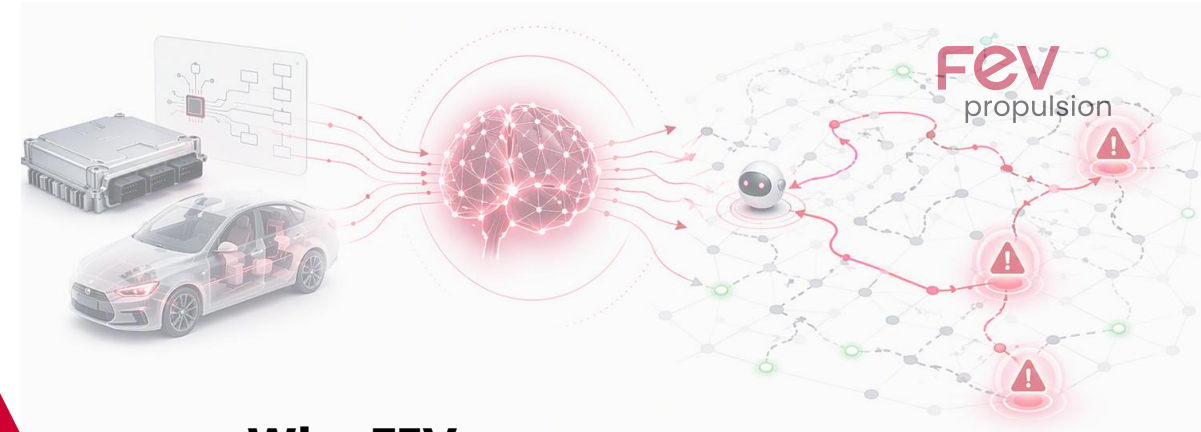


FEV ROBUST – *R*eward *O*ptimized *B*ug search via *U*ser-mimetic *S*oftware *T*esting

**Unlock a new era of software quality:
AI algorithms that explore and detect edge case
defects efficiently across any control software**

FEV offers

- ▶ Innovative testing solution to find complex defects automatically – across black box and white box software
- ▶ Integrable domain experience to focus the search for critical defects
- ▶ Applicable to any software (e.g. automotive, aerospace, robotics) and any virtual environment (e.g. MiL, SiL, HiL)
- ▶ Fully configurable solution to match your specific needs and concerns

