

More information
<http://projectxone2one.eu/>

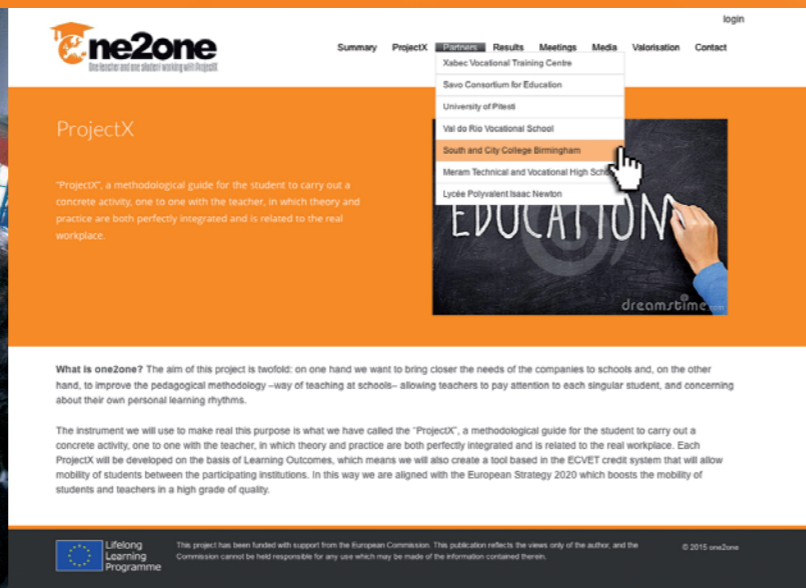
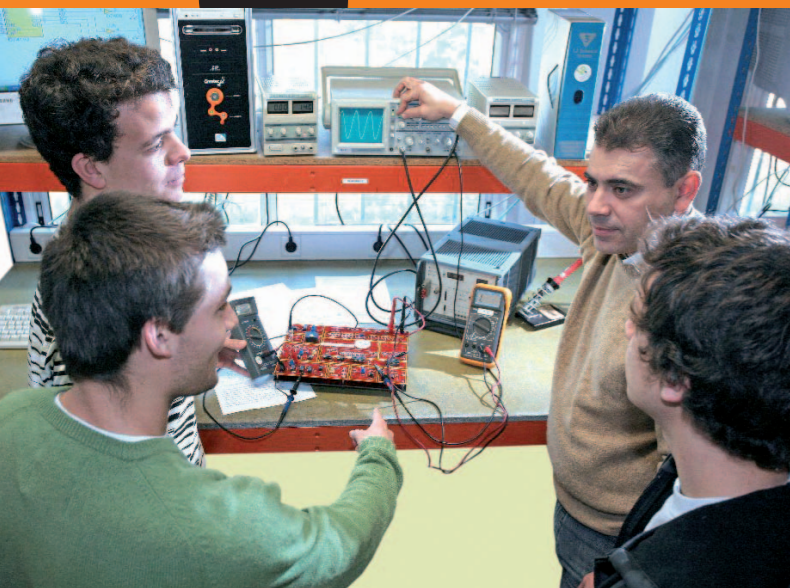
ProjectX coordinator
Xabec Vocational Training Centre.
Valencia (Spain)
antonio.mir@xabec.es

1
**PRACTICAL
WORK**

2
**PEDAGOGICAL
INNOVATION**

3
MOBILITY

<http://projectxone2one.eu/>



WORKING with ProjectX



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.



WHAT IS A PROJECTX?

A **"Project X"** is an innovative way of teaching Vocational Education in schools and colleges, in practical workshops. It is based on a methodology which guides student to carry out a concrete activity, together with the teacher, combining theory and practice and applied in the workplace.

