

Departmental sustainability overview

The Department for Transport





This briefing has been prepared in response to a request from the Environmental Audit Committee (the Committee) continuing our series of Departmental sustainability overviews by examining the Department for Transport (the Department). The transport sector has a significant impact on the environment, making the activities of the Department vital in meeting environmental objectives. This briefing provides an overview of the Department's sustainability and provides context for the actions it is taking to support environmental protection and sustainable development. Past briefings have included sustainability overviews on the Department for Business, Innovation & Skills ([2013](#)), the Home Office ([2014](#)) and the NHS ([2015](#)).

This briefing is based on the good-practice criteria established in the previous overviews to assess sustainability within the Department, which can be found in the appendix. These include four areas where a department should embed consideration of the environment and sustainability. The combined results from these four areas will give the Committee an understanding of whether the Department is fully contributing to the government's sustainable development objectives. Our briefing is primarily focused on the environmental impact and activity of the Department, rather than economic or social sustainability.

Information on the government's overall policy context for this briefing can be found in the National Audit Office's (NAO's) [Short guide to Environmental Protection and Sustainable Development](#). The short guide highlights key environmental policies and programmes from across government, as well as major international conventions and agreements which impact on the UK.

A summary of the government's position on environmental protection and sustainable development can be found [here](#)

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Overall, we consider that the Department for Transport has taken many positive steps to meeting the challenge of sustainability in the transport sector, particularly in respect of its internal processes and interactions with other parts of government. However, there is an opportunity to build on this to act as a leader for sustainability in the transport sector, and to ensure that the environment is fully considered across all decisions.

Our key messages are linked to the NAO's wider messages on sustainable development. In November 2015 the Comptroller and Auditor General Sir Amyas Morse spoke as a panel member during the Environmental Audit Committee's Conference on the Government's Approach to Sustainable Development. This briefing is our first to the Committee since that conference, and reinforces the messages presented then.

“ *[Delivering sustainability requires that government] establish clear responsibility and ownership, get the measures [focused] and built into the plans so people can be held to account for them, make sure that you draw attention and evaluate the strategic context, and finally, establish and insist on accountability for those who are responsible.* ”

Sir Amyas Morse, 10 November 2015





The government's environmental objectives require transformational change in the transport sector. The Department understands these challenges, and is well placed to take more of a leadership role across the sector

Meeting the government's long-term environmental targets, such as the Climate Change Act 2008, will require significant changes and innovation in the transport sector. The Department has set specific targets for most transport areas in order to meet the wider environmental targets, although in some areas this is directed by industry or international agreements instead. The Department encourages innovation in the transport sector to meet these targets, but has the potential to build on its experience and take more of a leadership role, both in the sector and in wider government. Stakeholders have expressed concern that this strategic leadership is lacking and some partners said the absence in the Department of an overarching sustainability strategy leads to confusion about its aims and role.



The scale of the sustainability challenge is appropriately reflected in the Department's objectives, governance, organisational structure and system for appraising policy interventions. But it is unclear how environmental issues are considered in some strategic choices

The Department's Single Departmental Plan sets out four aims, one of which is 'safe, secure and sustainable transport'. In practice it is faced with the challenge of balancing these priorities with the aim to promote economic growth. Some stakeholders have expressed concern that environmental factors are not given sufficient prominence in assessing transport options. The Department recognises this challenge, and since the financial year 2007-08 has had a director general with clear responsibility for the environment in policy, supported by a central environmental strategy team and an extensive appraisal system. However, it is unclear how fully environmental impacts are considered in strategic decisions across the transport network as a whole, both between transport modes and across the boundaries of local and national interests. For example, we found that board-level discussions take place regarding major environmental issues, but it is unclear how effectively these are linked to the strategic discussions and decisions elsewhere.



The Department has begun to address the need to work with other departments, and has developed approaches which could usefully be applied to other environmental issues, including those within the transport sector

Sustainable transport requires considerable cross-sector and cross-government working. The Department works with the departments responsible for environmental targets, such as Department for Environment, Food & Rural Affairs (DEFRA) and Department of Energy & Climate Change (DECC), and provides information and advice to HM Treasury on transport taxation issues. The Office for Low Emission Vehicles (OLEV), established in 2013 to support the early market for ultra-low emission vehicles, provides an example of cross-government working. This is a model which could potentially be used for other transport environmental issues and elsewhere in wider government. The Department is also notable for having an extensive and consistent appraisal system useable across the transport sector, ensuring consistency in assessment of environmental impacts.



The Department has made reasonable progress in greening its own operational activities

The Department had met four out of five of its Greening Government targets for its estates and operations by 2015, on water, waste, paper and domestic flights. The fifth target (carbon emissions) was missed, but the Department attributes this to a change in electricity conversion factors. The Department is also making progress towards embedding sustainability within its supply chain and meeting Greening Government ICT objectives.



Areas of interest to the Committee

Topics the Committee might wish to explore with the Department include the following:

The Department's environmental approach

- Are the sustainability commitments made through the Single Departmental Plan sufficient, and how will the Department be held to account if these are not met?
- How well is the Department promoting its long-term ambitions for the sustainability of the transport sector, and are there any areas where this ambition is lacking?
- How confident is the Department regarding meeting its long-term ambitions for sustainability in the transport sector?
- Is the WebTAG approach of having a single, regularly updated appraisal toolkit, which clearly incorporates environmental issues, one that can be applied elsewhere in government?
- Are the Department's resources for promoting environmental issues, including staff, adequate?

The Department's engagement with other government bodies

- How can the OLEV model, featuring staff from several departments working together on a sustainability issue, be used elsewhere in government?
- What other areas of transport sustainability require close engagement between the Department and other government bodies?
- How is the Department engaging with other departments to set targets for its own sustainability as a successor to the Greening Government Commitments?

The Department's engagement with sustainability outside government

- What can the Department/government do to further encourage sustainability in transport sectors which have targets set internationally, especially where those targets have yet to be agreed?
- Does the Department have the correct balance between setting sustainability targets for industry to meet and encouraging industry to set its own targets?
- How can the Department improve its communication with environmental stakeholders, particularly where the stakeholders do not believe the Department's environmental appraisals are adequate?
- How can the Department make best use of its position in the transport sector to act as a leader for sustainability?



Context: the role of the Department

“We work with our agencies and partners to support the transport network that helps the UK’s businesses and gets people and goods travelling around the country. We plan and invest in transport infrastructure to keep the UK on the move.”

Department for Transport homepage

The Department’s main responsibilities

Road

- Investing in, maintaining and operating the motorway and trunk road network in England (via Highways England).
- Providing policy, guidance and funding to English local authorities to help them run and maintain their road networks and develop new major transport schemes.



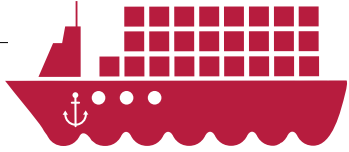
Rail

- Setting strategy for the industry in England and Wales.
- Funding investment in infrastructure (via Network Rail).
- Awarding and managing franchises.
- Regulating fares.



Shipping

- Producing the overall maritime strategy for the UK and planning policy for ports in England and Wales.



Buses

- Setting the policy framework to determine how bus services are managed.



Aviation

- Setting national aviation policy.



The Department’s priorities in delivering its responsibilities are set out in the Single Departmental Plan.

These are:

- boosting economic growth and opportunity;
- building a One Nation Britain;
- improving journeys; and
- safe, secure and sustainable transport.

The Single Departmental Plan is described in more detail in the Policy section of this briefing, [here](#).





Key trends

Increasing public spending

Resource spend – The 2015 Spending Review indicates an increase in Departmental Expenditure Limit (DEL) budgets over the Parliament. Comparison to other Departments indicates an increasing prioritisation of spend on transport:

- 2015-16: £8.7bn budget (10th highest)
- 2019-20: £13.2bn budget (7th highest)

Capital spend – The Department’s budgets reflect an increased level of capital investment: the Spending Review details £73.4 billion of transport-related capital investment between 2015-16 and 2020-21, including £34.5 billion for Network Rail and £15.2 billion for the Roads Investment Strategy.

It should be noted that the Spending Review settlement does not cover the full extent of the Department’s activities. In particular, Network Rail spend is excluded.

Increasing demand for rail

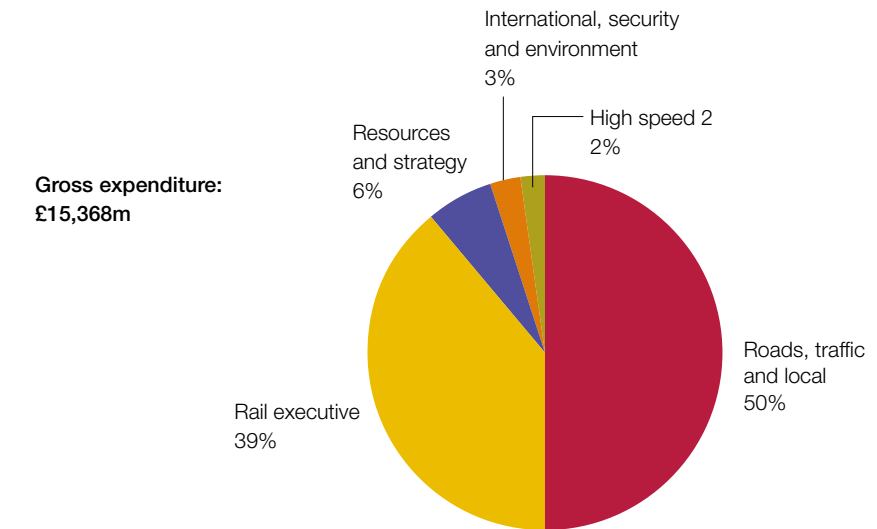
The number of rail passenger journeys has doubled since the 1990s, with the mode representing 9.8% of the total distance travelled by people in the UK in 2014, up from 7.6% in 2004.

Continued dominance of private road travel

Private road travel is the most prominent transport mode, representing 64% of total journeys and 81% of total distance in 2014.

Further details on the Department can be found in the NAO’s [Short guide to the Department for Transport](#). This guide is designed to provide a quick and accessible overview of the Department and focuses on what the Department does, how much it costs and recent and planned changes.

Departmental gross expenditure by operating segment 2014-15

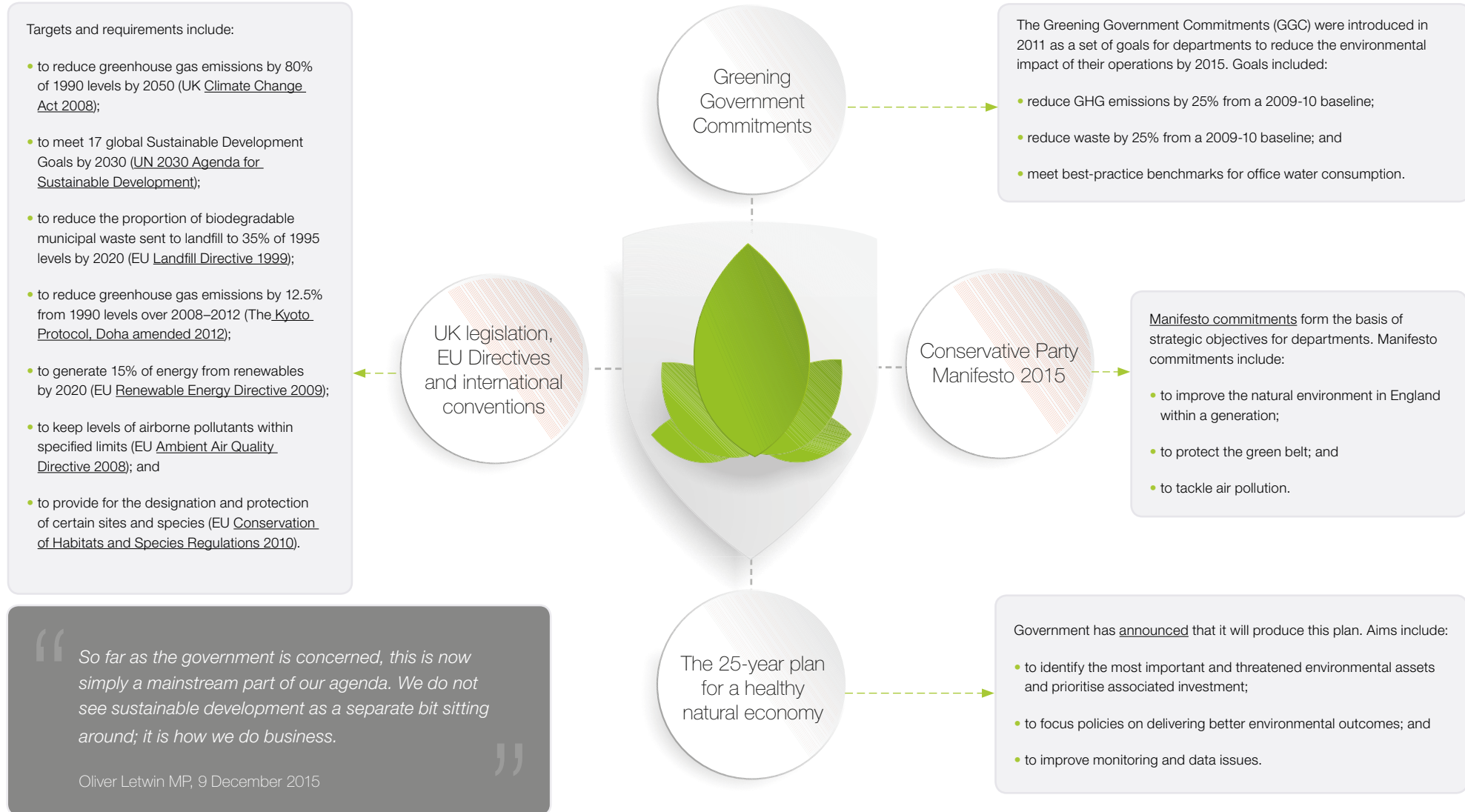


Source: Department for Transport Annual Report and Accounts 2014-15



The government’s position on sustainable development and environmental protection

Government has a range of commitments and targets in pursuit of sustainable development and environmental protection, including under UK legislation, EU Directives and international conventions.





