benefits of engaging Capita and contributed to lower than expected levels of recruitment performance. When the Department contracted with Capita for the strategic business partner it was aware of this experience. Despite this, the Department went ahead with its contract with Capita without fully assessing the potential impact of DIO not operating effectively on the intended outcomes of the contract, or on its ability to hold Capita to account for its performance.

28 Soft facilities management includes services not connected to the fabric of buildings, such as catering.
29 Comptroller and Auditor General, *Army 2020*, Session 2014-15, HC 263, National Audit Office, June 2014.

Baseline and savings

3.9 The Department has agreed a number of changes to the original baseline of DIO's costs as agreed in the contract to reflect changes in its operations. However, these were not formally agreed in the contract and could be a source of confusion, dispute and challenge.

3.10 The Department contracted with a strategic business partner on the basis that this would result in significant operational savings. Capita bid to save £5.2 billion over the 10-year contract period. Although the partner can earn fees through one-off savings, the Department designed the calculation of the fee due to the partner primarily to incentivise sustainable savings. However, the contract does not require the partner to ensure that these savings are in fact sustainable, nor to demonstrate this to the Department. The Department considers that around 30% of the £240 million savings DIO has calculated in 2015-16 are sustainable. However, a poor audit trail has been kept to substantiate and verify those savings. Of the £55 million fees paid to Capita in 2015-16, £29 million were related to sustainable savings.

Performance regime

3.11 The performance regime within the contract is not fit for purpose. The contractual milestones the partner was required to achieve over the first 18 months of the contract aimed to secure additional transformation and assumed that DIO was operating effectively. Therefore, they do not explicitly measure improvements in key areas of weakness, including contracting, data, controls and IT systems.

3.12 In addition, the contract specifies key performance indicators (KPIs) to measure DIO's performance. These seek to ensure that the partner does not pursue savings at the expense of performance. The Department can apply deductions to the fees due if DIO's performance falls below the level specified in the KPIs. Around half of the contract's KPIs were not in place at the start of the contract. The Department worked with the strategic business partner over the first 18 months of the contract to develop how to measure the outstanding KPIs. The Department has now agreed all but two of these remaining KPIs with the partner. The Department's review of the contract also observed that reported performance did not reflect the Commands' perceptions of how DIO was performing.

Performance of the strategic business partner

3.13 The Department assessed that the strategic business partner has had a positive impact on elements of DIO's business. It has ensured that DIO kept within its allocated budget, which already assumed savings. It developed the Footprint Strategy, on which the Department had previously failed to make headway. The partner is also credited with improving the £1.8 billion Army Basing programme. It brought this within budget and on schedule. It also provided the commercial skills needed to enable DIO to progress the procurement of regional contracts for catering, retail and leisure facilities across the defence estate.

3.14 The strategic business partner has met 15 of the 18 contractual milestones due by the time of our audit, of which six were late. It had not met three (**Figure 14**). DIO's performance against the KPIs measured has been mixed, but it consistently met 17 of 30 measured between July 2014 and May 2016.

3.15 Overall, the Department considers the strategic business partner's performance has been mixed over the first 18 months of the contract. Its management has demonstrated a number of shortcomings, including being slow to address poor performance by CarillionAmey in maintaining the estate, and making limited progress in improving DIO's internal controls.[30,31] It believes that many stakeholders across defence had lost confidence in DIO's ability to deliver the requirements of the Commands. However, the Department acknowledged that some of challenges affecting performance were a result of factors for which it was responsible.

Fees paid to the strategic business partner

3.16 The fee payable to the strategic business partner includes: a set management fee; fees for achieving milestones; a gain-share of savings; and incentive fees to deliver projects on time, cost and performance standards and to maximise receipts from disposing of surplus estate. The Department estimated at the time of contract award that the contract would be worth £328 million in fees to the partner.

3.17 Between June 2014 and July 2016 the Department paid £90 million in fees to the strategic business partner (**Figure 15** on page 38). This was net of £1.5 million service deductions to reflect DIO not achieving agreed KPIs (paragraph 3.12) and £3 million retention until negotiations on the fees are complete. This level of fee is broadly in line with the expectations of the Department when it let the contract. The Department estimates that nearly 50% (£43 million) of the fees paid is profit to the partner.[32] The business partner has not been willing to confirm this profit percentage.

