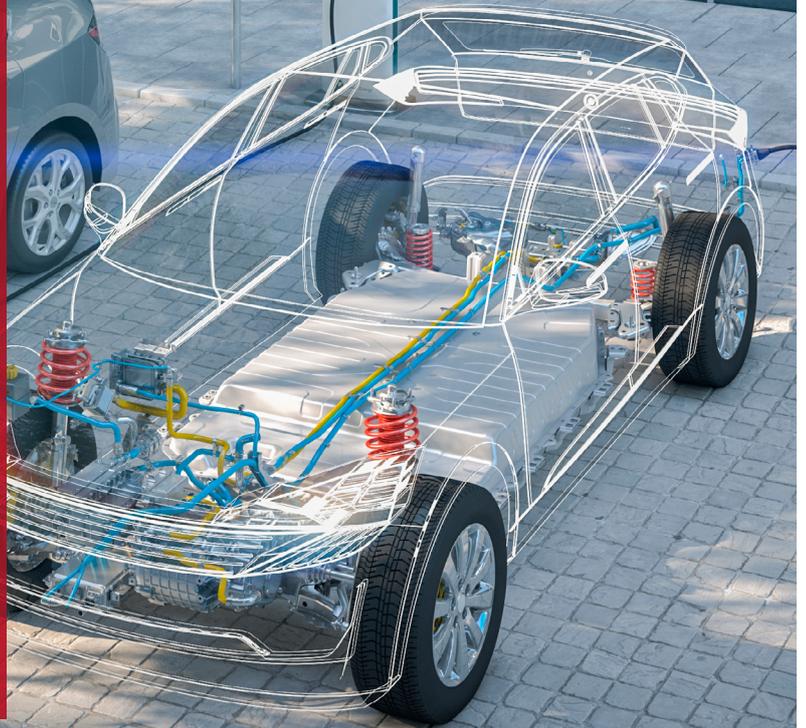


Navigating global market certification processes

Vehicle homologation training for vehicle engineers and leaders responsible for certification



Course overview

This course offers an opportunity to gain a global view of the complex processes, regulatory resources and testing requirements for homologation. UL designed this course for project-level engineers and executives who need to better understand the requirements of specific markets. While geared more toward vehicle manufacturers, suppliers will also benefit from the component and system level certification requirements covered in the course.

Objectives

Upon successful completion of this workshop, you will have:

- Knowledge of the homologation process and requirements for significant markets
- An overview of testing requirements
- An understanding of the documentation task
- An understanding of certification scheduling requirements and lead time

Target audience

- Product engineers, release engineers and planners
- Project managers
- Test engineers and managers
- Quality leadership
- Engineering management and C-level executives
- Startup founders and leaders
- Marketing management



Training topics

Part 1

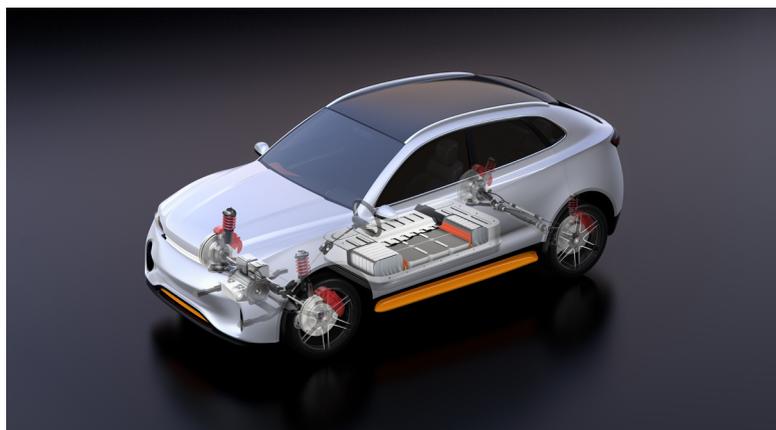
- Introduction
- What is homologation?
- Self-certification versus witness testing/type approval
 - State-specific regulations
 - Vehicle compliance labeling
- U.S. Department of Transportation (DOT)
- U.S. National Highway Traffic Safety Administration (NHTSA)
- Federal Motor Vehicle Safety Standards (FMVSS)
 - More in-depth look at the process in the U.S.
- Canadian Motor Vehicle Safety Standards (CMVSS)
 - Significant regulatory differences
 - Transport Canada (TC) requirements
- U.S. New Car Assessment Program (NCAP)
- Insurance Institute for Highway Safety (IIHS)
- U.S. Environmental Protection Agency (USEPA)
- Electric vehicle testing and labeling
- California Air Resource Board (CARB)
 - CARB Section 177 States
- Corporate Average Fuel Economy (CAFE) standards
- On-board diagnostics (OBD)
- California Zero Emission Vehicle (ZEV) mandate

Part 2

- European Union (EU) vehicle certification and harmonization
- United Nations Economic Commission for Europe (UNECE)
- World Forum for the Harmonization of Vehicle Regulations (WP.29)
- Global Technical Regulations (GTRs)
- Worldwide manufacturer identification (WMI) from SAE — an important first step for new manufacturers

Part 3

- China Compulsory Certificate (CCC) Process
- CCC evolution/proposed changes
- Other markets
 - Japan
 - Mexico standards and certification
 - Russia (GOST)
- Functional safety overview



- U.S. Federal Communication Commission (FCC)
- Electromagnetic compatibility (EMC) requirements
- How to build a homologation team
 - Homologation department roles and responsibilities
 - Subject matter experts versus homologation experts
- Related critical automotive considerations and available training
 - Automotive functional safety – ISO 26262 standard
 - Safety of the intended functionality (SOTIF) – ISO 21448 standard
 - Automotive cybersecurity – ISO/SAE 21434 standard
 - Autonomous vehicles – UL 4600 and beyond

Why UL?

From materials testing to supply chain management, new energy options to security and interoperability solutions, leverage our expertise and insights to navigate the global regulatory landscape and bring your products to market. UL's global network of technical experts and state-of-the-art facilities — along with our long-standing relationships with regulatory authorities, partner laboratories and industry technical leaders — help manufacturers gain the compliance credentials needed to compete in a more complex global supply chain.

For more information, call 1.864.630.5373, email kvasales@UL.com or visit kvausa.com.



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