

# The Global Market for Advanced Automotive Technologies 2024-2040

<https://marketpublishers.com/r/GA439701ACB2EN.html>

Date: February 2024

Pages: 630

Price: US\$ 1,900.00 (Single User License)

ID: GA439701ACB2EN

## Abstracts

The market for advanced automotive technologies is experiencing rapid growth as vehicles become more connected, electrified, autonomous and smart. Favourable regulatory environments coupled with changing consumer preferences and mobility models are accelerating the adoption of these converging technologies on a global scale. Market growth will be driven by rising EV sales, higher adoption of ADAS and autonomous driving sensors, increasing connectivity uptake for V2X and software-defined vehicles, and advancements in in-cabin interfaces.

The Global Market for Advanced Automotive Technologies 2024-2040 provides a detailed analysis of the latest trends and technologies shaping the future of the automotive market. It assesses advanced automotive technologies spanning self-driving vehicles, vehicle connectivity, electrified powertrains, emerging battery tech, in-cabin monitoring, and associated components.

The report thoroughly evaluates the rationale, evolution, current state and future outlook for autonomous driving, assessing automation levels, sensors, perception systems, testing protocols, commercial deployment, OEM and supplier company strategies, and market forecasts. It analyzes the hardware requirements, sensor portfolios, lidars, radars, cameras, sensor fusion, localization, mapping, artificial intelligence, compute platforms, safety, cybersecurity, and testing involved in developing vehicle autonomy.

Global market forecasts are provided for self-driving vehicle unit sales, autonomous driving sensors, radars, and key components from 2022-2040. Regional breakouts, SAE level segmentation, and technology level granularity provide unmatched market insights. Vehicle connectivity and software-defined vehicles are analyzed in detail, covering vehicle-to-everything (V2X) communication, 5G integration, mobility as a

service impacts, over-the-air updates, domain controllers, new app capabilities, data analytics, hardware requirements, and market outlook. Global market forecasts are segmented by software-defined vehicle level and connectivity sub-system from 2022-2040. Powertrain electrification is assessed in depth, analyzing EV types, battery technologies, charging solutions, recycling, key components suppliers, and market trends. Technology evolution, chemistries, cell formats, packs, battery management, thermal interface materials, cooling systems are examined for EV batteries. Market forecasts cover EV sales, components, powertrains, battery demand from 2022-2040.

Emerging beyond lithium-ion battery technologies are evaluated including solid state, Li-sulfur, Na-ion, Al-air, recycling methods, and supply chain sustainability. The transition towards a circular battery economy and closed loop value chain is assessed in detail. In-cabin monitoring systems are thoroughly analyzed covering driver monitoring systems, occupant tracking, attention alerts, behavioural monitoring, regulation, biometrics, transparent displays, holography, flexible interfaces, AR evolution, voice assistants, companies, and market revenue forecasts to 2040.

In total, the report includes over 140 tables detailing market and technology data as well as over 100 figures illustrating key insights. Complete listings of all abbreviations and acronyms used in the report are provided. The report will help technology vendors, automakers, researchers, and government agencies understand the latest developments in these converging automotive disciplines as the industry transitions towards smart, connected, electric, and autonomous mobility.

The Global Market for Advanced Automotive Technologies 2024-2040 profiles over 800 companies. Companies profiled in the report include ABB, Actronika, Adaps Photonics, AdvanChip, AEye, AMS Osram, Arbe Robotics Ltd, Aspinity, Baidu, Bosch, Continental, Echodyne, Grayscale AI, Haike Electronics, Hikvision, Huawei, iGentAI Computing Technology, Infineon, Joyson Safety Systems, Kneron, Kognic, Lumotive, Lunewave Inc., LG Innotek, Magna, Metawave, Mojo Vision, NODAR, NXP Semiconductors, Omnitron Sensors, OmniVision, Plastic Omnium, Prophesee, RoboSense, SenseTime, SiLC Technologies, Spartan Radar, STMicroelectronics, Stellantis, Svolt, Tacterion, Terabee, Tesla, Texas Instruments, Toyota, Ultraleap, Uhnder, Valeo, Vayyar, Visteon, Volkswagen, Volvo, Vueron, Waymo, Zadar Labs, and Zendar.

## Contents

### 1 RESEARCH METHODOLOGY

### 2 EXECUTIVE SUMMARY

- 2.1 Automotive technologies covered
- 2.2 Market outlook and disruption
- 2.3 Key trends overview
- 2.4 Automotive technology convergence
- 2.5 New mobility ecosystem
- 2.6 Market map
- 2.7 Technology cost curves
- 2.8 Benchmarking maturation paths
- 2.9 Opportunity for Advanced Automotive Technologies

### 3 SELF-DRIVING VEHICLES

- 3.1 Autonomous vehicles categories
- 3.2 Rationale for automation
- 3.3 Automation Levels
  - 3.3.1 History of Defining Driving Automation
  - 3.3.2 Need for Standardization
  - 3.3.3 Regulation
  - 3.3.4 SAE International Standard J3016
  - 3.3.5 SAE automation levels 0-5
  - 3.3.6 Transitions from ADAS to full autonomy
  - 3.3.7 Adaptations to SAE Model
  - 3.3.8 Commercial Implementations
    - 3.3.8.1 Main players
    - 3.3.8.2 Level 2
    - 3.3.8.3 Level 3
    - 3.3.8.4 Level 4
      - 3.3.8.4.1 Current developments
      - 3.3.8.4.2 Robotaxis
    - 3.3.8.5 Level 5 timeline
  - 3.3.9 Robotaxis
    - 3.3.9.1 Current commercial status and testing

