



PRICEWATERHOUSECOOPERS

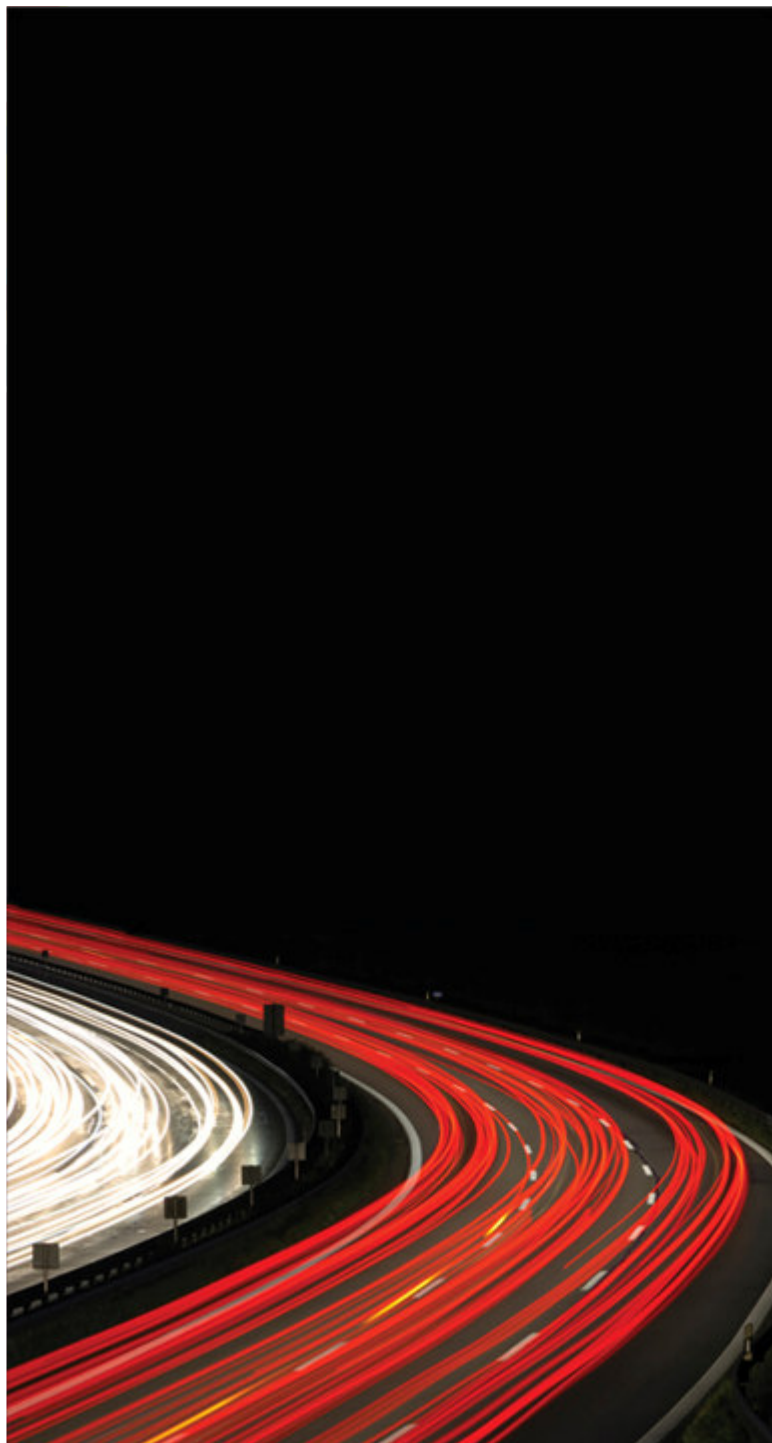
WARDYŃSKI I WSPÓLNICY



KTÓRĘDY DROGA?

RAPORT O TYM, JAK ODBLOKOWAĆ INWESTYCJE DROGOWE W POLSCE

Warszawa, styczeń 2009





The report answers the following questions:

- **How does road infrastructure influence the economic growth in long and short-term?**
- **What is the state of road infrastructure in Poland? How our country looks like in comparison with other EU countries?**
- **What are the advantages of developing road infrastructure?**
- **How much do we spend on road infrastructure in Poland?**
- **What are the sources of financing road infrastructure?**
- **What are the most important barriers in developing road infrastructure in Poland?**
- **What changes are essential in order to speed up investments in road infrastructure in Poland?**



Plan of presentation:

- 1. Impact of road infrastructure on economic growth**
- 2. Road infrastructure in Poland**
- 3. Advantages of motorway extension**
- 4. The ways of financing road infrastructure**
- 5. The main barriers**



Impact of road infrastructure on economic growth

A well-developed road infrastructure:

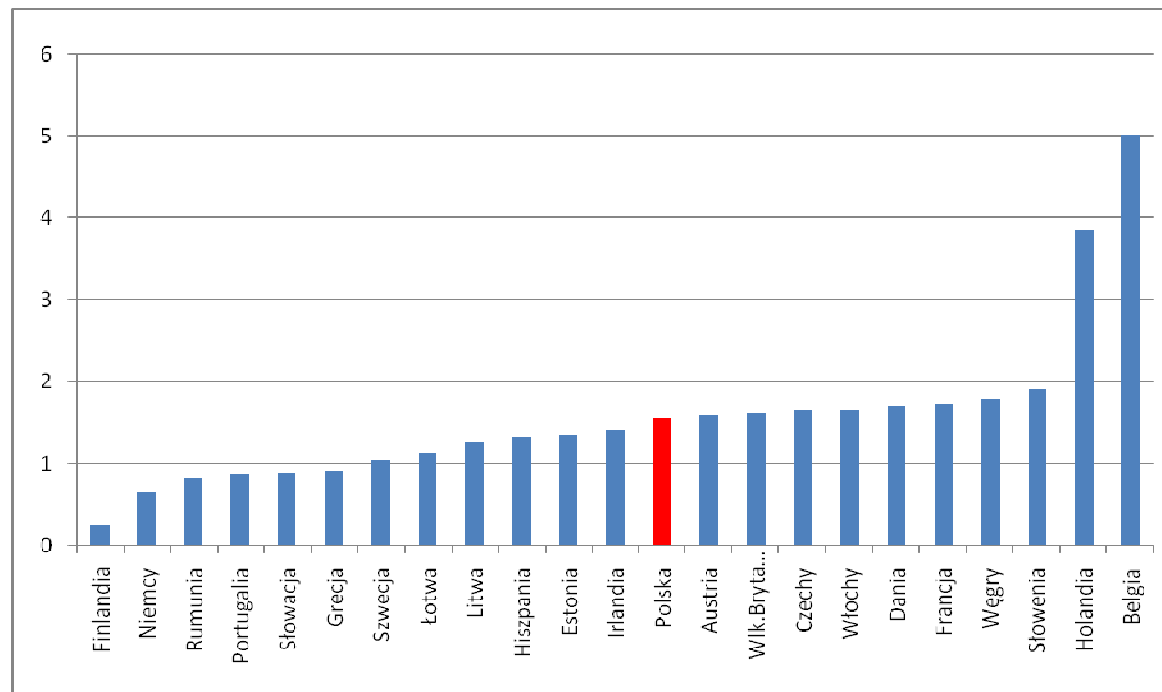
- Allows to save on cost of transportation and storage,
 - Favours trade extension outside the local markets,
 - Simplifies extension of knowledge,
 - Simplifies flow of employees to more productive sectors,
 - Improves access to education and health care,
 - Increases probability of getting job according to the qualifications,
-
- Road infrastructure should be developed in regions with high population density,
 - Renovation of existing road infrastructure can bring more profits than extension of new roads.



