

Brussels, 14.5.2013 COM(2013) 278 final

# COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

The Marco Polo programme - Results and outlook

{SWD(2013) 174 final}

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# COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

#### The Marco Polo programme - Results and outlook

#### 1. Introduction

Article 14 of Regulation  $1692/2006^1$  provides that the Commission shall present to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions a Communication on the results achieved by the Marco Polo programmes for the period 2003 - 2010.

The performance of the programmes was assessed in the framework of an external evaluation<sup>2</sup>. For the needs of the Communication, the findings of the evaluation have subsequently been updated with additional information, including operational data obtained up till November 2012.

Further, the Communication provides a general outlook on the next steps and the approach towards support for innovative and sustainable freight transport services in the period covered by the next Multi-annual Financial Framework (MFF) 2014 – 2020.

Finally, the Commission Staff Working Document accompanying this Communication presents relevant statistical data and analysis of the specific issues mentioned in Article 14 (2a) of Regulation 1692/2006.

# 2. THE MARCO POLO PROGRAMME AS AN INSTRUMENT SUPPORTING SUSTAINABLE FREIGHT TRANSPORT SERVICES AT THE EU LEVEL

The programme was established as a result of the White Paper on the Common Transport Policy of September 2001<sup>3</sup>. The White Paper paper proposed that more intensive use of short sea shipping, rail and inland waterway transport should be key elements in the development of intermodality as a practical and effective means to achieve a balanced transport system.

The White Paper forecasted that if no actions were taken, road freight transport would increase by around 50 per cent by 2010, leading to additional road infrastructure costs, an increased number of accidents, increased congestion and increased local and global pollution. The direct effect would be growth of the international (intra EU) road freight traffic by about 12 billion tonne-kilometres<sup>4</sup> per year.

Against this background, the Marco Polo I programme  $(2003 - 2006)^5$  was established. A budget of EUR 102 million was made available to support actions aiming at shifting the forecasted increase of 48 billion tonne-kilometres of freight from roads to short sea shipping, rail and inland waterways or to a combination of modes of transport in which road journeys are as short as possible.

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Regulation (EC) No 1692/2006 of the European Parliament and of the Council establishing the second 'Marco Polo' programme for the granting of Community financial assistance to improve the environmental performance of the freight transport system (Marco Polo II) and repealing Regulation (EC) No 1382/2003, as amended by Regulation (EC) No 923/2009, OJ L 328/1, 24/10/2006

Evaluation of the Marco Polo Programme 2003 – 2010, Europe Economics, April 2011

White Paper - European transport policy for 2010: time to decide, COM(2001) 370 final, 12.09.2001

Tonne-kilometre" (tkm) means the transport of a tonne of freight, or its volumetric equivalent, over a distance of one kilometre;

Based on Regulation (EC) No 1382/2003

When developing the second Marco Polo programme<sup>6</sup> (2007 - 2013), the forecasts of freight transport growth were recalculated<sup>7</sup>. As a result, it was concluded that in the absence of any action, international (intra EU) road freight transport would grow by 20.5 billion tonne-kilometres per year between 2007 and 2013. Marco Polo II was expected to shift a substantial part of this growth with a budget of EUR 450 million.

## 3. KEY FEATURES OF THE PROGRAMME

The Marco Polo Programme, established to reduce road congestion and to make freight transport more efficient and sustainable, is the only EU funding instrument defined in its legal framework as a fixed contribution per output. The subsidy is usually calculated on the basis of achieved modal shift expressed in millions of tonne-kilometres<sup>8</sup>. This modal shift can be then transformed in monetary terms into environmental, congestion and other benefits that the Marco Polo actions produce.

Marco Polo I envisaged three types of actions:

- (a) modal shift actions: shifting as much freight as possible from road to short sea shipping, rail and/or inland waterways;
- (b) catalyst actions: changing the way non-road freight transport operates in the EU and overcoming structural market barriers in European freight transport through a breakthrough or highly innovative concept;
- (c) common learning actions: enhancing knowledge in the freight logistics sector and fostering advanced methods and procedures of co-operation in the freight market;

Two more actions were added under Marco Polo II:

- (d) motorways of the sea: any innovative, large-volume, high-frequency intermodal action which directly shifts freight from the road to short sea shipping. This includes a combination of short sea shipping and other modes for hinterland transport and integrated door-to-door services in which road journeys are as short as possible;
- (e) traffic avoidance actions: any innovative action integrating transport into production logistics to avoid a large percentage of freight transport by road without adversely affecting production output or workforce.