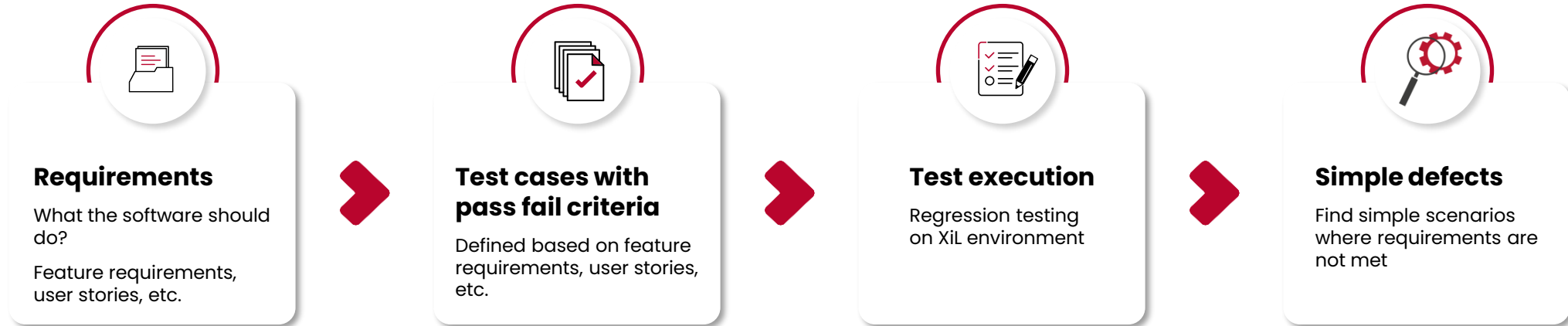


Why FEV

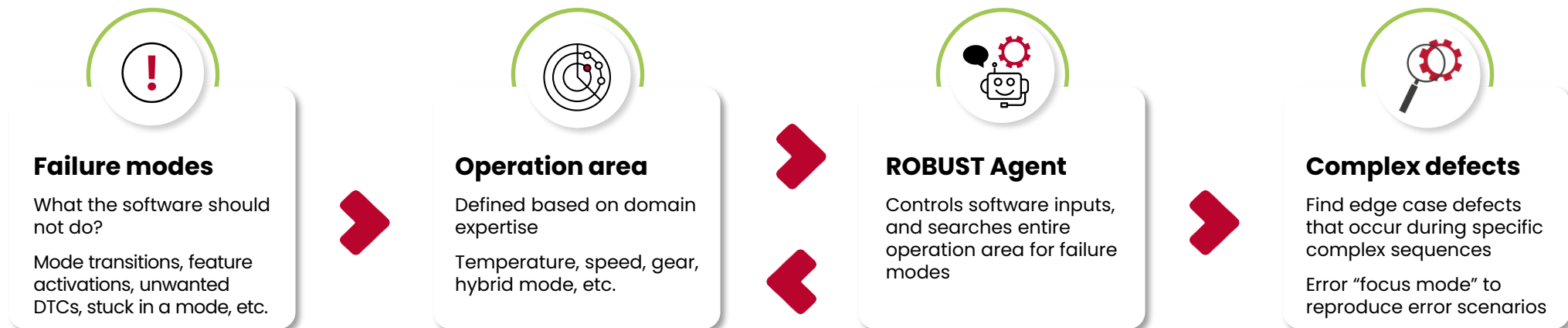
- ▶ Over 20 years of experience with end-to-end series software development from requirements to validation
- ▶ Over 20 years of experience with virtual plant modelling and software testing on XiL and vehicle environments
- ▶ Extensive experience working with OEM technical teams all over the world including EU, USA and Asia
- ▶ Extensive and long-term collaboration with RWTH Aachen university on research, development and innovation

Conventional testing verifies what software *should do*, additionally FEV ROBUST discovers edge-case defects that the software *should not do*

