# System of Systems Engineering Collaborators Information Exchange (SoSECIE)

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**Challenges for System of Systems in the Agriculture Application Domain**

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#### Abstract

This briefing will outline the demand and corresponding challenges for a structured SoS approach for seamless information exchange in the global agriculture application domain. Such an approach has to cope with the given heterogeneous infrastructure and a lack of interoperability inside this domain. Accordingly, this presentation will introduce briefly an domain-specific reference designation based system architecture approach, which is adopted to identify interoperability issues inside the agricultural domain. Furthermore, the remainder of the presentation outlines upcoming vendor-specific platforms and gives an proposal for an first conceptual model for an interoperable and vendor-neutral communication framework for the agricultural domain.

#### Biography

Dr.-Ing. Benjamin Weinert is a system engineer for terminal development and digitalization at the agricultural machinery manufacturer AMAZONEN-Werke H. Dreyer. Since 2014, he researches in the field of architectural development of socio-technical systems in a complex system environment. Benjamin has previously worked at the OFFIS - Institute for Information Technology and the Carl von Ossietzky University, developing the Maritime Architecture Framework (MAF) and coordinating the technical and governmental development, standardization and dissemination of the digital service- and authentication platform Maritime Connectivity Platform (MCP) on an international level.

Dr.-Ing. Mathias Uslar is group manager for the topic of Systems Engineering and Architecture Management as well as Senior Principal Scientist at OFFIS – Institute for Information Technology. Since 2004, he is working on the topic of Smart grid and standardization of ICS and SCADA Systems. Within the M/490 mandate, he was a key player of the development of the SGAM (Smart Grid Architecture Model) and its dissemination ever since. In addition, Mathias is promoting the work of architecture management by a scalable use case methodology at IEC level, where he is convenor for the Working Group 5 at the IEC System Committee Smart Energy.