



## Lifelong Learning Programme

### “Electrical engineers vocational education transparency – ELEVET” 518429-LLP-1-2011-1-PL-LEONARDO-LMP

#### MINUTES

#### ELEVET International Focus Group with VET experts Warsaw-Poland 17-18 January 2013

**Venue:** SEP Office at Świętokrzyska Street No 14 A, third floor, intercom no 32, Warsaw, Poland

**Participants :** 2 VET experts per each partner (excluding EFVET-Belgium)

**Representatives of SEP :**

Prof. Jerzy Barglik – the President of SEP

Mr. Andrzej Boron – Secretary General of SEP / Project ELEVET Manager

Mr. Jan Strzalka – SEP Expert

Mrs. Anna Dzieciol – SEP Foreign Relations / Project ELEVET Secretary

Mr. Piotr Burmann – translator

Ms. Dorota Podles- external evaluator of the project

**List of Partners Experts:**

1. SEP – Poland : Mr. Henryk Gladys, Mr. Stefan Granatowicz
2. PIGE – Poland : Mr. Janusz Nowastowski, Mrs. Katarzyna Maciejak
3. CECE – Spain : Ms. Selina Martin, Ms. Cristina Gaitán Fuertes
4. SDE College - Denmark : Mr. Ejvind Hansen, Mr. Ole Bech Kristensen
5. Consel ELIS – Italy : absent
6. SIER – Romania : Ms. Ana Poida, Mr. Fanica Vatra

#### AGENDA 17 January 2013

10.00 OPENING OF THE MEETING - **Prof. JERZY BARGLIK (SEP-POLAND)**

10.10 Welcome and conducting of the meeting by **Mr. ANDRZEJ BOROŃ – Project ELEVET Manager (Secretary General of SEP)**: Two languages, English and Polish.

10.10 Presentation of the partners: DENMARK, SPAIN, POLAND, ROMANIA.  
Italian and Belgium partners have possibility to contact us by video conference.

10.10 Report of the ELEVET completed tasks from WP2 and WP3.

#### **Work package 2: “Analysis of contexts and best practices”**

#### **2.1 COMPENDIUM OF BEST PRACTICES**

**Italia:** the most important problem is to describe the description of qualifications for electrical issues.

**Romania:** The biggest materials are the courses provided by the University. These courses pretend to integrate electrical powered networks and the management improvement and effectiveness. Also, the course includes transport, communication and national/international exploitation of the results. Some of the organization courses involved the themes:

- **Performing system analysis.**
- **Negotiation of economical issues.**
- **Management training.**
- **Experts systems (informatics).**
- **Specialist training of computer design.**

**Spain:** Very interesting material about VET which involves three levels:

- **Students who don't achieved the basic knowledge, to increase their studies and participate in the courses until 16 years old.**
- **In order to access in the intermediate level, they need to complete the first level and pass and examination by the autonomous communities. From 16 years old.**
- **The high level, they need to pass the first and second level of training courses, they would improve skills about communication and technological skills in order to have the official examinations to access to university courses or from 25 years old**

**POLAND:** The most interesting programs in three categories:

- **Systems of generations/ transfer of innovation**
- **Job position for generation-transmission of electrical energy**
  1. **Architectural design**
  2. **Management constructions.**
  3. **Performing technical inspection.**
  4. **Constructions experts and certifications.**

## **2.2 REPORT ON EXISTING QUALIFICATIONS AND TITLES**

- Mapping of the national legislation on VET credit transfer
- Short report on the national accreditation system in Poland: In these documents will be applied the certifications and qualifications report for VET studies (electrical engineer) in Poland.
- Report on WP2 with reference to business requirements for the improvement: The most significant requirements in business skills for obtaining professional qualifications.
- Summary report of WP2 after collecting national-leveled conclusions: In our countries the system of education and acquisition of professional qualifications by electrical engineers are quite different. With ELEVET project we will suggest the methodology to have the same qualifications over Europe countries. (*More than 30 levels, we will ask for the main document clearly*)
- Identification of safety issues to be introduced into the VET framework.
- Short report on the existing modules and courses: This report has been prepared by the polish partners. Requirements for engineer trainings include also social competences and communication skills.
- Best practices in education and continuous training of electricians in Poland- information as of school and academic year 2012/2013.

