



GT VET

Greening Technical VET – Sustainable Training Module for the European Steel Industry

Project Meeting

WP 3
**VET Reflection of Industry Driven
Requirements**

Cardiff, November 17th/ 18th, 2011





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Company and Stakeholder Perspective

Structure of interviewees

14 people, including:

Steel companies:

- training departments;
- managers of environmental / technical departments (for example Health & Safety);
- people who recently finished schools (electrical technicians and mechanical technicians);

Representatives of education and professional training (VET):

- vocational schools (profession's teachers) – surveys were sent to 160 teachers training electrical technicians and to 385 teachers training mechanical technicians; although initial positive declarations from several schools, none of the teachers decided to fill in the survey
- the chamber of industry (in scope of VET) – there are no such chambers in Poland
- other national, regional or (even better) sectoral institutions in scope of education and professional training VET (for example responsible for educational programmes / assessing agencies) – there are no such institutions in Poland



Company and Stakeholder Perspective

THE QUALIFICATION

Possibilities of gaining qualifications:

Formal methods gaining qualifications:

- Finishing a vocational school of a technical profile (theoretical knowledge and practical exercises)
- Supplementary courses – required to be able to perform specific job

Informal methods of gaining qualifications:

- Gaining practical knowledge during internship and performing job

Assessing the interviewees – the most effective ways of gaining qualifications:

- Finishing secondary school of a technical profile (technical school, specialised secondary school) or a vocational school,
- Professional experience, gaining specialized entitlements, supplementary courses in the place of work
- Determining factor – experience obtained in the workplace on the specific work post and job seniority

According to interviewees, during the school education all issues connected with environmental protection are treated marginally or are not raised at all.



Company and Stakeholder Perspective

SKILL PROFILE OF THE OCCUPATIONS

Profile of skills required at the position of electrical technician and mechanical technician:

- knowledge and observing the instruction of exploitation, servicing and maintenance of devices and installations,
- carrying out periodic inspections of electrical devices and installations, eliminating defects and breakdowns of devices and installations,
- carrying for tools and instruments,
- controlling and carrying for appropriate state of protective installations,
- carrying for keeping the workplace clean,
- carrying for environment, resources, conserving resources, limiting the emissions of pollutants and waste materials,
- absolute following the regulations and Health & Safety standards,
- using the technical documentation of machines and devices, knowledge of machines and devices, carrying out measurements and adjustments, operating the measuring instruments, etc.,
- current keeping the equipment in good technical state.



Company and Stakeholder Perspective

SKILL PROFILE OF THE OCCUPATIONS

Qualifications required to be able to work as mechanical technician and electrical technician:

- **Obligatory entitlements:** *SEP* (electrical entitlements granted by *Stowarzyszenie Energetyków Polskich* [Association of Polish Electrical Engineers]), for welders, to be allowed to work on heights, for professional drivers, to be able to drive fork-lift trucks, to be able to carry out fire protective and lightning protective measurements, for gas rescue men, riggers or other branch entitlements to perform specific job.
- **Job position qualifications:** employee is not allowed to carry out the work on the workplace without appropriate training and without possessed qualifications; the type of possessed qualifications depend on the type of performed work.
- **Obligatory trainings:** employee is obliged to participate in periodical internal trainings organized by the company or within the confines of business travels.



Company and Stakeholder Perspective

ENVIRONMENTAL/GREEN SKILLS

Subject area of internal trainings:

- A lot of trainings concern the issues of: Health & Safety at Work, Integrated Management Systems, environmental protection, knowledge of how to behave during an industrial breakdown, handling with waste materials, etc.
- During trainings there is a big emphasis put on:
 - the ways of saving electric energy
 - keeping, storing and utilization of dangerous materials
 - eco-minded administrating the packages
- There is a clear relationship between Health & Safety and environmental protection in accordance with the idea – take care of your safety in the first place; secondly, work in the way not to damage the environment.
- There is a following tendency maintained since many years: in the first place the skills are developed and employed people are perfected; and secondly the highly specialized workers are employed.

According to interviewees, the „green skills” are developed mainly during internal trainings carried out by the Company.



Company and Stakeholder Perspective

ENVIRONMENTAL/GREEN SKILLS

A big consciousness in scope of „green skills”, confirmed by statements of interviewees, is the effect of internal trainings

Green skills are the following:

- „ability to perform work in a way assuring the rational administration of resources, minimization of environmental pollutants (limiting emissions and waste materials)”
- „knowledge of rules and procedures in scope of environmental protection”
- „actions aiming at mitigating the effects of harmful activity of human”
- „necessity of segregating the electro-wastes” (electricians)
- „carrying for natural environment: rational using of energy, water and all the materials and spare parts, segregating waste materials”
- „carrying for environment during carrying out the job”
- „acting or performing work in a way to interfere the natural environment as little as possible”
- „being aware that every activity during performing work can have potential impact on environment; need for knowledge in scope of wastes and dangerous substances’ management; skills in scope of effective conserving the resources (water, but energy as well)”



Main Results in Relevance to Industry Driven Demands (WP2) and the Training Module (WP4)

Current status:

During the school education all issues connected with environmental protection are treated marginally. According to most of the interviewees, the teaching programmes do not cover problems connected with environmental protection. However, it was underlined that „green skills” are developed during internal trainings carried out by the Company.

Recommended changes:

- More effective eco-minded education on each stage of school education process, in particular - early school education (forming eco-minded attitudes, changing mentality)
- Necessity to include the problems connected with environmental protection into the job-teaching programmes
- Trainings making employees aware of their impact on environment, and also of the potential negative future consequences of the lack of environmental protection
- Popularization of knowledge in scope of danger of damage to the environment and ways to protect it: organizing events, screening the movies, publication of brochures and leaflets raising the subject of environmental protection.



Main Results in Relevance to Industry Driven Demands (WP2) and the Training Module (WP4)

The most urgently needed activities in the steel industry:

The coming years will be marked by the need to fulfil the environmental requirements, which may mean: „to be or not to be” for many entrepreneurs, and even for branches of the industry.

Particularly for the steel branch, it will be necessary to prepare and undertake urgent pre-emptive actions:

- increasing the outlays for investments from one side, and economical use of resources from the other side,**
- making employees aware of the fact that while conserving the resources, they also protect the environment and decrease costs of production,**
- enlarging the contents of job-teaching programmes with the use of eco-minded technologies,**
- undertaking research and implementation projects in scope of environmental protection.**



Main Results in Relevance to Industry Driven Demands (WP2) and the Training Module (WP4)

Conclusions

- Development of „green skills” constitutes an important and urgent need for educational activities addressed to employees of heavy industries, and what is particularly important – to the school-age youth as well. Education must be carried out with the use of different forms: by press, posters, conversations, contests, initiatives; and it is important to explain that both at home and at work we have impact on environment. Good and bad examples can be demonstrated, commented, compared in broader scale. The transmission should include simple content and a lot of practical examples, and the training should be adapted to realities of work in the given Company.
- Each employee must be aware of the fact that not obeying the rules of environmental protection acts not only to the detriment of the employer, but to the detriment of himself as well and – thinking more widely – to the detriment of all of us. There is a lack of knowledge that individual activities have impact on global environmental problems.
- For effective education of youth and additional training of employees in accordance with current requirements it is necessary to possess knowledge of the branch and the scope of duties of people employed on the position of mechanical technician and electrical technician, and knowledge on the subject of changes in regulations. The effectiveness of the training will depend on how good the trainer knows the specific character of the job, so the cooperation of educating/teaching units with industry is necessary.



Thank you!

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