

Freight Transport Interchanges CUNE

by Georgiana Cune

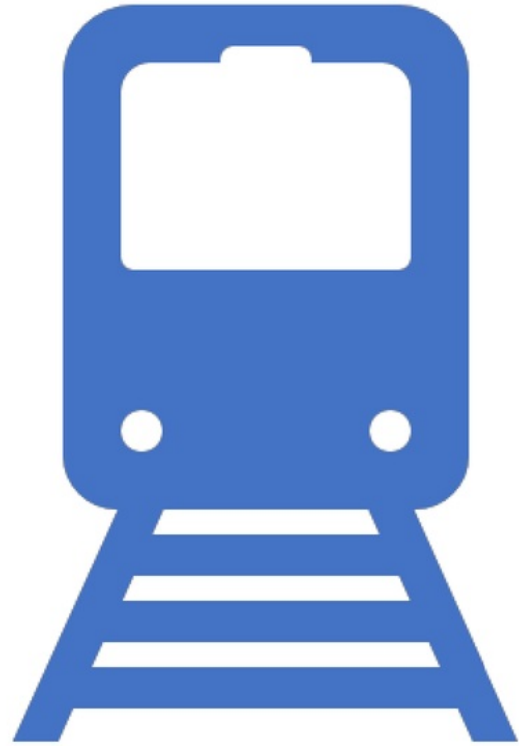
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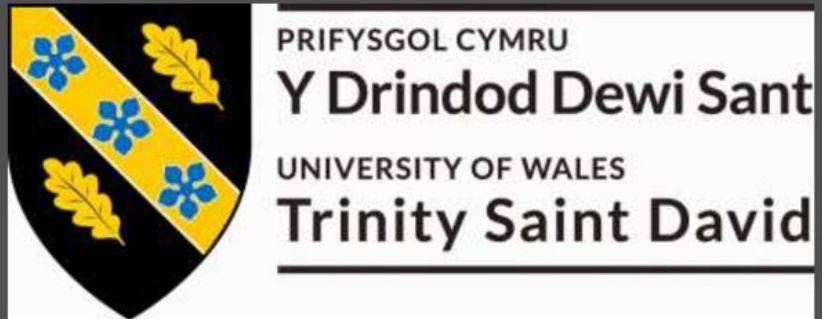
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Freight Transport Interchanges



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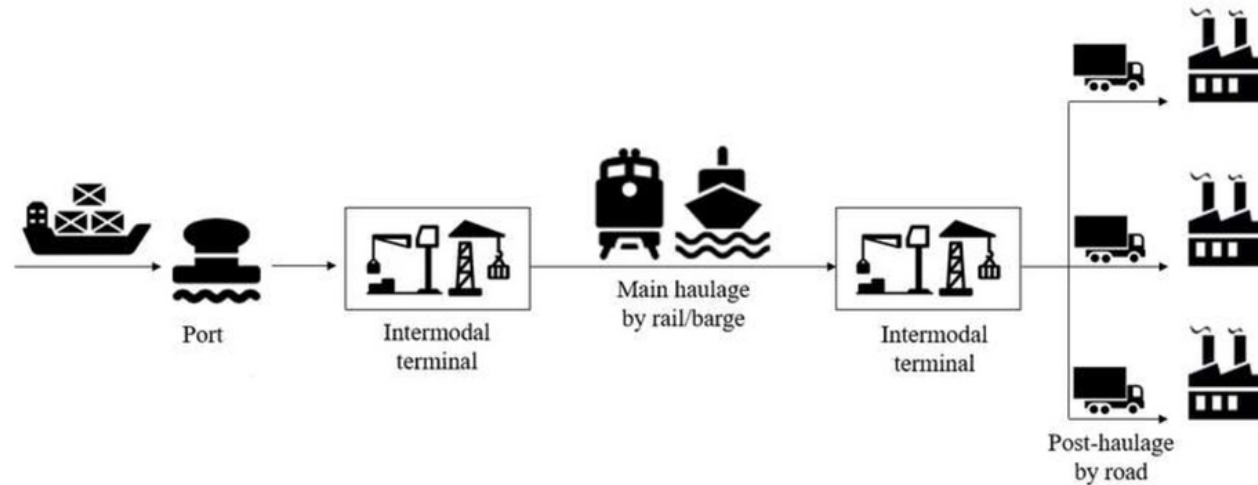
The background of the slide features an abstract design composed of various shades of green. These shades are arranged in overlapping, semi-transparent geometric shapes, primarily triangles and polygons, which create a dynamic and layered visual effect. The colors range from light, pale greens to deep, forest greens, with some areas appearing as darker, more saturated tones. The overall composition is modern and artistic, typical of a professional presentation template.