In addition, the overall budget was increased from EUR 102 million to EUR 450 million and the duration of the programme was extended from 4 to 7 years. Marco Polo II further introduced other changes: a wider geographical scope, modified funding rules for certain types of actions, a new definition of eligible applicants and a new approach to ancillary infrastructure.

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Based on Regulation 1692/2006.

Ex-ante Evaluation Marco Polo II (2007-2013), Ecorys, 2004; estimations of freight transport growth: PRIMES model and EUROSTAT statistics.

According to the programme's rules, the subsidy is calculated as the lowest value out of: (1) tonne-kilometres shifted; (2) cumulative losses over the funding period; and (3) 35% of the eligible costs (50% for Common Learning actions). In practice, for most of the modal shift based actions (excluding Common Learning actions and specific objectives of Catalyst actions) the payment is limited to the maximum of tkm achieved.

Marco Polo II was reviewed in 2009<sup>9</sup> in order to facilitate participation by small and micro enterprises and to simplify procedures. In addition, the funding intensity was doubled from EUR 1 to EUR 2 for each 500 tonne kilometres shifted off the road.

Management-wise, the implementation of the programme was transferred from the Commission to the Executive Agency for Competitiveness and Innovation (EACI) in 2008.

#### 4. RESULTS DELIVERED BY THE MARCO POLO PROGRAMMES

Between 2003 and 2012, 172 grants were awarded, providing financial aid to over 650 companies.

Due to the unique design of Marco Polo linking the subsidy with the actual modal shift delivered by projects, the results of the programme can be quantified, enabling the programme's real achievements to be assessed.

## - Effectiveness

The effectiveness of the programme is measured in terms of realised modal shift/traffic avoidance<sup>10</sup> (in tonne-kilometres).

Due to the differing nature of each of the actions, the effectiveness can be directly measured for modal shift, catalyst, motorways of the sea and traffic avoidance actions. Catalyst actions have additional specific features, which will be addressed separately. Common learning actions do not have a direct modal shift objective and therefore cannot be evaluated based on transport shifted off the road.

For Marco Polo I, the modal shift expected by the selected projects amounted to 47.7 billion tonne – kilometres (btkm), which is approximately equal to the overall target established for the programme (48 btkm). Eventually, the projects achieved an actual modal shift of 21.9 btkm. This figure represents around 46 per cent of the overall modal shift target and is the equivalent to around 1,200,000 truck trips over a distance of 1000 km with an average load of 18 tons of freight.

In Marco Polo II, the volume of modal shift expected by projects awarded in the calls between 2007 and 2011 amounts to 87.7 btkm, 17.54 btkm on average per year. At November 2012 these projects have realised an actual modal shift of 19,5 btkm (some 5 btkm on average so far for the four years with figures available). As Marco Polo II is still running, the figures will increase over the programme's lifecycle<sup>11</sup>.

Since Marco Polo projects are business services, they are sensitive to market and economic conditions. As a result, the economic downturn observed since 2008<sup>12</sup> has an adverse impact on the uptake and effectiveness of the programme and the viability of projects<sup>13</sup>.

Catalyst actions, in addition to the modal shift objective, aim to identify and overcome barriers to innovative approaches in non-road freight transport. These barriers of a technical and – in some cases – "psychological" nature are specific to each project. It is therefore, difficult to provide direct collective results of all the benefits of catalyst actions apart from those resulting from modal shift.

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<sup>9</sup> Regulation (EC) No 923/2009 of the European Parliament and of the Council, OJ L 266/2, 9/10/2009

The metric for evaluating traffic avoidance actions is expressed rather in vehicle kilometres than the tonne kilometres. The vehicle kilometres (vkm) can be converted in tonne kilometres (tkm) where 1 vkm equals 20 tkm

It is foreseen last Marco Polo II projects will be operating up to 2020

In the freight transport sector there was an overall decrease of the transport volumes. For details see the Commission Staff Working Document accompanying the Communication.

