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Commission Secretariat
National Infrastructure Commission
Finlaison House, 15-17 Furnival Street
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By email: NIA2.CfE_Responses@nic.gov.uk

28th February 2021

Dear Sir / Madam,

UK Major Ports Group response to the 2nd National Infrastructure Assessment: Baseline Report Call for Evidence

I write on behalf of the operators of the UK's largest port operators as Chief Executive of their trade body the UK Major Ports Group ("UKMPG"). Thank you for the opportunity to contribute to the 2nd National Infrastructure Assessment: Baseline Report Call for Evidence.

Who we are

UKMPG represents the nine largest UK port operators who, via the 40 ports they run, handle three quarters of all the port volumes entering and leaving the UK and invest more than £500m of private sector capital each year in the UK's ports and surrounding coastal areas. These ports include 13 of the largest 15 ports in the UK and the largest ports in England, Scotland and Northern Ireland. Appendix A to this document shows the UKMPG members and puts them in the context of the UK ports sector.

The contribution of ports to the UK

The UK ports sector makes several essential contributions to the UK, its coastal regions and each of us as individuals:

- ***The UK's largest and most important gateways for trade with the world:*** 95% of the UK's physical trade with the world arrives or departs the nation by sea¹. As the UK's predominant global gateways with the world major ports are crucial enablers of strategic supply chains for the UK – allowing our industries to export and bringing in the food and goods that we all depend on in our daily lives. For example, virtually all of the £101 billion of international trade by the UK's automotive sector moves through our ports. Around half of the UK's food and feed needs are imported via our ports.
- ***Drivers for 'levelling-up' in coastal regions:*** Third party research² estimates that the ports industry in the UK directly contributed £9.7bn of value to the UK economy. Around 115,000 people were directly employed in ports in 2017, jobs which are 55% more productive than the UK average and often significantly better paid than local averages. And each direct job in the

¹ UK Port Freight Statistics: 2016 (Revised), Department for Transport, 2017, page 3

² "The economic contribution of the UK ports industry: A report for Maritime UK" – CEBR, September 2019

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ports sector supports around 7 in supply chains. This positive impact is largely in coastal regions all around the UK. These communities all too often suffer significant socio-economic challenges. For parliamentary constituencies in a sample of 42 port areas across the whole of the UK, the average level of the Multiple Deprivation Index is 22% higher than the UK average (a level in the bottom third of areas) and unemployment rates in port constituencies are 18% worse than non-port coastal areas. In these areas, the port sector is provider and enabler of ‘beacon’ jobs – relatively well paid, highly productive, skilled. “Levelling up” in practice.

- **Catalysts for other economic activity:** The economic effect of ports is not just in the ports themselves. It is also in the surrounding hinterlands as ports develop their broader estates and local land for productive use – logistics parks, fulfilment centres, manufacturing facilities, even film studios. The ports are anchor businesses and enablers of activities that grow jobs way in excess of the port’s historic cargo handling activities.
- **A key part of more sustainable freight:** Moving goods by water is hugely better for the environment in terms of emissions intensity than other forms of freight transport – at least 9x better than by truck and nearly 100x better than by air. Ports are investing in new generations of hybrid and fully electric equipment to improve their own operations. They are keen to work with customers and politicians to increase the pace of improvement in a way that is sustainable both environmentally and economically.

The key theme – creating the right surrounding infrastructure to unlock more private investment

The UK’s major ports sector is unique in Europe and unusual globally in being owned and operated by the private sector. It has been a hidden success story in attracting large inward investment from around the world and this is coupled with a strong ownership stake here in the UK – including 6.2 million UK pension fund members. This model has delivered around £600 million of private sector investment annually and the competition that drives choice and efficiency for customers.

The UK should be confident in the ambition of major port operators to continue to invest and develop if Government continues to develop attractive conditions for investment. The core role of Government should be in enabling and incentivising private sector investment. **An absolutely fundamental aspect of such a role is the delivery of supporting infrastructure.** Our response set out below is framed very much with that in mind – how Government can unlock private sector investment, rather than seeking direct funding or investment.

Exceptions to this broad principle are in areas where there is a very strong ‘public good’ case, but a poor or non-existent conventional business case. The obvious and most pressing example is in bridging the gap to faster and deeper sustainability improvement. Even in these situations, the Government role should be additional / marginal – enough to influence the investment case but no more.

Responses to selected Call for Evidence questions

Introduction

Question 1: Do the nine challenges identified by the Commission cover the most pressing issues that economic infrastructure will face over the next 30 years? If not, what other challenges should the Commission consider?

