

Economic benefits of Mobility Management

EPOMM - Managing mobility for a better future

e-update january 2012

www.epomm.eu

Language: en | de | fr | it | hu





feedbac

subscribe

unsubscrib

-

ews archive

Dear reader,

the main argument for MM measures is their supposed high benefit to cost ratio. MM-measures can enhance the effectiveness of "hard" infrastructure measures (e.g. new tram lines, new bike lanes) and demand management projects, such as access restrictions and paid parking. MM-measures are often murch more effective than infraststructure measures. Yet, even in times of very large economic problems, MM is most often seen as a luxury and the first thing to be hit by austerity programmes. This e-update will focus on the economic benefits of Mobility Management and help convince policy makers about the value of investing into Mobility Management, especially in times of budget restraints.

In this regard, we can proudly report that the <u>MaxEva database (epomm.eu/maxeva)</u> has been strongly improved and is ready for your projects. Read more about it in this e-update!

The benefit cost ratio of Mobility Management to reduce car traffic

A study by the British Department for Transport (Smarter Choices, 2005) found that by giving soft measures increased policy priority, an overall traffic reduction of 11% and a reduction in urban peak traffic of 21% could be realised. The benefit to cost ratio was about 10:1. To realise these benefits, supporting measures need to be put in place, such as pricing, speed regulation, investments in PT service quality and walking and cycling infrastructure. Also these investments can in turn be proven to generate substantial economic benefits. Some examples:

Economic Assessment of Investment in Walking and Cycling (Davies, 2010)

Making the case for investment in the walking environment (Living Streets)

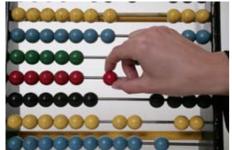
Public Transport empowers the economy (UITP).



- The British <u>Transport Research Laboratory</u> found that on average, area travel plans deliver a benefit to cost ratio of 4:1, whilst the best scheme had a 13:1 ratio. In comparison: the British Department for Transport considers schemes with a 2:1 ratio or more as schemes with a high value for money.
- An <u>evaluation</u> of the over 1200 company travel plans in France, shows an average decrease in the modal share of the car of 7 percentage points, with some companies realising decrease of more than 20 percentage points (e.g. <u>ST Microelectronics</u>).
- A cost-benefit analysis of individualised travel planning projects in Australia revealed a benefit to cost ratio of 30:1. (Read more)

Is car traffic necessary for economic development?

When we can demonstrate that Mobility Management measures are effective in bringing about modal shift and trip reduction, we then ask ourselves: is this outcome desirable? As gross domestic product (GDP) tends to increase with vehicle travel, some critics argue that a reduction of vehicle travel will harm the economy. However, the correlation between GDP and vehicle travel does not prove that economic growth is caused by vehicle travel.







Most developed countries are increasing their GDP per unit of energy and mobility, showing that these economies are becoming more efficient. The paper *Are VMT Reduction Targets Justified?* (VTPI, 2011) contains many interesting graphs (mostly about the USA) indicating that economic productivity in urban regions tends to increase with declining vehicle travel, declining roadway supply, increasing public transport use and even increasing fuel prices.

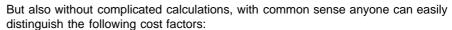
Conventional transport economic evaluation tends to focus on a limited set of impacts (travel time, congestion delay, vehicle operation costs, accident costs). Other economic impacts are often overlooked, like parking costs, vehicle ownership costs, car infrastructure construction and maintenance costs. This leads to a distortion of project appraisal in favour of car transport improvements. Unfortunately, argumentations for Mobility Management measures are equally limited. Environmental departments tend to focus on emissions reduction, whilst transport departments concern themselves with outcomes like congestion relief or parking space savings. But only by looking at the full range of impacts - economical, environmental and social - it becomes clear that in most cases an integrated programme of mobility and demand management strategies is the most cost-efficient way to improve transport. (*Win-Win Transportation Solutions*, VTPI)

Economically, there is an optimal level of automobile travel, beyond which marginal costs of car traffic exceed marginal benefits. Developing countries still have the opportunity to avoid the excessive car dependency manifest in developed countries. (<u>Smart Congestion Relief</u>, VTPI)

Extensive guidance on transport cost-benefit analysis can be found on VTPI's website.