- 3.3.9.2 Market outlook
- 3.3.10 Hardware requirements
- 3.4 Autonomous Driving Sensors
  - 3.4.1 Sensor Attributes, Performance Trends and Limitations
  - 3.4.2 Sensor Suite Examples by Autonomy Level
  - 3.4.3 Cameras
    - 3.4.3.1 Camera Types
    - 3.4.3.2 Camera Sensor Attributes
    - 3.4.3.3 External cameras
    - 3.4.3.4 Internal cameras
    - 3.4.3.5 Visible light cameras
    - 3.4.3.6 Infrared (IR) camera
    - 3.4.3.7 SWIR
    - 3.4.3.8 Neuromorphic/Event-Based Vision Systems
    - 3.4.3.9 E-mirrors
      - 3.4.3.9.1 Overview
      - 3.4.3.9.2 Benefits
      - 3.4.3.9.3 Challenges
      - 3.4.3.9.4 Installation and Compatibility
    - 3.4.3.10 Companies
  - 3.4.4 Radar
    - 3.4.4.1 Overview
      - 3.4.4.1.1 Market trends
      - 3.4.4.1.2 Radar Configurations on Vehicles
      - 3.4.4.1.3 Radar Technology Evolution
      - 3.4.4.1.4 Commercial Imaging Radar Solutions
      - 3.4.4.1.5 Teleoperation
      - 3.4.4.1.6 4D Imaging Radar
      - 3.4.4.1.7 Low-Loss Materials for Radar
    - 3.4.4.2 Front radar
    - 3.4.4.3 Side radar
    - 3.4.4.4 Performance and technology trends
    - 3.4.4.5 Lidar
      - 3.4.4.5.1 Lidar configurations on vehicles
      - 3.4.4.5.2 Types of Lidar Technology
      - 3.4.4.5.3 Companies
  - 3.4.5 Ultrasonics
    - 3.4.5.1 Advantages
    - 3.4.5.2 Challenges

- 3.4.6 Sensor fusion
  - 3.4.6.1 Sensor Fusion Methods for Autonomous Driving
  - 3.4.6.2 Challenges
- 3.5 Perception and Localization
  - 3.5.1 Sensor combinations by autonomy level
  - 3.5.2 HD mapping
  - 3.5.3 Localization approaches
  - 3.5.4 AI and machine learning
  - 3.5.5 Companies
- 3.6 Compute and Network Systems
  - 3.6.1 Domain controllers
  - 3.6.2 GPUs
  - 3.6.3 OTA updates
  - 3.6.4 Functional safety
  - 3.6.5 Cybersecurity
- 3.7 Testing and Simulation
  - 3.7.1 Miles/disengagements
  - 3.7.2 Weather handling
  - 3.7.3 Scenario coverage
  - 3.7.4 Virtual testing
  - 3.7.5 Safety validation
- 3.8 Commercial Deployment
  - 3.8.1 Global policies
  - 3.8.2 Legislative progress
  - 3.8.3 Level 2/3 consumer autonomy
  - 3.8.4 Robotaxi launches
  - 3.8.5 Operation Design Domains (ODD)
- 3.9 Autonomous Technology Suppliers
  - 3.9.1 OEMs
  - 3.9.2 Tier 1 components
  - 3.9.3 Startups
  - 3.9.4 Semiconductor companies
  - 3.9.5 Fleet operators
  - 3.9.6 MaaS providers
- 3.10 Global market 2024-2040
  - 3.10.1 Global Vehicle Sales by SAE Level 2022-2044
  - 3.10.2 Autonomous Driving Sensors
  - 3.10.3 Radar

## **4 VEHICLE CONNECTIVITY SYSTEMS**

- 4.1 Vehicle-to-Everything (V2X) and Connectivity
  - 4.1.1 Dedicated Short Range Communication (DSRC)
  - 4.1.2 C-V2X
  - 4.1.3 5G/6G
  - 4.1.4 Hybrid connectivity
  - 4.1.5 Spectrum allocation
  - 4.1.6 Standards
- 4.2 Software-Defined Vehicles
  - 4.2.1 Overview
  - 4.2.2 Data movement
  - 4.2.3 Domain controllers
  - 4.2.4 Consolidation trends
  - 4.2.5 New apps features
  - 4.2.6 Hardware Requirements (SDV)
- 4.3 Connected Mobility Impact
  - 4.3.1 Mobility-as-a-Service
  - 4.3.2 Shared mobility
  - 4.3.3 New ownership models
  - 4.3.4 Usage-based insurance
  - 4.3.5 Intelligent transportation
  - 4.3.6 Smart cities
- 4.4 Companies
- 4.5 Global market 2022-2040
  - 4.5.1 By SDV Level
  - 4.5.2 By units
  - 4.5.3 Automotive V2X Market

## **5 POWERTRAIN ELECTRIFICATION**

- 5.1 Electric vehicle introduction
  - 5.1.1 Definitions
  - 5.1.2 Market Trends
- 5.2 EV Types
  - 5.2.1 Battery Electric Vehicles (BEV)
    - 5.2.1.1 Electric buses, vans and trucks
      - 5.2.1.1.1 Electric medium and heavy duty trucks
      - 5.2.1.1.2 Electric light commercial vehicles (LCVs)

