



AUTOSAR

What is Autosar?

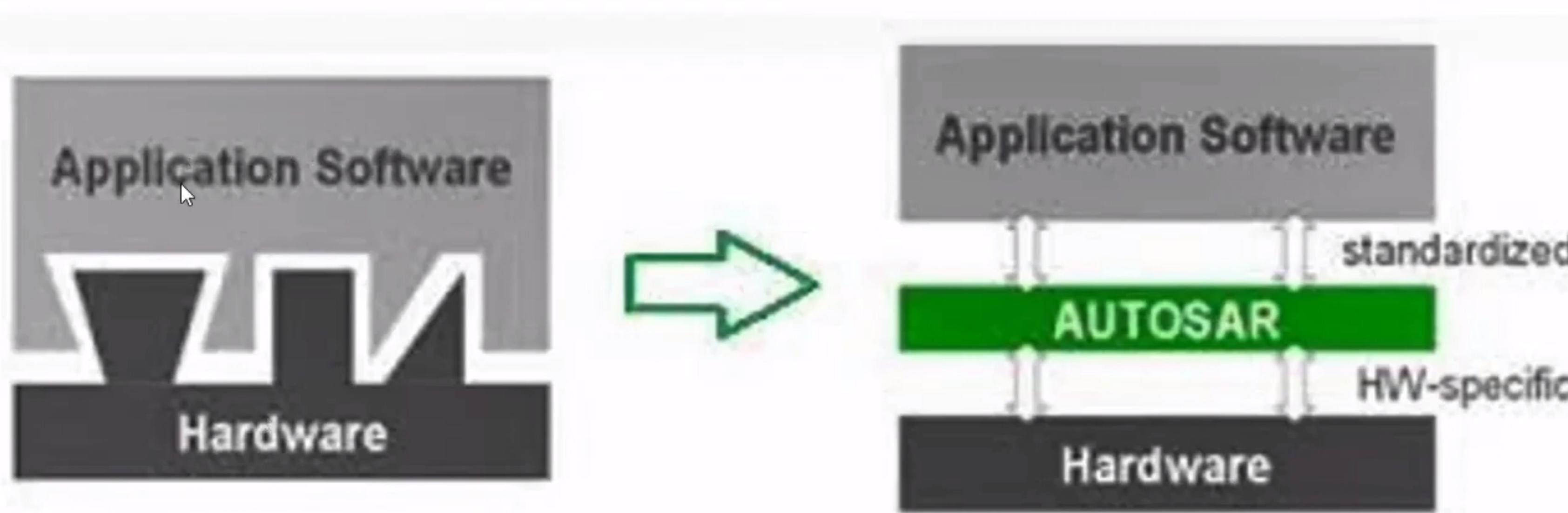
- Autosar – **Automotive Open System Architecture**
- The AUTOSAR-standard enables the use of a component based software design model for the design of a vehicular system.
- The objective of an Autosar is to specify an open standard for the software architecture and software interfaces for the most common functionality in ECU's

