



MARCO POLO
NEW WAYS TO A GREEN HORIZON

Information for the members of the SSS - MoS focal point Meeting 21-22 November 2012

P.Vankerckhoven, Head of Unit Marco Polo - EACI



<http://ec.europa.eu/marcpolo>



MARCO POLO II – Results of Call 2011

Received proposals	50
Requested subvention	€104,3 M
Proposed Tkm shift	36 b
Available budget	€56,9 M
Contracts awarded (max 33,61M€)	18
Very few shipping proposals and only 2 SSS + 1 mix for the G.A signed	





Marco Polo: 2012 received proposals (54)



Modal Shift actions (46)	85%
Common Learning actions (5)	10%
Motorways of the Sea actions (2)	3%
Traffic Avoidance (1)	2%
Per mode: 11 SSS (23,5%), 3 Rail/SSS (6%)	





MARCO POLO
NEW WAYS TO A GREEN HORIZON

General Overview of **Marco Polo I and II**

- For MP I between 2003/2006: 55 projects financed
- For MP II between 2007/2011: 117 projects financed (2 calls to add!)
- Global paid funds for MP I: 41,76M€
- Between 2003/2011: 172 projects financed addressing 655 companies





MARCO POLO
NEW WAYS TO A GREEN HORIZON

First global environmental results of the programme since 2003 !



<http://ec.europa.eu/marcopolo>



Results of Marco Polo I

- Since February 2012, we have finalised all G.A. under MP I and final results are available !
- Over 4 years, 22,1 billion tkm have been avoided on EU roads thanks to the cooperation between Industry and the EU.
- These are 1.230.000 trucks trips over a distance of 1000km (*1) (Berlin/Paris) with an average load of 18 tons of freight!



(*1) = 1,23 billion vkm





First results of Marco Polo II

- **The expected results for the 4 first years of MP II**
- The G.A. signed for the first 4 years, may avoid around 35 billion tkm.
- Around 1.300.000 trucks trips over a distance of 1500km (Milano/Warsaw) with an average load of 18 tons of freight! (*2)
- More is to come with the G.A. to be signed for the years 2011 to 2013



Best estimates for global MP II: 61b tkm
= 3,4 billion vkm

(*2) = 1,95 billion vkm





What can be reasonably expected for the global results of the **Marco Polo I and II** programmes ?

- **At the end of the Marco Polo programmes operational implementation we may expect:**
 - ▶ To have shifted more than 4 million trucks from the road to other modes of transport with a journey distance of 1000km each. (*3)
 - ▶ This represents a virtual traffic queue avoided of 64.000km !

(*3) = 4 billion vkm





What can be reasonably expected for the global results of the Marco **Polo I** programme ?

■ What are the CO² and Env Ben savings ?

- ▶ Savings of 22,1 billion tkm
- ▶ With a conservative approach, 1,5 million tons of CO² have been saved
- ▶ For an investment of 32,6M€ (modal shift paid under MPI)
- ▶ At a price of e.g 35€/ton CO², savings of 52 M€ on the non-generated CO²
- ▶ Global environmental benefit generated based on the MP calculator: 432,9M€

▶ **ROI: 13,3€ env ben per 1€ invested** → only for the Env Ben savings





What can be reasonably expected for the global results of the Marco **Polo I and II** programme ?

■ Road accidents and casualties savings ?

▶ Stats for lorries > 3,5 T (*4)

- 3% of EU vehicles fleet
- 7% of driven km
- 18% of fatal accidents
- 7000 lives across EU in 2008
- Per km driven, involved twice as many fatal accidents as cars
- Average : **20 casualties per 1 billion km driven**



▶ Cost for a human life: (*5)

- At the EU level, approx **3M€/life** (6M\$ for the US transportation Dpt)

(*4) Sources: CARE database, ETAC study 2007, T&E February 2012 –Smarter-Safer-Cleaner

(*5) Sources: e.g Safety Net CBA (16/10/2009) EC DG TREN study





What can be reasonably expected for the global results of the **Marco Polo I and II** programme ?

■ Road accidents and casualties savings ?

▶ **Marco Polo I results:**

- For 1,23 billion vkm avoided, approx 25 lives saved in the EU

▶ **Marco Polo II reasonable expectations:**

- For 3,4 billion vkm avoided, approx 68 lives saved in the EU

▶ **At a cost of 3M€/life**

- **MP I: 75M€** societal benefit for the community
- **MPII: 204M€** societal benefit for the community





What can be reasonably expected for the global results of the Marco Polo I programme ?

■ What are the other Env Ben savings ?

- ▶ Benefits of the congestion reduction thanks to 4,6 billion vkm avoided (*6)
- ▶ Benefit of the reduction of other GHG pollutants
- ▶ Benefit of the reduction of exhaust small black carbon particles
- ▶ And all the others.....

(*6) at 0,25€/vkm for Motorways traffic congestion: source: Assumption for European Transport 2002, congestion costs by Brems, Kristensen, Cowi ,,,





Conclusions

- Marco Polo I expenses of 32,6M€ over 4 years have:
 - Reduced the transport of 22,1 billion Tkm in the EU
 - Reduced the traffic flow by 1,23 billion Vkm
 - Taken of the road 1,23 million heavy trucks on a distance between Berlin and Paris
 - Reduced the production of 1,5 million tons of CO² saving as such 52M€
 - The global environmental benefit generated has been 433M€
 - Reduced the road accidents casualties by 25 lives generating 75 M€ of societal benefit
- Total savings of 508M€ at a EU cost of 32,6M€ →

ROI = 15,6 !





Conclusions (2)

- Marco Polo II modal shift grants over 7 years would:
 - Reduce the transport of 61 billion Tkm in the EU
 - Reduce the traffic flow by 3,4 billion Vkm
 - Reduce the production of above 4 million tons of CO² saving as such 140M€
 - Generate a global environmental benefit around 1,2 billion€
 - Reduce the road accidents casualties by 70 lives generating above 200M€ of societal benefit
- Total savings of 1400M€ at a EU cost of around 130M€

→ ROI = 10 !





MARCO POLO
NEW WAYS TO A GREEN HORIZON

Thank you for your attention

Patrick Vankerckhoven
Head of Unit

Executive Agency for Competitiveness & Innovation
Marco Polo

patrick.vankerckhoven@ec.europa.eu

EACI-MARCO-POLO-helpdesk@ec.europa.eu

EC-MOS-helpdesk@ec.europa.eu

WWW.mos-helpdesk.eu

European Commission, EACI.05
BE-1049 Brussels



<http://ec.europa.eu/marcopolo>