- 5.2.1.1.3 Electric buses
- 5.2.1.1.4 Micro EVs
- 5.2.2 Plug-in hybrid (PHEV)
  - 5.2.2.1 Technology Overview
  - 5.2.2.2 Key components of a plug-in hybrid powertrain
  - 5.2.2.3 PHEV Market and Adoption
  - 5.2.2.4 Advantages and Disadvantages
  - 5.2.2.5 Outlook
- 5.2.3 Hybrid Electric Vehicles (HEV)
  - 5.2.3.1 Technology Overview
  - 5.2.3.2 HEV powertrain configurations
  - 5.2.3.3 Key HEV components
  - 5.2.3.4 HEV Market and Adoption
  - 5.2.3.5 Advantages and Disadvantages
  - 5.2.3.6 Outlook
- 5.2.4 Full Cell Electric Vehicles (FCEV)
  - 5.2.4.1 Technology Overview
  - 5.2.4.2 Key fuel cell system components
  - 5.2.4.3 FCEV Market and Adoption
  - 5.2.4.4 FCEV Benefits and Challenges
  - 5.2.4.5 Hydrogen production
  - 5.2.4.6 Refueling infrastructure
  - 5.2.4.7 FCEV cost challenges
  - 5.2.4.8 FCEV Outlook
- 5.2.5 Technology comparison
- 5.3 Electric Vehicle Batteries
  - 5.3.1 Li-ion evolution
  - 5.3.2 Chemistries
  - 5.3.3 Types
  - 5.3.4 Next-gen cell technology
  - 5.3.5 Silicon anodes
    - 5.3.5.1 Benefits
    - 5.3.5.2 Development in li-ion batteries
    - 5.3.5.3 Manufacturing silicon
    - 5.3.5.4 Costs
    - 5.3.5.5 Future outlook
  - 5.3.6 Li-ion battery packs
    - 5.3.6.1 Cell-to-pack
    - 5.3.6.2 Cell-to-chassis/body

- 5.3.6.3 Hybrid and dual-chemistry battery packs
- 5.3.6.4 Materials
- 5.3.7 Thermal management
  - 5.3.7.1 Thermal Interface Materials
    - 5.3.7.1.1 Types
    - 5.3.7.1.2 Thermal conductivity
    - 5.3.7.1.3 Comparative properties of TIMs
    - 5.3.7.1.4 Advantages and disadvantages of TIMs, by type
    - 5.3.7.1.5 EV applications
      - 5.3.7.1.5.1 Pack and Modules
      - 5.3.7.1.5.2 By Cell Format
  - 5.3.7.2 Liquid cooling systems
    - 5.3.7.2.1 Design
    - 5.3.7.2.2 Types
    - 5.3.7.2.3 Liquid Coolants
    - 5.3.7.2.4 Components of Liquid Cooling Systems
    - 5.3.7.2.5 Coolant fluids in EVs
      - 5.3.7.2.5.1 Coolant Fluid Requirements
      - 5.3.7.2.5.2 Common EV Coolant Fluids
    - 5.3.7.2.6 Benefits
    - 5.3.7.2.7 Challenges
    - 5.3.7.2.8 Market overview
  - 5.3.7.3 Fire protection materials
  - 5.3.7.4 Thermal management and fire protection companies
- 5.3.8 EV Battery Companies
- 5.3.9 Battery management systems
  - 5.3.9.1 Overview
  - 5.3.9.2 Topology and functionality
  - 5.3.9.3 Cell balancing and control
  - 5.3.9.4 State of charge and health estimation
  - 5.3.9.5 Fast charging
  - 5.3.9.6 Companies
- 5.4 Power delivery (SiC, GaN, power semiconductors)
  - 5.4.1 Market trends
  - 5.4.2 Materials and technologies
  - 5.4.3 Companies
- 5.5 EV Charging
  - 5.5.1 Overview
  - 5.5.2 Market trends



- 5.5.3 Conductive charging
- 5.5.4 Wireless/Inductive Charging
- 5.5.5 Mobile Charging Solutions
- 5.5.6 Battery Swapping
- 5.5.7 Charging infrastructure buildout
- 5.5.8 Companies
- 5.6 Global market 2024-2040
  - 5.6.1 Electric Vehicle Sales
  - 5.6.2 Components
  - 5.6.3 By Powertrain
  - 5.6.4 Electric vehicle Li-ion

## **6 EMERGING BATTERY TECHNOLOGY**

- 6.1 Beyond Li-ion
  - 6.1.1 Solid-state batteries
    - 6.1.1.1 Technology description
      - 6.1.1.1.1 Solid-state electrolytes
    - 6.1.1.2 Features and advantages
    - 6.1.1.3 Technical specifications
    - 6.1.1.4 Types
    - 6.1.1.5 Company profiles
  - 6.1.2 Lithium sulfur
    - 6.1.2.1 Technology description
    - 6.1.2.2 Advantages
    - 6.1.2.3 Challenges
    - 6.1.2.4 Commercialization
    - 6.1.2.5 Company profiles
  - 6.1.3 Sodium-ion
    - 6.1.3.1 Technology description
      - 6.1.3.1.1 Cathode materials
        - 6.1.3.1.1.1 Layered transition metal oxides
          - 6.1.3.1.1.1.1 Types
          - 6.1.3.1.1.1.2 Cycling performance
          - 6.1.3.1.1.1.3 Advantages and disadvantages
          - 6.1.3.1.1.1.4 Market prospects for LO SIB
        - 6.1.3.1.1.2 Polyanionic materials
          - 6.1.3.1.1.2.1 Advantages and disadvantages
          - 6.1.3.1.1.2.2 Types

