

Success factors for Swiss SMEs 2017

August 2017

Strategies against the shortage of skilled labor



Switzerland's location
SMEs assess the Switzerland's location slightly more positively than in 2016

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Half of SMEs facing recruitment difficulties

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Editorial

Whether a company thrives, responds quickly to challenges and is capable of innovation depends largely on the quality of its employees. It therefore comes as no surprise that in our annual survey of the quality of Switzerland as a business location, small and medium-sized enterprises (SMEs) regularly attach a high level of significance to this success factor and see skilled staff as an important if not the most important pillar for their business success. The relevance of this topic has prompted us to scrutinize the availability of skilled labor in Switzerland as part of this year's edition of the SME Study and in doing so to address the controversial issue of whether and to what extent there is a shortage of skilled labor in Switzerland.

Our survey shows that the shortage of skilled labor is very much a real phenomenon for Swiss SMEs. More than half of companies seeking to recruit are having difficulties finding suitable candidates for vacancies. Around a quarter of the companies surveyed are even acutely affected by a shortage of skilled labor – extrapolated for Switzerland, this amounts to some 90,000 SMEs.

Swiss SMEs are responding in different ways to this challenge. Recruitment abroad is by no means the only option, even if larger SMEs and those situated in border regions often cast a glance across the frontier when seeking staff in order to benefit from a greater pool of skilled labor. However, it is pleasing to note that among the strategies pursued by Swiss SMEs to secure their skilled-labor requirements, training and educating their own employees comes first. Around 80% of companies support in-house training measures and more than half train apprentices. The quality of the Swiss education system and the high importance attached to dual vocational training are once more underlined. But we are not talking about an unconditional song of praise: a quarter of the companies surveyed only consider the education system to be moderately geared to their needs.

A stronger focus of education and training programs on the rapidly changing needs of the economy will become all the more important in the future. Digitalization and automation will bring changes to job profiles and new professions will arise that call for an appropriate response from education. With a quarter of SMEs today resorting to digitalization as a means of combating the shortage of skilled labor, around 40% expect these developments to lead to a greater demand for employees with specific expertise in the years to come. Another challenge that SMEs in Switzerland need to address is the aging population. The populous “baby boom” generation will already be retiring in the next five to ten years and companies will in future be confronted with (at best) a stagnating and aging labor force potential. In view of this, the employment of older staff beyond retirement age would appear to be an obvious potential option, although one that so far is only being practiced by just under a quarter of the SMEs surveyed. However, many companies opting for this path are finding that it pays off. This was also confirmed by the participants in our roundtable discussion who enriched our study with views and experiences from everyday business life.

We wish you an interesting and simulating read.



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Management summary

Switzerland's location continues to promote success for SMEs and assessed somewhat more positively than in 2016

(pp. 10–12)

We canvassed small and medium-sized enterprises (SMEs) on the success factors of Switzerland's location for the sixth time in succession in the spring of 2017. As in the preceding years, the 1,900 or so SMEs questioned consider the location generally to promote success. Eight out of nine locational factors defined by us exert a positive impact on business success, with only the "foreign ties" factor on balance having a negative effect. This negative assessment will be significantly attributable to the ongoing strength of the franc. Under the impression of a general improvement in the economic situation, the companies surveyed altogether view Switzerland's location somewhat more positively than in 2016. The economic environment in particular is assessed more positively than in the previous year when this factor was still generally exerting a negative impact on business success. The positive assessment of the underlying conditions can be found in all sectors. Above all, SMEs from the information and communications technology (ICT) sector and from healthcare, education and social services paint a benign picture of Switzerland's location. These sectors are benefiting from trends such as digitalization, the aging population and the high importance attached to health in the population. Companies from sectors generally tending to provide a below-average assessment, such as transportation and traditional industry, also frequently rate the Swiss business location positively rather than negatively.

SMEs remain pessimistic regarding the economic environment and above all regulation

(p. 13)

In line with the slightly more positive current assessment, Swiss companies are somewhat more optimistic across sectors than in 2016 regarding the future development of locational conditions. Altogether they expect a slight improvement in the next three to five years. Companies are particularly optimistic about the future impact of the research environment and the staff and qualifications factor. However, around a third of SMEs expect the economic environment to deteriorate in the future (although a quarter of them expect an improvement). Four out of ten SMEs anticipate less attractive underlying regulatory conditions in the future.

Around 90,000 SMEs acutely affected by a shortage of skilled labor

(pp. 14–17)

Since the launch of the series of studies, SMEs have assessed the staff and qualifications factor very positively across the board and, in 2017, it received the most positive assessment from companies. In other words, skilled staff and specialists represent the most important pillar for the prosperity of Swiss SMEs. As a result, the constantly recurring discussion about an actual or alleged shortage of skilled labor is receiving a particularly high weighting. This year's edition of the SME Study therefore addresses this topic in detail. Our survey shows that the shortage of skilled labor is very much a real phenomenon. More than half of companies seeking to recruit are having difficulties finding suitable candidates for vacancies – particularly in terms of technical expertise, and management and project management skills. Around a quarter of SMEs claimed to have experienced recruitment difficulties and not to have found a sufficient number of specialists owing to a general shortage in the labor market. Extrapolated in approximate terms for Switzerland as a whole, this means that a good 90,000 SMEs are suffering from an acute shortage of skilled labor.

Companies in Ticino and Geneva benefiting from cross-border commuters

(p. 18)

The likelihood of an SME encountering recruitment difficulties depends among other things on its location. On the one hand, we observe a slight urban-rural divide. Companies from large towns and cities encounter recruitment difficulties less frequently (51%) than those in rural (64%) and tourist municipalities (67%, largely from the Alpine regions). On the other hand, there are also significant differences between various parts of the country. For example, 64% of SMEs in Central and Eastern Switzerland have difficulties finding suitable candidates, compared with 49% in the Lake Geneva Region and just 40% in Ticino. SMEs from the latter two regions are likely to benefit from the above-average number of cross-border commuters working there. Our survey shows that SMEs from municipalities with a very large share of cross-border commuters report recruitment problems significantly less frequently than businesses in other regions.

SMEs focusing on training

(pp. 19–22)

Despite the widespread shortage of skilled labor, SMEs do not just have to stand by without doing anything. We therefore asked the companies surveyed which strategies they deployed to secure their skilled-labor requirements. Training and education topped the list here. Around 80% of SMEs support the training and education of employees sometimes or frequently, and 53% train apprentices. While staff training is widespread in all sectors, SMEs from healthcare, education and social services train apprentices almost twice as frequently as ICT enterprises. Active

searching at careers fairs, or via job portals and recruitment agencies, as well as the hiring of temporary staff or freelancers, outsourcing or the promotion of employment beyond retirement age come to the fore considerably less frequently as measures for meeting skilled-labor requirements. This also applies to the recruitment of skilled labor abroad and investments in digitalization and automation. Although these latter strategies are only pursued by a fifth to a good quarter of companies, they are nevertheless relevant for certain groups. For example, medium-sized enterprises, companies from healthcare and the tourism sector, businesses from municipalities with a high share of cross-border commuters and SMEs with recruitment difficulties fall back on foreign workforces significantly more frequently than others. Industrial, commercial and ICT enterprises focus noticeably more frequently on digitalization as a means of reducing their skilled-labor requirements.

SMEs would prefer more apprentices to more high school students

(p. 23)

Alongside the strategies and measures of the SMEs themselves, the education system is primarily responsible for the quantity and quality of available skilled labor. In line with the generally good reputation of the Swiss education system, a majority of the SMEs surveyed also rate it positively. Sixty-two percent of the companies surveyed believe that the Swiss education system is very well or well aligned to their skilled-labor requirements. However, this result is not without blemish: although there are only a few that award the system poor grades, a quarter still find it only moderately aligned to their needs. There can be no doubt that Switzerland's dual vocational training system contributes to the positive overall rating. But it is also precisely here that many companies also see enhancement potential. Sixty-four percent of Swiss SMEs would in future like more young people than today to opt for an apprenticeship rather than continuing at high school, and possibly to continue their education at a later stage at a university of applied sciences or higher technical college. Conversely, only 15% favor a greater emphasis on the high school and university model. However, we think it would be misguided to deduce that this calls for a reduction in the share of young people completing the Matura school-leaving examination. For instance, in the ICT and healthcare sectors displaying above-average growth and likely to continue doing so in the future, almost half of the SMEs would like to see the high school and university model have more or the same significance in the future compared with today. We can nevertheless say that the survey result serves to confirm the generally prevailing view: the dual vocational training system is held in high esteem by Swiss SMEs and poses a core factor underlying the country's locational attractiveness that must continue to be upheld.