Road infrastructure in Poland (1)

On a per square kilometer basis, Belgium's road network is three times better developed than Polish road infrastructure. Also Slovenia, Hungary and Czech Republic have better road network in terms of road density.

Road density in some EU countries (kilometer per sq kilometer)



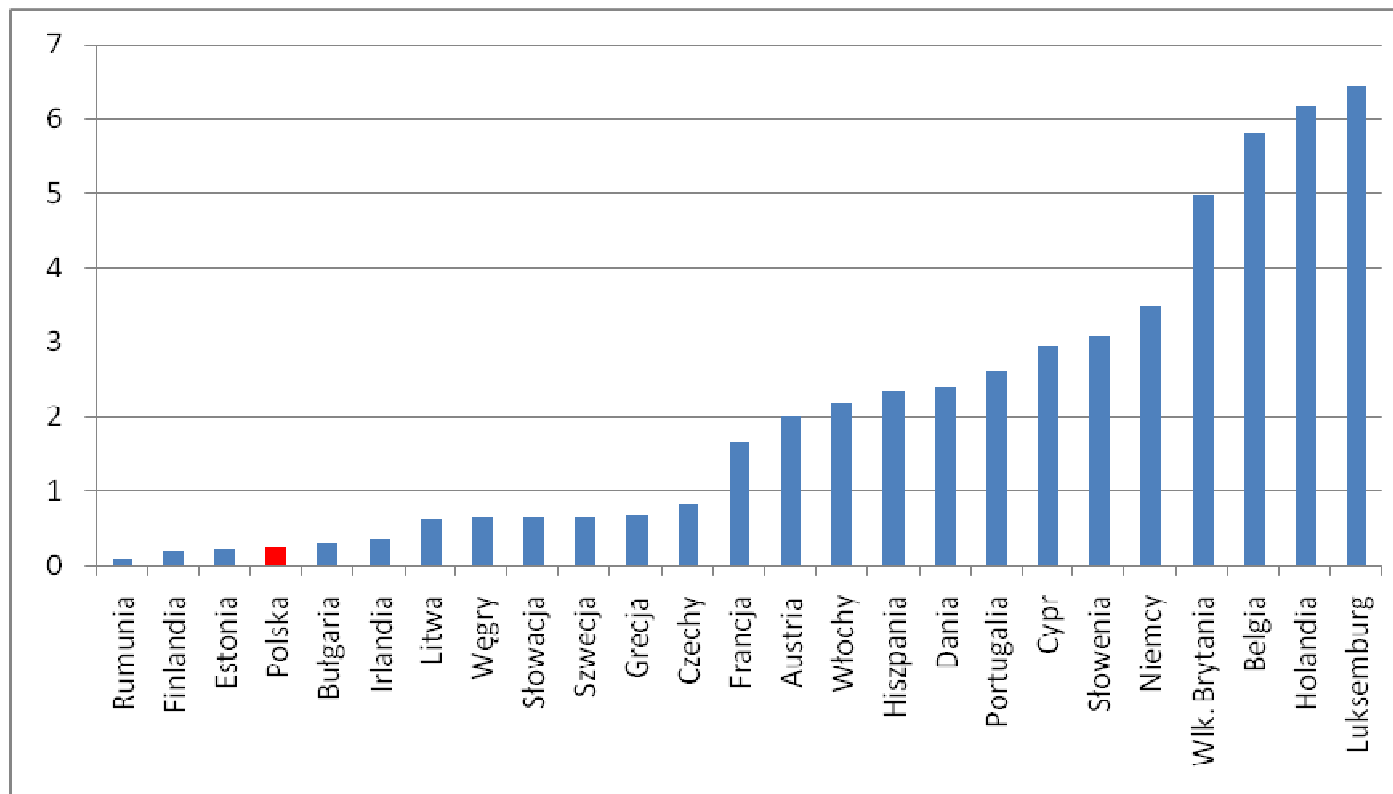
Source - Euromonitor



Road infrastructure in Poland (2)

Road capacity in Poland is insufficient. There aren't too much motorways (about 750 kilometers) and express ways (about 450 kilometers).