### **Work package 3: "Mapping of soft and business skills for VET path"**

- 1) **Questionnaires for companies**
- 2) **Report on consultation**

### 3) Report of survey from international companies

#### 4) Global WP3 report

### 11.30 Short presentation of the Reports from the National focus Groups by the representatives of the partners.

#### 1) Romania

The material is available at *dropbox*.

All the material comes from the national representatives from electrical engineers, companies, and VET professionals. The results for the survey, and also recollected some ideas, doubts and main ideas for proposal by Romanian experts. This proposal is based in their own experience developing VET knowledge.

Because one of the topics was regarding the criteria for VET framework they included some ideas for management and contents, also financial and economical details for obtaining the graduation in the course. Also the proposal gives information about which numbers of credits do need to have the expert certification.

The system has to assure very good quality from the point of view of the companies.

The system will be created to guarantee the real need of the companies and market. The certificate has to be for sure available for the VET professional area and also for the company's business. The real market is always changing and developing new skills, so VET professionals must be developing the competences as the market is asking for.

#### 2) Spain

We did the National focus group during the National CECE Congress. It was done in October 2012 with 32 participants, most of the VET professionals, also teachers and learners. The challenges facing electrical engineers' education:

- What are the strong points in the electrical engineers' education?
- What are the weak points in the electrical engineers' education?
- What kind of soft skills do you think an electrical engineer needs?
- What kind of business skills do you think an engineer must need?
- Any other skill to consider in the electrical engineer education?

Conclusions:

Spanish VET curricular system are continuing changing.

Better coordination between school-based and work-based learning.

Integration of cognitive elements, attitude and skills.

Adopting a learning outcome approach when developing curricula, valuing what a learner knows, understands and is able to do on completion of a learning process- irrespective of how, when and where this learning takes place.

#### c) DENMARK

The focus group interview is a qualitative research in which a group of experts were asked about their perceptions of the outcomes of the survey among enterprises.

Questions were asked in an interactive group setting where the participants were free to talk with other partners.

Participants:

**SDE COLLEGE:** Ole Beck Kristensen and William Lyngø.

**EXPERTS:** Representatives from 7 different electrical companies. The representatives are responsible for the education of the employees in their companies.

The focus group interview was carried out on the 29<sup>th</sup> November 2012 at SDE College.

**Questions:** the same as CECE.

**Strong points:**

- Alternation between school and company training.
- High level of theory.
- Long duration of education (4- 4,5 years).

- Confidence with the college's assessment of students.
- Education going on in the school is assessed by external evaluators (representatives of the trade)= QUALITY.

### **Weak points: potential areas of improvement**

- Too many learning activities are organized as group work.
- Too much time spent on documentation
- Better balance between nice to know and need to know
- Some companies are too "narrow" in their profile (lack of variety in practical training)

### **Needed soft skills:**

- More focus on communication with customers
- Empathy (capacity to recognize emotions)
- Ability to develop social skills (interaction and communication- verbally and non verbally)

When you ask a professional about what does a learner need to be effectiveness employed?  
The answer will be: 30% professional knowledge and 70% positive attitude.

### **Needed business skills:**

- Planning
- Customer care and salesmanship
- Creativity and efficiency
- Quality assurance
- Knowledge about health and safety issues.

### **Conclusions**

- The focus group believes that we have a strong and good education of electricians in Denmark.