Companies need to prepare for the demographic change

(pp. 24–26)

The development of supply and demand for skilled labor will be decisively shaped by two global megatrends in the years to come: the aging population and digitalization. The working population is set to stagnate in the next few decades for demographic reasons. The populous baby boom generation will already retire in the next five to ten years. According to our forecasts, while around 88,000 people reached ordinary retirement age in 2015, this figure will rise to almost 97,000 each year by 2020 and over 125,000 by 2030. An increasingly large amount of skilled and unskilled labor will therefore constantly need replacing in the years to come. Despite this, Swiss SMEs largely estimate the additional need for skilled labor due to staff retirements in the next five years to be low (59%) to moderate (26%). Only just under 15% of the survey participants expect their future requirements to rise sharply or very sharply. However, Swiss SMEs will not be able to avoid the need to adjust to the aging population and the consequences resulting from this. For example, the employment of staff beyond statutory retirement age offers the opportunity to make better use of the labor force potential of older skilled workers. Nevertheless, across all the companies surveyed, only just under a quarter of SMEs sometimes or often make use of this measure to secure their skilled-labor requirements. Having said this, what also emerges is that the sooner a company expects additional skilled-labor requirements in the future due to staff retirement, the sooner it starts encouraging staff to work beyond statutory retirement age.

Digitalization enables skilled labor to be replaced, but also leads to new requirements

(pp. 24–26)

The second major megatrend that will potentially have a disruptive impact on the labor market of the future is digitalization. However, the longer-term effects of new digital technologies cannot be assessed precisely at present. The automation of activities that are today still executed by skilled labor could on the one hand offset the growth-inhibiting effects of the demographically induced stagnation of the working population. We estimate that, throughout Switzerland, around 49% of workers pursue jobs with medium automation potential and 6% look for jobs with high automation potential. According to our survey, a good quarter of the SMEs surveyed today already make use of digitalization and automation as an explicit means of combating the shortage of skilled labor. At the same time, digitalization poses an immense challenge as it is set to alter

the job profile of many professions radically and reduce the need for skilled labor in certain fields, while increasing it in others. According to our survey, 38% of Swiss SMEs expect digitalization to result in an increased need for workers with specific expertise. Only 8% of companies expect a fall in requirements, while 54% believe they will remain about the same. Whether digitalization ultimately results in a net increase or decrease in the need for skilled labor is therefore something that it is practically impossible to assess today.

**Roundtable participants
praise dual vocational
training**

(p. 27-31)

This year, we once again conducted a roundtable discussion with entrepreneurs from various sectors within the scope of this study. Here, the participants confirm many results of the survey and hypotheses of the study. For example, they all stress the importance of investments in their own employees as a strategy for combating the shortage of skilled labor – be this in the form of training or education. Unlike many survey participants, they emphasize the key significance of reintegrating semi-retired staff into the labor market again and the positive experience they have had with this strategy at their own companies. An important conclusion is that, in view of the shortage of skilled labor, the Swiss economy will probably not be able to afford to allow the baby boom generation to withdraw completely from the workforce. At the end of the discussion, the participants then unanimously take up the cudgels for the dual vocational training system. In their eyes, this represents one of Switzerland's most important competitive advantages – or put another way, one of the core success factors for Swiss SMEs.

Six facts and theses regarding the shortage of skilled labor at Swiss SMEs

Based on the findings of the survey, roundtable and our analyses, the following six core statements and assertions can be put forward:

1. The supply of well-qualified employees poses one of the key locational factors for Swiss SMEs.
2. However, many SMEs are having trouble finding sufficient skilled labor. An estimated 90,000 companies are likely to be acutely affected by the shortage of skilled labor and one in two companies has recruitment difficulties.
3. Access to labor from abroad appears to alleviate the shortage of skilled labor in certain industries and above all in border regions.
4. However, the most widespread strategy for meeting skilled-labor requirements is the in-house training and education of staff.
5. The dual vocational training system is of great significance for Swiss SMEs. A majority of companies tend to view an increased (university-based) academization skeptically. Nevertheless some still see a strong need for academically trained workforces in the SME domain, particularly in the dynamic and innovative IT sector.
6. The megatrends of digitalization and aging will decisively shape the labor market in the near future. SMEs should particularly not underestimate the impact of demographic change and the growing importance of older workforces.

Information about the 2017 SME survey

Taking the pulse of Swiss SMEs

In the latest SME Survey of Credit Suisse, around 1,900 Swiss SMEs were canvassed on their assessment of Switzerland's locational quality and the much-discussed shortage of skilled labor. We discussed strategies for combating the shortage of skilled labor at a roundtable with entrepreneurs from various sectors.

Over 600,000 SMEs in Switzerland

There are almost 600,000 small and medium-sized enterprises (SMEs) in Switzerland. These companies with fewer than 250 employees provide more than two thirds of the country's jobs. Like large companies, SMEs also depend on good underlying economic, political and social conditions in order to remain competitive. We therefore once again surveyed 1,900 SMEs from across the country this year on the factors and underlying conditions contributing to their success in Switzerland.

Assessment of nine success factors today and tomorrow

As in the previous issues of the survey, the SMEs provided their assessment of nine success factors in connection with Switzerland's location (see Figure 1). The focus is placed here on both the current impact of these factors and the future assessments of the SMEs regarding the underlying conditions in Switzerland. The study distinguishes between the significance and influence of success factors. The significance comprises the importance for corporate success. The influence refers to whether the SMEs consider a factor to exert a positive or negative impact on their success. This year we only re-assessed the influence dimension. Previous editions of the study have shown that the significance dimension only alters marginally from year to year, so that a new assessment every year is unnecessary.

Core theme of the shortage of skilled labor

In addition to the general assessment of Switzerland's location, this year's study also addresses the shortage of skilled labor. As our survey shows, this topic is of major relevance for SMEs. The survey results and our analyses are supplemented by a roundtable. Here, we discussed the extent of the problem and strategies for dealing with the shortage of skilled labor with SME decision-makers from a variety of different sectors.

Representative outcome guaranteed by weighting

The survey was conducted by the independent polling organization amPuls on an anonymous basis in March and April 2017. According to the most recent business census of the Swiss Federal Statistical Office, the structure of the sample does not correspond precisely to the sector and size structure of the overall Swiss SME landscape. Industrial and construction firms are overrepresented in the survey, while healthcare, education and social services are underrepresented. Furthermore, medium-sized enterprises are better covered by the survey than micro firms (see Figures on page 9). However, the discrepancies barely limit the validity of the results. In order to guarantee a representative outcome, we weigh the responses in the section on success factors on the basis of the number of full-time equivalents by size category and sector (based on the 2014 business census).

Figure 1: Success factors for Swiss SMEs

Infrastructure	e.g. transport, telecommunications and housing infrastructure
Resources and environment	e.g. access to raw materials and prices, energy supply and prices, management of natural disasters
Underlying regulatory conditions	e.g. taxes, regulations, cooperation with authorities, federalism
Economic environment	e.g. demand trends, wage level, competition intensity, price stability
Foreign ties	e.g. high export and import share of the Swiss economy, international integration of Switzerland, exchange rates, neutrality
Values and society	e.g. multiculturalism, entrepreneurial spirit, attitude toward success, risk propensity, culture of participation
Research environment	e.g. promotion of innovation, cooperation with universities, protection of intellectual property, technological advances
Staff and qualifications	e.g. quality of educational system, availability of skilled labor, female labor participation rate, mobility, workplace morale
Financing conditions	e.g. access to capital markets, interest rate level, insurance opportunities, banking relationship, investment expertise

Source: Credit Suisse

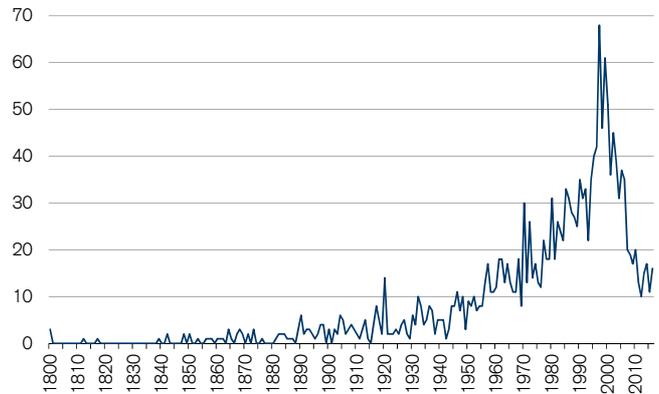
Facts about the survey participants

Almost half the SMEs are less than 30 years old

The SMEs surveyed are on average 41 years old, with age varying greatly with the size of companies. On average, micro firms are 29, small enterprises 47 and medium-sized enterprises almost 60 years old. Economic shocks are also partially reflected in the number of start-ups per year. For example, the number of SMEs founded rose sharply in the years shortly preceding the turn of the millennium, but fell markedly again immediately after the dotcom bubble and also during the financial crisis in 2007. The apparent freefall at present is due to the fact that many very young SMEs have probably not yet been entered in the databases.

