



# Constructing a modern learning environment for vehicle technology

This project was designed to build a learning and innovation centre for vehicle technology training to serve the needs of the rapidly changing industry. A new eco-friendly and up-to-date learning environment was built, consisting of chargeable battery and hybrid vehicles, welding and car painting simulators, test equipment, tools and software. The Automotive Engineering Department in Haukipudas is now a modern learning and innovation centre, which is also used by local SMEs.



# Modern vehicle technology is green

**Low-emission technologies in vehicles are the future. Training providers need to adapt to the changes in the industry. Oulu Vocational College accepted the challenge and invested in modern information and control systems, diagnostics, body repair, car painting, battery technologies as well as battery and hybrid vehicles.**

Management and teaching staff at the Oulu Vocational College had recognized development needs due to the rapid changes in technologies, working life and repair issues regarding battery and hybrid vehicles. The next step was to find funding.

“Without the grant from the European Regional Development Fund we would not have been able to make such sizable investments and have the adequate human resources to cooperate with local SMEs”, says Project Manager Johanna Matinmikko.

The technological change was in the core of the project. Project workers gathered information and expertise through fairs, meetings and company visits. This strengthened their understanding of the issues the vocational college needs to address with regard to battery and hybrid vehicles, their electricity, electronics and materials.

## **Clear steps towards success**

The project succeeded with the help of a clear plan. Firstly, the project team mapped out all the possibilities in collaboration with relevant SMEs. Secondly, they defined specifications for the systems and equipment and purchased

everything that was needed. Thirdly, they built new learning environments and organized in-house training for key staff. In June 2017, a wider audience visited the learning environments.

### Investments into modern technology

A modern, well-equipped hybrid car was bought along with its testing and calibration systems. The latter will be needed for training and maintenance purposes. A public speed charging point was also installed to support local services for electric car users. Several smaller investments were made to bring the training facilities up-to-date, for example new tools for aluminum, plastic and carbon fiber.

### A dialogue with local SMEs

Companies were brought into the development team to ensure the latest available knowledge from the industry. Local SMEs helped the project team in establishing developmental needs from their perspective and in setting up the specifications for investments. For example, training sets for electrical wiring to improve students' electrical skills were bought following a consultation with the companies. Companies will use the new facilities alongside college students.

### Constructing a modern learning environment for vehicle technology

Project code: **A70160**

**Oulu Vocational College**

**1.12.2015–30.6.2017**

Budget: **223 880 €**

ERDF funding from the Council of Oulu Region:  
**156 716 €**

### Constructing a modern learning environment for vehicle technology (investments)

Project code: **A70186**

**Oulu Vocational College**

**1.3.2015–30.6.2017**

Budget: **340 000 €**

ERDF funding from the Council of Oulu Region:  
**238 000 €**



## Objectives

Building modern learning environments including a battery and hybrid car, a charging device, simulators, testing equipment, tools and systems.

The Automotive Engineering Department in Haukipudas will become a modern learning and innovation centre. Students' and teachers' skills will improve.

## Results

The new learning environments built in the project boasts modern information and control systems, diagnostics, body repair, car painting, battery technologies as well as battery and hybrid vehicles.

Oulu Vocational College received the award for the best automotive education institution of 2017 for its work on modernizing the learning environments and collaboration with companies.

## Oulu Regional Council allocates funding for regional development from the ERDF

Oulu Regional Council is a Managing Authority for the Sustainable growth and jobs 2014–2020 – Finland's Structural Funds Programme in Northern Ostrobothnia.

European Regional Development Fund's (ERDF) main objectives are to improve the competitiveness of SMEs and produce and use the latest information and knowledge.

'Sustainable growth and jobs 2014–2020 – Finland's structural funds programme' has two priority axes and seven specific objectives for ERDF. Each project must deliver at least one of these specific objectives.

ERDF priority axes and specific objectives:

1. Competitiveness of SMEs
  - Generating new business
  - Improving transport and logistic connections that are important to SMEs (Eastern and Northern Finland)
  - Promoting growth and internationalisation of enterprises
  - Promoting energy efficiency in SMEs
2. Producing and using the latest information and knowledge
  - Development of the centres of research, expertise and innovation on the basis of regional strengths
  - Strengthening innovation in enterprises
  - Developing solutions based on renewable energy and energy-efficient solutions

More information on Structural Funds in Finland from the dedicated website [www.rakennerahastot.fi](http://www.rakennerahastot.fi)