SCENARIO-ARCHITECT

Intuitive development of scenarios and scenario-based test specifications

From a university‘s basement …

How it all started

2001: The research project „Systematic testing of electronic control units“ is established at the institute for automotive engineering of TU Dresden.

“If you have to do something twice, you are better off automating it!”

… to a garage startup

How it all started

2004: Foundation of TraceTronic GmbH

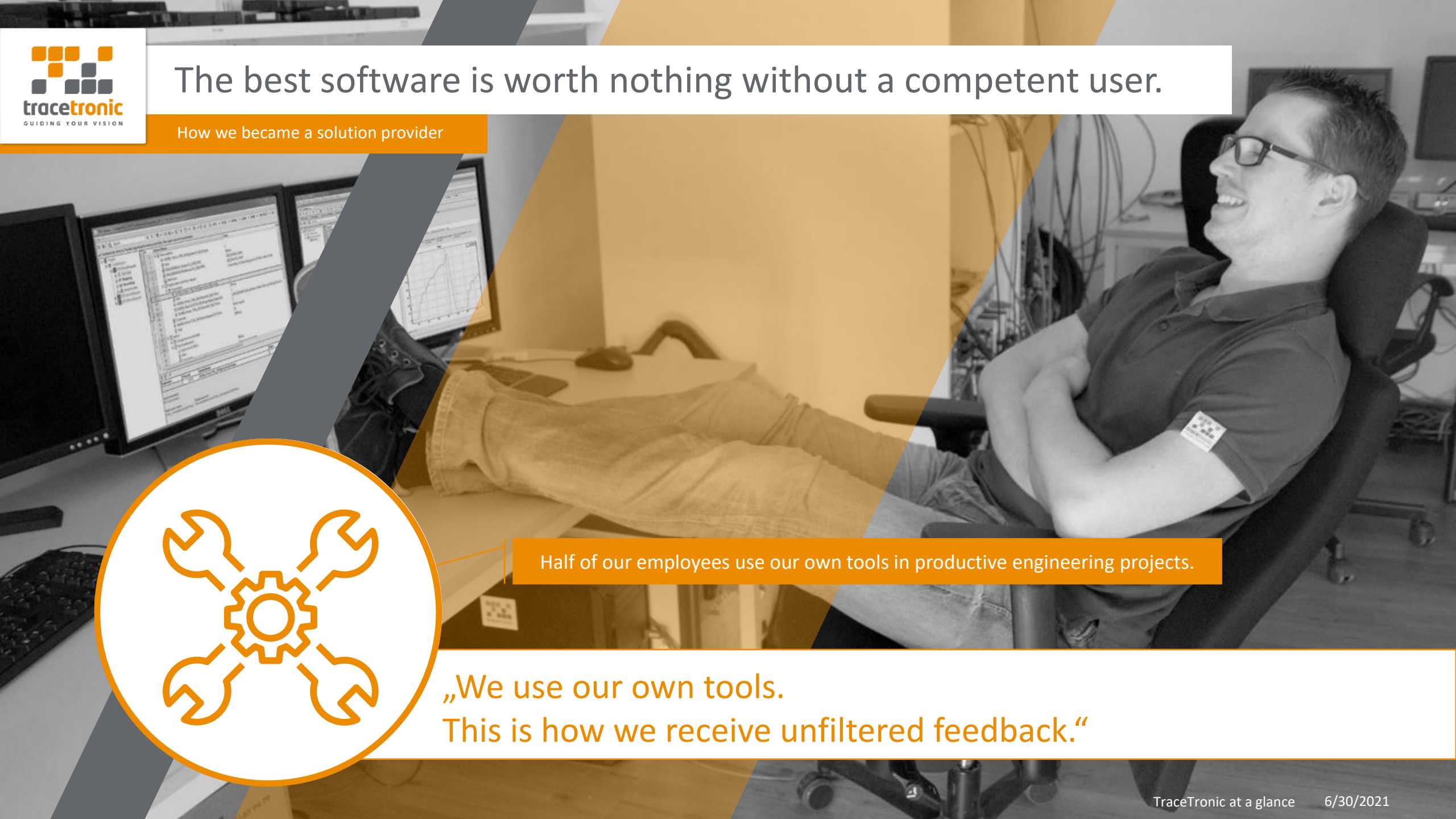
Close relations with Dresden‘s universities remain a key driver.

Dresden proves to be an excellent location to grow a team of experts.

How do we work? Agile. From the first day.

The best software is worth nothing without a competent user.

