



## Summary

# Competency requirements and training in the plastics processing industry

### Contact

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To strengthen its leadership position, the plastics processing industry is pursuing a strong policy of technological development and developing the competencies of jobseekers and workers. We will examine the most important evolutions as well as their impact on the competencies needed and the employability required of employees.

Since little exists in the way of training to prepare workers for the sector, it is necessary to understand how companies cope with employees who have little or no prior knowledge, and whether they might make use of outside support. The study request was made by WVOK, a joint association of the social partners of the sector for the promotion of training and employment initiatives in the plastics processing industry.

The study was conducted at 15 larger and smaller plastics processing companies across Flanders. Several of these companies belong to a foreign or Belgian group. They frequently are the “lead plants” in Europe. Information was gathered via production facility visits and interviews with company managers and employee representatives.

The companies make finished and/or semi-finished products that customers process or incorporate into their own products. These range from simple to very complex products that include: packaging for electronic components, food products and medicines; beverage bottles; suitcases; window profiles; sewage pipes; machine and vehicle parts; etc. The companies supply very diverse market segments.

There are three important processing techniques used: injection moulding, extrusion and thermoforming. Companies also apply additional processing to their products such as printing, welding, bending, cutting, milling, punching, lacquering, gluing, lamination of products and the assembly of components.

The sector is faced with a shortage of skilled labour, more specifically employees with knowledge of plastics processing. There are few preparatory courses available on plastics. Companies rely on other technical profiles with at least a technical secondary educational degree in electricity, electro-mechanics or mechanics, or they make use of candidates with a different technical background or technical interest. In addition, the emphasis is placed on a candidate's motivation and attitude, for example being open to new products and technologies, being flexible and prepared to work in shifts, in a team or in a clean room.

In-house training is required for all new candidates, including the technically skilled, in order to become acquainted with plastics processing and company-specific techniques and products. In-house basic theoretical training is given by a person who has acquired expertise in the company. The practical training takes place on the job: on machinery and individually under the

supervision of an experienced colleague. External training in a specialist plastics and plastics processing centre occurs only to a limited degree. These centres often are located too far from the companies, and the courses offered are frequently too general.

New employees follow a phased training programme of several days, but frequently of multiple weeks or months before they are able to work independently. They grow from an entry-level position to their actual position. They can move up from starting level to senior level, or progress to other positions.

The expectations of customers and the production requirements are increasing. To remain competitive, companies are opting for continuous innovation and development, and for more specialised and complex products. This results in more complex machines and techniques, additional procedures, more parameters to be configured, more controls, greater attention to quality, greater flexibility, more runs, more changeovers, thoroughgoing automation and increasing digitisation of processes, the search for more efficient processes.

The higher market expectations result in greater competency requirements for employees. The machine operator who sets up and starts the machines has a technical function. The manufacturing production worker who monitors and adjusts the machines, has a monitoring and control function and may also package the products. However, all employees must have increased expertise to perform their tasks: greater technical knowledge of increasingly complex machines and additional peripherals, more parameters to configure or modify, greater knowledge of materials and raw materials, increased expertise to manage and support the process, and greater knowledge of quality management and other care systems. They are also faced with an increasing number of machine changeovers, and must plan and organise their work more.

We also note that an upgrading of positions is underway. Manufacturing production workers are evolving into operators with more responsibility for product quality and the production process, and are taking over small tasks from the machine operators. Machine operators in turn bear more responsibility for monitoring the process and analysing and reporting problems.

Companies are also seeking greater involvement on the part of employees in supporting, managing and optimising the process. They also wish to increase the employability of an employee: operating multiple machines at the same time, engaging in job rotation at similar workplaces, training colleagues, helping out with simpler tasks, performing quality control tasks for the team, etc.

Companies are taking an increasingly structural approach to their supporting personnel policy. They are striving for a solid competence policy and are deliberately paying greater attention to well-being and employee satisfaction.

Finally, they are asking for greater external support in branding the sector and in the intake of new employees. They are also asking outside agencies for enhanced customised support with regard to in-house practical training.

The results of the study are being used among others as input for training campaigns that the association WVOK is developing further for the sector.

*Leen Baisier (2014), Competentiebehoefte en opleiding in de kunststofverwerkende industrie. Excellent in kunststof en techniek, StIA/SERV, Brussels, June 2014*