

AUTOSAR: From System Model to ECU Software



Elektrobit

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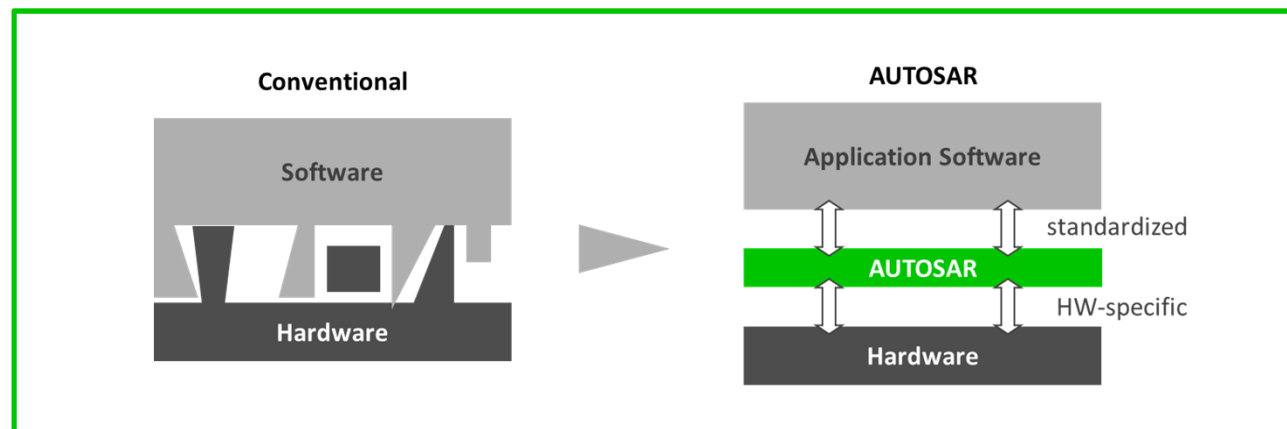
About **AUTOSAR** AUTomotive Open System ARchitecture

AUTOSAR is an open and standardized automotive software architecture, jointly developed by automobile manufacturers, suppliers, and tool developers.

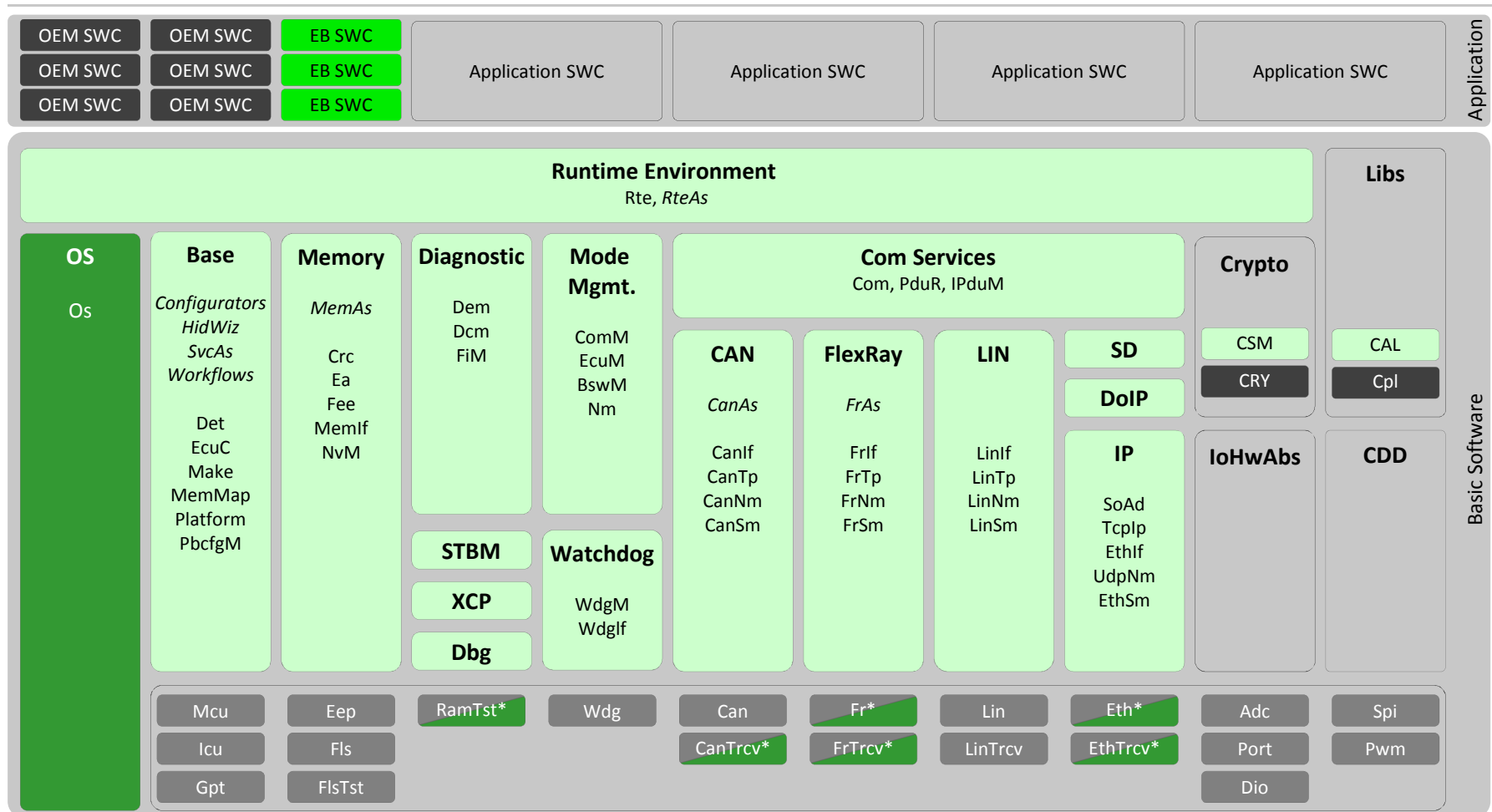
- **Main Goal:** introduce a standardized layer between application software and the hardware of an electronic control unit (ECU)
- **Benefit:** The software is largely independent from any chosen microcontroller and carmaker, making it reusable for several individual ECU systems.
- **EB:** is one of the founding members and an active premium partner of the AUTOSAR consortium