A cross cutting theme of supply chain resilience should be incorporated, learning the lessons of the disruption over the two years from COVID, global container flows contagion and Brexit. I.e. How to incorporate a more proactive and prominent place for freight within policy making, major

infrastructure assessment and strategic spatial planning. This includes strategic freight corridors and ensuring a competitive range of logistics modes and key nodes for business and consumers, underpinned by a level playing field of regulation. Such approach should try and do a better job of baking in more resilience, rather than trying to chase solutions in the midst of disruption, where the immediate levels are often outside UK Government control.

Question 2: What changes to funding policy help address the Commission's nine challenges and what evidence is there to support this? Your response can cover any number of the Commission's challenges.

In infrastructure sectors like ports which are successfully private sector led the primary role for Government is in providing the right enabling conditions (physical and policy / regulations) to encourage and support private sector investment. Direct Government intervention risks crowding out such private investment and wasting public money. A recent example has been the Government's intervention in the provision of the post Brexit provision of border facilities for ports – an intervention which has been expensive and potentially distortive.

Where Government funding does have a role is in helping bridge the gap in situations where it is judged that there is significant public good but where there is no viable business case (e.g. ambitious 'green' investments).

Question 4: What interactions exist between addressing the Commission's nine challenges for the next Assessment and the government's target to halt biodiversity loss by 2030 and implement biodiversity net gain? Your response can cover any number of the Commission's challenges.

There is a risk that the implementation of BNG principles, whilst admirable and progressive in theory, could in practice constrain viable investment in UK ports. As we currently understand implementation, acknowledging that some of the approaches and tools are still being development, the following are some of our particular concerns.

- The current iteration of the intertidal metric in particular generates compensatory requirements way in excess of the requirements of the current regime (e.g. multiples of up to 9.75-15x of areas of land under development), substantially reducing the deliverability of projects.
- There are question marks over the 'liquidity of the market' to deliver BNG projects both because of design choices (e.g. excluding Protected Areas from the scope, which cover a very significant proportion of the coast and estuaries already), the need for greater certainty in key project and financial aspects and some negative examples of previous UK only environmental credit schemes. We do however support the direction of travel on incorporating a 'strategic priorities' layer.
- Ports will have to deal with three different types of BNG frameworks – terrestrial, intertidal and marine. It seems possible that there will be important differences between frameworks and certainly issues with treating projects and credits holistically, limiting potential and increasing both bureaucracy and costs.

To be clear, major port operators are absolutely committed to environmental stewardship. However, we need regulatory frameworks that work with the grain of responsible investment.

Challenge 1: The digital transformation of infrastructure – the Commission will consider how the digital transformation of infrastructure could deliver higher quality, lower cost, infrastructure services.

Question 6: In which of the Commission’s sectors (outside of digital) can digital services and technologies enabled by fixed and wireless communications networks deliver the biggest benefits and how much would this cost?

From a ports perspective we can contribute most meaningful in the Transport sector within the Commission’s remit. Digital services and technologies already have a significant role in port operations and supply chain optimisation. We anticipate that this will grow exponentially as business cases are demonstrated and applications ripple along supply chains.

Digitally enabled operations are an important driver of operational productivity. Examples include the remote operation of quay cranes (Liverpool, London Gateway) and RTGs (Felixstowe). Digital innovation is also driving improvements in training and development e.g. immersive simulators at Tilbury and Bristol. Applications are also being developed, pairing digitisation with technologies such as drones, to pursue preventative / predictive maintenance (e.g. Southampton) to increase asset availability.

In supply chain optimisation ports are also playing their role. Some offer bespoke digital supply chain solutions (e.g. Where’s my Container) and optimisation products (e.g. PARIS). All major ports operate vehicle booking systems to increase the efficiency of freight movement and deploy ‘port community services’ to manage the complex interfaces and information flows between different supply chain players and government agencies.

They are, in short, inherently digital as well as physical entities with much more development to come.

Question 7: What barriers exist that are preventing the widescale adoption and application of these new digital services and technologies to deliver better infrastructure services? And how might they be addressed? Your response can cover any number of the Commission’s sectors outside digital (energy, water, flood resilience, waste, transport).