Figure 2: Year founded

Number of SMEs surveyed by year founded



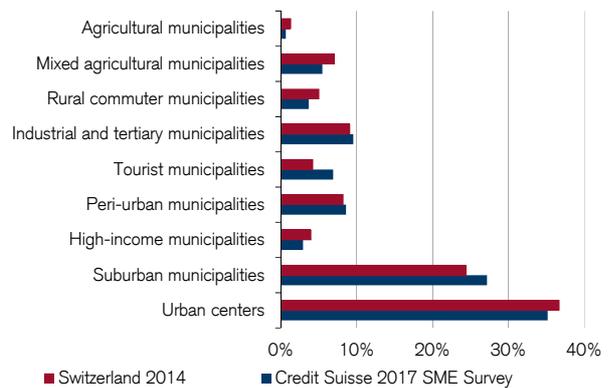
Source: Credit Suisse 2017 SME Survey

Most SMEs come from urban centers

While there are certain differences in terms of sector and size distribution between our sample and the overall Swiss corporate landscape (see charts below), the distribution according to the various types of municipality is extremely representative. The largest share of SMEs comes from urban areas, while rural areas (with the exception of industrial and tertiary municipalities) only house a small share of SMEs. The shares of employees also follow this urban-rural distribution. By far the most employees work in urban centers and suburban municipalities.

Figure 3: Urban-rural distribution

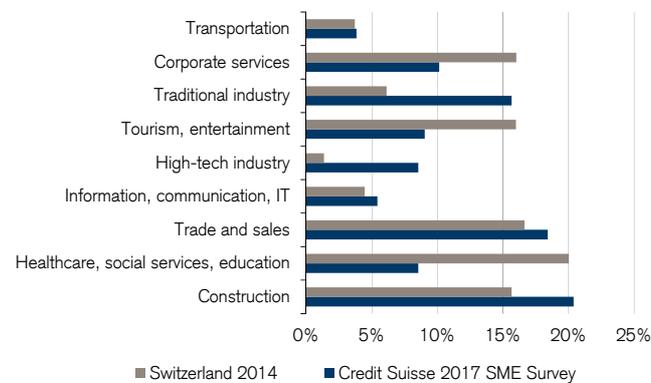
Share of SMEs surveyed and share of enterprises in Switzerland by type of municipality



Source: Swiss Federal Statistical Office, Credit Suisse 2017 SME Survey

Figure 4: Healthcare sector underrepresented, industry overrepresented

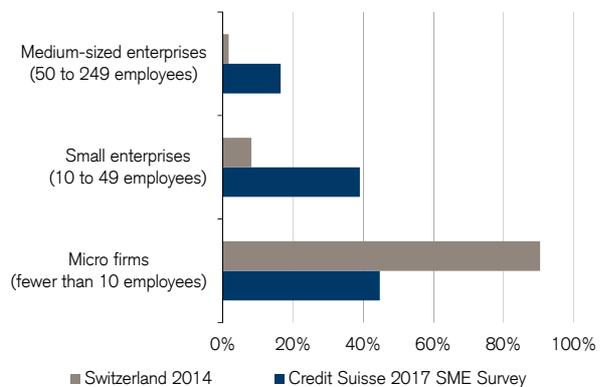
Share of SMEs surveyed and share of SMEs in Switzerland by sector



Source: Swiss Federal Statistical Office, Credit Suisse 2017 SME Survey

Figure 5: Micro firms are underrepresented

Share of SMEs surveyed and share of SMEs in Switzerland by size of company



Source: Swiss Federal Statistical Office, Credit Suisse 2017 SME Survey

Success factors of today

Slightly better assessment of Switzerland's location

Despite the ongoing discussion about the shortage of skilled labor, skilled staff exerts the most positive impact on the success of Swiss SMEs. The latter see the economic environment promoting success for the first time again in three years.

Staff and qualifications assessed extremely positively

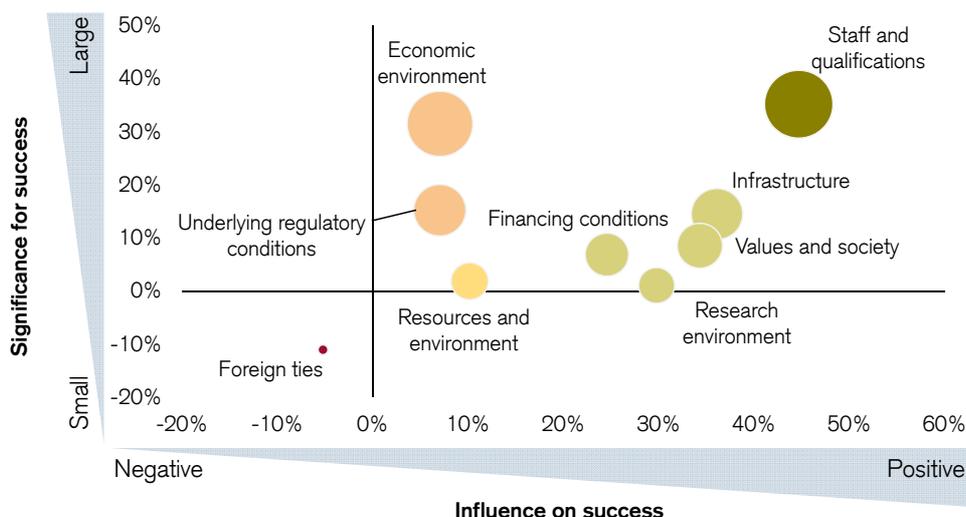
According to the SMEs canvassed, Switzerland's location generally offers good underlying conditions. Eight out of the nine success factors inquired about exert a positive influence on corporate success (see Figure 6), with the staff and qualifications success factor representing the most important influencing factor in the Swiss SME landscape. At the same time, this is also rated as the strongest promoter of success despite the shortage of skilled labor. The proven dual vocational training system in Switzerland undoubtedly contributes to this good assessment, as our analysis of the shortage of skilled labor also clearly indicates (see page 14 onward). The assessment of the SMEs thus indirectly confirms a report of the State Secretariat for Education, Research and Innovation, which comes to the conclusion that the publicly funded education system is of high quality and therefore exerts a positive impact on the skills of the country's workers¹.

Better assessment of the economic environment

After Swiss SMEs still considered the economic environment in 2016 on balance to have a hampering rather than a beneficial impact, the assessment improved noticeably this year (see Figure 7). The influence is on balance rated positively again for the first time in three years. The global economic recovery will have played a significant role in bringing about this improved assessment. Various indicators such as the Business Situation Indicator of the KOF Swiss Economic Institute and the Purchasing Managers' Index (PMI) compiled by us in collaboration with procure.ch also suggest that the recovery from the franc shock in 2015 has since the spring of 2017 – i.e. during the period covered by this study – also gradually begun to materialize among Swiss industrial SMEs. This is also reflected in the slightly improved assessment of the foreign ties factor compared with the previous year (see Figure 7).

Figure 6: Eight of the nine success factors are rated as promoting success

Significance (2016) and influence (2017) of success factors today: balance of weighted positive and negative responses



Source: Credit Suisse 2017 and 2016 SME Surveys

¹ Federal Department of Economic Affairs, Education and Research (2016): *Research and Innovation in Switzerland 2016*.

Challenging exchange rate conditions still noticeable

Despite the positive development, the foreign ties factor continues to have a negative impact on the success of Swiss SMEs. Possible reasons for this are the general political uncertainty, for instance in the Eurozone, or the ongoing strength of the franc despite the incipient economic recovery from the franc shock in 2015. Above all for export-oriented SMEs such as those from the high-tech industry, foreign ties are of major importance.

Infrastructure good – but not for all companies

Swiss SMEs also clearly see a success-promoting influencing factor in the country's infrastructure in 2017, although there are some significant differences across sectors. For example, healthcare, the ICT sector and corporate service providers very frequently view this factor as promoting success, while the trade and sales as well as transportation sectors criticize the infrastructure more often. One in five transportation SMEs attests that the infrastructure has a negative influence on success. The less positive assessment by transportation SMEs is primarily likely to be associated with the fact that the transport infrastructure is becoming increasingly overburdened, with annual congestion hours on the Swiss road network rising continuously for several years².