<sup>13 11</sup> projects non-started or terminated under MP I (calls 2003-2006) and 30 projects non-started or terminated so far under MP II (calls 2007-2010)

The effectiveness of common learning actions was assessed on a project by project basis (e.g. whether the forecasted number of lectures took place or the forecasted number of attendees was achieved). This is because the objectives of each action were different and no common basis exists on which to group the results. Common learning actions have been relatively successful in achieving their stated objectives, with a number of projects having a success rate of 100 per cent. However, a longlasting impact of the common learning actions on the practices of logistics companies and on the modal split is more difficult to assess.

#### Environmental benefits

Improving the environmental performance of freight transport is one of the key objectives of the Marco Polo programme. The achieved modal shift expressed in tonne-kilometres is transformed in monetary terms into environmental, congestion and other benefits, using an external costs calculator<sup>14</sup>. The calculator produces an economic valuation for different modes and sub-modes of transport based on external cost coefficients<sup>15</sup> provided for environmental impacts (air quality, noise, climate change) and socio-economic impacts (accidents, congestion).

Based on the modal shift figures delivered by Marco Polo I projects, the environmental benefits are estimated<sup>16</sup> at EUR 434 million. Comparing this figure to the funds paid to projects with a modal shift objective (EUR 32.6 million), means that each euro invested in these actions has generated on average EUR 13.3 in environmental benefits and other external costs savings. These benefits include 1.5 million tons of CO<sup>2</sup> not generated by road traffic.

As Marco Polo II is ongoing, final results are not yet available. However the interim figures (November 2012) indicate that EUR 405 million in environmental benefits have been produced by the programme so far.

In addition to the environmental benefits discussed above, other important indirect impacts may also be considered, for example the effects from decreased traffic on nature protection or sensitive areas, such as the Alps or Pyrenees, or knowledge spill-overs and networking effects obtained through collaboration between entities involved in the Marco Polo Programme.

#### - Efficiency

The efficiency is measured as the ratio of outputs (tkm achieved for projects with a modal shift objective) to inputs (the committed or paid budget).

For Marco Polo I modal shift projects (excluding common learning and catalyst actions), when taking account of the payments transferred to the beneficiaries, each invested euro resulted in a shift of 597 tkm. This can be compared with the average efficiency of 743tkm per euro of subsidy<sup>17</sup>, expected by projects selected under annual calls for proposals<sup>18</sup>.

For the Marco Polo II programme, the efficiency expected<sup>19</sup> by selected projects<sup>20</sup> with a modal shift objective amounted to 438tkm/euro (November 2012). Any genuine figures representing efficiency actually achieved are not available at present as the programme is still underway.

Marco Polo calculator (see more on http://ec.europa.eu/transport/marcopolo/index\_en.htm)

The coefficients and methodology used in the calculator were adjusted over time. The recent versions of the calculator are based upon the "Handbook on estimation of external costs in the transport sector" (IMPACT 2008)

The values produced by the calculator can be regarded only as indicative.

The efficiency expected by selected projects is measured before any payments to projects take place; hence it is based on the funds committed

<sup>&</sup>lt;sup>18</sup> In 2003, 2004, 2005 and 2006

<sup>19</sup> Based on funds committed

Concerning projects selected under the calls for proposals: 2007, 2008, 2009, 2010 and 2011

A decrease in efficiency during the Marco Polo II programme can be explained by changes to the rules governing projects, in particular, doubling the funding intensity from the 2009 call (from EUR 1 to EUR 2 per 500tkm) and the new definition of freight<sup>21</sup>.

#### Use of funds

Out of EUR 102 million allocated for the Marco Polo I, EUR 73,8 million were committed. The reasons behind this situation is that only a limited number of project proposals complied with the criteria and conditions established by the programme (265 proposals submitted and 55 contracts signed), leading to a lower uptake of the programme than desired.

Out of this committed budget, EUR 41,8 million were paid. The fact that payment to beneficiaries is conditional on actual achievement of results is an important aspect of the programme and demonstrates an efficient allocation of public funds. However, this means that in case the actually achieved modal shift figures are lower than those originally calculated by the beneficiaries, e.g. because of the adverse effects of the financial crisis, the budget available for the programme is not entirely used.