How we became a solution provider



Half of our employees use our own tools in productive engineering projects.

„We use our own tools.
This is how we receive unfiltered feedback.“

From garage startup to global company

Company setup

4 Founders in 2004

290 enthusiastic colleagues by the end of 2020

▲ 2019: 74 new employees

From garage startup to global company

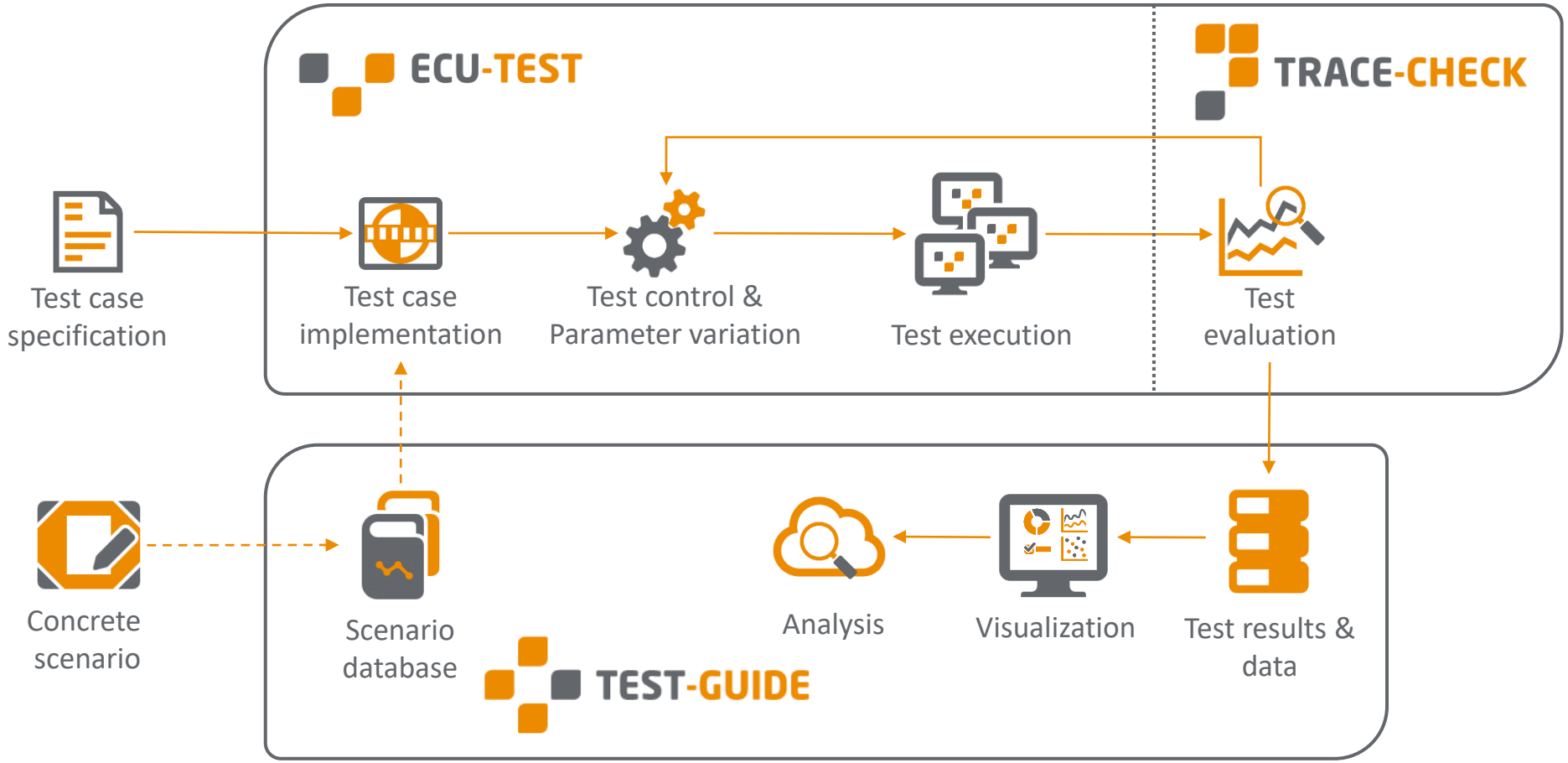
Company setup