CONVENTIONAL SOFTWARE TESTING

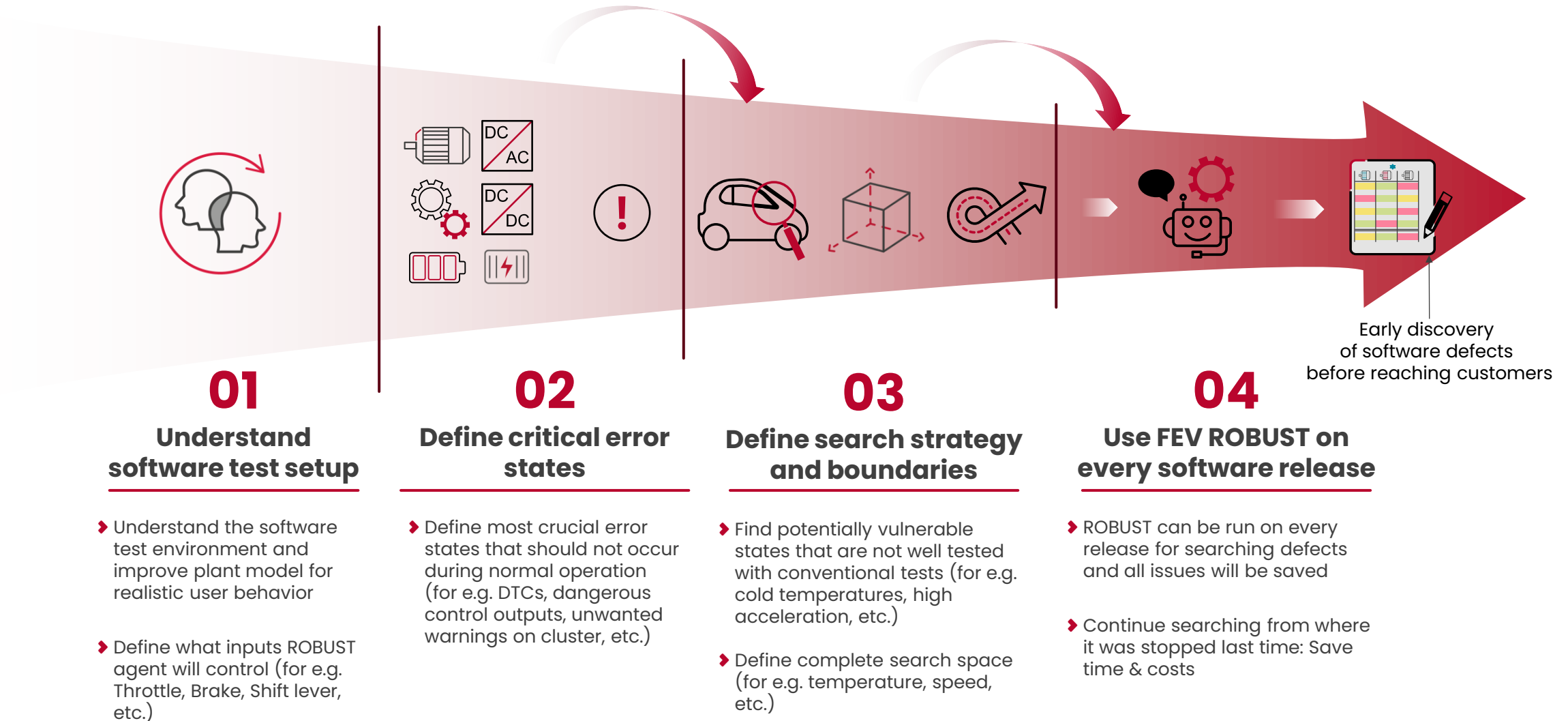


SOFTWARE TESTING WITH "FEV ROBUST"

