

Assignment 22

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Service Logistics

Assignment 2 of 2

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Critically appraise the impact of the EU's Marco Polo programme in encouraging a modal shift in the movement of freight.

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Introduction

The European economy is based on the existence of efficient modes of transport. In Europe, we often assume that products leaving factories are delivered quickly and cheaply to consumers across the continent. The growth of freight transport exceeds overall economic growth and, since the early 1990s, road transport has been the main mode of transport in the EU. Dependence on road transport causes heavy congestion and therefore reduced economic efficiency, and is a major source of pollution and CO₂ emissions in Europe. A series of Community programmes - based on multimodal transport, for example - have been in place since the early 1990s to improve the environmental performance of the freight transport system. Multimodality refers to the use of several different modes of transport to carry out a single freight transport operation. Multimodal transport is generally considered to be more environmentally friendly, as it limits road transport operations exclusively. The increased use of multimodality has therefore been one of the main objectives of European transport policy for many years. As part of this policy, the EU legislator set up, in 2003, a first Marco Polo programme, which was followed by another programme, the current Marco Polo II programme. In this essay, we will therefore present the two programmes in detail in order to know what the objectives of Marco Polo I and II are, what the impacts of these programmes have been and thus see whether or not these programmes have been successful.

I. Definition

Marco Polo is the European Union's financing programme for projects that help to shift freight from road to sea, rail and inland waterways or to avoid road freight transport on international routes. This means fewer trucks on the roads and therefore less congestion, less pollution and more reliable and efficient freight transport. A first Marco Polo programme (Marco Polo I, with a budget of €102 million) was therefore set up and came into force from 2003 to 2006. It was followed by the current Marco Polo II programme (2007-2013), which has a significantly higher budget of 450 million Euros and a broader scope (*Marco Polo – FAQ, EFTA EU Programmes, 06/2013*).

1) Marco Polo I: the PACT replacement

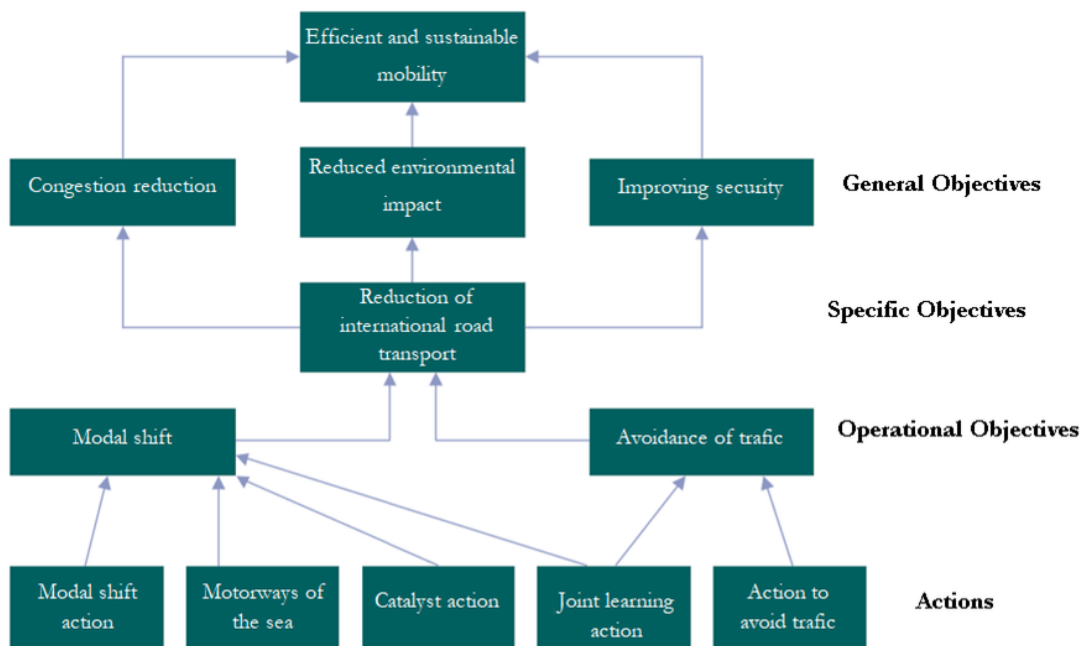
The programme is open to transport service operators and commercial entities. Candidates for EU membership as well as EEA-EFTA (European Free Trade Association) States are eligible to apply to the programme. The first Community programme to promote intermodality was the PACT programme (pilot action for combined transport) (*Marco Polo – Transport, EU commission, November 2007*). Operational between 1992 and 2001, the programme financed 167 projects worth €53 million. The Marco Polo programme was proposed following the 2001 White Paper on Transport, in which intermodality was a key concept (*The Marco Polo Programme, EU commission, 21/06/2001*). It was launched in 2003 to improve the sustainability and efficiency of the transport sector. The programme provides subsidies to transport service operators to facilitate the transition from road to more environmentally friendly modes of transport, such as short sea shipping, rail and inland waterway transport or a combination of modes of transport in which road journeys are as short as possible. The idea is to help support intermodal freight transport initiatives and alternatives to road transport only in the early stages until they become commercially viable. It has been estimated that each euro of subsidy to Marco Polo will generate at least 6 euros of social and environmental benefits. Fifty-six contracts were concluded for the period 2003-2005. Since 2004, the EEA-EFTA States have been participating in the Marco Polo programme. For the period 2004-2006, EEA-EFTA commitments amounted to approximately €1.9 million, of which approximately €1.8 million was for Norway. Of the 56 projects supported so far by Marco Polo, one was led by a Norwegian consortium (*Marco Polo – Transport, EU commission, November 2007*).

