

The EU's transport policy EUROPE 2020 – tasks for a cleaner urban transport

Today, the world's transport systems are highly dependent on petroleum fuel. So, we can ask how large a share of the world's liquid fuel supply can be provided by biofuels? This question is crucial to understand that biofuels are potential to provide an environmentally sustainable alternative to the petroleum fuels. Especially in cities, where the people suffer most from congestion, poor air quality and noise, the public transport should be more widely available. Preparing the European Transport System for the future European Commission stated that "mobility is vital for the economy and the quality of life of citizens". In this paper some aspects of European Transport Policy aiming implementation of a competitive low carbon economy in 2050 were presented.

Key words: *transport policy, transport systems, public transport, biofuels, mobility, clean environment*

Polityka transportowa UE EUROPA 2020 – zadania dla czystszej transportu miejskiego

Światowe systemy transportowe są obecnie bardzo uzależnione od paliw ropopochodnych. Można więc zapytać, jak duży udział w światowych dostawach paliw płynnych może być zastąpiony biopaliwami? W pytaniu tym kryje się odpowiedź, że biopaliwa są paliwami odnawialnymi, stanowiącymi alternatywę dla paliw ropopochodnych – szczególnie w miastach, gdzie ludzie odczuwają zatłoczenie, złą jakość powietrza i hałas, a transport publiczny powinien być szeroko dostępny. Przygotowując Europejski System Transportowy na przyszłość, Komisja Europejska oświadczyła, że "mobilność jest istotna dla gospodarki i jakości życia obywateli". W opracowaniu tym zaprezentowano kilka aspektów Unijnej Polityki Transportowej ukierunkowanej na wprowadzenie konkurencyjnej gospodarki niskowęglowej w 2050 roku.

Słowa kluczowe: *polityka transportowa, systemy transportowe, transport publiczny, biopaliwa, mobilność, czyste środowisko*

1. Introduction

Transport is the foundation of any economy and the pre-condition for the well-being and cultural development of societies. We need mobility to provide a better quality of life. This suggests that the public expects to maintain its mobility despite diminishing energy resources and rigorous environmental laws. Without going into the details of the problem, the conclusion is that our long-term concept of the transport system looking at almost half a century ahead must meet a basic condition which is the principle of sustainable development.

Developed in the early 1980s, the new doctrine of political economy was originally defined as: "Sustainable development is based on a reasonable use of cultural and natural resources which can be depleted, renewed or have a limited capacity for self-reproduction and recovery". At the time, the negative effects of transport systems were considered one of the most important factors damaging the environment [13]. This in turn usually leads to a deterioration of culture which when degenerated causes the fall of civilisation. The United Nations Organisation gave adequate consideration to the scholarly warning and at the 1992 Earth Summit in Rio de Janeiro announced the motto "We have borrowed our Earth from future generations" [8, 9].

The future of Europe depends on how it approaches its most important problems such as globalisation, growing demand for limited resources and ageing of the population. It is hoped that the key to success will be a community-wide strategy comprising three top priorities [2, 3]:

- Smart growth means knowledge and innovation-based economy,
- Sustainable growth means a resource efficient and greener economy,
- Inclusive growth means an economy delivering social and territorial cohesion.

The Europe 2020 Strategy lists 5 measurable targets. If properly translated into national targets, they will set the right direction for growth in the European Union. Four of them are: higher employment, more investment in research, more people with higher education and fewer people at risk of poverty. The fifth target refers to climate change / energy and can largely be achieved if supported by the transport policy. The targets are known as 3 x 20 with 20% less CO₂ emissions, 20% increase in energy from renewable sources and 20% increase in energy efficiency.

In addition, the European Commission undertook to develop legislative proposals to modernise transport, reduce its share of carbon emissions and improve transport safety. But there was a condition - these objectives cannot be delivered at the cost of mobility. The new policies should prepare new infrastructure for electric means of transport, support the development of intelligent systems of transport to improve transport safety and efficiency, reduce emissions and noise mainly produced by road transport and aviation and promote new technologies with electric and hybrid vehicles.

Another assumption is that cities will gradually reduce conventional transport so that in 2050 cities will be freed from pollution and noise. In addition, pedestrian and bicycle traffic is considered one of the main elements of urban trans-

port strategies. As a result, Poland's transport policy should also support the delivery of the goals stated by the EU.

Poland's National Health Programme for the Years 2006-2015 [10], just like the Ottawa Charter, identifies four groups of factors that are important for human health (their contribution is given in parenthesis):

- lifestyle (50%),
- natural and man-made environment (20%),
- genetic background (20%),
- health care (10%).

We can easily see that transport and its impact are major contributors to the first two factors. This is the point of origin of the relation between the system of transport and public health. Let me quote two other sources which are the foundations of the relevant knowledge: the World Health Organisation [11, 12] and the American Public Health Association [1]. Just as in the previous National Health Programme for the Years 1996-2005, the current programme has one overarching and long-term strategic objective "To improve health and quality of life of the population". This is to be achieved through three main policy orientations:

- to reduce disparities in health and access to health services,
- to promote a healthy lifestyle,
- to create a healthy environment for living, working and learning.