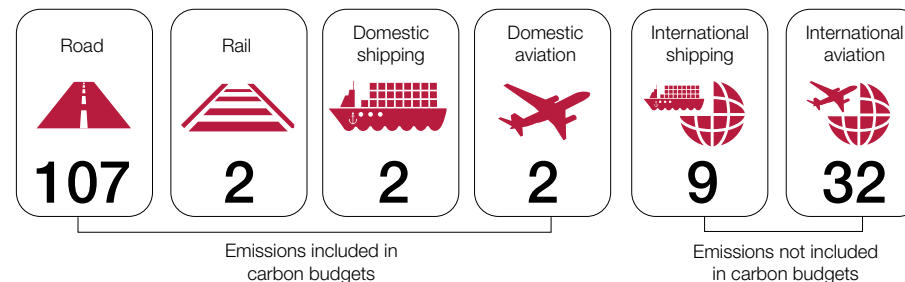
Context: the transport sector's environmental impacts

National and international

Greenhouse gases

- The Climate Change Act (2008) commits the UK to a 80% reduction in domestic emissions by 2050.
- Net UK emissions were 514 MtCO₂ equivalent in 2014 for carbon budget purposes, a 36% reduction on 1990 levels.
- Of these emissions, 23% come from the transport sector, although international aviation and shipping emissions are not included in targets.
- In its 2015 Progress Report the Committee on Climate Change (CCC) advised that its calculations for a cost-effective pathway to reaching the 2050 target would include transport emissions falling to around 81 MtCO₂ by 2025: this is a 31% reduction from the 2014 sector emissions.
- Department for Energy and Climate Change emissions projections indicate that the transport sector will fall short of this scenario by a significant margin, 17 MtCO₂ (47% of the required fall).
- The cost-effective path recommended by the CCC is not the only route by which the 2050 target can be met, and ultimately it is for the government to decide what action to take in what sectors to meet its carbon budgets. The government is currently preparing the next Carbon Plan, which will set out its policies and proposals for meeting carbon budgets.

Emissions by transport type 2013 (MtCO₂)



Source: Committee on Climate Change 2015 Report to Parliament

[For a more detailed diagram of carbon emissions, including a breakdown by road vehicle type click here](#)

[For an illustration of the policy gap identified by CCC against their cost-effective path click here](#)

Greenhouse gases



22%

of UK domestic carbon emissions are from the transport sector

31%

drop in transport emissions recommended by 2025





National air quality

The transport sector is a significant source of air pollutants, and limits on new vehicle emissions are set by the EU. The Volkswagen emissions scandal indicates that these may not have been an accurate indicator of pollution levels, making it harder to make informed decisions on measures to tackle air pollution.

The EU Air Quality Directive set limits for pollutants such as NO₂, requiring that these be met by 1 January 2010. In 2013:

- 5 zones had met the original target;
- 31 zones had measured or modelled NO₂ levels over the limit and had no time extension; and
- 7 zones met the target within a margin of tolerance but only as part of an agreed time extension.

This has led to legal challenge against the UK: in April 2015 the Supreme Court ordered the government to create a plan to tackle the problem, resulting in the UK Air Quality Plan.

The main focus of departmental air quality policy to date has been on reducing car emissions; however, freight vehicles are also important. HGV emissions of particulate matter have fallen dramatically over the past few years. However, these have reduced fuel economy and further improvements will be necessary to ensure air quality targets are met alongside carbon targets.

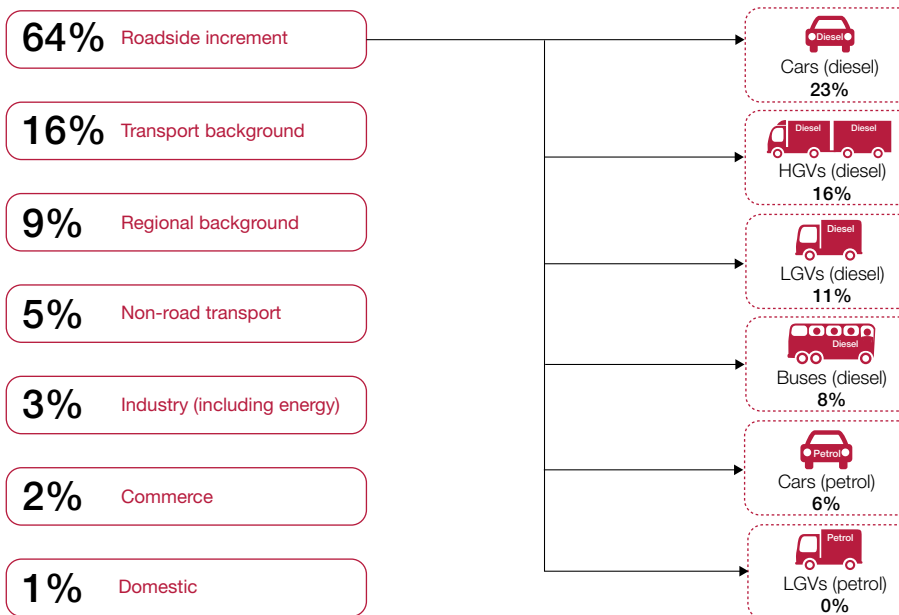
National air quality



Only **5 of 43** UK urban zones met the EU target in 2013

Sources of NOx on UK road links outside London

(Average NOx source apportionment on UK road links outside London exceeding an annual mean NO₂ concentration of 40µg/m³ in 2013)



Source: Department for Environment, Food & Rural Affairs Air Quality data

For a detailed diagram [click here](#)





Maritime water quality

Although maritime freight and passengers have declined from past peaks, there remains a large number of vessels using UK ports. These have the potential for negative impacts on the marine environment, such as through the discharge of ballast water, sewage, or cleaning products through daily operations.

Many of the ships are neither owned, managed, or flagged in the UK, therefore regulation, including for the environment, is typically international.

Energy use

Although electric vehicles are more efficient than other forms of fuel, it is predicted that electric vehicles will place an additional 14 TWh/year (1.2%) demand on the National Grid by 2035, and rail an additional 3 TWh/year.

The EU Renewable Energy Directive requires 10% of transport energy to be from renewable sources by 2020, but there are concerns that this target will not be met. The Energy and Climate Change Committee has launched an inquiry exploring the main challenges, details of which can be found [here](#).

Maritime water quality



503.2m

tonnes UK port freight

65.9m

sea passengers

Energy use



38%

of the UK's total energy use is in the transport sector

74%

of this is through road transport





Local impacts

The transport sector has a significant impact on local environments, particularly where new infrastructure is being constructed. The Department’s Single Departmental Plan states that “For decades, transport investment has not kept pace with demand,” and indicates increased investment to address this. This presents a challenge for local environments, but also an opportunity to improve existing infrastructure through new construction approaches. Local environmental concerns where transport is a significant factor include:

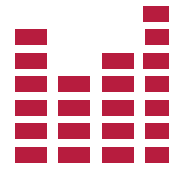
Biodiversity

The transport sector is reliant on significant amounts of infrastructure, which by necessity passes through the countryside and can be in close proximity to sensitive ecosystems. Construction can directly result in habitat loss, while the ongoing impacts of traffic include increased mortality due to vehicle strikes and animal confusion from light and noise pollution.



Noise

The Office for National Statistics (ONS) Sustainable Development Indicators include a supplementary indicator for noise, citing evidence that exposure to noise is a major detriment to health and well-being. Transport is a major contributor to environmental noise, and the government is required by EU regulations to publish noise maps and action plans for all major roads, railways and airports.



Landscape

Transport is a vital means of enabling access to the UK’s natural assets for recreation and tourism. Work to put a useable value on natural landscapes is ongoing, such as through the work of the Natural Capital Committee, but it is clear that transport also has a significant disruptive impact on the landscape through the construction of infrastructure and pollution from increased travel in an area. Recent discussions regarding the impact of transport have focused on High Speed 2, which passes through areas such as the Chilterns Area of Outstanding Natural Beauty. The planning process included appraisal of options to mitigate the impact on the landscape in impacted areas.



Click each section for further details





Biodiversity

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In addition to negative impacts, transport can produce improvements in biodiversity, such as through providing the means to connect different areas of habitat. The Road Investment Strategy sets an aspiration for Highways England to produce a net gain in biodiversity from its activities by 2040.

Habitats and biodiversity are protected through EU directives, such as the Habitats Directive 1992, transposed into UK law by means of the Conservation of Habitats and Species Regulations 2010. This requires that a plan or project takes into account the impact on biodiversity in areas identified as important to conservation.

Noise

The ONS Sustainable Development Indicators include a supplementary indicator for noise, citing evidence that exposure to noise is a major determinant to health and well-being. Transport is a major contributor to environmental noise, and the government is required by EU regulations to publish noise maps and action plans for all major roads, railways and airports. Guidance on transport noise regulations is available [online](#).

Regulations vary by sector:

Road – Road planners are required to assess the impact of noise on local residents, and there are limits to the amount of tyre and exhaust noise that vehicles can make on public roads.

Rail – New rolling stock has to comply with EU noise limits; however, there are no legal limits to noise from existing railways.

Aviation – The Department sets noise controls at Heathrow, Gatwick and Stansted including limits on night flights. Other airports have powers to set noise controls similar to those at the airports above and the government believes it is generally better for these to be agreed locally.

The extent of noise impacts, and the source, vary dramatically between sites, so it is not possible to assess an average level of noise derived from transport. Instead, the Environmental Noise (England) Regulations 2006 require DEFRA to produce environmental noise maps for large urban areas, major transport sources and significant industrial sites in England. The noise map portal for England can be accessed [here](#). Similar resources exist for Wales [here](#), and for Scotland [here](#).





Wider sustainability issues

This briefing is primarily focused on the environmental impact and activity of the Department. However, the transport sector is also important for economic and social sustainability. These are often the responsibility of other government departments, but the Department's oversight of the transport sector gives it the opportunity to assist with achieving these wider goals.

Transport's impacts upon economic and social sustainability include, but are not limited to, the following:

Economic resilience

2013-14 saw the highest winter rainfall across southern England since records began, causing major disruption to the transport network through flooding. Disruption in the transport network has knock-on effects on other sectors through restricting supplies to industry and preventing business travel within the country. The UK is reliant on imports in many areas, including fuel and food. Some 95% of imports come through ports, so significant disruption to these would have major implications. The [Transport Resilience Review 2014](#) made a number of recommendations for improving the resilience of the transport network, highlighting that the vast majority of the transport infrastructure that we will have in 30 years' time is infrastructure that we already have.

Community and equality

Access to transport can have a significant impact on building stronger communities and social and economic equality. It enables people to remain within more isolated communities. It enhances the ability to travel to work, improving access to jobs and the availability of the skills needed for a healthy economy.





Congestion

Demand for travel is increasing, and is responded to by increased provision of road infrastructure, but this can accelerate the pace at which road traffic grows. The strategic road network interconnects with local provision, meaning expansion of capacity may result in local issues such as additional congestion or reduction in air quality. Stakeholders expressed concern, for example, about the impact of the proposed trans-Pennine tunnel on local congestion and infrastructure needs at each end.

Public health

NO₂ health impacts are estimated as the equivalent of 23,500 deaths annually, while particulate matter health impacts are estimated as having mortality impacts equivalent to 29,000 deaths annually. There may be overlap between these two estimates of mortality, but the combined impact of these two pollutants is a significant challenge to public health. Road transport is a significant contributor to these emissions.

Walking and cycling are important sources of physical activity, with associated benefits for public health. The 2011 census indicated that 2.8% of workers cycled to work, consistent with the results of the previous census. However, there were substantial increases in numbers of cyclists in major cities, most notably a doubling in London. The transport network is a major element in determining the viability of cycling for commuting.

In 2013-14 1.4% of A&E attendances were recorded as being the result of road traffic accidents. This is a fairly low proportion; however, road deaths in 2014 increased by 4% over 2013 (to 1,775) and serious injuries increased by 5% (to 22,807). The total number of road casualties in Great Britain annually, including those not reported to the police, is estimated within the range 660 to 830 thousand with a central estimate of 740,000.

More information on the economic and social aspects of sustainability can be found in our short guide [here](#).

