

Boundary Objects in Agile Practices: Continuous Management of Systems Engineering Artifacts in the Automotive Domain

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Description:

The adoption of agile methods impacts not only the way individuals collaborate, but also the management of artifacts like requirements, test cases, safety documentation, and models. While practitioners aim to reduce unnecessary documentation, there is a lack of guidance for automotive companies w.r.t. what artifacts are

needed and how to manage them. To close this knowledge gap and create practical guidelines, we conducted a design-science study together with 53 practitioners from six automotive companies. We analyzed artifacts and challenges to create guidelines to manage artifacts in agile automotive contexts.

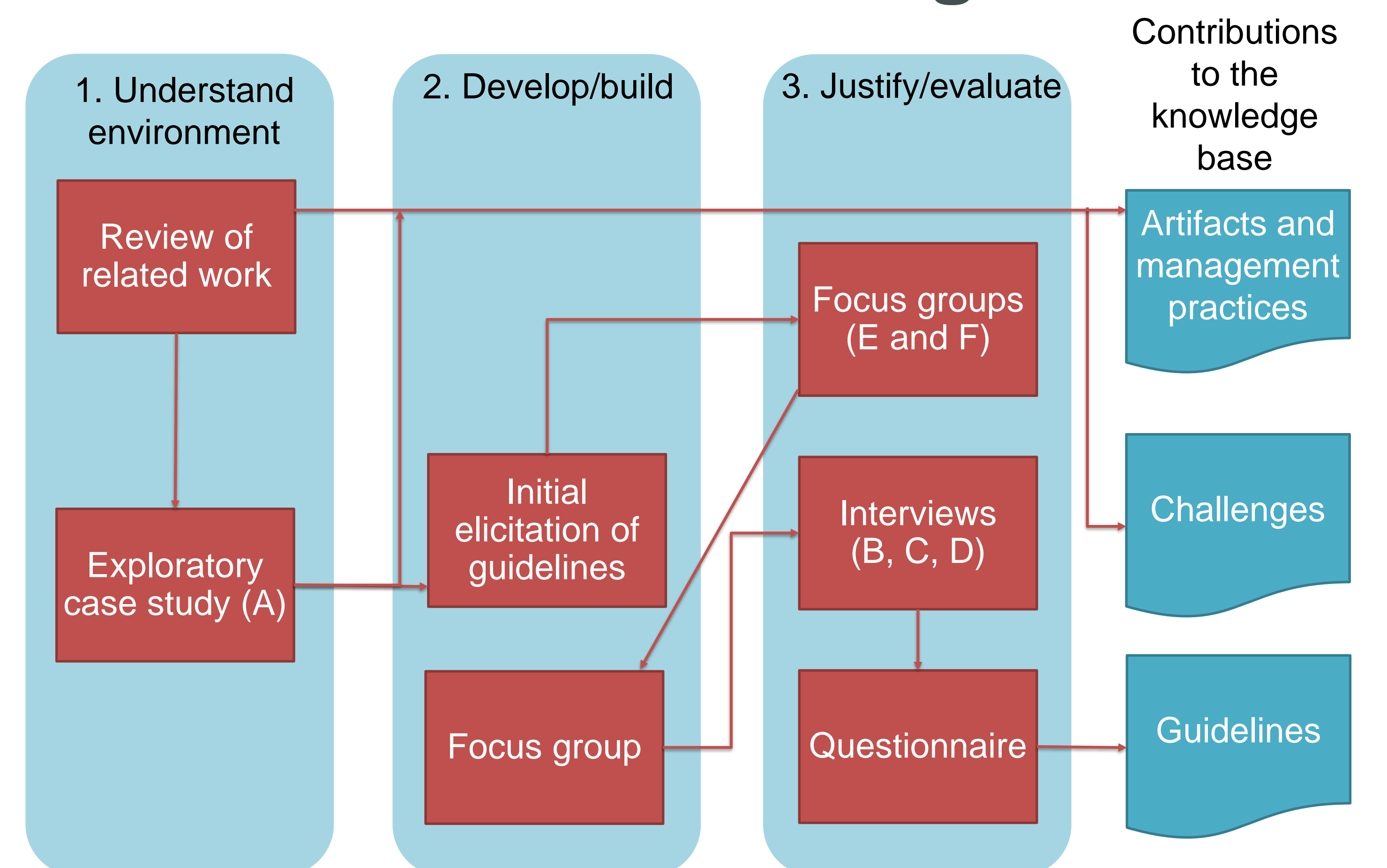
Our findings indicate that different practices are required to manage artifacts that are shared among different teams within a company (boundary objects) and those that are relevant within a specific team (locally relevant artifacts).

Research Goals and Questions

- RQ1: What are **practices** to manage artifacts in agile automotive systems engineering?
- RQ2: What practical **challenges** exist with managing systems engineering artifacts in agile automotive contexts?