### **d) POLAND**

The meeting of Polish National Focus Group was held in Warsaw on 15<sup>th</sup> of November 2012, in the SEP Office. 10 VET experts took part in that meeting. The meeting was chaired by Mr. Andrzej Borón- Secretary General of the SEP/ELEVET Project Manager.

This company was responsible to prepare the questionnaire of the most important soft skills. About 50 questionnaires were uploaded on-line.

Representatives of national framework qualifications: 30 presence participants and 10 on-line participants.

The **goal** was to consult local VET experts in order to have recommendations on the content of the VET FRAMEWORK in connection with the local contexts.

The group took into account that Poland, together with 136 other countries across the world implements a **national qualifications framework**.

**The European Qualifications Framework**, initiated under Bologna process (1999) was adopted for higher education by the European Parliament in 2008. In 2009 it was supplemented with vocational education. **The framework was implemented in Poland under the following acts:**

- Amendment to the Act on Higher Education adopted by the Sejm on 18<sup>th</sup> of March .

### **Conclusions**

The **learning outcomes** common for all professions, including personal and social competence:

- Occupational health and safety
- Setting up and running business
- Foreign language with focus on its use in the given profession
- Personal and social competences

To become an electrician, at the level of general vocational secondary school, there are **two qualification modules** after which a graduate to pass the exam.

All the presentation will be available at *drop box*: **MODULE 7 AND 8.**

In order to be aware the title of **electrician technician** the student has to pass the exams for qualification.

In Poland, electrician training takes place after 6 years of primary school and 3 years of secondary school and lasts for 3 years at vocational school or 4 years at a technical academy.

Poland has also defined the learning process for electrical engineers as **knowledge, skills and competences.**

All Universities in Poland has made his individual programme aimed to teach trough learning outcomes for the specialization of ELECTRICIANS.

Through a framework of educational for electricians the program ELEVET should:

- Develop **opportunities of movement electricians.**
- Make education profiles comparable.

Look at the web site: [www.feani.org](http://www.feani.org) it is to facilitate the European engineers' movement and make education profile comparable.

Three programs to shift the ELEVET activities. Our ELEVET program take places in the European Program, the main tasks are:

- Make a new framework of competences and skills needed.
- Improvement of the consulting process of the stakeholders and professional transferences.
- Non formal education.
- VET programs are attractive for the engineer market.
- International mobility has an important element for VET professionals.
- Innovation and creativity as important skills for transfer of knowledge.
- Polish and European framework.
- Share the experiences of polish engineers and all Europe.

### **13.00 Lunch break- SEP invitation**

### **14.30- 15.00 Coffee break and opportunity to financial explanations with ELEVET financial Manager.**

### **15.00 Presentation of the prepared proposal of the First draft of the VET framework and credit transfer- by CECE Spain.**

#### **ELEVET WP4: CECE**

#### **Glossary: añadir in-formal education**

This work package represents the core activity of the project and is finalized to common learning outcomes and categories in order to facilitate the transfer and cognition of credit acquired in initial.

#### **This WP will be mainly devoted to:**

- Creation of a learning outcomes and categories for VET learning in electrical engineering.
- Accreditation of the outcomes.

#### **Focus on:**

- **Learning outcomes:** what a learner knows.
- **Knowledge:** outcome of the assimilation of information
- **Skills:** Ability to apply knowledge and use know-how to complete tasks.
- **Competences:** Proven ability to use knowledge.

#### **Summary:**

- **Soft Skills:**
  - o Communication in the enterprise with customers
  - o Empathy
  - o Customer care and salesmanship
  - o Development of social skills
  - o Communication and changed in verbal and nonverbal way
  - o Cognitive skills.

- **Business skills:**
  - Planning
  - Creation of efficiency
  - Quality assurance
  - Team working
  - Relationship management
  - Analysis and data processing
  - Knowledge about health and safety issues
  - Human resources management
  - Problem solving
  - Foreign languages

### **Team building:**

- **Learning categories:** Establish a clear goal and mission.
- **Learning outcomes:** Establish clear structures and roles.

