

# ANNUAL MONITORING REPORT 2019

## ANNEX

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# Partnering for Prosperity

## East-west transport infrastructure

**Recommendation 1a: Government should progress work on East West Rail, the Expressway and new settlements through a single coordinated delivery programme, with cross-government ministerial commitment and oversight. The aim of this programme should be to unlock opportunities for transformational housing growth through the creation of well connected new communities.**

<b>Government Response</b>	The government endorses the Commission's recommendation to create a single coordinated delivery programme for progressing work on East West Rail, the Expressway and the potential for new and expanded settlements, with cross-government ministerial commitment and oversight.
<b>Progress since publication</b>	The government has established a cross-Whitehall Programme Board to take an integrated approach to the planning and delivery of infrastructure, homes and business growth in the arc. The programme is supporting work to progress at pace on East West Rail, the Expressway and other infrastructure.
<b>Current position</b>	A programme board for the project has been established and is now operational. The Commission welcomes this positive step. Notwithstanding ongoing work, the Commission remains concerned about the overall level of integration between the planning of new housing and transport schemes.
<b>Complete?</b>	<b>No.</b>
<b>As part of this programme, government should commit:</b>	
<ul style="list-style-type: none"> <li>• £1bn to deliver the infrastructure necessary for a high quality and resilient rail commuter service between Bicester and Bedford, accelerating delivery of this section of East West Rail to a target date of 2023.</li> </ul>	
<b>Government Response</b>	The government also endorses the principle of accelerating delivery of the western section of the East West Rail line and is continuing to identify opportunities that would see the first passenger services operational in 2023.
<b>Progress since publication</b>	The government has committed funding for Network Rail to deliver phase two of the western section of East West Rail, from Bicester to Bedford (Autumn Budget 2017).
<b>Current position</b>	The government has made a loose commitment to meeting the 2023 deadline for the Bicester-Bedford portion of East West Rail and allocated a funding towards this objective. The Commission is satisfied with the progress made by government and Network Rail. There are no indications of any issues with meeting the 2023 target at present.
<b>Complete?</b>	<b>No.</b>

- To accelerate work on the development of the new East West Rail line between Bedford and Cambridge, and commit to open the line by 2030.

<b>Government Response</b>	The government endorses the principle of accelerating work on the development of the central section of East West Rail, between Bedford and Cambridge, with the aim for passenger services to begin from the mid-2020s.
<b>Progress since publication</b>	The independent East West Rail Company was established on 14 December 2017. Government has tasked East West Rail Company to accelerate delivery of the business case for the central section of East West Rail between Bedford and Cambridge, with the aim for passenger services to begin in the mid-2020s, subject to necessary consents. Government has provided £20 million development funding to the East West Rail Company to build the case for the central section and explore which route best supports the government's housing ambitions.
<b>Current position</b>	The government's commitment towards development of the East West Rail line between Bedford and Cambridge has been particularly strong, with some development funding already allocated to the East West Rail Company and a target opening date which appears to be earlier than that proposed by the Commission.
<b>Complete?</b>	<b>No.</b>

- To deliver the 'missing link' of the Oxford-Cambridge Expressway, accelerating development work to deliver a clearly-defined and agreed route by 2025, enabling construction to begin as part of the next Road Investment Strategy (RIS 2) and be complete by 2030.

<b>Government Response</b>	The government is committed to the ambition of opening the 'missing link' of the Oxford-Cambridge Expressway and to accelerate development work. As announced at Autumn Budget 2017, the government has committed to funding the delivery of an Expressway of high quality east-west roads between Oxford and Cambridge, key elements of which will be included in the second Roads Investment Strategy period, from 2020 to 2025.
<b>Progress since publication</b>	The government is accelerating development work, completing option selection and detailed design work on the 'missing link' elements of the Expressway between the M1 and Oxford, so that it is ready to open in 2030, subject to necessary consents. On 12 September 2018, the government announced that it had selected Corridor B – the central corridor following the route of East West Rail – as the likely area for the Expressway, with options passing to either the east or west of Oxford. A connectivity study to support this is being led by England's Economic Heartland. It will examine how communities not directly on the route of the new road will be able to benefit from it.
<b>Current position</b>	The Commission welcomes positive progress towards delivering the 'missing link' of the Oxford-Cambridge Expressway. The government's choice of likely corridor aligns with the principles set out by the Commission.
<b>Complete?</b>	<b>No.</b>

- Key milestones and decision points in the development of East West Rail and the Expressway should be subject to ‘in principle’ agreement to the development of significantly more ambitious proposals for housing growth in the arc, including major new settlements and urban extensions, and subsequently, progress in identifying, evaluating and designating sites. ‘In principle’ agreement should be provided within 12 months. The schemes should be futureproofed to ensure the potential for expansion and improvement is not permanently and prematurely closed.

<b>Government Response</b>	Government recognises the importance of maximising opportunities along infrastructure spines and will explore the transport links to best achieve its vision for housing and economic growth. The government also recognises the importance of building in opportunities future proofing schemes to enable future expansion and improvement.
<b>Progress since publication</b>	The East West Rail Programme will deliver a specification of new infrastructure which allows for future growth in the corridor. While recognising the constraints around existing hub stations, the government is considering the additional infrastructure intervention that will be required to enable increased capacity in the future.
<b>Current position</b>	The government has not provided ‘in principle’ agreement to new housing development due to slower pace of work on ambitious proposals for housing growth in the arc. The Commission is concerned about the overall integration between housing and transport links.
<b>Complete?</b>	<b>No.</b>

**Recommendation 1b: Government should seek to introduce fast, direct services to London to enable growth in the arc between Bicester and Bletchley and improve connectivity between London and Aylesbury. Any such improvements should be contingent on local authorities’ commitment to major development between Bicester and Bletchley and around existing settlements.**

<b>Government Response</b>	The government recognises the importance of London-bound rail connectivity improvements to support potential housing growth between Bicester and Bletchley.
<b>Progress since publication</b>	Government has commissioned analysis to test and evidence the strategic case for significant housing growth across the arc.
<b>Current position</b>	Government has made no specific progress towards this recommendation, which is contingent on housing growth being pursued between Bicester and Bletchley.
<b>Complete?</b>	<b>No.</b>

**Recommendation 1c: Government should work with the private sector and the relevant local authorities to agree funding packages and progress schemes to support housing and employment growth now. These should include:**

- Essential works required to enable passenger services between Oxford and Cowley no later than 2019.

<b>Government response</b>	The government recognises the Commission’s arguments for a station at Cowley in Oxford and, as a first step towards delivery, has made available up to £300,000 to co-fund with local stakeholders an Oxfordshire Rail Corridor study. This will explore rail growth in the area, and opportunities for additional services, stations and routes.
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<b>Progress since publication</b>	Network Rail will shortly be commencing work on the Oxfordshire Rail Corridor Study. The aim of the study is to understand the options for development of the current and future rail network within Oxfordshire that best meets the needs of the rail industry and county to support its growth agenda, whilst considering the wider network strategic needs that have a bearing on rail in Oxfordshire. An additional £300,000 of local contributions has been secured from a range of local partners.
<b>Current position</b>	The government has made a tangible, if modest, commitment to funding a study for Oxfordshire rail connections. However, the Commission believes it is unlikely to meet the 2019 date in the original recommendation.
<b>Complete?</b>	<b>No.</b>
<ul style="list-style-type: none"> <li>● <b>The acceleration of East West Rail phase 3 works around south Cambridge to enable the delivery of a Cambridge South station in 2022 as part of Control Period 6. Substantial private sector and local contributions, reflecting the benefits that these parties gain, will be required to enable the delivery of these schemes.</b></li> </ul>	
<b>Government response</b>	The government endorses the principle of accelerated delivery of the infrastructure and is working with the rail industry to explore the different options.
<b>Progress since publication</b>	<p>The government has committed £5 million to develop proposals for a new station at Cambridge South, to support growth of the Cambridge Biomedical Campus. In May 2018, the government and its local funding partners reached a development agreement setting out how the scheme will be developed through a funding, financing and delivery strategy.</p> <p>Detailed engineering design work started in late 2018, including both the future layout of the significant additional track infrastructure needed for the station, and determining the environmental impacts. The completion of this activity will enable planning permission to be sought shortly after.</p> <p>The government has commissioned a Cambridge corridor study to look at the potential rail infrastructure that may be required between 2033 and 2043 in Cambridgeshire to meet predicted growth. The study began in March 2018 and was completed in December 2018.</p>
<b>Current position</b>	The government has made tangible progress and commitment of funds, though no commitment to deliver a station by 2022. Government comment and action to date hasn't directly acknowledged junction improvements that would likely be required to enable new East West Rail Service, but this may emerge through ongoing work.
<b>Complete?</b>	<b>No.</b>

**Recommendation 2a: Government and local authorities should work together, through a robust and transparent process, to designate locations for new and expanded settlements by 2020. This should involve:**

- commissioning formal studies to identify and assess options for new settlements required, and potential locations for these settlements
- consultation with communities, statutory agencies, infrastructure providers, wider stakeholders and public examination of proposed sites
- formal designation of sites and the publication of such assessments as legally required

**The Commission is optimistic that government and local authorities will reach agreement on the scale and location of new settlements in the national interest. However, if agreement cannot ultimately be reached, the Secretary of State should designate these new settlements.**

<b>Government response</b>	The government supports the National Infrastructure Commission’s ambition to build up to one million high quality homes in the arc by 2050 to maximise its economic potential.
<b>Progress since publication</b>	<p>The government has commissioned analysis to test and evidence the strategic case for significant housing growth and explore the potential for new and expanded settlements across the arc. The analysis will consider infrastructure opportunities and requirements, as well as the potential environmental, ecological and biodiversity effects of options for housing growth, and explore opportunities for net gain, at a pan-arc scale.</p> <p>The government is committed to working closely with local partners as this evidence base develops. In July 2018, the Housing Minister wrote to local partners in the arc informing them that this analysis was to be carried out, inviting local partners from across the arc to bring forward ambitious proposals for transformational housing growth, including new settlements.</p>
<b>Current position</b>	<p>The government has not fully endorsed this recommendation. However, the Commission is aware that analysis is underway and work is ongoing in this area. Once the work concludes, it will be easier to assess progress against the recommendation and what the approach to new settlements may be.</p> <p>It is not clear to the Commission whether the bottom-up approach has brought forward many ambitious proposals. Nonetheless, it appears unlikely that government will meet the 2020 date in the original recommendation.</p>
<b>Complete?</b>	<b>No.</b>

**Recommendation 2b: Government should:**

- work with local authorities to establish appropriate delivery vehicles for new and expanded settlements across the arc, considering the role that can be played by locally accountable Development Corporations, Mayoral Development Corporations, the Homes and Communities Agency and Urban Development Corporations.
- establish New Town Development Corporations to deliver larger new and expanded settlements. In so doing, it should:
  - work with local authorities to define and agree the objectives, membership and reporting arrangements for new development corporations
  - provide a clear remit to support the economic success of large new settlements as centres of employment, and assist the development corporation by using wider policy levers to support local economic growth
  - explore the full range of options for funding development corporations' programme of land acquisition, including providing public funding with a view to unlocking substantial private investment, and balancing considerations of short term affordability and long term value for money.

<b>Government response</b>	<p>The government endorses the recommendation of working with local authorities to establish appropriate delivery vehicles for any new and expanded settlements across the arc.</p> <p>The government agrees that New Town Development Corporations can be appropriate vehicles for delivering high quality new communities at scale, where there are complex delivery and coordination challenges.</p>
<b>Progress since publication</b>	<p>The government has legislated to enable the creation of locally-led New Town Development Corporations and, at Autumn Budget 2018, announced a consultation on the draft guidance for the use of compulsory purchase powers for NTDCs. The government is open to discussions with ambitious local authorities in the arc who are interested in the potential to establish such bodies.</p> <p>The government will consult on the legal framework for Development Corporations. It will also launch a £10 million competitive fund to support local areas to generate locally-led proposals for new business-backed development corporations and similar delivery bodies.</p>
<b>Current position</b>	<p>The response and action to date focuses on locally-led New Town Development Corporations, which were happening independently from the Commission's work. They may be one part of the overall solution but the Commission's analysis indicates that they are unlikely to deliver growth at the necessary scale or pace.</p> <p>Due to ongoing analysis, the government has not stated any progress on other delivery vehicles. Once settlements are being designated and progressed the Commission will have a better indication of the government's direction and progress against this recommendation.</p>
<b>Complete?</b>	<b>No.</b>



**Recommendation 3: Government should work with local authorities to:**

- Put in place an independent design panel for East West Rail, the Expressway and new and expanded settlements across the arc by April 2018. This panel should work in concert with existing infrastructure design panels and new development corporations to specify, scrutinise and challenge settlement designs, plans and delivery, with a view to:
  - making most efficient use of new and existing infrastructure (including transport and utilities)
  - supporting positive social outcomes (including better mental and physical health)
  - achieving net gains in biodiversity and natural capital across the arc
  - improving quality of life for existing and future residents.

<b>Government response</b>	Government endorses the use of independent design reviews as set out in the National Planning Policy Framework, for supporting the creation of healthier, greener and well designed places. Government also recognises that the environmental requirements to underpin sustainable growth need to be considered at a pan-arc level. The government is exploring whether, given the number of existing design panels in the arc, there is a need for a pan-arc place panel. The government believes that such a panel would need to work with and, if necessary, reinforce existing structures that local places have put in.
<b>Progress since publication</b>	No action taken.
<b>Current position</b>	The government is still exploring the possibility of putting in place a design panel, with no defined end date.  Despite missing the April 2018 target date, the Commission believes that there is still a strong role for an independent design panel at the arc level, particularly one which is able to play a greater role in the specification of schemes.
<b>Complete?</b>	<b>No.</b>
<ul style="list-style-type: none"> <li>● Establish arrangements for the long term stewardship of valued community assets in each new or expanded settlement, placing responsibility and resources in the hands of the community – learning from both the Parks Trust in Milton Keynes and the Letchworth Garden City Heritage Foundation.</li> </ul>	
<b>Government response</b>	Government endorses the recommendation, recognising that local people with a connection to their neighbourhood are the best long term stewards of community assets.  The government believes that this should be done through the most suitable vehicle, including through locally-led new town development corporations, where applicable.  Prior to the designation of any new town development corporation, the government will need to see that robust plans for stewardship and legacy are in place, including for example, the adoption of frameworks such as the Garden City Principles.
<b>Progress since publication</b>	No action taken.

