

Value Innovation (7,5 HP)

Objectives

The course deepens the development of skills and capabilities for Design Thinking (DT) with a focus on value creation. DT is an approach for user-centred innovation that has gained increased popularity in the last few decades, both in industry and in the public sector. DT represents a paradigm shift from the traditional linear problem solving approaches, being applied to cope with design situations dominated by ambiguity and lack of knowledge (wicked problems). The four phases of the framework – Initiation, Inspiration, Ideation and Implementation – helps individuals to unleash their innovation potential, and to organize the engineering toolbox when wicked problems are in focus.

Duration and Deadlines

November-December (8 weeks).

Deadline for project proposal submission: Oct 20th.

Project Examples

The “trenching technology design challenge” for fiber optic installation.

Partner company: Affärsverken

Team: Adam Backman, Albert Eriksson, Axel Sjöberg, Marcus Skoog, Johan Olsson Stjernberg

The team was challenged with the design of a solution for improving the trenching operations (schaktning) for fiber optic installation. The students gathered needs from machine operators and other stakeholders, benchmarked existing solutions, and got inspired by biomimicry to develop an innovative concept to reduce the installation cost for fiber optic cables under roads and parking lots.



The "electrical roller ecosystem" design challenge

Partner company: Dynapac Compaction Equipment

Team 1: Henrik Ehrenberg, Måns Jonsson, Filip Malmenryd, Matteo Persico

Team 2: Mojtaba Fayazi, Dastan Gomli, Mattias Abdulah Ghanem, Abraham Abdulkarim

The two team were challenged with the design of electrical solution for an asphalt compactor. The students gathered user needs, mapped existing compaction processes in relevant applications, benchmarked technologies for electrical propulsion in the construction sector and developed an electrification concept for double drum asphalt rollers.

