IMPLEMENTATION OF A MICROSERVICE-BASED CERTIFICATION PLATFORM 14.06.2021

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- Funded by the European Union through Horizon2020
- 35 Mio. € budget
- 50 associated partner from 11 countries
- Energy sector / Smart Grid / Power management

Interconnect

Goals[1]:

- Interoperability through technology providers
- Full integration of energy systems (Smart Grid)
 - Such as car loading columns, transformers, energy provider, etc.
- A new communication protocol for interoperable energy systems for multiple vendors

Our part:

- Ensure the interoperability
 - Is the car charging column compatible?
 - How it become "Interconn-Ready"

The answer:

With an agile certification service which is • integrated in my development pipeline

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Realtime Monitoring & Control























































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How do we get faster (more agile) to our certificate ?





"If it hurts do it more often"



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Leads to more certification







Agile Standardization





Source: Sebastian Copei, Manuel Wickert, and Albert Zündorf. Certification as a service. In Maria Paasivaara and Philippe Kruchten,



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Tims Company

Certification Body

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U N I K A S S E L V E R S I T 'A' T



Implementation Certification Plattform



Certification UI User Mananagement GIT (Test Repo) Certification Runner Billing Test **Docker Registry** (Artifact Repo) Apache Kafka (Event Broker)

Certification Plattform

Technology Stack:

- REST API
- Angular UI
- NestJS Backends
- Kubernetes
 Orchestration (Rancher)



Implementation Certification Plattform



Certification Plattform



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Certification

Docker Trust Sign







<u>Summary</u>:

- Standard adaptions & new certifications faster → More agile
- Implementation of certification platform basically works → Test with SAREF not completed yet
- Many interest of software developers in the project → But project was still originally planned with classical standardization cycles

Next Steps:

- Certification Platform for the interconnect Project
- Evaluation of agile certification with several software products
- Also use agile standardization in further contexts







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