2) Marco Polo II

After that period, the European Union decided to extend its support to the transport sector under the multiannual financial perspectives 2007-2013 with the Marco Polo II Programme which is more ambitious than its predecessor. A mid-term review of the programme took place in 2008 to assess its success and limitations and to inform on actions that can help to increase its effectiveness. This resulted in a change in the legal basis.

With an overall budget of €450 million, (more than double that of the previous programme) the programme aims to achieve a traffic shift or evasion that represents a substantial part of the expected overall annual increase in international road freight traffic, measured in tonne-kilometres, to modes of transport with lower external costs and the shortest possible road journeys (*Marco Polo II, Executive Agency for Competitiveness and Innovation, 2013*). The programme is the subject of annual calls for project proposals and supports actions to reduce road congestion resulting from freight traffic with a view to improving the environmental performance of the transport system and strengthening intermodal transport, thus contributing to a more efficient and sustainable transport system that will bring European added value without having a negative impact on economic, social and territorial cohesion. It is specifically intended to help cover losses incurred in the initial phase of freight transport as part of new or improved intermodal services or as a result of actions to avoid freight traffic. Also, Marco Polo II contains two new types of actions - motorways of the sea and traffic avoidance measures - which were not included in the first Marco Polo programme. **explanation required** The nature of Marco Polo II is the extension of the programme to third countries, such as Russia, Belarus, Ukraine, the Balkans and the Mediterranean region (*Marco Polo II, Executive Agency for Competitiveness and Innovation, 2013*).

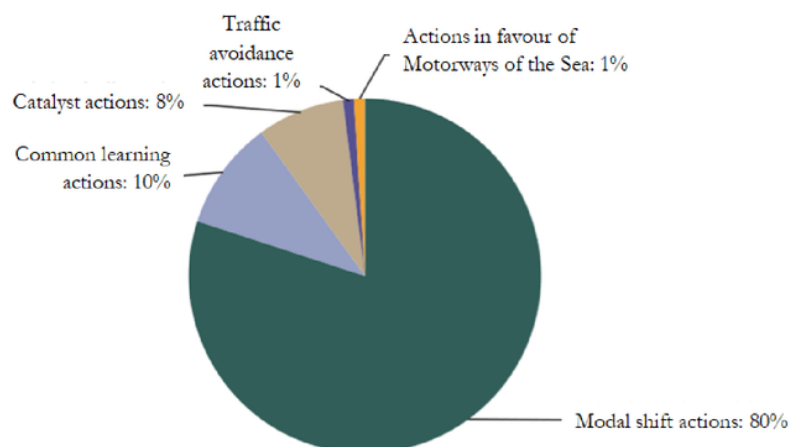
The measures proposed under the Marco Polo 2013 work programme will contribute to the achievement of the EU's objectives for sustainable growth as set out in the Europe 2020 strategy. The Marco Polo II programme therefore aimed to correctly improve the first programme through new and important objectives. Below **Good point** view of the program and its objectives (*Transfert du trafic routier, Cours des comptes UE, 2013*).



