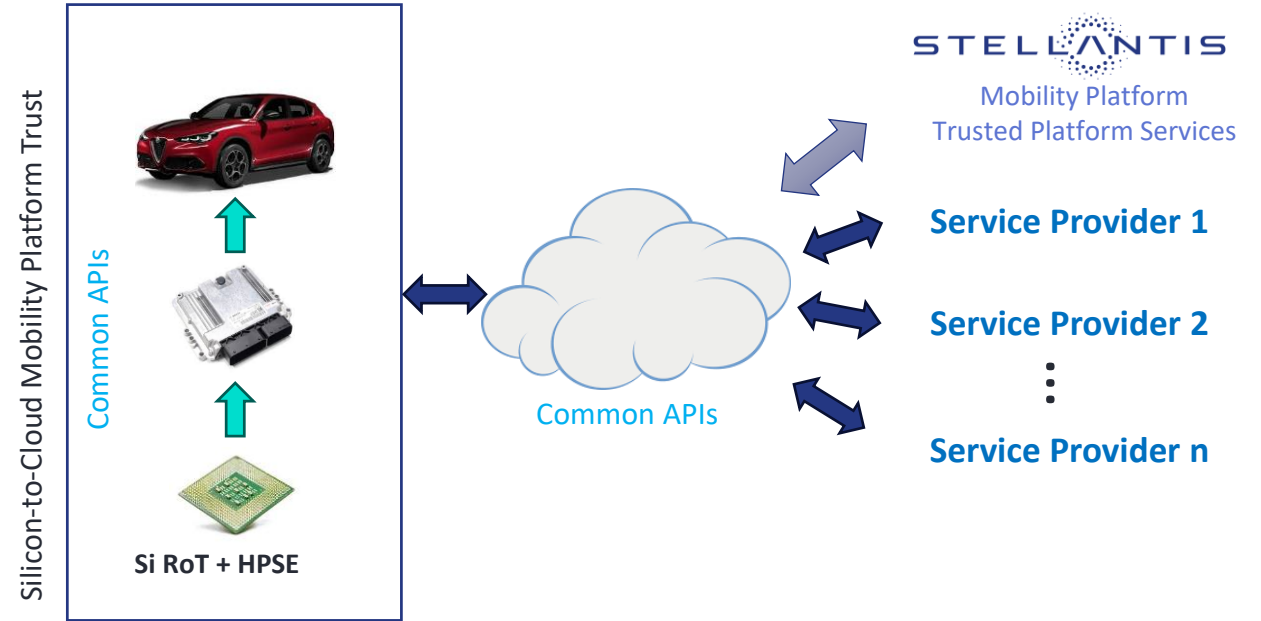


A woman with glasses is driving a car, looking out the window. The image is overlaid with a blue tint. The text is centered in white, bold, uppercase letters.

EVOLVING INDUSTRY REQUIREMENTS
FOR
MOBILITY CYBERSECURITY



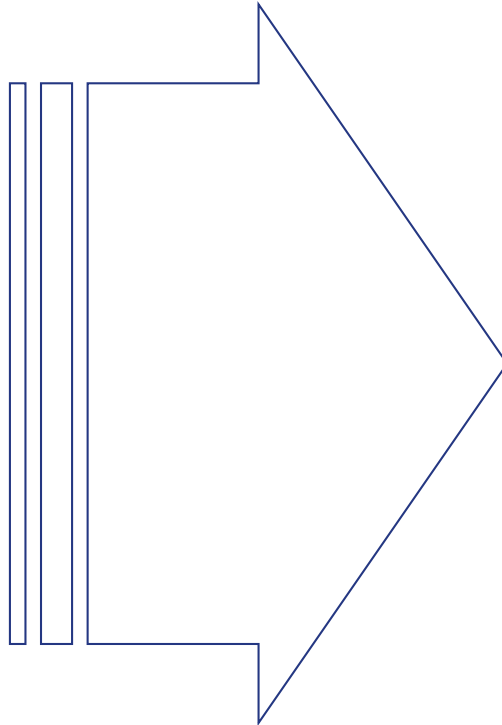
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- **High-cost NRE & S/M**
- Lacks std APIs and interfaces
- Lacks common software stack
- Lacks incremental code development
- Requires project specific V&V & PT
- Limited production life for HW/SW
- → requires long inventory for S/M
- Sourcing limited to single T1/T2 supplier

