

# AUTOSAR ENGINEERING

Develop | Configure | Integrate & Maintain

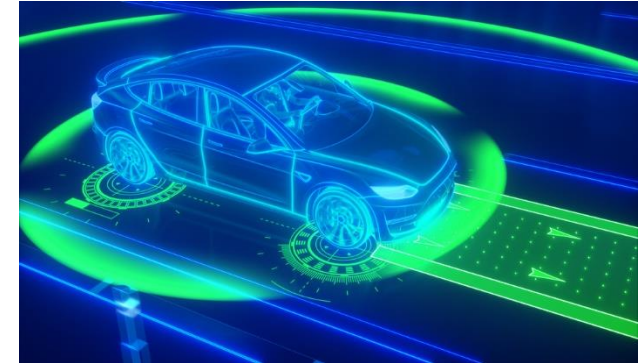
## Trending

AUTOSAR services and solutions right from evaluation, assessment to migration strategy and actual implementation of standardized architectures are becoming increasingly popular in the modern automotive product development. The OEM's standardizations are striving towards lowering the cost and reduction of lead time through easily available well tested modules.

High performance in-car computers are replacing domain controller based architecture for increased flexibility and distribution of functions. Maximum freedom in the Adaptive platform implementation helps offers more computing powers which caters with next gen vehicle architectures.

## Opportunities & Challenges

- Need for Inter and Intra ECU communication and standardization for reusability and exchangeability of the modules across the OEM. Designing a Module configuration that aligns with multi OEM Software requirements.
- Increased need of Functional Safety measures to achieve desired ASIL level. Validation –Automation, Intensity of test cases and competent engineering team
- Implementations of newer features like Highly automated driving, Car-2-X, software updates over the air etc. require adoption of AUTOSAR



## Benefits for your Consumer

- Development can be decoupled by horizontal layers, reducing development time and costs.
- Reuse of software enhances quality and efficiency
- Universal specifications for automotive software
- Hardware and software – widely independent of each other.
- AUTOSAR consortium is very much aligned to automotive software architecture evolution and is reflected immediately in Software specifications.

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## Service Framework

### OEM

- Integration partner for OEM's series production suppliers
- Research Projects
- Comparison of existing specs with AUTOSAR
- Migration and Maintenance of functions
- Tool development services

### TIER 1

- Development and migration of AUTOSAR Application
- Integration of BSW with application components
- Custom (NON-AUTOSAR / Hybrid) development
- Maintenance of AUTOSAR ECUs

### TOOL

- Authoring Tool development services
- BSW component development
- Maintenance

### SEMICON

- MCAL development & Porting
- Maintenance
- Tool development services

### Differentiators

- Enabling Complete software ownership and reusability for the customers
- Rich experience of working with products of Vector, EB, Mentor, Tata Elxsi AUTOSAR stack etc.
- Premium member & active contributor to AUTOSAR consortium
- Licensable TE's AUTOSAR 3.x & 4.x stacks and Adaptive Platform. Company wide licensing irrespective of product line and end customer reduces the overall cost of ownership

### Cases

- Development & Validation of AUTOSAR compliant Seat Zone Module, Luxury OEM Europe | Number of ECU's reduced by 50% | Winner of Global supplier Award 2017, first Indian company to win one of its kind
- Heating, Ventilation & Air Conditioning Product Development for OEM Europe } AUTOSAR configuration and Software Integration | Single software which can be used in multiple vehicle programs & multiple ECU variants
- Central Gateway ECU for Subaru Hybrid EV | Ownership of Complete ECU Design, Prototyping and Software Development | In Production in 7 Different Variants, Launched in Japan & North America