

After recession, personnel needs in the chemical industry are growing again.

Relevant Education and Training

Through Intensified Cooperation

- **After recession recruitment needs grow again, and the chemical industry is taking effort to ensure relevant education and training in the field on all education levels. With the in-built cooperation between employers, employees, and authorities, the Finnish education system is capable of responding to industry needs.**

Riitta Juvonen

The number of personnel in the Finnish chemical industry has continued along a slight decline for the past decade, the steepest cut falling during the recession of 2008–2009. According to the Statistics Finland, the staff of chemical companies numbered 32,800 in 2009 compared to 35,900 in 2007.

Despite this trend, the chemical companies are also experiencing the peak of baby boomers' retirement, increasing the need for new skilled professional and new recruits. With the strengthening economy personnel needs are now growing. According to a survey by the Confederation of Finnish Industries, about 25 per cent of chemical companies had difficulty filling their job openings during 2009–2010 with qualified people.

The survey results also reveal that the reasons for recruitment difficulties differ from other industries. The general recruitment problem in the industry

is the lack of applicants, whereas the chemical companies mainly lack trained or inadequately experienced applicants.

In trying to explain this, at least two specific issues emerge. First, in the heterogeneous field of the Finnish chemical industry work experience from one company might not be seen as relevant in another.

Second, the education system does not fulfil all the needs of some chemical industry branches. Vocational education and training (VET) for plastics and rubber industry, for example, is only offered by a couple of institutes. Since the needs of companies are not fulfilled by graduates from these VET programmes, they have to recruit people with other qualifications and provide in-service training for updating the skills of the recruits.

New production lines challenging the skills needs

The development plan for education and

research for 2011–2016 will be adopted this autumn by the new government. Published every four years, the plan aims at providing relevant education and training for the Finnish work market. This document is anxiously awaited by all sectors.

The development plan is based on the continuous anticipation of activities of the Finnish authorities. Both quantitative and qualitative workforce needs are considered. In a recent report the Government Institute for Economic Research states that the number of personnel in the chemical industry will continue declining (baseline scenario) or increase only slightly (target scenario) till the year 2015.

According to Chemical Industry Federation these scenarios do not emphasise the opportunities of the rising bio-economy and new innovations enough. The industry believes that new production lines of bio-economy and required solutions for pressing global challenges of energy, water, and raw materials will raise the demand for chemistry and technology professionals. Planned study place cuts for these fields could lead to the unfortunate situation where lack of skilled personnel is a bottleneck to positive development.

It is clear that in the current turbulent economy, anticipation of the future bears severe uncertainties. Nevertheless, building a flexible education system and constantly scanning the industry needs is the only way to keep the education system up-to-date.

Joint efforts for relevant education

One strength of the Finnish education system is the in-built close contact between



Taking Advantage of the International Year of Chemistry

Agents in the Finnish chemical field have effectively made use of the International Year of Chemistry 2011 (IYC). The role of chemistry in society has been presented in various ways. This international occasion also provides a great opportunity to present the career opportunities within the chemical field.

Schools, journalists, chemistry professionals, and the public have been offered a wide variety of entertaining and informative programmes and events, and these continue till the end of this year.

In local and national events both children and grown-ups have, for example, been competing in blowing the biggest soap bubble. Several schools have also participated in the global experiment "Water, the chemical solution" launched by Unesco and IUPAC. In local events, many companies have opened their doors to the public.

The effects of these actions will be realised in the coming years, but the IYC partners already strongly agree that this kind of cooperation is worth continuing.



education and working life. Legislation on vocational education provides that it is planned and implemented jointly.

In April 2011 when the European Social Partners of chemical industry signed the *Framework Agreement on competence profiles for process operators and first line supervisors* it was obvious that the Finnish partners would have no difficulty in implementing the agreement.

The Finnish education system with its in-built co-operation of employers, employees, and authorities could even serve as a benchmark for other countries. In three years the European Sector Social Dialogue Committee of Chemical Industry will review the implementation of this agreement.

A successful example of renewing the education programmes to suit industry needs is the new VET programme for process operators. In 2010, five former chemical and forest industry VET curricula were merged into one study programme. Compared to former programmes it provides students with skills applicable to a much wider set of jobs in the process industry. This is of course a benefit for both the students and industry.

