

Intermodality Scenario

Routes to a greener future

Towards more sustainable freight transport



Main menu

The freight industry in the 21st century - Impacts and Risks

10 mins

Responses

10 mins per case

Conclusion

5 mins

Links

Relevant legislation
Sources of loans and grants
Accreditation bodies
Other useful links
Glossary`



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Main menu

- The freight industry in the 21st century - Impacts and Risks**
10 mins
- Responses**
10 mins per case
- Conclusions**
5 mins
- Links**
 - Relevant legislation
 - Sources of loans and grants
 - Accreditation bodies
 - Other useful links
 - Glossary

Responses – case studies

- Implement new technologies
- Think about modal shifts**
- Optimise utilisation
- Consider supply chains
- Cooperate/collaborate
- Metrics
- Make a start

Navigation arrows: ◀ ▶

The learner clicks on "Responses" to see a list of the scenarios they can work through.

In the final application the developer will source as comprehensive set of links and provide urls.

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Intermodality

The aim of EU policy on intermodal freight transport is to support the efficient door to door movement of goods, using two or more modes of transport in an integrated transport chain. Each mode of transport has its own advantages e.g. potential capacity, high levels of safety, flexibility, speed, low energy consumption, low environmental impact; intermodal transport allows each mode to play its role in building transport chains which overall are more efficient, cost effective and sustainable.

This scenario explores some of the issues that confront individual companies who are considering modal shifts. In this scenario, just as in real life, there are often no right or wrong answers or instant solutions.

[Click here to start.](#)



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Some challenging news

You are an account manager at an international logistics company called Delivery World. One of your clients – Antonio Carlucci – works for a domestic appliance manufacturer called Kitchen Electrics. You get into the office to find a voicemail from him.

[spoken audio] Michael, it's Antonio here. Have you seen what's in the press today about the EU legislating on transport? I'm sending you a link. We need to have to look at this if we don't want to be in the firing line – especially because of the amount of stuff we send by air and also all those trucks we send from Spain and Italy. Can we discuss ideas? By the way, it will be a lot easier for me to get changes at this end if we can show we are saving costs at the same time.

Click the phone...



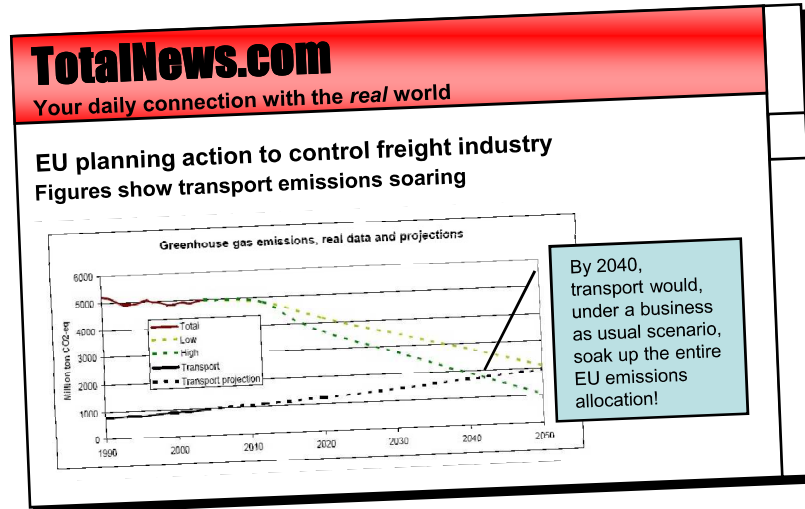
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Some challenging news - continued

You click on the link that Antonio sent you...it certainly looks like new EU policies are likely to affect your business.



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A surprising point of view

You return Antonio's call and tell him you will be pleased to see what can be done, as Delivery World is keen to improve its green image. You decide to set up a review meeting with Kitchen Electrics. The main problem is that since lead times are normally very tight, Delivery World always has to choose the fastest route, which is usually the least environmentally friendly. You are surprised when Antonio tells you that speed is less important than reliability, as you have never really discussed this before...