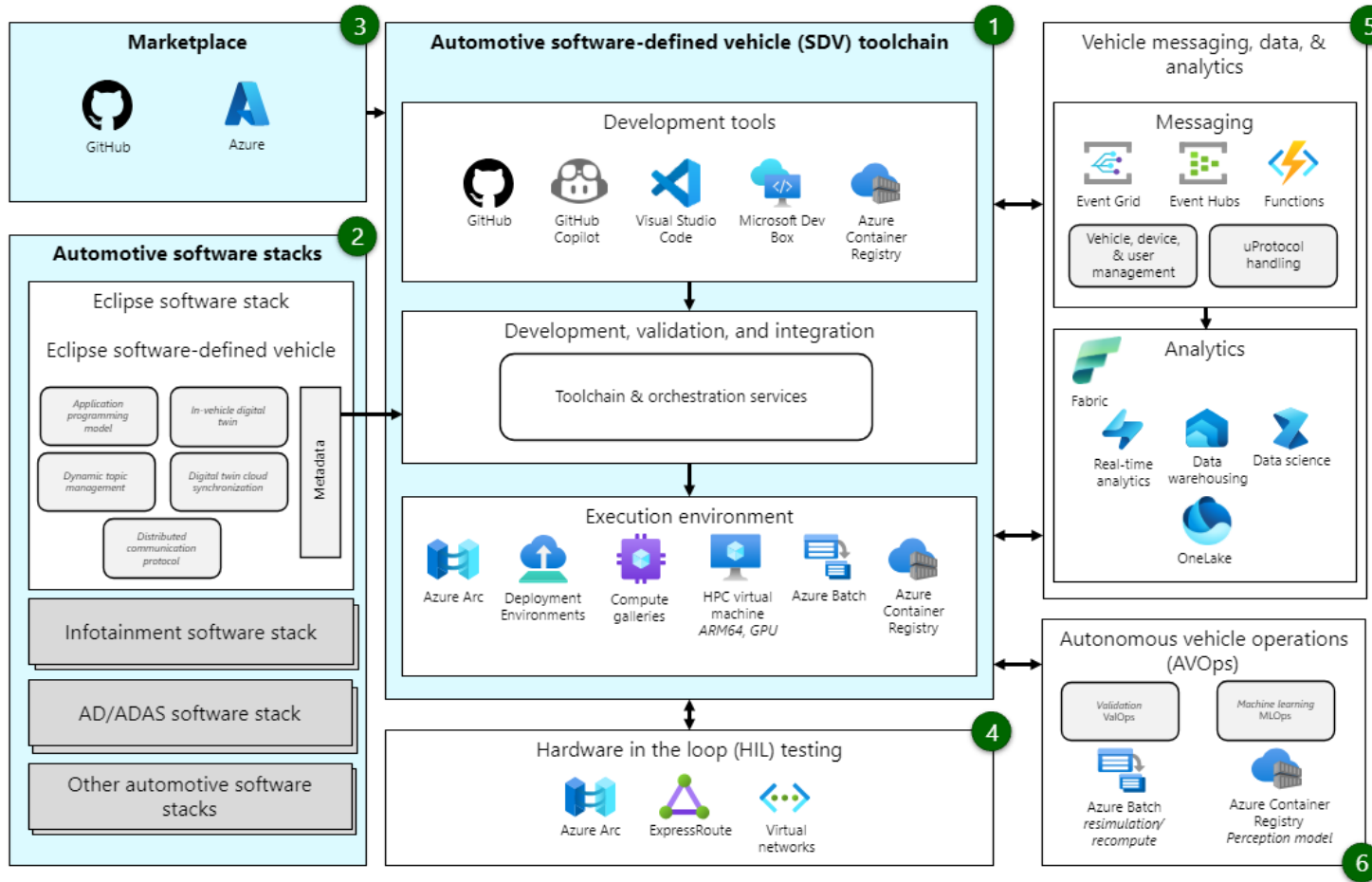
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- **Low-cost NRE & S/M**
- Apps may be developed internally or by any supplier on common hw/sw stack
- CVV may be pre-certified (SESIP 1/2/3)
- Support for SDV w/ incremental (Agile) dev methodology
- Long production life based on standardized interfaces for application code base

