

Assignment

Living Lab EnTranCe

Title assignment

Hyperloop

Client:

Hardt Hyperloop

Problem

A Hyperloop is a transport system that is reminiscent of tube mail. Capsules containing people or goods are shot through vacuum-sucked tubes at high speed. The speed is up to 1,000 kilometres per hour. Apart from being extremely fast, this form of transport should relieve road transport, so that less CO₂ is emitted. A hyperloop can potentially transport people, but also goods. The hyperloop is seen as the answer to the growing demand for a sustainable solution for (high-speed) goods transport. It ensures better use of the current infrastructure and frees up capacity in that infrastructure.

Central to the plan of the client, Hardt, is the creation of the European Hyperloop Center (EHC). On this open test track of 2.7 km in Groningen, the hyperloop will be developed according to European standards for worldwide export. Research in the new European Hyperloop Centre must show to what extent the hyperloop can be a realistic alternative for short-haul flights. In order to answer the question of feasibility, students from all disciplines can carry out research for Hardt.



Description of the assignment

Assignment A

For both scenarios (above ground versus underground) it should be investigated what this means for the possibilities and possible limitations for the spatial fitting of the hyperloop.

Assignment

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Assignment B

For both scenarios (above-ground versus underground) it needs to be investigated what this means for the possibilities and possible limitations with regard to legal aspects in the field of spatial planning and safety.

Assignment C

A business case has to be designed for both scenarios (above-ground versus underground), looking at potential target groups, cost structure, income flows and partnerships.

Assignment D

For both scenarios, the needs of future users with regard to the design and services of the hyperloop have to be investigated. How can a highly future-oriented design be made visually understandable for citizens?

Assignment E

The technical design of the Hyperloop and the route will also differ in both scenarios. What possibilities are there in the choices regarding this?

Suitable for students of the course(s):

Assignment A: SOFE; Built Environment
Assignment B: SIRE; HBO Law
Assignment C: SIBK, Business Administration
Assignment D: SCMI; Communication & Media Design
Assignment E: SIEN; Mechanical Engineering

Type of assignment:

Bachelor - Graduation assignment
Bachelor - assignment as part of a minor
Bachelor - work placement
Master

Period:

Semester 2, February-July 2022

What are we, and where do you find us?

The Living Lab EnTranCe is the place where students work together with teachers, researchers, the business community, governments and/or civil society organisations on complex issues. We do this at the following locations:

- Location Proeftuin, Zernikelaan 17
- Location Energy Academy Europe, Nijenborgh 6.

Assignment

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What do we offer?

Interesting, topical and multidisciplinary research assignments in the field of energy transition.

Space for collaboration with lecturers, researchers, lecturers and the professional field.

Guidance within the innovation workshop by theme coordinators, project leaders or experts.

Are you interested?

Then please contact us:

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