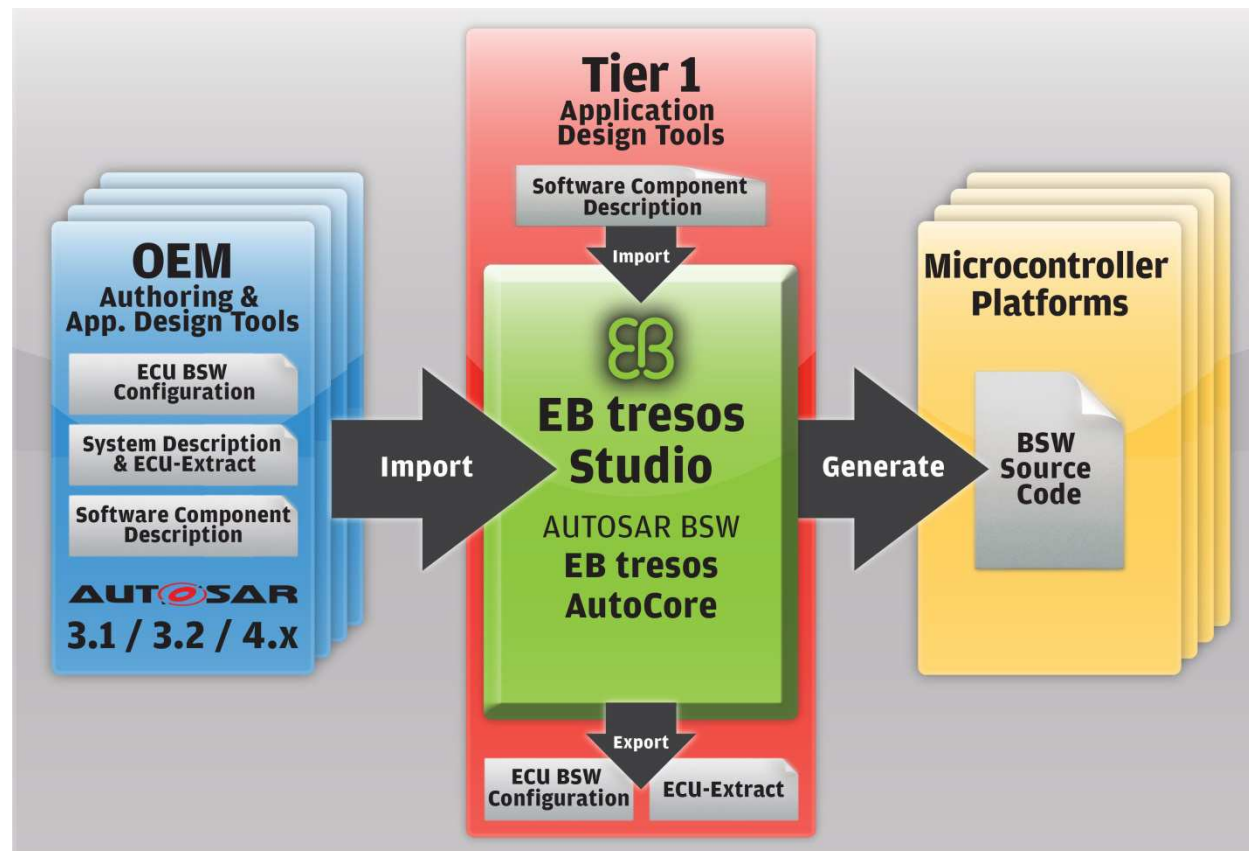
The **EB tresos** software completely conforms with AUTOSAR 4.x and previous releases