In all, 5 distinct types of action are supported (*Evaluation of the Marco Polo Programme, Europe Economics Chancery, 18/04/2011*):

- ✚ **Modal shift actions:** Marco Polo I and II action to shift freight from road to rail, inland waterway and short sea shipping, or a combination of these modes of transport;
- ✚ **Catalyst actions:** action under Marco Polo I and II, aimed at overcoming significant structural obstacles in the freight transport market that prevent the satisfactory functioning of this market;
- ✚ **Common learning actions:** Marco Polo I and II action indirectly aimed at modal shift by strengthening knowledge in the freight transport logistics sector and promoting advanced methods and procedures for cooperation in the freight market;
- ✚ **Actions in favour of Motorways of the Sea:** Marco Polo II action to promote modal shift by establishing a door-to-door service to shift long-distance road freight to a combination of short sea shipping and other modes of transport;
- ✚ **Traffic avoidance actions:** Marco Polo II action, which aims to avoid traffic rather than transfer it, with an emphasis on changes in production and/or distribution processes so as to result in shorter distances, higher fill factors, fewer empty trips, reduced volume and/or weight, reduced waste flows, or any other effect leading to a significant reduction in road freight traffic.

The Marco Polo II programme also finances projects that aim to encourage a more efficient functioning of international freight transport (mainly within the EU) - and are part of actions to avoid traffic. Below is a graph showing the distribution of the use of MP programme funds by type of action (*Transfert du trafic routier, Cours des comptes UE, 2013*):



3) Sirius 1: An example of Marco Polo projects

The train is particularly suitable for the distribution of individual products transported in large quantities, such as bottled water. With the Sirius 1 project, the Evian Mineral Water Limited Company, a French company, is switching to rail to transport water from its source in Volvic, in central France, to its German distribution centre in Hockenheim, near Frankfurt, at a distance of 711 kilometres (*Transfert du trafic routier, Cours des comptes UE, 2013*). From there, water is distributed by road to end customers in Germany. The trains return from Hockenheim with the empty crates. Previously, the entire journey in both directions was made by road. Thanks to this modal shift, 70% of the average distance between Volvic and final destinations in Germany is now covered by train. According to the company, over a full year of operation, the transfer is equivalent to removing 10,000 trucks from the roads. The energy saved in this way would be enough to light a city of 320,000 inhabitants (*Les routes prennent le large, EU commission, 2009*). Good point

According to Jean-Marc Dumas, Director of Supply Chain Projects at Evian, this project increases the capacity transported from two to four weekly trains between the end of 2008 and 2010. Each train carries 1,000 tonnes of water. "Sirius 1 is the first phase of an ambitious supply chain reconfiguration project. Over the period 2010-2014, we plan to Good analysis Volvic and Evian water shipments to rail in the direction of Germany to Hockenheim and Duisburg, where there is a second distribution centre for the north of the country. The transfer to rail during Sirius 1 did not affect our ability to maintain a high level of service in terms of punctuality and content of shipments. In this context, the Marco Polo programme has had a catalytic effect on our staff and those of our partners. Despite the complexity of implementing the new network and a commercial context that continues to favour road transport, rail transport remains at the heart of Evian and Volvic's sustainable development strategy" (M. Jean-Marc Dumas, 2009). Good source

It is therefore with subsidies of 560,000 euros over a period from January 2008 to December 2010 that Evian (France) and Danone Waters Deutschland GmbH (Germany) transferred a freight volume equivalent to 341 million tonne-km for a total environmental benefit of approximately 6.9 million euros (over 3 years) (*Les routes prennent le large, EU commission, 2009*)!