<b>Current position</b>	<p>The government has aligned with the principle of the Commission's recommendation, but has failed to put in place strict requirements.</p> <p>The government's approach appears to rely on locally-led proposals coming forward. It is unclear how government would build this into New Town Development Corporations, if pursued.</p> <p>The extent of progress made by the government against this recommendation will be clearer when proposals come forward and the designation of settlements (if any) is approaching.</p>
<b>Complete?</b>	<b>No.</b>
<ul style="list-style-type: none"> <li>● <b>Ensure that strategic infrastructure, including new elements of East West Rail and the Oxford-Cambridge Expressway, are planned and developed to achieve net gains in biodiversity and natural capital across the arc.</b></li> </ul>	
<b>Government response</b>	<p>The government agrees with the Commission that net gain is an important way to deliver placemaking and growth, and that it offers an opportunity to invest in valuable green infrastructure.</p> <p>Government notes that it wants new developments to use intelligent and sensitive design to create or enhance habitats and to improve habitat connectivity, both onsite and in the local area.</p>
<b>Progress since publication</b>	<p>The Environment Agency, Natural England and Forestry Commission will work to maximise benefits to local people through a strategic approach and exploring options for a pan-arc approach.</p>
<b>Current position</b>	<p>The government has made encouraging progress towards developing a strategic approach for ensuring biodiversity and natural capital.</p> <p>There has been some additional detail on work being undertaken by Environment Agency, Natural England and Forestry Commission, but no timescales have been provided.</p>
<b>Complete?</b>	<b>No.</b>

## Local areas equipped to deliver growth

**Recommendation 4: Government and local authorities should implement measures to increase certainty on the delivery of growth enabling infrastructure.**

- **Government should work with local authorities to establish an indicative, long term pipeline of strategic national and local infrastructure investments, conditional upon specific housing delivery milestones, and with firm financial commitments made at the beginning of the relevant spending review, road investment or rail industry control period. This pipeline should be established and agreed by 2020.**

<b>Government Response</b>	Government welcomes an indicative long term pipeline, but says that it is already doing this at a national and local level through National Infrastructure and Construction Pipeline and RIS2.
<b>Progress since publication</b>	<p>The DfT Expressway team has launched a wider connectivity study to identify priority local infrastructure, on top of the wider measures being taken as part of RIS2. The report of this study is expected in time to influence the options brought forward to consultation on the route of the Expressway. Government expects the development of junction strategies and wider connections from the Expressway to link to emerging plans for local development, and to take advantage of the associated opportunities to capture a share of the potential value of development in order to fund additional infrastructure.</p> <p>On the rail side, the government has commissioned a Cambridge corridor study to look at the potential rail infrastructure that may be required between 2033 and 2043 in Cambridgeshire to meet predicted growth. This will inform the future pipeline of rail projects, as will the Oxfordshire Rail Corridor Study which government is supporting.</p>
<b>Current position</b>	Some progress has been made by government, in relation to wider road and rail infrastructure needs. This doesn't necessarily resolve the issue of longer term infrastructure uncertainty identified by the Commission's report and it isn't clear that this work is progressing towards a single pipeline, conditional upon specific housing delivery milestones. At this stage, it is not clear whether a pipeline will be established and agreed by 2020.
<b>Complete?</b>	<b>No.</b>
<ul style="list-style-type: none"> <li>● <b>Local authorities should work with LEPs, local business groups, educational institutions and other key partners to formally agree robust and credible transport plans to enable the development of the arc's key towns and cities. These should be agreed locally by April 2019. These plans should provide a firm basis for long term growth and investment, and include plans for significantly upgrading public transport, integrating transport hubs and providing safe cycling infrastructure.</b></li> </ul>	
<b>Government Response</b>	The government endorses the principle of local authorities working with partners to develop robust and credible local transport plans.
<b>Progress since publication</b>	Some Local Transport Authorities will be reviewing and updating their Local Transport Plans and the Cambridge and Peterborough Combined Authority are currently producing a Local Transport Plan.

<b>Current position</b>	<p>There have been no requirements made of local authorities to develop long term transport strategies to complement strategic East-West connections and enable the development of the arc's towns and cities.</p> <p>It is not clear how many local areas are working to develop long term local transport strategies for April 2019, or that there is any push from government for them to do so. As such, the target date of recommendation is likely to be missed.</p>
<b>Complete?</b>	<b>No.</b>
<ul style="list-style-type: none"> <li>● <b>Following agreement of these long term transport plans, government should develop deals, bespoke to this region, with local authorities in Oxfordshire and the central section of the arc. These deals should extend powers over bus franchising, the introduction of smart ticketing, and give greater long term certainty over future funding which authorities can use to fund, and unlock finance for, city-regional infrastructure improvements. Powers and resources should be devolved no later than April 2020.</b></li> </ul>	
<b>Government Response</b>	<p>The Bus Services Act 2017 gives Mayoral Combined Authorities the powers to franchise buses. It also allows the Secretary of State for Transport to grant these powers to other groups of local authorities by means of a statutory instrument and consent to a specific scheme. Building on the Oxfordshire Housing Deal, the government is currently working on further Housing Deals across the arc.</p>
<b>Progress since publication</b>	<p>The Oxfordshire Housing Deal was announced in November 2017 and there is a Housing Deal underway with Milton Keynes, though it is currently unclear when this will be agreed and whether it will contain any longer term certainty over supporting infrastructure.</p>
<b>Current position</b>	<p>The Commission is satisfied that the government has made some progress towards this recommendation, especially with the announcement of the Oxfordshire Housing Deal in November 2017. The Milton Keynes Housing Deal also appears to be in the pipeline.</p> <p>Some areas will have deals by the April 2020 target, but fulfilment of the Commission's recommendation will depend upon the detail and timing of the individual deals, as they emerge.</p>
<b>Complete?</b>	<b>No.</b>
<p><b>Recommendation 5: Government should, through bespoke deals with local areas, make changes to the operation and application of Community Infrastructure Levy (CIL) and section 106 agreements across the arc that will:</b></p> <ul style="list-style-type: none"> <li>● <b>Give groups of local authorities, working together through appropriate governance structures, the power to levy a city-regional CIL.</b></li> </ul>	
<b>Government Response</b>	<p>The government endorses the principle of allowing groups of local authorities to charge a city-regional level CIL.</p>

<b>Progress since publication</b>	<p>Government has committed to working with Oxfordshire’s six local authorities to explore the potential for introducing a Strategic Infrastructure Tariff (SIT) in this area.</p> <p>At Autumn Budget 2018, the government announced its intention to take SIT forward for Combined Authorities where they have strategic planning powers through Combined Authority Orders. In the longer term, the government committed to bringing forward the power to levy SIT for joint planning committees, and review options for giving this power to other groups.</p> <p>The SIT will operate alongside any localised form of developer contribution e.g. CIL and section 106 and contribute to the funding of strategic, large scale infrastructure projects that cross administrative boundaries.</p> <p>The government will also set out further guidance to encourage groups of CIL charging authorities to use CIL more effectively to support the delivery of cross-boundary strategic infrastructure through pooling their local CIL.</p>
<b>Current position</b>	<p>The Commission recognises the government’s progress against this recommendation, endorses the principle of levying a city-regional CIL and notes that government will set out further guidance on the pooling of CIL across areas. However, the Commission notes that the government has provided no timing for this.</p> <p>Notwithstanding work underway in Oxfordshire, a Strategic Infrastructure Tariff will initially be aimed at combined authorities. The government has offered no indicative timings for when SIT can be levied for joint planning committees and other groups. It is therefore unclear when or how this will become applicable to the central area of the growth arc.</p>
<b>Complete?</b>	<b>No.</b>
<ul style="list-style-type: none"> <li>● <b>Remove restrictions on the pooling of section 106 revenues and on the forward funding of infrastructure against future receipts. These changes should be agreed by 2020.</b></li> </ul>	
<b>Government Response</b>	<p>The government endorses the recommendation to remove section 106 pooling restrictions and will be laying in Parliament regulations to enable this. The government notes the Commission’s proposal to allow forward funding for infrastructure.</p>
<b>Progress since publication</b>	<p>As committed, government will be laying in Parliament regulations to enable the pooling of section 106 receipts.</p> <p>However, government has taken no action to remove restrictions around the forward funding of infrastructure against future receipts.</p>
<b>Current position</b>	<p>The Commission welcomes the positive progress made towards removing pooling restrictions on section 106 and eagerly awaits further details of the date this will be laid in Parliament.</p> <p>The Commission is, however, disappointed at the lack of clarity over the government’s position on forward-funding of infrastructure. No progress has been made against this recommendation.</p>
<b>Complete?</b>	<b>No.</b>

**Recommendation 6:** Government should consider the need for agreements extending flexibilities in the application of five year land supply requirements. These agreements should only be considered in cases where local authorities agree deals to accommodate significantly higher levels of housing growth. Flexibilities should:

- help ensure that local areas are not exposed to increased risk of speculative development as a result of their commitment to additional growth
- be kept under review and made subject to local areas demonstrating progress in the delivery of major housing growth.

In all cases, agreement must preserve the requirement for local authorities to maintain a supply of land sufficient to enable house building at the rate that would have been required in the absence of any deal to support additional housing growth.

<b>Government response</b>	The government welcomes opportunities to work with local areas on a case by case basis to negotiate bespoke arrangements in exchange for commitment to substantial housing growth, which ensures that overall land supply will increase despite flexibilities agree to the application of the five year land supply requirement
<b>Progress since publication</b>	The government has done this through the Oxfordshire Housing and Growth Deal, where local authorities are planning for significantly greater levels of housing growth than their Local Housing Need assessment.
<b>Current position</b>	The government has demonstrated willingness to extend flexibilities on five year land supply and set out parameters for when such flexibilities could be agreed. Although flexibilities have been extended through the Oxfordshire Housing Deal, ongoing progress is dependent on this being agreed as part of other deals, where requested.
<b>Complete?</b>	<b>No.</b>

## A long term vision for the arc

**Recommendation 7:** Government should work with local authorities across the arc to secure agreement that:

- representatives of each of the arc's defined sub-regions will work together at the arc-wide level, and with government, to develop an ambitious spatial vision covering the whole arc area up to 2050, identifying locations for growth and investment and enabling infrastructure requirements. This work should be completed no later than summer 2019. This vision should be supported by a set of arc-wide economic plans and an arc-wide plan for strategic infrastructure.

<b>Government response</b>	The government recognises the potential role that a pan-arc spatial vision underpinned by a local natural capital plan could play in coordinating investment in housing, infrastructure and the environment to support the delivery of transformational growth across the arc.
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<b>Progress since publication</b>	<p>The government is exploring the best way to set out how jobs, homes and infrastructure across the corridor will be planned together to benefit existing and new residents, while balancing economic growth with the protection and enforcement of the areas historic and environmental assets.</p> <p>As a first step, the government will publish an ambitious, corridor-wide Joint Vision Statement for the arc to 2050 with local partners by Spring 2019.</p>
<b>Current position</b>	<p>Government has committed to publishing a vision statement by spring 2019, but there is no commitment on developing a spatial vision for the area.</p> <p>The Commission hopes that a spatial vision will follow from the vision statement, though it is unlikely to meet the date outlined in the original recommendation.</p>
<b>Complete?</b>	<b>No.</b>
<ul style="list-style-type: none"> <li>local planning and transport authorities will work together, in defined sub-regions, to prepare statutory strategic spatial plans and submit these for inspection by April 2020. These should be underpinned by a clear investment strategy and a phased delivery plan, and shaped by the requirements of a robust integrated appraisal framework. Local Enterprise Partnerships and utilities providers should be included in the development of these strategic spatial plans.</li> </ul> <p>Local authorities and LEPs should work collectively and seek to agree a definition for sub-regional planning areas by April 2018. If agreement cannot be reached by this date, the Secretary of State for Communities and Local Government should define the sub-regions based on consideration of the best areas for joined up economic, transport and land use planning.</p>	
<b>Government response</b>	<p>The government endorses the principle of local planning authorities working together on joint statutory spatial plans and recognises the important role of transport bodies in shaping these.</p>
<b>Progress since publication</b>	<p>The government has urged authorities in the arc to work together and, where appropriate, develop joint statutory plans at the earliest opportunity to underpin the long term vision for the arc.</p> <p>Where the government sees a clear need for doing so, the Secretary of State for Housing, Communities and Local Government will utilise the powers under section 28A of Planning and Compulsory Purchase Act 2004 to direct local planning authorities in the arc to undertake Joint Plans.</p>
<b>Current position</b>	<p>Whilst endorsing the principle and urging authorities to work together in the absence of agreed planning areas, the government has not made this a requirement.</p> <p>The government threatens a directive approach, where there is deemed to be a clear need to do so, but doesn't outline circumstances or timings for there to be a clear need.</p> <p>The April 2018 date in the original recommendation has not been met, raising doubts about the April 2020 date for submission of statutory strategic spatial plans.</p>
<b>Complete?</b>	<b>No.</b>

**Recommendation 8: Government should work with local authorities to put in place robust sub regional and arc-wide governance arrangements. This will include:**

- reconstituting the Oxfordshire Growth Board as a planning joint committee by April 2018, ensuring it is empowered to take decisions on the development, adoption and delivery of a strategic statutory spatial plan
- establishing growth board arrangements for defined planning areas in the central section of the arc by April 2018, ensuring these are constituted as planning joint committees and empowered to take decisions on the development, adoption and delivery of a strategic statutory spatial plan(s)
- supporting the continued development of new and existing growth boards, with a view to their being constituted as statutory combined authorities, or mayoral combined authorities, as soon as possible and no later than 2022.

<b>Government response</b>	The government welcomes working with local partners on proposals to bring forward Combined Authorities or other changes to local government in the arc.
<b>Progress since publication</b>	Oxfordshire Housing Deal has committed to provide Oxfordshire's six local authorities with certain planning flexibilities to support their transition to a joint statutory spatial plan (JSSP).
<b>Current position</b>	<p>The government has made relatively good progress by transitioning the Oxfordshire Housing Deal to a joint statutory spatial plan. However, the government hasn't addressed the recommendation regarding the reconstitution of the Oxfordshire Growth Board as a planning joint committee.</p> <p>The Commission notes the emergence of a Central Area Growth Board through 2018. However, the government has not taken any specific action to support the reconstitution of existing growth boards as statutory combined authorities.</p>
<b>Complete?</b>	<b>No.</b>
	<ul style="list-style-type: none"> <li>● working with representatives of the Cambridgeshire and Peterborough Combined Authority, Oxfordshire Growth Board and other growth board(s) across the arc to establish an arc-wide 'Strategic Partnership Board' by Summer 2018. This should include recruiting an independent chair to convene the board and provide a clear link to government, and agreeing this appointment with local partners.</li> </ul>
<b>Government response</b>	The government is committed to working with local authorities to put in place appropriate governance arrangements to support the delivery of the wider arc priorities.
<b>Progress since publication</b>	<p>The government will work with local partners to agree a governance structure that supports the delivery of local growth, while retaining appropriate democratic accountability, by Spring 2019.</p> <p>Autumn Budget 2018 announced that the government will appoint an independent business Chair for the arc to provide expert advice and act as an advocate and champion to help galvanise local, national and international support, particularly from business and industry.</p> <p>The government will also appoint a Ministerial Champion for the arc, to provide further focus and facilitate coordination across Whitehall.</p>



<b>Current position</b>	<p>Plans for a governance structure by spring 2019 were announced at 2018 Autumn Budget.</p> <p>The Commission welcomes plans to appoint a private sector Chair and Ministerial champion. The extent to which this action meets the Commission's recommendations will depend on the detail of the proposal, which has not yet been announced. Given the delay against the original recommendation, the Commission looks forward to these developments.</p>
<b>Complete?</b>	<b>No.</b>
<p><b>Recommendation 9: Government should work with local authorities and any new delivery bodies from across the arc to prepare and publish a six-monthly update, with the first being published in April 2018, enabling the Commission to assess the progress achieved in delivering the recommendations set out in this report.</b></p>	
<b>Government response</b>	<p>The government endorses this recommendation and will provide annual updates to the Commission on progress on delivering these recommendations.</p> <p>The Commission will also continue to be kept informed by attending the government's monthly programme board meetings.</p>
<b>Progress since publication</b>	The first annual update was received in October 2018. The Commission has a standing invite to Programme Board.
<b>Current position</b>	Annual updates should be adequate for monitoring progress. However, the Commission questions the means and extent to which local authorities and potential delivery bodies might submit feedback on progress.
<b>Complete?</b>	<b>Yes.</b>

# Data For the Public Good

## Digital framework

**Recommendation 1:** The government should task the Centre for Digital Built Britain (CDBB) with the establishment of a digital framework for infrastructure data, drawing together key organisations and existing initiatives both large scale (BIM) and smaller scale.

