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Report on the visit to the Odense Tekniske Skole in Denmark as part of the Timloto European Co-operation Plan (the Toyota goals)

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Participants from Timloto:
Ep Gernaat, Project Co-ordinator
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This report has been sent to the Odense Tekniske Skole to be checked for content

Introduction

Timloto's primary goal is to provide free and open lesson materials to automotive science students and teachers. With help from the Toyota Fund for Europe, parts of the website are being translated into English and other European technical schools are being contacted in order to spread the Timloto concept outside the Netherlands. An important step has been taken in the recent contact with the Odense Tekniske Skole in Denmark.

The initial contact with the Tekniske Skole originated with Horizon College in the Netherlands (through Dick Zuiderbaan). Following a brief email contact, the Danish school expressed interest in co-operating with Timloto but the methods, goals and the open source concept were not entirely clear to them. A discussion to clarify these points was suggested and the invitation was gladly accepted. The discussion took place on August 15th and covered the following points:

1. An introduction to the Danish school system, especially in comparison to the Dutch system; naturally a comparison regarding automotive science training.
2. A tour of the Automotive Department of the school
3. A demonstration of the Timloto site
4. A discussion of possible collaboration and/or support

Comparison of the Danish and Dutch school systems (This comparison is based on the impression of the Dutch visitors)

During the course of the discussion, the following points became clear.

In the Danish system, all pupils attend the same school until they are fifteen or sixteen years old. After that they can move on to other types of education (relates to the former Dutch middle school concept).

We could compare this to the current Dutch system of primary school followed by a mavo/havo education. However, in Dutch schools, level differentiation begins immediately after primary school.

If students choose for automotive training after their basic education, they are provided with a four-year programme. Within this programme there are no level divisions as we have in the Dutch system. Possibly because the Danish system does not have a National Vocational Education Body (Innovam for the automotive sector), the automotive programme is not split

into the Dutch levels of assistant mechanic, mechanic, mechanic first-degree and technical specialist.

The Danish educational concept can best be compared to the former Dutch 'Streekschool' (Apprenticeship school) which is now known as the 'BBL' (Day-release system for apprentices).

The Danish government sets the goals, the school makes the curriculum and the individual teacher fills in the lesson details. The school is relatively autonomous in providing training. The school board is comprised of three parties: government, trade unions and the school itself.

To be allowed into the Danish programme, the student has to find an employer who provides a job contract. At this point, the relationship between student and employer is comparable to the Dutch system.

The first year of the four-year technical education programme is a full-time year at the school. General education courses such as English are considered to be very important. The current trend is that all the courses should be as practical as possible and that theory is only given as support. Quite a bit of energy and funds are being used to make this possible. The problems encountered by the school are recognizable. However, the control of the educational process provided by the Danish government appears to be well-outlined and better organized than in the Netherlands.

The three following years are spent in a combination of school and work. This does not take place one school day a week as in the Dutch BBL system but is a combination of longer work and school periods. Results at the end of the four-year programme, can best be compared to the former Dutch MBT-training or the former MTS programme with an apprenticeship component. The Danish diploma makes it possible for students to carry on to a Bachelor's degree programme and can thus be compared to the Dutch 'Level 4'.

The final exam is comprised of a three-hour theory test and a two-day long practical test. Examiners do not come from within the school but rather from the automotive business sector.

Note: At the moment there is a high demand for qualified technicians. Mechanics are being recruited from Poland and Germany, The question is whether these mechanics should be trained in schools in Denmark and in which language.

Tour of the department (see photos)

This is a completely new school with large workshops and many complete training cars. There are also quite a number of 'independently' running engines on test beds.

Two power test benches, one of which is a Maha Dynamometer for 4WD car tests, are operational.

Students could be seen working on assignments either independently (in pairs) or under a teacher's instruction.

The method looked very much like that of a well-equipped ROC (regional training centre) in the Netherlands. Because of time constraints, the logistics of the programme did not become entirely clear; neither did the relationship between theory and practice.

Aside from the regular training programme, a number of specific car-make courses are taught at the school. For example, the complete Skoda dealer training is provided there. Technical information exchange between the dealer training and the regular school programme takes place at teacher level.

Timloto demonstration

After lunch, Ep presented the Timloto site and methods. Emphasis was on the open source construction, the manner in which the site is organized and maintained and how it can be used. It was suggested that to achieve collaboration on a European level, a common goal is almost a necessity. As an example of one possible common goal, two projects supported by Timloto in developing countries were mentioned.

This did not appear to be received with great enthusiasm, possibly because it was unknown and unexpected.

However, possibilities for collaboration through the school's 'China Project' and an eventual training programme for Polish and German technicians seemed more positive. The bilateral co-operation with Horizon College in the Netherlands plays a part in this consideration.

It should be noted that this does not need to be a choice; the possibilities should complement each other rather than exclude each other.

Timloto is not a school – Timloto is education.

Critical notes:

- Much more information in English must be placed on the site
- The site is not easily accessible for non-Dutch speakers. For example, there is no intuitive link to pictures and animation (which require no translation at all)
- The different levels in the Dutch system are very confusing

Ideas and possibilities for co-operation

Finally, a few ideas were presented and cautious conclusions were drawn:

1. The site forms a catalogue for both lesson materials and ideas.
2. The site can serve as a platform for international contacts.
3. The site can become a virtual meeting place (points one and two).
4. International seminars can be organized.
5. Danish teachers can place their 'China Project' material on the site and use some of the existing Timloto material for the project.
6. The Timloto group could hold one meeting/seminar in Denmark.
7. The Timloto group could demonstrate their materials to Danish teachers.
8. Timloto can invite Danish teachers for a special Timloto day in the Netherlands.
9. The Odense Tekniske School can spread the Timloto concept to other Scandinavian schools.

Conclusion

Although no definite agreements were reached (but, of course, that was not the intention) it was a profitable day with prospects for the future. In the short term, a discussion will take place at the school and possibilities for collaboration will be considered. Regardless of the outcome, one of the Timloto goals has already been achieved – bringing the development and collaboration model to the attention of the outside world.

We left with a positive feeling (as well as a few very pleasant vacation days).

We would like to thank Søren, Lone and Henning for their time, the information they provided, and most of all for their inspiring enthusiasm for education and for new ideas concerning education.

Ep Gernaat