

## South West Infrastructure Partnership

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### **Response to Consultation: Covid-19 and the new normal for infrastructure systems – Green Paper**

This response has been prepared on behalf of the South West Infrastructure Partnership (SWIP). SWIP was established in 2017 and has brought senior members of the civil engineering profession and key stakeholders together to discuss the issues that each sector was facing and assessing what lessons or experiences could be learned from other sectors. This response has been prepared and circulated to our steering group for their inputs. Because of the short time frame, not all steering group members have been able to respond so this consultation response as it stands should be considered as representative rather than the collective view of SWIP.

#### **Question 1: What other factors, or combination of factors, will determine attitudes to public life as we transition to a new normal?**

SWIP held two decarbonisation workshops in Truro and Bristol in early 2020, attended by more than 120 people. At this point, it was pre-pandemic and the associated consequences unsighted, yet individual responses observed during the workshop were informative. At that point in time, there was strong support for a modal shift to public transport and active cycling, a reduction in air travel and progressive investment into further low carbon infrastructure particularly for buildings and electric car charging amongst others.

However, when tested, there were contradictions between desired behaviours at a societal level and impacts on the individual. For example, the airline Flybe was under scrutiny and there was some debate about whether Government should continue to support a failing high carbon commercial enterprise on the basis of connectivity to other regions of the UK or whether it should allow the business to fail as decarbonisation requires air travel to reduce significantly. Those who used Flybe, even though they were strong supporters of decarbonisation, nevertheless wished to see the company continue in operation due to the lack of economic and practical regional transport alternatives. When pressed, the argument centred on an economic one of low ticket fares and time taken compared with rail and length of journey. The views expressed were also framed in a “business as usual” manner or “this is how we have to operate – clients expect to meet people face to face which allows more effective discussion and trust building”. The other issues are the relative expense of rail travel compared with domestic air travel, with Flybe customers saying they couldn’t believe how cheap tickets were and how they would willingly pay more.

The lessons to be learned from this in a post Covid situation are:

- i) There is a distinction between what is desirable and what is essential – the new normal has been redefined in the work context. It will have to, by necessity, focus more on essential elements balanced against expectations (for example use of broadband rather than physical travel to connect with clients or customers);
- ii) That major events (whether it be the failure of a domestic airline or the requirement to socially distance) can change people’s behaviours;
- iii) A difference sometimes exists between what society is increasingly being encouraged to do (travel only using low carbon modes) and the economic and temporal choices faced by individuals’ to meet their specific needs;

- iv) That public and commercial enterprises have to operate with spare capacity and their economic models should be developed accordingly – for example, the NHS, public transport, supply chains.

In a post Covid-19 new normal, there is a reduction in the use of public transport, certainly in the shorter term, as policy prioritises key workers. Over time, as exemplified by the Asian experiences following the avian and swine flu epidemics, passenger numbers return – but whether this will be true of a post Covid-19 pandemic is uncertain because of the different nature of the virus. Policy, as well as public information and knowledge, have a role here. If people believe there is a risk of contagion, they will use their own risk assessment to determine their travel patterns and may well choose to work from home rather than commute – indeed, many have experienced the efficiencies of working from home in terms of flexibility, lack of interruption and more free time. Equally, it should be said that many struggle to work from home seeing it as a refuge from work pressures.

A further factor, implied in the examples above, is the availability of services (and any restrictions) to the public which can influence their decisions. For example, the availability of cheap holidays abroad can encourage air travel, the thought of standing in a socially distanced queue may persuade people to shop more online.

The balance between state policy and the desire of the state to allow people relative freedom to choose is difficult. An opportunity does exist to incentivise desired behaviours (for example more cycling and walking ) and penalise less desired behaviours (eg less air travel). The new normal seeks to use the Covid-19 “pause” to reset how we achieve net zero by 2050 and rebuild an economy that is aligned with that long term objective.

**Question 2: What other systemic changes, driven by lessons learned during the lockdown period, can we expect to be important as part of the new normal?**

As set out above, increased home working, creation of surplus capacity (and associated business models to support this), the importance of transparency in decision making and the data on which it is based, repurposing of streets to incentivise safer modes of travel such as walking and cycling, and the use of disincentives to ensure that less desirable travel modes are discouraged. The co-benefits of reduced road and air travel during Covid-19 have substantially improved air quality and the natural environment – a new normal should seek to retain these benefits and the associated health benefits they bring. There is also the issue of how we re-purpose the commercial areas of towns and cities with the possibility that the demand on office space and shops reduces leaving unused or under utilised buildings.

