



CITYTHON 2021

28 MAY - 2 JUNE



Challenge 1

NAME: School zones and traffic safety

Short description:

In the Eindhoven road safety ambitions, we state that we want to be 'a safe city with as few as possible traffic victims'. Thus, the city is striving for the safe design of all school zones according to the standard design drawn up for Eindhoven. We are looking for solutions that can help solve one or more of the following challenges:

- Getting kids to contribute to designing their own environment. How can we get their perspective on the design of the school zone, and that of their parents?
- How can we rethink the routes to elementary schools that children take, to fit the 15-minute city concept and enhance kid's self-confidence to travel to school on their own?
- How can we apply games, digital tools to educate and get pupils/parent's perspective and participation on the school zone design and possibilities?

1. Detailed description of the problem

In the Eindhoven road safety ambitions, we state that we want to be 'a safe city with as few as possible traffic victims'. Especially in the youngest age group, we see that when they are involved in an accident, there is almost always an injury. The impact of an accident is therefore high for this group. By continuing to ensure safe school environments and teaching the right behaviour through education and (behavioural) campaigns, we can reduce the risk of accidents. This provides schoolchildren with a good basis for when, at an older age, they will be participating in traffic independently (as young drivers).

Recently, new insights on how to approach safety have emerged; a shift in the perceived ownership of road space from vehicles to pedestrians and cyclists is identified, and new concepts such as the '15-minute city' propose to redesign cities' layout to accommodate the most frequently used facilities within a 15-minute travel radius. For child-oriented facilities such as elementary schools, this should be even less, perhaps 10 minutes.

Finally, in the European project Metamorphosis (<http://www.metamorphosis-project.eu/>) and the Breda University course 'Entrepreneurship in Mobility', attention was given to redesigning school zones to fit the perspective of different traffic participants, young kids and parents included, to give them the confidence and responsibility to get to school independently.



The challenge

Eindhoven is striving for the safe design of all school zones according to the standard design drawn up for Eindhoven. This creates a recognizable image for road users. We are investigating the possibility of providing schools that do not yet have a school zone with such a zone at an accelerated pace. In recent years, we have realized an average of 2 school zones per year. We aim to accelerate this, so that in a few years' time all schools will be equipped with a school zone.

We are looking for solutions that can help solve one or more of the following challenges:

- Getting kids to contribute to designing their own environment. How can we get their perspective on the design of the school zone, and that of their parents?
- How can we rethink the routes to elementary schools that children take, to fit the 15-minute city concept and enhance kid's self-confidence to travel to school on their own?
- How can we apply games, digital tools to educate and get pupils/parent's perspective and participation on the school zone design and possibilities?

2. What do we expect as the outcome of the solution?

A digital plan or digital game (or a detailed concept of one of those) to address one or more of the challenge questions stated above. Preferably a digital analysis of the data provided to the challenge participants to substantiate your approach.

3. What is the scope for changes to the current systems? (software, hardware, etc.)

Successful solutions can be further worked out and possibly implemented by the city of Eindhoven.

Teams are free to utilize any technologies of their choice.

4. What data are participants allowed to use for the development of their solution?

- **Action plan traffic safety Eindhoven:**
https://eindhoven.parlaeus.nl/user/bdocument/action=showannex/gdb=1145/Bijlage_-_Actieplan_Verkeersveiligheid_Eindhoven_2020.pdf
- **Data on accidents and road traffic:** will be made available to participants
- **Data on elementary school locations:**
<https://scholenopdekaart.nl/zoeken/basisscholen?zoektermen=Eindhoven&weergave=Lijst>
- **Metamorphosis project results and deliverables** available at: <http://www.metamorphosis-project.eu/downloads.html>
- **Entrepreneurship in Mobility course results** will be made available to all teams working on this challenge
- **Current traffic safety campaigns:** <https://www.eindhoven.nl/stad-en-wonen/verkeer/verkeersveiligheid/samen-maken-we-eindhoven-veilig>

5. Evaluation process of the final solution

Teams will be evaluated based on a final presentation on the 2/3 following outputs:

- The attractiveness of the plan/game for stakeholders of the school zones (children, parents, teachers, road users)
- The contribution to traffic safety in school zones
- The empirical data driven validation of the planned solution

