

TRAINWIND NEWSLETTER

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Special points of interest:

- The TrainWind project implemented Pilot Courses in Bulgaria and UK
- 36 trainees successfully completed the TrainWind Pilot Course in Bulgaria
- 10 trainees successfully completed the TrainWind Pilot Course in UK

THE TRAINWIND PILOT COURSE IN BULGARIA COMPLETED SUCCESSFULLY

Making use of contemporary information and communication technology, the TrainWind project created an e-learning platform (<http://trainwind.tu-varna.bg/>), which offers remote training courses on wind energy equipment operation and maintenance. The TrainWind Pilot Course in Bulgaria was meant to respond to the increased demand of technical staff for the maintenance and operation of the wind energy parks across the country.

The TrainWind Pilot Course, held during the summer of 2013, was organized by the Technical University of Varna with the active support of partners ABC Wind Farm Ltd and the Association of the Producers of the Ecological Energy (APEE) of Bulgaria. In total, 42 trainees were recruited and the 36, who finished the course successfully, received their certificates on October 26, 2013. The graduation ceremony took place in the conference room Rubin of Grand Hotel Dimiyat in Varna.



Prof. Dr. Vencislav Valchev handed in the TrainWind Certificates after the Pilot Course in Varna, Bulgaria

Prof. Dr. Vencislav Valchev handed in the TrainWind Certificates, signed by Prof. Dr. O. Farhi, Rector of the Technical University of Varna, and certified by Mr. Velizar Kiriakov, President of APEE of Bulgaria. Partner APEE, which is the biggest association of producers of eco-friendly energy in Bulgaria, approved the Train-

Wind Pilot Course and recommends it as an appropriate for training technical staff for the wind energy sector of Bulgaria.

91% of the trainees responded that "like the course very much", and 80% responded that it is "very likely to recommend" it to colleagues.

RENEWABLE ENERGY FOR EUROPE

In December 2008, EU leaders adopted a comprehensive package of measures to reduce the EU's contribution to global warming and ensure reliable and sufficient supplies of energy. To increase the use of renewable energy sources the EU has set itself the objective to increase the

proportion of renewable energies in its energy mix by 20% by 2020. Wind power is by far the most important energy source to meet this challenge. In 2011, Europe was the global leader in offshore wind energy with more than 90% of the world's installed capacity. The European Wind Energy

Association (EWEA) even estimates that around a quarter of Europe's wind energy could be produced offshore in 2020. One of the most challenging tasks for the wind energy sector is to certify a sufficient amount of qualified personnel. *(continues on page 2)*

RENEWABLE ENERGY FOR EUROPE

(CONTINUES FROM PAGE 1)

The EWEA has stated in the report "Wind at Work: Wind Energy and Job Creation in the EU - 2009" that over the past five years, the EU wind energy industry has created more than 60.000 new jobs.

Furthermore, EWEA has estimated that there will be 446.000 jobs in the sector by 2020, and 479.000 by 2030.

Bearing in mind this demand for "new workforce" it is crucial to ensure that employers, skilled workers, teachers and students are given chances to up-to-date lessons and training material.

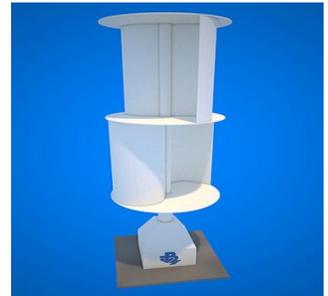
It is also important that these materials, methods and

approaches are transparent and applicable throughout Europe.

The TrainWind project has tried to meet this demand by transferring and adapting an online training course for maintenance technicians working or willing to work in the wind energy sector.

The e-learning course provides a global overview of O&M in wind energy and serves as a theoretical introductory training course for technicians. The e-learning contains a lot of simulations, photo's and animations to keep the course real and attractive.

This basic course gives the project partners, and the different EU countries, the opportunity to start providing training courses on wind energy and served as a trigger for the partners to look into all national options and possibilities to meet the sector demands.



"In the first half of 2013, new 1045 MW of offshore wind power were connected to the power grid of Europe."

"Official data show that each MW installed wind energy power creates approximately 5 new job positions for qualified personnel."

THE TRAINWIND E-LEARNING PLATFORM AND THE TRAINWIND PILOT COURSE

In response to this progressively increasing demand of qualified personnel, needed for maintaining the wind parks in EU, the TrainWind

project (<http://trainwind.tu-varna.bg/>) offers new opportunities for vocational training of technical staff in wind energy technology. The training

is carried out through an e-learning platform and a Pilot Course in four EU languages: Bulgarian, Dutch, English, and Spanish.



FROM THE E-WINDTECH PROJECT TO THE TRAINWIND PROJECT

The TrainWind project arose from the opportunity detected by the Technical University of Varna to offer technical training in Bulgaria in the field of wind energy, satisfying the needs of companies and allowing youth to find employment in an emerging sector.

The financing of this project was possible thanks to the multilateral Leonardo da Vinci Transfer of Innovation Project of the European Union's Lifelong Learning Programme which allows for the financing of projects which transfer the results obtained from previous European projects. In the case of the TrainWind Project, the project from which the results have been transferred from was e-WindTech.

The e-WindTech Project (January 2008- June 2010) was led by CENIFER, Spanish Renewable Energy Training Centre, and emerged from the growing demand in the wind energy sector for technicians qualified in the maintenance of wind turbines.

The main result of the e-WindTech project was a tool, available in 6 languages (English, German, Greek, Lithuanian, Portuguese and Spanish) to train professionals in the area of wind turbine maintenance. Said tool offered an e-learning type education which employs texts, images, computer graphics and interactive virtual reality simulations, offering a series of educational units which cover everything from general knowledge in wind energy to details on some of the most critical operations in the maintenance of wind turbines.