Motorways density in EU countries (kilometer per 100 sq kilometers)

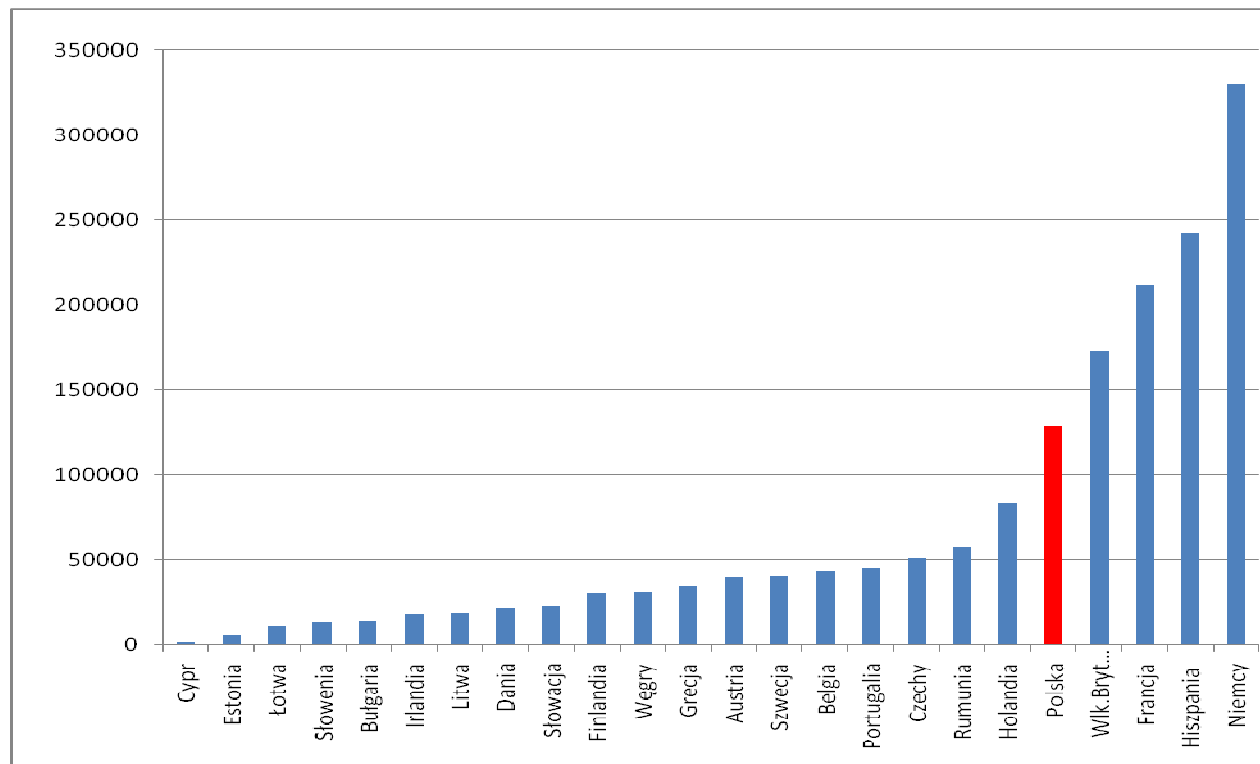




Road infrastructure in Poland (3)

Poland is in „top 5” in terms of annual road freight transport. Only in Germany, Spain, France and UK tonnage of goods transported by road is higher than in Poland.

Thousands of tons transported by roads



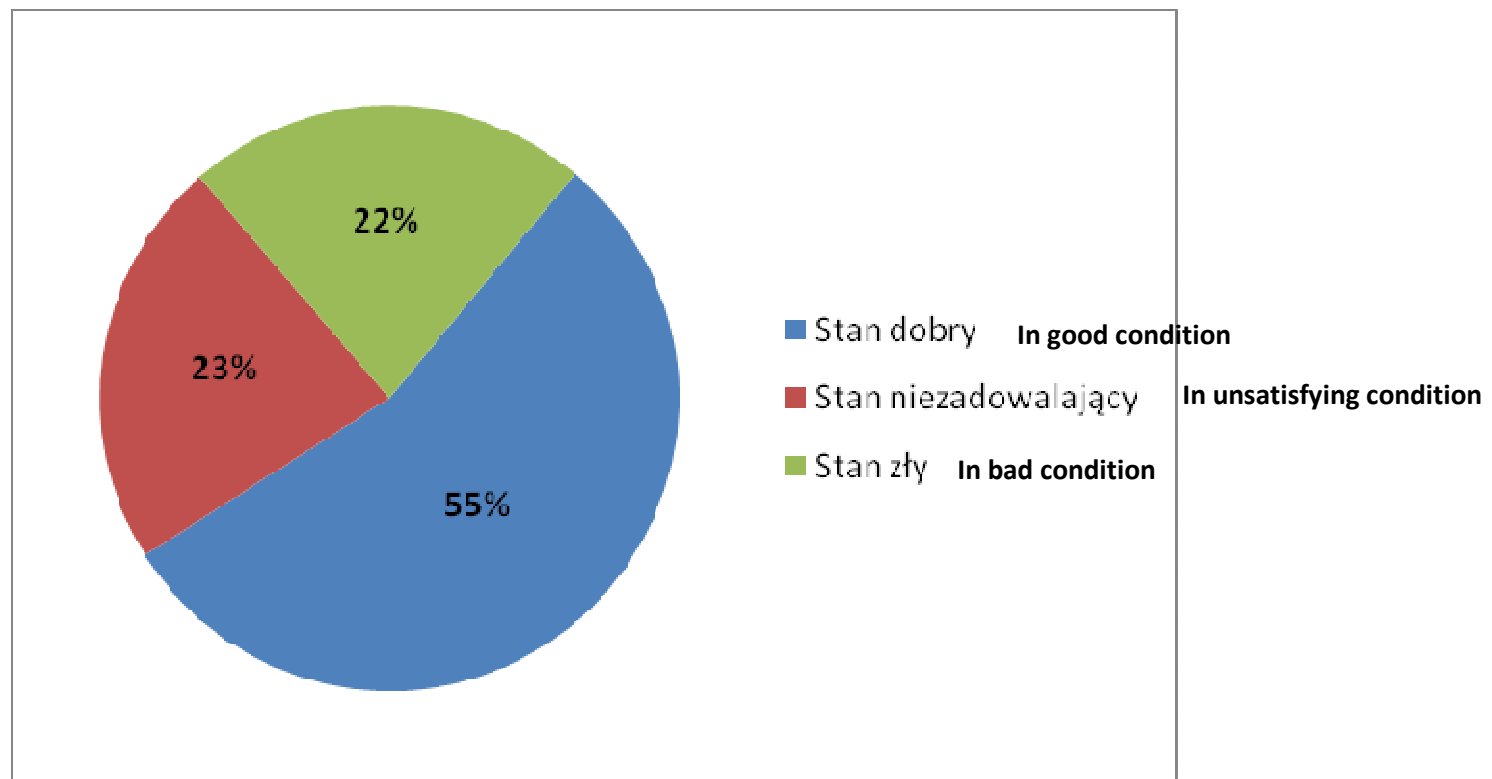
Source – Eurostat



Road infrastructure in Poland (4)

Shortage of motorways and express ways results in bad condition of other national roads. Nearly a half of Polish national roads is in bad or unsatisfying technical condition.