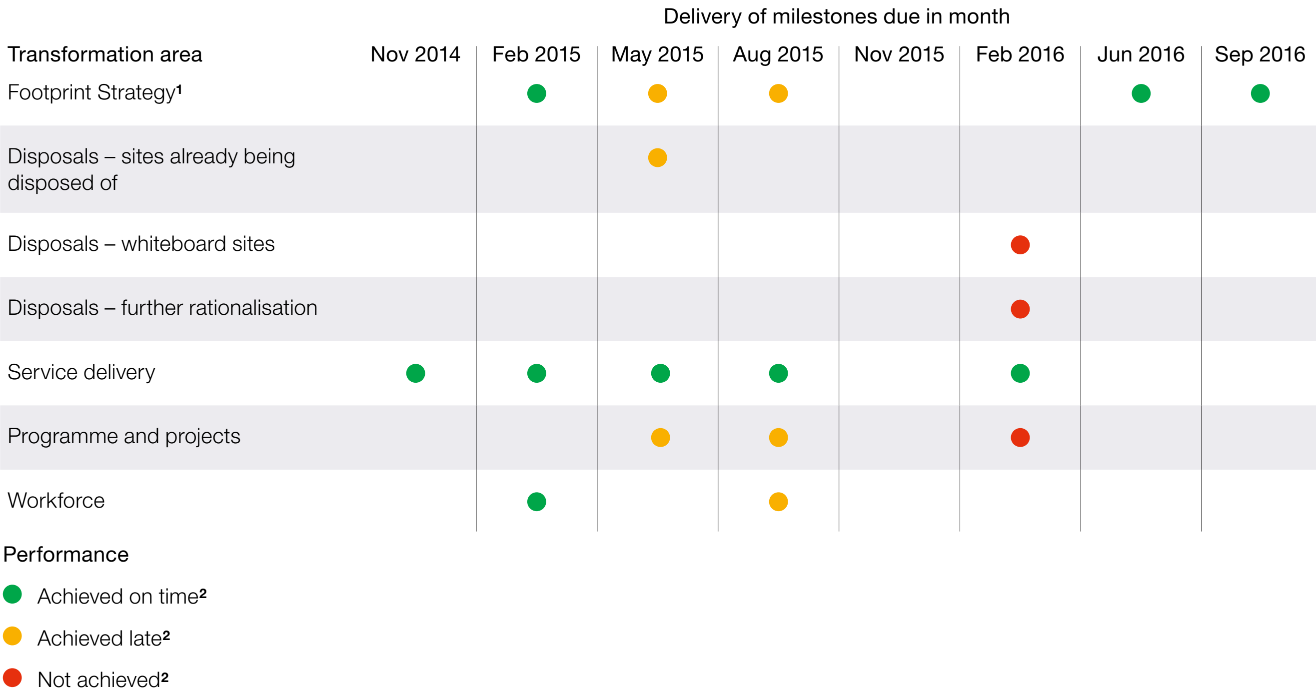
3.18 The Department has launched a review to consider the best model for managing the defence estate, including the role of DIO and the strategic business partner. The Department expects to conclude its review by the end of 2016.

30 National Audit Office, *Service Family Accommodation*, June 2016; HC Committee of Public Accounts, *Service Family Accommodation*, Ninth Report of Session 2016-17, HC 77, June 2016.
31 The Department signed the contract with CarillionAmey prior to appointing the strategic business partner.
32 Up to 31 March 2016. This is before Capita's corporate overhead costs are taken into account.

Figure 14

The Department's assessment of the strategic business partner's performance

The strategic business partner has met 15 of its 18 contractual milestones



Notes

1 The Department agreed with the strategic business partner revised target dates for the last two Footprint Strategy milestones. The strategic business partner delivered these milestones by the revised dates.

2 Progress is marked in the month the milestone is due, for example amber indicates that the milestone was not met in that month, but in subsequent months.

3 Two additional milestones originally specified in the contract have been de-scoped because the Department decided not to change the DIO into a government-owned company.

