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Acceleration Unit is go – but where, exactly, is it going?

The Government has appointed a team of specialists to help speed up transport projects, but the building element is only part of the story, reports **Beate Kubitz**



ABOUT THE AUTHOR

Beate Kubitz is a writer, researcher and consultant in new mobility. She is the author of the *Annual Survey of Mobility as a Service in the UK*, as well as reports on car clubs, bike-share, open data and transport innovation. She is director of policy and communications for TravelSpirit and previously worked for CoMoUK.

In August, Transport Secretary Grant Shapps announced the launch of an 'Acceleration Unit' to speed up delivery of transport projects.

It will be headed by former Campaign for Better Transport chief executive and consumer champion Darren Shirley leading a new team of non-government specialists to drive progress on key projects.

The team will join the Department for Transport (DfT) to tackle delays to infrastructure projects and add impetus to improvements for passengers.

The unit is launched as the Treasury and DfT has announced waves of investment in transport projects across road, rail, active travel and buses in anticipation that it will ensure rapid implementation of plans. It was inspired by the successful completion of the £1.5 billion A14 upgrade between Cambridge and Huntingdon – which was not only delivered on budget, but eight months ahead of schedule.

To build on this success, it will engage experts with significant experience in delivering infrastructure projects including Highways England's director of complex

infrastructure projects Chris Taylor, who oversaw construction of the A14.

At the same time, the unit is expected to have a role in driving decarbonisation.

Darren Shirley says: "I am delighted to take on this important new role, bringing a fresh perspective and external advice to accelerate the delivery of key infrastructure projects and programmes.

"The breadth and depth of expertise in my new team will stand us in a good stead as we look to deliver the schemes that will help the country to rebuild faster through decarbonising the transport system and levelling up Britain as we emerge from the coronavirus crisis."

The idea is that the Acceleration Unit will deliver Government priorities more quickly. It will be directly accountable to the Transport Secretary Shapps, who says: "We want to accelerate Britain's recovery by investing in vital infrastructure that will help get businesses back on their feet, create jobs to replace those that have been lost and level up our country. The creation of the Acceleration Unit and investment in our roads and railways will ensure we build back better, greener and faster."

£1.5 billion
spent on the
A14 upgrade

IS THERE ANY SUCH THING AS INSTANT IMPLEMENTATION?

The idea behind the unit is to speed up the delivery of a number of projects and investments that will contribute to post-Covid recovery. Alongside the Acceleration Unit, funding was announced for several rail projects while Highways England launched its Strategic Business Plan and Delivery Plan, which set out the implementation of RIS2, the Government's strategy to improve England's road network.

The funding announcement indicated specific projects which potentially could benefit from acceleration:

- Railways in Wales will receive £343 million of investment to deliver better, faster, more reliable journeys for passengers. This includes kickstarting design work to upgrade Cardiff Central station and funding to develop plans for upgraded digital signalling on the 150-mile Cambrian line from Shrewsbury Sutton Bridge Junction to Aberystwyth and Pwllheli. There are also proposals to speed up journeys between Cardiff and Swansea, Chester and Llandudno Junction, and the Severn Tunnel and Cardiff.
- £1.1m for Network Rail to develop short-term plans to relieve overcrowding at London's Liverpool Street station.
- Funding to complete the £6.4m scheme to build a new second footbridge serving all four platforms at St Albans City station, easing congestion and addressing safety issues at an increasingly busy station with work due to start early 2021 and be complete by January 2022.
- £4m to develop the design phase for gauge enhancement and track improvements for freight trains on Great Western, Midland Main Lines and at

► Darlington to allow longer intermodal freight trains to operate from Teesport to Yorkshire.

• £9.74m for signalling and infrastructure enhancements delivered on the Wessex route at Twickenham, Bracknell and Virginia Water as part of the Feltham and Wokingham signalling renewal programme, which will help improve the reliability and flexibility of services starting from Easter 2021.

These plans are, however, dwarfed by the £27 billion plans contained in the Roads Investment Strategy 2 (RIS2), including Highways England's Strategic Business Plan and Delivery Plan, both for 2020-2025, which set out the schedule for road upgrades and schemes in England which the Government will be funding over the next five years.