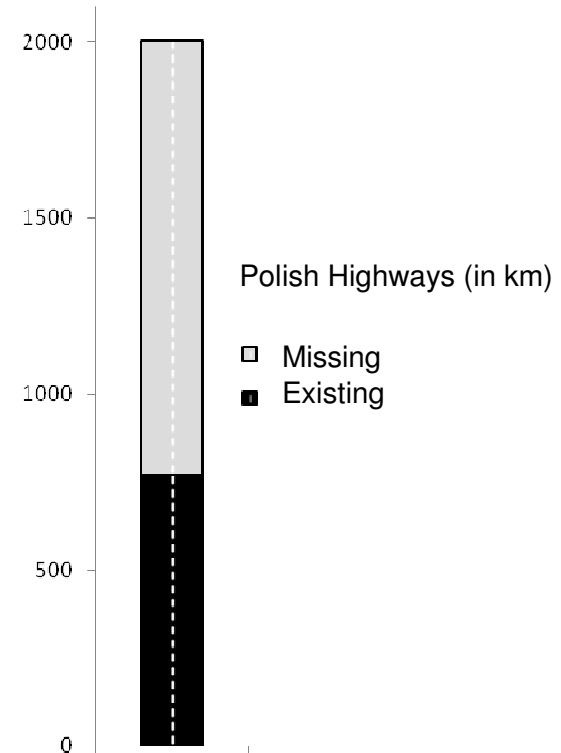
National road infrastructure conditions



Source – System Oceny Stanu Nawierzchni (SOSN)



Existing Highways
Missing Highways



Cost-benefit analysis is focused on the missing highway sections.

According to the EU standards, the following cost categories are being analyzed:



Costs of road infrastructure users' time



Costs of vehicle operation



Costs of casualties and car accidents

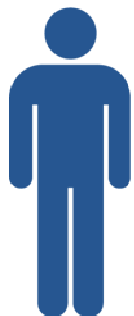


Environmental costs

Costs of road infrastructure users' time



100 km



3000 PLN



2 h



1h 20 min

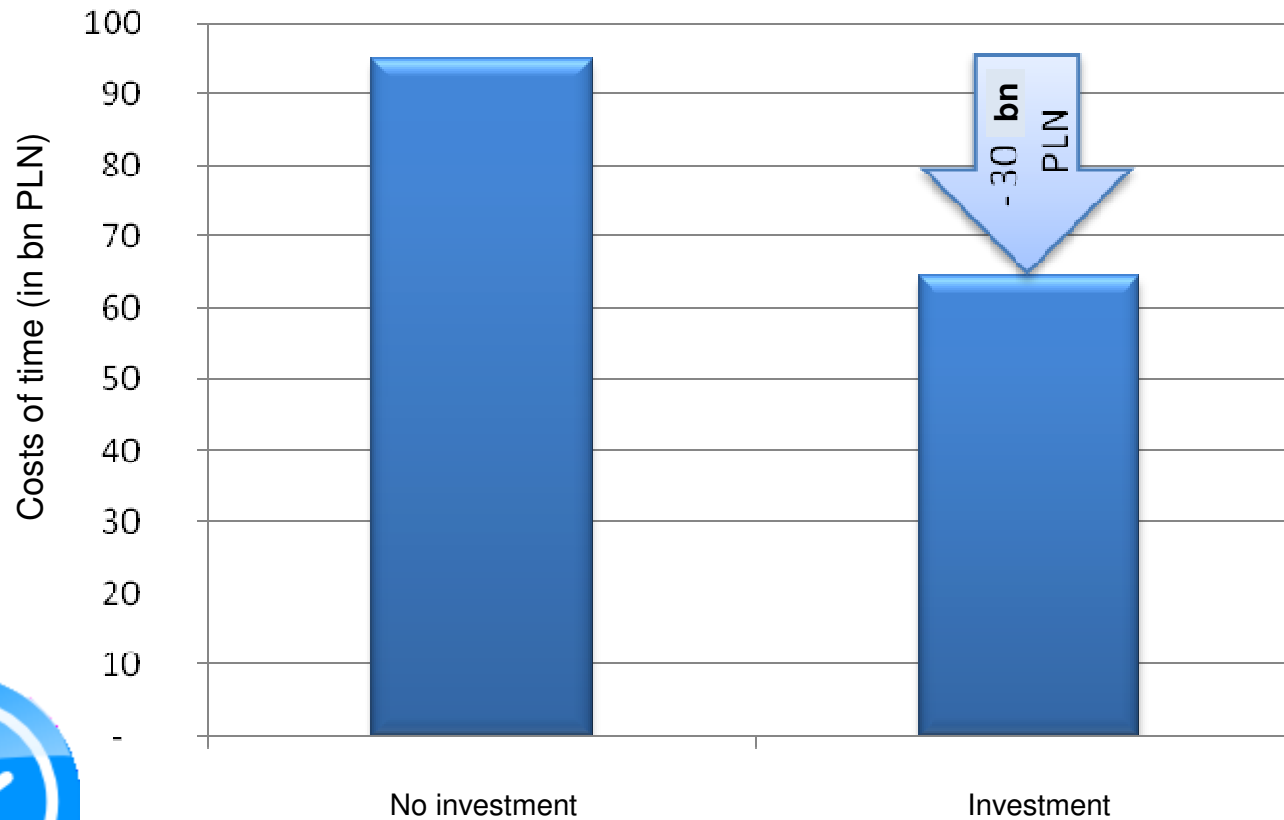


40 min saved thanks to the faster ride is worth in this case **12,5 PLN** for the employer.