Introducing new technologies in what is generally a mature and already efficient sector like ports raises issues of the incremental benefit relative to cost and disruption. To pick one technology area, some of the high-level learnings coming out of the current ports 5G activity, notably the DCMS ‘Smart Ports’ project, are:

- There is significant interest in 5G amongst UK major port operators across a range of use cases (e.g. IoT applications and further automation, optimising the operational efficiency through the faster transfer of more data between control systems and assets on the port, predictive maintenance and ‘hard to reach’ inspection, drone operation more generally, site security and integrity)

- There is an important question, however, about how the cost / benefit of sometimes significant incremental cost and resource commitment required for 5G implementation vs the additional benefits over well-functioning and efficient 4G enabled operations. That's particularly compared to the likes of media where it is very clear what the need is and how it furthers that sector.
- Most of these use cases are on-port, involving private networks
- However, there would be an interface with public service delivery as ports potentially integrate further into end-to-end supply chain visibility (e.g. as a box moves off a port on a truck to a warehouse via public roads)
- There are some important barriers to greater 5G implementation in port and port related applications that are not related to 'public service delivery' in a physical sense but are absolutely in the gift of Government / regulators (e.g. licensing).
- Whether its 5G or other aspects of the wireless world the ease of entry into using these technologies including access to spectrum, readiness of component parts and players in the market (noting the new absence of Huawei) is going to be critical
- There is also the perennial issue of skills – our sense being 5G / wireless skills are in relatively short supply across the economy, let alone in the logistics sectors

Some of the key additional barriers that hinder wider deployment are:

- Lack of aligned commercial incentives to deploy end to end solutions; and
- The general issue in mature industries of integrating legacy systems and turning data into useable information.

Challenge 2: Decarbonising electricity generation – the Commission will consider how a decarbonised, secure and flexible electricity system can be achieved by 2035 at low cost.

Question 8: What are the greatest risks to security of supply in a decarbonised power system that meets government ambition for 2035 and what solutions exist to mitigate these risks?

Others will be better placed to consider the generation, supply and storage aspects of the net zero energy transition. Where ports have a fundamental role to play is as enablers of this transition – for example as bases for offshore green energy throughout the life cycle of projects. By doing so ports are also able to grasp a green economic dividend for the UK too, bringing investment, jobs and prosperity to coastal communities all around the UK (e.g. Teesside, Grimsby, Leith, Great Yarmouth).

But the UK cannot be complacent. Frankly, the UK allowed too much value (investment, jobs) to leak to other nations in the early stages of fixed offshore wind. As new leasing rounds for both fixed and, in particular, floating wind take shape the UK has an important opportunity to learn from this experience. Industry has ambitious investment visions for sites like Port Talbot and Hunterston as centres for floating wind, with development hubs for leasing rounds elsewhere. Some practical steps that the Government should take to capture more value from the green industrial revolution are:

- ***Making the additional difference to future proof a wider range of projects:*** The UK's offshore energy goals are cast over several decades. Purely commercial investment cases need to be compelling over much shorter periods, e.g. 5-8 years. The Government has understood this on the generation side through setting the periods for CfDs. For landside infrastructure there is a valuable role for Government in bridging the gap between a

company's 5 year 'strategic plan' and the timescale of future Auction Rounds. To be clear, this is not about substantially funding large scale new locations. The Government would achieve better value for money through providing additionality – its funding on top of proportionately more private investment to give upside capability / capacity. By having to commit less funding per project, a greater range of projects can be funded, giving more choice for customers and greater potential for levelling up a wider spread of coastal communities.

- **Creating the 'demand pull':** The core driver for investment is a strong and robust development trajectory, turning the Government's ambitious offshore targets into predictable auction rounds and provide a better sense of the project and supply chain requirements to support this. This is particularly the case for AR5 and AR6 and in particular in terms of floating wind, where the UK has the opportunity to learn the lessons from the fixed roll-out. For example, clarity on, say, a consistent 1GW build out would be a significant support in justifying major private sector investment.
- **Driving and aligning with UK capability:** The UK offshore industry has set local content targets. However, it's not clear that this is being achieved, nor will it be. More focus needs to be put on ensuring that Supply Chain Plans, in theory a positive lever for UK content, reliably turn into UK value. It's good to see that the Government is now taking steps to address this, but more can be done and we will be making these representations in the Government's current CfD consultation regarding Supply Chain Plans. Also, criteria should be built into the Auction Round and CfD to give more weighting to proposals that seek to align design and implementation with UK physical characteristics and capabilities.
- **Ensuring planning and marine consenting is aligned with green energy roll out:** UK ports need to deliver significant infrastructure at pace to support the UK's green energy growth ambitions. The Westminster and Devolved Administrations need to ensure that consenting reflects this ambition and pace.

Challenge 4: Networks for hydrogen and carbon capture and storage - the Commission will assess the hydrogen and carbon capture and storage required across the economy, and the policy and funding frameworks needed to deliver it over the next 10-30 years.