### **Solving problem:**

- **Learning category:**
  - Frame conflicts and problems as an opportunity to grow and innovate.
  - Institute mandatory brainstorming sessions.
  - Give team members a break when they reach an impasse.
- **Learning outcomes:**
  - Establish mechanisms for problem solving.

### **Relationship management:**

- **Learning category:** Must be able to communicate the policies and procedures clearly, precisely and effectively. The relation should very precisely know the nature of work. Furthermore, it is important to have confidence in himself and earn the confidence of the other workers. He has to handle the personal problems with great care and attention.
- **Learning outcomes:** Communicative skills, knowledge of work and sense of responsibility, self confidence and humanist.

### **Empathy:**

- **Learning category:** “Stepping into the shoes of others” **REVISAR**
- **Learning outcomes:** Establish clear structures and roles, set up effective communication systems, encourage collaboration.

### **Planning**

**Foreign language:** To be clear in their comments.

### **Health and safety issues**

### **Communication:**

- **Internal communication:** As a manager/leader.
- **External communication:** To be clear to express their opinions and knowledge.

### **Entrepreneurial Skills**

**Digital capability/ computer skills:** Using technological and computerized instruments.

### **Motivation (social skills)**

### **Interpersonal and intercultural (social skills)**

## **SUMMARY**

- **Soft skills:**
  - Focused on communication in the enterprise and with costumers.
  - Empathy

- Costumer care and salesmanship
  - Development of social skills (social skills are any skills facilitating interaction: **motivation, intercultural**)
  - Communication and changed in verbal and nonverbal way
  - Cognitive skills
  - Digital capability.
- **Business skills:**
- Planning
  - Creation of efficiency
  - Quality assurance
  - Team working
  - Relationship management
  - Analysis and data processing
  - Knowledge about health and safety issues
  - Human resource management
  - Problem solving
  - Foreign language
  - Entrepreneurial
  - Negotiation and make decisions
  - Creativity

### **Developing 15 skills in the group (SOFT SKILLS)**

<b>MANGERIAL</b>	<b>SOCIAL</b>	<b>PERSONAL</b>
Assigning tasks	Teamwork	Conscientiousness
Strategic thinking	Sharing knowledge and experience	Aiming of results
Planning	Building relationship with other people	Readiness to learn
Leadership	Communicativeness	Solving problem
Managing information	Customer oriented approach	Creativity and assertiveness

16.  
00

**General discussion in plenary session and in the working groups: Creation of the first draft of the VET framework and credit transfer.**

### **18<sup>th</sup> JANUARY 2013: FINAL DISCUSSION**

### **30<sup>Th</sup> January: VET FRAMEWORK**

#### **1. MAIN QUESTIONS:**

- **What should be in the framework?**
- **How are we going to share the skills?**
- **Discuss the contents of the UNITS.**
- **How is going to be the structure and the contents of the framework?**

### **FRAMEWORK STRUCTURE**

- Comments from the questionnaire WP2, WP3 + national focus group conclusions.
- Set up the 15 skills
- ELEVET credit transfer into ECVET

## FRAMEWORK CONTENTS

- Our activity is not based only for university education.
- The matter of the UNITS is regulated by legislation.
- The professional qualifications.
- At least 30 hours of the activity courses.
- At least 5 hours of non-school activity (conferences, speeches)
- Suggested by the polish partner to put the emphasis into the **subject**.
- The skills should be included in the courses.
- The 2<sup>nd</sup> activity must be the **formal structure of the framework**: for example, curriculum, attendees list, number of hours, topics of educational activities or report by exams.
- The **curriculum** should include: duration, organization, educational objectives, teaching plan with specific name for the educational activities.
- **Ole suggests** discussing about the Outcomes of the focus group: distinguish between business and soft skills in each country (it is used to be different depending of the country).

