Planning for sustainable transport policies – assessing CO$_2$ emissions

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THE PEP RELAY RACE CONFERENCE
Mannheim, 13-15 July 2016
The 2030 Agenda and the Sustainable Development Goals

4 SDGs out of 17 are of particular importance for decarbonisation of transport
Megatrends: World population projections 2015-2100

Population and urbanization

ForFITS model

Policy Input

GDP

Passengers Data

Freight Data

Demand Module

Transport activity (pkm, tkm, vkm) and vehicle stock

ASIF

Carbon emissions evaluation

Energy consumption

Vehicles by age and powertrain

ASIF

Extended ASIF

Fuel characteristics (cost)

Vehicle characteristics

Fuel characteristics (emissions)
What does ForFITS do?

1. Allows the estimation/assessment of emissions in transport
2. Allows the evaluation of transport policies for CO₂ emission mitigation

Converts information on transport activity into fuel consumption and CO₂ emission estimates considering the influence of the demographic and socio-economic context, including policy inputs!
ForFITS at the regional level

We support regulatory push combined with awareness for the environment and climate

- UNECE region success: decoupling of CO$_2$ and motorization growth
- But still significant emitter
- UNECE MICs CO$_2$ emissions from inland transport will more than double by 2040 if no powerful interventions

*ForFITS model*
ForFITS at the country level

Belarus

Per cent difference in 2030 compared to reference scenario:
- High GDP growth: +70.8%
- High fertility: -0.4%
- Increased fuel cost: -10.6%
- Nuclear/Electrified rail: -8.2%

Georgia

Per cent decrease in 2030 compared to reference scenario:
- 4.4 - Transport shift scenario
- 3.3 - Fleet renewal scenario
- 4.4 - Shift to freight rail scenario
- 11.8 - Cumulative effect

Tajikistan

Per cent difference in 2030 compared to reference scenario:
- Vehicle fleet renewal: -4.3%
- Shift to public transport: -23.8%
- Increased LPG share: -40.5%
- Cumulative effect: -26.5%

Albania

Per cent difference in 2030 compared to reference scenario:
- Shift to public transport: -3.7%
- Shift to electric vehicles: -4.1%
- Shift freight rails: -5.9%
- Combined: -13.5%
ForFITS at the city level
The case of Kaunas

- Overall CO2 emissions from passenger transport under different scenarios

7.6 per cent reduction by 2030 from shifting transport
5.8 per cent reduction from culture shift
4.4 per cent reduction from oil up
7.3 per cent reduction from 1.5% GDP growth
4.6 per cent increase with high fertility
19.9 per cent decrease with all scenarios together
The implementation of ForFITS

in the City of Mannheim!
(forthcoming!)
New projects subject to fundraising

Extension of the scope: Local pollutants and NRMM

New User Interface
New projects subject to fundraising

Training sessions

Specific analysis
SAFE, CLEAN, SECURE AND EFFICIENT MOBILITY FOR PEOPLE AND FREIGHT

The future Inland Transport WE WANT!

Inclusive International Legal Architecture
Effective Public Administration
International Cooperation
Innovative Financing
New Technologies
Social Responsibility

objectives

- Inland H/C
- Facilitate international transport
- Reduced GHG emissions
- Reduced air / noise pollution
- Increased P.T. Mobility Choices
- Zero traffic fatalities and injuries
- Efficient transport services
- Enjoyable walking and cycling

Inland Transport