

| A GENERAL INFORMATION |   |
|-----------------------|---|
| A 1                   | <b>Category</b>                             |
| A 2                   | <b>Subcategory</b>                          |
| A 3                   | <b>Transport policy measure (TPM)</b>       |
| A 4                   | <b>Description of TPM</b>                   |
| A 5                   | <b>Implementation examples</b>              |
| A 6                   | <b>Objectives of TPM</b>                    |
| A 7                   | <b>Key changes concerning:</b>              |
| A 7.1                 | - Choice of transport mode / Multimodality: |
| A 7.2                 | - Origin and/or destination of trip:        |
| A 7.3                 | - Trip frequency:                           |
| A 7.4                 | - Choice of route:                          |
| A 7.5                 | - Timing (day, hour):                       |
| A 7.6                 | - Occupancy rate / Loading factor:          |
| A 7.7                 | - Energy efficiency / Energy usage:         |
| A 8                   | <b>Main source</b>                          |

| B IMPACTS |                                 |
|-----------|---------------------------------|
| B 1       | <b>OVERVIEW ON IMPACTS</b>      |
| B 1.1     | <b>Summary</b>                  |
| B 1.2     | <b>Summary: Income groups</b>   |
| B 1.3     | <b>Summary: Age groups</b>      |
| B 1.4     | <b>Summary: Disabled people</b> |
| B 1.5     | <b>Summary: Gender groups</b>   |
| B 1.6     | <b>Summary: Ethnic groups</b>   |

| B 2 TRAFFIC IMPACTS |   |
|---------------------|---|
| B 2.1               | Travel or transport time                              |
| B 2.2               | Risk of congestion                                    |
| B 2.3               | Vehicle mileage                                       |
| B 2.4               | Service and comfort                                   |
| B 2.I               | <b>Overall impacts on social groups</b>               |
| B 2.II              | <b>Implementation phase</b>                           |
| B 2.III             | <b>Operation phase</b>                                |
| B 2.IV              | <b>Summary / comments concerning the main impacts</b> |
| B 2.V               | <b>Quantification of impacts</b>                      |

| B 3     | ECONOMIC IMPACTS                                | AFFECTED SEGMENTS  |      |     |                  |            |                     |      |     |     |          |                  |                        |           | Geographical level |               | Source  |           |           |                      |                         |   |
|---------|---|--|------|-----|------------------|------------|---------------------|------|-----|-----|----------|------------------|------------------------|-----------|--------------------|---------------|---------|-----------|-----------|----------------------|-------------------------|---|
|         |   | Passengers   |      |     |                  |            | Transport operators |      |     |     |          |                  | Employees in transport | Residents | Economy            | Public bodies | Society | 1st level | 2nd level | Source of assessment | Spatial level of source |   |
|         |   | Road   | Rail | Air | Public transport | Slow modes | Road                | Rail | IWW | Air | Maritime | Public transport |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.1   | Transport costs                                 | ↗  | ↗    | ↗   | ↗                |            | ↗                   | ↗    | ↗   | ↗   | ↗        | ↗                |                        |           |                    |               |         |           | R         | N                    | E                       | I |
| B 3.2   | Private income / commercial turn over           |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.3   | Revenues in the transport sector                |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.4   | Sectoral competitiveness                        |  | ↗    | ↘   |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           | N         | I                    | S                       | I |
| B 3.5   | Spatial competitiveness                         |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.6   | Housing expenditures                            |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.7   | Insurance costs                                 |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.8   | Health service costs                            |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.9   | Public authorities & adm. burdens on businesses |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.10  | Public income (e.g.: taxes, charges)            |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.11  | Third countries and international relations     |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.I   | Overall impacts on social groups                | None   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.II  | Implementation phase                            | None   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.III | Operation phase                                 | None   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.IV  | Summary / comments concerning the main impacts  | All transport costs will increase, as all costs will be paid by the end user. Air transport costs will increase most as it bears relatively high social costs (infrastructure costs, noise, air pollution, etc). Rail transport, on the other hand, will benefit from the measure as its social costs are relatively small. Rail transport will therefore become more competitive. A shift in transport mode (towards rail) is likely. |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |
| B 3.V   | Quantification of impacts                       | All transport costs will increase, as external costs will be paid by the end user. Air transport costs will increase most.   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |   |