[spoken audio] Last minute scheduling means that deliveries are often arriving late and that gives us problems in the factories. If we know exactly when things are coming, we can plan accordingly.



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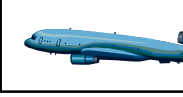


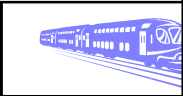


Which routes should be reconsidered?

Following the meeting, you decide to look at the four major delivery routes Delivery World operates for Kitchen Electrics. Which of these routes do you think would be worth re-examining?

Use the icons on the right to find out a little about each mode of transport.

1. Italy-UK: fortnightly, truck Turin-Bedford
2. US-UK: fortnightly, ocean freight Chicago-Southampton, truck Southampton-Bedford
3. Spain-Italy: weekly, truck Valencia-Turin
4. Latvia-Italy: as required, (average 2-3 times per month), air freight Riga-Turin



Freight sent by water can achieve about 80% reduction in CO₂ emissions compared with road haulage, though SOx and NOx emissions should not be ignored.

◀ ▶

The user ticks all of the routes where he/she thinks improvements might be possible.

The user bases their selection on very brief information presented when they click on each transport icon. Here, they have clicked on the ship icon, representing transportation by water.

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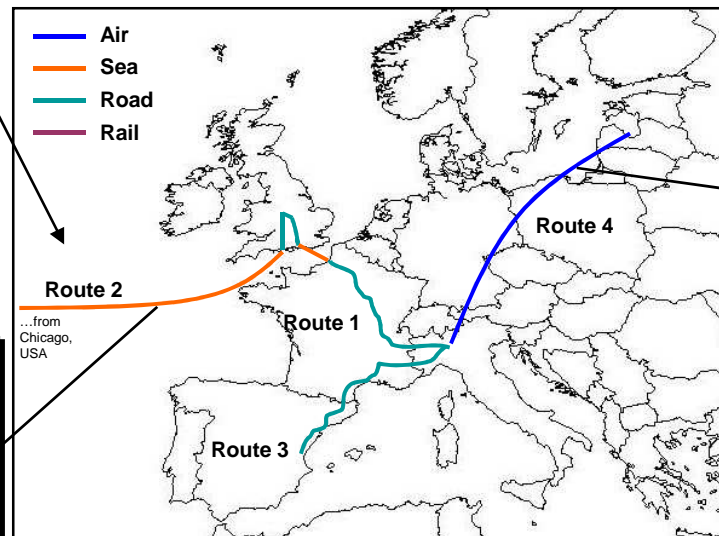
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Your planning department's views

You ask your planning department for a map showing how these 4 routes operate currently, plus their suggestions of what could be done.

Click on each route to read the planning department's comments.



The user clicks each route to see the response of the planning department.

For Route 2 (US to UK), we think you should consider:

Sea Chicago-Southampton
Rail Southampton-Birmingham
Road Birmingham-Bedford

The roads are very slow between Southampton and Bedford – so maybe some savings if we used the rail link to Birmingham and then trucks just for the last stretch.

For Route 4 (Latvia to Italy), we think you should use truck rather than air. We shouldn't use air unless there is a really good reason – it's about 5 times as expensive as road!



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Some more opinions

Before talking to the client about your suggestions, you decide to ask your divisional managers' opinions.

Click on each person to hear their views



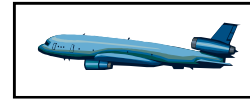
Rail division manager



Sea division manager



Truck division manager



Air division manager



[spoken audio] I think that the Turin–Le Havre and Valencia–Turin routes would give us a great chance to build up our rail customer base. The problem is that the road division aren't interested in cooperating. But they ought to think again - the price of diesel means they won't be able to hold their costs down much longer. All we need to do is speed up the process of getting from the trailers on to the rail and we would be quicker too.


[spoken audio] Trying to use the road network on route 2 is a waste of time. The costs of all that loading and unloading in Birmingham far outweighs any savings.

