Planning and research of policies for land use and transport for increasing urban sustainability

Results in Brief

Urban software for cleaner cities

Given that more than 75 percent of western Europeans live in cities, the quality of life, health and safety for the future had to be addressed. Therefore, the PROPOLIS project was conceived with the aim of analysing economic evaluations for increasing urban sustainability.

Whilst contributing to the implementation of many EU policies including environment, energy and transport, PROPOLIS addressed the strategic importance of long-term urban policies and their effects in European cities. To do this successfully the project had to be able to improve sustainability without compromising regional economic efficiency, thus leading to improvements in competitiveness and employment.
Efficiency, thus leading to improvements in competitiveness and employment.

An arduous challenge, PROPOLIS developed tailor made software for each of the 7 regions within the project. Whereas each region has different needs, policies, economic conditions and tailor-made software, all of them share a common system for analysing urban land use and transport policies. The general conclusions that have thus far been drawn, is that potential future policies are likely to improve all dimensions of urban sustainability.

Based upon the SPARTACUS system, PROPOLIS combines MEPLAN (general purpose integrated transport and land use modelling framework), USE-IT (decision support tool), RASTER (add-on module) and MEPLUS (MEPLAN post processor). RASTER models disaggregated GIS based values for exposure to noise, pollutants and land coverage as indicators; and MEPLAN converts them into values and calculates sets of urban sustainability indicators.

The resultant software enables the user to define and build indicators from standard model outputs and perform various mathematical outputs that are relative to their specific region. Supported with four theories of justice, the outputs are presented to the user graphically so that they can compare all the possible alternatives and formulate any distribution impact deliberations.

The model's seven regions within the PROPOLIS project will enable all cities within the EU to benchmark their future strategies for long-term benefits. The forecasting technology that has been harnessed can thus assist with such decisions for time spans of up to 20 years. This therefore makes for a brighter cleaner future, especially with the ability to radically reduce urban pollution and congestion without compromising sustainability.

The PROPOLIS benefits are therefore best summarised with its own mission statement, which reads as: "To specify and demonstrate the effects of long-term strategies that could be generally adapted in different European urban regions – that would lead the way to a better environment, land use patterns and transport."

---

**Project Information**

**PROPOLIS**

Grant agreement ID: EVK4-CT-1999-00005

Project website [🔗](#)

Funded under FP5-EESD

Overall budget € 1 627 400

EU contribution € 992 200

Coordinated by LT-CONSULTANTSLTD
Discover other articles in the same domain of application

The quest for fresh water
8 April 2013

The potential impact of water scarcity on peace and security
7 December 2016

Bridging physical distances for better collaboration
25 November 2011

Last update: 18 September 2005
Record number: 81406