**Graduation Project proposal**

**Company:** Bright Cape B.V.

**Supervisor(s) at company (name + e-mail addresses):**
Ivo Schutz, ischutz@brightcape.nl

**University**

**Supervisor(s) at university (name + e-mail addresses; TU/e will look for suitable supervisors if left blank):**

………………………………………………………..
………………………………………………………..

**Project title (or topic):**
Autonomous warehouse and last mile delivery.

**Short project description:**
The goal of the project is to develop a logistic platform leveraging on AI techniques to coordinate a fleet of autonomous vehicles (unmanned aerial and terrestrial vehicles) for moving goods within a warehouse and for last mile delivery in areas where traditional solutions (based on human operators) are expensive. This project is part of a European collaboration within EIT Digital (https://www.eitdigital.eu/). In 2019, we will enter the second year of the project. The focus for 2019 will be on (1) expanding the autonomy level of warehouses by supporting the robotization of the shelves in coordination with the AGV fleet and (2) integration of Unmanned Aerial Vehicles for last mile delivery. Bright Cape is the leading partner within this project and will develop and implement this concept together with other European industry and research partners.

**Technical assignment:**
The goal of the task is to leverage the large datasets created day by day at the premises of the logistic companies. These datasets are usually stored but not processed, however they contain a lot of useful information which can help to optimize the inbound and outbound processes of the company. The data will be input for prediction models used to learn patterns of different processes at the premises of the company, such as vehicle arrival and departure, pallet repackage timing and operator efficiency. The student will be asked to assess the current situation and to write a protocol for how to leverage the datasets, focused on a specific topic such as the replicability of this process for different clients or safety / privacy implications.

**Business assignment***:
For this project a new start up will be created as a daughter company of Bright Cape, therefore a business plan will be set up. What is the best strategy to bring this to the market, what companies or European countries should be targeted first, what does this mean for risks or legal implications, what will the pricing model be, etc.? Assisting our business lead, the student will write a short business report related to former mentioned topics.

*This part is only relevant for graduation projects carried out by students of the EIT ICT Labs (www.ictlabs.eu) variant of the Embedded Systems program. In addition to the MSc thesis about the technical aspects of their graduation project, these students need to write a short additional report discussing the business-related aspects of their graduation project. Please fill in this part if you wish your project proposal to be considered for this option.