- A ProjectX is a practical work -"a practice"-, with tasks perfectly defined.
- A ProjectX is a "closed work", a "final product", something "independent".
- A ProjectX requires learning theoretical concepts and acquiring practical skills.
- A ProjectX is a practical activity that is meaningful for companies.
- In a ProjectX everything is done by the student, it is based on his own responsibility: he/she is the protagonist of self-learning.
- A ProjectX is a tool that allows the teacher to attend the students individually, paying attention to each one and respecting their own personal learning rhythms.
- A ProjectX is not bounded to a knowledge level: in some way it is independent...



PEDAGOGICAL INNOVATION

On one hand this methodology allows the student to be the protagonist of his/her own learning process and on the other hand allows the teacher to cater to the individual needs of the student, **one-to-one**.

In the **Student's Guide** the student finds all the instructions he must follow in order to perform the ProjectX: where to find the theoretical knowledge -and how to test it-, and what are the steps to construct the ProjectX. If any doubt arise the student can ask the teacher, but the general idea is to avoid those queries if possible, so the student can be protagonist of his own learning process.

BOOSTING MOBILITY BETWEEN EDUCATIVE INSTITUTIONS

"One2one" was born as a **Transfer of Innovation Project** funded by the EC. It is a further step of a prior one, the **"ToP-MoSt"** project (www.topmost.es): several partners of the **InMain network** (www.innmain.eu) constructed a database of Common Learning Outcomes.. Each ProjectX is developed on the basis of Learning Outcomes: really the most successful ProjectX are those based in "Common" Learning Outcomes. It is a tool-based in the ECVET credit system, which allows the recognition of the acquired knowledge, skills and competences. As it is a concrete practical task, a ProjectX can be included within any official academic programme of any of the European Countries. Therefore, this methodology boosts the mobility of students and teachers in a high grade of quality, following the aims of the European Strategy 2020: students can perform activities that can be validated by the sending institutions, and teachers can travel to other colleges to drive -teach- one ProjectX.

ToPMoSt



InnMain
EDUCATIONAL ASSOCIATION
FOR INNOVATION IN THE
INDUSTRIAL MAINTENANCE

CATALOGUE OF PROJECTX



Any institution willing to join our group should check two main documents:

- Guidelines for making a ProjectX:** this document contains the instructions and all the rules and templates necessary to construct a new ProjectX
- Catalogue of ProjectX:** contains the list of the initial ProjectX, which can be checked as examples of what is a ProjectX. Each educative institution has its own list of ProjectX; some institutions have common ProjectX based in Common Learning Outcomes. This document allows the institutions and the students to select the ones which are more attractive for them. Below is the list of the first 25 ProjectX:

- ▶ PX001 Balancing a direct drive fan
- ▶ PX002 Split system: pipe repair, f_gas charging and test
- ▶ PX003 Making a portable workbench
- ▶ PX004 Replacing bearings in electric motors
- ▶ PX005 Product manufacturing CNC_assisted learning
- ▶ PX006 Pump and electric motor alignment
- ▶ PX007 Checking performance and load characteristics of an induction machine
- ▶ PX008 Starting of the induction machine
- ▶ PX009 Implementation of digital frequency dividers
- ▶ PX010 Resistance code and Ohm's law
- ▶ PX011 Solder electronic components
- ▶ PX012 Signal measures on CATV and IPTV
- ▶ PX013 Apply scientific principles to practical vapor compression systems
- ▶ PX014 Handling fluorinated gases and ozone depleting substances
- ▶ PX015 Installation of wiring systems and enclosures
- ▶ PX016 CCTV security camera system
- ▶ PX017 Basic logic gates
- ▶ PX018 Installation home satellite system
- ▶ PX019 Industry risk analysis
- ▶ PX020 Electrical power quality analysis
- ▶ PX021 Electro-technical wiring harness for a motor starter
- ▶ PX022 Wiring and programming an automated control of a canal lock
- ▶ PX023 Test the efficiency and performance of a boiler in two different installations
- ▶ PX024 Computer control of a refrigeration system
- ▶ PX025 Implementation of a plc control for a refrigeration system with an AKO regulator