Assessment of underlying regulatory conditions slightly better

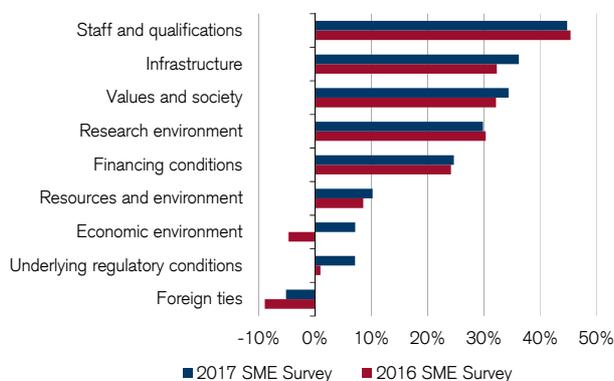
Despite the rejection of the much-discussed Corporate Tax Reform (CTR III) and the uncertainty resulting from this, the underlying regulatory conditions are among the factors that SMEs consider to be having a more positive influence in 2017 than in 2016 (see Figure 7). This is noteworthy in view of the fact that, in last year's survey, SMEs had largely expected a deterioration of the underlying conditions in the years to come. One possible reason for the surprisingly improved assessment could be the "soft" implementation of the mass immigration initiative at the end of last year.

ICT sector with best assessment of Switzerland's location

Altogether – across all success factors – the SMEs' assessment of Switzerland's location has improved slightly compared with the previous year, as illustrated by our "Credit Suisse SME Locational Indicator" (see Figure 8). For the Locational Indicator, we aggregate the responses on influence and significance of all nine success factors to create a single parameter, with a value above 3 representing an assessment of the location as generally promoting success. It is noticeable that the indicator has improved for almost all sectors. Above all, the more positive assessment of the underlying regulatory conditions and the improved economy have contributed to this. ICT SMEs this year for the first time provide the best assessment of Switzerland's location compared with the other sectors. Healthcare and the high-tech industry also rate Switzerland's locational conditions very positively. However, traditional industry and the transportation sector rate Switzerland's location worse than the Swiss average, although on balance still considering it to promote success.

Figure 7: Better assessment of economic environment

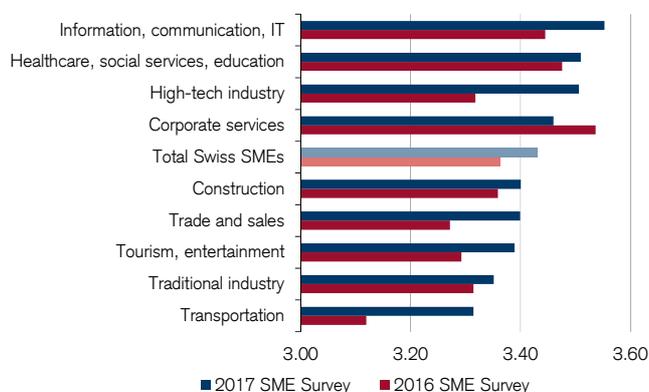
Influence of success factors on the success of SMEs in 2017 and 2016: balance of weighted positive and negative responses



Source: Credit Suisse 2017 SME Survey

Figure 8: ICT and healthcare most satisfied

Locational indicator by sector: weighted average of responses across all nine success factors (1=–negative, 5=positive); where scores are above 3, Switzerland's location is deemed to promote the success of SMEs



Source: Credit Suisse 2017 SME Survey

² Federal Roads Office (2016): *Verkehrsentwicklung und Verfügbarkeit der Nationalstrassen – Jahresbericht 2015 (Traffic Development and Availability of National Roads – 2015 Annual Report)*

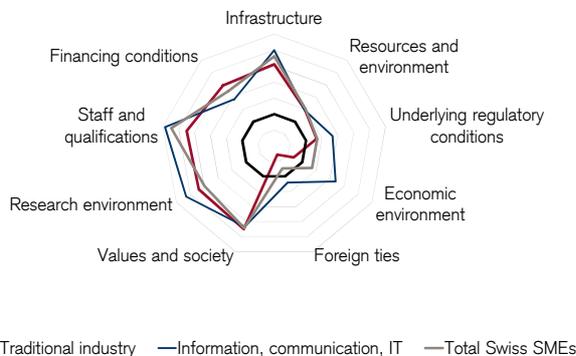
Success factors of today – selected aspects

Two selected sectors in direct comparison

If we compare the youngest sector by year founded with the oldest one in our sample, a clear contrast can be identified. While the relatively young ICT sector in Switzerland awards above-average grades for the staff and qualifications factor as well as the infrastructure and research environment, SMEs from traditional industry assess most of the success factors with the exception of financing conditions and the research environment less positively than the Swiss average. Nevertheless, even this sector considers that seven out of nine factors generally promote success.

Figure 9: Success factors for selected sectors

Influence of success factors: balance of weighted positive and negative responses; negative within the black circle, positive outside



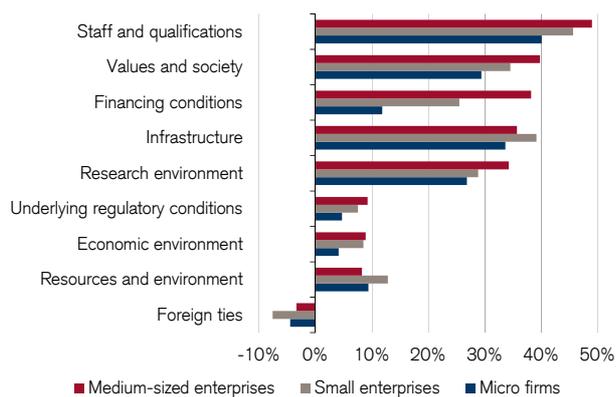
Source: Credit Suisse 2017 SME Survey

Micro firms assess financing conditions less positively

Small and medium-sized companies largely assign a more positive influence to the success factors than micro firms do. This does not necessarily mean that Switzerland's location is generally more supportive of success for larger SMEs. It could instead be an indication that micro firms are shaped more by their individual environment and own business decisions, placing more weight on these factors for their success and therefore considering exogenous locational factors less frequently to be particularly positive or negative. The assessment differences are most pronounced with regard to financing conditions. We discussed the reasons for this in the 2016 edition of the SME Study³. Another study shows that micro firms make significantly less use of borrowing resources⁴.

Figure 10: Assessment differences by size category

Influence of success factors today: balance of weighted positive and negative responses by size of company



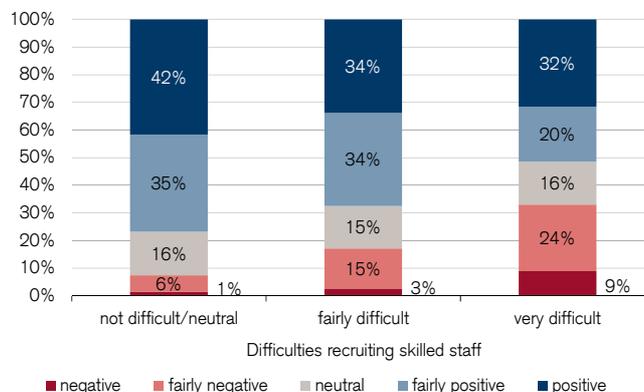
Source: Credit Suisse 2017 SME Survey

Skilled labor shortage has negative impact on location

In the following sections, we address the shortage of skilled labor in detail. The adjacent chart illustrates the relevance of the topic for Switzerland's location. While only around 7% of SMEs without recruitment difficulties assess the staff and qualifications success factor negatively, this figure rises to a third for SMEs with significant recruitment difficulties. As this factor is seen as very significant for the success of Swiss SMEs (see Figure 6), it can be concluded from this observation that a widespread shortage of skilled labor would exert a markedly negative impact on the locational quality of Switzerland for SMEs.

Figure 11: Assessment of staff and qualifications

Assessment of the impact of the staff and qualifications success factor in %; grouped according to the level of recruitment difficulties



Source: Swiss Federal Statistical Office, Credit Suisse 2017 SME Survey

³ Credit Suisse 2016 SME Survey: *Combating locational disadvantages with the latest technologies.*

⁴ Dietrich, Duss & Wernli (2017): *Studie zur Finanzierung der KMU in der Schweiz 2016 (2016 Study on the Financing of SMEs in Switzerland).*

Success factors of tomorrow

Cautious optimism

Altogether, SMEs from all regions of Switzerland generally view the future with optimism. However, with regard to the economic environment and underlying regulatory conditions, they tend to remain pessimistic about the future.

