

## 1. General

These comments mainly address section 2. „OCCUPATION, EMPLOYMENT AND WORK POSITION“ and their application in the rubber and plastics processing“, since this the section that develops the concept of work positions, qualifications and educational standards in the plastic industry.

Section 1 is an explanation of the Slovak situation and an outline and description of the basic ideas and purposes of the whole document. A few words on this section:

- a. It is most commendable that the description of the educational standards is based on the European Qualifications Framework (EQF) that makes comparisons easy and which automatically ensures standard terminology, understood and accepted everywhere.
- b. The situation of the plastics industry in Slovakia is quite comparable to the situation in countries of similar size and industrial tradition, e.g. Austria and Switzerland:
  - i. Plastics, being a relatively young material, is not a clear-cut industry. Very often Plastics activities have grown out of more traditional industries (e.g. mechanical, electrotechnical). For that reason, it is not easy to establish a clear picture of the plastics industry as such. You can find plastics activities in a number of more traditional industries. But, of course, in the meantime clear-cut and uniform plastics companies have established themselves. We therefore have a mixture, which has to be taken into account, when considering educational requirements.
  - ii. Slovakia (like Austria and Switzerland) is not a very big country. True, the plastics industry plays a major role in the industrial development, but still remains relatively small. For that reason it is wise not to try to implement an excessively elaborate education system in that field. Otherwise there is the risk that costs are too high and the number of students is split into too many subsections that will find it difficult to recruit a sufficient number of students.

Section 3 describes the current situation of education in the field of plastics in Slovakia.





2. Comments on section 2. „OCCUPATION, EMPLOYMENT AND WORK POSITION“

As mentioned in the document the list of work positions was defined by the workshop participants and were elaborated in descriptions of work positions. The contents are therefore broadly accepted.

Nevertheless from the perspective of an outsider, a few comments come to mind.

- a. As mentioned earlier, it is questionable whether there is a sufficient number of students to offer all qualifications and educational standards.

Under this perspective it might be considered to merge  
Specialist of quality management in chemical protection  
Chemical specialist – technologist  
Process technician in chemical production  
into only 1 name of employment “Plastics Technologist”

On the other hand the list lacks the aspect of the **designer of plastics and rubber products** and the **automation engineer**, responsible for the design and operation of complex production and assembly lines, integrated with test procedures, which are increasingly common in the production of plastics and rubber products.

- b. It is most commendable that OSH and the protection of the environment are addressed. Aspects of the environment may be extended to energy and resource efficiency, recycling (circular economy), and ecodesign. These aspects should be addressed in every single „NAME OF EMPLOYMENT“. Depending on position in the hierarchy these aspects require a **commitment** and **enforcement** by members of the organisation with management responsibilities, down to the commitment to respect the requirements of these aspects by the **employees** without management responsibilities.

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This approach describes the “ideal world” with the objective of transferring qualifications and standards at a comprehensive and very high level to the entire group of potential teachers, lecturers and trainers.

In the real world not all organisations will be willing (cost and time restraints) to subject their potential teachers, lecturers and trainers to the entire program. And not all potential teachers, lecturers and trainers will be willing to undergo the entire program (time restraints, too theoretical).

We believe that a distinction should be made between full time teachers, lecturers and trainers and those whose tasks in that field are only part time. Particularly trainers.

As a conclusion, there is nothing wrong to subject full time teachers, lecturers and trainers to the whole program of modules 1 to 7. Even in this case, exemptions may be granted, when the person can show that she or he has already acquired some of the skills in another program.

Part time trainers, typically those who work in industrial companies and whose task, but only as part of their everyday work, it is to train new employees and apprentices, should not have to undergo the entire program of modules 1 to 7.

Instead they should be provided with a simple tool that reflects the contents and learnings from module 1 to 7. This tool can be used to provide the training and to check the results and success of this training.

An example of this is the “model curriculum” which is standard in the vocational training in Germany and Switzerland. In Switzerland it is called “Modelllehrgang” which is based on the “teaching plan” (Bildungsplan), formally approved by the ministry of education. The “Bildungsplan” is freely accessible on the internet, e.g. for plastics technologists, and can be downloaded from this website:  
[http://www.sbf.admin.ch/bvz/grundbildung/index.html?detail=1&typ=efz\\_4&lang=de&item=1200&abfragen=Abfrage+durchfuehren](http://www.sbf.admin.ch/bvz/grundbildung/index.html?detail=1&typ=efz_4&lang=de&item=1200&abfragen=Abfrage+durchfuehren)

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