A similar trend is forecasted for the on-going Marco Polo II programme.

In addition, as a general rule, the amounts paid to a project may not exceed the total deficit experienced over the funding period (see footnote 8). Therefore if a project produces profit or achieves a break-even point earlier than foreseen in the application, the subsidy may be respectively withdrawn or reduced. This was the case for several Marco Polo projects, and also contributed to lower use of allocated funds.

# - Sustainability

Sustainability refers to whether or not the project remains operational in some form following the end of the funding period. According to the evaluations<sup>22</sup> performed on the programmes, the majority of services are expected to continue following the end of the Grant Agreement. This indicates that short-term funding may have created long-term change even in the current evolving market conditions. As a result, programmes are likely to generate additional benefits in terms of modal shift/traffic avoidance and external costs savings after the contractual lifetime, but which, due to non-availability of relevant data, cannot be included in quantification of the programme's impacts.

# Competition

The Marco Polo programme provides grants to transport companies in order to finance the start-up of actions to shift freight transport off the road. The focus on new transport services (or upgrades of existing ones) and certain levels of saturation on intermodal routes may lead in some cases to competition concerns even if safeguards are established to avoid a degree of distortion which goes against the common interest (i.e. assessment of competition in the proposals' evaluation process, possibility of terminating or reducing the scope of contracts in case of proven competition distortion).

In practice, even though a number of complaints on distortion of competition have been lodged by competitors to Marco Polo beneficiaries over the lifecycle of both Marco Polo programmes, there is no clear evidence of any significant adverse competition effects<sup>23</sup>.

#### - Management

Including the weight of empty intermodal transport and road vehicles

Evaluation of the Marco Polo Programme (2003-2006), Ecorys, 2007; Evaluation of the Marco Polo Programme 2003 – 2010, Europe Economics, 2011

These complaints were duly examined by the Commission/EACI. As a consequence a reinforcement of the internal evaluation procedure with regard to the competition issue has been introduced since 2011 Call for Proposals.

With the capacity to commit more human resources, EACI has proven to deliver added value to the implementation process of Marco Polo. The externalisation has allowed a stepping up of communication efforts, improving promotion of the programme, enhancing the operational controls and providing increased assistance to applicants.

#### Procedures

The procedures of the programme are based on the principle of sound financial management and were developed with the aim of ensuring a level playing field and striking an appropriate balance between the necessary administrative controls on the use of the public money and the needs of businesses. However, due to the very operational nature of the programme, in some cases these procedures may be seen as complex and may not be fully compatible with the day-to-day practices of private companies, particularly in the context of an ever-changing financial risk environment.

# Other important factors

- (a) The uptake of the Marco Polo programme is considered not entirely satisfactory. Doubling the funding intensity in 2009 has only partly solved this issue. This situation may be explained by external reasons such as a limited target group, changing market conditions and an adverse economic climate since 2008, but also by internal factors such as the design of the programme, which, in order to protect public funds, transfers the main operational risks to the beneficiaries:
- (b) The introduction of complementary audit certificates since 2010, has facilitated the verification of the quantities of freight transported by the Marco Polo projects and has decreased the risk of miscalculation and alleged fraud but further increased the administrative burden for the beneficiaries;
- (c) The modal shift orientation of the programme (allowing payments almost exclusively on the basis of realised modal shift/traffic avoidance<sup>24</sup>) is one of the the reasons why the beneficiaries face difficulties in financing ancillary infrastructure<sup>25</sup>, even though the expenditure incurred for this type of infrastructure may also be eligible for the financial assistance<sup>26</sup>;
- (d) The current modal shift approach is not attractive for certain insular Member States. This is because freight transport links between the islands and the continent and also between islands themselves are mainly maritime services. As a result there are limited possibilities to generate modal shift/traffic avoidance at the levels required by the programme;
- (e) According to limited numbers of beneficiaries surveyed on the Marco Polo<sup>27</sup>, it can not be excluded that there may be some deadweight in the programme, meaning that a proportion of supported projects would have gone ahead even in the absence of Marco Polo funds. On the other hand, the start-up aid provided through EU grants may have mitigated the business risk to start these intermodal operations and helped some projects to reach the break-even point earlier than it would have been possible without funding. It is also likely that a