We declare that this assignment is all our own work and that we have acknowledged all materials used from the published or unpublished works of other people. All references have been duly cited.

The presentation was realised with collaboration between the co-authors using emails and Facebook Messenger as communication and file sharing modes.

Introduction

Intermodal freight is the use of two forms of transport to ship a consignment. A typical example of this is road and rail. This is made possible through the use of intermodal or transport hubs.



Example of intermodal freight transport (ResearchGate, 2019)

A transport hub forms the link between the two forms of freight. A train would arrive with the consignment in an ISO container (*Lowe, 2011*), which is a shipping container that conforms to an international sizing standard, this sizing standard allows for the whole container to be lifted from one form of transport to another (*Rushton et al, 2010*).

With the container lifted from the train it would be loaded onto a truck and trailer to be transported via the road network to the next step in the freight process (*Lowe, 2011*).

One of the key drivers for transport hubs is to do with government incentives. These incentives are based around sustainability and reducing road traffic in UK (*Lowe, 2011*).



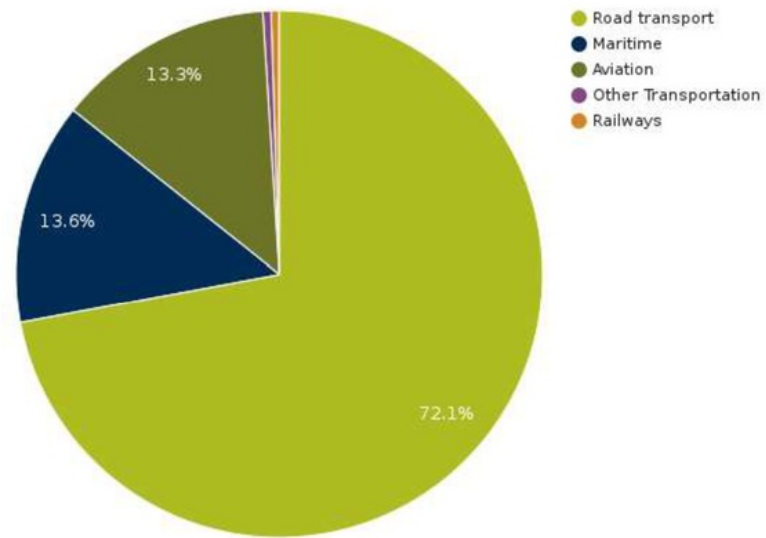
Doncaster Iport (Iport UK, 2019)

This is now being expanded on with the IPort Doncaster project. At IPort, the transport hub has 570,000 square feet of warehousing facilities with it's own railway facilities. The idea behind this is that the IPort is connected via rail to all major ports and the channel tunnel, this should make logistics much easier (*Doncaster Council*).

The environment

One of the required aspects in choosing the intermodal freight transport is to reduce 'adverse environmental pollution caused by vehicle exhaust emissions and noise' (Lowe and Pidgeon, 2018, p.669).