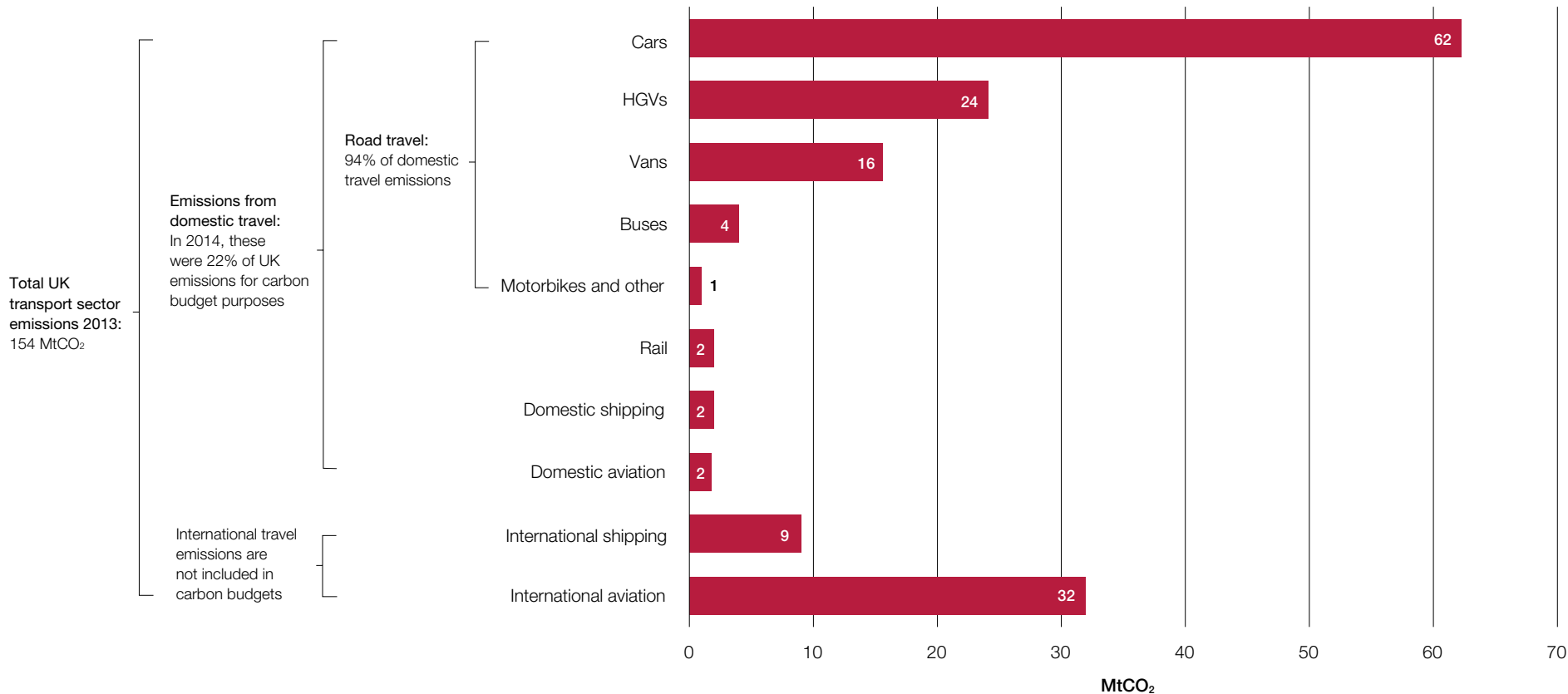




Context: the transport sector's environmental impacts

National and international

National and international transport emissions 2013 (MtCO₂)



Note
 1 Emissions per transport sector are not currently available for 2014. Domestic transport emissions for 2014, which are 22% of carbon budget emissions, were estimated at 117 MtCO₂, an increase from the previous year of 1.1%.

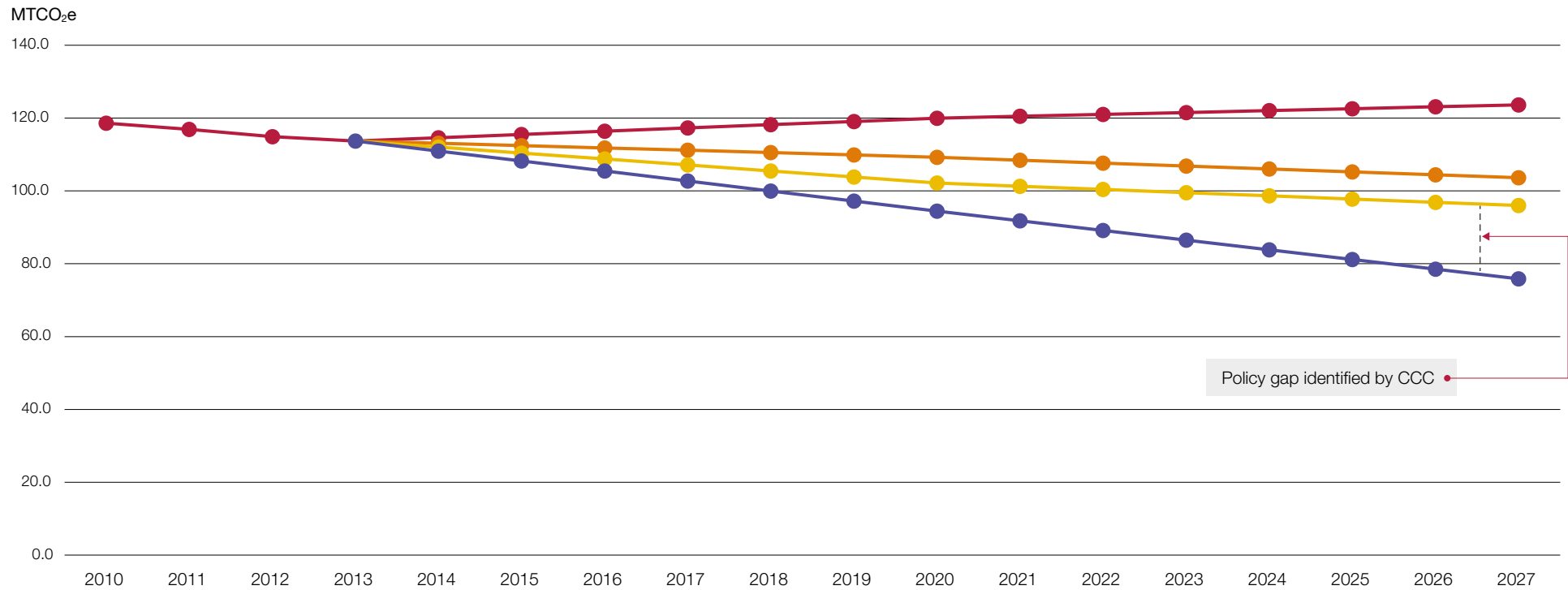
Source: Committee on Climate Change 2015 report to Parliament



Context: the transport sector's environmental impacts

National and international

CCC assessment of emissions savings from current and planned transport policy against the cost-effective path



- Baseline emissions
- Emission savings from low-risk policies
- Emission savings from at-risk policies
- Cost-effective path

Source: Committee on Climate Change 2015 report to Parliament

CCC analysis differentiates between those policies which they expect to deliver (classified as 'lower risk') and those they see as at risk of failing to deliver, such as due to design and delivery problems, or because they are currently unfunded (classified as 'at risk'). CCC assessment of policies can be found in Annex 4 of the [2015 Progress Report to Parliament](#).

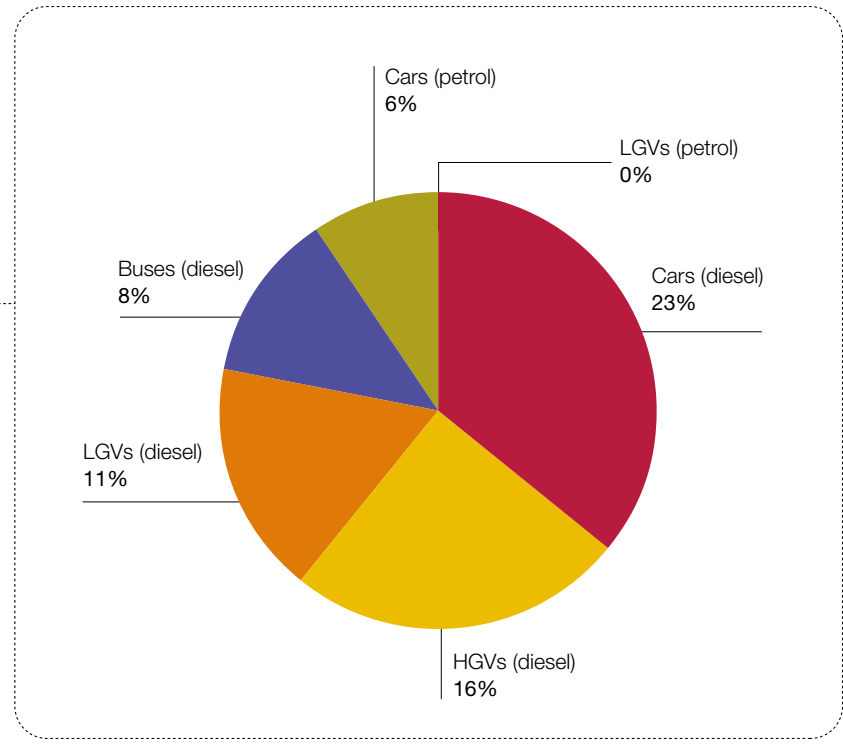
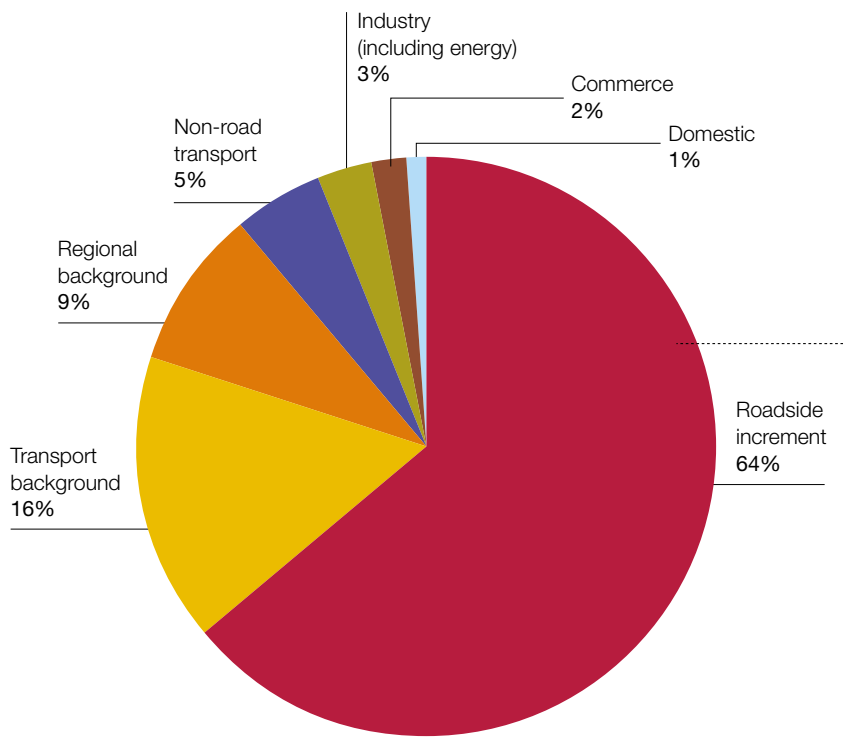


Context: the transport sector's environmental impacts

National and international

Sources of NOx on UK road links outside London

(Average NOx source apportionment on UK road links outside London exceeding an annual mean NO2 concentration of 40µg/m3 in 2013)



Source: DEFRA Air Quality data



1

Policy and policy-making

Our work in this area seeks to answer the question:

“Are the Department’s policies and policy-making consistent with sustainable development objectives?”

Finding and links to key messages

page 2

The Department’s environmental role in government and industry

Sets out the interaction of the Department for Transport with other bodies and organisations, both within and outside government, in order to understand the levers available to the department.

page 3

Departmental priorities

Examines the Department’s Single Departmental Plan, highlighting those elements relating to the environment and sustainability.

page 5

Option appraisal

Describes how the Department’s Transport Appraisal Guidance includes environmental factors, and examines common criticisms of the department’s approach.

page 13

Environment targets and scale of challenges

Sets out the link between the Single Departmental Plan and previously articulated targets, and highlights the level of ambition.

page 6

The good-practice criteria used by the NAO to prepare this briefing can be found in the appendix [here](#).





Policy and policy-making: findings and link to key messages

The Department does not have overall cross-government ownership of environmental targets. However, given the environmental impact of the transport sector, it is in an important position to influence their achievement. The Department recognises this and:

- it is embarking on a major infrastructure programme. Strong mechanisms will be required to ensure that this supports rather than hinders the government's sustainable development goals. The Department also sees this as an opportunity to address environmental issues in the existing infrastructure;
- it is working with partners across government to achieve a coordinated approach to sustainability;
- its Single Departmental Plan includes four aims; one is for 'safe, secure and sustainable transport', all four include commitments to environmental sustainability;
- its Transport Analysis Guidance (TAG) includes detailed guidance on environmental impact assessment; and
- it has policies to support industry innovation as a way of achieving sustainable outcomes.

However, there is more the Department could do:

- The Department is organised on a sector basis and it is unclear how well environmental issues and transport solutions are integrated across sectors.
- Stakeholders have criticised appraisal of transport options as giving insufficient weight to environmental matters and lacking consideration of cross-sector solutions. The Department could do more to communicate the steps it has taken to integrate a robust and consistent assessment of environmental impacts into its policy appraisal processes.

- Sustainability commitments in the Single Department Plan are linked largely to inputs rather than outputs.
- Public bodies within the sector have expressed concerns that the lack of a clear sustainability policy from the Department creates difficulties justifying environmental spend.
- There is concern among some stakeholders that the UK is not on track to meet the EU Directive target for 10% of transport energy to be from renewable sources by 2020. The Department is aware of the need to provide more certainty to industry and expects to consult later in 2016 on proposals to ensure the UK meets its 2020 targets.

These findings support key messages 1, 2 and 3, which highlight that there are clear targets for sustainability in the transport sector, and these are reflected by the Department's governance and approach, both internally and working across government. However, it is not always clear how these issues are considered and made visible to the transport sector as a whole, meaning the Department could take more of a leadership role in promoting sustainability.



01



02



03

Associated key messages

The government's environmental objectives require transformational change in the transport sector. The Department understands these challenges, and is well placed to take more of a leadership role across the sector.