[spoken audio] I'm glad Kitchen Appliances is thinking about the future. Ocean freight is competitive on costs and offers the best performance in terms of emissions. And the balance is likely to tip further in our favour, given the congestion on the route between Spain and Italy. When our emissions calculator is running we will be able to prove that. Often our customers keep using the same routes because no one has asked them if that's still the best way.

The user clicks on each person to hear their views.

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Are your conclusions still the same?

Now that you have heard from your planning department, and the divisional managers, do you still have the same opinion about which routes would be worth reconsidering?

Change your settings if you want to. Then click OK to see what happened.

- 1. Italy-UK, fortnightly, truck Turin- UK (Bedford)
- 2. US-UK, fortnightly, ocean freight Chicago-Southampton, truck Southampton-Bedford
- 3. Spain-Italy, weekly, truck Valencia - Turin
- 4. Latvia-Italy, as required, (average 2-3 times monthly) air freight Riga-Turin

Kitchen Electrics decided to...

...recommend the changes to routes 1, 3 and 4. After investigating route 2, they found that the overheads of the rail/road interchange would have outweighed the benefits.

◀ ▶

Users tick each route that they now think worth investigating, having heard from the various stakeholders.

Having clicked OK, the user receives this feedback.

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What problems may need to be addressed when thinking about intermodality?

Having listened to the various arguments about modal shifts, what do you think are the most significant problems an organisation needs to consider?

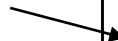
Select as many items as you need to.

- Persuading the client not to give you such tight delivery schedules
- Getting people from different divisions to cooperate
- The assumption that all intermodal shifts cost more
- The likelihood that rail doesn't work for short distances
- A belief that intermodal routes require more management effort
- The potential unreliability of sea routes owing to unpredictable weather
- The cost implications of improving environmental performance
- A lack of detailed information on emissions, which could make it difficult to make comparisons
- The fact that the client would rather send goods by fast (but environmentally unsustainable) routes than improve his own operational processes

Note: some of these are incorrect assumptions, some may be problems that can be overcome, while others are perhaps not currently soluble.


OK

The user selects challenges.



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What do you think the problems are?

Having listened to various arguments – particularly from the divisional managers – what do you think are the most significant problems you will have to overcome in promoting intermodality?

Select as many items as you need to.

- Persuading the client not to give up schedules
- Getting people from different companies to work together
- The assumption that all intermodal routes are equally good
- The assumption that rail does not have a significant role to play
- A belief that intermodal routes are too expensive and require too much effort
- The potential unreliability of sea routes owing to unpredictable weather
- The cost implications of improving environmental performance
- A lack of detailed information on emissions, which could make it difficult to make comparisons
- The fact that the client would rather send goods by fast (but environmentally unsustainable) routes than improve his own operational processes

OK



Whilst some last minute unscheduled deliveries may be inevitable, it would be worth discussing with the client whether regular consignments could be better planned to improve environmental performance.

The user sees feedback on their selections, one item at a time.

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Conclusion: the future looks promising

You write a short paper and circulate it to various interested parties – including your client Antonio, of course. Shortly afterwards, you receive two broadly encouraging emails.

Click each mail...



There's some interesting ideas here. I'm keen to see what results your new emissions calculation software comes up with. I think I could persuade my people to use the air routes only for unscheduled deliveries and I definitely like the idea of using rail and sea where that makes sense. Let's put together some detailed costings – it looks like we could save some money and improve our green credentials.

Thanks

Antonio Carlucci

If Delivery World is going to improve its green image, we need examples of how we are going about that. Last year's report concentrated on our move to bio-fuels, which doesn't look so clever now. What we need are case studies where we are working with clients to get stuff off the road and use rail or sea routes in combination with trucks. I've told the board that we need to change the bonus system so that the operations people have to work together to make this happen.

Thanks

Fred Millom

Executive VP

Delivery World

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Conclusion and further information

That's the end of this scenario. It looked at a range of issues in the area of modal shifts. The main areas covered were:

- The rationales for each mode of transport
- Possible obstacles

You can access various resources from the main menu or from here:

A [pdf summary](#) of this case study

A [powerpoint presentation](#) of the main points made in this case study

A set of [web links](#)