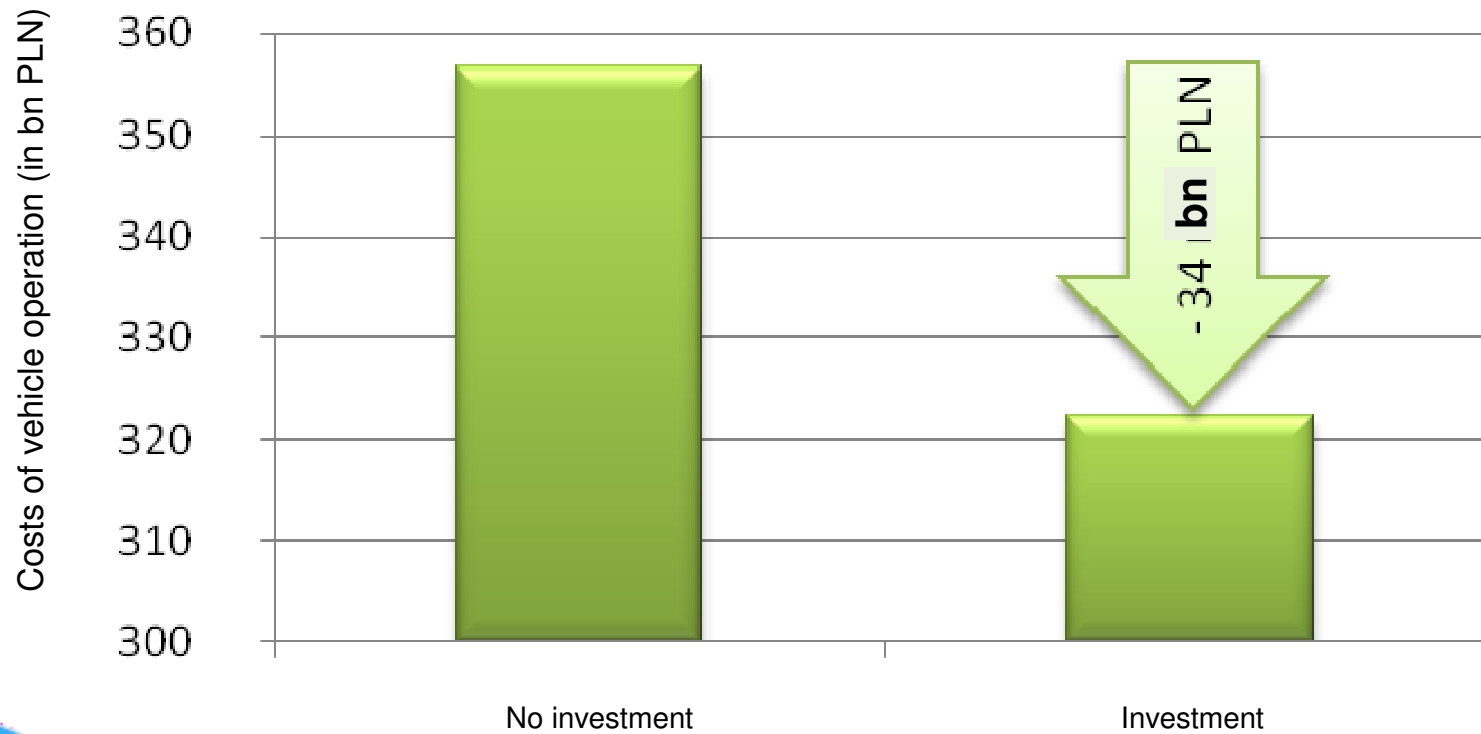
Costs of road infrastructure users' time

Benefits from highway-building are calculated basing on the difference between the costs borne at present and costs that would be borne if the highways were already built.





Costs of vehicle operation





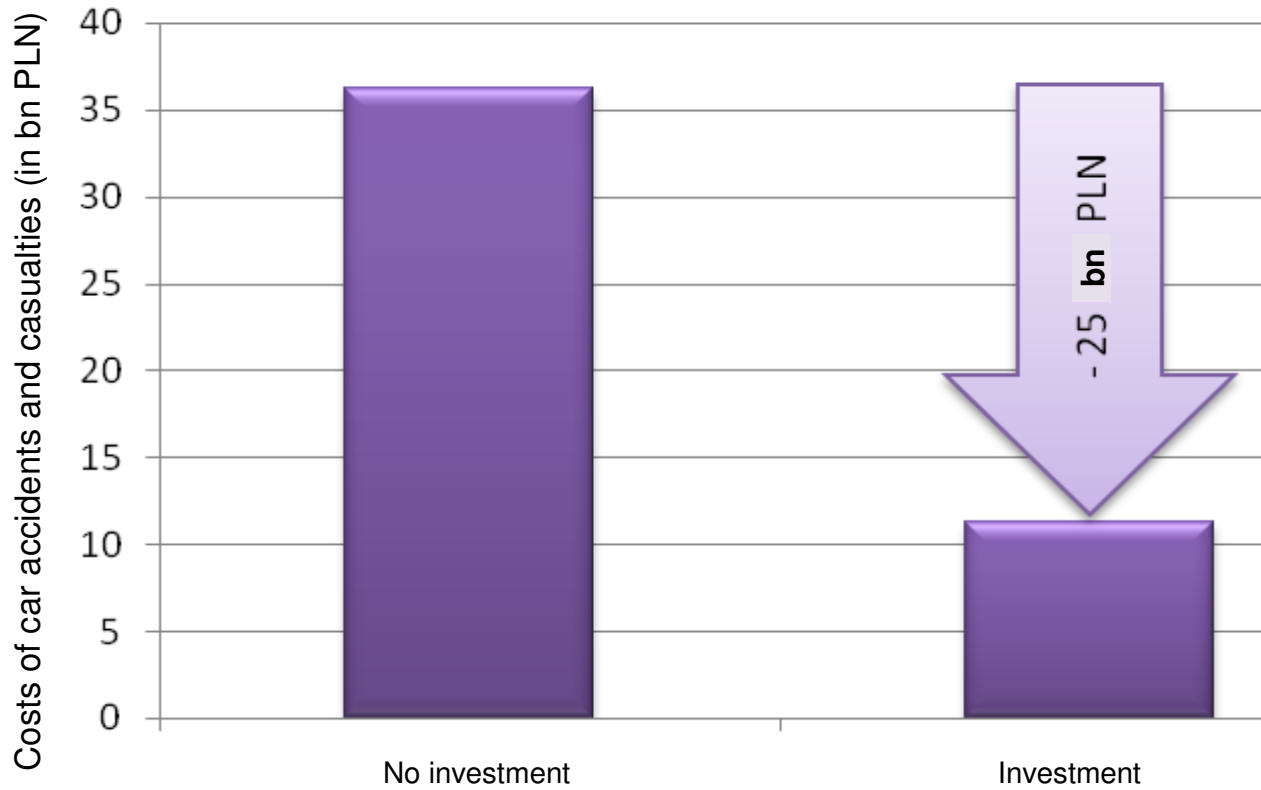
Costs of casualties and car accidents

If planned highways existed, around 200 human would avoid death and 1300 serious injury each year.