The scale of the sustainability challenge is appropriately reflected in the Department's objectives, governance, organisational structure and system for appraising policy interventions. But it is unclear how environmental issues are considered in some strategic choices.

The Department has begun to address the need to work with other departments, and has developed approaches which could usefully be applied to other environmental issues, including those within the transport sector.



Policy and policy-making: the Department's environmental role in government and industry

Tackling the environmental impacts of the transport sector requires a coordinated approach within the Department, with industry, and across government. Although the Department does not have overall ownership of environmental targets, it is in an important position to influence the achievement of these. The diagram below illustrates the major sources of environmental perspectives which the Department must take into account in devising its own policies and the opportunities it has to influence sustainability.

Government



Click for details of departments with significant interests

The Department is in a position to assist with management of the impact of transport on the environmental protection and sustainable development targets and responsibilities of other departments, and so needs to be aware of these targets.

The significance of the transport sector in environmental matters means that although the Department does not have direct responsibility for environmental matters, it has a higher level of engagement with environmental stakeholders than many departments.

Department for Transport

Other departments have access to policy levers which influence the transport sector. The Department has a role in ensuring that these levers are used to promote the government's environmental protection and sustainability objectives.

The Departmental group includes both arm's-length bodies and companies sponsored by the Department, such as Highways England. The Department also provides significant grants to bodies outside the group, such as local authorities and Transport for London. This is an opportunity to promote sustainability, but stakeholders have expressed concerns that the lack of a clear sustainability policy from the Department creates uncertainty regarding the extent to which transport budgets can be allocated to meet their own sustainability goals, and on what timescale.

Department-funded bodies

The innovations required to meet environmental targets will ultimately come from industry, and their success will be dependent on consumer activity. The Department has policies to support sustainability in both, but could go further in promoting a clear long-term plan to build confidence.

External interests

Environmental organisations

Industry

Consumers





Government departments

Department of Health

Department for Environment, Food & Rural Affairs

Department for Energy & Climate Change

OLEV

Department for Business, Innovation & Skills

Department for Communities and Local Government

HM Treasury

The Office for Low Emission Vehicles, funded by the Department but including staff from Department of Energy & Climate Change (DECC) and Department for Business, Innovation & Skills (BIS), is an example of positive collaboration across government.

Note on fiscal policy

It would not be appropriate for the Department to continue to provide grants for industry or consumers, such as currently exist for ultra-low emission vehicles (ULEV), indefinitely. Longer term, fiscal incentives are likely to be a better option than continued OLEV grants. Fiscal policies are in the remit of HM Treasury, and can be helpful in providing stable and long-term incentives.

The Department provides HM Treasury with information, advice and support regarding taxation and the transport network. Current fiscal policies provide significant tax benefits to users of ultra-low emission vehicles, estimated by NAO as more than £600 per year in fuel tax, road tax and VAT savings for a pure electric private vehicle. The economic sustainability of the incentives, or the need for other offsetting measures, may need to be reviewed in the long term as the ULEV fleet grows.





Policy and policy-making: Departmental priorities

The Department's recent Single Departmental Plan (SDP) sets out its strategic priorities for this parliament. The SDP sets out four aims (shown below), one of which is 'safe, secure and sustainable transport', but all of them include commitments around environmental sustainability. The Department told us that each commitment made through the SDP will be linked to its management information system and used to assist the Board in monitoring progress. It is too early to assess the effectiveness of this, and the results of this monitoring are not expected to be made public.

| Objective | Boosting economic growth and opportunity | Building a One Nation Britain | Improving journeys | Safe, secure and sustainable transport |
|----------------|--|--|---|--|
| Sub-objectives | <ul style="list-style-type: none"> Investing in infrastructure. Getting the regulatory framework right. Supporting the UK transport sector. | <ul style="list-style-type: none"> Rebalancing the economy by building the Northern Powerhouse. Investing in the regions. Devolving powers. Keeping costs down for commuters and making transport accessible to all. | <ul style="list-style-type: none"> Rolling out new technology and innovation on our transport networks. Enhancing and maintaining our transport networks. | <ul style="list-style-type: none"> Ensuring the safety of people using and working on the transport system. Maintaining and improving the security and resilience of the transport system against the full range of threats and hazards. Supporting wider government objectives to protect the environment and public health. |

These objectives are not directly focussed on the environment or sustainability, but each includes relevant commitments. These include 'Invest over £600 million over the next 5 years to achieve the aim for almost every car and van to be a zero emission vehicle by 2050' and 'Electrify the main rail routes, build the Northern Hub, and provide new trains for the North'.

[Click here for a full list of commitments relevant to the environment and sustainability](#)

It is this objective which is most relevant to environmental protection and sustainable development. It details measures to improve the security of the transport network, as well as user safety and environmental impacts. It is here that the Department highlights that "transport has a big role to play in meeting the government's objectives on the environment and public health".





Policy and policy-making: environmental targets and scale of challenges (road sector)

Commitments made in the Single Departmental Plan primarily refer to inputs and actions the Department will take, rather than to the outcomes it wants to achieve. Almost half of the environmental commitments in the Department’s plan can be linked specifically to the road sector, and many of these can be further linked to previously articulated targets. For example:

SDP commitment: We will invest more than £600 million over the next five years to achieve the aim for almost every car and van to be a zero emission vehicle by 2050.

Link to previously articulated target: The government has repeatedly highlighted this target, in its election manifesto and most recently when signing a Zero-Emission Vehicle Alliance commitment to promote cleaner motoring at the December 2015 international climate conference in Paris (COP21).

Scale of the challenge and current progress:

- 2040** Year by which the Department forecasts that all new cars and vans will need to be ultra-low emission to reach the target.
- 0.9%** Proportion of new vehicle registrations which were ULEV in the year to September 2015, up from 0.4% a year previously and 0.2% the year before. This rate of increase is towards the higher end of the Department’s projections in *Driving the Future Today* (2013).
- 3%–7%** Departmental projections for 2020 share of the car market, as published in 2013 by *Driving the Future Today*. Projections beyond 2020 have not been published.
- 9%** Share of the car market which the Committee on Climate Change says should be ULEVs by 2020 in order to follow the most cost-effective path to meeting carbon budgets.

Stakeholders we spoke to were supportive of the 2050 target as a long-term goal and of the Department’s current actions to support the early market for ULEVs and innovation in the sector. However, they expressed concerns regarding the lack of a clear medium-term strategy beyond 2020. The Department’s current model is to provide grants for vehicles, infrastructure and research and development through the Office for Low Emission Vehicles (OLEV: a collaboration with BIS and DECC), to supplement existing tax incentives. It has confirmed the stakeholder view that fiscal measures such as Vehicle Excise Duty are likely to be most important in the long term.

In addition, in its *Meeting Carbon Budgets – Progress in reducing the UK’s emissions 2015* report to Parliament the Committee on Climate Change made the following recommendations to:

- provide the motor industry with greater certainty by 2030: Push for clear, stretching 2030 EU targets for new cars and vans that take account of the need for ULEVs and use realistic testing procedures.
- Tackle barriers to electric vehicle uptake: this includes providing a national network of charge points and roll-out of local incentives such as access to parking.

Meeting carbon targets will also require decarbonisation of freight traffic, although no commitments are made for this. Total carbon emissions from freight are almost unchanged from 1990, and energy use per tonne of freight has increased due to emissions standards improving air quality but reducing fuel economy. The Department is carrying out a Freight Carbon Review to consider options for reducing road freight emissions.





SDP commitment:

We will contribute to delivery of the National Air Quality Plan.

Link to previously articulated target:

The National Air Quality Plan was published by DEFRA in December 2015 to set out a comprehensive approach for meeting legal commitments on air quality through introducing Clean Air Zones. The Department is a major stakeholder in this work, and the two departments are currently exploring ways to extend joint working in this area.

Scale of the challenge and current progress:

- 2010** Year by which the EU Air Quality Directive required countries to meet air quality targets.
- 38** Air quality monitoring zones require action to meet EU targets. Of 43 in total, 31 zones had measured or modelled NO₂ levels over the limit and had no time extension. Seven zones met the target within a margin of tolerance but only as part of an agreed time extension. Five zones had met the original target.
- 2020** Date by which all zones except Greater London are expected to meet targets under the plan.

The Department was involved in developing the Air Quality Plan, and has separately set out its own vision for zero breaches of air quality limits by 2040 (the Air Quality Directive permits 18 breaches of hourly limits in a year). The Road Investment Strategy includes a £100 million ring-fenced fund for Highways England to address air pollution, both on the strategic road network and through working with local authorities.

The Department's recent discussions with DEFRA on air quality were highlighted by government stakeholders as a welcome new development, who see the Department as having a potential role as an intermediary where transport issues intersect with the responsibilities of other departments. Transport for London has described difficulties justifying investments to support DEFRA and EU environmental targets and understanding the extent to which they are devolved, as their strategy, funding and remit is ultimately directed by the Department.





Policy and policy-making: environmental targets and scale of challenges (rail sectors)

The prominence of the road sector in terms of environmental commitments and targets is justified by the disproportionately large impact that sector has upon the environment: the road sector is 50% of Departmental spend, but 94% of travel emissions. Targets exist in the other transport sectors, but are less clearly articulated by the Department, both in the SDP and in other publications

Rail sector

A number of policies (such as electrification) support a move to greener rail travel and the Department has promoted environmental sustainability objectives – including the rail industry's sustainable development principles – in specific franchises and projects. However, the Department does not have a clear environmental sustainability strategy for the rail sector.

Tendering rail franchises

- Companies tendering for franchises are required to indicate how their bid will improve sustainability. Bidders are required to prepare a strategy setting out their approach to delivering environmental outcomes and although the minimum level of improvement required to bid has increased over time it is only a limited incentive as it only accounts for 3% of the tender score.
- It is left for individual contract managers to monitor the delivery of environmental commitments. These commitments, however, are unlikely to be their primary focus and there is limited expert environmental support within the Department to assist them to understand and interpret the information.
- The rail franchising system tends to mean that the focus is on passenger traffic rather than freight. There have been improvements in this area: HS2 provides an example of considering freight within passenger networks, having assessed how the new network will impact on rail freight and how it could also encourage good freight procurement standards.

Rail sector objectives

- The Department sets high-level objectives for Network Rail for each five-year Control Period through the five-yearly High Level Output Specification (HLOS). The HLOS for CP5 (2014–2019) indicated a desire for a more environmentally sustainable railway, and instructed the railway industry to develop objectives in this area.
- The rail industry responded by setting itself targets to reduce emissions per passenger kilometre, drawing on industry energy-efficiency best practice. This led to an ambition set out in the Strategic Business Plan to reduce carbon emissions per passenger by 37%. We have, however, been told by rail stakeholders that the level of the initial targets was quite arbitrary and not linked to a full understanding of what was achievable during the period. The appropriateness of targets is expected to improve as the industry develops its understanding of its capacity to deliver improvements in emissions.





Policy and policy-making: environmental targets and scale of challenges (aviation and maritime sectors)

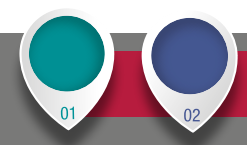
The prominence of the road sector in terms of environmental commitments and targets is justified by the disproportionately large impact that sector has upon the environment: the road sector is 50% of Departmental spend, but 94% of travel emissions. Targets exist in the other transport sectors, but are less clearly articulated by the Department, both in the SDP and in other publications.

Aviation and maritime sectors

These sectors operate primarily at an international level, so it is difficult to manage environmental impacts through the regulations of a single country. The Department works with DEFRA and DECC to contribute to international discussions to agree environmental targets and measures, primarily through the provision of data. However, it is unclear what the government's goals are in these negotiations, and what action should be taken by industry in the interim. The Committee on Climate Change has recommended the publication of a policy framework for aviation emissions with long-term assumptions as a proxy for outcomes under an international agreement, but the government response simply repeated support for regional measures, particularly the EU Emissions Trading Scheme.

Stakeholders have expressed concerns over the Department's handling of aviation noise pollution: this is a major concern for communities under flightpaths. Airports are responsible for limiting the noise impact in their local area, and the Aviation Policy Framework indicates an approximate average level of daytime aircraft noise which the government expects would cause significant community annoyance. Stakeholders accept that the overall arrangements are appropriate, and that it is not possible to have a single noise-based measure for aviation in all situations; however, the government could consider how to improve its leadership role through providing a clearer indication as to the acceptable level of noise. Overall noise policy sits with DEFRA but the Department is also in a position to encourage noise reduction, as it approves airport noise action plans in conjunction with DEFRA. The Department was instrumental in securing a recent agreement on a tougher international noise standard in the ICAO Committee on Aviation Environmental Protection.

Aviation is also a major contribution to emissions. The 2015 Report to Parliament by the Committee on Climate Change, *Meeting Carbon Budgets – Progress in reducing the UK's emissions*, recommended that an effective policy framework for aviation emissions should be published. The Committee recommends that this should plan for the UK to keep 2050 emissions at 2005 levels (assuming around a 60% increase in demand) at the same time as pushing for strong international and EU policies.





Policy and policy-making: environmental targets and scale of challenges (provision of infrastructure)

The 2015 Spending Review indicates the scale of planned transport infrastructure investment, with more than £61 billion of spend in this Parliament. To 2020-21 there will be £22.1 billion invested in roads and £34.5 billion in rail. Construction will also begin on HS2, with funding of £55.6 billion to 2033, including £15.8 billion to 2020-21. In addition to the direct impact of construction, the likely increase in travel has potential impacts on air quality, emissions, noise and congestion. However, the Department has also highlighted the opportunity to addressing existing environmental issues: the Road Investment Programme includes environmental mitigation measures, including addressing issues with past road designs.