Below, we can see the old routes in white and the new one in blue (*Les routes prennent le large, EU commission, 2009*):

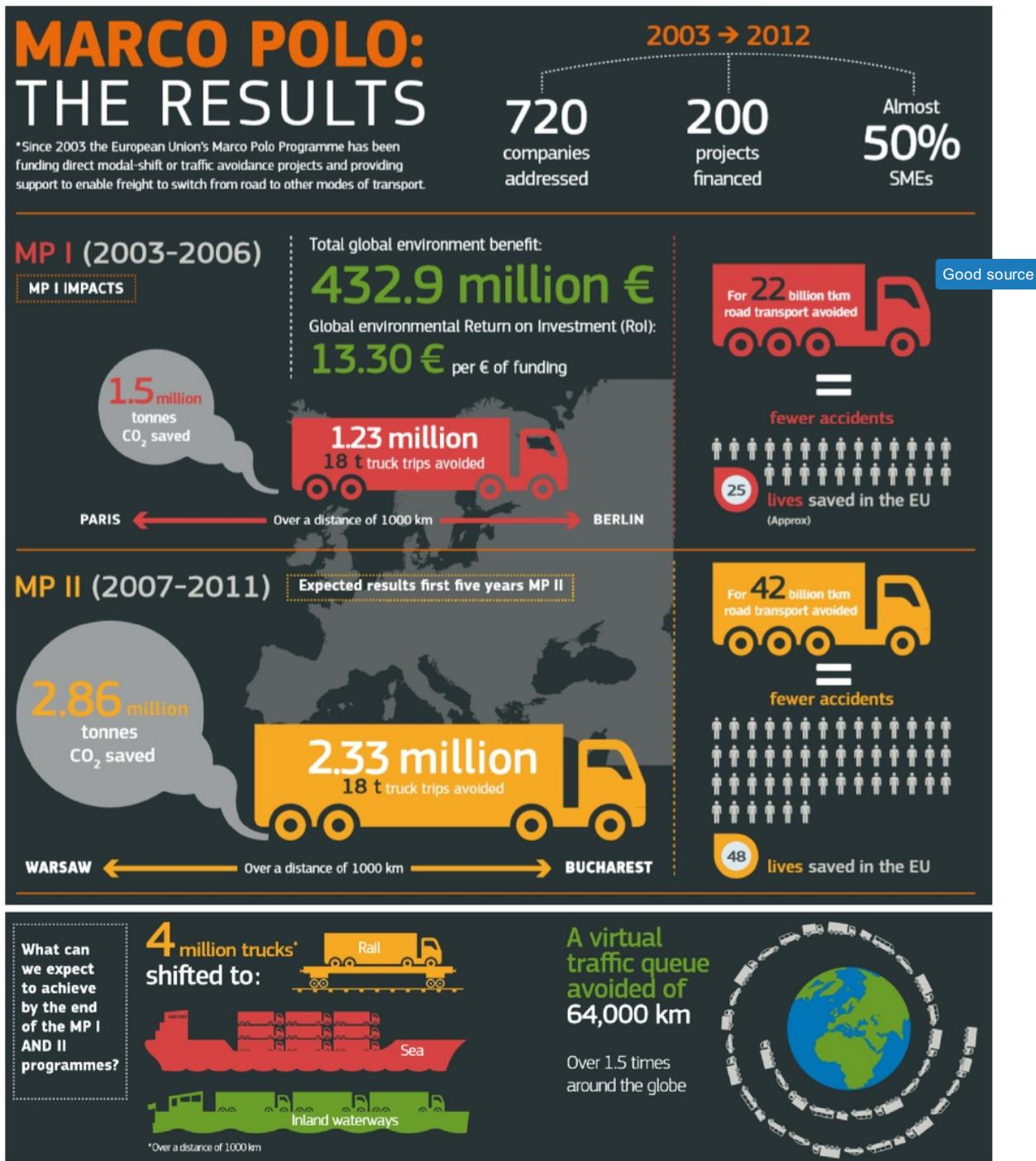


We can therefore see the efficiency of using a single rail line instead of many road lines. This results in a saving of time, money, and a reduction in the environmental impact and a reduction in congestion for trucks no longer on the roads.

II. Results and analysis

1) Promising results:

(Marco Polo : The results, EU commission, 2013)



It can therefore be seen from the above document that the Marco Polo programmes have been able to favour small and medium-sized enterprises since 50% of the project funding granted by the European Commission is dedicated to them. This means that these programs have been able to help companies with small budgets to shift some **Good analysis** light to a mode other than truck and save money on these lines. As far as Marco Polo I is concerned, this first programme first of all made it possible to reduce air pollution by around 1.5 million tonnes while reducing road congestion with 1.23 million fewer trucks in circulation over distances of around 1000 kilometres. In addition, it has generated environmental benefits that can then be used to finance environmental protection programmes, for example. Finally, 25 lives were saved over the period 2003-2006. This means that this programme has had a very positive impact on the environmental and societal fields. We can also note that Marco Polo II has also reduced air pollution, reduced road congestion and saved lives at a higher level. We could therefore say that these kinds of results seem very promising for the future. Nevertheless, we will see that the Marco Polo programmes have not met all their objectives to 100% **Good analysis**

