

# **European Education for Electro-mobility**

Newsletter #4 September 2015

News from the project

# The EEE Project Final Results

### 1. Stakeholders inventory/survey.

Conclusion: development of technical curriculum for electrically propelled vehicles is very relevant.

- 2. Development of Student Training Package on Electro Mobility Systems and Technology The EEE training package includes:
  - · Learning outcomes and assessment criteria
  - Training contents per module
    - Module 1: Electric Vehicle Awareness
    - Module 2: Electrically Propelled Vehicles
    - Module 3: Routine Maintenance Activities on Electrically Propelled Vehicles
    - Module 4: Electrically Propelled Vehicle Diagnostics, Repair and Replacement
  - Student Workbook
  - Trainer Guide
  - Practical exercises
  - Theoretical assessments
  - Practical assessments
- More than 100 trained VET students in Germany, United Kingdom, Portugal, Austria and the Netherlands
  More than 10 trained VET teachers in Germany, United Kingdom, Portugal, Austria and the

More than 10 trained VEI teachers in Germany, United Kingdom, Portugal, Austria and the Netherlands

### 4. European Reference Profile

for a 'European Service Technician for Electrically Propelled Vehicles (ESTEP)' which describes the occupation and includes 'units of learning outcomes'. This document – together with the developed curriculum in the EEE training package, agreement of cooperation and learning agreement- makes it possible for European VET students to follow a part or the whole training at one of the partners. Assessment outcomes will then be accepted by the sending VET school.

All the developed materials will be available through the website: <u>www.eee-leonardo.eu</u> from the middle of October 2015.



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## Germany

### Final project meeting in Kiel, Germany

The final meeting of the project took place at the *Regionales Berufsbildungszentrum Technik* in Kiel, in the far north of Germany from 9. to 11. September 2015.

Once arrived in Kiel in the afternoon of the first day a perfect organized **come together** opened the final meeting. Both, the visit of an exiting Handball match with an impressive 10.000 spectators watching the game and the subsequent dinner and late evening session marked a very nice starting point of that meeting.

The **second day** started with a summary about the project's objectives, tasks completed and results achieved up to now. Under the excellent leadership of the project leader, Durk van Wieren, Aventus, this management oriented issue was executed very efficiently. All the points of the application were discussed by the entire project consortium, the results were cross checked and missing components identified. Finally the remaining tasks till the project end were handed out to the respective partners in order to conclude the EEE-activities in time.



An other important point on the agenda of this day was the administrative project work regarding the upcoming final report. A long list of bureaucratic tasks has to be fulfilled till the final report will be ready to submit. So the project group started even before this meeting but at least at the meeting to work on this.



and a demonstration of the electronically propelled *Trabant* (year of construction: 1974) will be remembered as the highlight of this tour. The test drive with that great and historic car (old GDR feeling) adopted with technology from nowadays is something each project partner will commemorate for a long time. In the afternoon an insight to the *Regionales Berufsbildungszentrum Technik* draw the attention of the participants to more technical aspects. We were introduced to the history of the school and the different departments and got a very good impression of all the educational and technical possibilities of the students. A visit to the training facilities (workshops, different equipment etc.)





# Germany



The second day ended with an impressive sailing trip on the Kieler Förde on board of an old sailing ship. This boat, trip accompanied by a romantic sunset, brought the participants of the meeting to a nearby restaurant, where a common dinner rounded up tis productive and interesting day. A lot of discussions and reflections on 24 months of joined project work, on a sustainable use of the project results and new ideas for future cooperation were the topics of this evening.

The morning of **day three** of the meeting started with individual work on different topics concerning the various project's tasks. A final review of the Student Training Package (training materials, practical exercises, theoretical and practical assessment, etc.) and the necessary paper work for the final report as well as administrative work were among the tasks of this morning. With a final farewell this last project meeting came to an end — but not the cooperation of the involved EEE project partners.

Christoph Holzner

### News from FJBK, Düsseldorf: Pilot training and cross-border E-mobility workshop

On 27.2.2015 a workshop on E-mobility with 16 students from Austria (HTL Mödling) and our FM31 (automobile-mechatronics) took place, where the developed EEE training package was tested.

Some of the students used the material for preparation to guide our guest as "experts" through the workshop according the slogan "students learn from students." The aim of this common workshop was to transfer know-how about modern technology and new power units for vehicles and about high voltage systems in cars. In this workshop the EEE training package proofed well as a helpful and practical tool for the training. With excellent performances and a lot of fun the mixed German-Austrian teams passed the different stages of the workshop.



Angelika Voit, Paul Hovelmann





### Interesting News from Aventus, The Netherlands

A reorganization of the requirements for VET education takes place in the Netherlands and has to start ultimately the next school year 2016/2017. The requirements for a profession will now exist from a basic, a profile and a choice part and are all described. The choice part makes it possible for a student to specialize him/herself in a particular part of the profession.

For example 'diagnosis and repair of hybrid and electric vehicles'. This particular choice part has become officially available after development and application by Aventus. Next to this, Aventus has informed all other automotive VET educations in the Netherlands that suitable training materials will be available through the project website www.eee-leonardo.eu. Several Dutch VET schools have asked for this curriculum already.



Durk van Wieren

### Electro-mobility qualification in Portugal



The most important exploitable result from the European Education for Electro-mobility (EEE) project in Portugal is the incorporation of its results into the Portuguese National Catalogue of Qualifications (NCQ). In fact, electro-mobility is an absent area in NCQ, which makes this a very valuable output for the national qualification system.

Resulting from EEE project, the following two new modules will be incorporated into the NCQ during the next months, being available to all training and education entities who desires to develop them:

- Electrically propelled vehicle hazard management (25 hours)
- Electrically propelled vehicle diagnostics, repair and replacement (50 hours)

João Alves

#### The EEE partnership

Aventus (NL) www.aventus.nl

Emtec Colleges Limited (UK) www.centralnottingham.ac.uk

Franz-Jürgen-Berufskolleg (GER) www.fjbk.de

ATEC (POR) www.atec.pt

Regionales Berufsbildungszentrum Technik (GER) www.rbz-technik-kiel.de

CPC Austria / bit group (AT) www.cpc.at

### Status of the project European Education for Electro-mobility (EEE)

As the project terminated at the end of September 2015

all the partners want to thank for the good cooperation and the various support from external cooperation during the project lifetime.

For further information visit the project website or contact any partner.



This is the newsletter of the LdV project European Education for Electro-mobility (EEE)

> Project website: http://eee-leonardo.eu

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