Source: National Audit Office analysis of Ministry of Defence data

Figure 15

Fees paid to the strategic business partner

Fee component[1]	Description	Performance related?	2014-15 (£000)	2015-16 (£000)	2016-17 (£000)	Total (£000)
Mobilisation fee	Covering payroll cost of management team over mobilisation period (June 2014 to September 2014)	no	3,067	nil	nil	**3,067**
Management fee[2]	Broadly covering the payroll costs of management team provided by the partner.	no	6,990	9,991	1,523	**18,504**
Transformation fee	Based on the partner achieving transformation milestones set out in the contract (see Figure 14).	yes	2,323	4,196	201	**6,719**
Disposals incentive fee	Based on the delivery of cumulative proceeds from the disposal of estate.	yes	94	781	nil	**875**
Capital projects incentive fee	Based on the level of expenditure on capital projects net of service deductions for failure to deliver against cost, time, user satisfaction and value for money.	yes	3,976	4,029	nil	**8,005**
Cash RDEL incentive fee[3]	A gain-share based on the delivery of savings against a baseline reflecting what DIO was expected to spend before the partner joined DIO.	yes	13,199	29,289	nil	**42,488**
Utilities cash RDEL savings	A gain-share based on the delivery of reductions in the consumption of utilities.	yes	nil	nil	nil	**0**
One-off fees	A gain-share based on delivery of agreed one-off savings to the Department.	yes	3,867	8,519	nil	**12,386**
Service deductions	Reduction in fees to reflect DIO not meeting agreed KPIs.	yes	-210	-1,344	nil	**-1,554**
Adjustments	Adjustments following Defence Internal Audit's review of payments to the strategic business partner.	n/a	nil	-293	nil	**-293**

Notes

1 Fees paid to the strategic business partner between June 2014 and July 2016.

2 Management fee includes strategic business partner expenses of £3,000.

3 The Department has retained £3.069 million of Cash RDEL incentive fee until negotiations to confirm the fee due to the partner are complete.

4 Not all figures sum exactly due to rounding.

Source: National Audit Office analysis of Ministry of Defence data

The current model for managing the defence estate

3.19 Whatever the outcome of its review, the Department requires a defined operating model for managing the estate. We now assess whether the current model is appropriate to support the Department's long-term strategy for the defence estate, including whether:

- stakeholders understand their role and have the skills they need (paragraphs 3.20 to 3.23);
- appropriate incentives exist (paragraphs 3.24 to 3.26);
- there are effective systems in place, with access to data to support decision-making (paragraphs 3.27 to 3.32); and
- effective governance arrangements oversee performance and operation of the model (paragraph 3.33).

Roles and skills

3.20 The Department wants DIO to act as an 'intelligent provider' of estate, advising on and delivering users' estate needs, and acting as an intelligent client for industry. The Commands, as users of the defence estate, act as 'intelligent customers', articulating their requirements to DIO. However, the Department believes that, in practice, roles, responsibilities and accountabilities are unclear.

3.21 DIO requires a number of skilled specialist roles, including project and programme managers, quantity surveyors, commercial specialists, contracting experts and strategic asset managers. It has struggled to recruit these specialists because of lengthy recruitment processes, and an inability to compete with opportunities and salaries offered by high-profile projects such as Crossrail and High Speed 2.

3.22 The strategic business partner has brought greater rigour to DIO's approach to workforce planning and improved recruitment processes. It also reports it has brought in 34 full-time equivalent staff per month to DIO from partner organisations over the first 18 months of the contract, at a cost to itself of £11 million. However, there is limited evidence to demonstrate where skills have been transferred from partner staff to DIO.

3.23 A lack of key skills is affecting DIO's performance. The Department considers that DIO failed to act promptly to address significant poor performance by CarillionAmey against the contracts for estate maintenance.[33,34] In addition, HM Treasury imposed a fine on the Department of £31 million because DIO made £2.1 billion of payments and commitments on 31 contracts without requisite approval. DIO faces a number of challenges to improve its performance, including high levels of sickness and poor morale.

33 HC Committee of Public Accounts, *Service Family Accommodation*, Ninth Report of Session 2016-17, HC 77, June 2016.
34 The Department signed the contract with CarillionAmey prior to appointing the business partner.