Question 11: What barriers exist to the long term growth of the hydrogen sector beyond 2030 and how can they be overcome? Are any parts of the value chain (production, storage, transportation) more challenging than others and if so why?

Many ports in the UK are exploring the potential applications of hydrogen in their operations and business models. That might be as locations for generation, as part of networked 'freeport' development (e.g. Freeport East), through convening spatial hydrogen strategies / networks (e.g. Port of London Authority Thames Corridor) or through displacing diesel use in their operations (e.g. Teesport).

We would observe that the Government's hydrogen strategy to date has predominantly been focused on hydrogen production. There has been less focus on two aspects where are particularly relevant to ports:

1. **Use case development and support:** Hydrogen could well be one of the more attractive vectors – either directly or through fuel cell technology – for replacing diesel as a fuel for Non Road Mobile Machinery and some marine applications. It is deeply frustrating that whilst ports are subject to significant diesel duty increases they have been deemed out of scope by the Government for what hydrogen use case projects there are. More ambitiously, major ports – as high volume multi-modal hubs handling road, rail and marine freight – would be excellent ‘Zero Emissions Refuelling Hubs’. They have the critical mass of volume, are truly multi-modal and generally have experience of handling fuels / energy products. This is an opportunity seen by ports in concept but yet to be appreciated or supported by the UK Government in terms of actions such as exploring pilots.
2. **International movement of hydrogen:** The UK Government hydrogen strategy has focused largely on domestic production. Domestic production has many advantages which we would not seek to diminish. But we would also highlight that in other countries there is more strategic development of relationships and infrastructure to enable the international movement of (often green) hydrogen (e.g. Antwerp). Developing strategies on domestic and international hydrogen sources provides resilience for the UK and development opportunities for UK business.

Question 12: What are the main barriers to delivering the carbon capture and storage networks required to support the transition to a net zero economy? What are the solutions to overcoming these barriers?

Ports are an essential part of the infrastructure base for delivering offshore energy-related infrastructure. The UK’s ports have a proven record in this regard, whether that be oil and gas exploration and production or the new green energy projects like offshore wind. This capability is across the full life cycle of projects and – crucially – is a proven catalyst for delivering investment, jobs and prosperity in often hard-hit coastal communities (e.g. Grimsby, Great Yarmouth, Lowestoft).

This capability, and the ‘levelling up’ potential it provides, is highly applicable to the delivering the UK’s CCSU targets. Ports can play an important role across several dimensions through acting as locations for:

- Manufacturing and engineering facilities supplying the CCSU market (equivalent – wind turbine blade manufacture in Hull and Teesside, large scale fabrication in Blyth, decommissioning in Dundee)
- Locations for basing construction / materials lay down / transshipment / modular construction during the ‘build’ phase of offshore and intertidal infrastructure
- Bases for ongoing operations and maintenance support for offshore infrastructure and projects (which has had and will have a transformational impact on places like Grimsby, Great Yarmouth, Lowestoft etc)
- Potentially as sites for pipes / cables to transition from land to sea and vice versa.

However, current Government supply chain strategizing – let alone enabling actions such as investment support – has yet to consider this potential. The UK should act now to capture more supply chain value from CCSU role-out and learn the lessons from the early stages of fixed offshore wind where too much value (investment, jobs, capability) was allowed to ‘leak’ to other countries.

Challenge 9: Interurban transport across modes – the Commission will consider relative priorities and long-term investment needs, including the role of new technologies, as part of a strategic multimodal transport plan.

Question 17: What are the barriers to a decision making framework on interurban transport that reflects a balanced approach across different transport modes?



The UK relies on a well-functioning - efficient, predictable, reliable with an increasing focus on sustainability – logistics system. This system is anchored by the UK's main trading gateways, principally its sea ports, and key concentrations of manufacturing and warehousing. It is dominated by a relatively small number of 'strategic freight corridors'. In most cases these corridors have both road and rail arteries. Analysis for UKMPG that identifies these corridors is graphically shown left.

Whilst this freight system is largely taken for granted by politicians and the public alike its importance has become more prominent over the last two years as it has had to demonstrate its resilience in the face of major challenges from COVID and Brexit impacts. Indeed, public appreciation (if not understanding) has increased as a result. Public polling done for UKMPG found that 48% of respondents thought more how goods reached them than before the

pandemic, although only 20% could describe the journey the last item of clothing they bought took. 68% of respondents also agreed or strongly agreed that logistics workers deserved more respect than they've had.