- A Digital Framework Task Group for infrastructure data should be established with a high profile chair who can act as a national champion for this agenda.
- CDBB should set out a roadmap to a digital framework to develop standards and formats for collating and sharing data.
- Key organisations which should be involved in the Task Group and in developing the framework include the Alan Turing Institute (ATI), Infrastructure Client Group (ICG), Construction Leadership Council, Infrastructure and Projects Authority (IPA), Cambridge Centre for Smart Infrastructure and Construction, Project 13, Office for National Statistics, Ordnance Survey, Open Data Institute and the recently announced Geospatial Commission and Centre for Data Ethics and Innovation. Wider consultation input should also be sought from the digital twin working group.
- On standards development, in order to understand the existing standards landscape thoroughly at both a national and supranational level and to ensure agility, CDBB should consult extensively with industry on current behaviours and future requirements for how different infrastructure sectors and sub-sectors use data. CDBB may wish to commission an external standards organisation to conduct some of this work on their behalf.
- IPA and ICG should be engaged with closely when designing final data standards and performance measures. The ICG amongst others will also be important to consult in respect of appropriate safeguards for commercial confidentiality, with the aim of keeping these to a minimum level wherever possible.
- There should also be close collaboration with the Centre for the Protection of National Infrastructure (CPNI) and the National Cyber Security Centre (NCSC) to develop security requirements, levels of access and standards for security, consistent with the objectives of the framework and an agreed approach to risk management.
- In order to support effective implementation, CDBB should also lead a scoping exercise for a framework to assess industry progress in adopting and using the framework and to measure the level of innovation achieved by industry.
- CDBB should complete these actions and provide a public report on progress by 1 September 2018, setting out their recommendations for next steps. The NIC would assess this as part of its wider role in monitoring progress against its recommendations.

<b>Government Response</b>	<p>The government welcomes the Commission’s recommendations to develop a common industry approach to data and digitisation to improve productivity across infrastructure and construction. There is a huge amount of data in relation to our infrastructure, owned by a wide range of organisations. We need to understand where data sharing can unlock the greatest value, and what standards the digital framework will need to contain in order to unlock the greatest benefits.</p> <p>As recommended by the Commission, the government has asked CDBB to establish the Digital Framework Task Group (DFTG) which should set out a roadmap to a digital framework for infrastructure. The roadmap should set out: where data sharing can provide the greatest benefits; who holds this data; what standards are needed to enable greater sharing; how a framework would be implemented; and the role of government and the private sector in delivering this.</p> <p>The DFTG should report to government by October 2018 to inform decisions on how best to design and deliver a full framework.</p> <p>The government endorses the recommendations that encourage the DFTG to engage and consult extensively with industry on current behaviours and future requirements for how different infrastructure sectors and sub-sectors use data, to ensure that the roadmap presents a comprehensive view that is consistent with government objectives and supported by industry. The roadmap should consider the innovative work already ongoing in this area and take a system based approach to ensure the potential value of integrative systems across sectors can be exploited. Given the substantial links to the work set out here, the DFTG should ensure the digital framework roadmap is informed by and consistent with the National Geospatial Strategy that will be set by the Geospatial Commission.</p> <p>Government endorses the recommendations to consider security requirements and commercial confidentiality. The roadmap should ensure it considers the interdependencies with social infrastructure in order for its full benefits to be realised.</p>
<b>Progress since publication</b>	<p>The CDBB has set up the Digital Framework Task Group. This has held regular meetings to set out who needs to be involved and what steps need to be taken to establish a digital framework for infrastructure data, which has been renamed the Information Management Framework. Mark Enzer was appointed the Chair and has been proactive in moving the work forward. The DFTG set out two separate working groups, a Roadmap Working Group and a Digital Twin Working Group.</p> <p>The Roadmap is complete and due for publication in 2019. It will principally consist of a strategy map indicating the key components that are required to deliver the Information Management Framework for the built environment. Each of the key components will be described with an indication of its cost, timescale, dependencies and suggested ownership. It is anticipated that this will be sufficient to enable an informed discussion about funding, programme and governance, which should enable a programme start in early 2019.</p>

<b>Current position</b>	<p>Overall progress towards the Commission's recommendations has been very positive. The Commission particularly welcomes publication of the Gemini Principles and the formation of a cohesive Digital Framework Task Group.</p> <p>In addition, the Roadmap Working Group has been making steady progress to create a roadmap for development of the Information Management Framework in 2019.</p> <p>A priority for 2019 will be ensuring that the DFTG, Roadmap Working Group and Digital Twin Working Group continue to progress beyond the initial scoping phases of their work with the same momentum.</p>
<b>Complete?</b>	<b>No.</b>

## Commercial confidentiality

**Recommendation 2: The Infrastructure Client Group (ICG) and the Digital Framework Task Group Chair should lead industry engagement in the framework and cultivate a shift towards minimum levels of commercial confidentiality.**

- ICG should report to CDBB on current industry compliance with minimum levels of commercial confidentiality agreed with CDBB in recommendation 1.
- ICG should work collaboratively with industry and the Digital Framework Task Group to identify opportunities to make data available and reduce the unnecessary use of commercial confidentiality (e.g. through reviewing and revising existing digital contracts), and should set out an agreed plan with milestones towards achieving the proposed shift.
- ICG should report on progress in reducing the application of commercial confidentiality to infrastructure data by December 2018.

<b>Government Response</b>	<p>Government endorses these recommendations and asks the Infrastructure Client Group to lead this work, aligning it as appropriate with its recently launched digital transformation initiative, and provide a progress update by the end of the year. The Infrastructure Client Group (ICG) should reach out to its member organisations and the DFTG should engage other relevant industry clients and groups to ensure the full range of perspectives and interests are represented in this work. The ICG and DFTG should consider security implications in its report. The ICG should work with its members and the wider economic infrastructure client community to identify regulatory barriers to data sharing as part of this work, to support the regulators and UKRN in addressing these barriers (see Recommendation 3).</p> <p>The government asks that the ICG publish further information via their workplan in the coming weeks.</p>
<b>Progress since publication</b>	<p>ICG and the Digital Transformation Task Group have drafted a report setting out barriers to commercial confidentiality, which is due for publication in 2019. The report is a first step towards understanding how industry currently views commercial confidentiality, how it is applied to data sharing, and the barriers to making infrastructure data more readily available.</p>

<b>Current position</b>	<p>The Commission welcomes the positive progress made by the Digital Transformation Task Group and eagerly awaits publication of the barriers to commercial confidentiality report in 2019.</p> <p>The Commission notes the need for a wholesale cultural shift, across government, infrastructure operators and industry, in order to breakdown barriers around commercially sensitive data. Driving towards this culture shift should be a priority for 2019.</p>
<b>Complete?</b>	<b>No.</b>

## Regulation

**Recommendation 3:** The Digital Framework Task Group (see recommendation 1) should work with the UK Regulators Network and relevant government departments to review and, where possible, strengthen the role of economic regulators in improving the quality and openness of infrastructure data. This should include:

- Participation by the UK Regulators Network in the formulation of the digital framework set up by CDBB to ensure that it is effectively aligned with regulatory work on innovation and data.
- Assessment of the potential role of regulators and of possible barriers within current regulatory frameworks regarding:
  - Ensuring compliance by regulated network operators and utilities with the national framework and adherence to data collection standards and formats
  - Sharing of data to inform better understanding of asset performance and user experience
  - Sharing of data across infrastructure sectors and the value chain to enable greater innovation in the development of new technologies and data management focused on better asset management and increased productivity
- Support for CDBB’s engagement with network operators and utilities around the provision of data of verified quality for the development of a national infrastructure digital twin over the long term.
- Identification of relevant areas for further trials or studies to enable regulators, and regulated industries, to understand and demonstrate how monitoring technologies and data can support cost effective maintenance decisions and proactive asset management, working with relevant research organisations.

<b>Government Response</b>	<p>Government endorses these recommendations, and asks that this work to identify and, where appropriate, address regulatory barriers be undertaken by the Office for Rail and Road, Ofgem, Ofcom and Ofwat. It asks that the UK Regulators Network (UKRN) take the lead in coordinating this work between the regulators, promoting coherence of approach and facilitating sharing of information and good practice, and acting as the primary interface between the regulators and the Task Group, the ICG, government and other relevant stakeholders.</p> <p>As part of its role, the UKRN should support alignment between the work of the Task Group and the regulators on the technology and data agenda, and work with regulators, clients and relevant research organisations to identify and assess existing or potential use cases, trials or studies.</p> <p>The government asks that the UKRN provide a progress update on this work by the end of the year to ministers. As a first step, the government welcomes the UKRN's announced plans to refresh its guidance on Cross-Sector Infrastructure Interactions, including its commitment to place much greater emphasis on enabling data sharing and innovation.</p>
<b>Progress since publication</b>	<p>The UKRN are drafting a report on the barriers to and opportunities from data sharing which will be published in Spring 2019 alongside a progress report.</p> <p>UKRN also have representation on the Digital Framework Task Group to ensure that regulatory considerations are incorporated into the development of the information management framework and to be able to disseminate actions from the Task Group to the regulators.</p>
<b>Current position</b>	<p>Progress towards the Commission's recommendations has been very positive. Moving forward, the Commission urges UKRN and the Digital Framework Task Group to maintain focus on enabling data sharing through regulation.</p>
<b>Complete?</b>	<b>No.</b>

## Digital twin models

**Recommendation 4:** CDBB should collaborate with the Alan Turing Institute (ATI) and the UK Infrastructure Transitions Research Consortium (ITRC) in pioneering digital twin models with predictive capability in the UK. This initiative should draw upon the AI expertise concentrated in the UK across universities and the public and private sectors:

- CDBB should work with BEIS and other potential funders to take forward a digital twin pilot project to explore and experiment with the benefits of building a digital twin of a specific geographical area. CDBB, ATI and ITRC should draw upon input from the digital twin working group.
- A project review of the pilot digital twin should be completed by October 2018. This should consider the lessons learnt for any future development of larger scale or more complex digital twins, and the most effective institutional structures to support continuing progress in this area.

<b>Government Response</b>	<p>Government agrees there is potential value in digital twin models with predictive capability in the UK. As part of the roadmap, government has asked CDBB and the DFTG to consider what programme of work is needed to enable the development of digital twin models, and how government and the private sector can support this work. Different pilot studies may be needed to explore the potential of digital twin models to improve the productivity of UK infrastructure.</p> <p>The DFTG should work collaboratively with industry and academia. The roadmap should identify how digital twins can contribute to infrastructure models that can support decisions on what to build, where and how, to minimise cost and maximise whole life performance and benefits. The DFTG should work with infrastructure clients to identify opportunities to test predictive models.</p>
<b>Progress since publication</b>	<p>The Digital Framework Task Group set up a Digital Twin Working Group which has achieved three main outputs so far:</p> <ul style="list-style-type: none"> <li>● Development of the Gemini Principles which explain the definitions and use of digital twins</li> <li>● Consensus around the development of a digital twin hub to serve as a coordination point to collect all learnings about live and planned digital twins</li> <li>● A set of criteria for developing digital twin pilot projects.</li> </ul>
<b>Current position</b>	<p>The Commission is pleased to see positive progress in this area. In particular, the formation of the Gemini Principles has been a welcome step towards securing consensus around the purpose of and best practice for digital twins. The agreement around the need for a central repository for the UK's digital twins also holds significant potential. The Commission would like to see this taken forward in 2019.</p> <p>Due to the need for further scoping and benefit evaluation, the digital twin pilot project was not delivered in 2018, as initially recommended by the Commission. The Commission would like to see increased momentum towards delivery of a pilot scheme in 2019 so that learning can be applied to future schemes. An increased emphasis on cross-sector collaboration is also required.</p> <p>Government should provide funding support to the development of the information management framework coordinated by the CDBB and the development of a national digital twin to ensure that the benefits will accrue across stakeholders, public and private, rather than captured purely by private interests. The role of Government in supporting CDBB to coordinate this initiative is essential to ensure that industry move in the same direction in terms of establishing a common language around data about infrastructure.</p> <p>In combination, this will enable the UK to maintain its leading position on digital transformation in the construction and infrastructure sectors.</p>
<b>Complete?</b>	<b>No.</b>

# Connected Future

## Digital infrastructure at the heart of government

**Recommendation 1:** Digital infrastructure lies at the heart of the UK's industrial strategy and affects every sector of the economy. To reflect its importance, ultimate government responsibility for digital infrastructure should reside in one place under a single cabinet minister with the authority to shape policy and delivery across government, ensuring that it delivers the government's overarching digital strategy. This work should report to the Economy and Industrial Strategy Cabinet Committee. It should:

- identify the public projects that contain a significant element of digital infrastructure, and establish and maintain a plan which sets out how they can help deliver the government's overarching digital strategy and maximise the benefit of better mobile telecommunications for UK citizens and businesses.
- hold the various parts of government that are delivering digital infrastructure to account, in order to ensure adequate telecoms network provision in the delivery of its infrastructure programmes.
- ensure that when upgrading existing or delivering new infrastructure, such as that alongside our roads and railways, the long term capacity needs of telecoms networks are considered and met. This could include installing more fibre and additional infrastructure to make sure that networks are futureproof. It will also mean ensuring that the networks are readily accessible to communications providers.

<b>February 2018 position</b>	The recent creation of a new cross-Whitehall 'barrier busting' taskforce, led by DCMS, ensures that other departments now have ready access to advice and expertise when rolling out digital infrastructure or procuring telecoms infrastructure, and a newly formed Telecoms Strategy Board – comprising senior officials from across Whitehall and reporting directly to the Secretary of State – now meets quarterly to coordinate telecoms policy and public projects involving significant digital infrastructure.
<b>Progress over last year</b>	No further progress has been made since the Commission's first Annual Monitoring Report.
<b>Current position</b>	The Commission is satisfied that the Digital Infrastructure Taskforce is doing this, which has improved coordination and capability.
<b>Complete?</b>	<b>Yes.</b>

- It should be a centre of telecoms expertise within government that supports departments in determining their needs and procuring telecoms infrastructure, and supports departments in demonstrating and testing new, digitally enabled ways of delivering public services such as education and healthcare.



<b>February 2018 position</b>	Over the course of 2017, DCMS continued to strengthen its telecoms capabilities and expertise with the creation of a new Telecoms Directorate. As of January 2018, the Directorate was supported by around 100 officials, with a further 40 officials expected to be recruited over the coming months. The creation of a new centre of 5G expertise within DCMS to deliver the Testbeds & Trials Programme is a welcome development, as is the establishment of the UK 5G Innovation Network.
<b>Progress over last year</b>	The Telecoms Directorate is now the 'Digital Infrastructure Directorate'. The 5G trials programme is working with a range of sectors and areas to demonstrate 5G applications.
<b>Current position</b>	The 5G trials programme is now being delivered by DCMS. Further consideration is required regarding next steps, funding, and scaling from early pilots.
<b>Complete?</b>	<b>Yes.</b>
<ul style="list-style-type: none"> <li>● It should support and challenge local government in their plans to enable the delivery of digital infrastructure; both in terms of ensuring that these plans help the UK to meet its national objectives, and that local authorities develop consistent approaches to support the deployment of mobile infrastructure across the country.</li> </ul>	
<b>February 2018 position</b>	No update was provided on the progress of this recommendation.
<b>Progress over last year</b>	DCMS are working closely with local authorities to support delivery, with the Barrier Busting Taskforce providing support. Local areas have been encouraged to think about digital infrastructure in the context of the industrial strategy and planning. However, mechanisms for challenge are less clear.
<b>Current position</b>	The Commission is satisfied with the government's progress towards supporting and enabling local government to deliver digital infrastructure.
<b>Complete?</b>	<b>Yes.</b>

## Road connectivity

**Recommendation 2:** Our motorways must have mobile telecommunication networks fit for the future. It is vital that our motorways are able to meet both the long term operational needs of connected vehicles and the connectivity needs of passengers. This will necessitate the timely installation of an open and accessible mobile telecommunication and backhaul network that is fit for the future.