Incentives

3.24 The Commands are the main ‘users’ of the defence estate. However, the current operating model does not provide incentives for them to use it cost-effectively. This is because DIO directly funds running costs, including utilities, maintenance and cleaning services. From 1 April 2017, the Department plans to introduce a new regime to ‘charge’ the Commands for office accommodation and give them information on running costs to incentivise better practice.

3.25 The Department is also planning to delegate estate budgets to the Commands. The Commands have to manage risks to capability relating to the estate. For example, Air Command must take alternative measures if there is insufficient funding to re-surface a runway. The Department believes that by delegating budgets it will enable the Commands to better address risk by allowing them to balance investment decisions on the estate against those for manpower and equipment, where budgets are already delegated. The Department expects to decide on delegation in 2017, after assessing the Commands’ ability to take on these additional responsibilities.

3.26 Delegation in itself will not address the shortfall in funding because Commands’ budgets are already stretched. Their equipment programmes already assume that they will make significant savings to fund new capabilities.[35] While the Department believes that delegation will support balance of investment decisions across equipment and the estate, strong controls will be required to ensure that the Commands attach sufficient priority to the estate. Before DIO was formed, the Commands failed to prioritise investment in the estate. Although they will have stronger incentives to invest in the estate than when they previously held the budget, the Commands will require continuing estate management support from DIO if they are to deliver existing efficiency savings based on the economies of scale offered by centralised management of the estate. Furthermore, the Department believes that the Commands require a ‘step change’ in their capabilities to perform this role effectively.

Systems to support the model

Internal controls

3.27 Defence Internal Audit produces an annual report on the adequacy and the effectiveness of risk management, internal control and governance arrangements within the Department. Its most recent report found that there were signs of underlying improvements in controls during 2015-16 in particular areas in DIO. These included roll-out of the IT system and workforce planning. However, it also identified serious control weaknesses, including oversight of compliance with health and safety rules and effective contract management and commercial arrangements.

35 Comptroller and Auditor General, *Ministry of Defence: Impact of the Strategic Defence and Security Review on the Equipment Plan*, Session 2016-17, HC 319, National Audit Office, June 2016.

IT system

3.28 DIO is implementing a new IT system, called the Infrastructure Management System (IMS). This will replace more than 100 legacy systems and spreadsheets and improve how DIO collects and uses data to manage the estate. Roll-out was originally planned to complete in April 2014, but is now forecast for April 2017. As part of a 2014 re-baselining of the programme, DIO estimated that the overall cost of deploying and operating IMS and those legacy systems retained will be £95 million over 10 years, £10 million higher than the original estimate, and is likely to be higher as this does not include all implementation costs.[36,37] The majority of the £109 million financial benefits expected are from avoiding the costs associated with replacing and supporting legacy systems no longer needed and a reduced need for substitute single living accommodation through better information on available accommodation.[38] Overall, the net present value of introducing the system has reduced from £63.2 million expected in 2012, to £3.8 million. The Department has since revised up its assessment of the financial benefits expected to £175 million, reflecting a detailed review, but has not yet updated its calculation of net present value.

3.29 Poor management in the early years of implementation contributed to delays. The Department failed to fully appreciate the scope and volume of data to be transferred from legacy systems. A lack of controls meant the IMS became more complex and took longer to implement. This was because users sought to customise the software, rather than using the chosen functionality to improve operations. Since 2015 there has been a marked improvement in the implementation of IMS. DIO reports that roll-out of phases of the system from 2015 have been on time and on budget, giving it confidence that it can achieve full implementation to the revised budget and to schedule.

Data on the estate

3.30 In 2010 the Committee of Public Accounts concluded that the Department did not have the data it needed to inform decisions about the estate. It recommended that the Department should identify the key data, referring to six specific fields.[39] It recommended that systems should be in place to collect these data within 12 months.

3.31 DIO now has a listing of all assets it manages at 'site' and 'building' level, verified by visual checks. To support development of its Footprint Strategy, the Department collected most of the data recommended by the Committee for 318 of 1,366 sites which comprise the built estate. These 318 sites account for the majority of DIO's running costs (paragraph 2.12). However, these data are not stored or managed as part of core data sets through the IMS because of delays in implementation and the need to change the required software. The Department expects to update some of these data as it further develops and implements the Footprint Strategy.