### Today:

<http://www.adam-europe.eu/adam/project/view.htm?prj=4790#.UPkRJx3lDAk>

- **FOCUS ON THE SUBJECTS FOR THE FRAMEWORK. FORMALITY:**  
**Accept 15 business skills.**
- **THE FORM OF THE UNITS.**
- **Propose a procedure to transfer the knowledge between countries from the different educational skills.**
- **What are we going to transfer?**
- **Main task: Education related to electrical engineering (VET)**
- **Ole Propose to make a clear proposal about what kind of knowledge do we need to transfer (not just technical education).**
- **Business skills → Courses for enterprises.**
- **Focus on the course and specific characteristics: Common courses which can be associated with the 15 soft skills always associated to ELECTRICAL ENGINEER.**
- **Focus on the transfer methodology: international education.**
- **Decide if this study about transfer of education is enough or we need to make a study for each country.**
- **Description of particular types of courses depending of the countries.**
- **What is done in particular countries? What does include in those courses? How long are they going to take...?**
- **We are not able to find the common elements.**
- **Set up a deadline for the FRAMEWORK: 10<sup>th</sup> FEBRUARY SEND THE COURSES TO SPAIN PARTNER:**
  - . Contents
  - . Tasks
  - . Subject
  - .Duration
  - . Course documentation and modules
- **14<sup>th</sup>- 15<sup>th</sup> MARCH MEETING IN DENMARK.**
- **By the end of February SPAIN could be able to start with the FRAMEWORK. Then discuss it in the meeting at DENMARK**

The main findings of the meeting are following:

## **1) Approval of 15 soft skills:**

### **Managerial:**

Assigning tasks  
Strategic thinking  
Planning,  
Leadership  
Managing information

### **Social:**

Teamwork  
Sharing knowledge and experience  
Building relationship with other people  
Communicativeness  
Customers oriented approach

### **Personal:**

Conscientiousness  
Aiming of results  
Readiness to learn  
Solving problem  
Creativity and assertiveness

## **2) Approval of 15 business skills:**

### **Business skills**

- 1) Ability to anticipate threats to health and life associated with the performance of professional tasks
  - 2) Ability to anticipate Threats to property and environment associated with the performance of professional tasks
  - 3) Ability to use of individual and collective protection when performing professional tasks
  - 4) Ability to organize the workplace in Accordance with the Requirements of ergonomics and safety regulations
  - 5) Ability to evaluate the device properties in terms of exposing the users
  - 6) Ability to negotiate and make Decisions
  - 7) Independently Ability to plan and self-education process to inspire and organize learning process he of others
  - 8) Ability to Develop and IMPLEMENT the panel's work schedule, subject to Certain priorities
  - 9) Ability to prepare the documentation Necessary to run the business
  - 10) Ability to use office equipment, business correspondence and the application programs Economic activity That support
  - 11) Team building and communication within the group
  - 12) The Effectiveness of the management team
  - 13) Creativity and innovation in business
  - 14) Management of the project
  - 15) Managing and motivating the team
- These are additional skills, complementary.

## **3) All partners are obliged to send to CECE Spain ( with copy to SEP - coordinator) up to 10th February 2013 the following information as a supplement to the Reports from the National Focus Groups:**

- What types of courses are conducted in your country
- What is the composition of the audience (engineers, researchers, students, etc.)

- What documentation is carried out on the courses:
  - a) the daily lesson
  - b) how many hours the course lasts (duration)
  - c) what exam ends the course
  - d) who conducts the course (what competences are required)
  - e) costs
  - f) subjects
  - etc.

**4) Based on the a/m informations CECE Spain will create the draft of the Framework and send it up to 15th February 2013 to all the partners for consultation**

Framework is to be the basis for the preparation of Handbook

**5) 14 -15 March 2013 Steering Committee in Odense/Denmark will approve the framework**

*Prepared by : CECE - Spain*



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