KEYWORDS

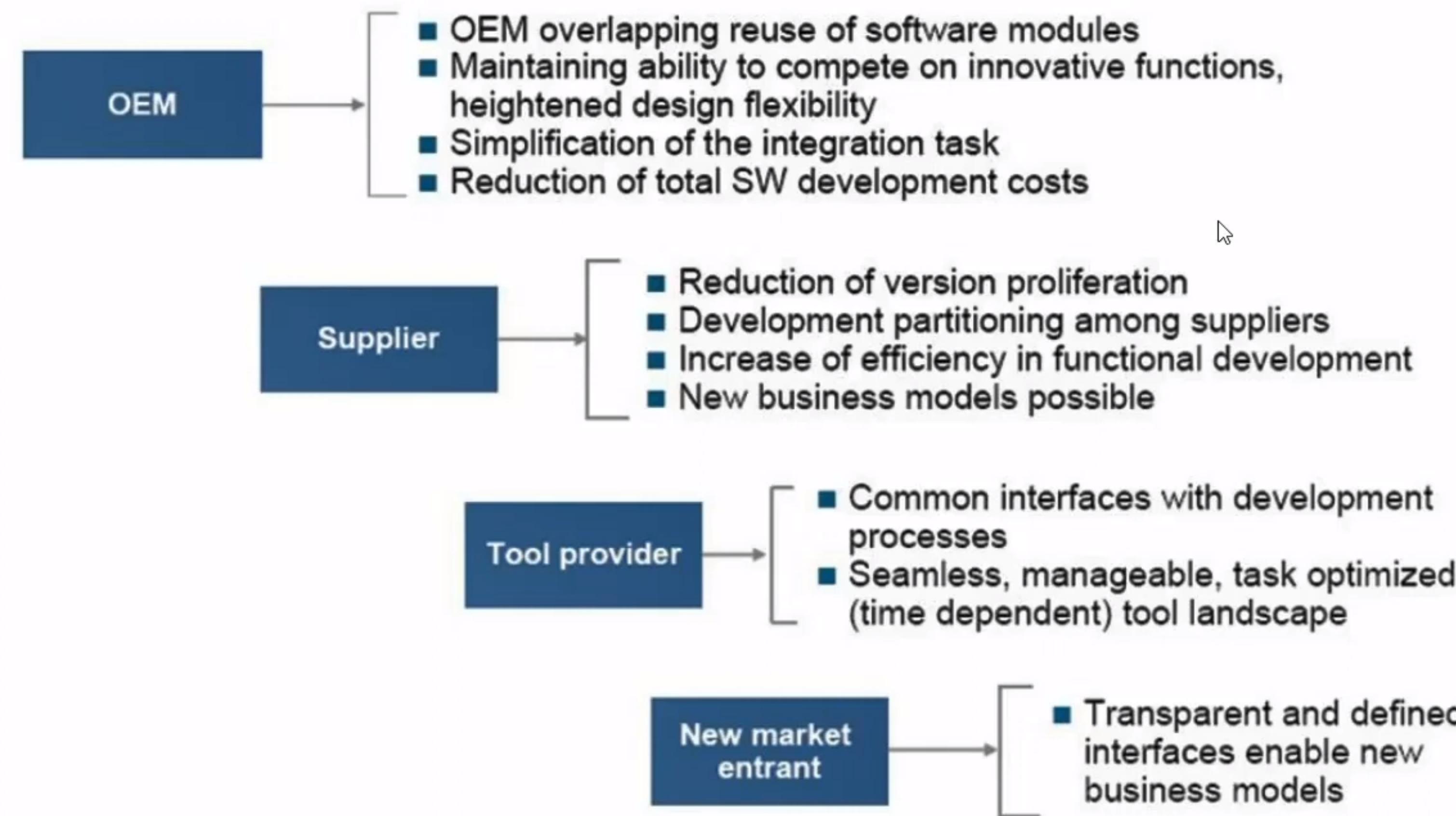
- OEM – Original Equipment Manufacturer(Example :BMW Group, Ford, Toyoto, Volkswagen)
- TIER1 – Direct Supplier to an OEM. (Example :Zf , Visteon, Valeo, Magnetti Merli , Aptiv)
- TOOL Provider – Vector, DSpace,ETAS
- Semi Conductor – Infineon , Freescale, Renesas

WHY AUTOSAR?

- Hardware and Software need to be independent each other
- Simple development Process
- Reuse of Software Increases at both OEMs and Suppliers



BENEFITS OF AUTOSAR



AUTOSAR – Core Partners and Partners



9 Core Partners

BMW Group

BOSCH

Continental

Ford

DAIMLER

PSA

GM

TOYOTA

VOLKSWAGEN AG

AUTOSAR



53 Premium Partners

General OEM

VOLVO TRUCKS **HONDA** **TATA MOTORS** **HYUNDAI** **NISSAN** **RENAULT** **Great Wall**

Generic Tier 1

Autoliv **Osius** **HELLA** **dSPACE** **DENSO** **JTEKT** **LEAR** **CNH INDUSTRIAL** **Valeo**

Standard Software

mentor **BB** **intel** **MathWorks** **KPIT** **Bosch** **VECTOR** **SCSK** **Cluxoft** **NVIDIA**

Tools and Services

altran **ETRI** **itk** **LAF Technology Services** **C2I** **Deloitte** **Green Hills SOFTWARE**
 TATA ELXSI LIMITED **LG Electronics** **IAV** **ETAS** **Bosch Software Ingetriebe** **sodius**
 ARC **CORE** **Fraunhofer**

