

World café's Valencia, 26 October 2016

Egon Dal, Business consultant at Tradium, E: ed@tradium.dk M: +45 51384091

Anne B. Mortensen, Project Coordinator at Tradium, E: abm@tradium.dk M: +45 26722805

Richard van der Molen, E: rvandermolen@landstede.nl

Teresa Santos, E: Teresa.lessa@forave.pt

Manuela Guimarães, E: manuela@forave.pt

Anabel Menica, E: amenica@txorierri.net

Mirjam Hensels van den Broek, E: m.hensels@mboraad.nl

Manfred Polzin, E: M.Polzin@mboraad.nl

Marko Kempainen, E: marko.kempainen@sataedu.fi

Patrizia Carfagna E: carfagnapatrizia@inwind.it

Nuno Escudeiro E: nfe@isep.ipp.pt

1. How to attract young people in technical studies (especially girls)? *(Nuno Escudeiro ISEPP University/ Portugal)*

Very motivated participants, interesting points of view and enthusiastic discussion at all rounds. We have collected a total of 15 answers to the question in discussion: three answers at the first round, five at the second, four at the third and three at the fourth round.

Those answers are grouped below in five key topics that have emerged from the discussion:

Curricula

- Merge Technical studies with Care studies
- Add Social components to Technical studies
- Design curricula more focused on the competences that girls are keen of

Concrete actions

- Promote hands-on sessions to experiment technical activities
- Peer coaching: special coaching sessions to teach students how to support each other in pairs using peer-coaching
- Ambassador female students to promote technical studies, open days

Communication

- Raising awareness of youngsters at primary school
- Move from "Technical" to "Technology/Technological" studies
- Promote/Communicate the Technical Career as one to be proud of
- Communicate Technical curricula as Creative Tech

Company involvement

- Tech Events: young students, together with their parents, visit companies and have hands-on activities in the company to build components in several areas; a final session at the school to assemble the various components and deliver the final product
- Bring visibility to success stories of female employers in industry; make them case studies
- Make company settings/environment/culture "girl-compliant"

Acting at the schools

- The school is the problem; change the technical school to make it more pleasant (premises. Facilities, social spaces, ...)
- Teachers are not "nice"; "they treat us [girls] as if we were different/special"

2. How can International Internships help to attract young people for techniques?"

(Marko Kemppinen Sataedu/Finland)

- To give teachers a chance (in every level) to go abroad and act like an ambassador of Internationalization
- To give a chance for every study levels (EQF 2,3 and 4) to take part in internationalization. These activities can be both virtual and physical. Good Example Erasmus+ project called EMEU.
- Erasmus+ offers also an opportunity to get experts from other country's company to give lessons to own school. That has a good influence for students and those how are thinking about to apply that school.
- In general, opportunities to have a chance to go abroad during studies has to be promoted also in elementary school and secondary level.
- Sometimes it's good to launch a competition between the students, where the best internship is awarded. The competition contains videos, blogs and other reports of the internship.
- Home Internationalization helps local students to enlarge their opinions and views of the studies and the world. To integrate foreign student(s) with local students encourages everybody in the class room.
- Techniques in VET is not "sexy" among youngsters. This sector has to be sold more effectively.
- To make the internationalization in Tech-sectors more desirable, specific modules should be developed, to make the internationalization path visible and to encourage pupils who are to make selection after elementary school to choose tech-sectors.

3. How can companies, municipality and schools cooperate better to attract young people for a technical education?" *(Anne Birthe Mortensen, Egon Dal, Tradium/Danmark)*

At this World Café we mostly shared good ideas of how we (the schools) cooperate with the companies and/or the municipalities at the moment. In general schools are interested in ways to bring the companies, the possible future students and the schools together. This could be through specific projects (like the Bumper Car from The Netherlands), and through more general activities like speed-dating, open days, introduction etc. Ways of involving the parents of the possible future students were also included, and also activities for different ages (from 10 years old).