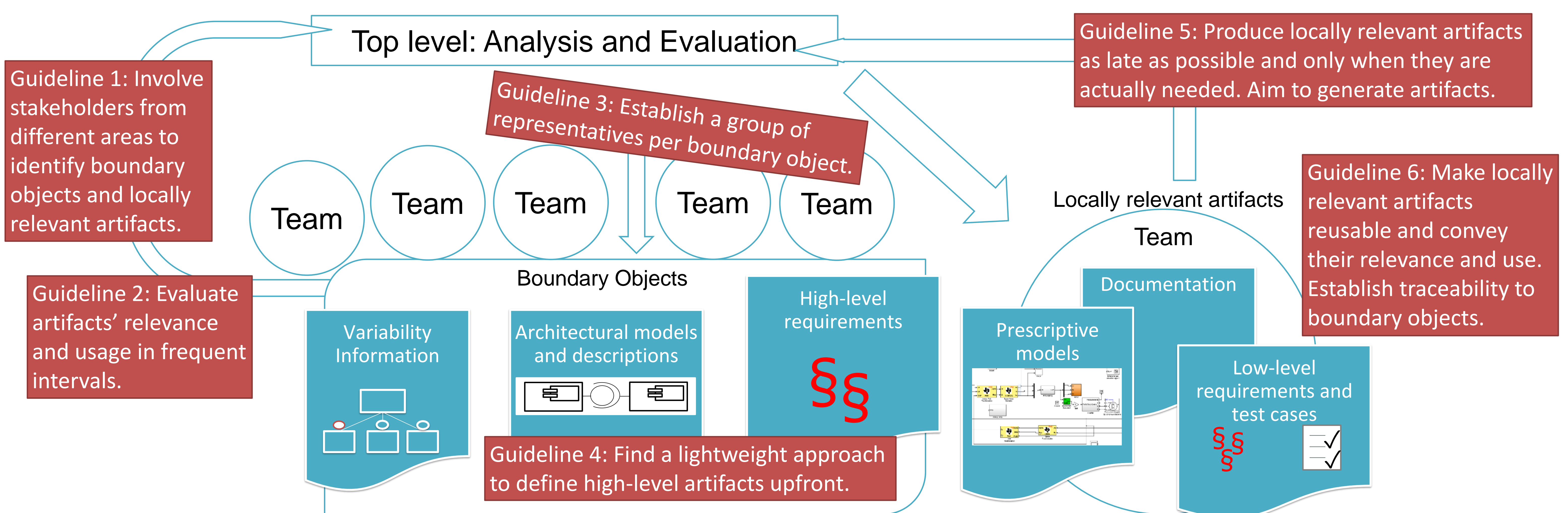
Based on RQs: Design **guidelines** for practitioners to manage artifacts in systems engineering

Research Method: Design Science

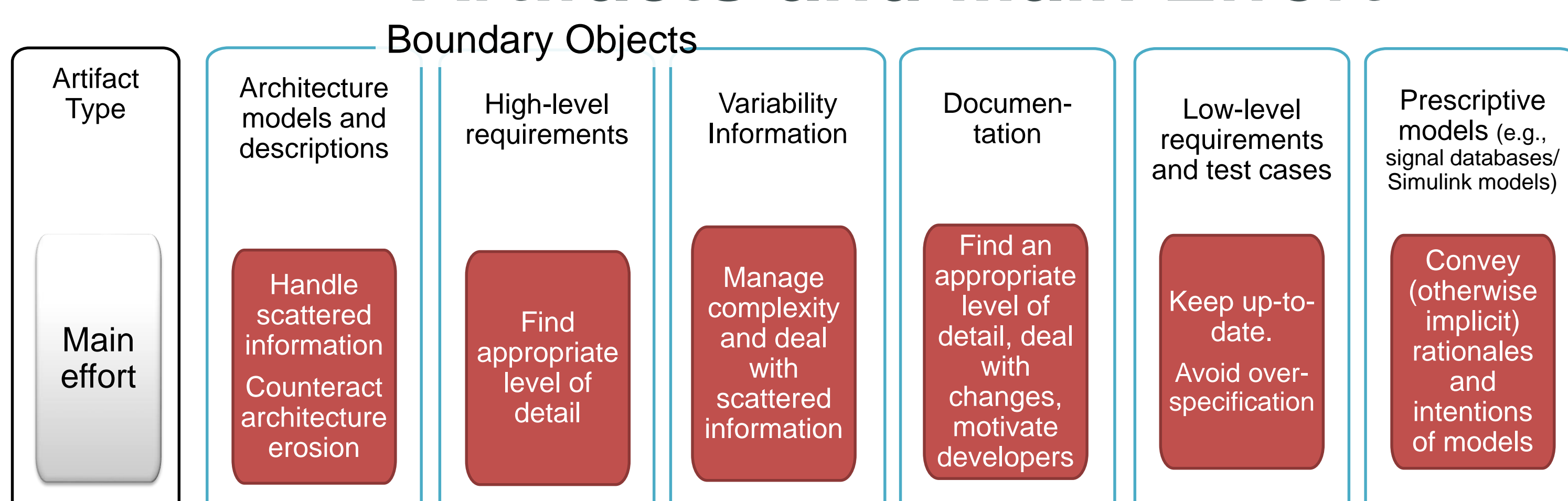


A, B, C, E: automotive OEMs, F: automotive supplier, D: supplier of an information management tool used in automotive

Guidelines



Artifacts and Main Effort



Do you want more information?

Check out our ICSSP'18 paper!
<https://tinyurl.com/boundaryObjects18>

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