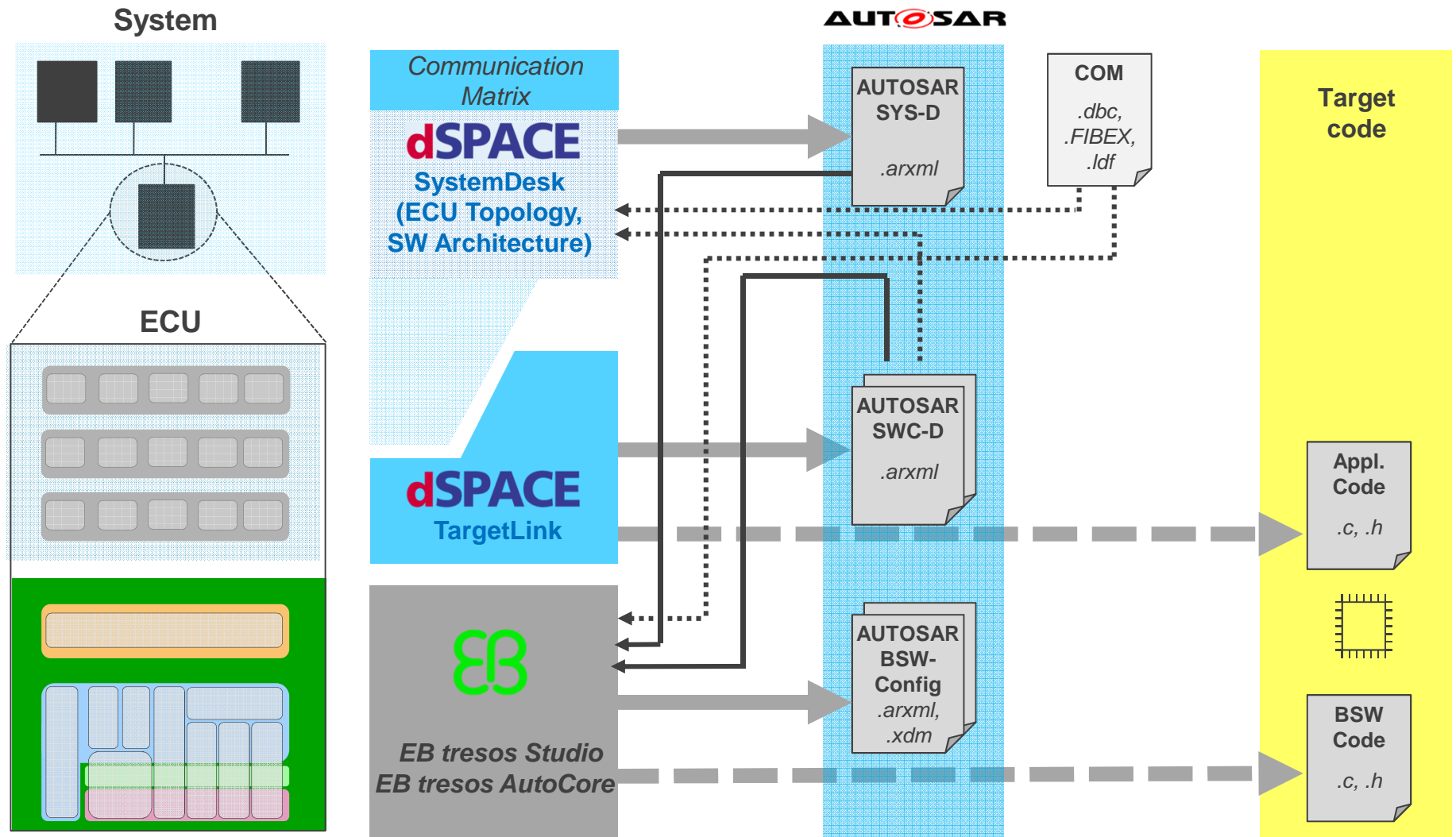
EB tresos AutoCore Solutions



