

# VACANCY: Impact of C-ITS on mobility and society

## INTRODUCTION

Mobility is about the movement of people. And it is the people themselves that decide how, when and where their next movement takes place. This means that all our solutions somehow describe or forecast the choices of people on e.g. the frequency, destination, means of transportation and departure time of each movement and how all these choices interact resulting into mobility on a system-wide level. The challenge in most of our assignments lies in the combination of accurately describing and forecasting (fuzzy) human decisions and their spatial-temporal interactions whilst providing a complete, meaningful and consistent overview of their effect on the mobility system as a whole.

## PROBLEM DESCRIPTION

Uncertainty about how the future will look like is possibly greater than ever. Technological development and crises need extensive planning and steering to prepare for the future. In this thesis, we would like to explore: "The impact of C-ITS on mobility" with a use case in Stockholm.

## RESULT / OBJECTIVE

A System Dynamics model that helps to guide our clients in (mobility) transitions. A specific case for this internship is an SD model that describes possible impacts of C-ITS on mobility. Central to the development of a system dynamic model is describing and quantifying causal relationships that define our mobility system.

## ASSIGNMENT

System dynamics uses feedback between the variables, so that certain variables can also influence themselves at a later point in time. Causes and consequences can be traced back throughout the system, via all variables involved. This helps to understand a complex system over time and provides guidance in policymaking.

Hereby we consider the following questions:

- How can C-ITS impact mobility and society?
- Under what circumstances can C-ITS applications help to achieve policy goals?
- What aspects make C-ITS a success, and what aspects hinder it's benefits?
- What behavioural changes are expected?
- Which behavioural factors have most effect?
- What is the smart thing to do now to steer towards beneficial impacts of C-ITS?

For the ideal candidate we have the following requirements:

- Interest and affinity with mobility;
- Basic experience with System Dynamics;
- The possibility to work in the Netherlands, Gothenburg or Stockholm.

## INFORMATION

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More information on Goudappel can be found via [www.goudappel.nl](http://www.goudappel.nl).