| B 4     | SOCIAL IMPACTS                                 | AFFECTED SEGMENTS  |      |     |                  |            |                     |      |     |     |          |                  |                        |           | Geographical level |               | Source  |           |           |                      |                         |  |
|---------|--|--|------|-----|------------------|------------|---------------------|------|-----|-----|----------|------------------|------------------------|-----------|--------------------|---------------|---------|-----------|-----------|----------------------|-------------------------|--|
|         |  | Passengers   |      |     |                  |            | Transport operators |      |     |     |          |                  | Employees in transport | Residents | Economy            | Public bodies | Society | 1st level | 2nd level | Source of assessment | Spatial level of source |  |
|         |  | Road   | Rail | Air | Public transport | Slow modes | Road                | Rail | IWW | Air | Maritime | Public transport |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.1   | Health (incl. well-being)                      |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.2   | Safety   |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.3   | Crime, terrorism and security                  |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.4   | Accessibility of transport systems             |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.5   | Social inclusion, equality & opportunities     |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.6   | Standards and rights (related to job quality)  |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.7   | Employment and labour markets                  |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.8   | Cultural heritage / culture                    |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.I   | Overall impacts on social groups               | None   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.II  | Implementation phase                           | None   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.III | Operation phase                                | None   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.IV  | Summary / comments concerning the main impacts | This measure deals with charging for external costs (like congestion, pollution). Negative environmental aspects will be reduced when this policy measure becomes active. So, health and well-being are likely to improve as the use of environmental friendly transport modes will increase. Travel mileage might reduce due to increased costs. The measure aims at generating fair prices for each mode of transport, taking into account external costs. In general, generating fair prices is good. However, some have argued that the benefits to the economy have been overlooked and not have been taken into account. That is for some sectors more disadvantageous than others. Furthermore, some state there is no justification for this measure as it targets the transport industry only. Other industries (like power generation, construction, chemical production) are not targeted despite the fact that they also result in social costs. |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 4.V   | Quantification of impacts                      | Undetermined   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |

| B 5     | ENVIRONMENTAL IMPACTS                          | AFFECTED SEGMENTS  |      |     |                  |            |                     |      |     |     |          |                  |                        |           | Geographical level |               | Source  |           |           |                      |                         |  |
|---------|--|--|------|-----|------------------|------------|---------------------|------|-----|-----|----------|------------------|------------------------|-----------|--------------------|---------------|---------|-----------|-----------|----------------------|-------------------------|--|
|         |  | Passengers   |      |     |                  |            | Transport operators |      |     |     |          |                  | Employees in transport | Residents | Economy            | Public bodies | Society | 1st level | 2nd level | Source of assessment | Spatial level of source |  |
|         |  | Road   | Rail | Air | Public transport | Slow modes | Road                | Rail | IWW | Air | Maritime | Public transport |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.1   | Air pollutants                                 |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.2   | Noise emissions                                |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.3   | Visual quality of the landscape                |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.4   | Land use                                       |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.5   | Climate  |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.6   | Renewable or non-renewable resources           |  |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.I   | Overall impacts on social groups               | None   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.II  | Implementation phase                           | None   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.III | Operation phase                                | None   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.IV  | Summary / comments concerning the main impacts | Society benefits from the principle of "polluter pays", as it will eventually lead to more sustainable transport. It will encourage manufacturers (i.e. vehicle manufacturers) to make their product more environmental friendly and more energy efficient. Dependency on scarce and expensive fossil fuels will be reduced. The global warming process will be slowed down. |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |
| B 5.V   | Quantification of impacts                      | Undetermined   |      |     |                  |            |                     |      |     |     |          |                  |                        |           |                    |               |         |           |           |                      |                         |  |

| C REFERENCES |  |
|--------------|--|
| C 1          | Other TPMs of this subcategory   |
| C 2          | References   |
|              | <p><b>International</b></p> <p>[1]= CE Delft, 2008: Handbook on estimation of external costs in the transport sector</p> <p>[2]= European Aviation Industry, 2008: Joint Statement</p> <p>[3]= European Parliament, 1999: Directive 1999/62/EC, on the charging of heavy goods vehicles</p> <p>[4]= Press release of European Commission, 2008: External Cost In Transport, IP/08/54-16Jan008</p> <p>[5]= Commission Legislative and Work Programme, 2008: Roadmap, list of initiatives</p> <p>[6]= Stakeholder Conference, 2008: External Costs and Air Transport, 31Jan2008</p> <p>[7]= Stakeholder Conference, 2008: External Costs and Maritime / Inland Waterways transport, 31Jan2008</p> <p>[8]= Stakeholder Conference, 2008: External Costs and Rail Transport, 31Jan2008</p> <p>[9]= Stakeholder Conference, 2008: External Costs and Road Transport Pricing, 31Jan2008</p> <p>[10]= Stakeholder Conference, 2008: Handbook on external cost estimation in the transport sector, 31Jan2008</p> <p>[11]= Council of European Union, 2008: Greening Transport, number 13657/08</p> <p>[12]= UNIFE The European Railway Industries, 2008: Internalisation of external costs of transport - revision of eurovignette directive</p> <p>[13]= Prograns 2010: Internalisation of external costs, 09Sep2010</p> <p>[14]= CE Delft, 2007: Methodologies For External Cost Estimates And Internalisation Scenarios</p> <p><b>National</b></p> <p>--</p> <p><b>Regional / Local</b></p> <p>--</p> |