Test mobility scenarios and their consequences in Dubrovnik FUA

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| Project Number | DTP1-1-037-3.1 |
| Project Name | CompreHensive Elaboration of STrategicplaNs for sustainable Urban Transport |
| Project Acronym | CHESTNUT |
| Work package | WP3 - Transnational strategy |
| Activity | Activity 3.2 – Elaboration of Transnational Strategy (based on mobility scenarios) |
| Title of Working Document | Test mobility scenarios and their consequences in Dubrovnik FUA |
| WP responsible partner | Pannon Business Network - PP8 |
| Dissemination Level | Public |
| Date of Preparation | 22.12. 2017. |
| This document must be referred to as | Test mobility scenarios and their consequences in Dubrovnik FUA |
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**Document History**

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| Version | Date | Note |
| Template | 02.10.2017 | Template by Takeru Shibayama (VUT) |
| Scenario finished | 22.12.2017. | Tomislav Matković |
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# Information about this test scenario

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| FUA Name | Dubrovnik |
| Scenario Name | **Business-as-usual** |
| Date | 22.12. 2017. |
| Policy target year | 2030. |
| Contributor | Tomislav Matković  Marko Cosmai  Ana Marija Pilato |

# Assessment of consequences

How will the demographic structure of your FUA and the core city in it be in your planning horizon around 2025 to 2030? (No of population, age structure, etc.)

FUA Dubrovnik will experience slight increase in the number of its residents but only because of population rise in neighbouring municipality of Župa dubrovačka and Dubrovačko primorje. Number of residents of the core city of Dubrovnik will continue to decrease.

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|  | Population growth |  |
| Periods | City of Dubrovnik | Neigbouring municipalities |
| 1990 | 51,5 | 3,9 |
| 1990-2000 | -7,8 | 4,9 |
| 2000-2010 | -1,1 | 1,6 |
| 2010-2030 | -0,7 | 1,5 |

Which types of transport technology will have been diffused or will disappear in your FUA in your planning horizon around 2025 to 2030?

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| Until 2030 usage of personal car as transport mode will decrease by small margin and it will continue to represent serious challenge for achievement of more sustainable and efficient city traffic. There will be slight increase in number of motorcyclists and pedestrians, while alternative modes of transport will be continually promoted by local decision makers. |

How will the share of transport mode change in your core city and FUA? Will there be higher share of journey with cars or less? Will it increase or decrease the share of public transport? Will there be more cyclists and walkers, or less?

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| The percentage of pedestrians will slightly increase because new infrastructure for pedestrians will be introduced in local area and entire local economy will “decentralize” because of new jobs (in tertiary activities) being opened outside of Old town and core city. Number of cyclists will not increase because of unsuitability of terrain for introduction of new cycling lanes. |

Which part of your future prediction is not in line with upper-level transport policy (of region, country and EU)?

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| While introduction and promotion of alternative modes of transport is in line with local, regional and national policy, continued process of intensified traffic caused primarily by personal cars in not in line with them. |

Is the overall situation improving the living quality of your FUA?

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| Overall situation in the living quality is improving in Dubrovnik. But while central areas are affected by problems such as lack of parking lots and traffic jams, outward territory of FUA (with still rural characteristics) is affected by deficient road infrastructure which results in bad level of connectivity with core city. |

What are the effects on particular demographic groups, such as children, elderly, low-income group, foreigners and migrants, students, mobility-impaired people, etc.?

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| Primary schools are located through entire FUA but high schools and faculties are located primarily in the core city. Daily commuting of workers and students from neighbouring municipalities is being done through personal cars and public transport buses and some improvements will still have to be made. |

How will the transport-related cost paid by each end user change? How will the transport-related cost paid by your municipalities or regional government change?

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| The system will continue to function through sole provider who is “Libertas” public transport company and prices will stay the same for its users. |

Will the overall change will lead to increase or decrease of transport-related energy consumption in your FUA?

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| The levels will most likely stay the same being that number of residents will slightly increase and share of alternative vehicles as transport mode will also increase. |

Will the overall change will lead to increase or decrease of transport-related CO2 emission in your FUA?

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| Overall change will lead to marginally lower CO2 emissions. |

# Information about this test scenario

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| FUA Name | Dubrovnik |
| Scenario Name | **Alternative mode stimulation and emission reduction** |
| Date | 22.12. 2017. |
| Policy target year | 2030. |
| Contributor | Marko Cosmai  Ana Marija Pilato  Tomislav Matković |

# Assessment of consequences

How will the demographic structure of your FUA and the core city in it be in your planning horizon around 2025 to 2030? (No of population, age structure, etc.)

According to this scenario the increase will be the same as in “business as usual” scenario. Population will rise in neighbouring municipalities of Župa dubrovačka and Dubrovačko primorje. That rise will be higher than decrease in the number of residents in the core city of Dubrovnik.