6 Offices in different countries

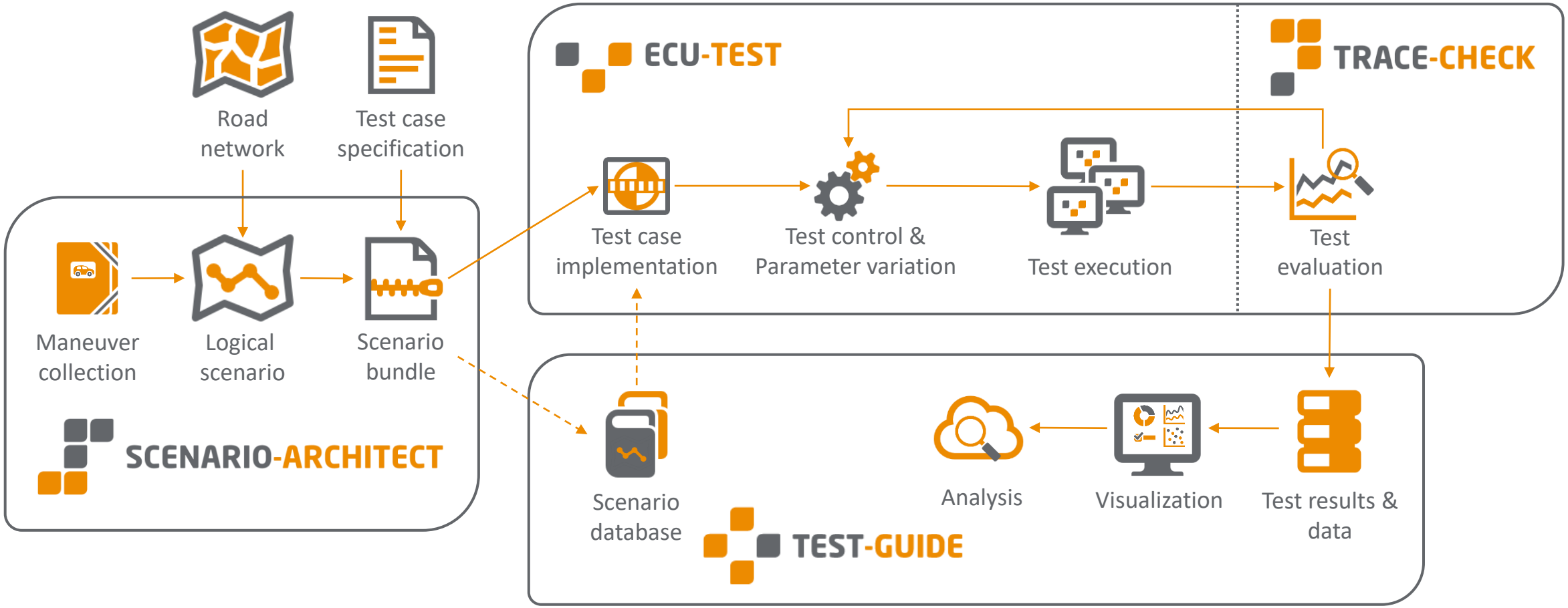
30 Countries where our tools are used

„From the Silicon Valley to Chinese EVs…“

TraceTronic's "old" workflow for scenario-based testing



Scenario-based testing with the SCENARIO-ARCHITECT

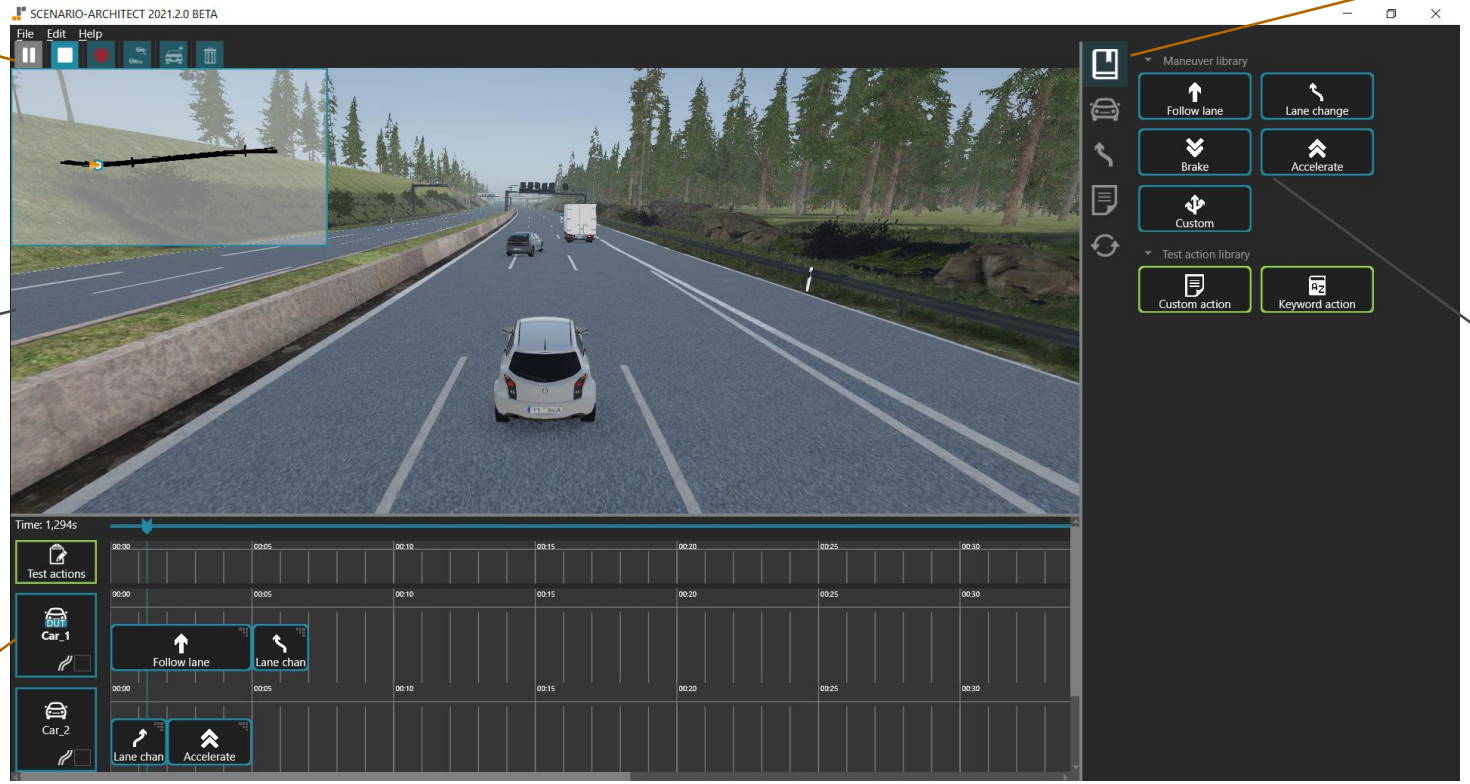


SCENARIO-ARCHITECT – overview and development progress

Scenario toolbar
- Interaction with simulation and visualization

Visualization
- 3D: Live simulation
- 2D: Vehicle placement and manipulation

Storyboard
- Selection of participants
- Creation, selection and manipulation of (maneuver) blocks



Kit toolbar
- Access to context-specific property pages
- Transition between scenario editing kits

Block library
- Selection of pre-defined vehicle maneuvers
- Opportunity to add custom maneuvers
- Annotation of test content

Formats
- OpenSCENARIO 1.X and 2.0 (M-SDL)