The government should set out its plans for how to deliver this by the end of 2017. As part of this work, consideration should be given to who is best placed to install, manage, fund and own the network, noting the potential for private sector funding.

It will be essential to ensure that best use is made of the existing infrastructure, such as masts, poles, ducts, power supplies and the fibre network alongside our motorways, so that it can be used to support the backhaul of mobile data.

Ultimately, the government should ensure that the necessary infrastructure is in place on motorways by 2025 at the latest if it wants to offer a reasonable level of connectivity on a timescale consistent with the deployment of 5G networks.

Ofcom should set out how a regulatory regime would support these different operating models.

<p><b>February 2018 position</b></p>	<p>The government has continued to engage with the automotive and telecommunications industries to assess the viability of delivering a 5G-ready roadside network.</p> <p>At Autumn Budget 2017, the government announced that it would provide £5 million for an initial roadside 5G trial as part of its 5G Testbeds and Trials Programme, starting in 2018. It will further develop work already in progress on connected and autonomous vehicle trials in the West Midlands.</p> <p>Highways England let its second National Roads Telecommunications service contract in December 2017. As part of this process, Highways England is seeking to ensure that its network is ‘future proofed’ and scalable to meet future requirements as and when they occur.</p> <p>The Commission welcomes the progress on operational trials and further research. The Commission also calls on government to accelerate progress on the assessment of commercial models for roadside deployment of 5G, to enable delivery by 2025 at the latest and meet the long term connectivity needs of connected and autonomous vehicles and passengers.</p>
<p><b>Progress over last year</b></p>	<p>A Draft Road Investment Strategy 2 was published for consultation in October 2018. This highlighted the opportunities of new road technology and connectivity in forging new links between the digital sector and Highways England.</p> <p>Government is trialling an urban and interurban ‘connected’ road corridor on the A2 and M2 between London and Dover. It will provide a test facility for improved connectivity between the roadside and connected vehicles (and potentially between connected vehicles), helping establish how real-time data can be efficiently and securely exchanged.</p> <p>As part of delivering the emergency services network, EE is building extra masts to increase coverage in remote areas and notspots. These are available for sharing with other operators, but there has been some debate over how well this is going in practice. EE will only be delivering current generation technology (4G).</p> <p>NRTS (National Roads Telecommunication Services) provides telecoms to meet the operational needs of Highways England (e.g. CCTV, phones, variable message signs), including the roadside cables required to make the network function. A new contract was recently awarded to Telent and includes a network upgrade that will enable Highways England to prepare for technologies such as 5G and connected cars. It has provision for any required transformation of existing network equipment to provide sufficient bandwidth to meet Highways England’s forecast requirements during the contract term. NRTS was built with significant extra capacity, meaning that much of the strategic road network can absorb a large amount of future safety critical data.</p> <p>The NRTS contract has terms to facilitate change where needed for operational reasons. However, it is unclear whether this could be used to enable larger scale transformation.</p>

<b>Current position</b>	<p>The government has made limited visible progress on its recommendations for installation, management, funding and ownership of roadside networks. The West Midlands connected and autonomous vehicles feasibility study, including business models for future connectivity was expected to report on this in December 2018, but this is not yet available publicly.</p> <p>The Commission calls on the government to address this issue as a matter of urgency, to ensure progress on roadside connectivity is made in line with timescales for 5G deployment.</p>
<b>Complete?</b>	<b>No.</b>

## Rail connectivity

**Recommendation 3: Rail passengers should have high capacity wireless connectivity. This should be achieved through a delivery model that utilises trackside infrastructure to provide an open and accessible mobile telecommunication and backhaul network that is fit for the future.**

The government should set out its plans for how to deliver this by the end of 2017. As part of this work, consideration should be given to who is best placed to install, manage, fund and own the network, noting the potential for private sector funding.

It will be essential to ensure that best use is made of the existing infrastructure, such as masts, poles, ducts, power supplies and the fibre network alongside our railways so that it can be used to support the backhaul of mobile data.

Ultimately, the government should ensure that the necessary infrastructure is in place on the main rail and key commuter routes by 2025 at the latest if it wants to offer a reasonable level of connectivity on a timescale consistent with the deployment of 5G networks.

**Ofcom should set out how a regulatory regime would support these different operating models.**

**February 2018 position**

The government has acknowledged that more radical action is needed to keep pace with the forecast growth in mobile data traffic and has asked Ofcom to identify the bandwidth needed per passenger and per train that passengers ought to expect as a minimum. Following discussion with industry, the government has also stated that the best way to improve connectivity on the rail network in areas of high passenger demand is likely to be through using trackside infrastructure.

Despite the commitment to report back on commercial models by the end of 2017, the approach to delivering improved passenger connectivity on major rail routes is still under consideration. In December 2017, DCMS launched a call for evidence on commercial options to improve connectivity for rail passengers, exploring potential revenue streams and commercial funding models. This closed on 7 February 2018 and the responses will inform the government's future decision on its preferred delivery model.

Making the most of existing trackside infrastructure will be critical to improving connectivity in the shortest time and at the lowest cost, and the government has therefore committed to make Network Rail's trackside assets available to support any future commercial delivery model. The Commission intends to follow up on this commitment in future monitoring reports, to ensure that any relevant industry players are being given the necessary access to public assets.

<b>Progress over last year</b>	<p>Ofcom published its advice to government on improving rail passenger access to data services in August 2018. This included an assessment of:</p> <ul style="list-style-type: none"> <li>● The likely level of data required per train on mainline routes to deliver an appropriate WiFi and mobile service to passengers, accounting for changing customer expectations and demand over time.</li> <li>● Spectrum solutions which have the potential to meet these requirements using dedicated trackside infrastructure.</li> <li>● Ofcom’s role in making suitable spectrum bands available for this purpose and likely timescales.</li> </ul> <p>The Trans Pennine Initiative Trial testing new infrastructure for higher capacity has now been cancelled on grounds of cost. Since the 2017 call for evidence, the government has not made further announcements on how it intends to progress rail connectivity.</p>
<b>Current position</b>	<p>The Commission welcomes Ofcom’s advice to government on trackside mobility. Further detail may be required by government as models are taken forward.</p> <p>No plan exists to meet the government’s commitment to provide high quality mobile connections and wifi on trains by 2025. The Commission will be undertaking a review of road and rail connectivity in 2019 to help facilitate progress.</p>
<b>Complete?</b>	<b>No.</b>

## Engaging local government

**Recommendation 4:** Local government should actively facilitate the deployment of mobile telecoms infrastructure:

- a. Local authorities should work together and with local enterprise partnerships (LEPs) to develop coordinated local mobile connectivity delivery plans. These plans should:
  - set out how local authorities and LEPs will enable the deployment of mobile networks and maximise the opportunities and benefits to residents and businesses
  - be developed in discussion with mobile network operators and infrastructure owners
  - identify a designated individual with lead responsibility for engaging with mobile telecoms infrastructure providers
  - consider the role of local government assets and infrastructure, (eg land, buildings, roads, street furniture) and help coordinate the role that other public buildings in an area (eg hospitals and universities) can play to facilitate the deployment of mobile telecoms infrastructure
  - consider how the deployment of digital infrastructure can be established as a priority in local planning policy.

Local authorities and LEPs should report annually to the government department with responsibility for digital infrastructure on their progress delivering against these plans.

- b. Local models for facilitating the deployment of these networks should be piloted and evaluated to inform national roll out. Any pilot programme should allow for the evaluation of deployment models in different types of area (eg urban, rural, coastal) and in both single-tier and two-tier local government areas. It should also seek to establish how high quality design can minimise the impact of hosted infrastructure on the built environment. Such pilots would be a good use of a proportion of the funding recently announced in the Autumn Statement to support mobile telecoms infrastructure.

<b>February 2018 position</b>	The Commission recommends that LEPs are engaged more directly in the process of assessing local area requirements over the coming year, with a view to reviewing the most effective channel(s) for local engagement at the end of the year. A wider plan for delivering the proposals relating to digital infrastructure put forward in the government's recent housing White Paper should follow as a priority.
<b>Progress over last year</b>	Government views deployment of mobile telecoms primarily as a matter for local authorities to address through the planning system, with a less direct role for LEPs. The National Planning Policy Framework (NPPF) now includes guidelines for the provision of digital infrastructure within plans, but this is not a requirement. The effectiveness of this approach needs to be demonstrated.
<b>Current position</b>	The Commission is currently satisfied that the changes made to the NPPF address this recommendation and that it is now a matter for local authorities to action. The Commission may revisit this recommendation if local stakeholders identify remaining gaps in the guidance or powers needed for effective delivery.
<b>Complete?</b>	<b>Yes.</b>

## Meaningful coverage

**Recommendation 5: Government and Ofcom should develop a meaningful set of metrics that represent the coverage people actually receive and use these to determine a mobile universal service obligation setting out the minimum service level people should expect to receive.**

<b>February 2018 position</b>	The Commission welcomes Ofcom's new approach for defining mobile coverage to reflect the coverage needed to provide a decent experience to smartphone users. This is an important step forward in providing consumers with information about the true picture of mobile coverage and network quality in their area, which in turn enables them to make more informed choices.
<b>Progress over last year</b>	91 per cent of the UK's landmass now has good 4G from at least one operator, up from 79 per cent in 2017.  The 95 per cent manifesto commitment is similar to a Universal Service Obligation. The priority now needs to be delivering on that commitment.
<b>Current position</b>	The Commission commends positive progress made towards this recommendation, in particular Ofcom's development and implementation of new metrics.
<b>Complete?</b>	<b>Yes.</b>
<p><b>a. Ofcom, government and mobile operators should report their coverage so that they are genuine and meaningful reflections of the services enjoyed by customers. Metrics should be measurable and based on the reality of service and coverage provided to customers, not based on simulated or predicted performance. Ofcom should set out how this is best achieved by the end of 2017.</b></p>	
<b>February 2018 position</b>	Ofcom has carried out a programme of testing to identify the minimum coverage level required to deliver a good quality of experience to consumers on the 4G network, supplementing its previous testing of the 2G and 3G networks.  In December 2017, Ofcom set out its definition of mobile coverage to deliver a decent experience for smartphone users. This equates to: <ul style="list-style-type: none"> <li>● Telephone calls: Nearly all 90-second telephone calls being completed without interruption.</li> <li>● Data services: Nearly all connections delivering a speed of at least 2Mbit/s. (This is fast enough to allow smartphone users to browse the internet and watch glitch-free mobile video).</li> </ul>
<b>Progress over last year</b>	Ofcom is now reporting coverage using the new metrics. New interfaces (APIs) for coverage data should improve accessibility for consumers, for example through comparison sites.
<b>Current position</b>	The Commission welcomes the progress made in this area and is satisfied that no further action is required for the time being.
<b>Complete?</b>	<b>Yes.</b>
<p><b>b. Ofcom and government should use these metrics as the basis of future interventions such as spectrum licence obligations or voluntary agreements with operators.</b></p>	
<b>February 2018 position</b>	The Commission recommends that Ofcom's new definition of 'decent' mobile coverage is kept under regular review to reflect changing consumer expectation of mobile services and to ensure it continues to reflect the quality of service experienced by consumers on a day-to-day basis.

<b>Progress over last year</b>	A coverage obligation was included in Ofcom's consultation on new spectrum licence obligations for the 700 MHz band. This indicated the direction of travel for spectrum licence obligations.
<b>Current position</b>	Ofcom has set out a plan for improving coverage across the country, which includes roaming to improve service in rural areas and infrastructure sharing. Further consultation on coverage requirements in spectrum licenses is currently underway, and the Commission welcomes progress in this area.
<b>Complete?</b>	<b>Yes.</b>
<b>c. Government, Ofcom or the Advertising Standards Authority should take action if operators advertise or report coverage in a way that does not reflect services being delivered to consumers on an everyday basis.</b>	
<b>February 2018 position</b>	The Commission is satisfied that the ASA has the necessary processes in place to spot any pattern emerging of misleading representations of mobile coverage in UK advertising. The ASA has also demonstrated that it will act against advertisements found to be in contravention of the UK Advertising Codes.
<b>Progress over last year</b>	No further progress has been made since the Commission's first Annual Monitoring Report.
<b>Current position</b>	The Commission is satisfied that this recommendation has been addressed. No further action is required at this time.
<b>Complete?</b>	<b>Yes.</b>
<b>d. Government must deliver a view by the end of 2017 on what aspects of mobile services are considered 'essential'. It should then establish how this 'essential' level of service provision can be made available through a mobile universal service obligation regardless of the network to which a customer is subscribed. Government should engage with Ofcom and industry to establish the best delivery mechanism, whether through spectrum licence obligations, enabling roaming, enabling cross operator Mobile Virtual Network Operators (MVNOs), through government procurement or a mix thereof. Government, with the assistance of Ofcom, should deliver this as soon as is practical but no later than 2025.</b>	
<b>February 2018 position</b>	No update was provided on the progress of this recommendation.
<b>Progress over last year</b>	Ofcom has introduced a 95 per cent manifesto commitment, which is similar to a Universal Service Obligation.
<b>Current position</b>	Current plans, based on Ofcom's new measures, are considered to be delivering this. A longer term plan may be required to cover the gaps, and the Commission may revisit the recommendation if a need for this becomes clear.
<b>Complete?</b>	<b>Yes.</b>

## Regulation

**Recommendation 6: By the end of 2017 Ofcom and government must review the existing regulatory regime to ensure that it supports the sharing of telecoms infrastructure. This will be particularly important for areas of the country where competition driven markets have struggled to provide the necessary mobile infrastructure.**

<p><b>February 2018 position</b></p>	<p>The government has accepted that greater infrastructure sharing can help the economic case for investment in 5G-ready networks, although it does not believe that the current regulatory system is acting as a barrier to this.</p> <p>The government has also acknowledged Ofcom’s concern that it will be important in any sharing model to preserve investment incentives and to reduce the potential for collusion between operators. Nevertheless, the sharing of infrastructure is likely to be a more effective and economically efficient way of delivering 5G technologies in areas where it is uneconomic to deploy competing infrastructure networks.</p> <p>In addition to considering how infrastructure sharing can be used to support the roll out of 5G networks, however, it will be important to consider how network sharing arrangements could be used to improve existing mobile coverage where the market is not delivering an adequate solution. The Commission believes this is one of the potential measures that could be considered to meet coverage expectations where people live, work and travel once these have been established in detail.</p> <p>In the meantime, government has continued to promote a more competitive market in full fibre (which is a crucial component in expanding mobile networks) and has launched a Future Telecoms Infrastructure Review to explore the barriers to investment in next generation digital connectivity, and to examine what, if any, policy changes government should consider.</p>
<p><b>Progress over last year</b></p>	<p>In September 2018, Ofcom provided advice to government on improving mobile coverage. It includes options such as:</p> <ul style="list-style-type: none"> <li>● compelling operators to share information on new sites in rural areas earlier in the planning process, as set out in the 700MHz consultation.</li> <li>● encouraging passive sharing through adjustment of the spectrum licencing framework.</li> </ul> <p>The proposal on data sharing was dropped in the revised proposals; other options are being progressed.</p>
<p><b>Current position</b></p>	<p>The government and Ofcom have made clear progress towards identifying barriers to sharing and some work towards improving incentives.</p> <p>The Commission will continue to monitor this recommendation to understand how these changes are working in practice, and will be considering some of these issues in its regulatory review.</p>
<p><b>Complete?</b></p>	<p><b>No.</b></p>



**Recommendation 7: Ofcom and government must ensure they keep pace with the rapid evolution of the mobile communications market, and that the regulatory regime is fit for purpose. By the end of 2017 Ofcom and government must review the regulatory regime to ensure that spectrum allocation and regulatory decisions support a growth model in a world where technology developments enable greater shared access and interoperability. Government and Ofcom should review how unlicensed, lightly licensed spectrum, spectrum sharing and similar approaches can be utilised for higher frequencies to maximise access to the radio spectrum. Spectrum decisions should where possible enable:**

- community or small provider solutions to meet the needs of local areas if they remain unserved or poorly served
- niche entrants or sub-national players to access the higher frequency spectrum anticipated for 5G. Allocation of nationwide spectrum licenses to a small number of operators could leave large areas of the UK fallow
- businesses, universities and others to access spectrum where they need to within their factories or buildings, including already licensed spectrum if there are no interference risks. This will unlock multiple wireless service provider options, including self-provision, spurring the innovation in industrial internet of things, wireless automation and robotics.

