

Inquiry into international connectivity through Welsh ports and airports

Evidence from Cardiff University

Written Evidence for the Enterprise and Business Committee

Inquiry into international connectivity through Welsh ports and airports

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Between July 2009 and June 2011, we led a project funded through the Academic Expertise for Business programme examining the opportunities for businesses in Wales to increase their use of multimodal transport, and how technology can enable this change. Through this work, it became clear that ports have an important role to play in this, and our interactions with business highlighted a number of issues that are of relevance to this inquiry. Because our work did not focus upon airports, we have not commented on issues relating to this. Our comments are concerned with freight transport only.

**How important are major Welsh ports, both to the economy of their own regions and to Wales as a whole?**

We found that the major ports provided an important role within the Welsh economy in creating robust and integrated multimodal transport corridors in Wales for the transport of people and freight. Connectivity is the key and transport is the lifeblood of Welsh economy. Given the rising cost of energies plus increasing concerns on environment sustainability, using water instead of rail and road for transport is gaining popularity; therefore ports in Wales serve as strategic nodes for individual multimodal supply chains and for maritime shipping industry as a whole.

There were three main groupings of ports, based on analysing data from the Wales Transport Statistics and the Department for Transport:

- Roll-off, roll-on ports providing links to Ireland – Holyhead, Fishguard and Pembroke
- Specialist bulk handling ports – Milford Haven (petrochemicals) and Port Talbot (iron ore)
- General freight terminals – Newport, Cardiff, Barry and Swansea, Mostyn

At the time of our project, limited volumes of products were moving through Mostyn in North Wales, although discussions with port management there highlighted that the port was looking to target the emerging offshore wind energy market.

Our work highlighted the strategic role of ports for the road to rail transfer of goods. Within Wales, we identified only seven 'open access' multimodal terminals, the remainder being owned by the

user. Of these, six were port locations (Newport, Cardiff, Barry, Port Talbot, Swansea and Mostyn) with only the terminal at Wentloog not being a port. To highlight this, it is notable that Freight Facility Grant investments have occurred previously at both Newport and Barry ports for non-maritime traffic. Equally, our project engaged with a national retailer with a view to establishing a new rail service to South Wales, and Newport Docks has been considered by them a feasible option for transferring from road to rail.

**What factors limit realisation of the potential offered by major Welsh ports; what opportunities are available to develop this potential; and how can these be realised?**

There are a number of factors that may limit the potential offered by Welsh ports. Through our discussions with industry, it appeared that there was often a lack of awareness as to the full range of facilities and services offered by ports within Wales, both for maritime and non-maritime traffic. Consequently, goods are moved by road instead of by alternative modes.

Another challenge for multimodal transport, but also potentially for maritime traffic too, is the lack of volume of freight in Wales. For multimodal flows, many organisations were unable to generate enough traffic to justify moving away from road, without compromising the frequency of delivery. The economic downturn and changes in production and distribution networks are further reducing the amount of freight available to ports.

Competition with other ports is also a limiting factor for Welsh ports, particularly those located more favourably (for example, directly on the English Channel). The time taken for feeder ships to operate from South Wales ports to destinations like Southampton or Felixstowe is such that direct shipment by surface means is more attractive. Rail volumes between Wentloog and Southampton have been increasing in recent years, helped by the increased availability of rail wagons for hi-cube (9 foot 6 inch tall) containers as a result of network improvements elsewhere in England. Therefore, it is more attractive for shippers on containerised goods to use this link compared to road or sea transport.

Finally, infrastructure constraints do exist. While many of the ports have benefitted from investment in arterial routes such as the M4 and A55, connections beyond these corridors are more challenging for freight operators. Likewise, in West Wales the ending of the M4 at Carmarthen and the single carriageway routes towards Pembroke and Fishguard are not best suited to the volume of goods now operating through these ports. While rail connections are not necessarily a limiting factor in South Wales, rail network capacity is a constraint given the balance between passenger and freight services.

