

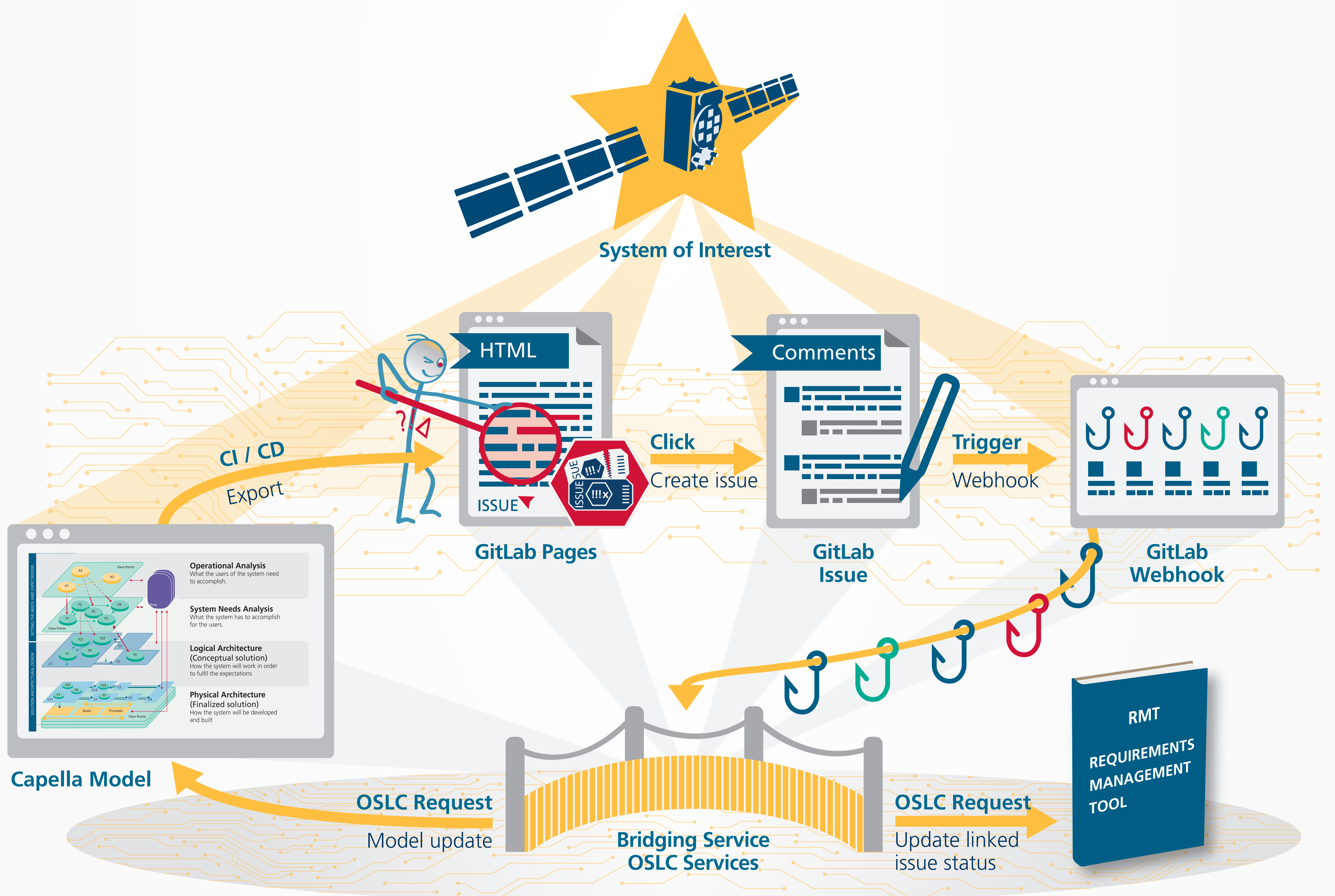


Model-Based Review Process - From Evaluation to Direct Implementation

Smart Model Review Workflow – Immediate MBSE Feedback, Open Source

At review milestones, experts evaluate the existing documentation. However, it is difficult to extend this evaluation to system models created with an MBSE toolchain. Many reviewers lack access to the internal toolchain, so their feedback is collected in separate lists and disconnected from the model. Furthermore, standard documents used in traditional ECSS reviews cannot capture all the information and relationships contained in the model. This makes it difficult to integrate MBSE models into the review process and compromises the benefits of a model-based approach.

To address this, we designed a model-based review workflow that links review results directly to model elements. The Capella System Model is exported as HTML and published via GitLab Pages, accessible to any invited user. Reviewers can navigate the model and provide feedback by creating GitLab issues. Each issue triggers a bridging service that synchronises updates across the YAML-based requirements database and the Capella Model. This approach closes the gap between review and model, enabling immediate feedback traceability, and transparent collaboration without additional tools.



Capella Model	GitLab Pages	GitLab Issue Created	GitLab Webhook	Requirements Management Tool	Bridging Service	OSLC
System model created in Capella – an open source MBSE tool.	Model exported to HTML and published via CI/CD as GitLab Pages, accessible in any browser.	Reviewer provides feedback by creating an issue in GitLab, linked to model elements.	New or updated issues trigger a webhook event, connecting GitLab to external tools in real time.	Requirements database synchronised with reviewer feedback and linked back to the Capella Model.	Custom service synchronises issues with the RM tool and Capella Model using OSLC.	Open Services for Lifecycle Collaboration – the open standard for linking engineering tools.



Contact
Galileo Competence Center (DLR)
Systems Analysis & Evolution

Website of DLR.de/GK



Deutsches Zentrum
für Luft- und Raumfahrt
German Aerospace Center

**Galileo
Kompetenzzentrum**
FOR A PRECISE, SECURE & SUSTAINABLE FUTURE