2) The programs have not been so effective

a) Achievements are well below expectations

The legislation had set quantified annual modal shift targets for both programmes. For Marco Polo I, the annual target was 12 billion t/km. For Marco Polo II, the annual target was revised upwards to "a substantial share" of 20.5 billion t/km, on the basis of a proposal for a budget envelope of €740 million to cover infrastructure support. Although the infrastructure amounts were rejected during the legislative procedure, the original objective was essentially maintained. A comparison between the objectives set and the reported results of the programmes indicates that very poor performance persists (*EU's voice for sustainable transport, T&E, 09/09/2002*).

According to the reported modal shift data, 22.1 billion t/km of freight was shifted from road to other modes of transport. Although this result corresponds to the elimination of 1,230,000 1,000-km trips (the Berlin-Paris distance), made by trucks each carrying 18 tonnes of goods, it represents only 46% of the programme's objective (*Evaluation of the Marco Polo Programme, Europe Economics Chancery, 18/04/2011*). During the period 2007-2010, Marco Polo II only transferred 23.9% of the agreed traffic volume. Although this programme was still ongoing at the time of publication of the document, the objective of transferring a substantial part of 20.5 billion t/km per year was not fully achieved, as the annual calls for project proposals did not elicit sufficient response (*Marco Polo II, Executive Agency for Competitiveness and Innovation, 2013*).

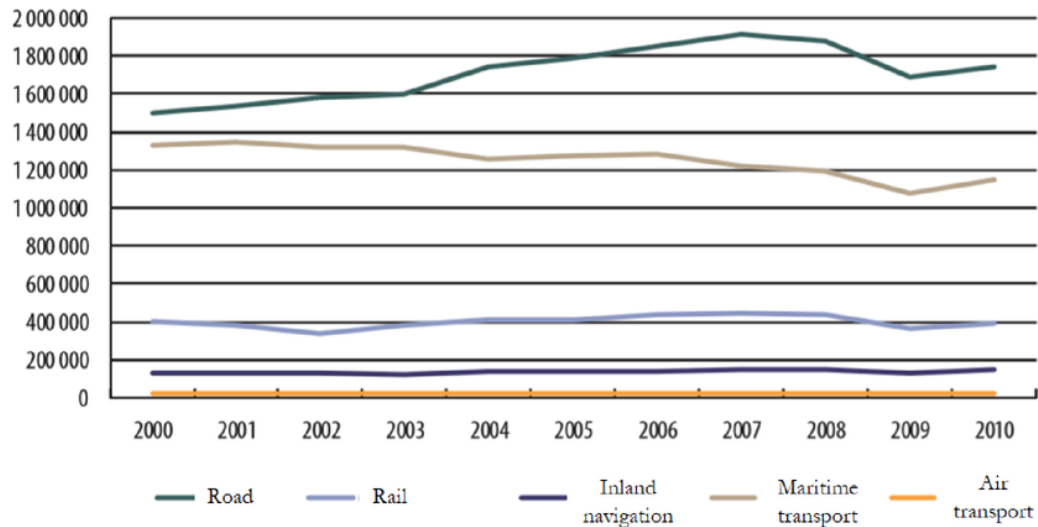
As a result, the funds made available for the programme did not achieve the objective, even though all the projects were fully successful.

Road freight transferred under Marco Polo programmes in billion t/km

	Annual objective	Planned transfers	Transfers made	% made
Marco Polo I				
2003	12	12,4	7,25	58,47%
2004	12	14,38	6,33	44,02%
2005	12	9,53	4,95	51,94%
2006	12	11,4	3,55	31,14%
Total	48	47,71	22,08	46,28%
	AVERAGE			46,37%
Marco Polo II				
2007	20,5	27,83	10,02	36,00%
2008	20,5	16,33	3,4	20,82%
2009	20,5	15,68	2,82	17,98%
2010	20,5	14,15	3,4	24,03%
2011	20,5	13,7	0	0,00%
Total	102,5	87,69	19,64	22,40%
	AVERAGE			20,21%
Total Général	150,5	135,4	41,72	