- 6.1.3.1.1.2.3 Market prospects for Poly SIB
- 6.1.3.1.1.3 Prussian blue analogues (PBA)
  - 6.1.3.1.1.3.1 Types
  - 6.1.3.1.1.3.2 Advantages and disadvantages
  - 6.1.3.1.1.3.3 Market prospects for PBA-SIB
- 6.1.3.1.2 Anode materials
  - 6.1.3.1.2.1 Hard carbons
  - 6.1.3.1.2.2 Carbon black
  - 6.1.3.1.2.3 Graphite
  - 6.1.3.1.2.4 Carbon nanotubes
  - 6.1.3.1.2.5 Graphene
  - 6.1.3.1.2.6 Alloying materials
  - 6.1.3.1.2.7 Sodium Titanates
  - 6.1.3.1.2.8 Sodium Metal
- 6.1.3.1.3 Electrolytes
- 6.1.3.2 Company profiles
- 6.1.4 Aluminium batteries
  - 6.1.4.1 Technology description
  - 6.1.4.2 Industry Development
  - 6.1.4.3 Automotive Applications
- 6.2 Battery Recycling and Reuse
  - 6.2.1 EV battery reuse in energy storage
  - 6.2.2 Recycling methods
    - 6.2.2.1 Black mass powder
    - 6.2.2.2 Recycling different cathode chemistries
    - 6.2.2.3 Preparation
    - 6.2.2.4 Pre-Treatment
      - 6.2.2.4.1 Discharging
      - 6.2.2.4.2 Mechanical Pre-Treatment
      - 6.2.2.4.3 Thermal Pre-Treatment
    - 6.2.2.5 Comparison of recycling techniques
    - 6.2.2.6 Hydrometallurgy
      - 6.2.2.6.1 Method overview
        - 6.2.2.6.1.1 Solvent extraction
    - 6.2.2.7 Pyrometallurgy
      - 6.2.2.7.1 Method overview
    - 6.2.2.8 Direct recycling
      - 6.2.2.8.1 Method overview
        - 6.2.2.8.1.1 Electrolyte separation

- 6.2.2.8.1.2 Separating cathode and anode materials
- 6.2.2.8.1.3 Binder removal
- 6.2.2.8.1.4 Relithiation
- 6.2.2.8.1.5 Cathode recovery and rejuvenation
- 6.2.2.8.1.6 Hydrometallurgical-direct hybrid recycling
- 6.2.2.9 Other methods
  - 6.2.2.9.1 Mechanochemical Pretreatment
  - 6.2.2.9.2 Electrochemical Method
  - 6.2.2.9.3 Ionic Liquids
- 6.2.2.10 Recycling of Specific Components
  - 6.2.2.10.1 Anode (Graphite)
  - 6.2.2.10.2 Cathode
  - 6.2.2.10.3 Electrolyte
- 6.2.2.11 Recycling of Beyond Li-ion Batteries
  - 6.2.2.11.1 Conventional vs Emerging Processes
  - 6.2.2.11.2 Li-Metal batteries
  - 6.2.2.11.3 Lithium sulfur batteries (Li-S)
  - 6.2.2.11.4 All-solid-state batteries (ASSBs)
  - 6.2.2.11.5 Closed-loop value chain for EV batteries
- 6.2.3 Lithium-Ion Battery recycling value chain
- 6.2.4 Circular life cycle
- 6.2.5 Regulations
- 6.2.6 Supply chain sustainability
- 6.2.7 Company profiles

## **7 IN-CABIN DRIVER AND OCCUPANT MONITORING**

- 7.1 Overview
- 7.2 Driver Monitoring Systems (DMS)
  - 7.2.1 Technology description
  - 7.2.2 Sensors (camera, radar, LiDAR)
    - 7.2.2.1 Passive and Active Sensors
    - 7.2.2.2 NIR/IR Imaging
      - 7.2.2.2.1 Infrared (IR) Cameras
    - 7.2.2.3 ToF Cameras
    - 7.2.2.4 In-Cabin Radars
    - 7.2.2.5 Capacitive Steering Sensors
    - 7.2.2.6 Torque Steering Sensors
  - 7.2.3 Driver attention, impairment alerts

- 7.2.3.1 Eye Movement Tracking
- 7.2.3.2 Brain Function Monitoring
- 7.2.4 Regulation and safety standards
- 7.3 Occupant Monitoring Systems
  - 7.3.1 Occupant Detection and Tracking
  - 7.3.2 Access Control and Authentication
  - 7.3.3 Driver Monitoring for Handover
  - 7.3.4 Post-Drive Analysis and Forensics
  - 7.3.5 Behaviour monitoring
- 7.4 Cabin Technologies and Interfaces
  - 7.4.1 Displays
    - 7.4.1.1 Display types and evolution
    - 7.4.1.2 Main types of displays
    - 7.4.1.3 Display technologies for Automotive
    - 7.4.1.4 Companies
    - 7.4.1.5 LCD (Liquid Crystal Display)
      - 7.4.1.5.1 Technology description
      - 7.4.1.5.2 Advantages
      - 7.4.1.5.3 Automotive applications
    - 7.4.1.6 OLED (Organic Light Emitting Diode)
      - 7.4.1.6.1 Technology description
      - 7.4.1.6.2 Types of OLED technology
        - 7.4.1.6.2.1 Active-matrix OLEDs (AMOLED)
        - 7.4.1.6.2.2 Passive-matrix OLEDs (PMOLEDs)
        - 7.4.1.6.2.3 Transparent OLEDs (TOLEDs)
        - 7.4.1.6.2.4 Foldable/flexible OLED
        - 7.4.1.6.2.5 Tandem OLEDs
      - 7.4.1.6.3 Automotive applications
      - 7.4.1.6.4 Companies
    - 7.4.1.7 TFT-LCD (Thin Film Transistor LCD)
      - 7.4.1.7.1 Technology description
      - 7.4.1.7.2 Advantages
      - 7.4.1.7.3 TFT-LCD Backlight Technologies
      - 7.4.1.7.4 Diffusers
      - 7.4.1.7.5 Automotive applications
      - 7.4.1.7.6 Companies
    - 7.4.1.8 Thin-film electroluminescent (TFEL) displays
      - 7.4.1.8.1 Technology description
      - 7.4.1.8.2 Automotive applications

