

# Realising the Software Defined Vehicle (SDV)

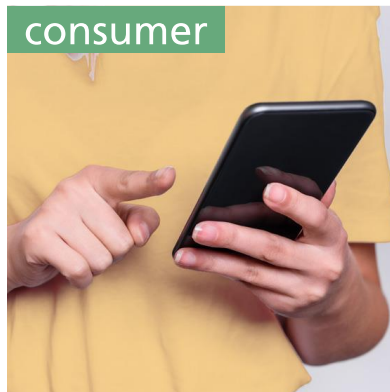
Julian Day  
Senior Field Applications Engineer  
Green Hills Software



medical



avionics



consumer



automotive



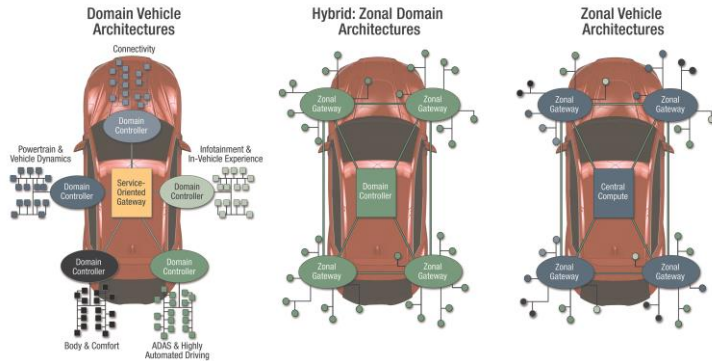
industrial



smart energy

# The SDV changes the industry...

## Vehicle Architecture



- ECU consolidation
- Fail safe vs. fail operational
- More connectivity
- New non-automotive functions:

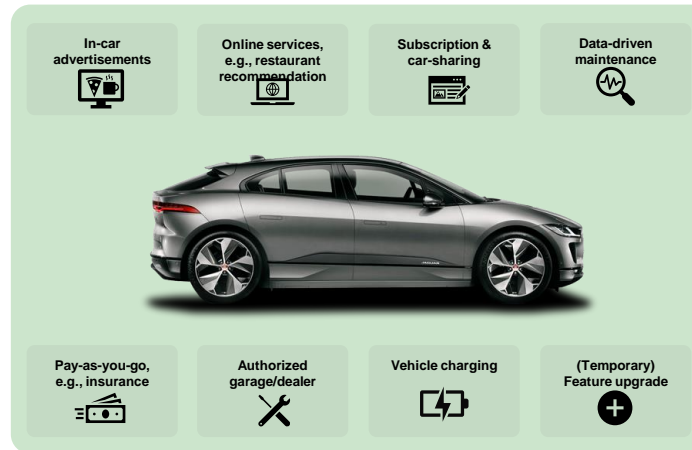


Make-up mode  
(Xpeng G9)



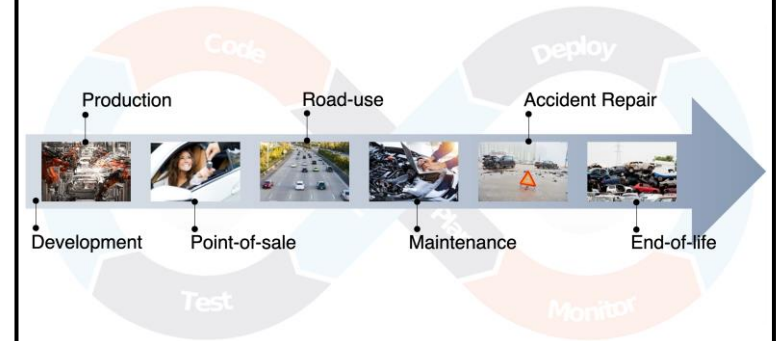
"Light curtain"  
(HiPhi Z)

## Business Models



- Software defines value of the vehicle
- Generating revenue over the lifetime of the car
- Ownership vs. subscription
- New vehicle use-cases, e.g., robotaxis, people mover

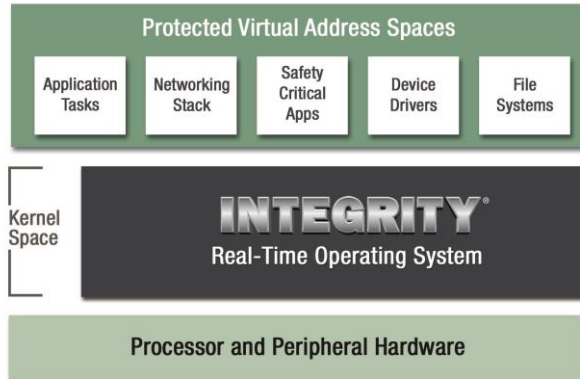
## Development Processes



- Continuous development, integration, deployment
- More non-automotive suppliers
- More non-automotive technologies
- Increasing importance of software updates (OTA)
- Embracing cloud-native development

# Green Hills Software's contribution

## Vehicle Architecture



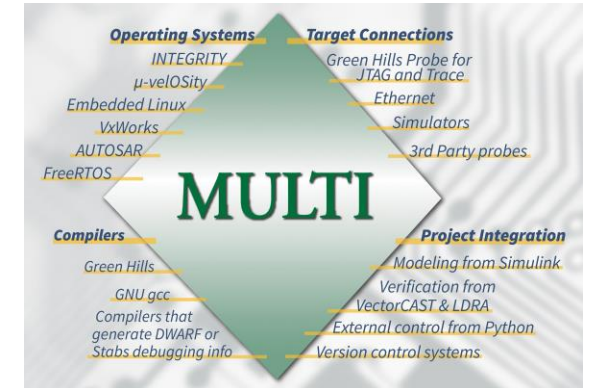
- RTOS / hypervisor for safe and secure separation
- Completely integrated ecosystem
- Extensive array of middleware available
- Supporting all safety & security certifications available

## Business Models



- End-to-end solutions for device and enterprise security infrastructure
- Embedded cryptographic toolkits
- High-assurance enterprise key management infrastructure
- Device Lifecycle Management

## Development Processes



- Fully integrated tool suite for creating, optimizing and debugging code
- Best-in-class debugging capabilities
- Qualified for ISO 26262 ASIL D
- From Ops to DevOps to DevSecOps



**Green Hills®**  
SOFTWARE

# Revolutionizing Development of Embedded Software

For more details please contact [info-uk@ghs.com](mailto:info-uk@ghs.com)