Case Triodos bank: An eco-system for a multi-company blockchain with an alternative currency

Introduction
The United Economy is a group of companies who want to pay each other's invoices in Uniteds, in order to keep the money in their own circle where possible. The Uniteds can be considered as an alternative currency to the Euro, but is only valid in the group of participating companies. It allows a participant to pay for a service provided by another participant, and enables to manage currency-related issues by the group itself rather than a central bank,

Blockchain technology
The sustainable Triodos Bank (Zeist, The Netherlands) and the University of Twente executed a successful pilot in November 2016, showing the feasibility of using the Hyperledger blockchain technology that facilitates the exchange of the alternative currency called "United".

A key problem is how to put this blockchain into operation, specifically with respect to the required eco-system. For example, in the prototype setup, Triodos Bank hosts at least three Hyperledger nodes, which is a required function in the eco-system to operate a Hyperledger setup. However, on the long term, strategies need to be developed which allow the United group to operate the blockchain independently from Triodos Bank, and thereby hosting the nodes itself.

Understanding the eco-system requires a thorough knowledge of the chosen technology, for example with respect to the used consensus mechanism. Additionally, once the eco-system is better elaborated, the technical solution (now Hyperlegder) might change to better meet the eco-system requirements.

Workshop organization
We will analyze the required eco-system using the e^3value methodology (see e3value.com). This methodology, developed at the VUA/CS department, helps to understand networks of enterprises from the business value perspective. The result will be a clear description of the required business roles and the value-added services which are needed to run the United blockchain. It may very well be possible that the final result has consequences for the selected technology.

The workshop will include a tutorial on the e^3value methodology and blockchain technology (e.g. Bitcoin and Hyperledger). The eco-system design will be done with the participants in an interactive way. Therefore, the participant will not only learn about the e^3value methodology and blockchain technologies, but also obtains the expertise to apply this knowledge.