See footnote 8

The necessary and sufficient infrastructure to achieve the goals of actions, including freight-passenger installations

Only the portion of the infrastructure's depreciation corresponding to the duration of the action and the rate of actual use for the purposes of the action may be taken into account as eligible cost. The eligible costs for ancillary infrastructure shall not be higher than 20% of the total eligible costs for the action

See footnote 22

- larger scale project was possible as a result of the subsidy being provided. Full scope of this deadweight phenomenon is however difficult to quantify;
- (f) While participation of small and medium enterprises is not a direct objective of the programme, it is estimated that they represent around 24 per cent<sup>28</sup> of the total population of beneficiaries.

Detailed figures on the performance of the Marco Polo programmes are presented in the Commission Staff Working Document accompanying the present Communication.

## 5. CONCLUSIONS ON THE ACHIEVED RESULTS

The Marco Polo programmes were set up as funding instruments to reduce road congestion and to improve the environmental performance of the freight transport system. Unique and important features of the programme are its transparency, the precision with which results can be measured and the direct relationship between EU funding and the results obtained.

The already completed Marco Polo I programme generated around EUR 434 million in environmental benefits, removing 21.9 billion tonne-kilometres of freight off European roads. Further significant modal shift and related benefits are expected for the on-going Marco Polo II programme.

However, the ambitious objectives of modal shift set by the legislator have not been fully achieved (46% of planned modal shift for Marco Polo I). Furthermore, the programmes are considered as rather complex, and in some cases not easy to be used by the European companies.

Nonetheless, it should be highlighted that Marco Polo is based on quantifiable results and payments are made almost exclusively for the modal shift actually realised. What is more, market conditions and the economic situation are important elements in determining the success of projects. Since intermodal transport solutions are more complex and difficult to implement than a pure road transportation system, the programme has been particularly sensitive to the effects of the economic crisis. Hence, Marco Polo represents a good example of efficient use of the EU funds even if the programme's objectives have not been fully met and the allocated budget has not been entirely spent.

Provision of public funding directly to the market raised also some competition concerns during the lifecycle of the programme. On the other hand, there was no clear evidence about any significant adverse competition effects of financed projects.

Marco Polo is currently the only European funding instrument focused on the improvement of efficiency of freight transport. Therefore continued support is considered useful and appropriate. However, any new scheme supporting sustainable freight transport services will need to reflect on the lessons learnt from the previous programmes.

# 6. NEXT STEPS

## Transport policy context

In March 2011, the Commission issued a strategy for a competitive transport system that will increase mobility and accessibility, remove major barriers in key areas and contribute to increased growth and employment<sup>29</sup>. Amongst the main targets for the EU transport policy

This figure represents only autonomous SMEs (not linked to other enterprises); Source: EACI data

White Paper, Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, COM/2011/0144

are: deployment of clean fuels, optimisation of the performance of multimodal logistic chains and use of more energy-efficient modes, increasing the efficiency of transport and of infrastructure use and the development of information systems and market-based incentives. The new Trans-European Transport Network guidelines (TEN-T)<sup>30</sup> adopted by the Commission in October 2011, will provide main framework to achieve the transport policy objectives as specified in the White Paper.

For the Multiannual Financial Framework (MFF) 2014 – 2020, the Commission proposed two pillars to be retained for the provision of financial aid to EU transport policy.

An infrastructure pillar will be covered within the Connecting Europe Facility (CEF)<sup>31</sup>. Within its transport component, the CEF is foreseen to upgrade Europe's transport infrastructure, build missing links and remove bottlenecks. Since funding will be concentrated on transport modes that are less polluting, broader deployment of telematics applications and use of innovative technologies, it will push the European transport system to become more sustainable.

An innovation pillar will be implemented by relevant parts of the new research and innovation programme (Horizon 2020)<sup>32</sup>.

# Support for the innovative and sustainable freight transport services - policy approach

With the objective of improving efficiency and sustainability of European freight transport and logistics, the Commission proposes a new approach in support of the freight transport services in the period 2014 - 2020.