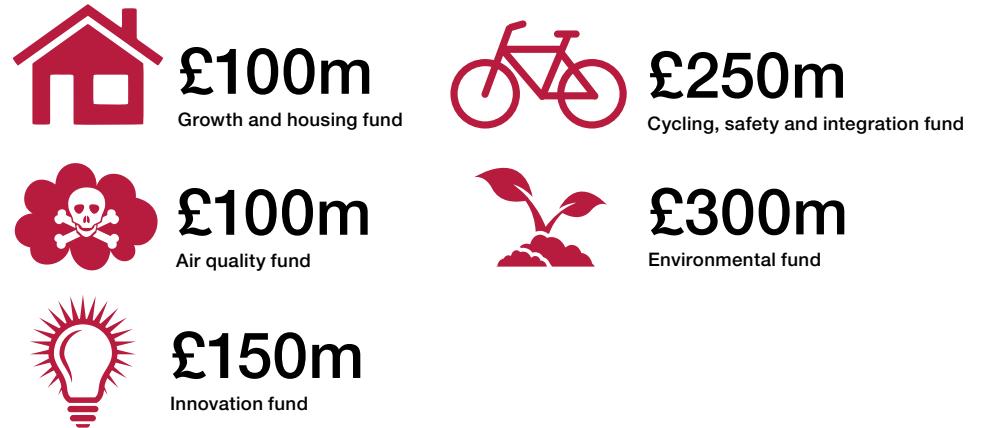
Major infrastructure programme example: the road investment strategy 2015–2020

The Road Investment Strategy plans for £15.2 billion in investment and more than 120 major schemes to enhance and renew the strategic road network. Its aims include building an additional 1,300 lane miles, improving 200 sections of the network for cyclists and reducing the noise impact of roads for up to 250,000 people.

The strategy includes £900 million of ring-fenced investment funds designated to address issues beyond typical road investment. The intention is that these allow action beyond ‘business as usual’ to improve new road schemes and retrofit improvements to existing infrastructure. It includes a £300 million Environment Fund, to “mitigate the worst impacts of noise, support the transition to low-carbon road transport, improve local water quality and resilience to flooding, maintain an attractive landscape and work to halt the loss of biodiversity”.

The plans for long-term funding of the road network also provide an opportunity to consider the whole-life environmental cost and resilience of these transport assets. We have not seen sufficient evidence to present a view on whether consideration of this is sufficient to achieve sustainability improvements.

Ring-fenced investment funds (£m)



Source: Road Investment Strategy for the 2015-16 – 2019-20 Road Period

[Click for more detail on the Environmental fund](#)





Ring-fenced investment funds include:

- Environmental fund - £300 million
- Cycling, safety and integration fund - £250 million
- Innovation fund - £150 million
- Air quality fund - £100 million
- Growth and housing fund - £100 million

Noise

- Low-noise surfacing on road links that would not be resurfaced due to age or condition, where benefit to the local community can be demonstrated.
- Feasibility assessment of two-layer porous asphalt on one or more sections of urban motorway.
- Provision of noise mitigation to those properties exposed to the highest noise levels.

Carbon

- Support for ULEVs on the road network (vehicle chargers): 95% of the Strategic Road Network will have a charging point every 20 miles. Wherever possible, these will typically be rapid charging points that can charge a battery electric vehicle in less than 30 minutes.
- Convert highways patrol fleet vehicle to ULEVs.
- LED lighting for motorways and LED traffic signals.
- Reducing carbon emissions from maintenance depots.
- Renewable energy generation on the Department's estate.

Flood risk management and water

- Reducing flood risk to communities adjacent to the network and improving network resilience to flooding.
- Delivering water quality improvements (drainage and runoff) through use of sustainable drainage systems.

Landscape

- Mitigation of existing landscape problems on the network, especially in protected areas.
- Enhancing landscape quality through new schemes.

Cultural heritage

- Enhance the setting and condition of cultural heritage and historic features in the Department's ownership.
- Enhance the setting and condition of cultural heritage and historic features in proximity to the Strategic Road Network.

Biodiversity

- Increasing the number of Site of Special Scientific Interest (SSSIs) in good or recovering condition.
- Interventions to support Nature Improvement Areas.



Policy and policy-making: environmental targets and scale of challenges (strategic choices)

Sustainability in strategic choices

It is clear from our work that the Department actively considers the impact of each infrastructure project on the environment through a robust and well-documented appraisal system. It is also clear that the Department recognises the opportunities available to improve the environment, and allocates some funding to take advantage of these.

There is, however, a potential gap within the Department's approach. Concerns have been raised, both by external stakeholders and some within the Department, regarding the assessment of impacts and opportunities on a cross-project basis.

Example – cumulative impacts

The Department's approach assesses each project's likely impact upon the environment, with decision-makers provided with information to help them decide if this is an acceptable level. However, the number of transport projects carried in the UK creates a risk that the cumulative impact of several projects reaches a level that would be unacceptable if applied to a single project.

It is unclear how this risk is managed by the Department. The Road Investment Strategy is to be delivered by Highways England, who assess local cumulative impacts of a project upon connecting roads as required by Environmental Impact Assessment legislation. However, responsibility for the national cumulative impact of all 127 projects lies with the Department. An overall economic analysis of the investment plan has been published, which includes monetisation of carbon and air quality impacts, but this is high level and notes that it "does not include all the 'non-monetised' impacts which are important for the value-for-money process". Therefore there is an opportunity to ensure the full range of environmental impacts have been fully assessed on a cumulative basis. This is particularly important where impacts cannot be fully mitigated, such as through destruction of ancient woodlands.

Other concerns raised include the choice between modes of transport, and the impact of national schemes on local networks. We have been unable to fully confirm nor rebut these concerns through our work, but believe this is an area where the Department could do more to strengthen its approach to sustainability.

Stakeholders have also suggested that more effort could be spent on ways to reduce the demand for travel. *Meeting Carbon Budgets – Progress in reducing the UK's emissions 2015 Report to Parliament* by the Committee on Climate Change recommends that lessons be learned from schemes to reduce travel demand, and that sustainable travel schemes should be properly evaluated and extended if they provide cost-effective emissions reductions.

The UK is required to meet the EU Renewable Energy Directive, which requires 10% of transport energy use to be from renewable sources by 2020. Unlike other environmental ambitions, such as for low emission vehicles, this target does not feature in the Single Department Plan, and concerns have been raised by some stakeholders as to whether this goal will be met. The Department has told us that Renewable Transport Fuel Obligation targets have not been raised from their current level (4.75%) due to negotiations regarding the impact of indirect land use change (the increase in emissions caused by an increase in the use of land for biofuels). These negotiations have now concluded, and the Department expects to consult later in 2016 on legislative proposals to increase the amount of renewable fuels supplied in the UK and ensure the UK meets its 2020 targets.





Policy and policy-making: option appraisal

The Department's Transport Analysis Guidance (TAG) is currently used by all transport projects and programmes requiring government approval. This encourages consistent appraisal across all transport projects, including for environmental impacts, which are a compulsory module within the guidance. Because of this, we consider the Department to have a stronger system for ensuring environmental impacts are considered in its work than many other departments. The guidance is publicly available online as '[WebTAG](#)'. It is maintained by a central team at the Department, and is updated twice yearly, in May and November, to account for updates in guidance and new data useable in modelling.

Environmental assessment in TAG

TAG is primarily an option appraisal tool, assisting users in option development, comparison and refinement. It indicates that environmental elements should be considered in the following ways:

- Stage 1, Option development. Requires consideration of the options for intervention. This includes 'non-expert' assessment of environmental impacts to establish the level of impact and risk involved. Options with clearly unacceptable levels of impact are rejected at this stage.
- Stage 2, Further development. This identifies and develops a preferred option for intervention including a cost-benefit analysis of the proposed intervention. This includes a monetised assessment of air quality, greenhouse gases and noise. TAG contains guidance for valuing these, using the latest values published by DEFRA and DECC.

- TAG is consistent with HM Treasury's Green Book guidance in encouraging monetary assessment wherever possible. Where this is not possible TAG includes guidance for assessing environmental impacts on a qualitative basis, with modules covering landscape, biodiversity, heritage of historic environment, water environment and townscape. TAG also highlights where Strategic Environmental Assessments are required by EU law, and draws on these as a potential data source for the appraisal process.
- The cost-benefit analysis is used to calculate a benefit/cost ratio for the preferred option. Impacts which have not been monetised are incorporated in this process by increasing or decreasing the value-for-money rating awarded. This process is captured in an appraisal summary table: this is compulsory for all projects, and requires clear indications of the environmental impacts of a project. This then feeds into the Strategic and Economic Cases presented to decision-makers.

The final decision on a project, including the prominence given to environmental impacts, rests with ministers: TAG encourages a consistent appraisal across all transport projects.



Policy and policy-making: option appraisal

Criticisms of TAG

A common criticism of the Department's approach to environmental issues is that the assessment process is weighted towards transport efficiency rather than the most environmentally effective solution. Some stakeholders perceive the Department's engagement with the environment as being focused on mitigation of impacts, rather than as a system which considers the environment to be sufficient reason to prevent a project going ahead at all, or as a justification for intervention.

Travel time savings typically make up a large proportion of estimated economic benefits in appraisals of large transport infrastructure schemes that involve changes to journey times and reliability. This means that they typically outweigh any environmental costs that are quantified as part of the appraisal. The approach also places the highest values on road travel, the most environmentally damaging form of transport, due to the large number of travellers who will be affected. Evidence also shows that values of travel time increase with trip distance, so the values used by TAG further prioritise large scale projects that impact longer journeys.

The TAG approach does take steps to address this perceived bias. Options with a particularly significant environmental impact can be rejected at the first stage of the appraisal. Environmental costs and benefits can be hard to quantify, so it is appropriate that TAG includes qualitative assessments in its later stages. The evidence we have seen indicates that these can have a significant effect on the value-for-money judgement of a project, such as landscape concerns reducing an initially high benefit/cost ratio down to a borderline low/medium. We have also seen examples where a higher cost option was selected as a preferred option due to its environmental benefits. The Department has not been able to provide us with an example where the appraisal of environmental impacts was significant enough for decision-makers to reject a project altogether.





2

Governance and leadership

Our work in this area seeks to answer the question:

“Does the Department’s governance and leadership promote sustainable development objectives?”

Finding and links to key messages

page 16

Measuring and reporting

Explores how progress on environmental targets is monitored within the Department, and how it is reported externally.

page 19

Overview of approach

Details the sustainability governance arrangements of the Department, including allocation of ownership and responsibility.

page 17

The good-practice criteria used by the NAO to prepare this briefing can be found in the appendix [here](#).





Governance and leadership: findings and link to key messages

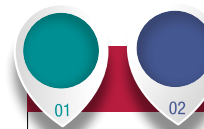
The Department views sustainability as a cross-cutting issue relevant to all areas of its work. Its governance and organisational structure reflect this:

- A single director general has responsibility for sustainability in policy-making and implementation.
- There are a large number of interlinking boards, sub-boards and working groups considering environmental issues. Some of these are cross-group or cross-government, or both.
- A central Environmental Strategy Team supports environmental work across the Department.
- The environmental commitments in the Single Departmental Plan are linked to the management information system, allowing monitoring by the Department's Executive Committee.

But:

- stakeholders have told us it is difficult to know what priority the industry should be placing on sustainability and this may be a limiting factor for innovation; and
- the Department could do more to promote its leadership role in the sector and articulate its ambitions for sustainability and the environment. For example, there is an opportunity for the Department to improve its external reporting on sustainability to encompass the transport sector as a whole.

These findings support key messages 1 and 2, which highlight that the Department has developed objectives and a governance structure to support sustainability, but that there is an opportunity to take more of a leadership role.



Associated key messages

The government's environmental objectives require transformational change in the transport sector. The Department understands these challenges, and is well placed to take more of a leadership role across the sector.

The scale of the sustainability challenge is appropriately reflected in the Department's objectives, governance, organisational structure and system for appraising policy interventions. But it is unclear how environmental issues are considered in some strategic choices.



Governance and leadership: overview of approach

Despite 'safe, secure and sustainable transport' being one of its four high-level objectives, the Department does not have an overarching sustainability strategy. Instead, there is a focus on cross-functional working between groups with different specialisms to ensure they give consistent messages and that duplication of work is minimised. Sustainability is incorporated within the work of a number of boards, committees, sub-committees, working parties and forums across the Department. Some of these are specifically formed to consider a sustainability issue, whereas others are expected to consider sustainability within their wider work, such as resourcing or risk.

Ownership and responsibility

Neither the Department's board nor any of its direct sub-committees has oversight of sustainability specifically mentioned within their terms of reference. The board does, however, include a Director General for International, Security and Environment. This gives clear responsibility for ensuring sustainability is considered in policy-making, and a means to ensure that environmental issues are regularly raised in board discussions. Specific director general responsibility for the environment was first introduced by the Department in 2007, with the role of Director General - International Networks and Environment.

The Director General for International, Security and Environment is not responsible for the direct impact of the Department's estates and operations. These are governed by the Resources and Strategy Group.

The Environmental Strategy Team

The International, Security and Environment group includes an environmental strategy team of 11 staff who lead on environmental issues. Their main role is oversight of the Department's approach to the environment, and ensuring information flows between the other sectors, such as rail and road, are appropriate. Due to their oversight role they are not experts in environmental appraisal: assessments are carried out by project teams with specific expertise sought to assist with particularly complex impacts, either from the Department's own analytical staff or externally.