When it comes to delays, this could also be the element which resists acceleration – not because of engineering issues, but because greater priorities have emerged which potentially conflict with the plans as they have been announced.

In this context, it is opportune to look at the A14 upgrade in more detail. It is held up as a road infrastructure project that

went right – a major infrastructure project delivered on budget with works completed eight months ahead of schedule.

With a price tag of £1.5bn, the A14 Cambridge to Huntingdon improvement scheme was neither simple, nor cheap. It included a major new bypass to the south of Huntingdon and a 750m viaduct across the river Great Ouse and the East Coast main line. In addition, it upgraded 21 miles of the A14, including widening some existing sections, improving junctions and widening the connecting section of the A1 between Brampton and Alconbury. Local access roads between Huntingdon and Cambridge were included.

Work officially started in November 2016 and the new road opened to traffic on Tuesday May 5, 2020. The project opening early is attributed to efficient and innovative construction techniques such as trialling autonomous dumper trucks, 3D modelling and using pre-fabrication yards to build structures off-

site and wheeling them into place when ready.

Detailed planning and sometimes complex engineering solutions and smart construction sequences were required to ensure that construction minimised impact on the rest of the network – road and rail.

The East Coast Mainline is one of the UK's busiest rail arteries, meaning that the bridge work could only be undertaken in very short windows – and agreement from Network Rail amounted to construction slots of 2am to 6am over the course of five weekends. Five pairs of 40m long girders were built and, in the event, took only three weekends to install. At Bar Hill Junction, installing bridges one component at a time by crane would

have led to longer traffic disruptions. Instead, both bridge decks were assembled off-site and then transported to the area for installation. The twin bridges were assembled and installed in little more than 11 hours, resulting in just one weekend of closure [1].

In addition, a purpose-built plant manufactured 730,000 tonnes of asphalt and 550,000 tonnes



We want to accelerate Britain's recovery by investing in vital infrastructure that will help get businesses back on their feet, create jobs to replace those that have been lost and level up our country

GRANT SHAPPS
TRANSPORT SECRETARY

of low carbon cement bound granular mixture on site. The aggregate for the operation was delivered by rail and the on-site plant to manufacture the asphalt meant that all deliveries were made on-site reducing the number of lorry trips needed on the strategic road network [2].

While the build aspects of the A14 upgrade were indeed ahead of schedule, a trawl through the history of the project, indicates that the project was in the pipeline for more than 20 years. Years of consultations (1998 to 2010) were put on hold when funding was withdrawn. For a year (between 2012-13), the scheme was under discussion as a tolled scheme. It was only between 2013 and 2014 that proposals became more concrete through a process of consultation between the (then) Highways Agency and local stakeholders.

This process meant the Highways Agency conducted an initial public consultation exercise in September and October 2013, followed by non-statutory pre-application consultation with stakeholders. These consultations with stakeholders included formal consultations from late 2013 through to late 2014 with the four councils affected (Cambridgeshire County Council, Huntingdonshire District Council, South Cambridgeshire District Council and Cambridge City Council), and stakeholders including the Environment Agency, Natural England, English Heritage plus 'non-motorised' road users from Sustrans, the Confederation of Passenger Transport and the local Ramblers Association.

At this point, in December 2014, the first Road Investment Strategy (RIS1) set out the funding and schemes to improve the strategic road network (SRN) over the following five-year period (2015-2020).

The list of schemes in RIS1 included the A14, providing a stable funding and investment framework and enabling better long-term planning.

After this point, statutory public consultation accelerated, engaging with landown-

ers and the public through 31 separate public consultation exhibitions and two web-chats between April and June 2014. There were over 1,400 responses through the planning process, and changes to the scheme design were made as a result of both statutory consultation and non-statutory engagement activity [3].

This process ended with councils recommending approval in July 2014, some further work on the environmental statement in October 2014 and the Highways Agency submitting its planning application in December 2014 [4].

Once the application was made, while the groundwork laid proved solid, the timeline between the application being made and consent being granted in May 2016 was still packed with public information, hearings, objections to compulsory acquisition and other additional information. It was nearly 18 months until the decision to proceed could be made by the Secretary of State [5]. Works started six months later.