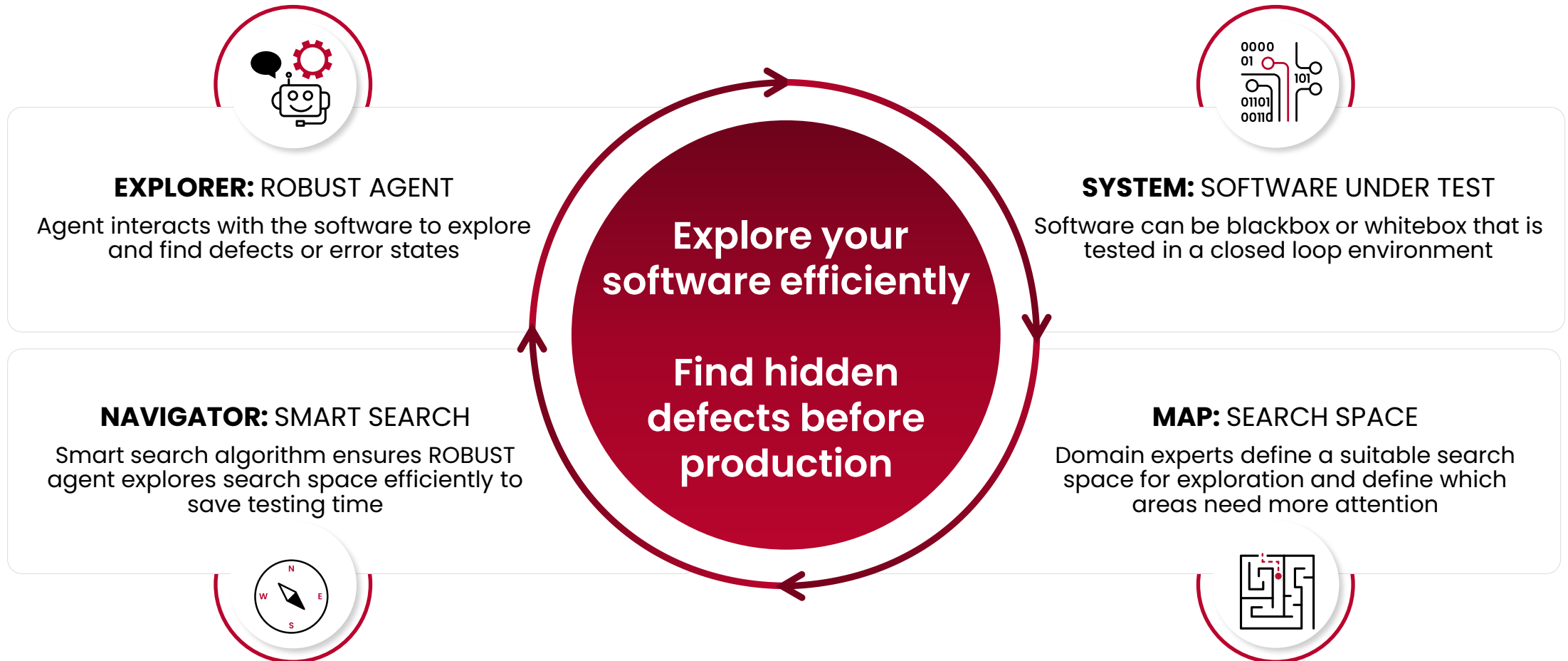


FEV ROBUST workflow for early discovery of software defects

KEY STEPS OF USING ROBUST FOR DEFECT SEARCH

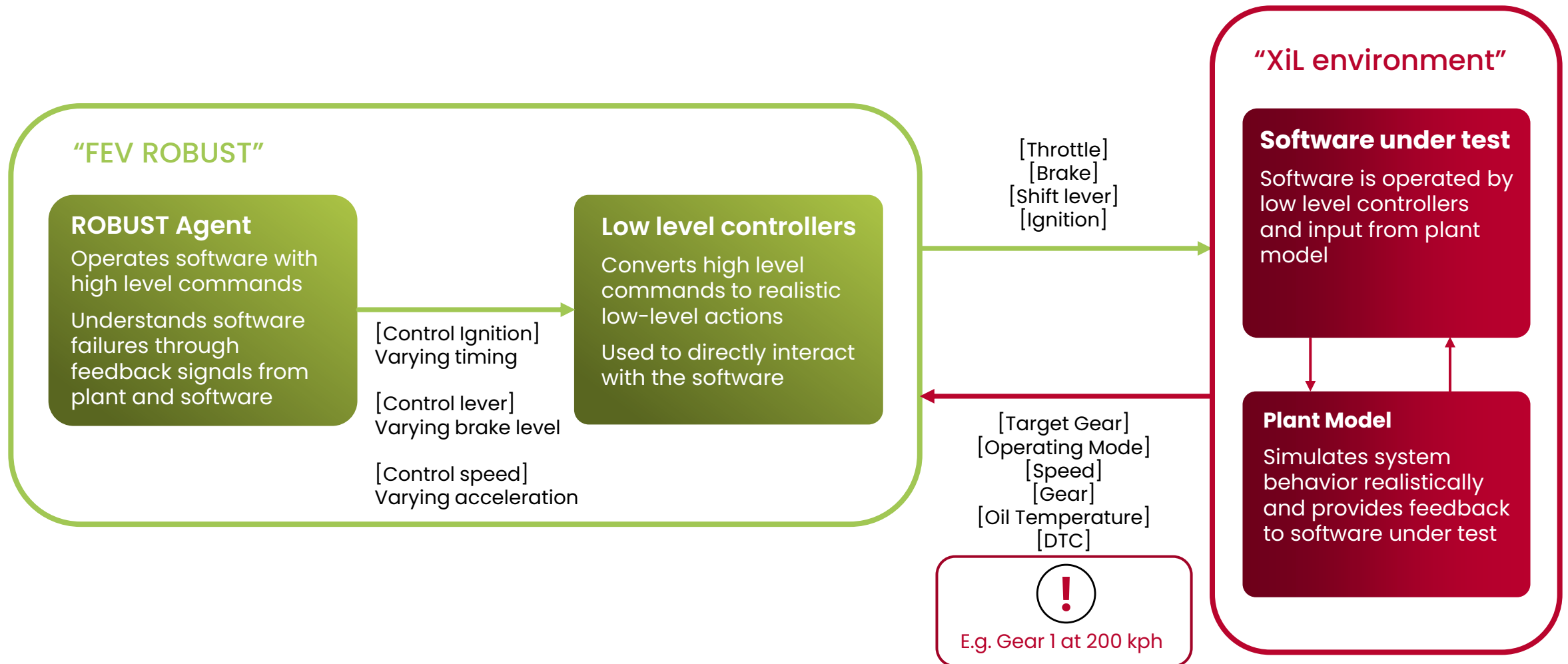


FEV ROBUST is guided by domain expertise to find edge case software defects efficiently