36 Of which £39 million are capital costs and £56 million are resource costs.

37 These costs include those relating to the implementation and use of the IMS up to 2021-22 including, for example, the purchase of software and hardware, data cleansing and improvements, external technical support and staff costs associated with roll-out of the software and ongoing business as usual support to other data systems.

38 Substitute single living accommodation is privately rented accommodation provided to service personnel where they are entitled to single living accommodation but there is not suitable accommodation present.

39 Relative operational importance, potential sale value, running cost, utilisation and condition.

3.32 DIO does have some data on the 1,048 sites not covered by the Footprint Strategy, but it is patchy. This means that DIO and the Commands do not have the data they need to make cost-effective decisions about the entire estate, including addressing the gap in sustain funding (paragraph 2.6).

Governance arrangements

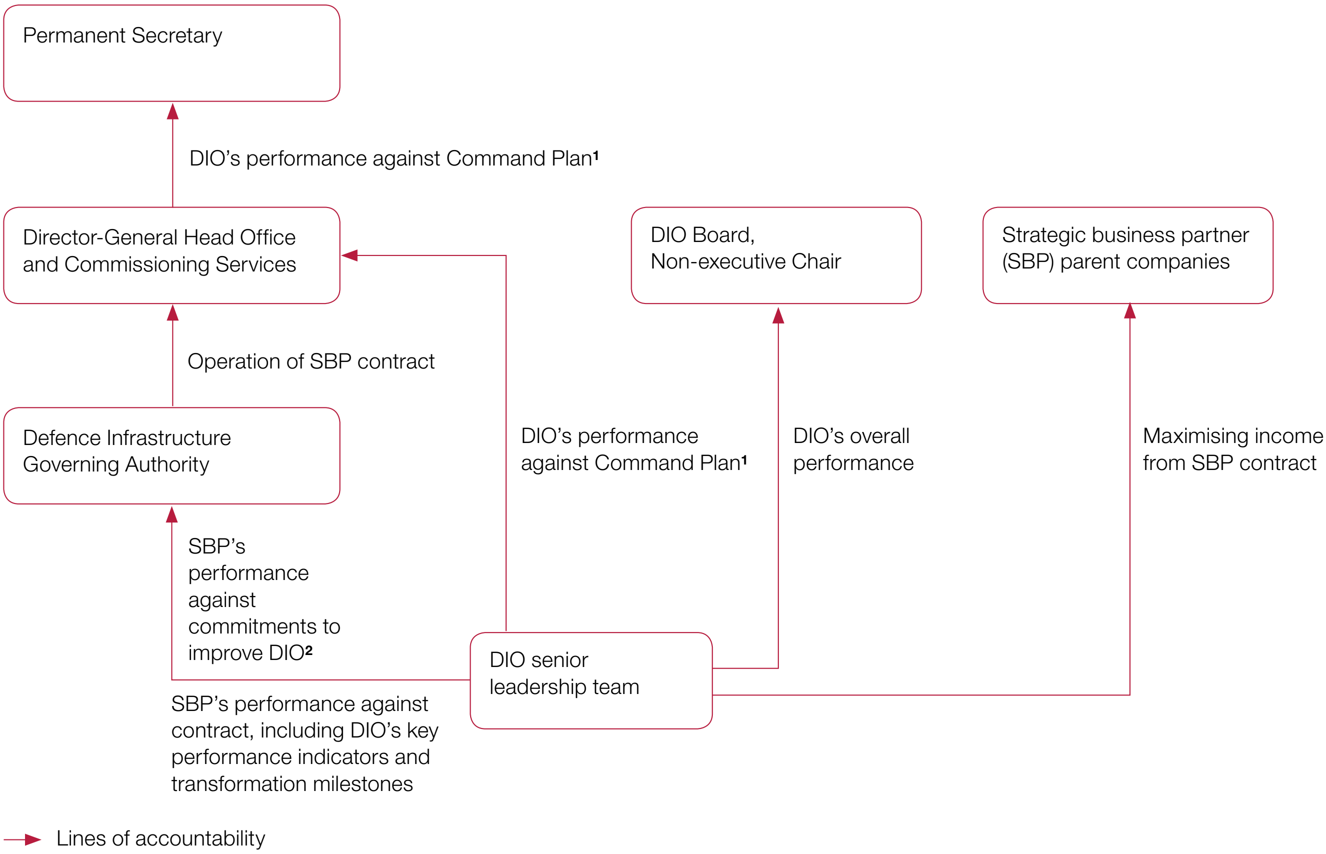
3.33 DIO's activities are influenced by a complex web of strategies, plans and programmes, including the Defence Plan[40], Strategy for Defence Infrastructure, Command Plans[41] and Capital Infrastructure Programme. Convoluted governance arrangements hinder the Department's ability to measure performance against these plans. While the lines of accountability and governance have been defined, their complexity results in them not being clearly understood. In practice, this means it is not clear who within the Department is responsible for the performance of DIO, including its transformation (paragraphs 3.3 to 3.15). Currently, the line of accountability from the Permanent Secretary flows through the Director-General Head Office and Commissioning Services to the DIO Chief Executive. Although the Department has created a DIO Board, and appointed a non-executive Chair, the role of the Board, given its non-executive status, is unclear and it has no formal line to report to the Permanent Secretary. Overall, it is unclear who is being held to account and for what (**Figure 16**). Because of this, there is a risk that poor performance will go unchallenged and that there will be no single overview of DIO's performance to drive improvement.