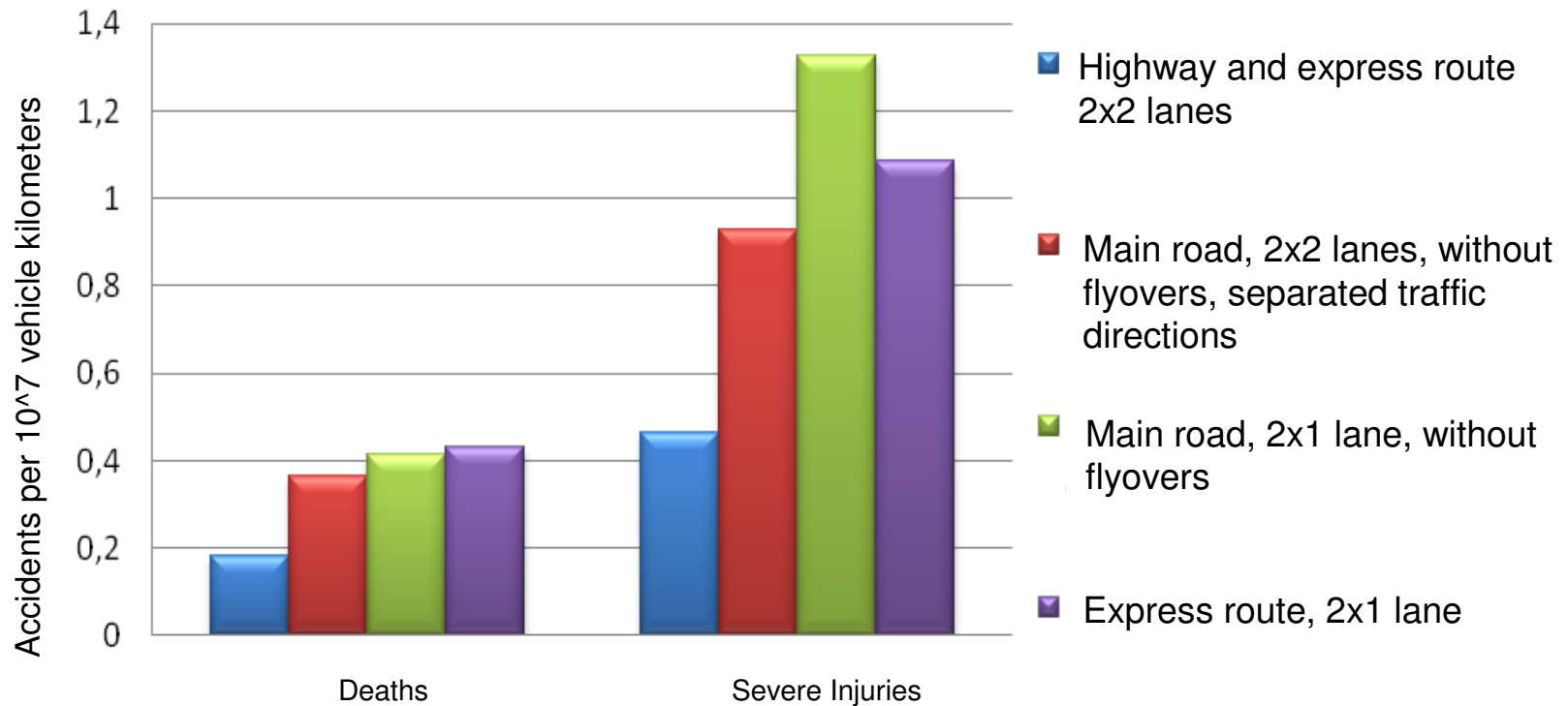
Costs of casualties and car accidents





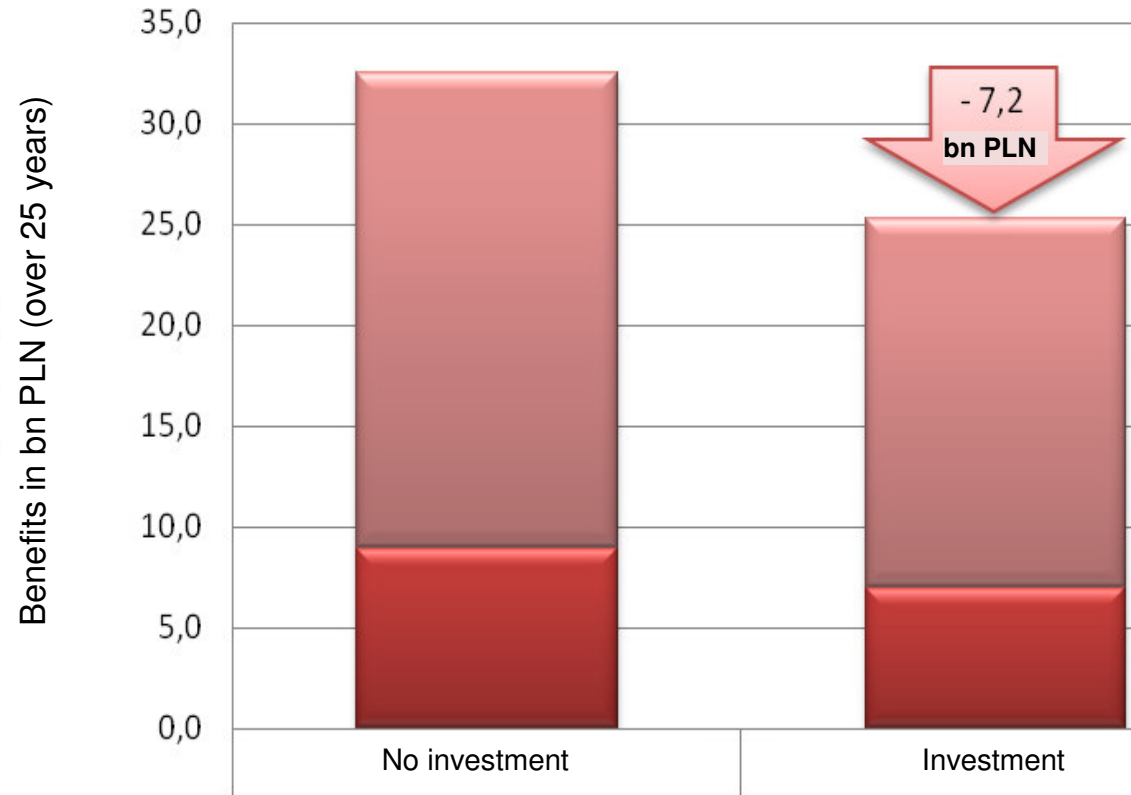
Single-carriageway express roads vs. safety

