Digital Industry

Collaborative Design-Build-Operate Ecosystem

Why traditional way of working is not good enough?
Total system design rigid and inefficient due to system silos and stacking of the safety margins

Process design / System design
Sub system design / Component selection / Environment

System design:
Selection of main concepts, process equipment, overall control principles etc.

Detailed design:
Design of subsystems, selection of components

Manufacturing components / Building the system
Running the system

Collaborative Design-Build-Operate Ecosystem provides a fully digital option for traditional design process of industrial plants. Partners can join a cloud-based environment to work together when designing plants.

When designing and building large industrial plants, the result gets easily inefficient due to for example oversized motors and frequency converters. If the industrial plant could be simulated as a whole system before implementation, the components could be selected properly. This leads to savings in costs.

Collaborative Design-Build-Operate Ecosystem provides a cloud-based platform for this kind of collaboration and simulation between several partners.

Various configurations could be easily simulated together with different simulators, and the optimum solution is found to make the plant efficient.

Product Launch
Partners: ABB Oy (Finland), Aalto University (Finland), Semantum (Finland)
**Competitive Advantages**

- New innovative way to design and build industrial plants by using digital twins
- Simulation enables savings in costs
- Cloud-based environment enables collaborative working regardless of place or time

**Target Markets**

- OEMs and plant operators
- All industries globally

**Status/Traction**

- First pilot tests ongoing
- Discussion about the first commercial pilot ongoing
- Technical development ongoing with a partner called Semantium

**Road Map**

2020

- Finalize the MVP and initiative first commercial pilots

From 2021 onwards

- Scale up and further development based on customer pilots’ feedback

**Leveraged Technologies**

Component level Digital Twin technologies, hybrid dynamic process and electrical system simulators and their integration based on open standards (e.g. FMI, OPC UA, AutomationML).

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**Collaborative Design-Build-Operate Ecosystem**

Collaborative Design-Build-Operate Ecosystem is an innovation activity proudly supported by EIT Digital.

EIT Digital supports entrepreneurial teams from research and business organisations in launching new startups and new products in agile, 12-month projects called Innovation Activities. These activities are embedded in EIT Digital’s European ecosystem and receive a financial co-investment to package their technology, sign up customers and attract investors.