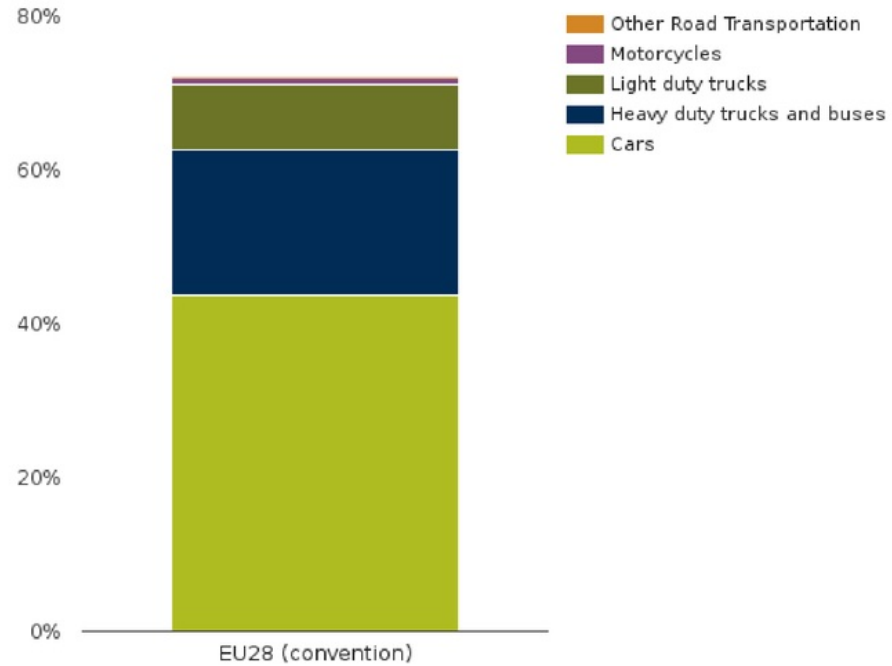
EU (Convention) — Share of transport greenhouse gas emissions



Share of transport greenhouse emissions - EU Convention (European Environment Agency, 2019).

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Road transport — Share of transport greenhouse gas emissions



Road Transport - Share of transport greenhouse emissions - EU Convention (European Environment Agency, 2019).

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The European Commission has designed support programmes such as Marco Polo and Marco Polo II, which aims to reduce traffic road congestion and to improve the environmental aspects of the freight transport system. The objective of the programme is to promote intermodal freight transport, by shifting freight from road to other transport modes such as rail, inland waterways, short sea, and the motorways of the sea (Lowe, 2005).

Commercial and Environmental Trade-offs for an Interchange Hub

Interchange Hubs are a large site that can accommodate vast quantities of freight including storage of freight, this means that large areas of land are needed for sites.



Howbury Park, London (Reconnection London Transport and Beyond, 2012)

Hubs are built close to main commercial routes including railway lines, airports, seaports and motorways to allow for quick turnaround. However not all modes are present at a hub so even a seaport maybe close to an interchange hub road transport is required and this could add more traffic to local roads.

Most transportation of freight is carried during the night for the transportation channels are generally quieter, so more freight can be moved.

Government has supported the shift road to rail with MSRS grants so set up costs to use intermodal are reduced.

MSRS – Mode Shift Revenue Support

The invention of the ISO container changed the global attitude towards choosing the right mode of transport as now combining different modes together is often easier than sticking to one mode of transport through the entire journey (Gattorna, 1997).



Intermodal transport has a clear environmental advantage over, for example road transport. This is because transporting cargo on rails is cheaper, more efficient and reduces the carbon footprint when Ikea, for example, states that freight trains emit 70 % less CO₂ than road lorries would carrying the same amount of cargo (Manners-Bell, 2016). This shows that allowing trains to do part of the job is more beneficial than relying purely on lorries. Using this advantage would not be possible without the existence of transport hubs.

Conclusion

Increasing pressure from EU sources, i.e. Marco Polo 2, with funding incentives from such schemes ensure that there is proliferation of the Freight hubs to cope with year on year freight movement increases (ORR, 2011) which benefits off site logistical business more than the local stakeholders which will have a negative commercial and environmental impact on the freight interchange hub stakeholders' local areas.

The downside of these Freight hubs is the effect on the environment be it good or damaging usually siding on the damaging aspect (Hall, P., 2008) but this can be offset using carbon offset schemes to reduce the emission produced (McKinnon A, 2007).

With more and more freight being moved via Intermodal methods the need for a more integrated understanding between the aspects mentioned is evermore important and that all stakeholders associated with the operation of Freight interchange Hubs need to invest more in gaining an improved resolution the associated problems such as the environmental and commercial aspects.

Wayne Thomas



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GRADEMARK REPORT

FINAL GRADE

GENERAL COMMENTS

Instructor

60/100

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