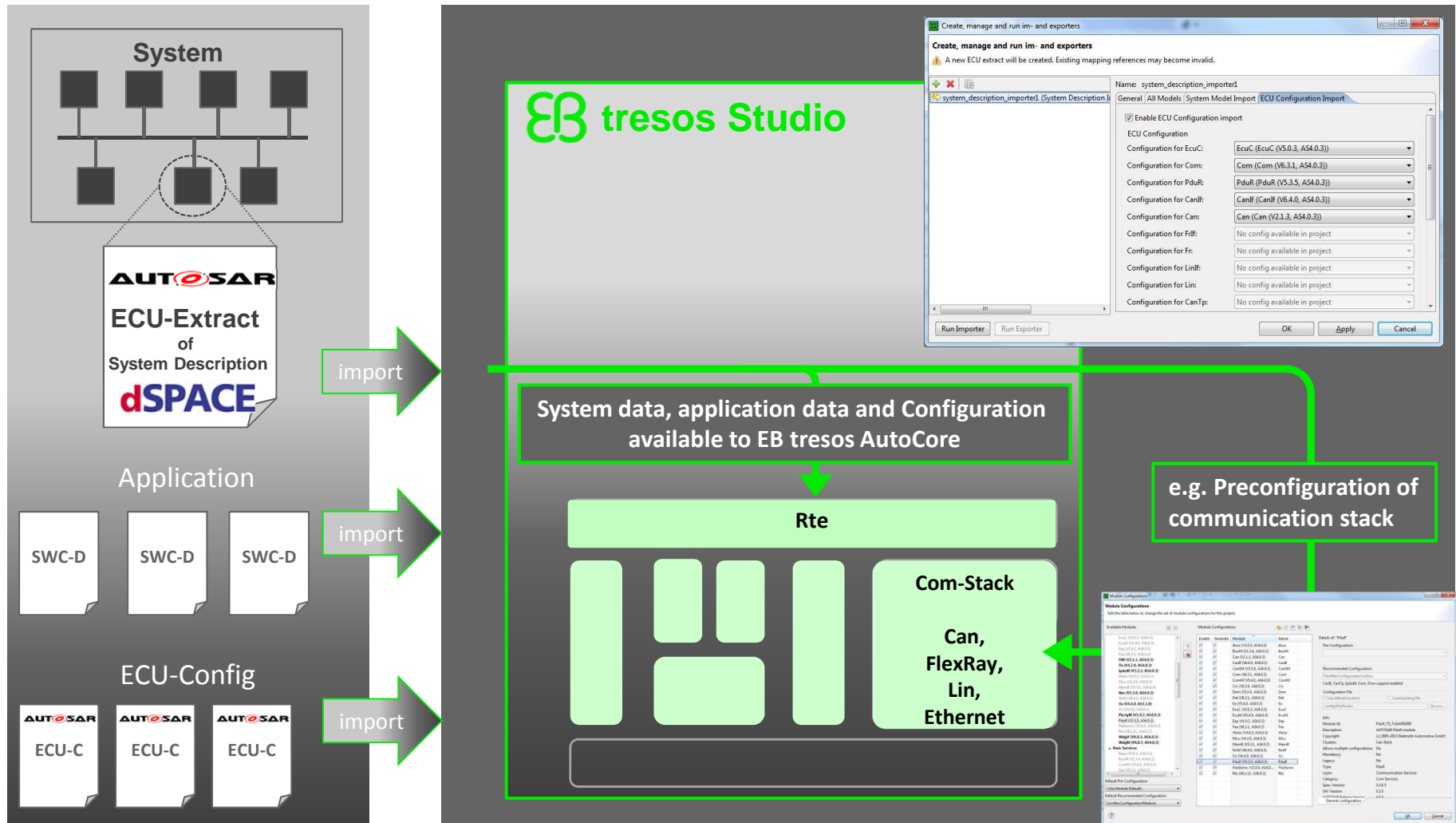
AUTOSAR Workflow