If we consider the pollution caused by exhaust fumes from vehicles, the noise and accidents caused by different modes of transport, we could say that urban systems of transport have an effect on people's health and quality of life. What this means is that the impact of transport systems is at the core of the issues addressed by the National Health Programme.

2. Vision of a European transport system

Europe's vision of economic and social development must be based on a vision of a modern system of transport to ensure that the economy and public can overcome the barriers created in previous decades. As a consequence, we must meet the expectations of the public for a greater mobility in the face of depleting resources and environmental protection.

Energy resources, especially oil, will be diminishing and become more and more uncertain. This could seriously destabilise the EU economy and impact mobility. A limited ability to travel would come as a restriction caused by the current crisis. In addition, the need to reduce demand for transport goes back to the European Union's strict policy of reducing greenhouse gas emissions. In the transport sector which is a major and sadly a growing risk, this would mean having to reduce by 2050 gas emissions by 70% compared to 2008. In the period leading up to this, i.e. until 2030, this will mean a 20% reduction in emissions compared to 2008 [4].

Unfortunately, as we know from analyses, despite significant progress in greenhouse emissions from transport, mainly thanks to new vehicle technologies and traffic management, emissions are difficult to stabilise not to mention to reduce. It is estimated that in the last two decades emissions went

up by 8% which is largely owed to the fact that 96% of the European Union's demand for energy is covered from oil and petroleum products.

The European Union's vision for a competitive and sustainable transport system has the following strategic objectives:

- Growing transport and supporting mobility while reaching the 60% emission reduction target,
- An efficient core network for multimodal intercity travel and transport,
- A global level-playing field for long-distance travel and intercontinental freight,
- Clean urban transport and commuting.

Three of the strategic tasks are devoted to the main theme which is reducing CO₂ emissions. This shows the significance the European Commission attaches to environmental policy, especially in urban transport. With shorter ranges and higher population density, urban transport is well positioned for achieving these tasks and becoming more efficient.

3. Clean urban transport and commuting

The main thesis which has been proved right over more than a hundred years of building and operating urban transport systems is that cities cannot function without collective transport. The problems of commuting and congestion increase rapidly when cities reach a population of about twenty thousand. The problems usually begin with parking, followed by congestion as a result of insufficient capacity of the street network. We know from experience that the most common mistake made by city authorities is extending car park space and increasing street network capacity. Attempts to limit access using physical or fiscal methods will usually cause public dissatisfaction, a much feared phenomenon before an election. This process takes a long time and has visible links with raising public awareness.

At the same time too little attention is paid to planning and building infrastructure that would encourage walking or cycling. The main advantage of this type of mobility, especially for work-related trips, is that it does not cause bottlenecks or pollution. Two more aspects should be added: no noise and positive health impacts. All this suggests that pedestrian and cycle traffic infrastructure should be an integral part of urban transport infrastructure.

According to reliable sources urban transport accounts for one quarter of CO₂ emissions produced by the transport system. There is one more equally important problem, i.e. road accidents in cities. As we know from the ETSC the number of accidents in urban areas has exceeded two thirds of all accidents in road transport [5, 6, 7].

The plan to establish a single European transport area and achieve a competitive and resource efficient transport system is recapitulated with ten goals which are benchmarks for achieving the 60% GHG emission reduction target [4]. The goals are divided into three groups:

- Developing and deploying new and sustainable fuels and propulsion systems which includes halving the use of 'conventionally-fuelled' cars in urban transport by 2030; phasing them out in cities by 2050 and achieving

- essentially CO₂-free city logistics in major urban centres by 2030.
- Optimising the performance of multimodal logistic chains, including by making greater use of more energy-efficient modes and connecting all core network airports to the rail network, i.e. urban areas by 2050.
 - Increasing the efficiency of transport and of infrastructure use with information systems and market-based incentives. This includes two important tasks; by 2050 realising Vision Zero which is zero fatalities in road transport and halving road casualties by 2020.

4. Conclusion

One of the main theses of the EU's transport policy is that relying on a single technological solution means the inability to become independent from oil. A new concept of mobility is needed supported by new technologies following the principle of sustainable transport.

Today, the increase in prices of oil based fuels is very fast and we need to step up efforts to find new fuels. The production of biofuels is still more expensive than petroleum

products. There are several reasons for that but what matters most is that oil has been used to produce fuel for more than a hundred years. In addition, this is mass production while new technologies such as biofuel production are at an early stage of development and a relatively small scale operation. The second reason is the growing interest in the base products used for biofuel production, i.e. vegetable oil, grain and sugar. This is to a large extent the result of the current changes in the food market.

However, the experience of some countries shows that there are areas where the decision to use biofuels should in the first place be based on the need to eliminate emissions with fuel production costs playing second fiddle. In addition, there are other arguments in favour of such decisions. The main ones are reduced levels of noise and accidents involving passenger cars in urban areas. New technologies should be supported with fiscal incentives. We should use subsidies and taxation to promote a clean public transport and the "user pays" principle for commuting to and parking in areas of intensified road traffic.

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