- 7.4.1.8.3 Commercialization
- 7.4.1.9 Head-Up Displays (HUDs)
  - 7.4.1.9.1 Technology description
  - 7.4.1.9.2 Automotive applications
- 7.4.1.10 3D displays
  - 7.4.1.10.1 Technology description
  - 7.4.1.10.2 Automotive applications
- 7.4.1.11 Computer-Generated Holography (CGH)
  - 7.4.1.11.1 Technology description
  - 7.4.1.11.2 Advantages
  - 7.4.1.11.3 Full 3D displays
  - 7.4.1.11.4 Next-gen heads-up displays (HUDs)
  - 7.4.1.11.5 Automotive applications
  - 7.4.1.11.6 Companies
- 7.4.1.12 Light Field Displays (LFDs)
  - 7.4.1.12.1 Technology description
  - 7.4.1.12.2 Spatial light field displays
  - 7.4.1.12.3 Sequential light field displays
  - 7.4.1.12.4 Automotive applications
  - 7.4.1.12.5 Companies
- 7.4.1.13 Spatial Light Modulators
  - 7.4.1.13.1 Technology description
  - 7.4.1.13.2 Liquid crystal (LC) spatial light modulators (SLMs)
    - 7.4.1.13.2.1 Fabricating LCOS SLMs
  - 7.4.1.13.3 Transmissive LC panels
  - 7.4.1.13.4 Optically addressed SLM
  - 7.4.1.13.5 Digital micromirror device (DMD) spatial light modulators (SLMs)
  - 7.4.1.13.6 Automotive applications
  - 7.4.1.13.7 Companies
- 7.4.1.14 Flexible displays
  - 7.4.1.14.1 Technology description
    - 7.4.1.14.1.1 Organic LCDs
    - 7.4.1.14.1.2 Organic light-emitting diodes (OLEDs)
    - 7.4.1.14.1.3 Inorganic LEDs
    - 7.4.1.14.1.4 Flexible AMOLED
    - 7.4.1.14.1.5 Printed OLED
  - 7.4.1.14.2 Automotive applications
- 7.4.1.15 Transparent displays
  - 7.4.1.15.1 Overview

- 7.4.1.15.2 Automotive applications
- 7.4.1.16 Curved displays
  - 7.4.1.16.1 Overview
  - 7.4.1.16.2 Automotive applications
  - 7.4.1.16.3 Companies
- 7.4.2 AR/VR evolution
  - 7.4.2.1 Human Machine Interface Design
  - 7.4.2.2 Augmented reality navigation
  - 7.4.2.3 Gesture and gaze tracking for touchless control
- 7.4.3 Transparent displays
- 7.4.4 Voice assistants
- 7.4.5 Biometrics and wellness monitoring
- 7.4.6 Transparent OLED windows
- 7.4.7 Customized screens
- 7.4.8 Dual screen layouts
- 7.4.9 Ambient lighting integration
- 7.4.10 Display Technologies for Instrument Clusters
  - 7.4.10.1 Configurable Clusters
  - 7.4.10.2 Full LCD Clusters
  - 7.4.10.3 Augmented Reality Clusters
  - 7.4.10.4 Holographic Clusters
- 7.4.11 Head-up displays (HUDs)
  - 7.4.11.1 Overview
  - 7.4.11.2 Trends
  - 7.4.11.3 HUD Display Technologies in automotive
    - 7.4.11.3.1 Projection displays
    - 7.4.11.3.2 Combiner HUD
    - 7.4.11.3.3 AR-HUDs
  - 7.4.11.4 HUD Content and Features
  - 7.4.11.5 Automotive models incorporating HUDs
  - 7.4.11.6 Advanced HUDs
    - 7.4.11.6.1 Panoramic HUD
    - 7.4.11.6.2 Holographic 3D displays
    - 7.4.11.6.3 Adaptive displays
    - 7.4.11.6.4 Conformal HU
- 7.5 Autonomous Vehicle Interiors
  - 7.5.1 Self-driving vehicle interior concepts
  - 7.5.2 Reconfigurable seating
  - 7.5.3 Occupant productivity and entertainment

- 7.5.4 Motion sickness solutions
- 7.6 Companies
- 7.7 Global market 2022-2040
  - 7.7.1 In-Cabin Sensors
  - 7.7.2 In-Cabin ToF Cameras
  - 7.7.3 IR Cameras
  - 7.7.4 In-Cabin Radar
  - 7.7.5 Capacitive Steering Sensors
  - 7.7.6 Displays
    - 7.7.6.1 By display type
    - 7.7.6.2 By display application