Given these constraints, there are three major opportunities our work identified for Welsh ports:

***The development of port-centric logistics.***

This is a relatively new concept within port operations, which encourages the port area to move beyond the traditional role of modal transfer between sea and surface modes and consider a wider range of activities associated with international supply chains. This may include substantial warehousing and also value adding activities. The motivation behind this for businesses is to reduce the number of times products are handled and moved, with onward delivery from these locations often to regional distribution centres or the customer. As an example, Tesco has developed a facility

at Teesport to receive inbound containers from the Far East with non-grocery products. These are unpacked and stored at the port, before delivery into their distribution network as required.

For port-centric logistics to thrive within Wales, there will be the need to facilitate the development of warehousing facilities on port land, while also ensuring effective road and rail links to the local region and potentially the rest of the UK. However, developing this concept will require significant traffic flows, a challenge mentioned more generally earlier.

### ***Landbridge traffic flows***

One area where Welsh ports do possess a good advantage is on landbridge traffic flows from Ireland to the UK and Europe. There are already substantial volumes of trailers transiting through the ports of Holyhead, Fishguard and Pembroke, with only limited competition from other ports, particularly Liverpool. It is important that the competitiveness of these ports is maintained for the Welsh economy.

Particular scope exists at Holyhead to enhance the inland facilities there. The TAITH Regional consortia has proposed developing a rail terminal there, for services to the rest of the UK and also continental Europe through the Channel Tunnel. Given the volume of unit loads through the port, and the distance they are moving inland, it would appear that such a service may well be viable and therefore the development encouraged by policy makers.

### ***Windfarm developments***

There are the potential opportunities arising from wind farm developments, both in North and South Wales. For land based wind farms, manufacturers normally deliver the main turbine components through a local port, due to the outsized nature of the components and factories being based on continental Europe. Over the next 10 to 15 years, there is likely to be a significant growth in the number of turbines within Wales, particularly in central Wales. Therefore, appropriate port and inland transport infrastructure is needed and Welsh ports need to be well equipped to support this.

Offshore wind farms require support infrastructure, typically at a port location. During construction, this provides a facility to bring all the components together, store them and provide a base for the ships used to deliver the parts where required. Once operational, the wind farms require maintenance support and providing this at a port location has been shown to be preferable solution for this.

### **How effectively do Welsh Government policies support the development of major Welsh ports?**

The organisations that we engaged with recognised the value of the Wales Freight Strategy as providing some long term guidance for the industrial sector. From a multimodal perspective, there are clear ideas as to how modal shift could be encouraged, while the document also contains details on the port sector more widely. This has been translated into actions within the National Transport Plan.

However, it was evident that this strategy did not filter down to the Regional Transport Consortia in a consistent manner. In the Regional Transport Plans, investment priorities are focused on passenger

transport activities, although TAITH, TraCC and SWWITCH do include initiatives which benefit multimodal transport and the port sector. Of some concern was the lack of awareness of freight transport in the SEWTA region. This region is where most freight in Wales originates, home to a number of major ports and is on the through route from the SWWITCH region to the rest of the UK. Therefore, this is of concern in the context of both port development and the provision of hinterland transport links.

Since the end of our project, the prioritised National Transport Plan has been published. The new priorities do not include any of the original NTP commitments on freight. This lack of strategic direction and funding for freight transport activities may be detrimental to the logistics sector (including ports) within Wales.

### **About Us**

Cardiff Business School is a leading Business School, and was ranked 4<sup>th</sup> in the UK for its research quality at the last Research Assessment Exercise in 2008. The School is home to the Logistics and Operations Management Section, one of the largest groupings of expertise in these areas in the UK. The Section provides teaching to a wide range of undergraduate and postgraduate students, and engages in research with a large number of organisations from the public, private and third sector.

The e-Enabled Multimodal Transport project was funded through the Knowledge Exchange Fund administered by the Academic Expertise for Business programme (grant number: HE 07 KEP 3007). The aim was collate and transfer best practices and knowledge on ICT-enabled freight integration mechanisms to shippers, carriers and customers in Wales and to simulate the adoption of technological and organisational innovations within Wales. The project was led by Dr. Yingli Wang and Dr. Andrew Potter, with additional support from Ms. Joanne Huckridge, Dr. Anthony Beresford and Prof. Mohamed Naim. In total, the project engaged with over 30 organisations from throughout Wales and covering a range of industrial sectors.