Some of the hidden costs of car traffic

Economic theory says that optimal markets are those where consumers have several viable options, public policies do not arbitrarily favour one product over another, and products are efficiently priced. The transport market is most certainly not an optimal market - whith its large range of subsidies, taxes, costs borne by the public and by the environment. Moreover, the assignment of monetary values to issues like noise, pollution, accidents or location attractiveness induced or reduced by car traffic is extremely difficult. It has been tried in a complicated handbook released by the EU-Commission.



- In Europe, congestion costs about 200 billion euro (about 2% of GDP) through delays, waste of fuel and increased transport prices. This is despite enormous infrastructure investments designed to reduce congestion. The <u>British smarter</u> <u>choice study</u> estimates that soft measures for reducing congestion in urban areas have a benefit to cost ratio of 30:1.
- Mobility Management measures have the potential to massively reduce public health costs by stimulating a more active lifestyle (cycling and walking), by reducing noise and air pollution and by reducing accidents. See the CATCH project's fact sheets on Health and Safety. Physical inactivity is estimated to cost a country about ?150 to ?300 per citizen per year, which translates into @75 Billion for the whole EU. Accidents account for another 2.5 to 3 % of GDP. See these SWOV factsheets on immaterial costs and other costs of road crashes
- Parking costs substantially add to housing costs (easily 20% in many urban contexts) and often also are a substantial part of business costs factored into prices. MM connected to land use planning can, by establishing maximum parking standards, easily reduce parking costs. As can be seen in <u>Freiburg Vauban</u> or read in a recent study from <u>San Francisco</u>.
- Car travel in cities has turned many streets into separation corridors which
 comes at a social cost. Evidence exists that more walking and cycling increases
 community cohesion and social capital (see the CATCH project's fact sheet on
 Community).
- It is far easier to get a permit and money for a parking space then for a children playground. This reflects how many opportunities for better land use planning, with corresponding benefits for the local economy and property values





can be missed. (See the CATCH project's fact sheet on <u>Planning</u> and especially the <u>e-update on MM and land use planning</u>, that includes the <u>MAX results</u> and the <u>MaxLupo-guide</u>.

Conclusion: there is a large amount of general and common sense evidence that MM can be very cost-effective. However, there are not that many concrete, well evaluated cases. We hope that you will help us to change this by using <u>MaxEva</u>.

The new MaxEva: benchmarking and evaluation made easy

MaxEva helps you in your evaluation. It is a simple to use programme. It is based on the MaxSumo method and evaluation tool, that gives guidance for a thorough project results evaluation. MaxEva follows this method and automatically calculates results like modal split change, the reduction of car kilometres and emissions. Projects can be made public and are easily accessible through a google map. Furthermore, benchmarking is made easy through a comparison tool that lets you list, compare and sort up to 100 projects at a time.

It is simple to use, but even scientists like it, as they have the option to use control groups and measure travel behaviour change in stages. But as it remains an option, practitioners interested in a simple tool are not hindered by these more complicated evaluation methods.

Several countries have seen the potential of MaxEva and MaxSumo. The Dutch Knowledge Platform for Traffic and Transport (KpVV) has developed the SumoBase tool, and supported EPOMM in making MaxEva compatible with it. In France, a new national evaluation tool, currently under development, must be compatible with MaxSumo and MaxEva. The Swedish Traffic and Transport Administration has also supported further development of MaxEva and might soon start using it in a Swedish language version.

The Health Economic Assessment Tool - HEAT

HEAT can be used as a possible add-on to MaxEva. HEAT has been developed by an international consortium, including the World Health Organisation. It allows you to estimate the benefit to cost ratio of both walking and cycling schemes. It is an online tool and easy to use, both at the appraisal stage, and at the post implementation evaluation stage. It is therefore a powerful tool to convince decision makers to invest in Mobility Management schemes, and has been endorsed by transport economists and ministries inside and outside the EU.

The main data required is:

- An estimate of the number of people that are projected to be walking and cycling
- An estimate of the average duration spent walking and cycling in the study population

HOT OFF THE PRESS is this new <u>HEAT brochure</u>. For more information and to try out the tool, go to: <u>heatwalkingcycling.org</u>

Upcoming events

- Intermodes 2012
 8 February 2012 Brussels, Belgium more information
- ECOMM 2012
 12-15 June 2012 Frankfurt, Germany
 Note: the abstracts were selected and the programme will be online end January 2012
 ecomm2012.eu

Negativenes, Crests

Names : Author stress City of September Septe



