## **8 REFERENCES**

## List Of Tables

### LIST OF TABLES

- Table 1. Key trends in automotive technologies.
- Table 2. Robotaxi past efforts, current activities and future testing plans
- Table 3. Market players in robotaxis.
- Table 4. Robotaxi Fleet Size 2024-2040.
- Table 5. Robotaxi Service Revenues 2024-2034.
- Table 6. Hardware requirements for increasing levels of automation in self-driving vehicles.
- Table 7. Sensor requirements for different levels of driving automation in autonomous vehicles.
- Table 8. Sensor suite costs for different levels of driving automation.
- Table 9. Vehicle camera applications.
- Table 10. Infrared cameras for automotive applications.
- Table 11. Companies developing cameras for autonomous vehicles.
- Table 12. Key ADAS sensors in automotive.
- Table 13. Trends in automotive radar.
- Table 14. 4D Imaging Radar operation.
- Table 15. Companies in 4D imaging radar products/development.
- Table 16. Front radar applications in autonomous vehicles.
- Table 17. ADAS Side Radar Applications.
- Table 18. Automotive lidar companies.
- Table 19. Sensor combinations by autonomy level.
- Table 20. Main Methods of Localisation.
- Table 21. Perception and Localization companies.
- Table 22. Global policies related to self-driving vehicles.
- Table 23. Self-driving vehicles legislation.
- Table 24. Automotive autonomous technology OEMs.
- Table 25. Self-driving vehicle OEMs.
- Table 26. Self-driving vehicle Tier 1 component companies.
- Table 27. Self-driving vehicle technology start-ups.
- Table 28. Self-driving vehicle semiconductor component companies.
- Table 29. Self-driving vehicle fleet operators.
- Table 30. Self-driving vehicle MaaS providers.
- Table 31. Global Vehicle Sales by SAE Level 2022-2044.
- Table 32. Global revenues for Autonomous Driving Sensors 2022-2040 (Billions USD).
- Table 33. Radar Unit Sales by SAE Level, 2020-2040.



- Table 34. Software-Defined Vehicle Level Guide
- Table 35. Hardware requirements for SDVs.
- Table 36. Companies developing automotive Vehicle-to-Everything (V2X) and connectivity technologies.
- Table 37. Global revenues for Software-Defined Vehicles (SDV) by SDL Level 2022-2040 (Billions USD).
- Table 38. Global volumes for Software-Defined Vehicles 2022-2040 (Units).
- Table 39. Global revenues for the Automotive V2X Market, segmented, 2022-2040 (Billions USD).
- Table 40. Global revenues for the Automotive V2X Market, segmented, 2022-2040 (Billions USD).
- Table 41. Electric Vehicle Definitions.
- Table 42. Electric Car Market Trends.
- Table 43. Battery chemistries used in electric buses.
- Table 44. Micro EV types
- Table 45. Comparative analysis of EV battery technology.
- Table 46. Commercial Li-ion battery cell composition.
- Table 47. Lithium-ion (Li-ion) battery supply chain.
- Table 48. Types of lithium battery.
- Table 49. Manufacturing methods for nano-silicon anodes.
- Table 50. Markets and applications for silicon anodes.
- Table 51. Thermal conductivities (?) of common metallic, carbon, and ceramic fillers employed in TIMs.
- Table 52. Commercial TIMs and their properties.
- Table 53. Advantages and disadvantages of TIMs, by type.
- Table 54. Thermal management and fire protection materials company profiles.
- Table 55. Electric Vehicle Battery companies.
- Table 56. BMS company profiles.
- Table 57. Companies in automotive power semiconductors.
- Table 58. EV charging levels.
- Table 59. Global charging infrastructure installations.
- Table 60. EV Charging players.
- Table 61. Electric Vehicle Revenues 2022-2040 (Billions USD).
- Table 62. Electric Vehicle Component Revenue Forecast 2022-2040 (Billion USD).
- Table 63. Global revenues, by powertrain 2022-2040 (US\$ Billion).
- Table 64. Global EV Li-ion battery market 2022-2040 (GWh).
- Table 65. Global EV Li-ion battery market 2022-2040 (\$US Billion).
- Table 66. Comparison of Solid-state Electrolyte Systems
- Table 67. Types of solid-state electrolytes.

- Table 68. Market segmentation and status for solid-state batteries.
- Table 69. Typical process chains for manufacturing key components and assembly of solid-state batteries.
- Table 70. Comparison between liquid and solid-state batteries.
- Table 71. Solid-state battery companies.
- Table 72. Comparison of the theoretical energy densities of lithium-sulfur batteries versus other common battery types.
- Table 73. Lithium sulfur battery companies.
- Table 74. Comparison of cathode materials.
- Table 75. Layered transition metal oxide cathode materials for sodium-ion batteries.
- Table 76. General cycling performance characteristics of common layered transition metal oxide cathode materials.
- Table 77. Polyanionic materials for sodium-ion battery cathodes.
- Table 78. Comparative analysis of different polyanionic materials.
- Table 79. Common types of Prussian Blue Analogue materials used as cathodes or anodes in sodium-ion batteries.
- Table 80. Comparison of Na-ion battery anode materials.
- Table 81. Comparison of carbon materials in sodium-ion battery anodes.
- Table 82. Comparison between Natural and Synthetic Graphite.
- Table 83. Properties of graphene, properties of competing materials, applications thereof.
- Table 84. Comparison of carbon based anodes.
- Table 85. Alloying materials used in sodium-ion batteries.
- Table 86. Na-ion electrolyte formulations.
- Table 87. Sodium-ion battery companies.
- Table 88. Typical lithium-ion battery recycling process flow.
- Table 89. Main feedstock streams that can be recycled for lithium-ion batteries.
- Table 90. Comparison of LIB recycling methods.
- Table 91. Comparison of conventional and emerging processes for recycling beyond lithium-ion batteries.
- Table 92. Closed-loop value chain for electric vehicle (EV) batteries.
- Table 93. Li-ion battery recycling value chain.
- Table 94. Potential circular life cycle for lithium-ion batteries.
- Table 95. Regulations pertaining to the recycling and treatment of EOL batteries in the EU, USA, and China
- Table 96. Companies developing battery recycling technologies.
- Table 97. Interior Monitoring System (IMS), Driver-MS and Occupant-MS
- Table 98. Sensors for In-Cabin Monitoring.
- Table 99. In-cabin monitoring sensing technologies for interior monitoring systems (IMS)

and driver/occupant monitoring systems in autonomous vehicles.

