10 reasons why transport infrastructure research is needed in Horizon 2020.

1. **Because Europe and [insert MEP country/region here] needs <u>an affordable transport network</u>**
   The core networks of Europe are not yet complete. Many key links still need to be developed and bottlenecks removed. In addition, much of Europe's infrastructure is elderly and desperately in need of repair and renewal. The recent example of the failure of a key bridge for the London Olympics illustrates the consequences of the legacy of our aged networks.

2. **Because it creates <u>European jobs in Europe</u> and <u>for Europe</u>**
   Infrastructure involves over 2 million enterprises across all the regions of Europe. It is probably one of the most evenly-distributed industries. Infrastructure innovation in Horizon 2020 will enable these enterprises to create smart jobs in Europe; working on European infrastructure.

3. **Because <u>good infrastructure reduces energy costs</u>**
   Smart and integrated measures in infrastructure design, maintenance and operations are estimated to contribute to a 25% reduction in fuel and energy consumption – for today's vehicles. Research is needed to develop these and other promising techniques such as energy capture and harvesting from the infrastructure. Without the pan-European cooperation of Horizon 2020, cost-effective solutions cannot be developed and enter into standards.

4. **Because it will help <u>save 11,000 lives</u>**
   Poorly maintained infrastructure costs lives; well-designed infrastructure saves lives. The European Commission itself says that road infrastructure and design are a contributing factor in one out of three fatal accidents. The quality of infrastructure affects people in cars, trucks, buses, trains and especially vulnerable users such as cyclists. Research is desperately needed to provide authorities with the tools and guidance to cut transport infrastructure-related death and injury.

5. **Because <u>Europe needs excellent scientists and engineers</u>**
   Infrastructure needs clever people. Much of the science and engineering work conducted is cutting edge requiring a substantial level of support from universities [such as insert relevant local university of the MEP], research organisations and hi-tech enterprises. However European faces a catastrophic shortfall in talent. Europe is not training enough experts and is losing its remaining experts to competition from the developing countries. This is undermining our transport infrastructure, driving up costs and delaying necessary works. The support of Horizon 2020 is needed to drive innovation, maintain expertise in Europe and develop the next generation.

6. **Because we need infrastructure research <u>to protect the environment</u>**
   Environmental degradation continues to occur alongside the transport corridors. Pollution enters the watercourses, habitats are fragmented and noise blights lives. Research is needed to find affordable solutions for reducing tyre/road dust (which is not a significant source of particulate

pollution in many cities), pollution from winter maintenance, visual intrusion (including light pollution) that affects people and nature, as well as methods to implement the available solutions for noise pollution.

7. **Because <u>Europe's enterprises need to compete globally</u>**
   Over 28,000 European enterprises directly related to transport infrastructure battle daily against the growing competition from outside Europe. European transport engineers have a tremendous history in building the very best infrastructure around the world. With the tremendous growth in infrastructure construction in developing countries, European enterprises need research and development to keep them in this very competitive market.

8. **Because <u>Europe cannot afford the cost of extreme events</u>**
   A single integrated transport system must be built on solid foundations. With the effects of a variable climate already challenging the infrastructure manager's ability to keep roads, railways and waterways open, we cannot afford to be complacent. Research and innovation is needed to provide affordable ways of increasing the robustness of our infrastructure. This is essential for a transport system that we cannot afford to be shut-down..

9. **Because <u>Europe should be a good neighbour</u>**
   In EC-commissioned studies on the transport research priorities, transport (and especially) road infrastructure is the top priority for countries across North Africa, the Western Balkans and Eastern Mediterranean. Participation in EU research projects is vital, both for their capacity building and for Europe's external transport links. For example, Horizon 2020 should be contributing to halting the wastage of the 50% of crops grown in Africa that are spoiled before reaching their market because of poor transport infrastructure.

10. **Because <u>better infrastructure will make our urban areas more liveable</u>.**
    Infrastructure research will contribute to improving the quality of the urban environment. This will allow our urban networks to be reconfigured with high-quality mass-transit, bus, bicycle and pedestrian facilities, redirecting existing infrastructures underground as well as resolving the conflicting requirements between different modes as well as utilities and services. Only through infrastructure research will workable intermodal mobility deliver its full benefit.