PLAN SLOWLY AND WORK QUICKLY?

For all the work engineers do to speed up construction processes, this element is a relatively small part of the process, which is dependent on a much less visible base of national policy and investment strategy, as well as local consultation, information gathering, governance and legal due process.

The groundwork that goes into a major infrastructure project and consultation operates on many levels from individuals, landowners through to local and regional government – and even when it works in a reasonably slick way, it's still a matter of years to complete.

It's clear the A14 planning process really changed gear once the RIS was in place. The RIS process provided better long-term planning, stability and greater ►



SOURCES

[1] tinyurl.com/y2z4upkl

[2] tinyurl.com/y3axhz8

[3] tinyurl.com/y34ynw8h

[4] tinyurl.com/yxal5f5x

[5] tinyurl.com/ho6soy7

► certainty for investment and delivery in the Strategic Road Network.

However, there are likely to be more headwinds for the second generation of the RIS process. As decarbonisation has become increasingly urgent, providing a stable five-year plan may not be sufficient to guarantee that plans move forward.

RIS2 is subject to legal challenge by the Transport Action Network, which was granted the right to present its case for judicial review by the High Court. This is a similar process to that successfully engaged by campaigners against the third runway at Heathrow (for which proposals have been under discussion since the 1990s before being ruled unlawful in February 2020).

Transport campaigners argue that RIS2 was published without considering the Net Zero target for greenhouse gas emissions by 2050 adopted by the Government or the UN Paris Agreement on climate change of December 2015 to which the UK is a signatory.

While the DfT asserts it is 'impossible' that the UK's largest-ever roads plan could hinder tackling climate change, Transport for Quality of Life produced a study [6] that found that 80% of the carbon savings from switching to electric vehicles would be

wiped out by the road building plans [7].

In an interview with Local Transport Today, Chris Todd, director of the Transport Action Network, said: "Climate change is the elephant in the room when it comes to transport."

"It is the one area consistently ignored by the Department for Transport as it suggests that the increase in emissions that arises from new roads and the traffic they generate is so insignificant it can be covered by other measures. Unfortunately, the evidence is showing this to be wrong."

Given that the DfT is currently consulting on its Transport Decarbonisation Plan it is entirely possible that, while the court case rumbles on, the evidence presented in the course of the consultation process may require the plans to be reshaped in any case – before they can be accelerated at all.

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CHRIS TODD, TRANSPORT ACTION NETWORK

SOURCES

[6] tinyurl.com/yd57x4bo

[7] tinyurl.com/yxaojha8

Any change to the decarbonisation agenda has the potential to change decision-making about projects. For rail freight, the business case for infrastructure improvements has been built on the basis of valuing the impact on road congestion (passenger journey time savings) much more highly than the contribution to decarbonisation (by something of the order of 9:1). Business cases that attribute so little value to carbon reduction are increasingly coming under fire and are open to challenge given the Government's legal obligations.

As policy is being reshaped so projects meet the Government's commitments to decarbonisation, a question must surely be asked about which projects should be accelerated most urgently. If the decarbonisation agenda is to be met, surely rail and active travel should be top of the list.

RAIL

For rail, there seems to be much that the industry can learn from the A14 process – although perhaps more about creating effective consultations, planning, governance, project specification and working with good information rather than the purely the construction techniques.

Rail freight is already one of the elements that speeds up and reduces the impact of large construction projects – taking the pressure of delivering materials off the road network and reducing congestion and emissions.

Maggie Simpson, director general, Rail Freight Group, says: "In rail, we really do need stakeholder management to be on point and to engage experts in planning processes to ensure that there's public consultation early on so projects proceed more smoothly."

"We also need holistic approaches in developing schemes – passenger rail and rail freight can be put into conflict when they are both driving down carbon use. This is where project specification is really important."

One of the projects that would almost certainly benefit national decarbonisation and should be considered for acceleration is the

Trans Pennine route upgrade. However, this specification didn't include rail freight capacity. Plans for electrification of the line have been included and then cut out.

"In part, project specifications have to change as information changes. Originally, CO₂ targets weren't legally binding, but they now are. So, it's probably right to re-examine projects in the light of this. However, sometimes elements are changed because of cost aversion rather than efficiency, which is frustrating," says Simpson.