Table 100. TOF camera companies.

Table 101. Comparison of In-Cabin Radars.

Table 102. Companies developing Radar for In-Cabin Sensing.

Table 103. Companies developing Capacitive Sensors.

Table 104. Commercial examples of Sensors for In-Cabin Monitoring.

Table 105. Automotive display & backlight architectures

Table 106. Market trends in automotive displays.

Table 107. Automotive OEM display strategies by display type.

Table 108. Comparative analysis of common display technologies used in the automotive industry.

Table 109. Applications of LCDs in automotive and technology readiness level (TRL).

Table 110. OLED solutions in the automotive industry.

Table 111. Types of OLED technology

Table 112. Applications of OLEDs in automotive and technology readiness level (TRL).

Table 113. Companies developing OLED display technologies for automotive applications.

Table 114. Comparison of the key characteristics of TN (twisted nematic), IPS (in-plane switching), and VA (vertical alignment) LCD modes:

Table 115. Applications of TFT-LCDs in automotive and technology readiness level (TRL).

Table 116. Companies and organizations producing TFT-LCD (thin film transistor liquid crystal display) technology for the automotive industry.

Table 117. TFELs benefits and drawbacks.

Table 118. Applications of TFEL in automotive and technology readiness level (TRL) .

Table 119. Applications of HUDs in automotive and technology readiness level (TRL).

Table 120. Applications of 3D displays in automotive and technology readiness level (TRL).

Table 121. Computer-generated holography solutions

Table 122. Applications of CGHs in automotive and technology readiness level (TRL).

Table 123. Companies developing computer-generated holography.

Table 124. Types of light field displays.

Table 125. Applications of LFDs in automotive and technology readiness level (TRL).

Table 126. Companies developing light field displays (LFDs) for automotive applications.

Table 127. Classifications of SLMs.

Table 128. LCOS-SLM assessment features.

Table 129. LCOS SLM performance factors.

Table 130. Manufacturing Methods for LCoS.

Table 131. Applications of SLMs in automotive and technology readiness level (TRL).

Table 132. Companies developing SLM for automotive applications.

Table 133. Applications of flexible displays in automotive and technology readiness level (TRL).

Table 134. Applications of transparent displays in automotive and technology readiness level (TRL).

Table 135. Applications of curved displays in automotive and technology readiness level (TRL).

Table 136. Companies developing curved automotive displays.

Table 137. Display technologies for Instrument clusters.

Table 138. Markets and applications for Head-up displays (HUDs).

Table 139. Commercial automotive HUDs.

Table 140. HUD vs other display types.

Table 141. Companies developing AR-HUD technology for automotive applications.

Table 142. Companies developing technologies for in-cabin driver and occupant monitoring.

Table 143. Global market for In-Cabin Sensors, 2022-2040 (Billions USD).

Table 144. Global revenues for In-Cabin ToF Cameras 2022-2040 (US\$ Millions).

Table 145. Global revenues for IR Cameras 2022-2040 (US\$ Millions).

Table 146. Global revenues for In-Cabin Radar 2022-2040 (US\$ Millions).

Table 147. Global revenues for Capacitive Steering Sensors 2022-2040 (US\$ Millions).

## List Of Figures

### LIST OF FIGURES

- Figure 1. Market map: Advanced Automotive Technologies.
- Figure 2. Autonomous vehicle interior.
- Figure 3. WeRide fully driverless Robotaxi.
- Figure 4. Baidu fully driverless Robotaxi.
- Figure 5. Robotaxi Fleet Size 2024-2040.
- Figure 6. Robotaxi Service Revenues 2024-2034.
- Figure 7. Autonomous Vehicle Sensors.
- Figure 8. ADAS sensors - RGB Cameras for Autonomous Vehicles.
- Figure 9. Faurecia emirror.
- Figure 10. Types of an ultrasonic sensors.
- Figure 11. Example of sensor fusion in self-driving vehicle.
- Figure 12. Global Vehicle Sales by SAE Level 2022-2044.
- Figure 13. Global revenues for Autonomous Driving Sensors 2022-2040 (Billions USD).
- Figure 14. Radar Unit Sales by SAE Level, 2020-2040.
- Figure 15. Dedicated Short Range Communication (DSRC) system.
- Figure 16. C-V2X in 5G.
- Figure 17. Global revenues for Software-Defined Vehicles (SDV) by SDL Level 2022-2040 (Billions USD).
- Figure 18. Global volumes for Software-Defined Vehicles 2022-2040 (Units).
- Figure 19. Connected and Software Defined Vehicle Services Revenues 2022-2040 (Billions USD).
- Figure 20. Lithium Cell Design.
- Figure 21. Functioning of a lithium-ion battery.
- Figure 22. Li-ion battery cell pack.
- Figure 23. Li-ion electric vehicle (EV) battery.
- Figure 24. Silicon anode value chain.
- Figure 25. Battery pack with a cell-to-pack design and prismatic cells.
- Figure 26. Cell-to-chassis battery pack.
- Figure 27. Application of thermal interface materials in automobiles.
- Figure 28. EV battery components including TIMs.
- Figure 29. (L-R) Surface of a commercial heatsink surface at progressively higher magnifications, showing tool marks that create a rough surface and a need for a thermal interface material.
- Figure 30. Schematic of thermal interface materials used in a flip chip package.
- Figure 31. Thermal grease.