3.34 Overall, the Department does not yet have an appropriate model to support its long-term strategy for the defence estate. Its review to consider the best model for managing the defence estate, including the role of DIO and the strategic business partner, is expected to conclude by the end of 2016.

3.35 Given the amount of change since 2011 and poor staff morale, the Department accepts that further reform is not without risk.

40 Sets out how the Department will deliver its contribution to national security.
41 Sets out how each Command will deliver against the Defence Plan within the allocated budget.

Figure 16
Governance arrangements



Notes

1 DIO's Command Plan sets out how DIO will deliver, within its allocated budget, against the Department's overall plan.

2 The Infrastructure Implementation Plan, a formal part of the strategic business partner contract, sets out the partner's commitment to improve DIO's performance.

Source: National Audit Office analysis

Appendix One

Our audit approach

1 This study assessed whether the Ministry of Defence (the Department) is now in a good position to manage its estate, and whether it has addressed the barriers identified in previous reports. We reviewed:

- the Department's strategy to deliver a defence estate that meets defined military needs and is affordable within available resources; and
- whether the Department has an operating model in place to support its long-term strategy for the defence estate.

2 Our audit approach is summarised in **Figure 17**. Our evidence base is described in Appendix Two.

Figure 17
Our audit approach

The objective of government

The Department aims to deliver a defence estate that is affordable and optimised to enable defence capabilities, outputs and communities both now and in the future.

How this will be achieved

The Department has developed a Footprint Strategy, Implementation Plan and Funding Strategy that will drive the development and optimisation of the defence estate. It is developing an operating model within the Department to improve its management of the estate.

Our study

This study assessed whether the Department is now in a good position to manage its estate and whether it has addressed the barriers identified in previous reports.

Our evaluative criteria

The Department has a coherent strategy to deliver a defence estate which meets defined military needs and is affordable within available resources.

The Department has an appropriate operating model to support its long-term strategy for the defence estate.

Our evidence

(see Appendix Two for details)

We assessed the quality of the strategy by:

- carrying out interviews with senior officials in the Department and other stakeholders;
- reviewing departmental documents; and
- undertaking case studies on four estate disposals.

We assessed the operating model by:

- interviewing various stakeholders with responsibilities for the estate in the Department; and
- reviewing departmental documents.

Our conclusions

The Department has started to improve its management of the defence estate. It has recognised demand for funding significantly exceeds budgets. Past actions it took to live within its means are now leading to increased costs overall and creating risks to military capability. In response the Department has developed a strategy which identifies the estate it needs and the 25% of its estate it can dispose of by 2040 to reduce costs. However, the success of much of this strategy is uncertain. There is a risk that anticipated financial benefits will not be realised and that long delays and gaps in funding will emerge. The strategy and current funding levels also allow only for a partial reversal of the decline in the condition of the remaining estate. The Department has not yet set out how it will fully address the significant challenges it faces sustaining the whole of its estate and the resulting risks to military capability.