Semiconductors

infineon **RENESAS** **ST** **NXP**



38 Development Partners

ANSYS

Advanced Telematic

PRQA

avvelabs

BASICWORKS

E.S.R. LABS

INCHRON

rti

Sejad

Timing Architects

Baselabs

OFFIS

itemis

easycore

REACH

IPN

Freetech

IP Camp

OPENSYNERGY

Lauterbach

osb TTTech

ixia

Excellence

NCES

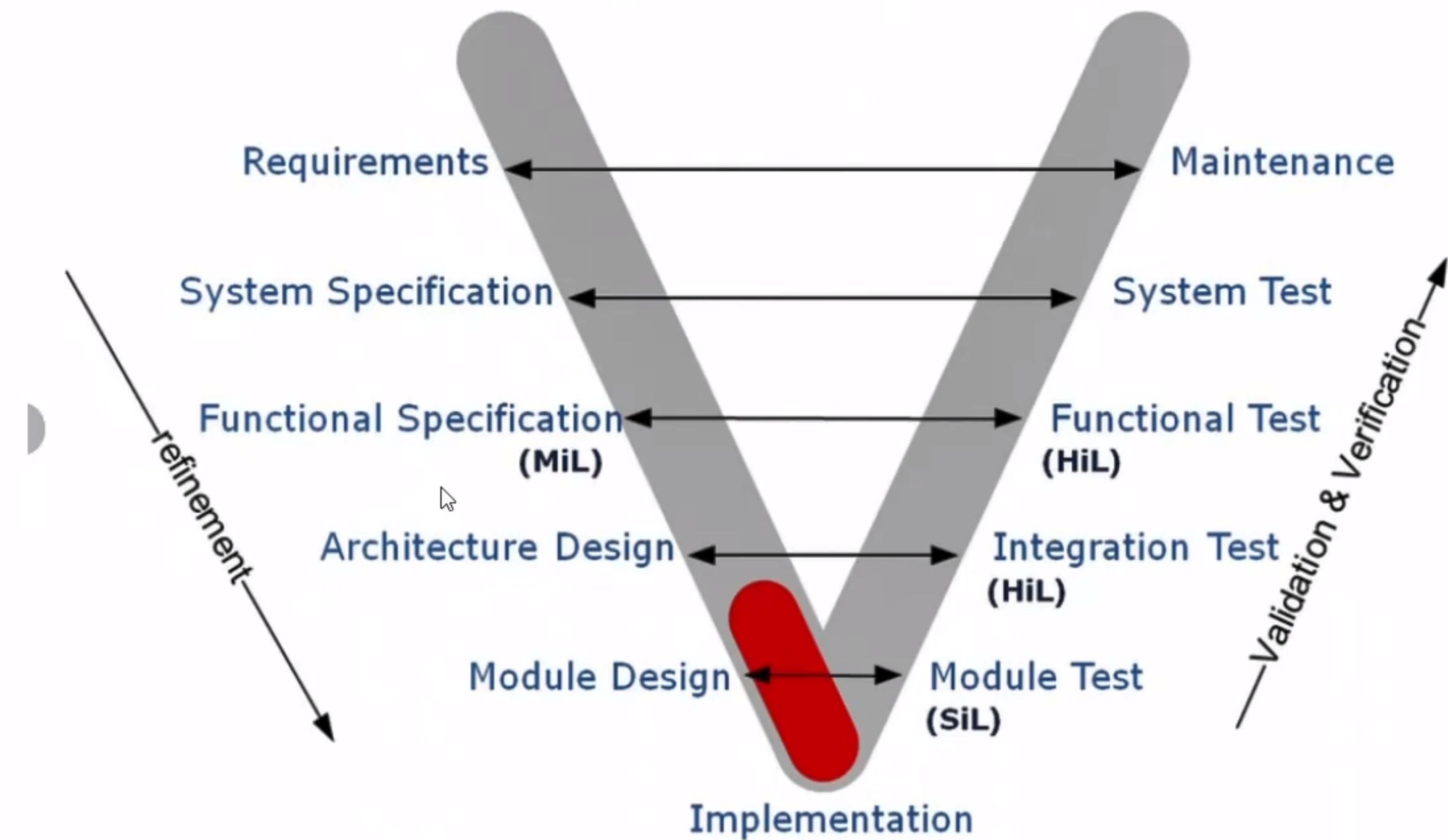
VALIDAS

PopcornSAR

© AUTOSAR

**127 Associate Partners
21 Attendees**

V MODEL DESIGN

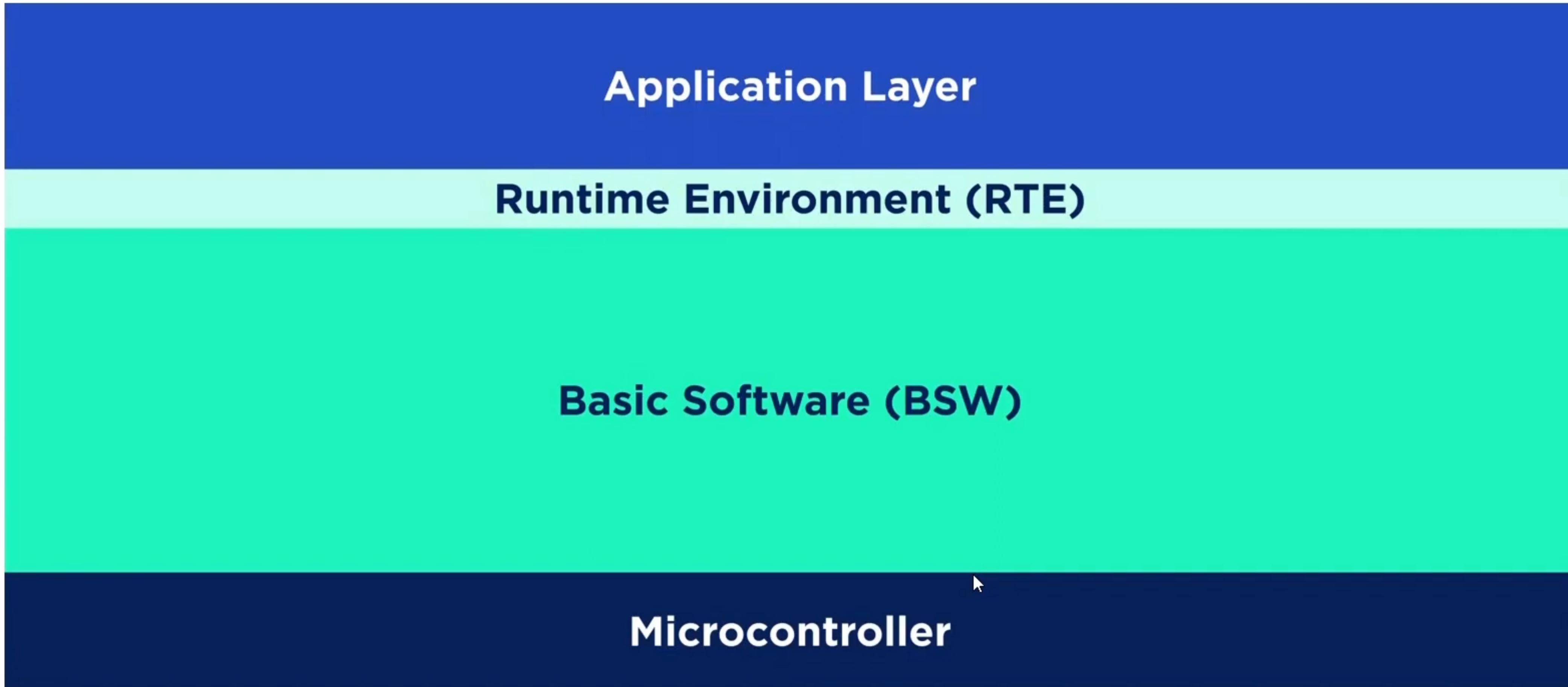


OBJECTIVES OF AUTOSAR

- Implementation and standardization of basic functions as an industry-wide “standard core” solution.
- Integrations of functional modules from different suppliers.
- Easy to maintain the process throughout the life cycle.
- Redundancy activation
- Easy transfer of functions from one ECU to another ECUs within the network



AUTOSAR LAYERED ARCHITECTURE



TAKE AWAY

- AUTOSAR acts as a standard platform for all the vehicle software's and it has no application of its own.
- The functionalities of AUTOSAR are supplied as software components and all the components involved are hardware independent.