Many people have gained new skills during the pandemic. As an example, we have become more familiar and confident in the use of video conferencing technology and seen efficiencies in productivity that result from better use of our time that would otherwise be spent travelling to meetings. This is likely to change our behaviours longer term, as we embrace virtual meetings and the behaviours needed of us as attendees.

This reliance on digital infrastructure is likely to increase, particularly if the economy can be revived through further investment in broadband, intelligent systems and real-time communication systems. In the South West, various councils are trialling public transport information infrastructure. Such systems can, for example, show how busy a service is, to enable people to wait for the next service. However, this doesn't work as well in a rural context where service frequency is more limited. There

are also fewer options available for rural areas so it is important that policy is driven by local demand and requirements, not based solely on urban practice.

A further issue is flexibility. Most of our infrastructure has a demand profile that changes through the day resulting in inefficient use of the assets / resources and a reduction in capacity. Moving to a more flexible society where the demand profile is redistributed, for example through change of opening hours, use of school facilities over a longer proportion of the day by having two shifts, and greater use of support mechanisms would improve this compared with the old normal.

In the South West, where the infrastructure already has to cope with increased demand during the summer months, there is likely to be a further increase in tourists (estimated by some organisations at 15%) as people choose to holiday in the UK than abroad following the Covid-19 outbreak. This will place additional pressure on existing infrastructure connecting to and serving the South West.

Citizens' responses to Covid-19 are conditioned by their many varied personal circumstances. This diversity must be understood and accounted for in effective and efficient infrastructure provision. Blanket solutions are likely to be ineffective or counterproductive if they neglect this diversity. Infrastructure practitioners therefore need a deeper understanding of the causal interdependencies between these psycho-sociological factors and infrastructure services that help shape and must respond to them. Through its academic partners, SWIP is uniquely placed to conduct a long term longitudinal study of Covid-19 impacts and behaviour changes, and their causal drivers, across the South West. This could reveal valuable general insights and models that translate to other regions.

### **Question 3: Are our assumptions of the new priorities for infrastructure correct?**

We agree in part with the key assumption that the principle of infrastructure as a system of systems to support human prosperity will be fundamental to how we design and deliver infrastructure as part of the new normal. However, such growth objectives need to be balanced with environmental and social values. Our workshops strongly supported the notion that infrastructure was there to meet societal needs. We would therefore suggest that the principle is rephrased to replace “human prosperity” with “sustainable development”.

The primary infrastructure priorities outlined in the Green paper make sense in this context and also in terms of making most effective use of existing resources.

The assumption that the public and the private sector will play a significant role in financing infrastructure directly in the medium term is also true but it will be interesting to see the extent to which the split between public and private investment will change. We agree that such financing requirements will need to be packaged in such a way as to make them attractive and less risky for investment but would also highlight that clear and forward looking public sector policy will be critical in sending market signals to encourage private sector investment – infrastructure investors prior to Covid-19 were increasingly looking to invest in low carbon opportunities and it is important that this is amplified in a post Covid-19 new normal so that any economic stimulus is aligned with what is required in the longer term and not just a knee-jerk reaction to accelerating economic growth at any (environmental and carbon) cost.

**Question 4: What other changes to infrastructure provision will be needed and what assumptions sit behind that need?**

To avoid an increase in car use for commuting and the associated congestion and air quality impacts, bus and rail will have to consider what changes they need to make to allow safe travel in the short term and whether these have advantage in the long term (for example to improve traveller confidence in using rail without being at risk). Compartmentalisation of rail carriages may prove worthwhile in accelerating confidence in the travelling public. It is difficult to envisage such measures being applied within aircraft or rapid transit systems with their greater density of passengers so monitoring of passenger confidence in reusing these travel modes will be important (and inform whether compartments will be warranted in heavy rail).

Hong Kong uses travellators for transporting people in addition to its other transport modes. It is possible that a network of travellators could be utilised in cities in the UK to allow mass movement of people whilst socially distancing – this would allow city centres to be car free and improve air quality. Buses will operate at reduced capacity to connect to city centres from park and ride sites but although each bus may be 30% full, if there were more buses running more frequently and if working and school hours were distributed more over an extended working day (ie two different school days attended by different pupils in one day, one starting early and finishing at lunch, the other starting at lunch and finishing in the evening), this could be manageable, alongside more provision for cyclists (for example dedicated cycle routes from park and ride sites).