Universities facing various challenges

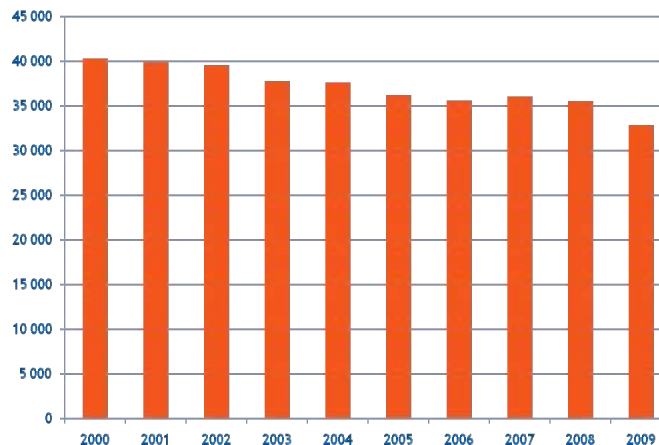
Remarkable changes are occurring on all education levels. During the last few years the Finnish universities have undergone a revolutionary reform both in terms of management, financial administration, and decision-making. The new University Act extends the autonomy of universities by changing their status to independent legal entities, either as public corporations or foundations.

The universities can now better plan their economy. Donations and business activities can be used to supplement their basic financing. With different levels of ambition and success rate of fundraising campaigns, all universities now try to make the most out of the situation. An unfortunate outcome when the new Government, with great difficulty finally, managed to accomplish its programmes in June 2011, one of the hard hit targets was university funding.

The new situation also challenges universities to clarify their strategies and strengthen cooperation with other universities. Guidance for effective strategies in the chemical field should, according to the chemical industry, be taken from the results of the international evaluation of Finnish chemistry research published by the Academy of Finland in February 2011. □

The writer is Director, Education and Innovation, with Chemical Industry Federation of Finland. riitta.juvonen@chemind.fi

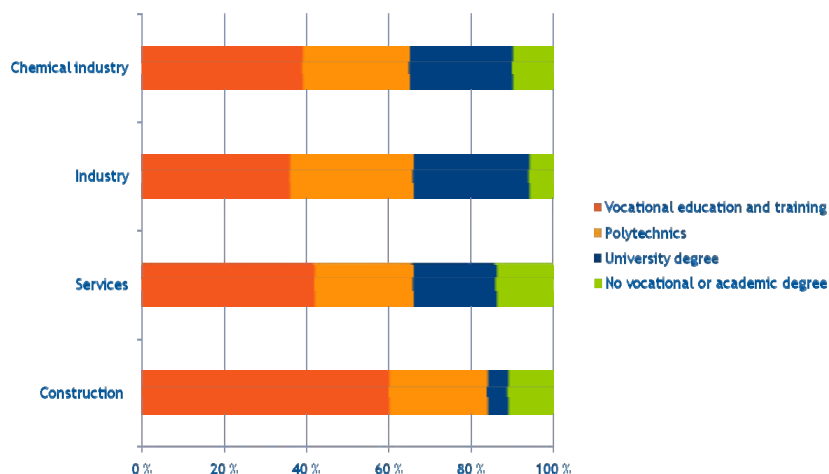
Number of employees in chemical companies



Source: Statistics Finland

The number of chemical industry employees has slightly decreased in the past decade.

Recruitment needs from different levels of education in 2010:



Source: Confederation of Finnish Industries

In 2010, the structure of recruitment needs of chemical industry differed from previous years. While recruits with a university degree have normally outnumbered recruits with a degree from polytechnics, this year the numbers were equal. This development, however, is assumed to be temporary.

Striving Together For a Better Working Life

The Finnish chemical industry has taken initiative to fight one of the biggest challenges of the Finnish economy, the need for lengthening the careers of the workforce. In November 2010, the Chemical Industry Federation together with the employee organisations launched a project encouraging companies to start actions for developing wellbeing at work.

The three-year project focuses on a wide set of working life aspects, such as leadership, developing skills and competencies, motivation, and a

well-functioning work community.

Company projects start during the autumn of 2011, and conclusions will be made by the end of next year. The natural aim is that good practices started by the projects will lead to permanent improvements in the workplace.

As a joint effort of the employers and employees this initiative emphasises the importance of cooperation. Striving together for a better working life will benefit the industry and all members of the work community.