



Course

UNECE/R155 cybersecurity regulations for vehicles

Course subsidized by Fundae



FORMACIÓN
GRUPO CYBENTIA

In cooperation with the technical department:

EUROCYBCAR®
CYBERSECURITY TEST

UNECE/R155 cybersecurity regulations for vehicles

Presentation

In June 2020, the UNECE published the European cybersecurity regulation for vehicles, called UNECE/R155, which requires manufacturers to have a cybersecurity certification for vehicles -cars, trucks, buses, vans and motorhomes- that they homologate from July 2022 and all those for sale after July 2024. This regulation already affects multiple sectors: vehicle manufacturers, component suppliers, dealers, insurers, workshops and end users.

CYBENTIA Group, in collaboration with EUROCYBCAR, presents the first training course based on the UNECE/R155 standard. This course will provide you with an overall vision of the sector, of cybersecurity applied to the automotive industry, embracing everything from what connected vehicles are like and what technologies they include to what risks users face, what kind of cyberattacks are carried out against vehicles and fleets of vehicles or those who evaluate the vehicles to measure and certify their level of cybersecurity, according to the requirements established by the new European regulations.

Who is target audience?

Brands, car manufacturers, dealers, insurers and experts.



Workshops, component and accessories brands, companies with their own vehicle fleets or driving schools.



Public administration, researchers, trainers, consultants, analysts...



THE KEYS POINTS



OPEN
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12
Hours



100%
online.



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OBJECTIVES

Cyber vulnerabilities of a vehicle.

Know how the technology implemented by connected vehicles is and what cyber-risks those who travel on board are exposed to -both privacy and related to their own lives if the vehicle is not cybersecure-.

Cybersecurity regulations for vehicles.

Analyze the UNECE/R155 regulation and learn about the cybersecurity requirements that must be met by law for vehicles that are homologated from July 2021 and all those that are for sale in 2024.

Impact of integrating cybersecurity in the motor industry.

Main effects of the entry into force of the regulations on manufacturers, suppliers, dealers, workshops, users, insurers, fleet, transport and logistics companies.

Methodology

The course combines different educational resources for online training, mainly :



Individual study training videos and reinforcement training texts.



Self-evaluated progress test to pass the course at the end of the modules.



Chat room and forums to reinforce key content and answer questions.

Evaluation

The course concludes with a final test to be taken after studying the training modules of the course, made up of 10 test questions, with 3 possible answers of which only one of them is valid.

This test focuses on the main concepts that are part of the course, and there will be two attempts to pass it.

The result of the test will mean the student's evaluation in the course.

In addition, the course will be complemented with the following material:

- Questions and answers document.
- Related reports.
- Documentation.
- Additional material.

The structure and contents of the training will be supervised by personnel with training in teaching quality qualified by the competent school where the course is held.

Academic program

1

WHY A
CYBERSECURITY
REGULATION FOR
VEHICLES

2

WHAT
CYBERSECURITY
REQUIREMENTS A
VEHICLE MUST
MEET TO BE SOLD
IN THE EU

3

THE UNECE/R155
REGULATION:
EVERYTHING
YOU NEED TO
KNOW

4

THE
SOLUTION:
THE
EUROCYBCAR
FLEET TEST

5

HOW TO
MEASURE AND
CERTIFY THE
CYBERSECURITY
OF VEHICLES:
THE
EUROCYBCAR
TEST

6

IMPACT OF
UNECE/R155
ON THE
AUTOMOTIVE
SECTOR

● INTRODUCTION: IS YOUR CAR CYBER-SECURE?

1. **Precedents and current situation** in the world of motoring, mobility and cybersecurity :
2. **What** are current connected vehicles like?
3. **What technologies** do they include?.
4. **The risks** that the user faces if the vehicle is not cybersecure
5. **Registered attacks** against vehicles, vehicle fleets, dealers...
6. **What do hackers say?**
7. **Explain the entry into force of the UNECE/R155 regulation**, why the United Nations and Europe have developed and applied it so quickly and who is already testing vehicles, according to the requirements of the regulation.
8. **Who will the regulations affect:** manufacturers of cars, trucks, buses, vans or motorhomes, but also dealers, insurers, appraisers, workshops, component and accessory brands, the end customer ...



1 WHY A CYBERSECURITY REGULATION FOR VEHICLES

1. The connected car: Vehicle equipment.
2. Devices and technologies that vehicles will equip, by law, in the coming years.
3. Electric vehicles: What kind of cyber threats are they exposed to?.
4. Registered attacks on vehicles since 2012: In 2020 all records were broken.
5. Registered attacks on vehicle fleets.
6. Consequences of an attack: on a fleet of cars, trucks, vans, buses, motorhomes... - on dealerships, on electric vehicles...
7. Conclusions.



2 WHAT CYBERSECURITY REQUIREMENTS A VEHICLE MUST MEET TO BE SOLD IN THE EU

1. Safety regulations since the year 2000: Analysis of the main vehicle safety regulations generated by the EU from the year 2000 to today.
2. The regulations that the European Union takes from the United Nations.
3. Initiatives prior to the UNECE/R155 regulation in Spain, in Europe and worldwide.
4. How and who has participated in the regulation and what have been the phases.
5. Conclusions.

3 THE UNECE/R155 REGULATION: EVERYTHING YOU NEED TO KNOW

1. What does the regulation refer to?
2. The phases of development of the regulation.
3. Pre-regulation initiatives.
4. Previous EU regulations.
5. Countries that will apply it.
6. What should you know about the 'cybersecure vehicle' label and where should it go?
7. What is the CSMS and how will it affect workshops, factories, dealers...
8. Conclusions.



4 THE UNECE/R155 REGULATION: THE 70 REQUIREMENTS THAT A VEHICLE MUST MEET TO OBTAIN THE CYBERSECURITY CERTIFICATE

1. The processes to obtain the "cybersecure vehicle" certificate "
2. The 70 requirements that a cybersecure vehicle must meet.
3. Original Document Index.
4. Cyber vulnerability analysis.
5. The mitigations that must be implemented in a cybersecure vehicle.
6. The possible sanctions if the UNECE/R155 regulation is not complied with.
7. Conclusions.

5 HOW TO MEASURE AND CERTIFY THE CYBERSECURITY OF VEHICLES: THE EUROCYBCAR TEST

1. How is cybersecurity analyzed?
2. Methodologies to analyze the cybersecurity of IoT devices.
3. Why the 'Common Criteria' and 'Lince' methodologies are not useful for analyzing the cybersecurity of vehicles and a proper methodology is necessary.
4. What are the tests that must be passed and who is already carrying them out: The EUROCYBCAR Test.
5. Conclusions.



6 IMPACT OF UNECE/R155 ON THE AUTOMOTIVE SECTOR

1. **Main actors** that are part of the automotive sector.
2. **Manufacturers:** What role do they have in the automotive sector, how does the UNECE/R155 regulation affect them, the implementation of new policies and their consequences in the short and long term.
3. **Dealerships:** The role they play and how the UNECE/R155 regulation affects them, added to the new concept of dealership and its relationship with the customer.
4. **Insurers:** How they deal with the regulations and the new business framework that opens up to them after the regulations come into force..
5. **Training:** Objectives in the sector, the new training strategy and its importance.
6. **Customers/Users:** Does the regulation change the relationship with other actors? And in the criterion when purchasing a vehicle by the consumer?
7. **Conclusions.**



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