

Continuous FMEDA – from Circuit to System

Challenge

Product **complexity** is **growing** exponentially while **safety engineering** remains **manual**

more features, more electronics

higher complexity due to interconnectivity

increasing safety expectations

FMEDA in practice is

- **labor-intensive**,
- **prone to human error**,
- often **delayed until end** of the development life-cycle

Late-stage verification raises the **risk of preventable safety issues** and **costly rework**

For “continuous safety” to become reality, we need to **automate activities of the safety engineering life-cycle**.

Solution

Automating FMEDA* introduces a **paradigm shift** to the development of safety-critical systems, enabling **frequent iterations** of the system design due to **faster, more accurate analyses**.

**successfully evaluated by TÜV Süd according to IEC61508 for use up to SIL4*

seamless toolchain and workflow integration**

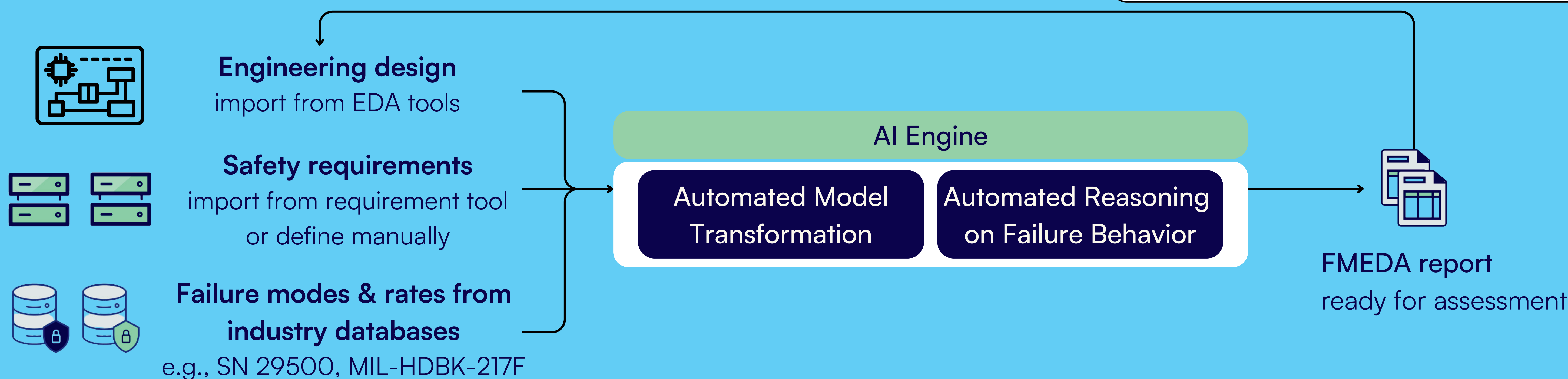
rapid identification of critical components

more than 90% coverage of applicable failure modes

automated computation of safety and reliability metrics
SFF, MTBF, λSR, PFD, PFH

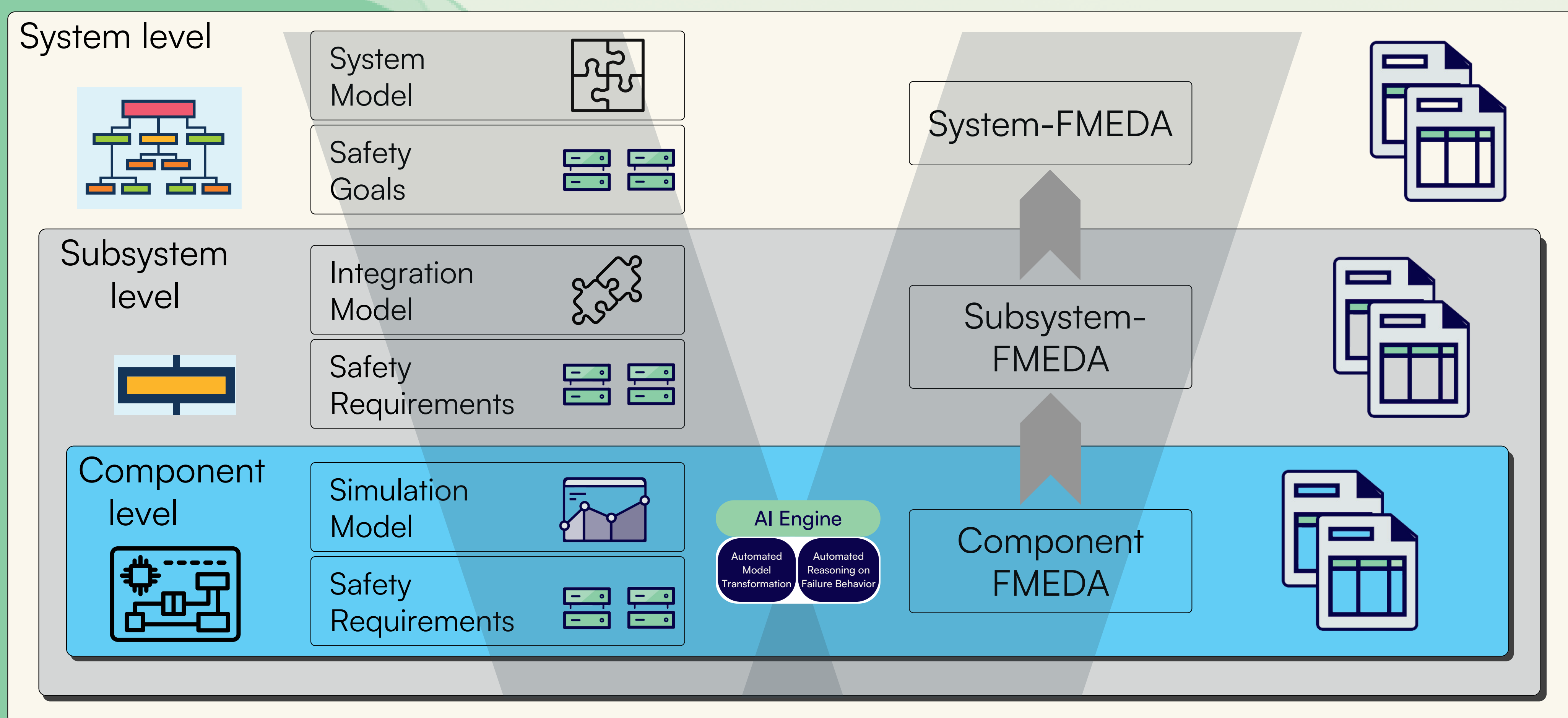
Electronic Circuit

***a “spell-checker” for electric circuit designs*



Different stakeholders verify design artifacts **on different levels separately**.
This **fragmented safety engineering life-cycle** poses the **risk of design flaws** being **overlooked**.

Outlook – from Circuit to System



Realizing continuous FMEDA throughout the development life-cycle requires FMEDA automation to be elevated to the system level.

Engage with us to **discuss** the **challenges** that still lie ahead!

