



Software Center

Theme 2

Continuous Architecture

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Reporting Workshop, Sprint 17
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Theme overview

- Help companies improve their processes, methods and technologies related to software architecture and design.
- Projects have addressed, for example:
 - Interoperability
 - Combining Safety and Security
 - Variability Management
 - Service Level Agreements for Industrial IoT
 - Agile Development for Mechatronic Systems

Current projects

#2 Managing Architectural Technical Debt
Antonio Martini, Terese Besker, Jan Bosch

#34 Safety Assurance in Continuous
Deployment
Sasikumar Punnekkat, Kaj Hänninen

#35 Managing Model Inconsistencies
*Robbert Jongeling, Jan Carlson, Antonio
Cicchetti, Federico Ciccozzi*

#2 Managing Architectural Technical Debt

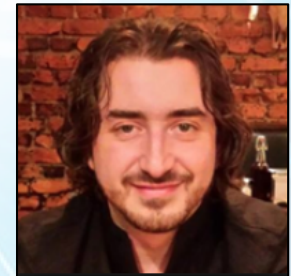
Software delivering companies can save time, resources, effort and increase the overall software quality and productivity by using a strategical management of Architectural Technical Debt.

Team: *Terese Besker
Antonio Martini
Jan Bosch*

Companies: *Ericsson, SAAB, Axis, Volvo AB, Volvo Cars, Grundfos, Jeppesen, TetraPak, Siemens, Bosch*

Sprint 17: *Technical debt when migrating to microservices
Process debt*

Sprint 18: *Technical debt and microservices – follow up
Process debt
Technical debt in systems with AI and ML*



#34 Safety Assurance in Continuous Deployment

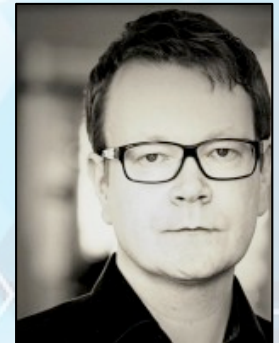
Provide a novel change management framework that would support continuous deployment of safety critical functions.

Team: *Sasikumar Punnekkat
(Kaj Hänninen)*

Companies: *Ongoing discussions
Candidates include Bosch, Volvo, Saab,
Siemens and Scania*

Sprint 17: *Less progress than expected.*

Sprint 18: *Continue as an associated (non-funded)
project to find company partners and
concretizing project focus for Sprint 19.*



#35 Managing Model Inconsistencies

Providing effective consistency management between disparate development artefacts, e.g. between architectural models and code

Team: *Robbert Jongeling & Jan Carlson
(Antonio Cicchetti & Federico Ciccozzi)*

Companies: *Saab, Volvo CE. Bosch joining for Sprint 18*

Sprint 17: *Presented papers on impediments for combining
CI and MBD, and a prototype tool for inter-model
consistency checking
Company workshops to adjust project focus*

Sprint 18: *Automatic identification of traceability links
between a SysML system model and C++ code.
Model/code gap analysis considering artefact
versions and variants.*





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