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|  | Population growth |  |
| Periods | City of Dubrovnik | Neigbouring municipalities |
| 1990 | 51,5 | 3,9 |
| 1990-2000 | -7,8 | 4,9 |
| 2000-2010 | -1,1 | 1,6 |
| 2010-2030 | -0,7 | 1,5 |

Which types of transport technology will have been diffused or will disappear in your FUA in your planning horizon around 2025 to 2030?

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| The share of passenger car in transport mode will decrease but still it will remain the main mode of transport. |

How will the share of transport mode change in your core city and FUA? Will there be higher share of journey with cars or less? Will it increase or decrease the share of public transport? Will there be more cyclists and walkers, or less?

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| The share of passenger cars will decrease, while share of public transport (buses) will increase, and the aim of local decision-makers will be to stimulate public transport even further. Number of pedestrians will also rise due to same reasons as stated in first scenario, as will the number of motorcyclists with introduction of e-scooters for public usage. |

Which part of your future prediction is not in line with upper-level transport policy (of region, country and EU)?

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| Measures implemented and results achieved in this scenario coincide with local, regional and national transport policy. |

Is the overall situation improving the living quality of your FUA?

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| Implemented measures will contribute to higher level of sustainability and overall better connectivity of FUA. Other effects will be decrease in air and noise pollution and positive changes in living habits of local population. |

What are the effects on particular demographic groups, such as children, elderly, low-income group, foreigners and migrants, students, mobility-impaired people, etc.?

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| Lower levels of intensification of local traffic will contribute to better connectivity and on average shorter daily trips for workers and students in core city. |

How will the transport-related cost paid by each end user change? How will the transport-related cost paid by your municipalities or regional government change?

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| To achieve these results there will be need for higher level of investment in necessary infrastructure: from e-charging stations, e-bus and e-scooter fleets to pedestrian infrastructure. |

Will the overall change will lead to increase or decrease of transport-related energy consumption in your FUA?

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| The levels will decrease concerning rise in the number of pedestrians and decrease in number of passenger car drivers in daily commuting. |

Will the overall change will lead to increase or decrease of transport-related CO2 emission in your FUA?

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| Overall change will lead to decrease in transport-related CO2 emissions. |

# Information about this test scenario

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| FUA Name | Dubrovnik |
| Scenario Name | **Increase of non-sustainable and conventional transport** |
| Date | 22.12. 2017. |
| Policy target year | 2030. |
| Contributor | Marko Cosmai  Ana Marija Pilato  Tomislav Matković |

# Assessment of consequences

How will the demographic structure of your FUA and the core city in it be in your planning horizon around 2025 to 2030? (No of population, age structure, etc.)

Analysis of demographic structure for future periods depends on several factors and effect of transport policy can be examined only in correlation with other factors. Transport itself will influence already established trends only in lesser extent.

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|  | Population growth |  |
| Periods | City of Dubrovnik | Neigbouring municipalities |
| 1990 | 51,5 | 3,9 |
| 1990-2000 | -7,8 | 4,9 |
| 2000-2010 | -1,1 | 1,6 |
| 2010-2030 | -0,7 | 1,5 |

Which types of transport technology will have been diffused or will disappear in your FUA in your planning horizon around 2025 to 2030?

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| The share for pedestrians will slightly fall, which corresponds with higher figures for passenger car users. |

How will the share of transport mode change in your core city and FUA? Will there be higher share of journey with cars or less? Will it increase or decrease the share of public transport? Will there be more cyclists and walkers, or less?

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| Until 2030 the share for passenger cars and motorcyclists will slightly increase, while public transport (buses) will remain the same. |

Which part of your future prediction is not in line with upper-level transport policy (of region, country and EU)?

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| Trends based on this scenario are not in line with local, regional and national policy. |

Is the overall situation improving the living quality of your FUA?

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| Overall situation will not improve living quality in FUA because the share of conventionally fueled vehicles will stay the same or increase. Also measures proscribed in strategic documents concerning alternative modes of transport will not be implemented. |

What are the effects on particular demographic groups, such as children, elderly, low-income group, foreigners and migrants, students, mobility-impaired people, etc.?

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| The trends currently applicable in daily commuting at this moment will also characterize Dubrovnik FUA according to this scenario: intensification of the traffic during summer season, traffic jams during rush hour and lower level of connectivity with outward parts of FUA. |

How will the transport-related cost paid by each end user change? How will the transport-related cost paid by your municipalities or regional government change?

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| Investment will be made in improvement of e-bus fleet and introduction of parking spaces. Prices for everyday users of PT will remain the same since the share of buses will not rise nor fall. |

Will the overall change will lead to increase or decrease of transport-related energy consumption in your FUA?

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| Concerning the trends in this scenario there will be increase in transport-related energy consumption. |

Will the overall change will lead to increase or decrease of transport-related CO2 emission in your FUA?

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| Overall change will lead to increase in transport-related CO2 emissions. |