

Working group

Design



Design

A working group is established, which must share and develop knowledge in road design. Road design is about how you design streets and roads so as to consider the users' and society's interests as best as possible. The working group should address the following matters:

a) Universal design

Transport is often what ties daily activities together. The transport system should therefore be designed so as not unnecessarily preventing anyone from fulfilling their need for mobility, including old people, children and functionally impaired users. Roads and streets should also be designed to provide a high degree of 'liveability' so as to create the optimum conditions for the mobility users. When addressing 'liveability', the group may benefit from exchanging ideas with the group 'Urban transport and transport planning' (particularly 'The journey as an experience').

b) Urban design

This theme deals with how you plan and design urban traffic areas in the most expedient manner. This theme should be approached from different angles. One significant angle will involve looking at how traffic areas should be designed to support the sustainable transport solutions. A second angle the group could adopt is to look at how to incorporate new transport offers like electric bicycles, scooters, electric scooters, wave boards, etc. in the design of urban traffic areas. A third angle could be to address best practice in the design of urban transport hubs: How do you design urban traffic areas in places where it is relevant to shift between various means of transport (e.g. carpublic transportbicycle, walking)? A fourth angle could be to look at best practices in relation to goods delivery to ensure that the design of urban traffic areas takes the increasing need for goods delivery into account. The working group can, as a starting point, use the many pilot studies on goods delivery undertaken in the Nordic countries.

c) Future requirements for road design

What road design and specific geometric solutions will allow automated cars on motorways, national roads and in urban areas? This theme should be addressed to generate greater knowledge about relevant road designs and new geometric solutions supported by the emergence of automated cars. There are several relevant subthemes to look into in relation to the increasing level of automation. One important angle is e.g. to study the requirements and needs posed by the Lane Keeping Assistance (LKA) technology in automated cars in relation to the width of lanes, which has a considerable impact on road accessibility.

d) Climate adaptation solutions

Climate adaptation solutions increasingly include the road network in the solution design, thus placing requirements on the current as well as future design of the road network. It may therefore be a good idea for the working group to study best practice in road technical solutions and discuss how to coordinate future road design and climate adaptation solutions. Focus should preferably be highly specific, e.g. it might be interesting to exchange knowledge about how the parameter 'climate' is priced in the countries' optimisation systems.

Period

July 2020-June 2024

Relevant competence profiles

Road engineers, researchers, etc.

Knowledge sharing and communication of best practices

The group may benefit from exchanging ideas with the working group 'Urban transport and transport planning'.

Relevant sustainable development goals

Goal 9: Industry, innovation and infrastructure

Goal 11: Sustainable cities and communities

Follow-up on sustainable development goals

The group will make proposals for follow-up on the sustainable development goals in autumn 2020. In this connection, the group can also discuss whether the activities mentioned in the terms of reference align with other sustainable development goals which the group would like to follow-up on.