Projecting future CO$_2$ emissions using the For Future Inland Transport Systems (FORFITS) Tool

The case of Kaunas city, Lithuania
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(a) Development of sustainable transport: measures for restricting the use of personal motorized transport means will be used, charging schemes for entering sensitive areas of the city, such as city centre and old town, will be introduced and a sustainable increase of parking places will be introduced providing priority for public and non-motorised transport.

(b) Providing priority for public transport and cycling: While using the EU financial support of 2014–2020 until 2020, public transport means will be constantly renewed in Kaunas City through an improved public transport routing system, ticketing system, increased safety in public transport.

(c) Promoting cycling and public transport for the reduction of noise and air pollution: The City will assure that individual skills of healthy life style and healthy behaviour are developed by continuous activities helping to prevent diseases and protect health of the citizens of Kaunas City and to create healthy environment. In 2015, public health specialists will start introducing the fundamentals of healthy life style not only at schools but also at pre-school educational institutions.
Alternative scenarios based on future policies

To quantify the effect of future urban policies in Kaunas, ForFITS was again used for projections of transportation activity and CO$_2$ emissions. The following three alternative scenarios were analyzed:

(a) **Transport shift** – This scenario projects that Kaunas city further develops its public transport infrastructure in a way which results in an urban network that is 20 percent closer in density (both in terms of population and infrastructure) to the most highly integrated cities in the world by 2030.

(b) **Culture shift** – Related to the transport shift scenario, this scenario projects that residents of the city will develop a "greener" attitude and that alternative modes of transportation such as walking and bicycling will be used to a greater extent and longer trips will also be avoided.

(c) **Oil up** – The final scenario projects that oil prices will double in real terms by 2030. This scenario is included despite recent drops in oil price to show also the indirect effect of prices on emission levels.
PROJECTED KAUNAS CITY WHEEL TO WELL (WTW) CO₂ EMISSIONS FROM THE TRANSPORT SECTOR UNDER BASELINE SCENARIO: 2012-2030

KAUNAS CITY WHEEL TO WELL (WTW) CO₂ EMISSIONS FROM PASSENGER TRANSPORT UNDER DIFFERENT SCENARIOS

In 2030 compared to baseline scenario:
- 25.9 per cent reduction from transport shift
- 6.8 per cent reduction from culture shift
- 7.8 per cent reduction from oil up
- 36.4 per cent decrease with three scenarios together
KAUNAS CITY WHEEL TO WELL (WTW) CO2 EMISSIONS FROM FREIGHT TRANSPORT UNDER DIFFERENT SCENARIOS

In 2030 compared to baseline scenario:
12.4 per cent reduction from oil up
Thank You!