Le **Stylistics** in the context of the time. Due to the economic and financial crisis that began in 2007, transport volumes in general have declined. Some modes of transport suffered heavy losses: rail transport fell by 17.9%, while inland waterway traffic fell by 10.6% (*Transfert du trafic routier, Cours des comptes UE, 2013*). To cope with this crisis and to be able to continue driving, road hauliers have lowered their prices. This has not only discouraged the shift to non-road modes of transport, but has also encouraged the shift from non-road to exclusively road transport operations (reverse modal shift), and highlighted the cyclical vulnerability of programmes as they are currently designed. **Good analysis**

Freight transport in the EU by mode of transport in million t/km :



(*Transfert du trafic routier, Cours des comptes UE, 2013*)

Road freight transport remains the main mode of transport, while rail and inland waterway transport remain at very modest levels. The above graph shows that prior to 2007, road freight transport volumes increased year on year, that between 2007 and 2009, transport volumes fell for all modes of transport as a result of the crisis and that from 2009 onwards, there was a clear recovery in transport volumes, mainly on road freight and maritime routes, while rail and inland waterways failed to increase their market share.

b) The real impact of Marco Polo programmes cannot be measured

The programme funds were intended to support the policy objectives of reducing the environmental side-effects of freight transport, reducing road congestion and improving road safety. The European Court has taken note of the Commission's estimates that each euro invested in the Marco Polo I programme has resulted in environmental benefits worth 13.30€ (*Marco Polo : The results, EU commission, 2013*).

However, the available data on road congestion and traffic accidents do not allow an assessment of the actual impact, as Eurostat (the European Statistical Agency) has no agreed official methodology and no harmonised statistical data on road congestion, and data on traffic accidents are incomplete. In addition, while it is generally accepted that the use of alternatives to road-only transport usually provides greater benefits to the community in general, the actual level of

leverage is probably much lower. This is due to the fact that between 2004 and 2010, the Marco Polo spreadsheet data used was outdated and therefore incorrect. Since 2004, road transport has gradually become cleaner thanks to research and innovation. This has not been taken into account by the Commission in its calls for proposals from 2005 to 2010. It was only in the 2011 call for proposals that new coefficients and methodology were used to quantify the impact of freight transport by rail, inland waterway and short sea shipping (*Transfert du trafic routier, Cours des comptes UE, 2013*). In some cases, these modes are not much more advantageous than road-only transport. Thus, there is no longer much difference between exclusively road transport and transport by diesel trains, small barges or ro-pax passenger ships running on traditional fuel when operating at low speeds. As soon as the speed of these ships increases, it would even be better for the environment if the goods were transported by truck!

Conclusion

Freight transport is congesting Europe's roads, while the continent's rail, sea and inland waterways are underused. Marco Polo I and II are programmes set up by the EU to promote these more environmentally friendly modes of transport and to relieve the roads of some of the freight that passes through them. Although these objectives fully address the problems we face today (air pollution, road safety, etc.), these programmes have not succeeded in achieving the various goals that were initially set. Indeed, the objectives set have only been partially achieved, they have had only a limited impact on the modal shift of road freight, and there is no data to determine the expected benefits in terms of reducing the environmental impact of freight transport, reducing congestion and improving road safety. However, they have not been a total fiasco because it should not be forgotten that, from the point of view of the volume of greenhouse gas emissions for example, these programmes have made it possible to reduce the volume of CO₂ particles in the atmosphere. explanation requi Stylistics what now do is encourage these programmes by learning from the mistakes of the past, rather than blaming the Marco Polo programmes for not having fully achieved their objectives. Stylistics Otherwise, Stylistics we will never be able to solve the problem. Good conclusion

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Assignment 22

GRADEMARK REPORT

FINAL GRADE

75/100

GENERAL COMMENTS

Instructor

Well researched and excellent use of informed literature.

Very good knowledge and understanding of topic demonstrated.

Excellent analysis. Good discussion on all sourced researched and conclusions formed with justification from relevant sources.

Very good structure and layout. references not in Harvard format.

Excellent piece of work. Well done.

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Stylistics

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Good analysis

Good analysis

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Stylistics

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Stylistics

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Good conclusion

Well concluded

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Incorrect referencing

Additional Comment Not in Harvard format

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