These were the ideas mentioned at the four rounds:

- Bumper Car. Possible future students and their parents are invited to come and visit the companies in the region, making a certain part of a bumper car with remote control. At the end the students will gather the different parts of the car, and are to keep it. The municipality is paying for the costs of the bumper car, and make PR about the possibility.
- Government funding for making a Centre of Excellence (EQF level 5) and a Centre of Innovative Skills (Level 4). The goals: Cooperation between School and Companies, attract more girls, innovation from companies to school. The Netherlands.
- Technical Campus. VET School/University and municipality for 11-12 year old students.
- 11-12 year old students are staying at the school for one week, four days they do different kind of projects, producing some kind of product (for instance a paper flyer with a chip, so you can control it). The fifth and last day the parents are invited to see the products made by the students. Spain.
- Pupils from compulsory school (9/10 years – 12/13 years) are visiting the school for four years, 1 day each year. They produce a model of a real house (carpentry, bricklaying, painting and electricity). Cooperation with the municipality. Denmark

- “Do-days”. Four times a year possible future students can make an application for being a part of “Do-days” at the school. The present students are then guides for the possible new ones.
- Build the top of a roof. In cooperation with the municipality, the older students from compulsory school are involved. Teachers from the VET school are visiting the compulsory school, bringing materials and knowhow, so the students are trying out the professions to build the top of a roof. Denmark.
- Open days for students and their parents. Several countries. For instance with presentation of Curriculum, mobility and study trips abroad etc.
- Industrial forums. These are scheduled and regular meetings between companies, schools, municipalities and development agencies. Spain.
- Teachers from the companies are hired to do teaching at the school, as part of their job. In cooperation with the companies. Also including co-creating the curricula.
- Speed dating with public and private institutions and businesses. A yearly scheduled activity for companies and present students to find each other – and possible future students are informed about this activity at Open Days and similar activities. Denmark
- Organise speed dating Companies/Students. Several countries.
- Companies do speed dating for new students, top 10 of the companies are present.
- Suggestion: Make possibilities to improve the image of technical jobs.

4. **What is the role of the government in attracting young people for future jobs in technique?**
(Mirjam Hensels, MBO Raad The Netherlands)

Take small steps; include more parties because it is not only the government who has a role. We do not know if technical studies in Europe get more money than for instance economical- or hospitality studies. Maybe a small inventory or project could make this clear?

PR

- Promote tech events to show parents what is going on behind these big doors
- Government should promote the area; or the industry in the area show what is going on into the companies
- Organise activities with families
- Bring schools in the position that they can promote technical education in primary- and secondary school
- Start early in informing young students
- Change the image of Technique by choosing the right pictures and words
- Show the importance of Vet-jobs (value Vet-level)

International

- Innotecs could knock on doors in Brussel. Invite them next conferences.

National

- Limit the amount of places in schools who educate for “fun” so students are forced to think about alternatives (numerus fixus)
- Support project ideas with funding
- Support / facilitate the possibility of combining teaching + working (hybrid teachers)
- Promote hiring VET-educated employees

Regional:

- Staff support for schools
- Define the regional needs together with the local network

Local:

- Tax reduction for companies that incorporate (foreign) internships.
- Invite the mayor in your technique school so he gets a picture

5. What could be the meaning of INNOTECS in this Theme? And what could your own role be in INNOTECS?

(Richard vd Molen, Landstede/ The Netherlands)

In general, we came to the conclusion that the organisation of Innotecs is not directly involved. The members of Innotecs have to take that role and initiative. Innotecs can provide the platform and make it possible to bring partners together to start activities.

1. "Help each another with ideas" was mentioned during 4 sessions. Innotecs can facilitate this by organising round tables of world cafe at the theme. The members can initiate working groups to work on this item
2. Make it possible for members to obtain new insights in the theme. Innotecs can invite keynote speakers or organise mini symposia. Members can organise workgroups who can meet and exchange information during study visits (mobility)
3. Schools, companies and Students must speak "the same language". What is the meaning behind words as dual system (for all students?), motivation (which behaviour), gap between companies and schools (curricula, supporting, finance issues etc.) Do we mean the same, do we want to achieve the same? Innotecs can facilitate the process of understanding each other in the right way
4. Funding. As members have to be active on this theme themselves, we have to find out how Innotecs as entity can facilitate the process of requiring funding for activities (on this theme).
5. Innotecs is an international network. Regarding mobility's, we have to realise that internationalisation is (still) a minor issue within schools. The influence of Innotecs on this theme is valuable, but limited.
6. When we realise as Innotecs to include companies in our Network, all kinds of activities will be reachable to work on the theme. So it is important how to connect to companies. We have to think how we can cooperate with European networks of companies. Companies can offer jobs for foreign student and so create awareness for opportunities for youngsters.
7. (Members of) Innotecs has to promote Praxis. Praxis is the gate to companies regarding internships, project and awareness for the attractive possibilities of working in the technical sector.
8. Facilitate as Innotecs the development and execution of international activities within the technical sector (related to the theme).
9. Innotecs should coordinate the collection and redistribution of promotion materials. There are so many nice materials and ideas, we do not have to vent and develop all these things by ourselves.
10. Make collective, nice story telling promotion products and videos available. Our student scan makes these productions, Innotecs can distribute
11. Prepare agenda for national discussions with governmental institutes. Use the knowledge of the network to work on national issues.