Because of cost reductions, single-carriageway express roads are being built. However, the possibility of car accidents on such roads is very high.





Environmental costs

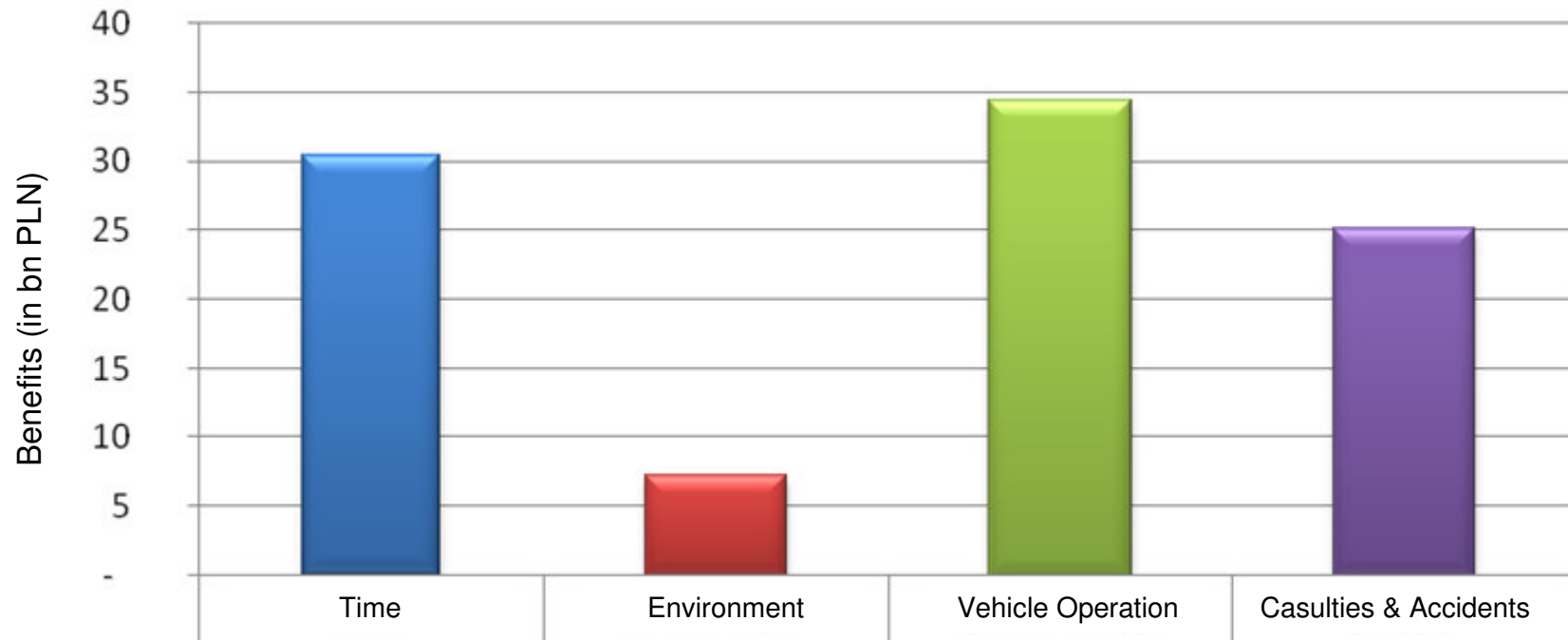


Trucks and buses	23,5	18,3
Passenger cars and delivery vans	9,0	7,0



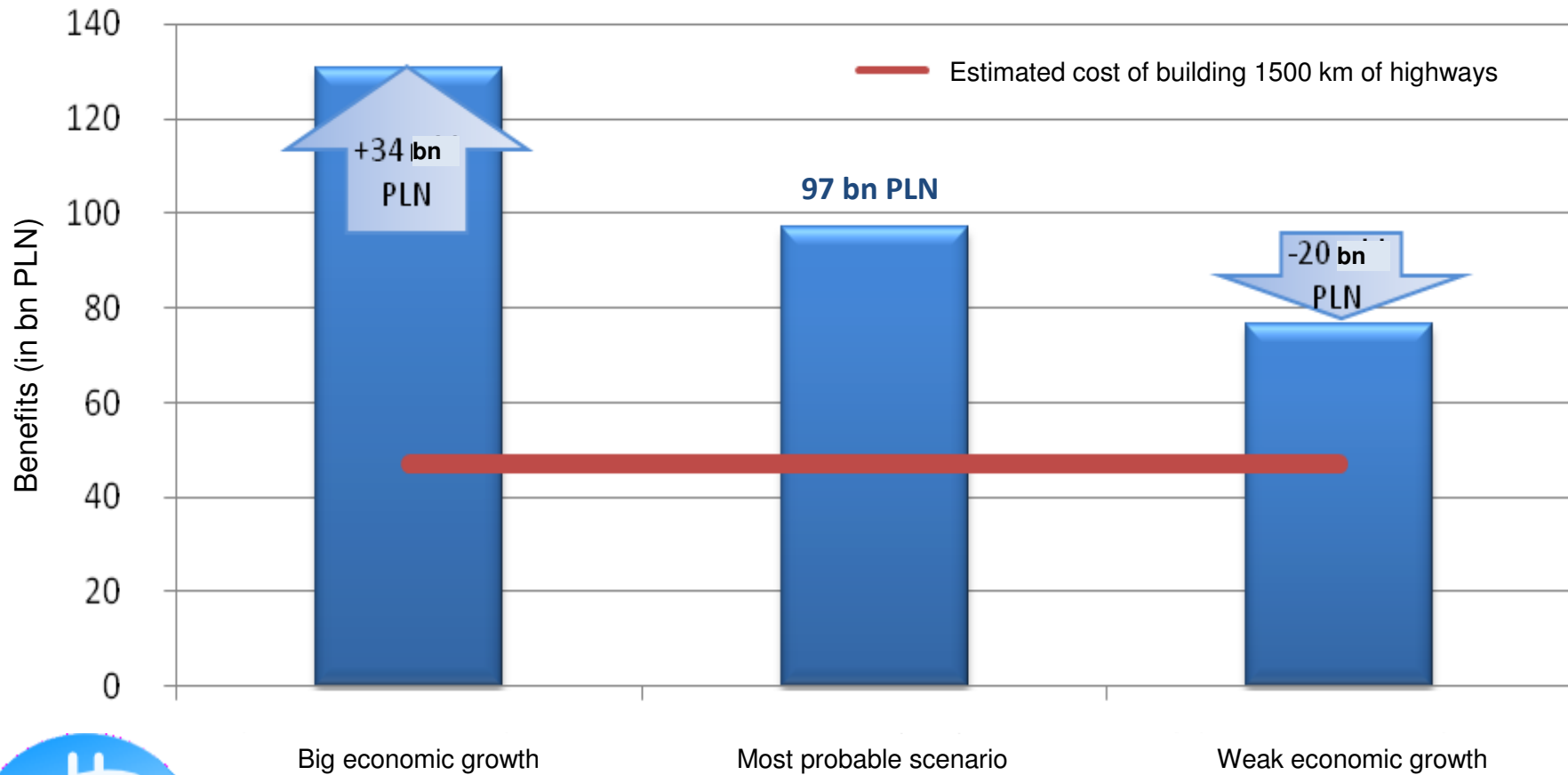


Combined Benefits





Recovery of expenses





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4C FUTURE
COMPUTING

Road infrastructure financing





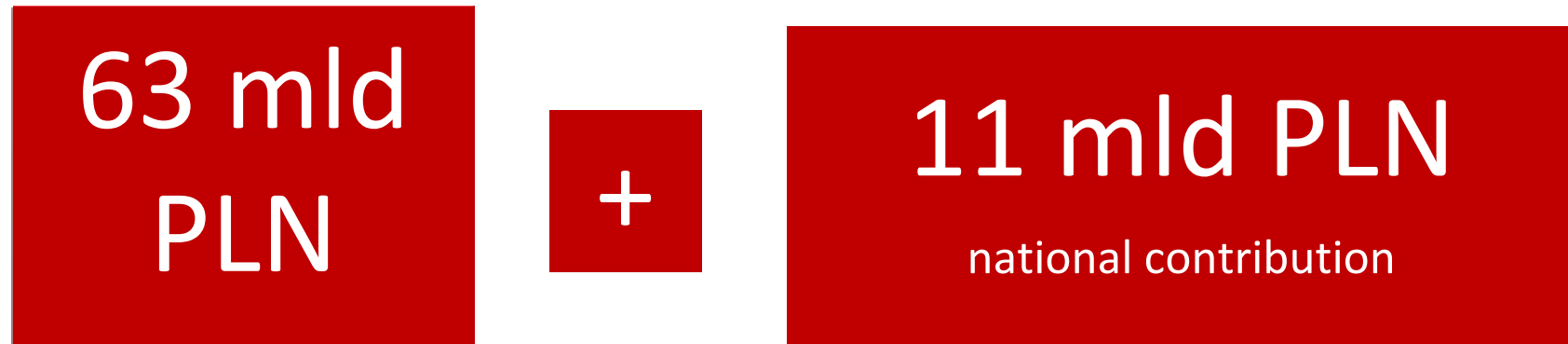
How to finance road projects in Poland

Since Poland is in the EU, the financing is not the main barrier to development of roads in Poland.

There are various sources that may be used:

- **National Budget resources**
- **European Funds**
- **Debt financing by the International Financing Institutions**
- **Debt financing by the Commercial Financing Institutions**
- **Bonds**
- **Public-Private Partnership**





There is a serious concern if all of the available money can be spent because of the necessity of co-financing from the National Budget;

1 EUR = 4,3 PLN



Blending EU funds with PPP – a potential solution to provide national contribution required for EU funds

Innovative form of financing large projects, to be considered when:

- Projects may benefit from EU support and are suitable for a PPP structure
- Large projects where available combined public and private funds, or public and EU funds are not enough
- Investments in the areas supported by EU funds, where cooperation with private partner may be beneficial for example due to transfer of risks
- Projects where any impact on lowering the overall costs born by the private partner and hence project risk - due to use of EU grant – may allow to lower the cost of financing





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Basic barriers:

- **Frequent changes of concept for implementing road investments**
- **Lack of harmonization and inconsistency between different Polish zoning and planning systems**



Basic barriers (1)

- **Failure to use all available legal options to implement road investments with private partner participation**
- **Lack of sufficient consideration in administrative law regulations of the linear character of road investments**



Basic barriers (2)

- **Underdeveloped tender procedures**
- **Environmental impact regulations for investments do not take account of the varied nature of investment types and the specific nature of road projects decided on in the 1990s but being implemented now**



- **Assure a stable and consistent transport policy**
- **Introduce a consistent zoning and planning system, tied to investments in other transport sectors**



Investment implementation – what should be changed? (1)

- **Introduce good management practices and disseminate alternative means of investment implementation than through the budget**
- **Assure stability of the law and prepare consistent practices for its implementation**
- **Introduce administrative law solutions taking greater account of the linear nature of road investments**



Investment implementation – what should be changed? (2)

- **The environmental impact assessment procedure should take account of the variety of different road investment types and the specific nature of investments planned and sited in the 1990s but being implemented now**
- **Better developed tender procedures**



Thank you for your attention