What is now required is that policy makers address the barriers that impact the resilience and efficient operation of this 'strategic freight network', i.e.:

- Capturing both user and non-user benefits of freight in the valuation methodologies in the HMT Green Book – so putting them on a more comparable basis with passenger focused schemes
- Recognising the benefits of the full 'corridor' in individual project assessments so that the whole corridor is less a hostage to the individually weakest project business case
- Looking across modal / institutional siloes, e.g.
 - Considering corridors on a cross modal basis, notably across road and rail. The recent Solent to the Midlands joint NR / NH exercise was a good one and should be deployed elsewhere
 - Seeing corridors on a full gate to gate basis (i.e. integrating national level system operator perspectives like National Highways SRN with Local Authority road networks)

- Maintaining a UK wide perspective for strategic routes, i.e. across sub-national transport bodies and Devolved Administrations
- Aligning other aspects of 'national networks' strategy, e.g. the provision of energy to enable zero emission transport fuelling
- Improving the potential for moving more freight by water, i.e. around the coast and along inland waterways

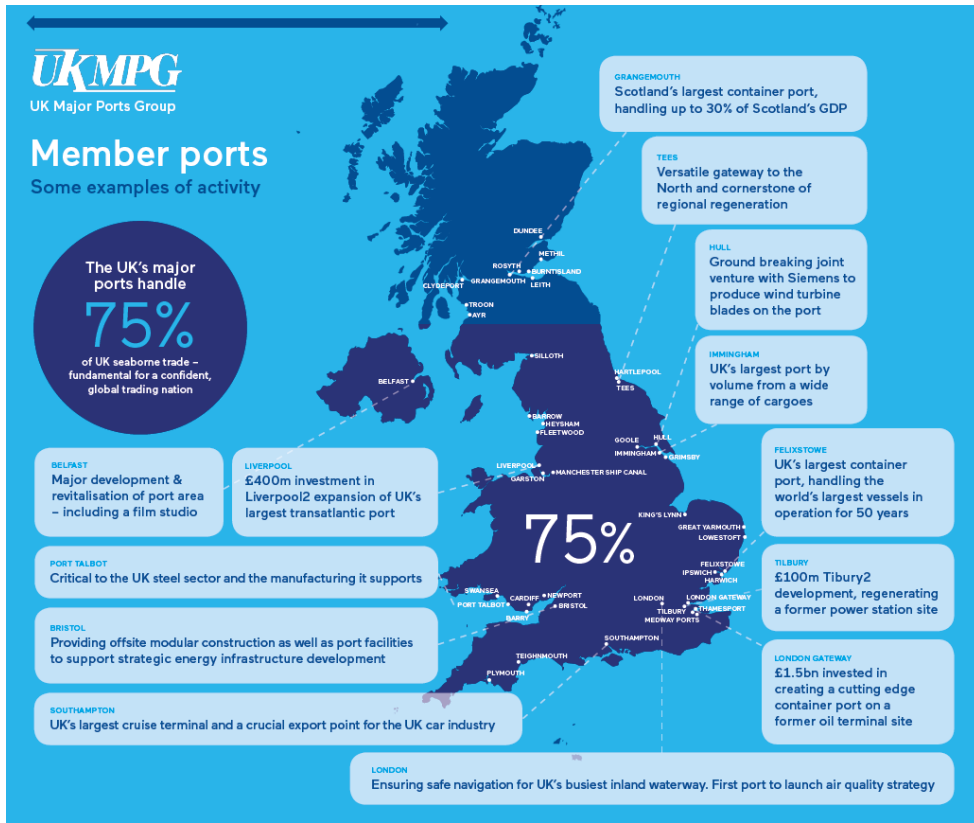
We would be pleased to have the opportunity to discuss this response further with the National Infrastructure Commission.

Yours faithfully,

A handwritten signature in blue ink that reads "Tim Morris". The signature is written in a cursive style with a horizontal line underneath.

Tim Morris
Chief Executive, UK Major Ports Group

Appendix A: UK Major Ports Group Members



UKMPG Members

- ABP ASSOCIATED BRITISH PORTS**
Associated British Ports
www.abports.co.uk
 - Belfast Harbour**
Belfast Harbour
www.belfast-harbour.co.uk
 - THE BRISTOL PORT COMPANY**
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UKMPG
UK Major Ports Group

UKMPG members shown in blue

Volume statistics from Dept for Transport

Revenue figures from Accounts filed at Companies House or published by port operators themselves

Tim Morris
CEO,
UK Major Ports Group

UKMPG members in the context of the wider UK ports sector