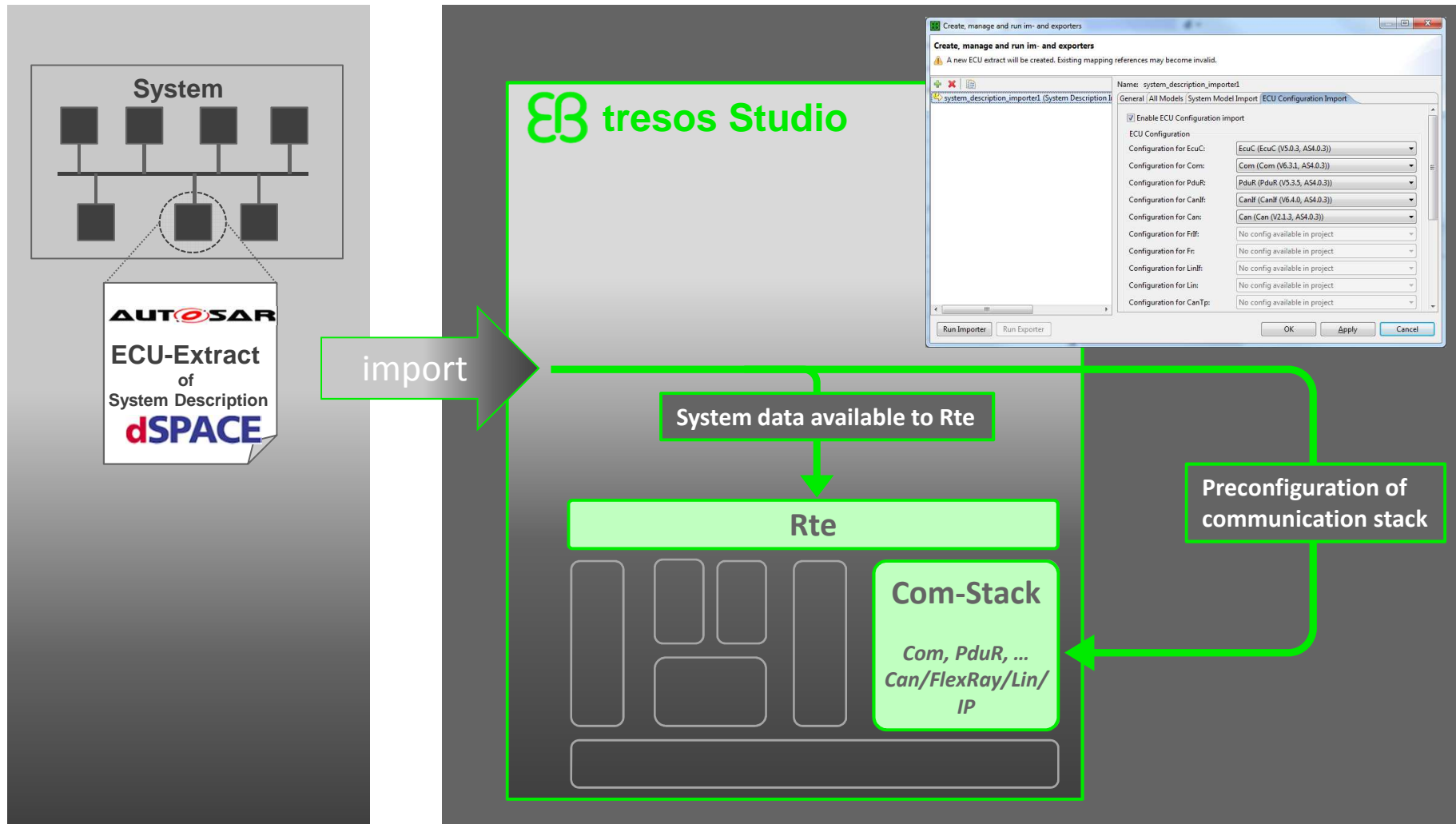
AUTOSAR Workflow in more detail