Sustainability within investment decisions

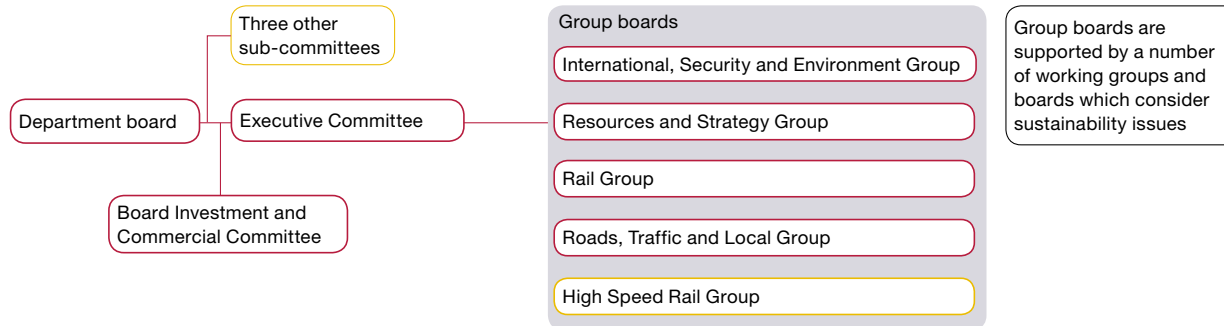
Sustainability is considered as part of the option and investment appraisal process. This is overseen by the Board Investment and Commercial Committee (BICC), although investment decisions for lower-value projects are delegated to investment boards. Investment board decisions are supported by appraisals using TAG, as detailed in the policy and policy-making section of this briefing.

Sustainability in the central department

The central Department is divided by transport sector: each area is expected to consider sustainability, and is supported in this by working groups and boards, both for specific environmental issues and for specific transport issues. Some of this support comes from working with partners from outside the central Department, who are included in working groups and some boards.

The division of the Department by transport sector means that assessment of solutions to a problem are typically a choice between options within one sector, rather than between modes of transport or problem-focused solutions combining a number of smaller schemes. Transport for London told us that integrating modal choice and environment provides benefit to the London environment. It identified the need to make holistic, balanced choices enabled by stable, long-term funding.

Consideration of sustainability within the Department's governance structure



Boards and sub-committees which are expected to consider sustainability within their work

For more detail on sustainability within investment boards, including the level at which decisions are made, [click here](#)

For more detail on sustainability within the group structure [click here](#)



Governance and leadership: measuring and reporting

In order to deliver on the government’s environmental commitments, a department needs to have a robust system for measuring and reporting progress to decision-makers. As a key figure in the transport sector, the Department is also in a position to help wider industry understand the progress which is being made towards sustainable transport, and whether the pace is sufficient to meet the Department’s ambitions.

Internal reporting

Environmental issues are monitored by the Department’s Executive Committee both through receiving specific updates and reports on major environmental issues and also via the Department’s monthly internal performance reporting system. This is linked to the [Single Departmental Plan](#), described in the policy and policy-making section of this briefing. Each strategic objective in the Single Departmental Plan is supported by implementation plans containing key milestones, which are monitored via the Department’s internal management information system as a way of measuring progress.

The Department’s risk register is also used to monitor environmental issues, but their inclusion in this tends to view the environment as a potential constraint. The environmental issues monitored in this way are focused on where they may limit economic growth or invite legal challenge. For example, the register includes a risk of poor air quality leading to delays in critical Major Infrastructure Projects.

The Department’s monitoring of progress towards environmental targets is focused upon the short/medium term, and ensuring that progress towards sustainable travel is happening at an appropriate pace.

The Department’s view is that too-rapid progress carries just as many risks as too-slow progress, due to the need for extensive new infrastructure and the risk of obsolescence in the rapidly growing industry for sustainable travel.

It does not publish long-term projections for sustainable transport issues such as take up of ULEVs. However, it is confident that the current rate of progress (which is towards the upper end of past forecasts) is sufficient to meet environmental targets.

[The Single Departmental Plan is discussed here](#)





External reporting

The primary means of external reporting on environmental issues for the Department is through its annual report and accounts. This contains an extensive section on 'Climate change, sustainability and the environment', detailing the actions the Department is taking to support sustainable economic growth in the transport sector. Actions highlighted in the [2014-15](#) report include:

- details of the Department's assessment processes, highlighting instances where design changes were made to projects following consultation, such as HS2;
- a response to the Transport Resilience Review, including sharing of best practice through the Local Transport Adaptation steering group and reporting to DEFRA on progress against the National Adaptation Plan;
- measures to encourage environmentally friendly rail rolling stock and electrification, including use of 'cascaded' modern electric rolling stock and part-funding for a project to demonstrate a battery-powered train;
- measures to encourage modal shift, including two mode shift freight grant schemes claimed to have removed 800,000 journeys and 120,000 tonnes of CO₂ a year; and
- schemes to support environmentally friendly local transport.

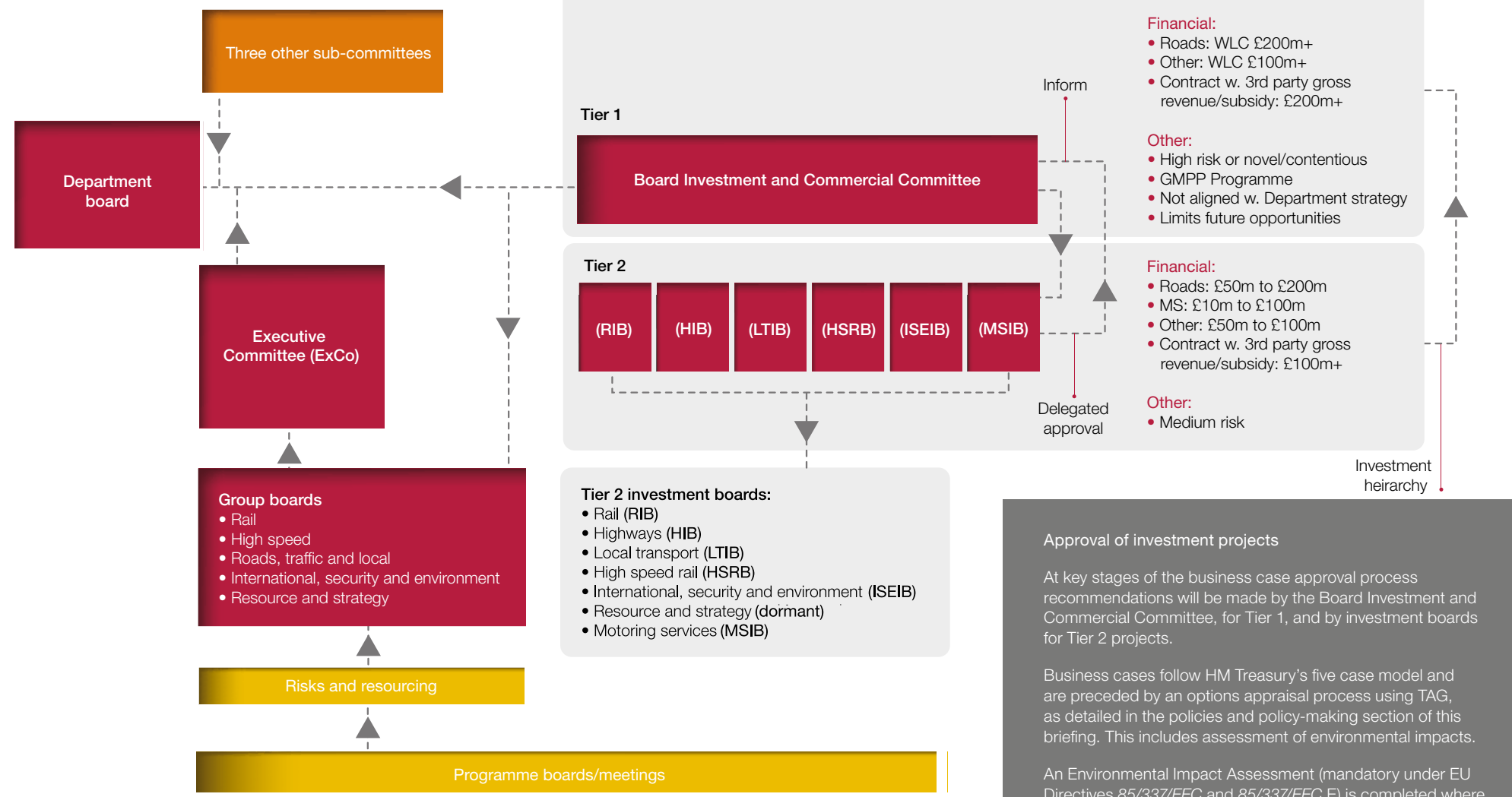
There is, however, an opportunity for the Department to improve its external reporting. Very little indication is given by the Department, either in its annual report or elsewhere, of the current extent of progress on sustainability initiatives and whether this is sufficient to meet targets. We have been told by stakeholders that this makes it difficult to know what priority the industry should be placing on environmental issues, and that this may be a limiting factor on innovation. The Department could do more to promote its leadership role in the sector, and to articulate its ambitions.





Sustainability within investment decisions

High-level policy and investment boards



■ Boards and sub-committees that consider sustainability

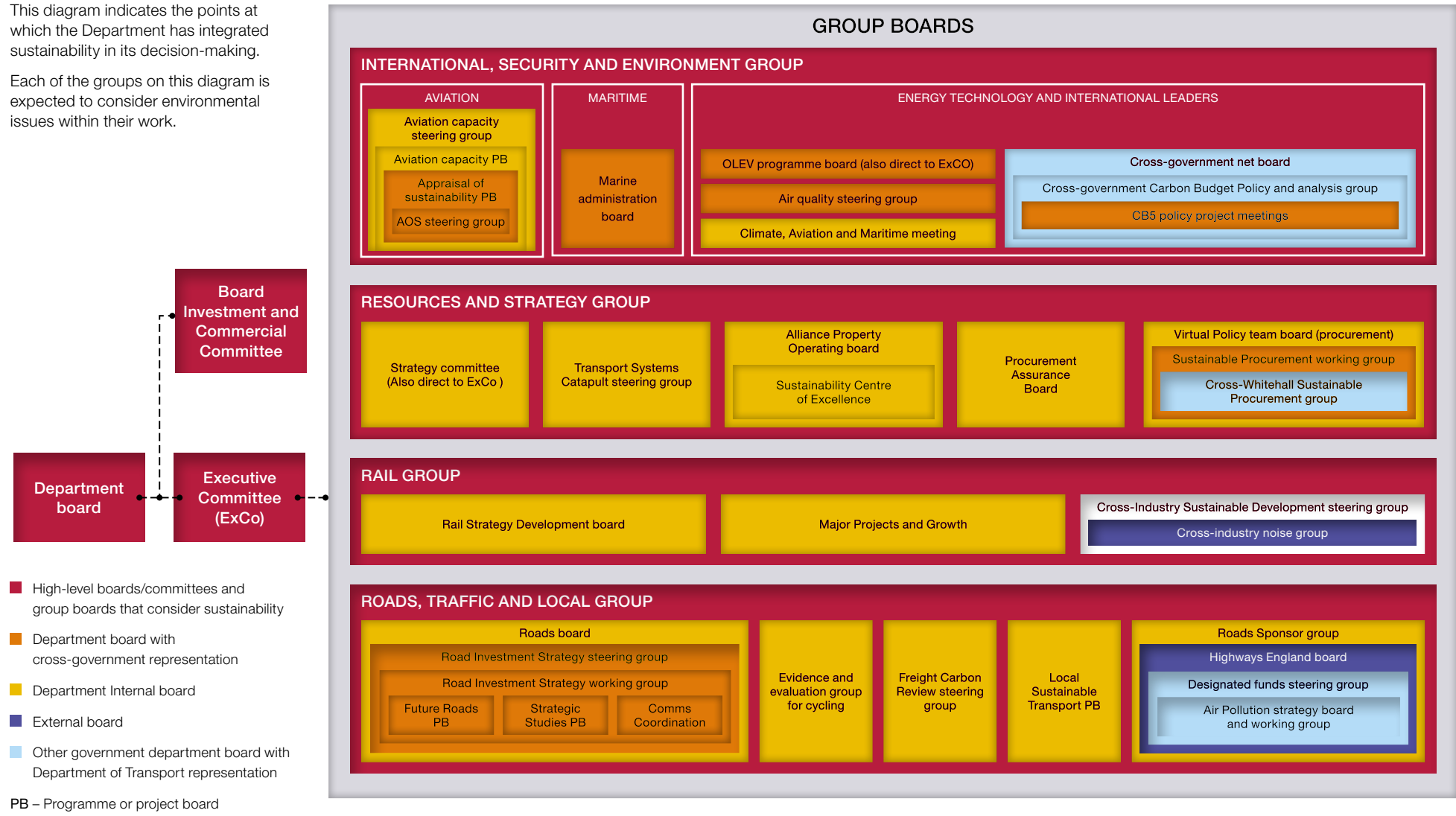


Sustainability in the central Department

Structure of the working groups and boards considering sustainability

This diagram indicates the points at which the Department has integrated sustainability in its decision-making.

Each of the groups on this diagram is expected to consider environmental issues within their work.





3

Procurement

Our work in this area seeks to answer the question:

*“Is the Department conducting its **procurement** in a manner consistent with sustainable development objectives?”*

Finding and links to key messages

page 24

Contracting and the supply chain

Reports on the Department’s progress in greening its supply chain and incorporating sustainability into contracts.

page 27

The Department’s management of procurement

Describes the scale of procurement in the Department, and the way in which it approaches sustainable procurement.

page 25

The good-practice criteria used by the NAO to prepare this briefing can be found in the appendix [here](#).