Increased home working as well as increased automation, communication and on-line purchasing will see an even greater demand on digital infrastructure increase in terms of capacity, speed and reliability. Digital infrastructure should be seen as the 21st century transport corridor and careful consideration needs to be given as to how much value businesses can gain from it in the same way we view other infrastructure services and their economic value - and ensure all members of society can access it, irrespective of where they live or how much they can afford to pay. Digital infrastructure also plays an important part in providing resilience in the event of national emergencies as has been demonstrated during the Covid-19 “work from home if you can” instruction. The work carried out by the Connecting Devon and Somerset Programme in the last 5 years has gone a long way to ensure productivity didn’t drop even further in the recent pandemic, and so investment into fibre and 5G infrastructure should be continued into the near future.

It should be noted that our infrastructure continued to function during the crisis and enabled people and organisations to adapt quickly to the lockdown requirements without any significant issue. Transport has continued to operate delivering freight and ensuring that key workers are able to travel. The lights have stayed on, mobile and digital infrastructure has performed well, in spite of the increased demands placed on it and television and radio have all adapted. Other, more social activities have had to cease for understandable reasons but the speed with which these will recover will depend to large extent on the creativity and re-imagination of those responsible for their operation in a post pandemic world.

**Question 5: Have we made the correct assumptions on the changes in delivery that will be required, to deliver infrastructure as part of the new normal?**

As stated above, business and economic models will need to change to suit revised commercial and business requirements, particularly in terms of providing adequate head-room in terms of capacity and operational resilience. A concern at the moment is organisations releasing valuable skills through redundancy programmes driven by delays in awarding new contracts as clients focus on

their Covid-19 priorities and/or re-evaluate project requirements. Whilst this may be a short term issue, it may impact on the sector's ability to resource new infrastructure projects, particularly if those professional engineers and graduates made redundant look outside the infrastructure sector for new employment.

The assumptions in the Green Paper are, in fact, speculations based on our current worldview, which is anchored in the pre-Covid-19 era. It is vital that we learn how people's attitudes, dispositions and overall agency are actually changing (recognising that it is an ongoing process of learning leading to behaviour change) and devise modes of infrastructure provision that can adapt to their changing needs and agency.

**Question 6: What are the intermediate steps required to move us towards these new approaches to delivery?**

Rather than a review in two years, we believe the changes and trends in infrastructure requirements need to be monitored on an ongoing basis. For example, it will be important to track changes in demand of public transport, car use, home working, energy, water use, aviation, and changes to the natural environment and air quality. The "old normal" should provide the baseline against which current trends are measured. To be effective in influencing projected infrastructure requirements, the data informing the trend needs to be collected and presented in real time to allow informed and regular review of the nature and scale of the emerging trends.

It may be helpful for the Infrastructure Pipeline to be amended to include a provisional post Covid-19 risk category on the basis of function – more hospitals, for example, being lower risk in terms of future need, further road capacity being a higher risk. The next stage would be consideration of how Covid-19 could change the business case for the higher risk projects and whether the funding could or should be redirected within that sector (for example, to introduce road-user charging or to redirect funds for re-purposing roads (segregation of HGV and private vehicles for example – in a model where HGV transport may increase but private cars, in the long term, may reduce or may change to autonomous vehicles).

This early simplistic risk assessment could accelerate the rapid review referred to in the Green Paper.

An updated planning white paper is also merited to address the appropriate balance between economic, environmental and societal benefits given the appreciation people have gained of quieter cities, improved air quality and thriving bird life during the Covid-19 lockdown.

In our response to Question 2, we referred to a long term longitudinal study of Covid-19 impacts and behaviour changes, and their causal drivers, across the South West. The need for this has been identified by Professor Colin Taylor of the University of Bristol and a member of SWIP's Steering Group. Such a study would reveal valuable general insights and models that could translate to other regions.

**Question 7: What other fundamental shifts are required to deliver concrete and long-lasting change in how we operationalise to deliver infrastructure to achieve societal requirements?**

Our response to this question is embedded in our responses to the previous questions. What we have learned is that it is possible to change behaviours quickly and effectively but this requires a

drastic imperative. There needs to be clear unambiguous messaging on the purpose and objectives of such shifts and how they will benefit people on a personal level as well as at a societal level.

We need to validate our causal models that underpin these ideas of what we should do, before we do them. The South West has a unique opportunity to work out how to do this consistently across the scales.

**Peter Kydd**

Chair

South West Infrastructure Partnership

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