<b>February 2018 position</b>	<p>Following the publication of the Commission’s Connected Future report, the government asked Ofcom to review and report back by the end of 2017 on “the scope for the spectrum licensing regime to facilitate better 4G and 5G deployment at national, regional and local scales, including in-building usage.” In response, Ofcom published a review of the authorisation regime for spectrum access, in December 2017, setting out its intended approach to the future authorisation of spectrum for 5G.</p> <p>The Commission understands that the government’s emerging view is that a few large contiguous blocks of spectrum in the 3.4-3.8 GHz band are more likely to meet Ofcom’s objectives to ensure optimal use of spectrum rather than many smaller ones. Crucially this would still allow access to the radio spectrum for smaller subnational, local and other niche entrants, since all the existing licences issued by Ofcom have been awarded on a non-exclusive basis. Ofcom reserves the right to grant additional licences for the use of some or all of these frequencies, with appropriate safeguards to appropriately manage the risk of interference.</p> <p>It will be important that further progress is made on plans for licensing the 24.25-27.5 GHz band before the ITU World Radio Conference in 2019, when international rules governing the use of radio frequency spectrum are expected to be agreed.</p> <p>The Commission welcomes the forthcoming consultation on plans to enable further sharing in the 3.8-4.2 GHz band and continues to encourage the government and Ofcom to consider how spectrum access can be expanded for community or small providers where there is no interference risk.</p>
<b>Progress over last year</b>	<p>Licensing proposals have been submitted for the ITU Conference on 24.25-27.5 GHz and further potential 5G bands have been identified.</p> <p>Ofcom has stated in a discussion document titled Enabling 5G in the UK, published March 2018, that they will consider extending shared access to wireless in the 3.8 GHz to 4.2 GHz band.</p>
<b>Current position</b>	The Commission will continue to monitor these recommendations until the next spectrum decisions and as 5G rollout continues.
<b>Complete?</b>	<b>No.</b>

# High Speed North

## Transport strategy

**Recommendation 1: Improving connectivity between the cities of the North will not be sufficient to create the Northern Powerhouse, but is necessary. Transformations in transport connectivity should form part of a broader strategy incorporating improvements in education, workforce training, research and innovation, spatial planning and wider infrastructure investment.**

<b>February 2018 position</b>	The Commission supports the devolution deals that have been negotiated between the government and local areas and welcomes the opportunities that these have provided for considering improvements in skills, education, workforce training and other areas alongside wider transformations in transport connectivity. The Commission encourages the government to consider long term funding arrangements to support the implementation of local growth strategies, particularly where these can be shown to compliment transport improvements.
<b>Progress over last year</b>	Budget 2019 announced a forthcoming Northern Powerhouse Strategy. The last such Strategy, focused on skills and business support, as well as transport, was published in 2016. A further devolution deal, for the North of Tyne Combined Authority, was finalised in November 2018. Alongside these measures, government announced £840m of devolved multi-year capital transport infrastructure budgets to mayoral combined authorities as part of the Transforming Cities Fund in autumn Budget 2017, increasing them for a fifth year (2022-23) at Budget 2018 bringing the size of the overall fund to c£2.5bn.  In April 2018, Transport for the North (TfN) became the first statutory subnational transport body, and in February 2019 published its Strategic Transport Plan.
<b>Current position</b>	The devolution of transport (and other) powers has generated positive progress in the North of England, with Greater Manchester, the Liverpool City Region, the Leeds City Region and various authorities in the North East taking transport responsibilities. This is a first step towards the Commission's National Infrastructure Assessment recommendations, but the Commission believes the government should go further in devolving funding and powers to city leaders.  Transport remains a necessary, but not sufficient, condition for growth. The government should therefore continue to pursue skills and innovation policies. To this end, the Commission welcomes the government's announcement of a Northern Powerhouse Strategy.
<b>Complete?</b>	<b>Yes.</b>

## Rail

**Recommendation 2:** To connect northern cities faster and more reliably than today, the Commission recommends that funding be provided to further develop the long term plan for HS3, which should be conceived as a high capacity rail network, rather than a single piece of entirely new infrastructure. This plan must be fully integrated with proposals for maximising the benefits from currently planned investments.

<b>February 2018 position</b>	The Commission welcomes the ongoing work of TfN and DfT in developing the business case for Northern Powerhouse Rail (NPR). Following the planned submission of a Strategic Outline Business Case, the Commission calls on the government to provide clarity, before the end of 2018, on the timetable and funding envelope required to deliver the Northern Powerhouse Rail network.
<b>Progress over last year</b>	Development of the Strategic Outline Business Case (SOBC) has continued throughout the year. The SOBC makes the case for the overall NPR network and an estimated funding envelope, with a number of options under consideration. Whilst the SOBC is not expected to be published, the Strategic Transport Plan provides an update on progress. It is expected to be submitted to the Transport for the North Board in February, before being submitted to DfT. TfN's statutory advice to government, in February, sets out TfN's intention to produce a revised SOBC in 2020 setting out a single preferred network.  Budget 2018 announced up to a further £37m development funding for NPR.
<b>Current position</b>	TfN has made good progress in developing its transport plan. The final Strategic Transport Plan, published in February 2019, is welcome in identifying the most important corridors for investment both on road and rail. Following completion of the SOBC, it is important to decide on the phasing of delivery and move towards single options on the bigger questions (the preferred Liverpool-Manchester and Leeds-Manchester route and the structure of Manchester Piccadilly) to allow consultation on route options. TfN should also move quickly to take decisions on preferred NPR scope in the HS2 Phase 2b bill to avoid holding up the bill. The Commission welcomes the mitigating action DfT has taken in this regard.  The Commission calls on government to provide clarity on the timetable and funding, to support decisions on route options and phasing. The government should use the National Infrastructure Strategy and the Spending Review to announce a long term funding envelope to deliver increased capacity, speed and reliability for the Northern rail network. Such an envelope should allow a focus on maximising benefits, while being guided by affordability and supply chain constraints: it will inevitably require trade-offs to be made, at least in terms of sequencing and phasing. It is important that the Transpennine Route Upgrade (TRU) dovetails with this schedule (see below).
<b>Complete?</b>	<b>No.</b>

**Recommendation 3:** TfN should work with the Department for Transport, Network Rail, HS2 Ltd and other stakeholders to prepare by the end of 2017 a single integrated strategy, combining short term action with an ambitious long term vision, which supports the overall plan for the HS3 network and brings together:

- the upgrade of the Transpennine line between Manchester and Leeds
- the design of the northern phase of the HS2 network, including connectivity between Leeds – Sheffield and Liverpool – Manchester
- proposals for the redevelopment of Manchester Piccadilly station.

<b>February 2018 position</b>	The Commission welcomes the forthcoming establishment of Transport for the North (TfN) as a subnational transport body and the recent publication of its draft Strategic Transport Plan, both of which will allow TfN and its partners to play a leading role in developing the case for investment in northern England, speaking with a unified voice to government, and making the right transport decisions for the region.
<b>Progress over last year</b>	<p>Network Rail has submitted options for the Transpennine Route Upgrade, and other schemes in the Great North Rail Project, to the Department for Transport. This work is expected to begin in Control Period 6 (2019-2024).</p> <p>Budget 2018 announced further development funding for TfN. This was, in part, to fund additional work on the touch points between High Speed 2 and Northern Powerhouse Rail networks.</p> <p>Two options for the proposed redevelopment of Manchester Piccadilly are understood to be included in the SOBC.</p>
<b>Current position</b>	<p>The Commission urges the Department for Transport to decide on options for the Transpennine Route Upgrade and the Great Northern Way. Early work in Control Period 6 should, as far as possible, not pre-judge long term decisions to be taken on new route options between Manchester and Leeds. The Commission notes that TRU and NPR are working closely to understand touch points and opportunities for passive provision.</p> <p>In order to achieve a single integrated approach to transport in the North, the government must announce a funding envelope in the forthcoming National Infrastructure Strategy and Spending Review. This will provide the framework needed for TfN to prepare and agree a finalised NPR strategy. In particular, TfN should decide quickly upon a final route option for Manchester and Leeds. TfN, the government and Network Rail should work to avoid subjecting northern rail users to a programme of continued disruption, based first on the TRU followed by the development of NPR. The Commission continues to recommend therefore that the Transpennine Route upgrades should be completed in the course of Control Period 6 (2019-2024), with every effort made for the work to be completed as early as possible in this period.</p>
<b>Complete?</b>	<b>No.</b>

**Recommendation 4:** The upgrade of the Leeds to Manchester link should form the first phase of HS3 to be developed in detail. It should comprise a long term programme with the objective of reducing journey times to 30 minutes, alongside substantial capacity and frequency improvements. The first part of this should be a shorter term plan, to be developed and implemented by TfN and Network Rail by 2022, to cut the journey time between these cities and to onward destinations by roughly 20 per cent from 49 to 40 minutes, enhance capacity and improve service regularity and frequency.

<b>February 2018 position</b>	The Commission welcomes the interventions planned for the Leeds to Manchester route in the short, medium and longer terms, which will substantially improve the frequency, capacity and reliability of services between the two cities. By agreeing a long term programme of improvements now, the government and its partners can ensure that each intervention lays the ground for future improvements. It will be important that the government sticks to the agreed timetable for upgrading the Transpennine Route and that the government and TfN reach a shared view by the end of 2018 on the options for longer term improvements (including on the forward timetable and funding envelope) as part of the overall strategy for Northern Powerhouse Rail, so that development work and route planning can begin in earnest.
<b>Progress over last year</b>	As above, Network Rail has submitted options for the Transpennine Route Upgrade to the Department for Transport.
<b>Current position</b>	It is important that Northern Powerhouse Rail continues to form a long term plan with shorter term, phased interventions. The Transpennine Route Upgrade is a central link in this plan. The Commission welcomes DfT's confirmation that CP6 enhancements will involve electrification and civil engineering along the route between Manchester and Leeds.
<b>Complete?</b>	<b>Yes.</b>

**Recommendation 5: The design of the northern phase of HS2 should be taken forward by HS2 Ltd, working closely with TfN to ensure that this is planned and delivered so as to facilitate the development of the HS3 network, enhancing connectivity between Leeds – Sheffield, Liverpool – Manchester (and its airport), and between Sheffield – Newcastle, as well as to onward destinations.**

<b>February 2018 position</b>	The Commission strongly supports the progress that government, HS2 Ltd and TfN have made in integrating the northern phase of HS2 with the Northern Powerhouse Rail network. This work is an example of best practice and demonstrates how new infrastructure for one scheme can be used to support the development of a future, complementary programme. It is now vital that the necessary development work is completed in time to incorporate the passive provision without delaying the HS2 Phase 2B hybrid bill programme.
<b>Progress over last year</b>	Continued work between HS2, DfT and the government in development of the SOBC.
<b>Current position</b>	The Commission continues to support the progress HS2 Ltd and TfN have made in planning both HS2 Phase 2B and Northern Powerhouse Rail (NPR) in conjunction. HS2 Phase 2B is now central to the delivery of NPR.  As well as the announcement of a funding envelope at the Spending Review, the government should define the scope of NPR that should be included in the Phase 2B hybrid bill.
<b>Complete?</b>	<b>Yes.</b>

**Recommendation 6: Proposals for the redevelopment of Manchester Piccadilly station should be prepared jointly by TfN, Transport for Greater Manchester, Manchester City Council, Network Rail, DfT and HS2 Ltd. These organisations should work together to deliver:**

- detailed plans for the new east-west platforms 15/16 to facilitate delivery early in Control Period 6 and unlock the development potential of the Mayfield site
- a masterplan for the longer term development of Manchester Piccadilly station as a whole, incorporating capacity for HS2 services and options for the delivery and timing of platform capacity for HS3
- proposals for funding and financing the station redevelopment, including for private sector and local contributions.

<b>February 2018 position</b>	The Commission welcomes the establishment of the Manchester Piccadilly Joint Board to provide advice on the development and implementation of a new scheme for Manchester Piccadilly station. It calls on the government and other relevant stakeholders to work together to agree a preferred option for the redevelopment of Manchester Piccadilly as part of the overall NPR strategy, so that any additional provision to the HS2 phase 2b bill can be developed without delay.
<b>Progress over last year</b>	The Commission understands that surface and underground options for Manchester Piccadilly have been included in the Strategic Outline Business Case. Discussions are ongoing with local stakeholders on a detailed assessment of the options.
<b>Current position</b>	The Commission is concerned a preferred option for the redevelopment of Manchester Piccadilly has not yet been achieved. The Commission therefore urges government to announce a funding envelope for Northern Powerhouse Rail at the Spending Review, and for this decision to be taken promptly thereafter.  The Commission continues to recommend that station redevelopment should be part-funded locally. This builds on the National Infrastructure Assessment where the Commission advocated for city leaders to be able to shift funding towards Northern Powerhouse Rail in addition to the national funding envelope. This is particularly true with station infrastructure, where the benefits are more likely to be locally concentrated.
<b>Complete?</b>	<b>No.</b>

**Recommendation 7: TfN should follow an approach that seeks to maximise the benefits of current and planned investments and integrates them with an ambitious longer term plan, in developing and prioritising proposals for other major inter-city links through its Northern Powerhouse Rail strategy. This should include assessing the case and options for early enhancements to key routes and for improvement and redevelopment at gateway stations including Liverpool Lime Street.**

<b>February 2018 position</b>	The Commission welcomes the ongoing work of TfN and the DfT in developing the business case for Northern Powerhouse Rail. Following the planned submission of a Strategic Outline Business Case, the Commission calls on the government to provide clarity, before the end of 2018, on the timetable and funding envelope required to deliver the Northern Powerhouse Rail network.
<b>Progress over last year</b>	Further work on gateway stations such as Liverpool Lime Street has been undertaken: the Commission understands that station options are included in the SOBC.
<b>Current position</b>	Now the SOBC has been submitted to government, the Commission urges the government to provide clarity in the forthcoming National Infrastructure Strategy and Spending Review.
<b>Complete?</b>	<b>Yes.</b>

## Roads

**Recommendation 8: On the strategic road network, Highways England should accelerate capacity enhancements to the M62 between Liverpool and Manchester and between Manchester and Leeds. Very substantial capital funding should be brought forwards, so that both schemes can be accelerated, with work beginning between Liverpool and Manchester in Roads Investment Strategy year 2017/2018 – two years ahead of schedule – and work between Manchester and Leeds also significantly fast-tracked.**

