This publication was created by Fundació BCN Formació Professional, with the collaboration of Xarxa FP.

All the information in this publication can be downloaded free of charge from the website of Xarxa FP.

The aim of the *ElectriCars VET Hub* project is to build a European-based cooperation partnership among our partners to exchange new innovative teaching methodologies for Electric Vehicles (EVs) and to develop a pilot-testing course module -made by and for VET staff- to offer potential students the adequate training and skills. This course module is therefore aimed at getting our European VET staff more specialized in EV mechanics and, in turn, providing potential students with the necessary training and skills according to the rapid evolution of the sector.

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

This publication was created by:

With the colaboration of:

Co-funded by the European Union

Fundació BCN Formació Professional
Plaça d'Espanya, 5
08014 Barcelona (Espanya)
fundaciobcnfp.cat

@fundaciobcnfp

ELECTRICARS VET HUB

KA220-VET COOPERATION PARTNERSHIPS IN VOCATIONAL EDUCATION AND TRAINING

2021-1-ES01-KA220-VET-000034818

The information collected for this study comes from a combination of research methods, including in-depth interviews and focus groups. In total, we conducted five focus groups and eight in-depth interviews.

Future Trends in Electric Mobility in Europe

- Increase in Electric Vehicle Purchases. (Degree Varies by Country)
- Improvement and Increase of Charging Stations.
- Legislation and Public Plans Aimed at Promoting Electric Mobility.
- New Mobility Patterns and Increase of Public Awareness.
- Improvement in Battery Knowledge and Management.

Dominant Workforce Profile in Automotive Sector

- **80%** of the employees in the industry are male.
- **45%** of workers in the automotive industry is over 34 years old.
- **55%** of the workers has VET education.

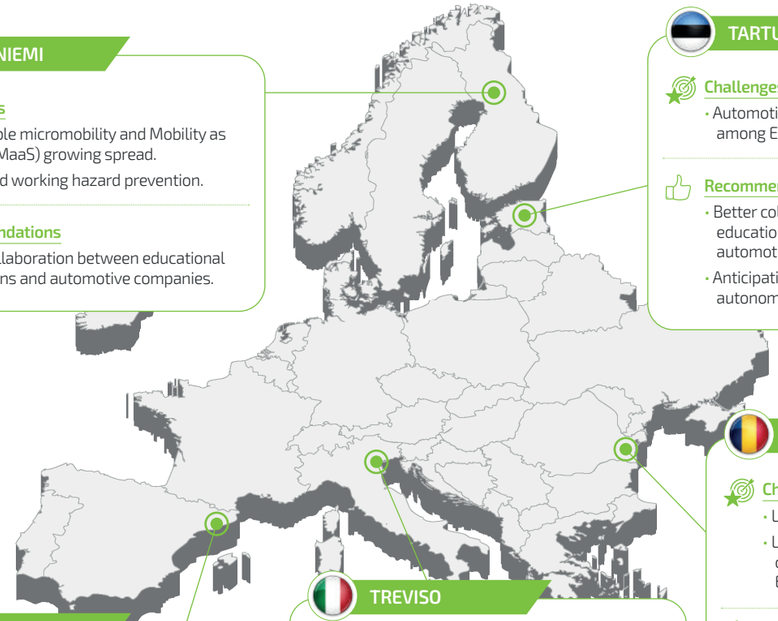
Most in-demand skills and competencies

- Familiarity with safety protocols and management practices for electric batteries.
- Basic understanding of software programming.
- Knowledge of high-voltage electricity.
- Cross-cutting skills such as attention to detail, teamwork, curiosity, and professionalism.

Key Barriers

1. Lack of Qualified Personnel for Battery Maintenance and Repair.
2. Transformation perspective of the production fabric, with a notable reduction primarily affecting microenterprises.
3. Underdeveloped Charging Network. (Varies by Country)
4. Limited Consumer Demand Existence. (Varies by Country)

Main challenges and recommendations (EU)



ROVANIEMI

Challenges
- Sustainable micromobility and Mobility as service (MaaS) growing spread.
- Safety and working hazard prevention.

Recommendations
- Better collaboration between educational institutions and automotive companies.

TARTU

Challenges
- Automotive software knowledge among EV professionals.

Recommendations
- Better collaboration between educational institutions and automotive companies.
- Anticipation to trends in terms of autonomous vehicles.

CONSTANTA

Challenges
- Lack of charging points for EV.
- Lack of professionals, both for EV charging points development and EV repairing and maintenance.

Recommendations
- Public investment for EV charging points development.
- Collaboration between companies and educational institutions.

BARCELONA

Challenges
- Lack of charging points for EV.
- Lack of professionals, both for EV charging points development and EV repairing and maintenance.
- Difficulties for innovation at micro and small enterprises.

Recommendations
- Fuel vehicle repairing and maintenance workforce reskilling.
- Material resources improvement at VET institutions.

TREVISO

Challenges
- Lack of charging points for EV.
- Difficulties to find qualified professionals.
- Vocational development related to sustainable mobility.

Recommendations
- Transversal educational training related to EV and sustainable mobility: repairing, maintenance, software, electronics…

The automotive manufacturing sector is directly responsible for more than 8.6% of EU employment in manufacturing.

8,6%

In-demand and difficult-to-find professional profiles

Manufacturing and Integrating Components
- High-Voltage Battery Systems Specialists.
- Battery Management and Maintenance.
- Hydrogen battery manufacturing operator.
- Specialists in programming/informatics, connected vehicle software, and cyber security.

Vehicle Sales and Maintenance
- Electronics Component Maintenance Specialist.
- Electric Vehicle and Component Repair Specialist.
- Commerce and communication specialized in electric and connected vehicles.

Charging Station Setup and Maintenance
- Charging Infrastructure Electrician.
- Automated Facilities Maintenance Operator.
- Specialists in charge management associated with smart grids.

Co-funded by the European Union