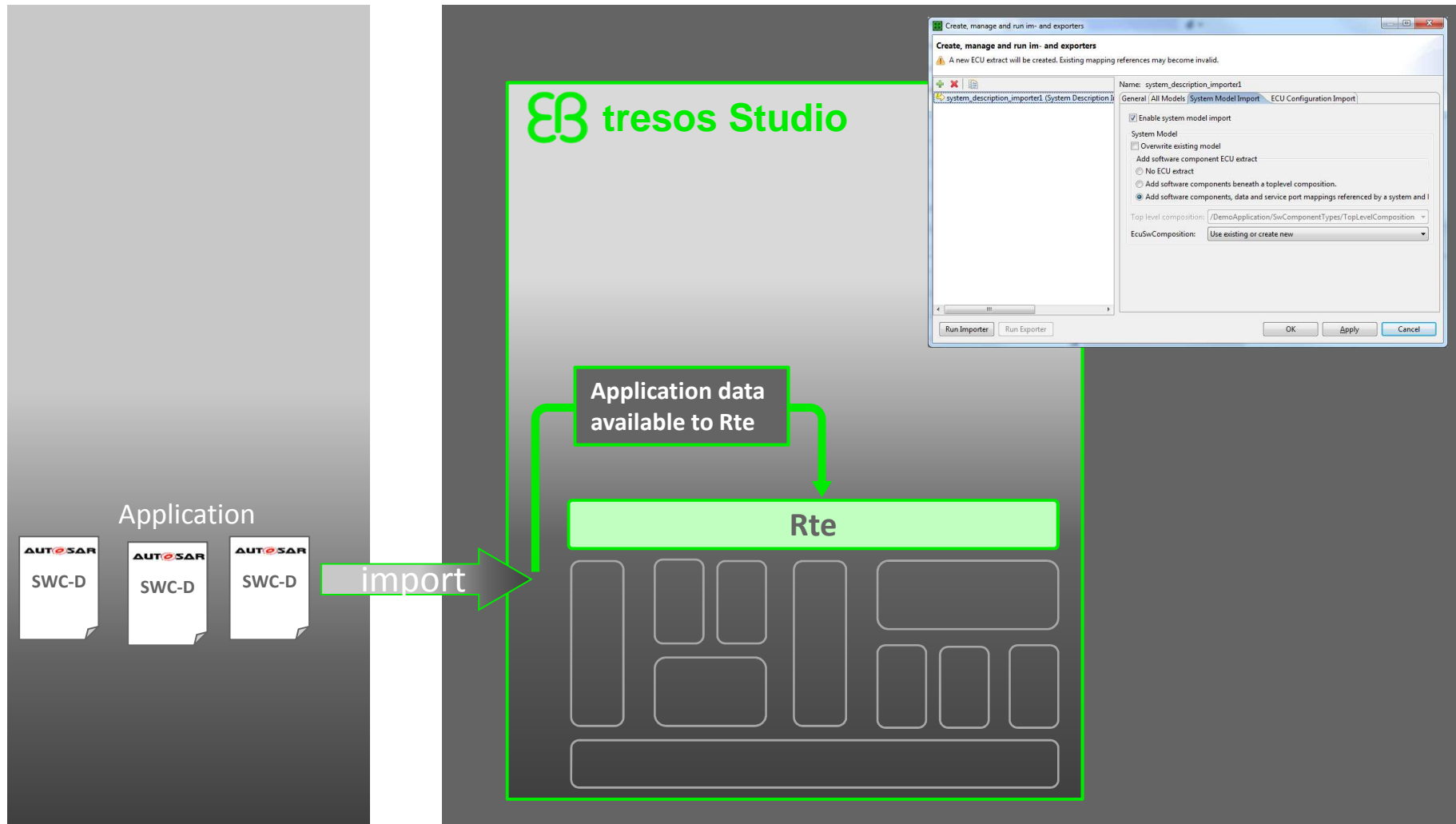
Importing project data into EB tresos Studio