<b>February 2018 position</b>	The Commission welcomes the progress that Highways England has made in bringing forward enhancements to the M62 between Liverpool and Manchester and between Manchester and Leeds. It will be important that planned completion dates are met so that the benefits of increased capacity and journey reliability across the Pennines can be realised as quickly as possible.
<b>Progress over last year</b>	Smart motorway enhancements on the M62 between Liverpool and Manchester have begun. Highways England are still developing preliminary designs for junctions 20-25 between Manchester and Leeds.
<b>Current position</b>	The Commission welcomes the progress Highways England has made in beginning work on junctions 10-12 of the M62. The Commission notes that once design work on the junctions 20-25 scheme is complete, anticipated for Spring 2019, a contractor will be appointed to carry out the works so that construction work can begin in 2019.
<b>Complete?</b>	<b>Yes.</b>

**Recommendation 9: Development funding should be prioritised for a package of further enhancements to the northern road network, so that these can be completed as early as possible in the next Roads Investment Period. This package should include: upgrades to the M56 (junctions 6-8) around Manchester Airport; the redevelopment of the Lofthouse Interchange and Simister Island junctions; and capacity enhancements to the M1 (35a-39) between Sheffield and Leeds.**

<b>February 2018 position</b>	<p>The Commission welcomes the decision to bring forward the upgrade of the M56 (junctions 6-8) 12 months earlier than planned. This will ensure the benefits of increased capacity and journey reliability are realised as quickly as possible.</p> <p>The Commission also welcomes the progress which Highways England has made, in exploring options to improve Lofthouse and Simister Island interchanges, to ease congestion and improve traffic flow between key strategic corridors in the North. It will be important that preliminary work on these schemes is completed, in time for future schemes to be assessed alongside other priorities, as part of its plan for improving the strategic road network during the next investment period.</p>
<b>Progress over last year</b>	<p>Highways England is engaging stakeholders around the M56, and aims to open a length of smart motorway between junctions 6 and 8 by 2020.</p> <p>At the Lofthouse Interchange (the M1 and M62 intersection), Highways England is still exploring design options.</p>
<b>Current position</b>	The Commission welcomes Highways England completing the upgrade of the M62 between junctions 18 (Simister Island) and 20. The Commission also welcomes progress made on the M56 with a completion date set for 2020, which will provide important improved access to Manchester Airport as an international gateway.
<b>Complete?</b>	<b>No.</b>



**Recommendation 10: Highways England, DfT and TfN should continue the current programme of longer term studies. This work should take due consideration of consistency with strategic objectives, feasibility, affordability, forecast demand and congestion levels, and environmental factors.**

<b>February 2018 position</b>	The Commission welcomes the progress that DfT, Highways England and TfN have made in taking forward the conclusions and next steps identified in the relevant Strategic Road Studies. The Commission looks forward to examining further detailed proposals arising from this work in due course.
<b>Progress over last year</b>	DfT published the Draft Road Investment Strategy 2: Government Objectives in October 2018. There has been no formal update on the three strategic studies since November 2016, which is standard procedure during the option assessment, development and adoption phases.
<b>Current position</b>	The Commission will examine further detail when it becomes available.
<b>Complete?</b>	<b>No.</b>

**Recommendation 11: Sufficient funding should be made available by government to support the development of an ambitious cross-modal strategy for northern transport with HS3 at its heart.**

<b>February 2018 position</b>	The Commission welcomes the initial funding package of £260 million which the government has agreed with TfN. This will provide TfN with the necessary resources to deliver its programme of work to 2020. The Commission encourages the government to consider a similar long term approach to funding TfN at future spending rounds.
<b>Progress over last year</b>	Budget 2018 announced further development funding for TfN.
<b>Current position</b>	The Commission welcomes the funding package for TfN, delivered in 2015-16. It encourages the government to commit to a similar long term funding package in the forthcoming Spending Review so that TfN can continue to prioritise transport investments in the North.
<b>Complete?</b>	<b>Yes.</b>



# Transport for a World City

## Developing the plan

### Recommendation 1: Crossrail 2 to be taken forward as a priority, aiming to open in 2033.

#### February 2018 position

In March 2017, Transport for London (TfL) submitted an updated Strategic Outline Business Case for Crossrail 2 to the Secretary of State for Transport. It sought to demonstrate how more than half the cost of the scheme could be met by London over time.

Following submission of this business case the scheme was subject to an external review by the Infrastructure and Projects Authority (IPA). The review concluded that further work should be undertaken to improve the affordability of the scheme, with a view to increasing the percentage of the scheme's costs to be met by London funding streams during its construction.

Subsequently, the Mayor of London and the Secretary of State for Transport issued a joint statement on 24 July 2017. This supported the scheme and agreed to examine ways to improve its affordability, while maximising the key benefits – with a view to London meeting half the costs of the project during construction.

In response to this challenge a range of options were considered by TfL and its partners to phase costs and increase London's share of funding during construction. The Commission understands that the results of this work were submitted to the DfT in October 2017.

At the Autumn Budget 2017, the government again recognised the need for investment in London's infrastructure to support its growth, while announcing an independent review looking at the funding and financing options, as well as ways to improve the affordability of the scheme. The government considers that undertaking an independent review on the options to fund and finance Crossrail 2 will allow it to follow best practice and ensure the project delivers value for money. Concerns have been expressed by others, however, that this will lengthen the decision making process and could delay the scheme from opening in 2033 as proposed in the Commission's 2016 report. To minimise this risk, it will be important that both the government and TfL engage actively with the independent review so that an agreed and stable position may be reached in a timely fashion.

The Commission calls on government to ensure the independent review of the funding and financing of Crossrail 2 is completed as soon as possible, with a view to setting out a firm timetable and funding proposal by the end of 2018. The next stage of consultation should follow to enable the introduction of a hybrid bill later this Parliament, with the overall aim of opening Crossrail 2 in the early to mid 2030s.

<p><b>Progress over last year</b></p>	<p>The Independent Affordability Review has involved substantial analysis of many phasing, value engineering and scope reduction opportunities. Interim review conclusions were given to TfL and DfT last summer for Secretary of State and Mayoral consideration.</p> <p>The fiscal remit in the National Infrastructure Assessment included an indicative budget allocation of £27.7bn for Crossrail 2.</p> <p>At Budget 2018, the government said it is "considering the recommendations of the Independent Affordability Review of Crossrail 2, and will consider the case for the project at the Spending Review".</p> <p>TfL hope to reach an agreement so that they can safeguard the route, limit cost escalation and mitigate public concerns about unnecessary blight.</p> <p>Cost overrun and delay to Crossrail 1 has impacted TfL's financial position, and the government's £1.3 billion loan to the GLA will be repaid through Mayoral Community Infrastructure Levy receipts and the Business Rates Supplement previously earmarked for Crossrail 2. The impact of this on the delivery of Crossrail 2 is being considered so that it can be reflected in Spending Review considerations.</p>
<p><b>Current position</b></p>	<p>TfL have been making reasonable progress under the circumstances, engaging with the Independent Affordability Review and work on cost reductions and phasing. However, government has made little progress in public.</p> <p>Behind the scenes, the DfT team is working well with TfL on options for the route, phasing, funding and financing, and there is a sense of commitment to taking forward the project.</p> <p>It is unfortunate that it has taken government and TfL so long to reach an agreement on funding. The government and London must agree on a plan for route, phasing and funding and set this out in the government's National Infrastructure Strategy, to enable work to progress to the next stage.</p> <p>Decision making on route and phasing must strike a balance between affordability and delivery of the objectives of the scheme, particularly the need to ensure housing will be built as expected.</p> <p>Even before the decision on funding, the Commission urges government and London authorities to give the public as much certainty as possible on expected route decisions.</p>
<p><b>Complete?</b></p>	<p><b>No.</b></p>

**Recommendation 2:** Crossrail 2 should be at the heart of the new London Plan, alongside existing commitments to upgrades and other pieces of new infrastructure. Crossrail 2 should not, subject to affordability, prevent the development of other high value schemes, particularly where alternative funding mechanisms are available:

- London must continue to plan strategically for the period 2030-2050 through the next iteration of the London Plan. Crossrail 2 should be at the heart of this strategy and TfL's wider programme of smaller scale interventions on the national rail, road, Underground and cycling networks in London should be integrated with it to complement and enhance its benefits.
- The London Plan should also include a detailed examination of the scope to deliver other strategic projects, such as further east London river crossings and the Bakerloo line extension, through alternative financing mechanisms. This should build on the precedents from the Silvertown Crossing and Northern line extension to Battersea/ Nine Elms.

<b>February 2018 position</b>	<p>Since publication, Transport for London (TfL) has continued to work closely with the Greater London Authority (GLA) to ensure that the Mayor of London's new London Plan provides the necessary strategic planning framework to support the delivery of growth associated with Crossrail 2.</p> <p>A draft London Plan was published for consultation in November 2017 and is expected to be adopted in autumn 2019 following an Examination in Public. Once adopted, the plan will cover a period up to 2041, with Crossrail 2 provisionally scheduled to open roughly mid way through the period. The capacity and connectivity improvements that Crossrail 2 and other strategic transport projects offer, as well as the improved development viability they unlock, have been reflected in the draft London Plan.</p> <p>The Commission welcomes the publication of the Mayor's draft London Plan and recognises the progress that TfL and the GLA have made in developing planning policies and strategies that will help to ensure development is phased, wherever possible, in line with the increased transport connectivity and capacity improvements that Crossrail 2 will bring. However, the greatest growth potential of the scheme is likely to be beyond the initial 10 year housing target period of the draft London Plan.</p>
<b>Progress over last year</b>	<p>Consultation on the draft plan closed in March 2018. Examination in public is scheduled for January 2019.</p> <p>TfL's study on potential use of land value capture mechanisms to form part of the funding package, continues to be considered.</p>
<b>Current position</b>	<p>The Commission welcomes London's progress against this recommendation and looks forward to its completion during 2019.</p>
<b>Complete?</b>	<b>No.</b>

## From development to delivery

**Recommendation 3: Sufficient development funds should be released for TfL and DfT to submit a revised business case for Crossrail 2 by March 2017 and aim to introduce a hybrid bill by autumn 2019. The revised business case should include developed plans on costs, funding, housing and stations. TfL estimates the overall development cost at c£160m, to which TfL should be expected to make a reasonable contribution.**

<b>February 2018 position</b>	<p>At Budget 2016, the government provided £80 million to support the development of Crossrail 2 with the aim of depositing a hybrid bill within that Parliament. TfL matched the government's £80 million commitment in development funding, giving the project a total of £160 million to develop a hybrid bill.</p> <p>Following the General Election in 2017, options for revised schedules have now emerged for submitting a hybrid bill within the current Parliament which, under the Fixed-term Parliaments Act 2011, stretches to 2022.</p> <p>The Commission understands that TfL has procured the professional services and resources necessary to develop a hybrid bill in partnership with the DfT, who jointly sponsor the scheme. It will be important that the scheme is delivered as quickly as possible once a decision is made by government to proceed.</p> <p>The Commission remains concerned that the longer it takes to reach a decision on the business case and timetable for depositing a hybrid bill, the greater the risk that additional funding may be required to complete all the necessary work.</p>
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<b>Progress over last year</b>	<p>There has been no more progress pending the Independent Affordability Review. TfL is still hoping to consult as soon as possible after a decision is taken on the route and potential phasing, leading to a hybrid bill in early 2020s. For the present financial year, DfT has continued to fund its share of development costs with the balance funded by TfL.</p> <p>Since the originally recommended submission date of the hybrid bill was 2019, there will be some additional costs if the project is to get to a hybrid bill submission by the end of this parliament. The current funding has been spent on developing the scheme.</p>
<b>Current position</b>	Uncertainty remains around the milestones for outline and final business case, and the hybrid bill. The Commission calls on government to agree a clear timetable with TfL, to be published no later than the National Infrastructure Strategy.
<b>Complete?</b>	<b>No.</b>
<p><b>Recommendation 4: In developing the business case, it is crucial that TfL and DfT identify clear proposals to maximise its benefits and increase deliverability. The costs of Crossrail 2 are high and therefore every opportunity should be taken to improve its affordability:</b></p> <ul style="list-style-type: none"> <li>● The updated case should include detailed options to reduce and phase the costs of the scheme. The most promising option identified to enhance affordability would be to delay the construction of the north-western branch to New Southgate. This could reduce the costs of the initial scheme in the 2020s by around £4 billion. More work should also be done on the costs and benefits of individual central London stations.</li> <li>● If construction of the north-western branch is delayed, this would also provide the opportunity to consider the case for an eastern branch from Hackney as an alternative.</li> </ul>	
<b>February 2018 position</b>	<p>The Commission understands that a range of options have been considered to reduce the overall costs of the scheme since the publication of the Commission's Transport for a World City, including a review of station options along the proposed route together with further planning and engineering work. Since submitting its Strategic Outline Business Case, the Commission also understands that TfL has continued to examine a range of options to phase construction, which would see most of the railway operating in the early to mid 2030s, as originally envisaged. These options will now be considered alongside other work as part of the independent review of the funding, financing and affordability announced at Autumn Budget 2017.</p> <p>The Commission welcomes the work that has been carried out to date to reduce the overall costs of the scheme, and notes this will be subject to independent review over the coming months.</p>
<b>Progress over last year</b>	An Independent Affordability Review interim report is currently under government/ Mayoral consideration (see Recommendation 1). The project team's work in this respect includes detailed modelling of a number of potential phasing options as well as value engineering.
<b>Current position</b>	The Independent Affordability Review should be published and should set out further options to increase affordability while maximising benefits.
<b>Complete?</b>	<b>No.</b>

**Recommendation 5:** A ‘London deal for Crossrail 2’ funding agreement, through which London contributes more than half the costs of the scheme and which includes substantial measures to realise the full housing benefits, should be agreed ahead of hybrid bill submission:

- It is vital that a funding package for Crossrail 2 is developed which strikes a fair balance between the contributions made by London taxpayers and businesses and by central government. This should build on the work already undertaken by TfL, which indicated that around half the cost of the project could be funded from London sources.
- The government should work with TfL and GLA to explore new funding options, which could include consideration of further devolution. However, even without such devolution, HM Treasury should be able to recoup significant receipts from the added Gross Value Added (GVA) benefits and the rising value of property in London.
- A London deal for Crossrail 2 will need to cover both the funding of the project and the planning measures required to deliver Crossrail 2’s benefits.

<p><b>February 2018 position</b></p>	<p>The Commission understands that TfL has now submitted a proposal to the government seeking to demonstrate how London could fund half the costs of Crossrail 2 during construction. The government is currently considering this proposal and has announced an independent review of the funding, financing and affordability of Crossrail 2. It will be important that TfL and the government engage actively with the review so it can carry out its work quickly and efficiently.</p> <p>While the Commission acknowledges the challenges of funding and financing a project of this scale, it is nonetheless disappointed at the delay caused by the decision to undertake an independent review. It will therefore be crucial that the review enables a clear position to be reached quickly on government funding, such that a timetable and funding proposal can be agreed by the end of 2018.</p> <p>The Commission welcomes the wider work that TfL, the GLA and government are undertaking to explore the potential for new funding options to support Crossrail 2. In addition, the Commission recommends that TfL and the government should explore how the scope of any future hybrid bill could optimise the scheme and its benefits; for example, by including powers to support the wider regeneration associated with the scheme.</p>
<p><b>Progress over last year</b></p>	<p>The Independent Affordability Review interim report is now complete (see Recommendation 1).</p> <p>TfL’s initial proposals were for London to pay half over the lifetime of the scheme. New proposals are to set out how half the costs can be paid for upfront by London, during construction. However, the Crossrail overrun has complicated previous assumptions about funding (see 1 above).</p>
<p><b>Current position</b></p>	<p>The Commission notes that TfL and government will need to resolve the impact of cost overruns and delays to Crossrail 1 on funding and financing options for Crossrail 2.</p>
<p><b>Complete?</b></p>	<p><b>No.</b></p>

**Recommendation 6:** TfL and DfT in conjunction with other government departments and relevant bodies, should use the next stage of development to set out a clear, transformative plan to turn the proposed 200,000 homes into a reality:

- Strong measures to maximise the new housing enabled by the scheme should be included in the ‘London deal for Crossrail 2’ – this could include the establishment of one or more development corporations to lead the master planning and delivery of new housing and urban realm provision, and revised planning guidance for the whole route. These measures should be considered as a potential model for improving housing delivery more widely.
- For housing provision to be a success across the whole route, the London deal for Crossrail 2 will need to have buy in from the GLA and London boroughs along the route as well as counties and boroughs outside of London which benefit from the new line. All parties will need to ensure the housing unlocked by Crossrail 2 is sustainable and meets the needs of Londoners and those in commuter regions around London.