Improved conditions today lead to slightly more optimistic future prospects

SMEs are viewing the future with moderate optimism across all success factors and therefore expect a slight improvement in the locational conditions for the next three to five years. Compared with 2016, the future assessments of SMEs have thus become somewhat more positive. This is clearly also connected with the improved assessment of the current locational conditions (see Figure 8). In order to arrive at this general statement about the locational prospects for Switzerland, we aggregate the assessments of SMEs regarding the future development of the individual success factors along similar lines as those for the locational indicator for the current situation.

Pessimism regarding the underlying regulatory conditions and economic environment

Although SMEs have constantly expected a deterioration of the underlying regulatory conditions and the economic environment in the last few years, these locational factors were assessed better in 2017 than in 2016 (see Figure 7). Nevertheless, Swiss SMEs still remain pessimistic about both success factors. Almost 40% fear a worsening of the underlying regulatory conditions and 34% fear a worsening of the economic environment in the next three to five years (see Figure 12). Regarding the last success factor, however, 27% also expect an improvement.

More optimistic outlook for research environment and staff factors

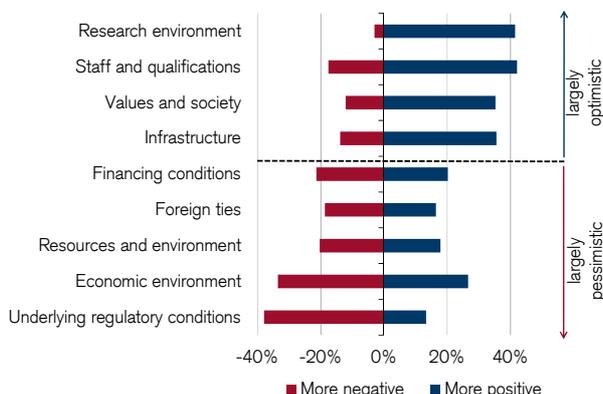
By contrast, the SMEs surveyed expect an improvement in the important success factors of staff and qualifications and research environment in particular. Depending on the sector, a good third (tourism) to more than half (ICT) of SMEs expect the influence of the research environment to improve in the next five years.

Cautious optimism in all regions, Ticino confident

Swiss SMEs in all regions unanimously expect a slight improvement in locational quality on average in 2017. With the exception of Ticino, which is adopting a clearly more optimistic stance compared with the Swiss average, the regions all lie close together in terms of their assessment of future prospects (see Figure 13). As in the previous year, SMEs in Eastern Switzerland are predicting an improvement in locational conditions somewhat less frequently compared with the other major regions. However, unlike the figures for Ticino, the differences are not statistically significant.

Figure 12: Considerable pessimism about regulation again

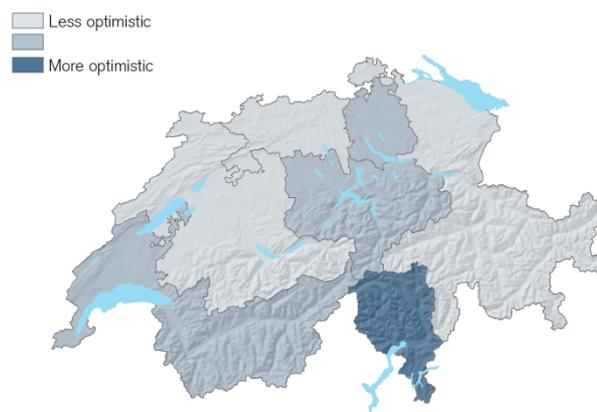
Expected change in influence in the next three to five years: share of responses (positive/negative) ordered by % according to the balance



Source: Credit Suisse 2017 SME Survey

Figure 13: Ticino SMEs are the most confident

Significance today (2016) and influence tomorrow (2017) of the success factors in the seven major regions in comparison with the Swiss average



Source: Credit Suisse 2017 SME Survey

Shortage of skilled labor – overview

Widespread recruitment difficulties of SMEs

More than half of SMEs seeking to recruit are having difficulties finding suitable candidates for vacancies. Around a quarter of the SMEs surveyed are likely to be acutely affected by the shortage of skilled labor – extrapolated for Switzerland, this amounts to some 90,000 SMEs.

What is a shortage of skilled labor?

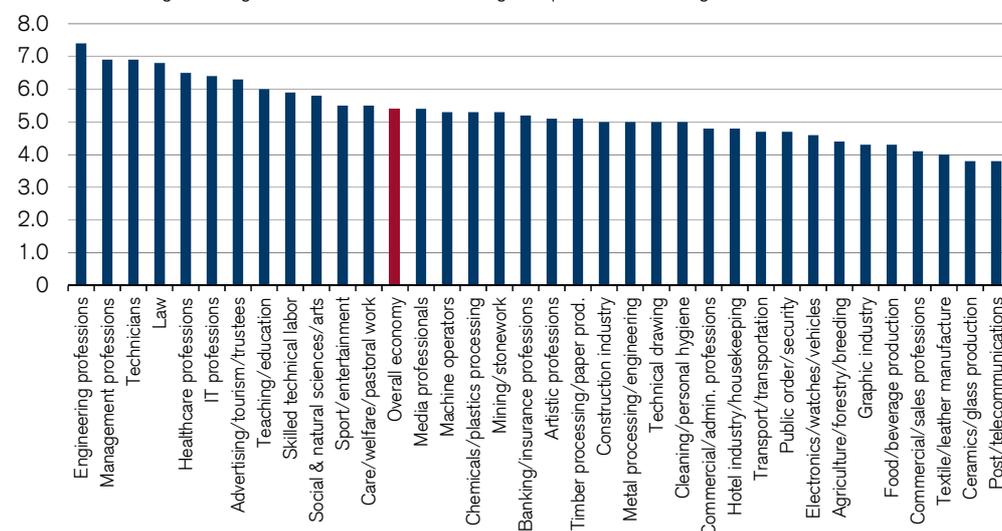
Skilled labor poses one of the most important success factors for Swiss SMEs, as the assessment of the success factor "staff and qualifications" from the previous sections illustrates. A broad-based shortage of skilled labor would therefore prove all the more serious. The issue is constantly subjected to wide discussion in the media and the political arena, but what exactly does it mean? In its simplest definition, a shortage of skilled labor means that the demand of companies for skilled staff exceeds the supply. As long as the labor markets function without hindrance, a shortage must theoretically recede sooner or later. On the one hand, in the event of excess demand, companies would improve the attractiveness of their jobs primarily by means of wage increases. At the same time, workforces would gear their training and education more strongly to the skills in demand from companies. However, these mechanisms often do not work in practice. For example, despite rising demand for its services, a hospital cannot pay wages as high as it likes as it is unable to simply raise its prices for regulatory reasons. And workforces cannot just acquire any skill that happens to be in demand. The costs and duration of training for very specialized activities are often high.

Indicators are a help, but require supplementary information

However, it is not that easy to determine the extent of any shortage of skilled labor. Recourse is generally made to indicators or surveys. For example, the State Secretariat for Economic Affairs (SECO) makes use of the unemployment rate, the number of vacancies or the immigration rate to identify sectors in which the shortage of skilled labor is particularly marked. Figure 14 presents the overall indicator of the SECO on the basis of these and other key figures. According to this indicator, the shortage of skilled labor is particularly acute in the engineering, management, technical, legal, IT and healthcare professions. Such indicators help to identify where the shortage of skilled labor is particularly pronounced from a relative perspective. However, they normally only provide limited information about the general extent of the shortage. Furthermore, they are not specifically tailored to the skilled labor situation of SMEs. Here there remains a pronounced knowledge gap that the following sections help to fill.