Importing the ECU-Extract into EB tresos Studio



Importing SWC-Description files into EB tresos Studio

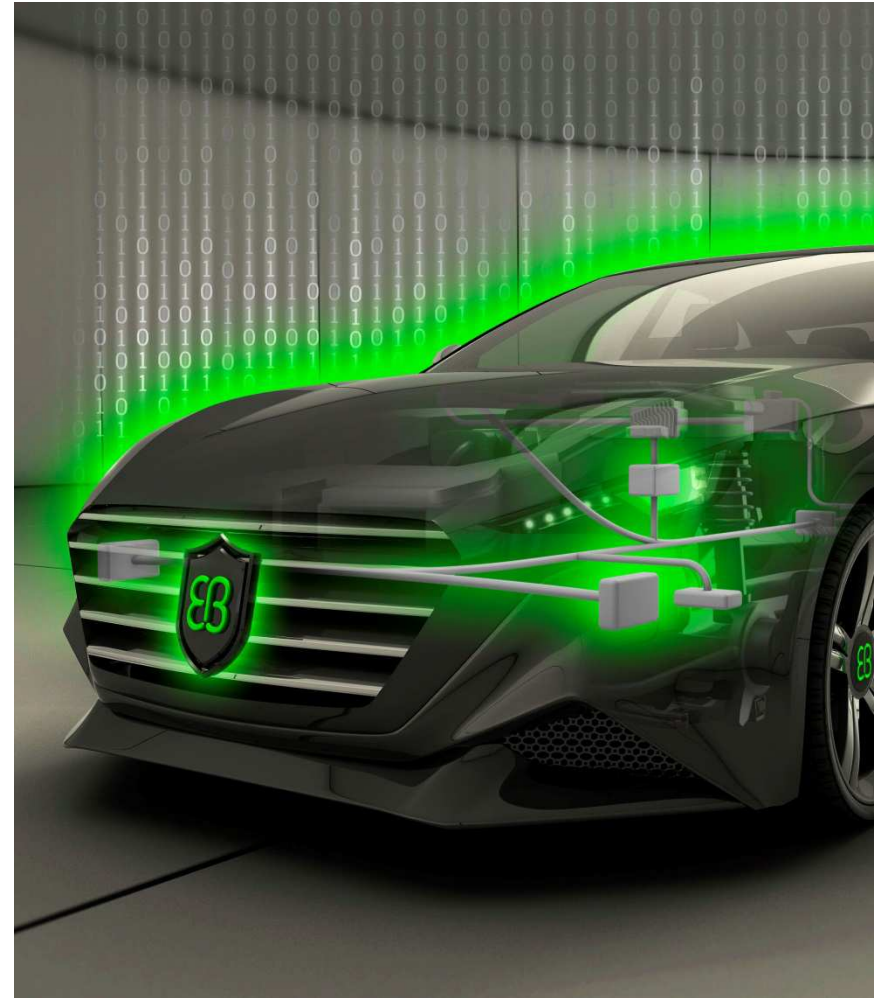


The screenshot shows the 'Module Configurations' window in tresos Studio. The left pane lists available modules such as EcuM, Exp, Fw, Hw, IpduM, Make, Mcu, MemB, NvM, Os, Platform, Rte, and WdgM. The center pane shows a table of module configurations with columns for 'Enable', 'Generate', 'Module', and 'Name'. A green box highlights the 'BSW Modules' section. The right pane shows the 'Details of "PdUf"' window, which includes a 'Recommended Configuration' section and a table of module configurations.

Below the screenshot, a diagram illustrates the relationship between ECU-C blocks and the ECU-Config block. Three 'ECU-C' blocks are shown on the left, each with a green arrow pointing to a central 'Recommended' block. This 'Recommended' block is then connected to a larger 'ECU-Config' block on the right.

EB tresos Studio Usability Features

- Extended Documentation (.pdf or F1)
- Example projects can be imported (EB tresos AutoCore)
- Detailed description to ECU configuration parameters are displayed in a special view within EB tresos Studio
- Guided configuration:
 - Simplifies configuration through Assistant dialogs and configuration wizards.