Based on the achieved results and taking account of the evolving policy context, the Marco Polo II programme will be discontinued in the current form. Instead, a follow-up of Marco Polo will be integrated within the revised TEN-T programme and implemented using funding instruments provided by the CEF.

This approach will lead to a harmonised and coordinated implementation of the European transport policy. In this context, the follow-up of Marco Polo will contribute in particular to the efficient management and use of the transport infrastructure, allowing deployment of innovative and sustainable freight transport services on the multimodal core network, which is supposed to serve the most important European traffic flows.

These services should meet the needs of their users, be economically efficient, contribute to the objectives of low-carbon and clean transport, fuel security and environmental protection, be safe and secure and have high quality standards. They need to promote advanced technological and operational concepts and contribute to the improvement of accessibility within the Union. They also should play an important role in pushing the European economy towards sustainable growth, making the freight transport and logistics sector as one of Europe's growth engines, enhancing trade and the mobility of people, creating wealth and jobs and maintaining the competitiveness of European companies.

Therefore, as proposed by the Commission in Art 38 of the new TEN-T Guidelines, the new approach shall include the following<sup>33</sup>:

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Proposal for a Regulation on Union guidelines for the development of the trans-European transport network, COM(2011) 650/2

Proposal for a Regulation of the European Parliament and of the Council establishing the Connecting Europe Facility, COM(2011) 665/3

Proposal for a Regulation of the European Parliament and of the Council establishing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020), COM(2011) 809

The text of the TEN-T guidelines and this article are currently subject to the legislative procedure and might therefore be amended.

- (g) improve sustainable use of transport infrastructure, including its efficient management;
- (h) promote the deployment of innovative transport services or new combinations of proven existing transport services, including through the application of ITS and the establishment of relevant governance structures;
- (i) facilitate multi-modal transport service operations and improve cooperation between transport service providers;
- (j) stimulate resource and carbon efficiency, notably in the fields of vehicle traction, driving/steaming, systems and operations planning, resource sharing and cooperation;
- (k) analyse, provide information on and monitor markets, fleet characteristics and performance, administrative requirements and human resources.

In this framework, attention will also be paid to measures supporting interconnectivity and interoperability of freight transport information across the modes and to facilitating deployment of Motorways of the Sea - based services.

Finally, this should lead to focussed funding, firmly integrated in policy and infrastructure orientations, encouraging commercial undertakings to switch to more innovative and sustainable solutions, helping them to reduce associated risks and addressing the main failures occurring in the freight transport sector, such as: lack of uptake of innovation, interconnectivity problems between transport modes, difficulty of access to finance, insufficient internalisation of external costs, inefficient use of resources and lack of cooperation in the market.

The new approach is expected to improve the effectiveness and efficiency of the EU financial aid. The format of the current instrument will therefore be revised with respect to the type of actions supported, management structure and implementation processes. Also the consistency with the operational structures of the CEF will need to be adequately addressed.

This would possibly mean departing from the pure start up aid for modal shift as the key element under the current Marco Polo programme.

#### Measures and implementation

The CEF foresees that funding for sustainable freight transport services may be delivered in the form of financial instruments or in the form of grants, where the amount of Union financial aid shall not exceed 20% of the total eligible costs. This maximum funding rate will be adequately adapted with a view of triggering interest on the market and ensuring appropriate leverage of the public funds allocated to the programme<sup>34</sup>.

As far as grants are concerned, the proposals should be selected through calls for proposals with funding conditions, eligibility, selection and award criteria, in line with the objectives and priorities laid down in the CEF and and in the TEN-T guidelines.

Operational targets, pertinent indicators and delivery mechanisms of EU support will, where relevant, take due account of the results of the performance audit on the Marco Polo programme currently being performed by the European Court of Auditors (ECA).

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As explained under footnote 8, the subsidy for the current Marco Polo II programme is calculated on the basis of: (1) tonnekilometres shifted; (2) total losses experienced over the funding period; and (3) the eligible costs. Based on evidence from supported projects, the actual funding rate in the programme on average does not exceed 10% of the total eligible costs.