Figure 14: Shortage above all in engineering, management and technical professions

Overall index: the higher the figure, the more the indicators altogether point toward shortages



Source: State Secretariat for Economic Affairs, Credit Suisse

Around a quarter of Swiss SMEs acutely affected by the shortage of skilled labor

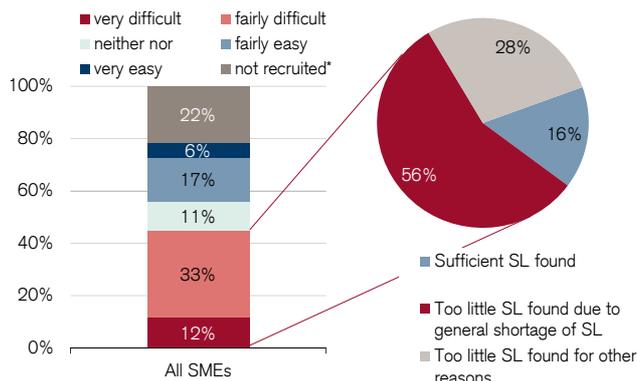
It can be seen that the shortage of skilled labor among Swiss SMEs is a very widespread challenge. Altogether, almost half of those surveyed (more than half of the recruiting SMEs) had difficulties finding suitable candidates (see Figure 15, left)⁵. However, by far not all companies having recruiting difficulties suffered effectively from a shortage of skilled labor. Almost half of the SMEs with recruitment difficulties ultimately found sufficient skilled labor or, if they were unable to find it, did not blame this on a general shortage (see Figure 15, right). In fact, "only" 56% of SMEs with recruitment difficulties failed to find sufficient skilled labor and attributed this circumstance to a general shortage on the labor market. In terms of the overall field of participants, around a quarter of SMEs therefore claimed to have experienced recruitment difficulties and not to have found a sufficient number of specialists owing to a general shortage on the labor market. Extrapolated by means of weighting procedures to the entire Swiss SME landscape, this means that a good 90,000 SMEs are suffering from an acute shortage of skilled labor. The issue is therefore certainly very relevant for Swiss SMEs.

Specialist and management skills most difficult to find

"Skilled labor" is a catch-all term that we deliberately did not define more specifically in the survey. Depending on the companies and activities in question, specialists need to have varying degrees of skills. We therefore asked the SMEs with recruitment activities in the last five years which skills and knowledge were particularly difficult to find. The following picture emerges: across all the skills we inquired about, Swiss SMEs found it most difficult to find candidates with technical expertise (which varies from sector to sector). Fifty-six percent of the companies surveyed found the search difficult or very difficult (see Figure 16). At 51%, almost just as many SMEs reported problems recruiting candidates with management and project management skills. Among the other skills inquired about, the survey points comparatively less strongly toward a widespread shortage, but more to a situation-specific acute shortage of skilled labor. Interestingly, this also applies to IT skills. Although only around a quarter of SMEs had difficulties finding staff with IT skills, this does not mean that there is no shortage in this area, but that it is limited to significantly fewer companies. And even if, as with the example of IT skills, only 25% of companies seeking staff have problems recruiting employees with adequate expertise, extrapolated to the entire Swiss SME landscape this means that several tens of thousands of SMEs are affected. It is also important to note that there are major sector and above all regional differences (see pages 17 and 18). It is therefore difficult to make any universal statements.

Figure 15: 45% having difficulties finding candidates

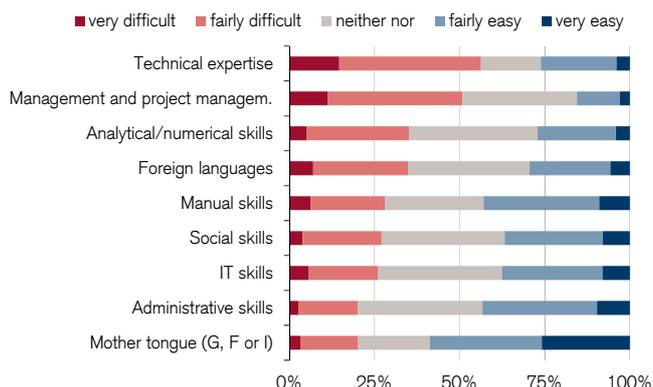
Bars: response to question of how difficult the search for candidates was
Pie chart: response to question about reason for shortage of skilled labor, SL = skilled labor⁶



Source: Credit Suisse 2017 SME Survey; * have not recruited in the last five years

Figure 16: No widespread shortage everywhere

Share of responses to question about how difficult the search for the corresponding skills was*



Source: Credit Suisse 2017 SME Survey; *Figures 16–22 only SMEs that have recruited in the last five years

⁵ Wording of question: At your last recruiting attempt, was it generally ...very easy to very difficult... for your company to find suitable candidates for vacant positions?

⁶ Precise wording of question for pie chart: If your company fails to find sufficient skilled labor, which of the following reasons do you think better accounts for this shortage? (a) There is too little skilled labor on the labor market in the areas required by our company ("Too little SL found due to general shortage of SL"). (b) The sought-after skilled labor is generally available on the labor market, but our company is experiencing difficulties in finding and recruiting it ("Too little SL found for other reasons"). (c) My company is able to find sufficient skilled labor.

Below-average shortage in the IT and healthcare sectors?

Figure 17 on the next page illustrates the recruitment difficulties by sector. What is immediately striking is that the ICT sector as well as education, healthcare and social services report recruitment difficulties with a below-average frequency, despite the fact that healthcare and IT are commonly thought to be precisely the kinds of sector with a high need for skilled labor. The SECO indicator from Figure 14 also pinpoints an above-average shortage in IT and healthcare professions. However, the contradiction is in part only an apparent one. The survey not only examines healthcare, but also social services and education. The ICT sector group not only includes IT firms, but also companies from the fields of media, publishing and telecommunications. Moreover, although the SECO indicator indicates a high shortage of skilled labor for healthcare professions overall, alongside the nursing professions this is primarily located among doctors, pharmacists and dentists – occupational groups in SMEs that often comprise employers rather than employees. For the latter – medical practice assistants, pharmacy assistants, dental assistants – the SECO indicator also partially points to a below-average shortage. While, in our survey, the share of SMEs in the ICT sector experiencing little difficulty in filling vacancies is well above average, this sector also has the highest share of companies finding recruitment very difficult (23% versus 15% for Switzerland as a whole). The extent of the shortage will therefore be very strongly dependent on the area and specific expertise of the company in the ICT sector.

Shortage of skilled labor – sector differences

Recruitment difficulties by sector

Various investigations have already shown that the degree of intensity of the shortage of skilled labor varies from sector to sector. This also emerges in our survey. SMEs from traditional industry (e.g. the food industry) and construction are most frequently confronted with recruitment problems. Above all, engineers, technicians and management staff will be in demand here. Somewhat surprisingly, however, the ICT and the healthcare, social services and education sectors are found at the other end of the scale. Both sectors are generally considered to be particularly strongly affected by the shortage of skilled labor (see also the SECO indicator on page 14). See the box on page 16 for an explanation of this finding.

Management and technical expertise

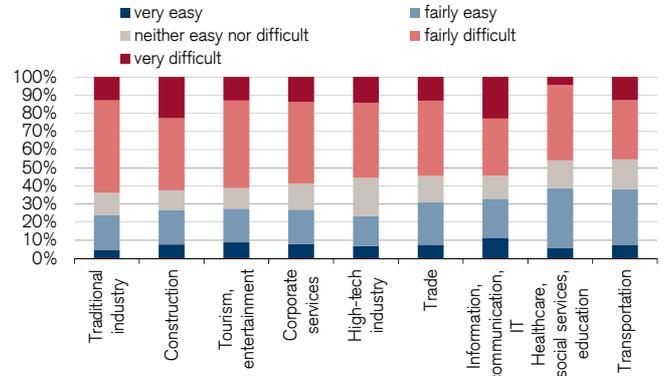
Viewed from a nationwide perspective, SMEs are particularly encountering recruitment difficulties in the search for technical expertise. This is a finding that applies to SMEs of all sectors. A similar situation can be found in regard to management and project management skills, although here the shortage appears to be somewhat more pronounced in construction and industry than in the service sectors. The specific technical expertise naturally varies from sector to sector. In healthcare, for example, it might include nursing skills, whereas the IT sector might need specific programming languages.

IT and manual skills

Overall, SMEs experienced recruitment difficulties less frequently for the other fields of competence addressed in the survey than for specialist and management skills. On the other hand, the relative sector differences are often larger. For instance, a shortage of IT skills is encountered significantly more frequently in the ICT sector than in other sectors. Conversely, SMEs from construction and industry perceive a shortage of manual skills more frequently than companies from the ICT sector or from healthcare, social services and education.