EB tresos Studio Usability Features

- Workflows in EB tresos Studio: step-by-step guidance for your BSW configuration
- Extended parameter checks to ensure consistency of BSW configuration
- Extended search function to easily find configuration parameters
- Annotate ECU configuration parameters



EB tresos Studio: Configure and Generate AUTOSAR Basic Software and Customer Specific Software Modules

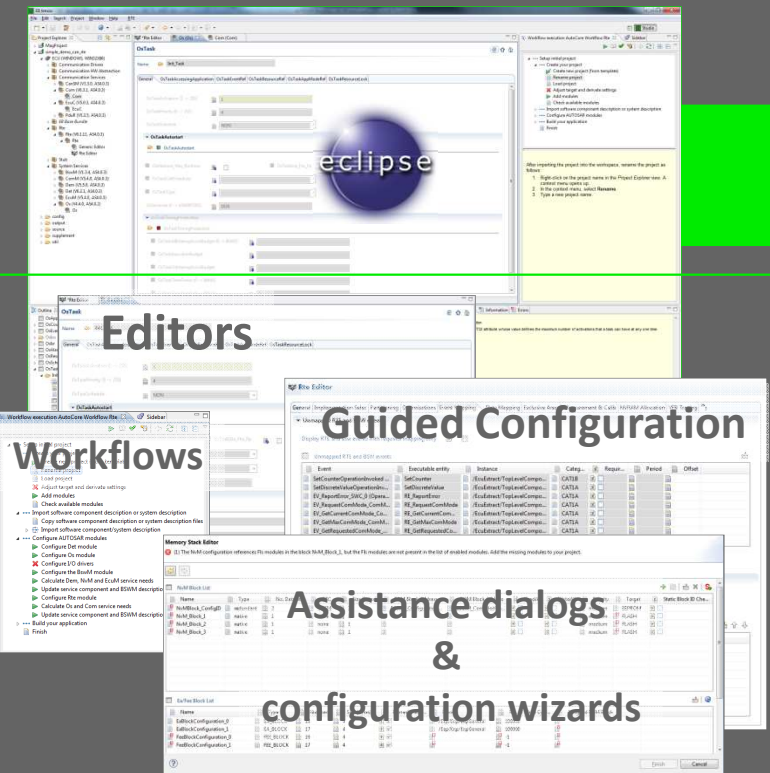
tresos Studio

tresos AutoCore

Configure
Generate

Extended tool
support

- Simplify configuration
- Hide complexity
- Avoid errors
- Ensure consistency
 - Save time
 - Lower the risk

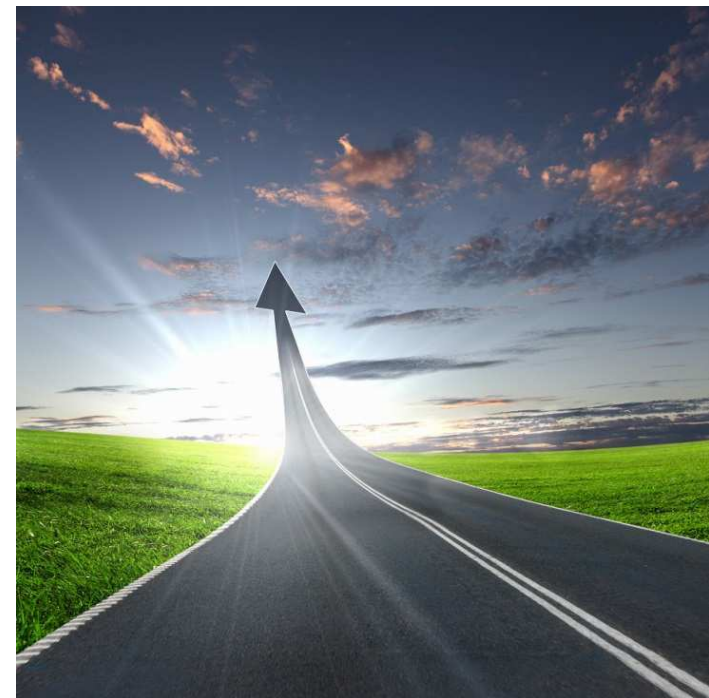


Why EB?

Do you have to master an ECU project? We have the right solution for each use case!

Our customers benefit from:

- **Reliability due to proven quality**
 - More than 25 years of expertise in automotive basic software development
 - > 14 000 automated tests on 20 targets every night
 - 100% testing coverage of our source code
- **Shared mindset with leading carmakers**
 - Local presence and broad range of partnerships around the globe
 - We address each carmaker's specific requirements, e.g. BMW, Daimler, GM, JLR, PSA, Volkswagen/Audi, Volvo, and more
- **Close relationships with Technical Partners**
 - Established partnerships with leading software tool vendors, e.g. dSPACE, Timing Architects, etc.
 - Testing on industry-leading target systems, e.g. Freescale, Infineon, STM, TI, Renesas, etc.



Contact us!



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