C connected
A utonomous
S hared
E lectric

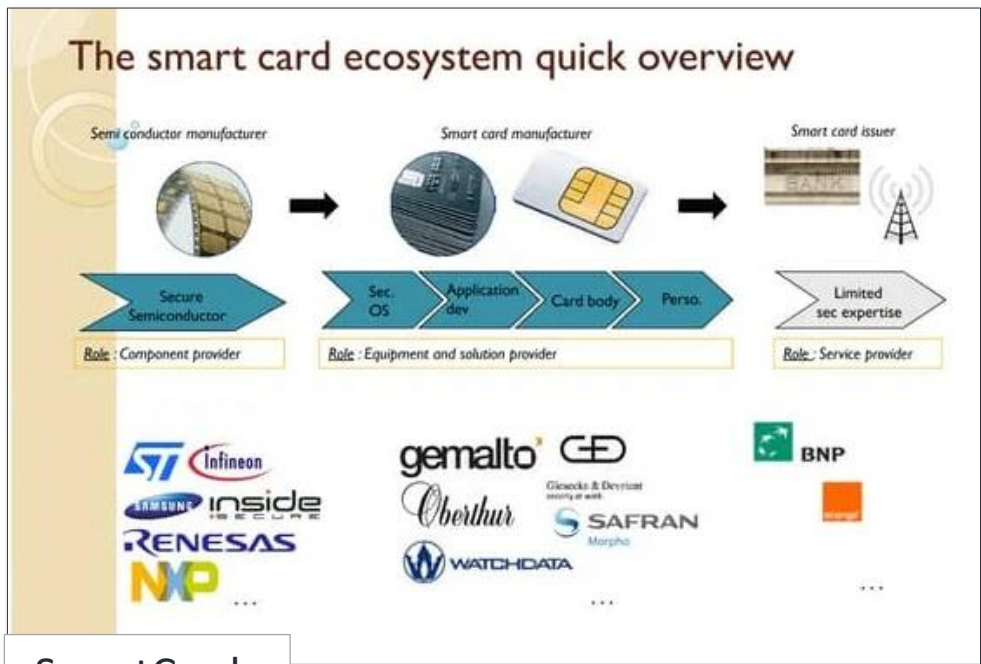


- Infotainment services (movies, games, podcasts, music, karaoke, etc.)
- Autodrive with navigation – Level 3+
- Car payment services (automated payment for EV charging, bridges, toll roads, parking, drive-ins, tickets, insurance, registrations, etc.)
- Driver and ultimately driverless taxi services wherein the vehicle is an asset that may be privately or publicly shared
- EV charging connectivity to show availability, charging rate, navigation to charging locations on the dash
- Real-time alerts for weather, fire, emergencies, traffic accidents, road hazards / hazardous conditions, etc.
- Emergency response and real-time monitoring -- theft deterrence and incident forensics
- Fleet management and analytics, remote diagnostics, and predictive maintenance

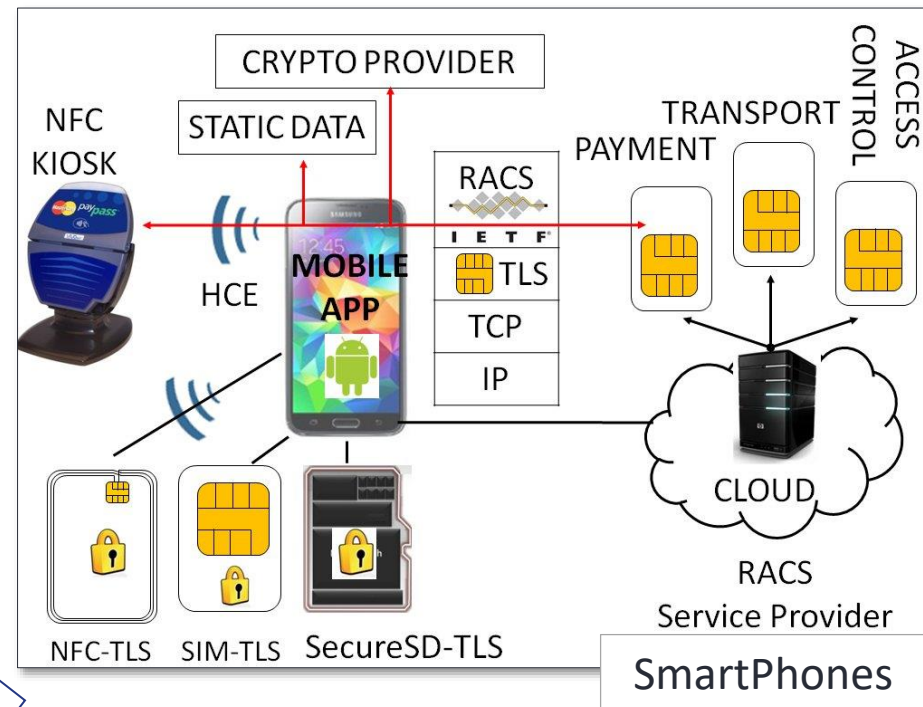


Defining principles:

- SOA & POA – hardware platform for cybersecurity trusted apps & services
- Secure Enclave: Secure Element / TEE / HSM
- Standardized hardware driver, secure enclave, RTOS, and E2E Infra APIs (SAE/GP J3101)
- Portability, re-useability, extensibility, testing and certification of trusted applets & services
- Certification process consistent with ISO/SAE 21434



SmartCards



SmartPhones



SmartCars