After an analysis of the e-WindTech Project conducted by the University of Varna, and given the high demand for professionals in the area of wind turbine maintenance in the country, they took on

the initiative to lead the start-up of the Train-Wind Project.

By means of support on the results and experiences lived in the e-WindTech project, they have been able to adapt and transfer said knowledge to the specific circumstances of the countries that will benefit from the project: Bulgaria, Belgium, and the United Kingdom. After the consolidation of the group of partners in the TrainWind Project, the process to begin the transfer of results began. In these types of projects the transfer of results obtained in a project to countries different to the origin implies following a series of steps.



EU experiences significant need of qualified personnel for maintaining wind energy parks

First it is necessary to know the distinctive features of the countries to which the transfer is to be made to and the needs of the target group.

To know the level of development of the wind energy sector in each country a study was conducted which included aspects such as the situation of the renewable energy sector and its specific legislation, the available wind power, current wind energy production, the prospects for employment, the professional profiles in the wind energy sector and the training available in matters of wind energy.

Likewise, to determine the profiles demanded by wind energy companies and the

training needs of its workers, a survey was conducted of the main companies which operate in the countries participating in the project: Bulgaria, Belgium, Spain and the United Kingdom.

The second stage of the process consisted of the transfer of experience in the development of the e-learning education courses acquired by CENIFER throughout the e-WindTech project so that the partners without experience in this material may know a methodology and be up-to-date on the difficulties associated.

The third stage consisted of an analysis of the educational material of the e-WindTech project so as to adapt them, complete the information and add new interactive contents which would make the final product more attractive.

Lastly, having decided on the final material of the course, it was implemented on an e-learning type platform and tested in two pilot courses, one in Bulgaria and another in Great Britain.

After finalising the project the main result obtained was the creation of an e-learning tool adapted to the demands detected in the benefiting countries, consisting of a starting point for the subsequent specialisation and updating in function of the possible casuistries detected in the future within the wind energy sector for each of the participating countries.

In addition, a good practices guide has been created which shows the structure to follow to create these types of educational tools, showing the most noted novelties as well as the sequencing of phases to carry out the pilot courses which allow for the evaluating and testing of e-learning courses.

“The TrainWind project developed the TrainWind e-learning platform and successfully transferred content from the e-WindTech project.

The result is a multilingual course on maintenance of wind energy technology and the TrainWind Pilot Courses in Bulgaria and in UK.”

Newsletter #4

Prof. Vencislav Valchev, PhD
Technical University - Varna
Studentska str, 1
Varna 9010
Bulgaria

Tel: +359-896-875-302
E-mail: venci.valchev@tu-varna.bg
URL: <http://www.tu-varna.bg/TrainWind/>



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THE TRAINWIND PROJECT IN UK

The Wind industry in the UK is the fastest developing energy source and within a few short years the UK has gone from little to no off-shore wind to the number one country in terms of installed capacity.

With four major off-shore wind projects being completed in the 12 months from June 2012 to July 2013, capacity grew from 1.86 GW to 3.3GW off-shore - an increase of 79 percent.

The larger onshore wind industry saw capacity grow by 25 per cent to 6.4GW over the same period, with 1.29GW of new capacity installed. Across the sea and land, wind power capacity grew 40 per cent and now stands at 9.7GW, providing an estimated £2bn boost to the UK economy. With this comes the need for highly trained professionals across all aspects of the Wind industry.

TrainWind e-learning platform is the first step in gaining a qualification in Wind without having to go to a college or sign up for an expensive course.

In October 2013, UK partner Embrace Cooperation piloted the TrainWind e-learning platform with a wide selection of professions involved within renewable energy and Wind industry. The backgrounds varied from renewable engineers with masters in renewable engineering through to renewable sales professions

with no renewable technical training down to a recent graduate working in our office. All students who completed the course all agreed that it was useful, informative and educational.



Screenshot from the TrainWind Pilot Course in the premises of partner Embrace Cooperation in London, UK

UK are interested in assessing the course in detail and potentially providing UK accreditation for rollout across the UK.

Feedback we received from participants in the Train-Wind Pilot Course during October 2013:

Rowan Langley (Renewable Energy Engineer/ Senior Electrician): This course is definitely useful and gives beginners a nice first overview of the wind sector.

Dirk Neumann (Mechanical Engineer): All in all, it is a good e-learning programme. I'm always interested in different technologies and renewable energies.

Vincent de Ras (Renewable Energy Engineers): The course was very good and the Centre for Alternative Technology, where I did my MSc in Renewable Energy could learn some lessons from content provision as well as presentation.

Conclusions

With the TrainWind project now coming to a close, Embrace, with the support of Technical University Varna will aim to continue to get the course accredited in the UK and to establish it across different providers of vocational training and e-learning. Significantly, RenewableUK (the UK's leading not for profit renewable energy trade association), found that "just over half of its members are planning to hire new staff over the next 18 months", suggesting the sector remains confident investment in the sector will continue to grow. We hope to be contributing to this development and investment in the sector.

UK Stakeholders

To gain support for the project, we contacted a wide audience across the Wind industry including:

- RenewableUK - leading trade body for renewable industry in the UK
- Garratt Hussain - largest and most recognized Wind consultancy in the World
- Centre for Alternative Technology (CAT) - one of the leading vocational educational establishment in renewables and Wind in the UK
- and several large wind turbine maintenance companies throughout the UK

The supportive response was incredible and the voice of the industries supported having an e-learning platform as there is a need to train more wind technicians. Renewable