Figure 17: Pronounced shortage in construction and industry

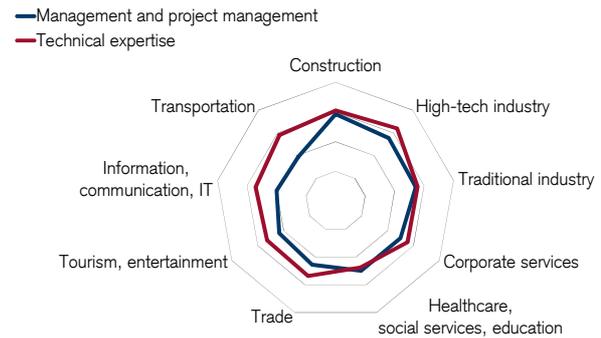
Response to question of how difficult the search for candidates was



Source: Credit Suisse 2017 SME Survey

Figure 18: Technical expertise sought everywhere

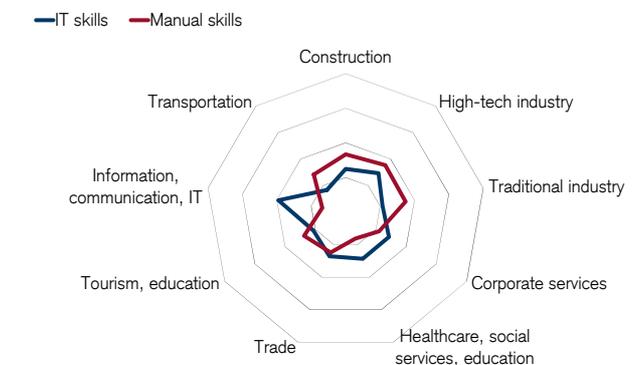
Share of SMEs with recruitment problems in regard to the corresponding skill; the further out the circle stretches, the more pronounced the shortage



Source: Credit Suisse 2017 SME Survey

Figure 19: IT skills particularly lacking in the ICT sector

Share of SMEs with recruitment problems in regard to the corresponding skill; the further out the circle stretches, the more pronounced the shortage



Source: Credit Suisse 2017 SME Survey

Shortage of skilled labor – regional differences

Differences by region

The degree of intensity of the shortage of skilled labor varies from region to region. In Central and Eastern Switzerland, 64% of recruiting SMEs claimed to find the search for suitable candidates difficult or very difficult. By contrast, this share amounts to just 49% in the Lake Geneva Region and a mere 40% in Ticino. The shortage of skilled labor thus appears to be less severe in French- and Italian-speaking Switzerland than in German-speaking Switzerland. The reasons for the differences are multifaceted. They will partly be explained by geographical factors (urban versus rural areas), but partly also by regional differences in the share of cross-border commuters.

Differences by type of municipality

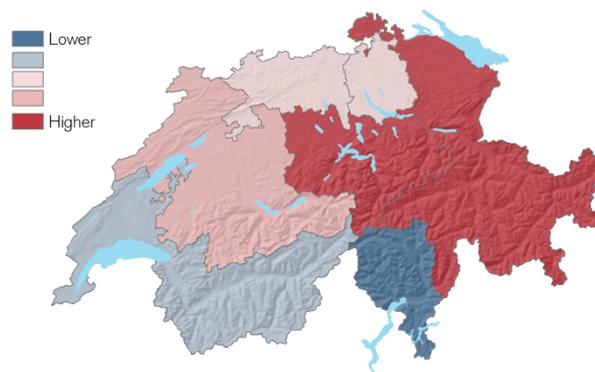
The regional differences are not only marked with regard to cantonal borders and linguistic regions, but to a certain extent also in terms of the geographical urban-rural dimension. The classification of survey participants by type of municipality shows that SMEs in towns with a workforce exceeding 30,000 less frequently encounter recruitment difficulties (51%) than companies in particular from tourist municipalities (67%) that are largely to be found in Alpine areas. However, the difference between small-sized centers, agglomeration municipalities and rural communes is only moderately pronounced.

Influence of cross-border commuters

SMEs from regions with a high share of cross-border commuters in the working population experience recruitment problems considerably less frequently than companies from other regions. However, it must be borne in mind here that this almost exclusively represents a phenomenon in the cantons of Ticino and Geneva, and to some extent Basel-City. Eighty-four percent of survey participants from municipalities with a share of cross-border commuters exceeding 20% come from Ticino or Geneva. However, there are also regions with a high share of cross-border commuters in which the recruitment situation is not assessed any better than in the rest of Switzerland – for instance, the Canton of Basel-Land.

Figure 20: Greater shortage in Central and Eastern Switzerland

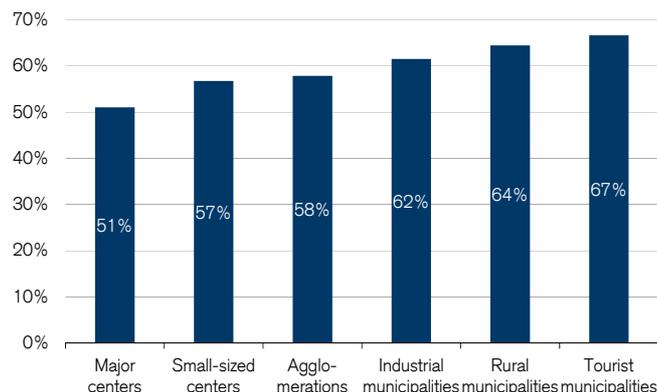
Share of SMEs with recruitment difficulties; red = higher than Swiss average, blue = lower than Swiss average



Source: Credit Suisse 2017 SME Survey

Figure 21: SMEs in large towns and cities have fewer problems

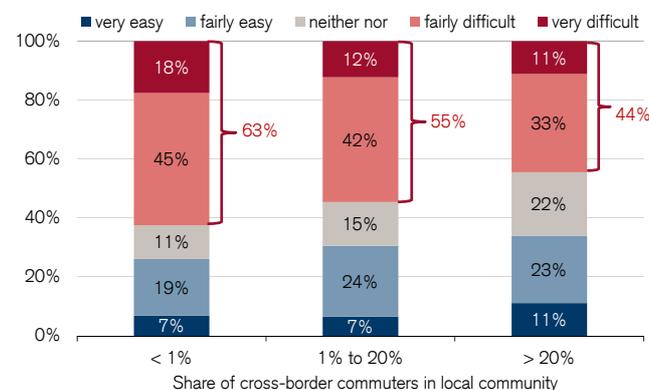
Share of SMEs with recruitment difficulties



Source: Credit Suisse 2017 SME Survey

Figure 22: Cross-border commuters reduce shortage

Response to question of how difficult the search for candidates was; grouped by share of cross-border commuters in total workforce of local community



Source: Credit Suisse 2017 SME Survey

Shortage of skilled labor – strategies SMEs focusing on training

In order to meet their skilled labor requirements, Swiss SMEs largely rely on the development of staff. Skilled labor from abroad forms an important pool for many sectors and regions. Industry, trade and ICT focus on digitalization.

Training and education of own employees in the foreground

Difficulties in the recruitment of suitable skilled labor are a widespread phenomenon among Swiss SMEs. The strategies for meeting skilled labor requirements are varied and reflect the fact that SMEs are confronted with specific labor markets and challenges depending on their region, sector or size. However, according to our survey, the provision by companies of training for their own employees emerges as the common denominator. Almost 80% of the companies surveyed deploy this measure sometimes or frequently to meet their skilled-labor requirements (see Figure 23). The focus on the development of company-specific human capital is also confirmed by the large share of companies involved in the training of apprentices: 42% of the SMEs canvassed frequently draw on apprentices to meet their skilled labor requirements and a further 11% sometimes deploy this measure.

Competition for good skilled labor on the labor market

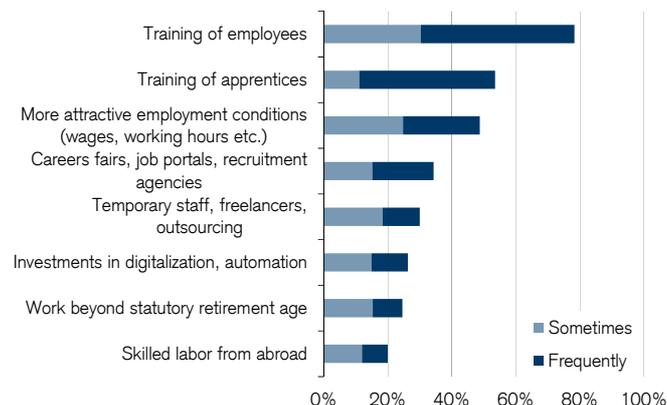
According to our survey, the strategy most cited after training and education for meeting skilled labor requirements is to offer more attractive employment conditions than the competition, be this in terms of wages, working hours or additional benefits. Almost half of the companies draw on this measure sometimes or frequently. This points toward a certain degree of competition for good skilled labor in Switzerland, with SMEs particularly forced to compete in the urban regions and industrial municipalities. Most challenged in this respect are companies from the ICT sector, transportation, tourism and the high-tech industry (see Figure 24).