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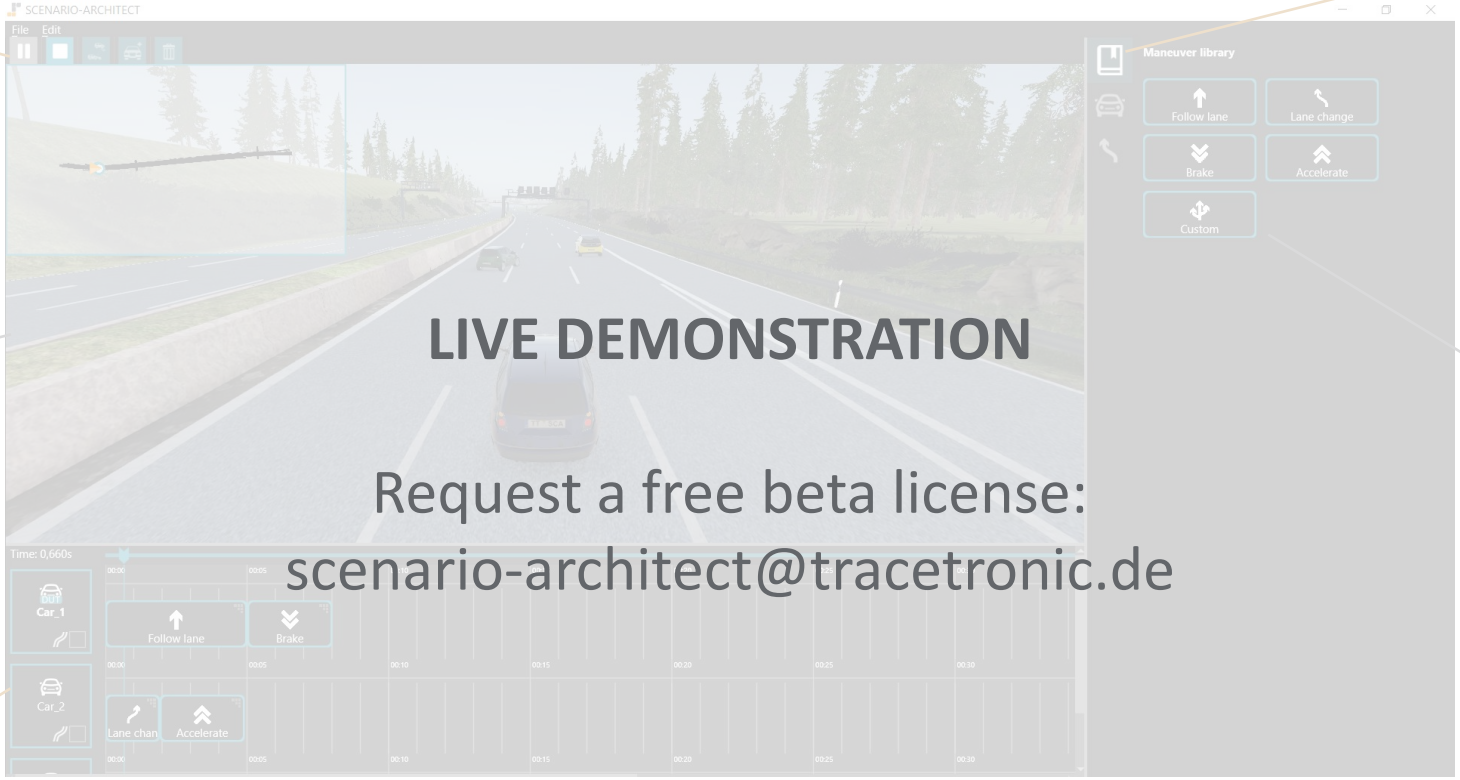


LIVE DEMONSTRATION

Request a free beta license:
scenario-architect@tracetronic.de

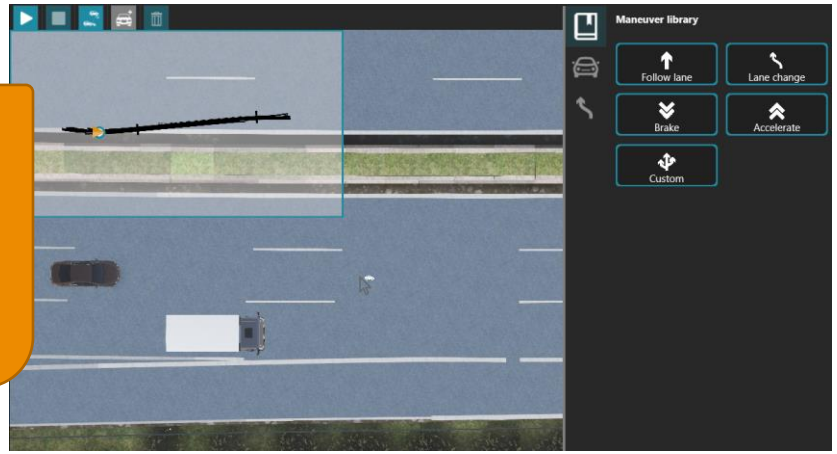
Kit toolbar
- Access to context-specific property pages
- Transition between scenario editing kits

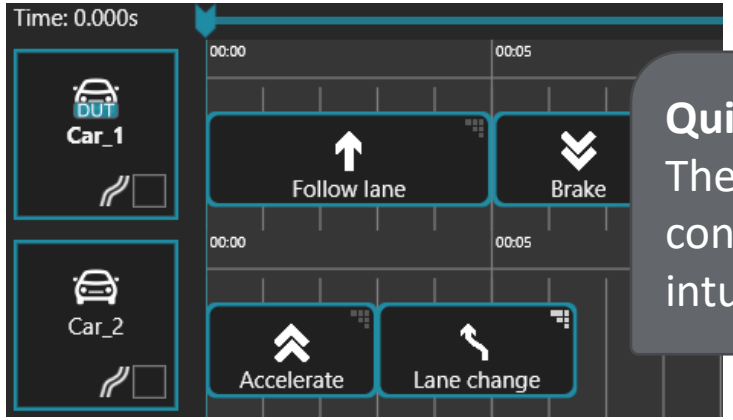
Maneuver library
- Selection of pre-defined vehicle maneuvers
- Opportunity to add custom maneuvers