There are also a host of smaller measures that could be accelerated through smarter working practices.

Lack of good information can really slow down projects. Poor asset knowledge will really cause delay whether it's getting to an area and finding that infrastructure is different or in a different condition than expected or the realisation that some complication up-country will have an unexpected impact on works (or even mean that they don't provide the expected service improvement). Rail infrastructure is still not well digitalised and a lot of information and process are paper-based.

"Sometimes it's just good admin that could improve efficiency," says Simpson. "In the past month, we've found three areas

80%

of the carbon savings from switching to EVs would be wiped out by road building plans, says Transport for Quality of Life

where freight trains were required to run at reduced speed because the lines needed work such as bridge renewals. However, on investigation, the work itself had been completed but the paperwork had not been updated so trains were still running at reduced speed with all the operational and carbon cost that implied."

ACTIVE TRAVEL INFRASTRUCTURE?

While there is great emphasis on large scale infrastructure projects, the quickest wins for decarbonisation are surely in the construction of better active travel infrastructure. Systematically reviewing the construction of pedestrian routes (pavements and footpaths) and cycleways and ensuring they can be constructed rapidly to meet today's standards (e.g. for wheelchairs access and the new Government cycle facility design standards in the recently published Gear Change report) could enable a step change in active travel infrastructure.

Sustrans published a Review of the National Cycle Network in November 2018 which found that only 54% of the network was fit for purpose. The Accelerator Unit could speed up bringing the network up to standard (suitable for a 12-year-old to cycle unaccompanied) by carrying out the recommendations in the review.

This included the removal or redesign of 16,000 barriers on the network, doubling the number of paths away from cars, improving safety at junctions where the network crosses roads and railways, improving signage and adopting a new quality standard for paths to bring surfaces into line.

In addition, there are a few more challenging engineering projects which could benefit (see alongside).

Accelerating a project is only as valuable as the project is – putting your foot to the floor on the road to nowhere only gets you nowhere fast. Likewise, we need to be judicious in the projects we choose to speed up to achieve the unit's decarbonisation agenda more quickly. [ST](#)

The Queensbury Tunnel

The Queensbury Tunnel between Bradford and Halifax in West Yorkshire is an abandoned railway tunnel which is currently unused with plans made to partially infill it. Meanwhile campaigners – backed by cycling, environmental and heritage groups, and the neighbouring local authorities – want to see the 1.4-mile long Victorian structure repaired to form part of a greenway connecting two of Yorkshire's biggest populations.

Delivering this link would create an active travel corridor in an area that embraces cycling despite the weather (and the hills) and enable a much wider group to enjoy walking, cycling and wheelchair-accessible travel.

There are several challenges which would need to be overcome to put this heritage structure back into commission. However, with the A14 experience to point to, they are not insurmountable.



PHOTO CREDIT: FOURBYTHREE

HS2 cycle link

A cycleway alongside HS2 was part of the vision for the project, and would deliver health, congestion and economic benefits of between £3 and £8 per £1 spent.

The Accelerator Unit could find economies and efficiencies to ensure that the opportunity to create a relatively low-cost national north-south cycleway and connect the communities linking those on the HS2 corridor is not missed.



PHOTO CREDIT: RAIL MAGAZINE.COM

Britain's lost cycleways

Between 1937 and 1940 the Ministry of Transport only gave grants to local authorities for arterial road schemes if they included nine-foot-wide cycleways both sides of the road. More than 300 miles of these cycleways were built during this time.

According to research by author Carlton Reid and transport planner John Dales some of these cycleways still exist (but are believed, wrongly, to be 'service roads'); others have been grassed over (but their concrete surfaces probably remain). Many are not marked on maps as cycleways (or considered to be such by local authorities).

Bringing these lost cycleways back into service would rapidly expand cycle infrastructure in the UK and help provide arterial cycle ways connecting towns and cities.

Reinstalling them without interrupting service on the arterial roads they follow would be an appropriate application of learning from the A14.



PHOTO CREDIT: CARLTON REID

TURN OVER FOR THE PEER REVIEWS