Procurement: findings and link to key messages

The Department has made progress in reducing the environmental impacts of its procurement activities, and is currently updating its Sustainable Procurement Strategy to reflect government priorities.

- The Department has a significant level of procurement spend – excluding rail franchises it amounted to £11.3 billion in 2015; 67% of this spend was related to construction.
- Compliance with Government Buying Standards has improved, with most contracts now meeting the standard. However, there is still room for improvement in food and catering procurement and in sourcing of sustainable timber: only one of six suppliers was able to provide evidence of compliance with Sustainable Timber Policies.
- The Greening Government Commitments Annual Report for 2013-14 provided a positive assessment of the Department's approach to sustainability in the supply chain and the Department in implementing systems to monitor its supplier impacts.

- Departmental group policies for sustainable procurement are recommended by the Sustainable Procurement Working Group, with specialists from across the Department and its agencies, which also prepares guidance for procurement teams.
- Guidance on sustainable procurement is available to staff in general through Transnet (the Department's intranet) and within a specialist Procurement Professionals Library.
- The Department has produced a Sustainable Procurement strategy for 2016–2020, which is a positive step to increase awareness of sustainability issues. However, the department is unsure if it has the resources to fully deliver on the planned strategy in the short term.

These findings support key messages 2 and 4, which highlight that sustainability is reflected in the Department's governance and organisational structure, and that the department has made progress in greening its own operational activities.



Associated key messages

The scale of the sustainability challenge is appropriately reflected in the Department's objectives, governance, organisational structure and system for appraising policy interventions. But it is unclear how environmental issues are considered in some strategic choices.

The Department has made reasonable progress in greening its own operational activities.



Procurement: the Department's management of procurement

Excluding spend through rail franchises, in 2015 the Departmental group had procurement spend of £11.3 billion. This covers goods, services and infrastructure; 67% of this spend was related to construction. The level of spend is expected to increase through the upcoming infrastructure programmes.

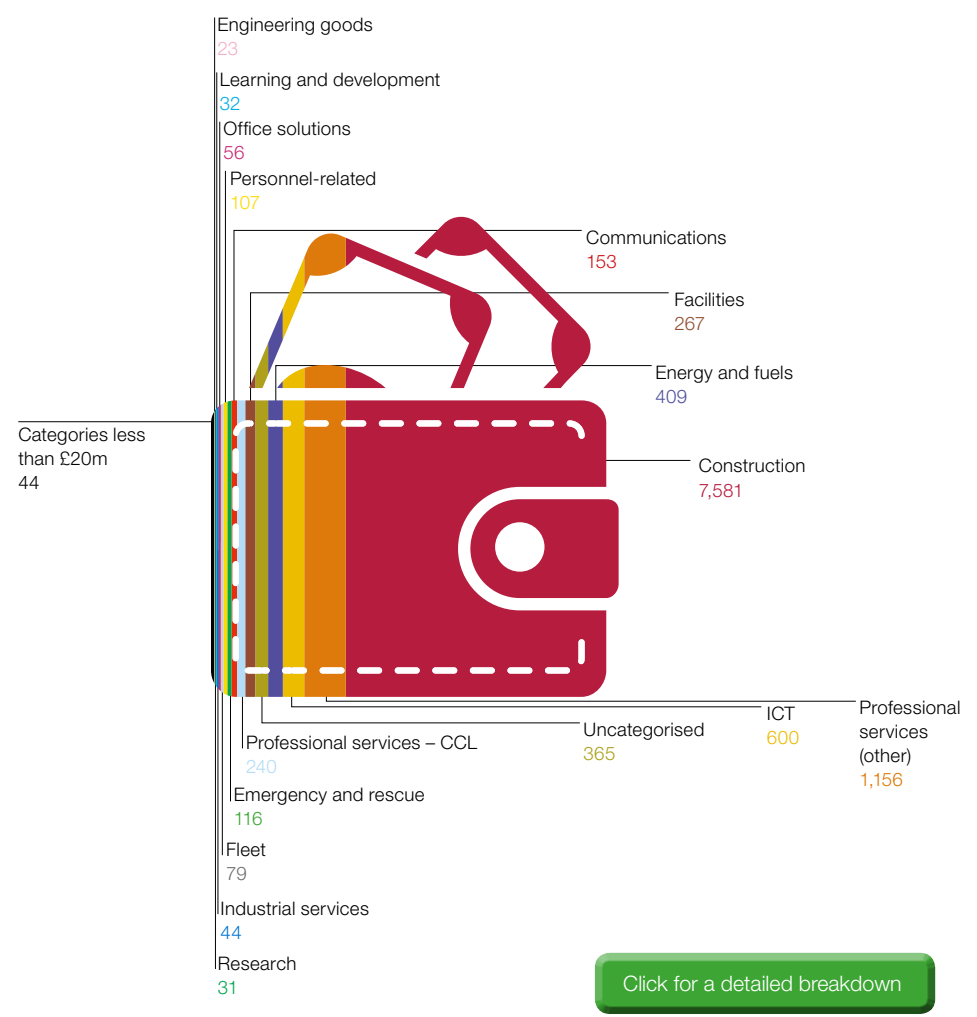
The Department's approach to procurement

Procurement in the Department follows a group operating model, with a central procurement team coordinating specialists from across the Departmental group. Policies for sustainable procurement are recommended by the Sustainable Procurement Working Group, which is currently led by the Maritime Coastguard Agency. The working group produces guidance on sustainable procurement and recommends policy to the Heads of Procurement Board and the Executive Committee. Guidance on sustainable procurement is available to staff in general through the Department's intranet and within a specialist Procurement Professionals Library.

Procurement strategy

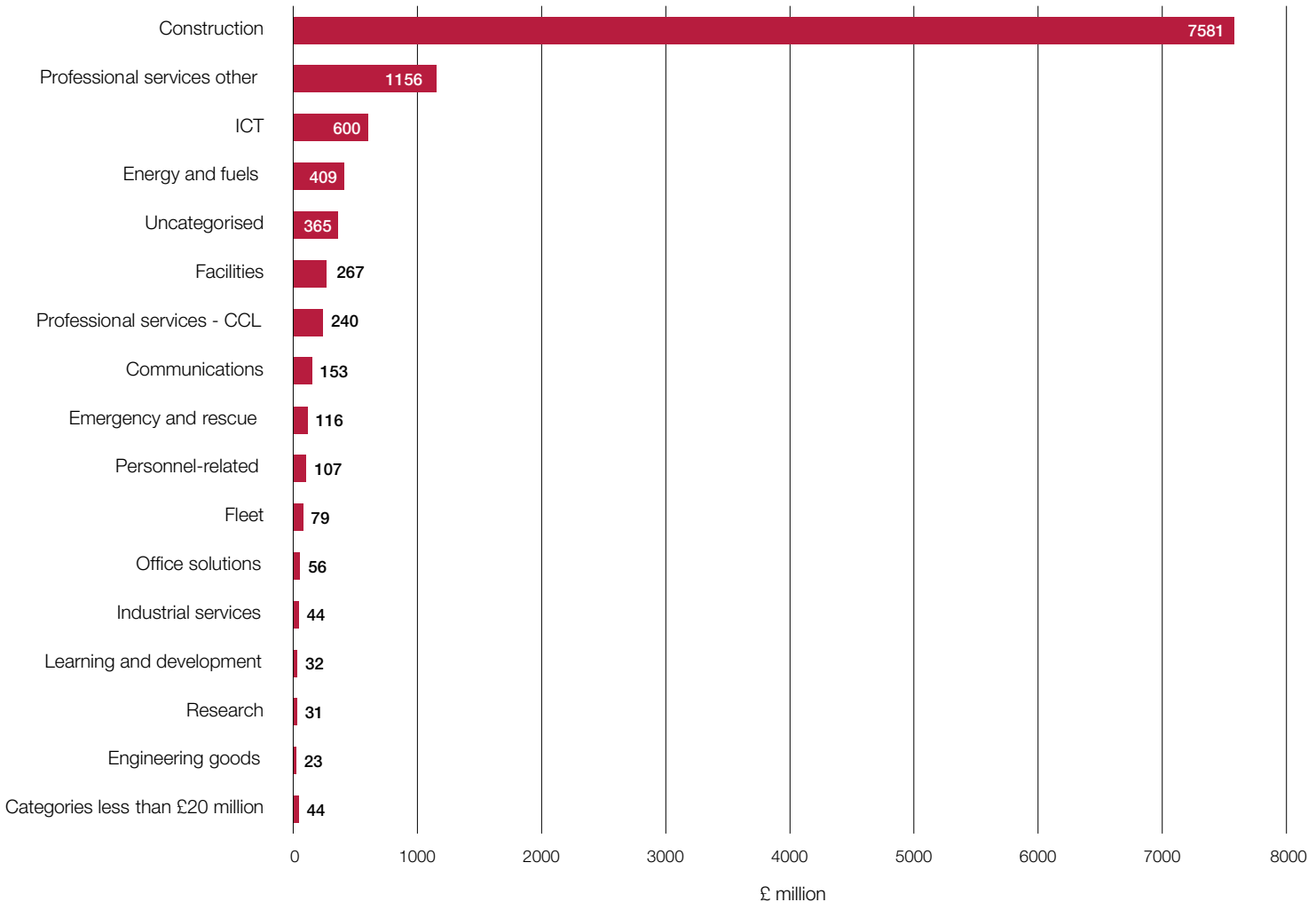
Part of the work of the Sustainable Procurement Working Group is to prepare a Sustainable Procurement Strategy for the Department. This sets annual targets for sustainability in procurement, and is intended to provide accountability and an increased emphasis on sustainability. The first iteration of the strategy, covering 2016–2020, was approved by Heads of Procurement in January 2016 and is now awaiting ratification by the Executive Committee. The Department is, however, unsure if it has the resources to fully deliver on the planned strategy in the short term, given other procurement targets.

Departmental group procurement expenditure by category in 2015 (£ million)





Departmental group procurement expenditure by category in 2015



Notes

- 1 Spend during the period 1 January – 31 December 2015.
- 2 The Department has a £3 billion (revenue and subsidy payments) rail franchising programme, which is not included in the chart above.

Source: Department for Transport

Priorities

The Department's priorities for environmental sustainability in procurement in the draft strategy include:

- 100% compliance with mandatory legal and policy requirements, including the Government Buying Standards, Food Procurement Plan, Timber Procurement Policy and Energy Efficiency Directive.
- Increasing the number of procurement processes that incorporate whole-life costing assessments of price, and measuring any savings achieved through procuring sustainably.
- Increasing the number of procurement processes that incorporate the Government Buying Standards' best-practice level.
- Working with suppliers to improve supply chain impacts, according to the measurement mechanism used in the Greening Government Commitments.

The draft strategy sets further priorities for social and economic sustainability.



Procurement: contracting and the supply chain

Improvements in Departmental contracting

The Government Buying Standards (GBS) include mandatory sustainability requirements for contracts. The Greening Government Commitments report for 2014-15 indicated that the Department has improved compliance over the past several years, with most contracts, excluding those in food and catering, meeting the standard. Note that the procurement spend in the table below only includes the parts of the Departmental group included in the Greening Government Commitments, whereas the table on the previous page shows the Department's full procurement spend.

In 2013-14 no construction contracts included a sustainable timber procurement clause and no suppliers could provide evidence of compliance with Sustainable Timber Policy. This improved to five out of six contracts and one out of six suppliers respectively in 2014-15.

Small and medium-sized enterprises (SMEs)

The cross-government target for spend with SMEs is 25% by 2014-15. The Department's reported spend with SMEs is 33.2% in 2014-15.¹ However, these figures exclude Network Rail. The Department reports that inclusion of Network Rail would reduce the level of spend with SMEs significantly; however, it expects to meet its internal target of 33% by 2020. Highways England features as a case study in the NAO's recent report Government's spending with small and medium-sized enterprises.

¹ Restated from 2014-15 Annual Report following Departmental recalculation of SME spend.

| | 2012-13 | | 2013-14 | | 2014-15 | |
|--------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|
| | Value procured £'000 | Meeting GBS % | Value procured £'000 | Meeting GBS % | Value procured £'000 | Meeting GBS % |
| Office/IT products | 7,000 | 95 | 13,300 | 95 | No data | - |
| Paper | 301 | 99 | 4,621 | 99.9 | 4,480 | 99 |
| Food and catering | 705 | 86 | 276 | No data | 1,070 | 62 |
| Vehicles | 4,000 | 100 | 8,775 | 100 | 7,305 | 100 |
| Furniture | 775 | 95 | 2,150 | 88 | 2,015 | 100 |
| Construction | 700 | No data | 1,798 | 0 | 3,771 | 100 |





Greening the supply chain

The Greening Government Commitments Annual Report for 2013-14 provided an assessment of the Department's approach to sustainability in the supply chain. It concluded that the Department was:

- aware of supply chain impacts as an issue for business planning and risk management;
- engaged in the supply chain impact management agenda; and
- taking action to deliver efficiencies and manage risks through influencing supply chain impacts.

The Department's supplier contracts include sustainability clauses, which typically reflect government standard contracts and are rarely varied. Contracts worth more than £10 million use standard Crown Commercial Services contract terms. Contract compliance is monitored by the contract manager.

Supplier monitoring

Suppliers interacting with government are required to sign up to the Supplier Intelligence Database. The Department uses this database, along with data collected as part of its Supplier Relationship Management Programmes, to keep track of environmental compliance by its suppliers. The Department is also procuring an intelligence tool to assist in this. Although significant progress is being made the Department accepts there is more to be done.

Innovation in the supply chain

The Department told us it is encouraging innovation in the rail sector. For example:

- the Rail Sector has a sustainable development steering group with representatives from the Department and other organisations such as suppliers, operators and clients. The group has focused in particular on air quality, waste, carbon and noise reduction; and
- the Department also sponsors the 'Future Railway' programme, which funds the demonstration of a wide range of innovative technologies including some with sustainability benefits such as alternative, carbon-efficient methods of powering trains.