Formats
- OpenScenario 0.9.1, 1.0 and 2.0 (M-SDL)

Key features – intuitive definition of scenarios

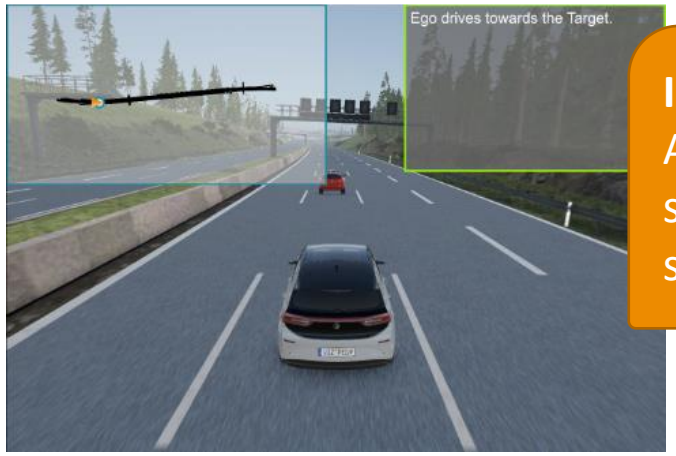
Set up typical road situations in less than a minute
Using the SCENARIO-ARCHITECT's predefined vehicles and maneuvers, any traffic situation (e.g., traffic jam, unexpected cut-in or entering a freeway) may be created rapidly and intuitively.





Quickly understand and adjust the scenario content
The track editor provides an easy overview of the scenario content and allows for maneuvers to be added and configured intuitively.

Key features – easy communication of scenario-based test specifications



Include your entire test specification with the scenario
Annotate your scenario with all necessary details from the test specification such that no other artifact will be necessary for a subsequent test case implementation.

Present scenarios effortlessly by exporting annotated videos
Easily communicate and discuss the content of your scenarios and specifications by exporting the annotated scenario content as a video.

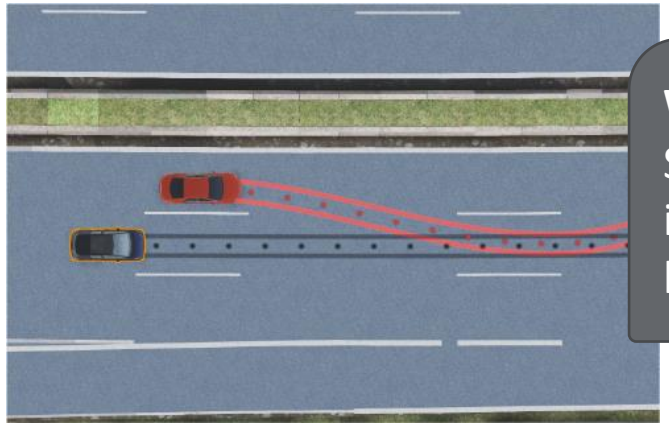
AEB_CutIn.mp4

Key features – iterative and visual approach towards scenario design

Iteratively design and improve your scenarios locally
The SCENARIO-ARCHITECT makes scenario creation an iterative process: You can simulate the current version of your scenario at any time, even without an external environment simulation – the open-source engine esmini is already included.

esmini
OpenSCENARIO player

Sketch first version → Simulate → Add new maneuver → Simulate → Adjust maneuver → ••• → Final scenario



What you see is what you get
Supportive visualizations such as highlighting the trajectories of individual traffic participants enable you to keep track of what is happening – even for very long or complex scenarios.

Key features – open standards and integrated workflow

Export your results as OpenSCENARIO 1.0 or 2.0
As active members of the ASAM association, we strive to support and promote the newest industry standards. Therefore, all scenarios can be exported to the open standards OpenSCENARIO 1.0 and 2.0.

Benefit from a seamless ADAS workflow
Using the SCENARIO-ARCHITECT's integration with ECU-TEST, all annotations will also be available in ECU-TEST – allowing a seamless transition from scenario and specification to test. In addition, artifacts may directly be uploaded to TEST-GUIDE from the SCENARIO-ARCHITECT.


tracetronic
GUIDING YOUR VISION