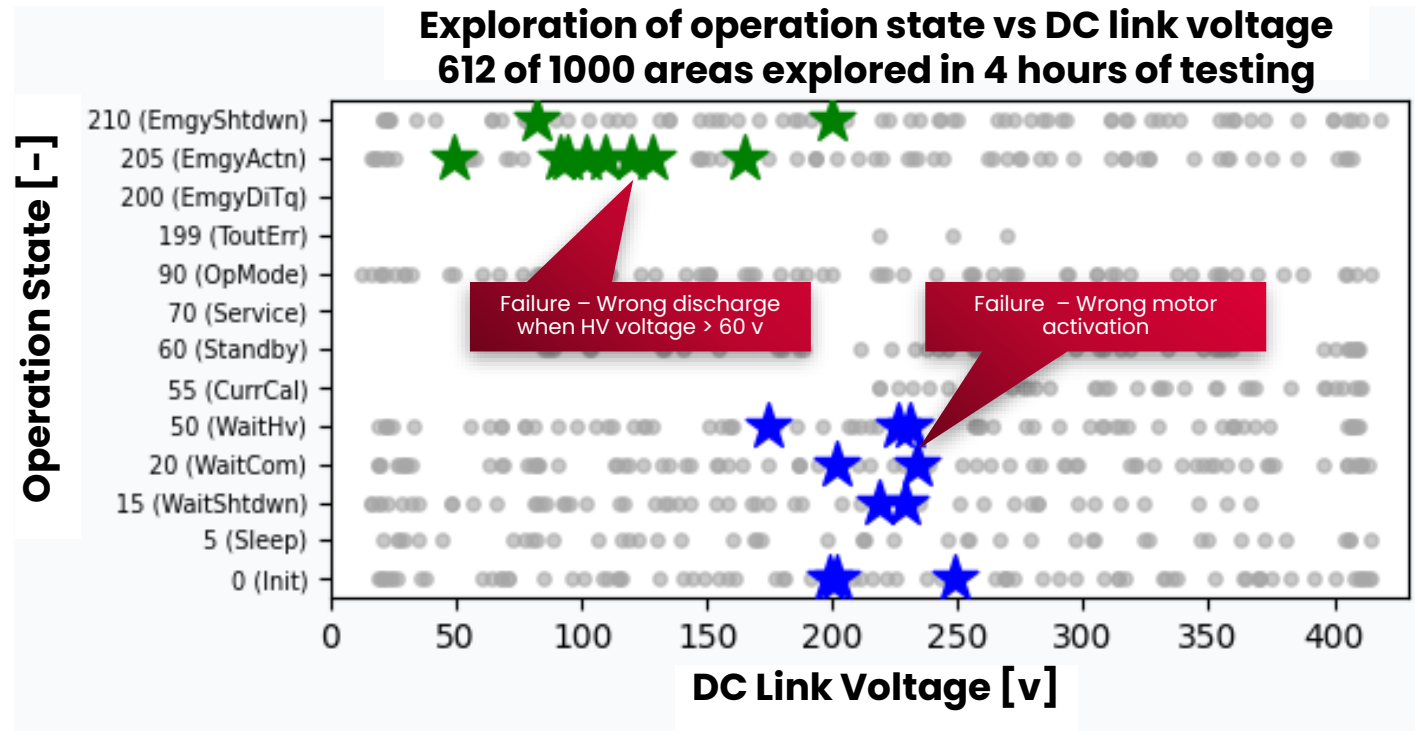


FEV ROBUST can be seamlessly integrated into any XiL environment

EXEMPLARY SETUP FOR TRANSMISSION CONTROL SOFTWARE



FEV ROBUST approach used for electric vehicle state machine testing found edge case defects within a few hours



Electric vehicle state machine testing- FEV ROBUST MiL Testing Demo

- **Conventional tests** done and **all tests passed**
- Additional tests with **FEV ROBUST** found **2 edge case failures** in 4 hours
 - Grey points show areas explored by FEV ROBUST algorithms
 - Green stars represent an edge case failure mode of wrong discharge when HV Voltage > 60 V
 - Blue stars represent another edge case failure mode of electric motor being wrongly activated

Get in touch with us for further information



[www.fev.com/en/
signature-solutions](http://www.fev.com/en/signature-solutions)