Related Ideas

- when students arrive at the age of 15-16 in the vet schools, make education fun. Work on Lego or 3d printing, organise (virtual contests)
- Use Innotecs to start bigger innovative projects (like Praxis with 44 partners) Other financial sources should be investigated besides Erasmus+
- Use Innotecs as lobby instrument to realise more political targets
- Work on breaking away barriers between countries and governmental institutes. Accreditation, permits for youngsters outside Europe are examples
- Innotecs can be connecting point for teachers, management and students.
- For level 2 students, Innotecs can organise sessions where we can develop ways to increase international activities for his target group. E.g. student exchange of classes accompanied by teachers and buddy students.
- Improve awareness regarding role models. Use inspiring people from companies. Specially to attract girls/women, this is certainly important.

6. How to meet the rapidly changing demands of the companies?
(Manuela Guimaraes + Teresa Santos, Forave/Portugal)

The participants were very interested and enthusiastically debated the topic. Besides sharing the situation regarding connection between companies and VET education in each of their countries, these were the conclusions of the four rounds:

- Maintaining a close connection between companies and schools in order to match students' skills to the needs of the companies
- Continuous update in the curricula in order to adjust to an increasingly rapid pace of change
- Anticipating and building competencies for future needs
- Sustained dialogue between companies and schools, government education institutions and the labour market in order to enable an early identification of skill needs
- Education policies should change, in some countries, and give schools the chance to adjust an important part of the curricula to companies' needs
- Students must be trained not only in what concerns technical skills, but also soft skills so that they can be able to cope / adjust to the changes and new technologies
- Companies must also be partly responsible for training contents
- Schools must work together with companies which can work as "role models" and then use that knowledge with other companies
- Schools should be able to build their curricula from scratch according to the local/regional companies' needs
- Teachers should be more involved in the process of answering the companies' needs
- Teachers should frequently have job shadowing and/or training courses in companies to be updated and to be in touch with the real world of work
- Debating and updating curricula should be a work in progress for schools and companies
- Smart technology needs smart students with skills to adjust
- Companies and schools shouldn't be afraid of this connection and constant changes because progress is always one step ahead

7. How could we prepare young students to work in a company?

(Patrizia Carfagna/Brunelleschi Da Vinci/ Italy)

19 people have attended the world café with interest. During the four rounds we compared the different approaches regarding vet school students and discussed together about what are the differences and what is done in the same way.

ITALY	DENMARK	BELGIUM	NETHERLAND	FRANCE	SPAIN
Internship is compulsory at least 400 h in three years		2 weeks a year. 80 h in two years	50%of the compulsory hours must be done in internship		360 h in 2 years
It is compulsory to teach safety rules in job place and underwrite an insurance for students	The same	The same	The same	The same	The same
Provide to the students soft skills (work in team, respect the rules and the hierarchy in working place, be properly dressed etc...)	The same	The same	The same	The same	The same
Practice with a simulator. A software of business simulation like CONFAO is provided by ministry. The simulator includes: how	No simulator, only real company	No simulator, only real company	No simulator, only real company	EEP simulator	No simulator, only real company

prepare a business plan and all the authorization you need from different entity. The students learn how start their own company ("create your own start up")					
Sign the covenant between company and school, choose the tutor and the mentor, monitoring the internship and share the experience at school	The same	The same	The same	The same	The same
Schools provide the contact with the companies to plan the internships	Companies come in the schools, presenting themselves and recruit good students	The same of Italy	<ul style="list-style-type: none"> • Students provides the contact with the companies • Companies make the first step knowing the student's curricula • Many teachers work both in schools and in companies (so it's easier to allow internships for students) • Schools and companies work 	The same of Italy	The same of Italy

			together in special projects "bring the company in schools". (Es S.B.B.)		
The experiences acquired during the internship are not shown during the final exam (It must be in the future).	The experiences acquired during the internship are important for the final diploma		Competencies are more important than academic knowledge	Students receive a psychological preparation. They learn how to learn.	