4

Estate and operations

Our work in this area seeks to answer the question:

*“Is the Department managing its **estate and operations** in a manner consistent with sustainable development objectives?”*

Finding and links to key messages

page 30

Performance

Reports on the Department’s achievements, and compares with performance across government.

page 33

Estates approach

Describes how the departmental group manages estates, and its sustainability approach.

page 31

The good-practice criteria used by the NAO to prepare this briefing can be found in the appendix [here](#).





Estate and operations: findings and link to key messages

The majority of the Department's estates are managed by its agencies and arm's-length bodies, but there is a process for reporting and monitoring operational environmental impacts centrally. Overall impacts are reducing, but challenges remain and environmental accounting boundaries may change.

- The Department's office estate is limited, with many bodies co-locating with other government bodies. The most significant element of the Departmental group's estate for carbon monitoring purposes is the 7000 kilometres of the strategic road network, owned by Highways England: the Department estimates that motorway lighting represents 65%–75% of its carbon footprint. However, this assessment excludes the rail network, which was considered to be external to government until 2014.
- The Department has reduced the environmental impact of its operations, as measured by the progress against the Greening Government Commitments targets:
 - It has exceeded its targets for reduced water use, waste, paper use and number of domestic flights by 2015.
 - It has reduced its carbon emissions by 21% since 2010, although this is less than its 25% target.
- The Department's intranet includes some guidance on sustainable issues such as working, travel and procurement.

But:

- for the purposes of environmental reporting the Departmental estate does not include the rail network, currently operated by Network Rail;
- it is not clear who is responsible for updating the Department's intranet for sustainability issues, and some areas have been neglected, with broken links and references to outdated policies; and
- regarding IT, the cross government Greening ICT annual report for 2014 shows the Department to be one of two departments (out of 14 reporting) not to achieve any of the targets.

These findings support key messages 2 and 4, which highlight that sustainability is reflected in the Department's governance and organisational structure and the department has made reasonable progress in greening its own operational activities.



Associated key messages

The scale of the sustainability challenge is appropriately reflected in the Department's objectives, governance, organisational structure and system for appraising policy interventions. But it is unclear how environmental issues are considered in some strategic choices.

The Department has made reasonable progress in greening its own operational activities.



Estate and operation: estates approach

Unlike many departments, the central Departmental estates team does not have responsibility for property strategy in the rest of the Departmental group. Instead, this responsibility is delegated to the individual arm's-length bodies. The central team does, however, coordinate reporting of sustainability performance for the group estate.

The extent of the estate

The Department's arm's-length bodies have a limited estate, as although they have a wide network of small offices many of them co-locate with other government bodies.

Motorway lighting on the strategic road network, owned by Highways England, is estimated to represent 65%–75% of the Departmental group's reported carbon footprint.

The rail network, currently operated by Network Rail, is not currently included in the Departmental group for environmental reporting purposes. This is due to Network Rail being designated as outside of the Greening Government Commitments reporting boundary by the Cabinet Office in 2010. DEFRA is to review the list of Departmental arm's-length bodies as part of setting the new 2016–2020 framework of Greening Government Commitments targets.

Despite Highways England being designated a private company there are no plans to remove them from the Department group environmental reporting.



Central Departmental offices
2



Strategic Road Network
7,000km



Rail Network
15,760km



The Department's approach

The central Department's estates team chairs a sustainability forum, which meets quarterly to manage the Department's approach to meeting the government's departmental sustainability targets (the Greening Government Commitments and any successor). The objectives of the forum include:

- sharing best practice and improving the sustainability of the estate;
- encouraging staff to embrace sustainable practices in their everyday operations; and
- raising awareness of how individuals impact on the performance of the building in which they operate.

The forum includes representatives from across the Departmental group, including Highways England, the DVLA, and the Maritime and Coastguard Agency. It is also attended by a representative of the Environment Agency. Notably, however, it does not include any representatives from Network Rail or other rail sector bodies.

Despite estates responsibilities being federated, the Department has been able to produce plans for sustainability management covering the entire public sector group. These include a carbon management plan produced in 2012, which encouraged rationalisation of the group estate, and a new sustainable operations strategy to be published later in 2016.

Embedding sustainability with staff

Initiatives to encourage sustainability consciousness from staff include:

- making training available for staff, with the core Department estates team running awareness campaigns on sustainability issues;
- practical initiatives, such as intelligent printer use and bin availability; and
- transnet (the internal intranet) guidance on sustainable working such as buying goods and services, and travel. However, our review of this found that some of the information has not been updated in recent years, suggesting that it is not a high priority within some parts of the business.





Estate and operation: performance

The core estates team gathers sustainability data from the group via a data management service. This is used to monitor the group's progress in meeting Greening Government Commitments targets, and reports quarterly to the Executive Committee.

The Department achieved four out of the five quantified Greening Government Commitments targets: for water, waste, paper and domestic flights, in 2014-15, the final year of reporting. As part of meeting these targets, since 2010 the Department has:

- reduced carbon emissions by 21%, missing the target of 25%. However, the Department reports that the emissions target would have been met were it not for a change to the conversion factor for generated electricity;
- reduced water usage by 8% (16,917 cubic metres);
- reduced waste by 32% (1,831 tonnes);
- reduced paper usage by 50% (78,935 reams);
- reduced domestic flights by 41%;
- reduced business travel by road by 3,000,000 miles; and
- reduced electricity consumption by 57,000,000 kWh.

The Department has not yet met the target of achieving ten or more of the Key Target Outcomes identified in the Green Technology Workbook. The Greening ICT annual report 2014 shows it to be one of two departments (of 14 reporting) not to achieve any of the targets. Nine of the 14 key outcomes are shown as in progress and it has implemented greening ICT measures since the 2014-15 Greening ICT report. These include transferring business systems into the cloud, which is recognised as a greener and more sustainable approach.





Estate and operation: performance

Comparison to other departments

| | Carbon emissions (tCO ₂ e) | Water use (m ³) | Waste (tonnes) | Paper (A4 reams) | Domestic flights (number) |
|-----------------------------------|---------------------------------------|-----------------------------|----------------|------------------|---------------------------|
| Ranking against other departments | 21/25 | 19/22 | 12/22 | 7/23 | 3/24 |
| Target reduction | 25% | Reduction | 25% | 10% | 20% |
| Central government average | 22% | 11% | 22% | 38% | 18% |
| What the department achieved | 21% | 8% | 32% | 50% | 41% |

The Department has achieved four out of the five quantified Greening Government Commitments targets. It has performed above the cross-government average in three and is ranked in the top ten departments for two of them.



Appendices

The NAO's good practice criteria

page 2

Single Departmental Plan

Examines the Department's Single Departmental Plan, highlighting those elements relating to the environment and sustainability.

page 5





Appendix: the NAO's good-practice criteria

This appendix contains the good practice criteria which we used to guide our work in preparing this briefing. The criteria were developed during our previous briefings on the Department for Business, Innovation & Skills and the Home Office, and indicate the ways in which a department should reflect sustainability in its work.

Our briefing has not attempted to answer each point of good practice in detail. Instead, it focuses on the issues most material to the Department for Transport.

Overall criterion: Is the Department fully contributing to the government's sustainable development objectives?

| Key question | Areas | Detailed questions |
|--|-------------------|---|
| <i>Are the Department's policies and policy-making consistent with sustainable development objectives?</i> | Outcomes | <ul style="list-style-type: none"> • Has the Department assessed the wider sustainability impacts of each of its policy responsibilities in order to identify specific priority areas in which to focus its efforts to embed sustainable development? • Do the Department's Impact Assessments demonstrate understanding and application of sustainable development principles? • Does the Department conform to HM Treasury's Green Book and other sustainability guidance? • Does the Department have other mechanisms in place to ensure policy development accounts for sustainability? • How does the Department deal with non-monetary impacts and present these on a common basis? • Are policies, programmes and projects achieving sustainable outcomes in line with UK government objectives? • Are the Department's high-priority policies delivering sustainable outcomes? • Are there any unsustainable outcomes arising from any policies, taken either in isolation or interacting together? • What impact are the Department's policies likely to have on the UK sustainable development indicators? |
| | Level of ambition | <ul style="list-style-type: none"> • Are the Department's policies, programmes and projects in line with the government's sustainable development objectives? • Does the Department understand the potential for its policy intentions to contribute to the government's sustainable development objectives? |



Overall criterion: Is the Department fully contributing to the government’s sustainable development objectives?

| Key question | Areas | Detailed questions |
|---|---|--|
| <p><i>Does the Department’s governance and leadership promote sustainable development objectives?</i></p> | <p>Role and responsibilities</p> | <ul style="list-style-type: none"> • Does the Department have a clear and explicit understanding of how it can contribute to sustainable development? • Is this reflected in a Departmental sustainable development strategy, and if not, how is the Department’s role communicated to staff and stakeholders? • Does the Department have clear policy and operational objectives, priorities and targets to progress sustainable development? • Where relevant, does the Department have any targets which relate to the sustainable development performance indicators? • Where any Departmental objectives conflict with sustainable development objectives, are decisions made over trade-offs with an active consideration of the sustainable development impacts? • Are sustainable development objectives embedded in the remits of all the Department’s agencies and non-Departmental public bodies? |
| | <p>Accountability and decision-making</p> | <ul style="list-style-type: none"> • Does the Department have mechanisms for ensuring that sustainability is embedded within decision-making processes? For example: <ul style="list-style-type: none"> • Is there an executive board member who is responsible for sustainable development, and if not, who is the most senior official responsible? • Are sustainability objectives embedded in the remits of the Department’s relevant internal boards and committees? Where sustainable development objectives are not embedded, why is this? • Are sustainability issues regularly considered by the executive board and other internal committees? Is there a sustainable development unit? • Does the Department encourage challenge and input on sustainability to policy and operational development across the following three levels: <ul style="list-style-type: none"> • within the Department; • within government; and • from stakeholders outside government? • Does the Department’s business plan include any consideration of sustainability objectives? |



Overall criterion: Is the Department fully contributing to the government's sustainable development objectives?

| Key question | Areas | Detailed questions |
|--|-------------------|---|
| <i>Is the Department conducting its procurement in a manner consistent with sustainable development objectives?</i> | Outcomes | <ul style="list-style-type: none"> Is the Department reducing the environmental impacts of its procurement activity? Does the Department utilise cross-government framework contracts, and how is its choice influenced by sustainability considerations? Where a Department procures goods and services for itself, does it ensure that sustainability is fully embedded within procurement decisions? |
| | Level of ambition | <ul style="list-style-type: none"> Is the Department doing as much as it could to promote sustainability with its suppliers and supply chains? For example: <ul style="list-style-type: none"> Do the commercial director or head of procurement have any sustainable development responsibilities? Does the Department have desk manuals, other guidance documents, or training sessions to promote the consideration of sustainable development in procurement decisions? |
| <i>Is the Department managing its estate and operations in a manner consistent with sustainable development objectives?</i> | Outcomes | <ul style="list-style-type: none"> Has the Department reduced the environmental impact of its estate and operations over time? For example: <ul style="list-style-type: none"> Has the Department ensured its ICT operations are as green as possible? Has the Department reduced the impacts arising from its estate? Is the Department on track to meet its Greening Government Commitments targets? What is it doing to address any shortfalls? |
| | Level of ambition | <ul style="list-style-type: none"> Is the Department doing as much as it could in absolute terms, recognising that most of the Greening Government Commitments targets are relative? For example: <ul style="list-style-type: none"> Has the Department set any more ambitious internal targets? |



Objectives

Boosting economic growth and opportunity

1

Relevant Department commitments

- Consult business on adapting regulation for innovation as part of an innovation plan.
- Invest more than £600 million over the next five years to achieve the aim that almost every car and van will be a zero emission vehicle by 2050.

Building a One Nation Britain

2

Relevant Department commitments

- Electrify the main rail routes, build the Northern Hub, and provide new trains for the North.
- Build a tunnel where the A303 passes Stonehenge.
- Publish an accessibility action plan to improve access to public transport and help reduce the employment gap between non-disabled and disabled people.

Safe, secure and sustainable transport

3

Relevant Department commitments

- Continue to roll out smart motorway technology and prepare road infrastructure for future technologies.
- Ensure that 95% of the strategic road network has a charging point every 20 miles (as a rapid charging point wherever possible).

Improving journeys

4

Relevant Department commitments

Under the sub-objective of ‘Supporting wider government objectives to protect the environment and public health’:

- Ensure transport plays its part in delivering climate change obligations.
- Contribute to delivery of the National Air Quality Plan.
- Double the number of journeys made by bicycle.
- Deliver the ‘Road investment strategy’ ring-fenced funds for air quality, environment, growth and housing, innovation, cycling, safety and integration.
- Invest £300 million to mitigate the worst impacts of noise on those living close to the strategic road network, support the transition to low-carbon road transport, improve local water quality and resilience to flooding, maintain an attractive landscape, work to halt the loss of biodiversity and reduce light pollution from roads.
- Replace biodiversity lost in the construction of HS2 by providing replacement habitats and enhancing existing habitats.
- Work to secure agreement on a new global market-based measure to tackle carbon emissions from international aviation.
- Improve the environmental performance of the Department’s day-to-day activity.

Under other sub-objectives:

- Invest more than £200 million to make cycling safer, so we reduce cyclists and other road users killed or injured on our roads every year.
- Maintain and improve the security and resilience of transport infrastructure against the full range of threats and hazards.
- Contribute to cross-government security and resilience initiatives.