<b>February 2018 position</b>	<p>The Commission understands that TfL has considered several detailed approaches in its Strategic Outline Business Case (SOBC) on how the wider housing benefits associated with Crossrail 2 could be delivered, including through the development of new homes above and around new stations. It is likely that any new development above stations would also help fund the project.</p> <p>The extent to which detailed housing plans can be publicly evaluated is limited, due in part to uncertainty over the route and associated safeguarding which remains. Notwithstanding these constraints, the GLA and TfL report that several changes in housing policy and practice have occurred since the submission of the SOBC which will support the delivery of homes across the Crossrail 2 corridor.</p> <p>The Commission reiterates its call for the government to commit to a timescale and funding proposal for Crossrail 2 by the end of 2018 to provide greater certainty about housing delivery and, following agreement of the route, to facilitate the safeguarding necessary to secure the wider benefits of the scheme.</p> <p>In line with the Mayor’s commitment to take a more interventionist approach in London’s land market, the Commission encourages the Mayor and the GLA to consider the establishment of one or more development corporations to lead the master planning and delivery of new housing and urban realm provision.</p>
<b>Progress over last year</b>	<p>The London Housing Strategy, formally adopted in August 2018, continues to target 200,000 additional new homes unlocked by Crossrail 2.</p> <p>A number of potential development delivery mechanisms, as well as powers to be included in the hybrid bill, have been examined by the project team, which has recommended some options for further consideration by London and government.</p>
<b>Current position</b>	<p>The Commission recognises the positive progress London has made, but delivery of housing will be affected by uncertainty on funding and timetable for the project. There is a risk that project phasing could affect the number of houses that can be delivered, given that slower delivery of some sections could mean permanently lower density construction on some sites.</p> <p>The Commission recommends that government, particularly MHCLG and Homes England, should engage with TfL, the Greater London Authority and other local authorities to ensure a strong delivery plan is in place to allow homes to be built as proposed.</p>
<b>Complete?</b>	<b>No.</b>

**Recommendation 7: The opportunity should be taken to maximise private sector involvement in the development and funding of stations and their surrounding areas. TfL and DfT should leverage private sector capital and expertise to develop selected Crossrail 2 (CR2) stations, including both the stations themselves and the surrounding land. Development could also be supported by land purchase powers and the ability to assemble sites.**

<b>February 2018 position</b>	<p>The Commission understands that the Mayor of London and the government are continuing to examine how the private sector could be involved in the development and funding of Crossrail 2 stations and their surrounding areas.</p> <p>The Commission also understands that the GLA and TfL have the necessary systems, frameworks and expertise in place to enable the establishment of any property vehicles or other holding arrangements which could potentially be used to support the development of stations and their surrounding areas.</p> <p>The Commission notes that TfL is already using several routes to develop its existing sites, including through its property partnerships framework of developers, direct development and site specific partnerships. These could provide models for the development of future sites.</p> <p>Separately, the Commission understands that work is ongoing to explore how value could be extracted from a 'zone of influence' surrounding each station.</p> <p>The Commission welcomes the early work that has been undertaken to examine the potential for private sector involvement in the development of stations and their surrounding areas. It will be important as the scheme progresses that TfL and DfT work closely with London boroughs and adjoining counties to ensure their support for any future hybrid bill, in respect of any identified zones of influence.</p>
<b>Progress over last year</b>	<p>The project is looking at potential over-station development opportunities. Specific opportunities are being actively explored.</p>
<b>Current position</b>	<p>The most significant opportunities are likely to be awaiting confirmation on funding and timetable.</p> <p>The Commission encourages close working between London, MHCLG and Homes England on potential approaches and identification of opportunities, particularly at locations outside London.</p>
<b>Complete?</b>	<b>No.</b>



**Recommendation 8:** Following the submission of a revised business case and agreement on the conditions above, the aim should be for a hybrid bill to be submitted by autumn 2019 – the first step towards the railway opening in 2033. As a result:

- submission of a bill in 2019 would allow significant progress to be made on the passage of a bill before the end of this parliament
- completion of the project in 2033 would allow the project to open in time for the planned arrival of HS2 phase 2 at Euston.

<b>February 2018 position</b>	<p>The 2017 General Election has now resulted in a revised window for submitting a hybrid bill within the current parliament.</p> <p>The Commission continues to believe that it will be important for the majority of the railway – in particular the Central Operating Section – to be complete by the early 2030s, to allow the project to meet rising passenger demand across the capital. TfL’s modelling indicates that without Crossrail 2, and assuming London continues to grow, serious crowding and regular station closures would result at 17 central London stations including Euston, Victoria, Clapham Junction and Waterloo.</p> <p>It will be important that time is made available in parliament to consider major housing and infrastructure schemes such as Crossrail 2, given the substantial benefits and investment potential they will bring to the UK economy.</p> <p>The Commission calls on government, following completion of the independent review, to commit to a clear timetable for the deposit of a hybrid bill that would enable Crossrail 2 to start operating in the early to mid-2030s. To meet this objective a second reading of the bill would need to take place this parliament.</p>
<b>Progress over last year</b>	<p>No further progress has been made since the Commission’s previous Annual Monitoring Report. TfL are working on the basis of a decision on funding now, with consultation as soon as possible after a decision is taken on the route and potential phasing. This will be followed by a hybrid bill in the early 2020s, which would enable Crossrail 2 to open by the mid 2030s.</p>
<b>Current position</b>	<p>Delays to a decision on route and funding now mean that a hybrid bill submission this parliament will be challenging. Further delays to the hybrid bill would likely affect the delivery timetable for the scheme and, therefore, the delivery of scheme benefits.</p>
<b>Complete?</b>	<b>No.</b>



# Smart Power

## Interconnection

**Recommendation 1: Government should pursue additional interconnectors with other European countries where the benefits are most significant.**

Interconnection investment decisions should continue to sit primarily with the private sector but there is a role for government led diplomacy to unlock those markets that can offer potentially large benefits to UK consumers. The government should therefore focus its efforts on exploring increased interconnection to markets with abundant sources of flexible low carbon electricity, such as Norway and Iceland.

<p><b>February 2018 position</b></p>	<p>The existing regulatory regime is continuing to support a healthy pipeline of interconnection projects which will deliver significant benefits to UK consumers. By the early 2020s, the UK will now have well over 8 Gigawatts (GW) of capacity and there are many more projects with regulatory approval.</p> <p>It will be important for the government to work with connecting countries to minimise any impact on the interconnector pipeline of the UK's ongoing negotiations on its withdrawal from the EU.</p>
<p><b>Progress over last year</b></p>	<p>In December 2018 the 1GW Nemo interconnector to Belgium was launched, the first interconnector built since 2012 and also the pilot project for the cap and floor regime. There are five window 1 projects – NSL, FAB Link, IFA2, Viking Link and Greenlink. NSL and IFA2 are under construction, and Viking Link has now taken a final investment decision. Greenlink is also making progress. However, FABlink is affected by the French regulator stating it will not take decisions on further GB-France interconnectors until Brexit outcomes are clarified. Ofgem have suggested that the 2023 deadline (pushed back from 2022 in July 2017) for interconnector projects granted a cap and floor in the first application window remains realistic. Eleclink (a project through the Channel Tunnel) is also under construction, and is planning to operate on a merchant basis rather than under the cap and floor regime.</p> <p>Ofgem approved initial project assessments for three window 2 interconnector projects in January 2018. Neuconnect has completed seabed surveys and is making progress on regulatory issues. NorthConnect and GridLink have both received EU funding through the Connecting Europe Facility (CEF) to complete pre-construction studies. NorthConnect is awaiting a regulatory decision in Norway, whilst Gridlink has been impacted by the French regulatory position. This is also true of Aquind, which is proposing to operate on a merchant basis rather than under the cap and floor regime.</p>

<b>Current position</b>	<p>Although some projects have been progressing since the UK's decision to leave the European Union, others are facing delays in light of this.</p> <p>The government should look to remove barriers to window 1, window 2, and future interconnector projects from being taken forward as part of its negotiations with the EU. The government should also focus its efforts on promoting interconnection in markets where it will most realistically occur.</p> <p>The government should also make it a priority in negotiations to retain access to EU power markets and current market coupling arrangements, to ensure current and future interconnector capacity can be used efficiently.</p>
<b>Complete?</b>	<b>No.</b>

## Storage

**Recommendation 2:** The UK should become a world leader in electricity storage systems. Two steps are required:

- DECC and Ofgem should review the regulatory and legal status of storage and remove outdated barriers to enable storage to compete fairly with generation across the various interlinked electricity markets. The reforms should be proposed by Spring 2017 and implemented as soon as possible thereafter.

<b>February 2018 position</b>	<p>Government did not meet the spring 2017 deadline, but did publish a comprehensive Smart Systems and Flexibility Plan in July 2017 setting out 29 actions it intends to take, alongside Ofgem and industry, to remove barriers to smart technologies such as storage.</p> <p>Government has confirmed that it will use primary legislation to amend the Electricity Act 1989 to explicitly define electricity storage as a distinct subset of generation. This change, and the proposed license modification by Ofgem, are important steps to improve regulatory certainty for storage.</p> <p>The implementation of the Smart Systems and Flexibility Plan should remain an ongoing priority and its impact should be monitored. Parliamentary time should be made available at the earliest opportunity to amend the Electricity Act 1989.</p>
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<p><b>Progress over last year</b></p>	<p><b>Regulatory status of storage</b> – Ofgem has consulted on changes to the generation licence to include storage and will take a decision on the approach shortly. Ofgem has also clarified regulations on the operation of storage by network operators. The government has consulted on the treatment of storage in the planning system and has undertaken preparatory work to define storage in primary legislation, but has not yet found parliamentary time to implement this into law.</p> <p><b>Network charging</b> – Ofgem, in its Targeted Charging Review, noted that changes to the residual network charges for storage could be progressed more quickly by industry to avoid the longer Significant Code Review process. Industry has raised modifications to reform transmission, distribution and balancing charges for storage.</p> <p><b>Final Consumption Levies</b> – The government has clarified that the electricity received and stored by storage facilities may be supplied free from the Climate Change Levy. Ofgem has consulted on changes to the generation licence for storage, which provides a clearer framework for storage facilities to avoid overpayment of other final consumption levies. Ofgem will respond to this consultation shortly. Storage providers can avoid overpayment of these levies by signing up to the existing unmodified generation licence.</p> <p><b>Network connections</b> – Government introduced regulations allowing DNOs to charge assessment and design fees to recover the costs of providing connection offers. The Energy Networks Association’s Open Networks project has consulted on whether to promote flexibility providers within the connection queue.</p> <p><b>Co-location of storage and generation</b> – Ofgem has published guidance to generators participating in the Renewables Obligation (RO) and Feed-in-Tariff (FIT) schemes to provide clarity on the treatment of storage within the framework, in preparation for an expected increase in uptake of co-located storage.</p>
<p><b>Current position</b></p>	<p>Good progress has been made by government, Ofgem and industry to remove many of the barriers which impede storage from competing fairly with generation. Ofgem’s review of the charging code and consultation on modifying the generation licence to include storage, and new regulations to allow DNOs to charge assessment and design fees to recover the cost of providing connections are notable examples.</p> <p>Some of these measures are still in various phases of consultation. Government, Ofgem and DNOs (via the Energy Networks Association) should conclude these processes and ensure findings are implemented as quickly as possible.</p> <p>The biggest remaining barrier, however, is the legal status of storage. Nineteen months have passed since the government and Ofgem first set out in the Smart Systems and Flexibility Plan that the Electricity Act 1989 should be amended to change the status of storage, yet parliamentary time has not been found over this period.</p>
<p><b>Complete?</b></p>	<p><b>No.</b></p>

- Network owners should be incentivised by Ofgem to use storage (and other sources of flexibility) to improve the capacity and resilience of their networks as part of a more actively managed system.

<b>February 2018 position</b>	<p>The Commission recognises that some network owners have started to procure storage and other sources of flexibility to better manage their networks; several DNOs have recently procured competitive flexibility services as an alternative to more traditional network investment – UK Power Networks issued a public tender for flexibility services for up to 35.4 MW of services across ten locations to accommodate peaks of demand.</p> <p>The Commission continues to believe that more widespread roll out will be needed to fully realise the network benefits of storage technologies.</p>
<b>Progress over last year</b>	<p>All of the distribution network operators (DNOs) have started to tender for flexible services since the Commission’s last Annual Monitoring Report.</p> <p>Additionally, the DNOs have formally committed through the Energy Networks Association (ENA) to open up all significant new network requirements to innovative technologies (such as storage and DSR) and enable market based solutions as alternatives to network reinforcement. All network owners have published fast track approaches for connecting small scale storage systems to the network. Government has committed to legislating where necessary to open up new network requirements to competition.</p> <p>In December 2018, building on decisions taken about elements of RIIO 2 in July 2018, Ofgem launched several consultations on its proposed policies for the next round of energy network price controls, RIIO 2, due to commence in 2021 for gas and electricity transmission and 2023 for electricity distribution. The documents suggest that the RIIO 2 framework may be used to incentivise the use of storage and flexibility by network operators in a few ways:</p> <ul style="list-style-type: none"> <li>● Ensuring that innovation funding is targeted towards projects that might not receive funding elsewhere with a focus on strategic energy system transition challenges and increasing engagement from third parties.</li> <li>● Refining existing aspects of the price control to manage the risk of inefficient network investment and utilisation including by enabling greater coordination between network operators (both at, and between, transmission and distribution).</li> </ul> <p>Ofgem is also proposing to increase competition within the network sector, including considering how competition can provide opportunities for providers of flexibility solutions such as demand side response and storage.</p>
<b>Current position</b>	<p>The Commission recognises that work done to remove barriers to storage should go a long way to incentivising its use by network owners.</p> <p>Ofgem should continue to consider how network owners can be incentivised to use storage and flexibility to improve the capacity and resilience of their networks as part of the RIIO 2 price control.</p>
<b>Complete?</b>	<b>No.</b>

## Demand flexibility

**Recommendation 3: The UK should make full use of demand flexibility by improving regulation, informing the public of its benefits it can provide and piloting business models.**

- **Ofgem should start an immediate review of the regulations and commercial arrangements surrounding demand flexibility with a focus on making participation easier and clarifying the role of aggregators; this should be complete by Spring 2017.**

<b>February 2018 position</b>	The Commission acknowledges recent steps taken by government and Ofgem to enable aggregators to access additional energy markets and looks forward to the launch of a Code of Conduct for aggregators. In both cases, it will be important for government and Ofgem to ensure that regulations remain fit for purpose and that voluntary agreements are providing the necessary protections to consumers.
<b>Progress over last year</b>	<p>Before the Commission's first Annual Monitoring Report, in July 2017, Ofgem approved modifications to the Balancing and Settlement Code (BSC) and the Grid Code to enable distributed generation, aggregators and consumers to register and participate directly in that market and facilitate access to the balancing mechanism. Industry has committed to implement modifications to the BSC by February 2019, to improve the Electricity System Operator's (ESO) ability to dispatch aggregated balancing mechanism Units. This should enable parties to participate in the TERRE (Trans European Replacement Reserves Exchange) market and the balancing mechanism by December 2019.</p> <p>The Association for Decentralised Energy's Code of Conduct – called Flex Assure – was launched, setting common standards for aggregators of demand response from individual consumers.</p> <p>Government passed the Automated and Electric Vehicles Act which provides powers for all new EV charge points to have smart functionality, and so enables electric vehicles to be a source of demand flexibility. Government will now consult on secondary legislation to set regulatory requirements for smart appliances.</p> <p>The Power Responsive Steering Group – a group facilitated by National Grid, bringing together industry and energy users to stimulate participation in forms of flexible technology – has highlighted several remaining barriers to flexibility, ranging from transparency and uncertainty to regulatory changes.</p> <p>Much of this is underpinned by the industry codes which many believe are currently a barrier to greater participation of flexible technologies. It is therefore welcome that government and Ofgem have instigated a review into industry codes and governance, announced in November 2018. The terms of reference for the review set out the current issues with the codes clearly and it is important that the review tackles these comprehensively.</p>
<b>Current position</b>	<p>Ofgem's progress over the last year, particularly in making changes to the BSC to implement the European Balancing Project TERRE, will go a long way in facilitating access by aggregators to the balancing market. The UK's continued participation in Project TERRE after Brexit should be a government priority.</p> <p>The Commission welcomes government's focus in the Smart Systems and Flexibility Plan progress update on enabling demand flexibility for domestic consumers and electric vehicles. The government/Ofgem review of code governance is welcome but it is important that it tackles the issues identified.</p>
<b>Complete?</b>	<b>No.</b>

- DECC should make future changes to the capacity market to reduce the costs and barriers to entry for demand flexibility.