Appendix Two

Our evidence base

1 Our conclusions on whether the Ministry of Defence (the Department) is now in a good position to manage its estate, and whether it has addressed the barriers identified in previous reports, were reached following our analysis of evidence collected between February and September 2016.

2 Our audit approach is outlined in Appendix One.

3 We examined whether the Department has a coherent strategy in place to deliver a defence estate that meets defined military needs, and is affordable within available resources:

- We undertook **semi-structured interviews with stakeholders in the Department**, including the Defence Infrastructure Organisation (DIO), Head Office and the Armed Forces (the Commands). This was to understand how the Department produced its strategy and how it has addressed the problems identified in previous reports.

- We **interviewed different parts of the centre of government**. We interviewed officials in the Government Property Unit to understand how the Department has engaged them in developing its strategy for the defence estate. We interviewed the Crown Commercial Service to explore the findings of a review into the performance of DIO's strategic business partner. We also interviewed the Local Government Association to explore how the Department engages with local authorities when disposing of estate.

- We **reviewed the strategic documents concerning the Department's management of the estate and documentary evidence supporting development of the Department's Footprint Strategy**, including internal papers documenting the estate, funding challenges and the risks to the Department from the estate failing. We also reviewed the Footprint Strategy, Implementation Plan and Funding Strategy to examine whether the Department's plans to reduce the size of its estate are realistic.

- We selected **three estate disposals that were ongoing and one that had completed as case studies** to understand the Department's approach and the issues it faces in disposing of its estate. We undertook interviews with departmental officials involved in these disposals and reviewed supporting documentary evidence. We selected these case studies to cover the range of issues the Department faces when disposing of its estate and to cover the various stages of disposal.

4 We examined whether the Department has an appropriate operating model in place to support its long-term strategy for the defence estate:

- We undertook **semi-structured interviews with stakeholders**, including with senior officials in DIO, Head Office and the Commands. This was to examine how the model was operating in practice. We also explored the performance of the strategic business partner with officials in the Department and those staff working in DIO from the organisations that make up the partner.

- We **reviewed documentary evidence**, including DIO's contract with its strategic business partner, data on DIO's performance, the Department's assessment of the partner's performance and documentation on specific activities within DIO to transform the organisation. This was to understand the role and impact of the partner on DIO's performance. We also reviewed a range of documentation to examine how DIO managed the implementation of a new IT system.

Report by the Comptroller and Auditor General

Delivering the defence estate

HC 782 Session 2016-17

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CORRECTION

Figure 2 on page 15 of the report was produced in error.

It currently reads:

Figure 2
Possible impact of failing estate on carriers

The Department has commissioned two new aircraft carriers, the first of which, *HMS Queen Elizabeth*, will arrive in Portsmouth in early 2017. The total cost of building the carriers is forecast to be £6.2 billion.

The Department has been working to provide the estate assets necessary to enable the carriers to operate. This includes building a new jetty and dredging a channel deep enough to enable the carriers to sail into the port. However, because of funding pressures, the Department has not invested in ageing estate assets. This may jeopardise the carriers' ability to operate. For example, the cables that supply power to the base and carriers are more than 80 years old. They need replacing but there is no funding available to do this.

Source: National Audit Office analysis of Ministry of Defence data

Please see the corrected figure below:

Figure 2
Possible impact of failing estate on carriers

The Department has commissioned two new aircraft carriers, the first of which, HMS Queen Elizabeth, will arrive in Portsmouth during 2017. The total cost of building the carriers is forecast to be £6.2 billion. The Department has also been investing to upgrade the estate assets necessary to enable the carriers to operate. This includes building a new jetty and dredging a channel deep enough to enable the carriers to sail into the port. A dedicated power supply to the first carrier berth was completed in summer 2016, and the remaining works to directly support the carrier will be completed in January 2017, ahead of the Queen Elizabeth's anticipated arrival.

However, elsewhere on the base, funding pressures have meant that the Department has not invested in other ageing estate assets which are needed to support all of the ships which dock in the naval base, including the carriers. For example, the cables that supply power for wider activities on such as stores, offices and workshops are approaching the end of their lives and also need replacing. The Department advised us that it is planning further life-cycle replacement works and intends to start this in 2017-18 in a programme that will run for at least six years.

Source: National Audit Office analysis of Ministry of Defence data

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