Figure 32. Dispensing a bead of silicone-based gap filler onto the heat sink of a power electronics module.

Figure 33. Electric Vehicle Revenues 2022-2040 (Billions USD).

Figure 34. Electric Vehicle Component Revenue Forecast 2022-2040 (Billion USD).

Figure 35. Global revenues, by powertrain 2022-2040 (US\$ Billion).

Figure 36. Global EV Li-ion battery market 2022-2040 (GWh).

Figure 37. Global EV Li-ion battery market 2022-2040 (\$US Billion).

Figure 38. Schematic illustration of all-solid-state lithium battery.

Figure 39. ULTRALIFE thin film battery.

Figure 40. Examples of applications of thin film batteries.

Figure 41. Capacities and voltage windows of various cathode and anode materials.

Figure 42. Traditional lithium-ion battery (left), solid state battery (right).

Figure 43. Bulk type compared to thin film type SSB.

Figure 44. Schematic diagram of Lithium–sulfur battery.

Figure 45. Schematic of Prussian blue analogues (PBA).

Figure 46. Comparison of SEM micrographs of sphere-shaped natural graphite (NG; after several processing steps) and synthetic graphite (SG).

Figure 47. Overview of graphite production, processing and applications.

Figure 48. Schematic diagram of a multi-walled carbon nanotube (MWCNT).

Figure 49. Process for recycling lithium-ion batteries from EVs.

Figure 50. Typical direct, pyrometallurgical, and hydrometallurgical recycling methods for recovery of Li-ion battery active materials.

Figure 51. Mechanical separation flow diagram.

Figure 52. Recupyl mechanical separation flow diagram.

Figure 53. Flow chart of recycling processes of lithium-ion batteries (LIBs).

Figure 54. Hydrometallurgical recycling flow sheet.

Figure 55. Umicore recycling flow diagram.

Figure 56. Schematic of direct recycling process.

Figure 57. Schematic diagram of a Li-metal battery.

Figure 58. Schematic diagram of Lithium–sulfur battery.

Figure 59. Schematic illustration of all-solid-state lithium battery.

Figure 60. Circular life cycle of lithium ion-batteries.

Figure 61. Infineon DMS - REAL3™ ToF Imager.

Figure 62. Automotive technology roadmap.

Figure 63. Evolution of automotive displays.

Figure 64. LCD dashboard display.

Figure 65. OLED layer structure.

Figure 66. LED vs OLED displays.

Figure 67. Active-matrix OLED (AMOLED) schematic.

- Figure 68. 2022 Mercedes EQE electric car display.
- Figure 69. Passive-matrix OLED schematic.
- Figure 70. LG display transparent OLED.
- Figure 71. Flexible OLED incorporated into automotive headlight.
- Figure 72. Audi 2022 A8 .
- Figure 73. TFT-LCD based display component layout.
- Figure 74. Lumineq® TFEL Display.
- Figure 75. Lumineq's ICEBrite.
- Figure 76. Stereoscopic 3D display.
- Figure 77. Holographic GPS system using multi-planar system prompts.
- Figure 78. Ceres thin-film HoloFlekt® film integrated into windshield.
- Figure 79. Basic architecture of a neareye light field display.
- Figure 80. Structure of LCOS devices.
- Figure 81. LG display stretchable display.
- Figure 82. LG Signature OLED TV R.
- Figure 83. Flexible display.
- Figure 84. Samsung FLEX Hybrid foldable display.
- Figure 85. Organic LCD with a 10-mm bend radius.
- Figure 86. Foldable organic light-emitting diode (OLED) panel.
- Figure 87. TCL printed OLED panel.
- Figure 88. Transparent OLED schematic.
- Figure 89. AUO Smart Cockpit with 55-inch pillar-to-pillar curved display.
- Figure 90. Cadillac XT4 33-inch curved LED touchscreen display
- Figure 91. Continental Curved Ultrawide Display.
- Figure 92. Hyundai 2024 Sonata panoramic curved display.
- Figure 93. Peugeot 3008 fastback SUV curved wide-screen display.
- Figure 94. TCL CSOT single, continuous flexible curved automotive display panel.
- Figure 95. Augmented reality navigation.
- Figure 96. LG transparent OLED display window.
- Figure 97. Android Auto split-screen.
- Figure 98. Projection display HUD.
- Figure 99. Combiner Head-up Display.
- Figure 100. AR HUD display.
- Figure 101. Global market for In-Cabin Sensors, 2022-2040 (Billions USD).
- Figure 102. Global revenues for In-Cabin ToF Cameras 2022-2040 (US\$ Millions).
- Figure 103. Global revenues for IR Cameras 2022-2040 (US\$ Millions).
- Figure 104. Global revenues for In-Cabin Radar 2022-2040 (US\$ Millions).
- Figure 105. Global revenues for Capacitive Steering Sensors 2022-2040 (US\$ Millions).
- Figure 106. Global market revenues by automotive display types 2018-2040 (billions

USD).

Figure 107. Global market revenues by display application 2018-2034 (billions USD).



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