<b>February 2018 position</b>	The Commission welcomes initial steps to place storage and demand flexibility on a level playing field in the capacity market. Government and Ofgem should continue to engage with industry representatives to enable these technologies to participate fully in the capacity market, reducing costs and removing any emerging barriers to entry for demand flexibility.
<b>Progress over last year</b>	<p>A call for evidence was launched by government in August 2018 on the Capacity Market and Emissions Performance Standard Review. This includes questions which explore whether more can be done to facilitate participation of smart technologies such as DSR in the capacity market.</p> <p>Ofgem has also formally approved proposals for asset reallocation in the capacity market put forward by the DSR sector, although the changes have not yet been implemented.</p> <p>The European Court of Justice ruled in November 2018 that the European Commission had failed to launch a proper investigation into the UK's capacity market when it cleared the scheme for state aid approval in 2014, rendering the capacity market unlawful for a 'standstill period' while ministers seek state aid approval from the European Commission.</p>
<b>Current position</b>	The Commission urges government to consider how it can further facilitate the entry of demand flexibility and storage technologies into the capacity market as part of its review.
<b>Complete?</b>	<b>No.</b>

- DECC, Ofgem and National Grid should ensure that large users and opinion formers are aware of the money saving opportunities that demand flexibility can offer and encourage more industrial and commercial consumers to take part.

<b>February 2018 position</b>	<p>The Smart Systems and Flexibility Plan acknowledged barriers to increasing the uptake of demand flexibility; and government and Ofgem have continued to support the Power Responsive campaign which aims to increase participation of large non-domestic consumers in DSR. Ongoing work is expected to remove barriers to participation by providing greater access to smart solutions and distributed resources.</p> <p>Since the programme began in 2015, total spend on demand flexibility has increased from £46 million in 2015/16 (16 per cent of the total spend on balancing services) to over £53 million in 2016/17 (20 per cent); in the last six months demand side flexibility providers have made up 43 per cent of accepted tenders in firm frequency response (a rapid acting service to balance the electricity system).</p>
<b>Progress since AMR 1</b>	Government has continued to engage with the Power Responsive campaign, which is now also considering domestic DSR and electric vehicle charging.
<b>Current position</b>	The Commission welcomes the progress made by the Power Responsive campaign in raising awareness of DSR opportunities and government's engagement with it.
<b>Complete?</b>	<b>Yes.</b>

- Pilots focusing on business models which make demand flexibility easy and attractive to consumers should be established and fully evaluated. Government should demonstrate best practice by investigating the scope for demand flexibility on its estate.

<b>February 2018 position</b>	<p>Government has launched innovation competitions, including a £8.8 million competition for non-domestic smart energy management; a £7.5 million competition for innovative non-domestic demand side response; and a £7.75 million competition for domestic demand side response.</p> <p>Further opportunities should be taken to demonstrate best practice in government estates. The publication of a revised national framework by the Crown Commercial Service in June 2017, advising public sector consumers how to access demand flexibility, is a welcome first step, but further action to pilot measures and business models to promote demand flexibility is encouraged.</p>
<b>Progress over last year</b>	<p>Progress has been made on many of the government's competitions launched in 2017, and further innovation competitions in this area have been launched since:</p> <ul style="list-style-type: none"> <li>● Feasibility studies have concluded for the £7.75 million competition for innovative domestic applications of DSR technologies and business models, and projects have been selected to continue to a demonstration phase.</li> <li>● Demonstration projects are underway funded by the £7.6 million competition for innovative demonstrations of DSR technologies in UK businesses or public sector.</li> <li>● Projects under the government's £30 million vehicle-to-grid (V2G) competition are now underway. These projects are focused on the development of future electric V2G products, services and knowledge.</li> <li>● The government has launched the Modern Energy Partners pilot project which explores novel ways, including demand flexibility, on-site renewables and improved energy efficiency, to drive more ambitious efforts to drive down consumption and emissions across the public-sector estate.</li> </ul> <p>Power Responsive's Annual Report 2017 suggests that 12 per cent of participation in demand flexibility comes from public sector services.</p>
<b>Current position</b>	<p>The government's commitment to funding innovation in this area, alongside the Crown Commercial Service's framework for tendering demand side response services and the figures on demand flexibility participation from the public sector, are encouraging.</p>
<b>Complete?</b>	<b>Yes.</b>

## Ancillary services

**Recommendation 4: The System Operator must create new markets that will allow open competition for the services it procures and ensure it keeps pace with the network it oversees.**

- **The creation of an entirely independent System Operator should not be treated as an immediate priority but should be kept under review in light of progress towards strengthening National Grid's independence.**

<b>February 2018 position</b>	<p>In January 2017 Ofgem, the government and National Grid issued a joint statement setting out intentions to create greater independence for the electricity system operator, and Ofgem published a consultation on future arrangements.</p> <p>Ofgem has confirmed that National Grid should proceed with plans to set up a new legally separate company to carry out its electricity system operator function, which should be fully operational by April 2019. This requires that the new company will have its own licence, separate staff and offices to other National Grid electricity subsidiary companies.</p> <p>The Commission recognises the continued priority government has given to strengthening the independence of the System Operator.</p>
<b>Progress over last year</b>	Plans to create an operationally independent system operator have continued to progress at pace, and are on track for April 2019. National Grid commenced separation activities in autumn 2018.
<b>Current position</b>	It will be important that Ofgem continue to monitor the Electricity System Operator's (ESO) performance.
<b>Complete?</b>	<b>Yes.</b>
	<ul style="list-style-type: none"> <li>● <b>Ofgem should consider how it encourages the System Operator to develop new markets to provide ancillary services which allow new technologies to participate more easily. The long term goal must be for a more strategic and transparent approach to the procurement of ancillary services and more cost reflective charging.</b></li> </ul>
<b>February 2018 position</b>	<p>The Commission acknowledges the early steps being taken by the System Operator to allow storage and demand flexibility to compete more easily in the ancillary services it procures. It will be important that the government and Ofgem continuously monitor the current approach to ensure that any remaining barriers in the market for ancillary services, particularly from new entrants and new technologies, are swiftly removed.</p>



<b>Progress over last year</b>	<p>The Electricity System Operator (ESO) has published roadmaps on access to the balancing mechanism, restoration, reactive power, frequency response and reserve. The ESO committed in its Product Roadmap for Frequency Response and Reserve to carry out a series of actions to create balancing services products that allow all providers to participate in markets. Key actions highlighted for 2018 were:</p> <ul style="list-style-type: none"> <li>● Standardising existing products to deliver greater transparency – Product Roadmaps set out practical steps towards simplification of services.</li> <li>● Delivering a trial of closer to real-time procurement using a pay as clear mechanism to test how to better optimise the procurement of the ESO’s needs in the future, and optimise the use of all assets on the system. In the Roadmap, the ESO proposed to start this trial in December 2018, but a subsequent letter setting out details of the auction design has pushed this back to June 2019.</li> </ul> <p>Forthcoming progress in this space includes:</p> <ul style="list-style-type: none"> <li>● Moving to an Ancillary Services Dispatch Platform (ASDP) to dispatch ancillary services (used in July 2018 already), which should be better and faster.</li> <li>● Reviewing contracts and clauses to remove barriers to entry, including by enabling stacking of value across different markets (balancing and ancillary services).</li> </ul> <p>Ofgem published a regulatory and incentives framework for the Electricity System Operator which will take a principles based approach to regulating the ESO. It will assess progress of the ESO against delivery of measures in its roadmaps following the ESO’s midyear review, held in November 2018. It has also launched two reviews of network charging. The Targeted Charging Review consultation aims to ensure that distortions to forward looking charges caused by levying residual charges are reduced and that residual charges are shared fairly. At the end of 2018 a significant code review on Access and Forward Looking Charges was also launched, which aims to make network charges more cost reflective.</p>
<b>Current position</b>	<p>The roadmaps published by the ESO are helping to provide clarity, but changes to timescales and deliverables can impact business plans and investment cases. The ESO should ensure no further delays to the timescales for carrying out steps in its product roadmaps, and aim to accelerate these timescales if feasible. The Commission welcomes Ofgem’s commitment to review the delivery of this work and the progress made on cost reflective charging.</p>
<b>Complete?</b>	<b>No.</b>

## Local networks

**Recommendation 5: Enabling the transition to more actively managed local networks should be a government priority. By Spring 2017 DECC and Ofgem should consult and set out how and under what timeframe this transition should best take place.**

**AMR 1  
(Feb 2018)**

The Smart Systems and Flexibility Plan noted that DNOs must make more efficient use of new technologies, providers and solutions to evolve to distribution system operators (DSOs). It is critical that DSOs, transmission owners (TOs) and the System Operator (SO) develop timely and appropriate reforms to the way they plan, operate and engage with one another and customers, to manage the networks more efficiently and minimise costs.

The Commission welcomes recent work carried out by the Energy Networks Association (ENA) to understand steps involved in the transition from DNOs to DSOs. It is important that short term measures identified in the ENA's DSO Transition Roadmap are taken forward. The government and Ofgem should continue to monitor the work of the ENA to ensure that the overall approach is as efficient as possible for consumers and effective for the wider energy system.

**Progress over  
last year**

In its progress update to the Smart Systems and Flexibility Plan, the government and Ofgem reiterated their expectation that DNOs will continue to develop appropriate reforms to the way they plan, operate and engage with others to evolve to Distribution System Operators.

The following progress has been made:

- DNOs have committed to opening up network requirements to the market on a business as usual basis and to address potential and perceived conflicts of interest that may arise as a result from them being procurers of network services and potential providers of network solutions. Around 270 MW of compensated flexibility services had already been procured as of summer 2018.
- The ENA has consulted on five 'Future Worlds' that could underpin a more flexible energy system, and commissioned an impact assessment of these different worlds. The ENA plans to consult on these once published.

The government has also committed to legislating where necessary to open up new network requirements to competition.

The government and Ofgem have also launched the industry led Energy Data Taskforce, which aims to develop a set of recommendations for how industry and the public sector can work together to facilitate greater competition, innovation and markets in the energy sector through improving data availability and transparency. Better and more available data will be a key enabler of more actively managed networks.

<p><b>Current position</b></p>	<p>Although DNOs have made significant progress, this transition is crucial to enabling a smarter system and government should look at whether more can be done, faster:</p> <ul style="list-style-type: none"> <li>● DNOs should now focus on implementing their commitments on tendering flexibility in the short term.</li> <li>● DNOs are both specifying network requirements and running the market, which could lead to conflicts of interest. Some DNOs have started to address this by ringfencing parts of the business or independently auditing the decisions taken. But greater clarity on how conflicts of interest will be addressed is required from all DNOs.</li> </ul> <p>The Commission agrees with the principle of putting the DNOs, who know the most about the networks, in charge of designing the transition. However, government and Ofgem need to retain oversight of this process and set a deadline for completion, and provide support to DNOs in delivering it. The government should also push DNOs to be more ambitious on short term commitments to tendering flexibility.</p> <p>Conflicts of interest also need to be addressed. A lot can be learned from National Grid's transition to a more independent Electricity System Operator. Network and system operators should ensure that they share learning and best practice about how they are managing conflicts of interest in the Open Networks forum.</p>
<p><b>Complete?</b></p>	<p><b>No.</b></p>

## Long term network planning

**Recommendation 6:** Where upgrades to our networks are needed, Ofgem should continue its work in encouraging network companies to make long term strategic decisions.

While this does increase the risk of stranded assets, the Commission believes that if there is a potential net gain to future consumers then this approach may be justified. If network owners are not best placed to manage this risk they should work with third parties to help facilitate these investments.

<p><b>AMR 1 (Feb 2018)</b></p>	<p>The Commission welcomes steps taken by network companies to improve forecasting and planning, encourages them to continue working closely together to facilitate timely electricity connections for future consumers. Ofgem and the government should continue to support a programme of trials to ensure future customers can get connected as efficiently as possible and that costs are allocated to the right party, to the benefit of the overall system.</p>
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<b>Progress over last year</b>	<p>In December 2018, Ofgem published its consultation on Licence Conditions and Guidance for network operators to support an efficient, coordinated, and economical Whole System, seeking views on whether specific guidance in any area, and in particular in relation to efficient connections and constraints management (eg preparedness for electric vehicles) would be beneficial.</p> <p>Ofgem’s RIIO ED1 mid period review concluded that current arrangements will allow for adequate investment in networks until 2023, The Commission believes that this represents a missed opportunity, particularly with respect to facilitating a rapid uptake of electric vehicles. The government should work with Ofgem to ensure that a proactive approach is taken to prepare for future reinforcement including that anticipated for charging points; electricity networks should however continue to work with charge point providers (and all other connection parties) to identify likely future reinforcements needs and investment required to facilitate this.</p> <p>In November 2018, Ofgem published its decisions on the 2018 Gas and Electricity Network Innovation Competitions where it outlined its decision to provide full funding to two EV projects (Charge and Optimise Prime) subject to conditions. These innovation trials will provide data that can assist DNOs with their forecasting and planning in order to make efficient and economic investment decisions.</p>
<b>Current position</b>	<p>In the National Infrastructure Assessment, published in July 2018, the Commission considered steps needed to support the take up of electric vehicles. The Commission recognises that new charge point connections might trigger the need for network reinforcement, and that this should not be a barrier to charge point roll out, especially given the benefits of electric vehicles to the electricity system. Reinforcement should be pursued once market based solutions have been ruled out to deliver adequate energy.</p> <p>The Commission therefore recommended that Ofgem commissions electricity network operators to work with charge point providers to facilitate these market based solutions, and identify potential investments required to accommodate public charging infrastructure. Ofgem’s focus in this space should be to encourage network companies to identify opportunities for investment within the current price control period by Summer 2019.</p>
<b>Complete?</b>	<b>No.</b>