Careers fairs and recruitment agencies above all in the event of recruitment difficulties

Active searching at careers fairs, or via job portals and recruitment agencies, and also the hiring of temporary staff or freelancers, outsourcing or the promotion of employment beyond retirement age come to the fore on average considerably less frequently among the SMEs surveyed as measures for meeting skilled-labor requirements. However, some interesting differences can be identified. Companies experiencing difficulties in the recruitment of skilled labor display above-average activity at careers fairs or more frequently make use of the services of job portals or recruitment agencies, and are prepared to bear the corresponding costs (see Figure 25). This generally also applies to companies from the high-tech industry that in view of their pronounced specialist requirements may well adopt a more focused approach when seeking staff and address certain job categories in a targeted manner. Work beyond statutory retirement age is also promoted more strongly than on average in this sector – a strategy that is surprisingly also found

Figure 23: Trend in targeting of human capital

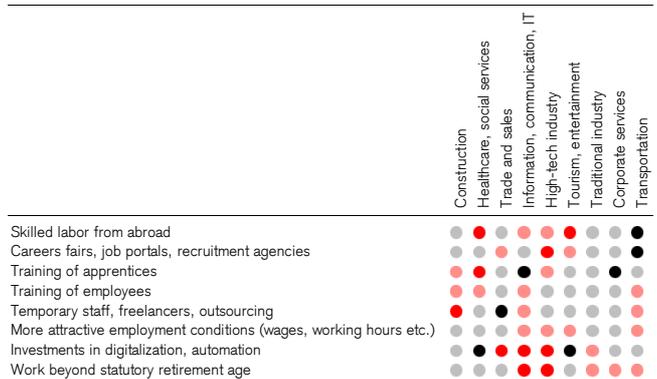
Share of SMEs that sometimes or frequently deploy the corresponding measure to meet their skilled-labor requirements.



Source: Credit Suisse 2017 SME Survey

Figure 24: Different strategies from sector to sector

Share of SMEs that sometimes or frequently deploy the corresponding measure to meet their skilled-labor requirements in relation to the average of all SMEs surveyed, red = above average, black = below average



Source: Credit Suisse 2017 SME Survey

frequently in the relatively young ICT sector. One possible explanation for this could be that well- and highly qualified employees in particular consider extending their working life beyond retirement age.

Trade, ICT and industry more frequently rely on digitalization

On average, only around 26% of the companies surveyed invest sometimes or frequently in digitalization and automation as a strategy to reduce the need for skilled labor. However, this process is already considerably advanced in trade, the ICT sector, the high-tech and, to a lesser degree, traditional industry than in the other sectors. Activities in these sectors are geared more strongly to routine operations and have a higher potential for substituting human labor with machines than, for example, in healthcare and tourism, which are more strongly characterized by interactive activities that are more difficult to automate (see section entitled “Megatrends: Digitalization and demographic change” on page 24 onward).

Skilled labor from abroad a welcome pool in certain cases

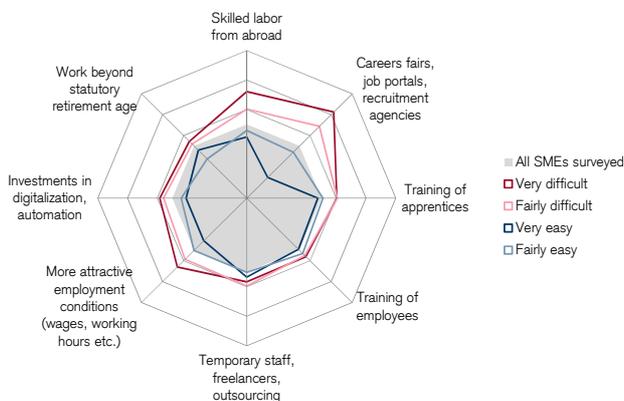
One issue that has undergone controversial discussion not least in connection with the implementation of the mass immigration initiative concerns the significance of foreign skilled labor for alleviating the shortage of skilled labor. According to our survey, on average just 20% of the canvassed companies claim sometimes or frequently to draw on skilled labor from abroad. However, the picture changes significantly if we view the SMEs from a differentiated perspective. For SMEs experiencing major difficulties in the recruitment of suitable skilled labor, the pool of skilled labor from abroad poses a welcome option (see Figure 25). Foreign skilled labor is considerably more important for medium-sized companies than for micro firms. Around 37% sometimes or frequently draw on this measure, compared to 11% of micro firms. Skilled labor from abroad likewise plays a greater role in healthcare and tourism than in other sectors. However, the significance of this pool of labor is most strongly reflected in border regions. In municipalities with shares of cross-border commuters in the working population in excess of 20%, the share of SMEs sometimes or frequently hiring skilled staff from abroad is twice as high (32%) as in municipalities with a share of cross-border commuters up to a maximum of 1% (see Figure 26). The frontrunner here among the border regions is Ticino.

Do cross-border commuters reduce the pressure to invest in human capital?

Overall, as illustrated in the previous section, SMEs from the border regions report recruitment problems less frequently than companies from other parts of Switzerland thanks to the extended labor market. However, the high availability of skilled labor on the other side of the border at the same time also appears to reduce the pressure to adopt other measures to maintain and further develop company-specific human capital. For example, SMEs in municipalities with high shares of cross-border commuters focus less on the training of employees, more attractive employment conditions, work beyond statutory retirement age and the training of apprentices, although the latter can partly be explained by regional differences with regard to preferred paths of education⁷

Figure 25: Those with problems have to search more actively

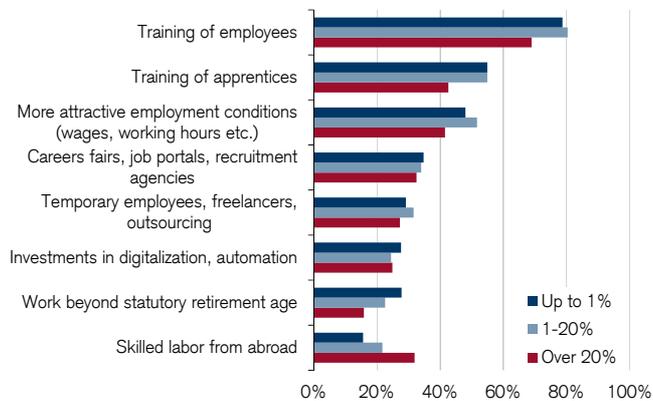
Share of SMEs that sometimes or frequently deploy the corresponding measure to meet their skilled-labor requirements by difficulty of recruitment; the further out the circle stretches, the more frequently the measure is deployed



Source: Credit Suisse 2017 SME Survey

Figure 26: SMEs in border regions look abroad

Share of SMEs that sometimes or frequently deploy the corresponding measure to meet their skilled-labor requirements by share of cross-border commuters in total workforce of local community



Source: Credit Suisse 2017 SME Survey

⁷ Ticino and the cantons of Geneva and Basel-City traditionally report the highest high school matriculation rates.

(see Figure 26). The availability of a broad supply of labor on the other side of the border can on the one hand be seen as promoting the growth of SMEs from these regions if it is possible to recruit the requisite skilled labor that would otherwise not be available in the region. The fact that the standard of education of cross-border commuters has developed toward higher skills and qualifications over time at least partially suggests that this is the case. On the other hand, it also constantly poses the risk of certain investments and structural adjustment processes being curbed. For example, the fact that Ticino's economy for decades lagged behind the national average prior to the turn of the millennium can be explained not least by a delayed structural change.

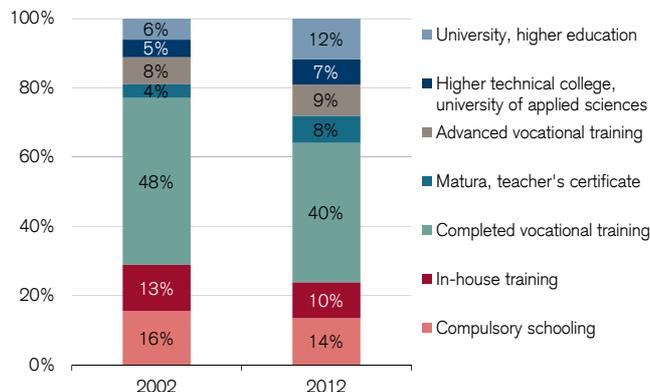
The level of qualification of migrants and cross-border commuters

According to the structural survey carried out as part of the census, around 54% of the foreign workers immigrating between 2011 and 2014 have a degree from a university or university of applied sciences. Only one fifth have not completed any further education and around 25% have a school-leaving qualification at secondary level 2. The relationship between the individual levels of qualification was quite different until the mid-1990s: almost half of migrants had only completed compulsory schooling and the share of highly qualified migrants who had completed tertiary education was around 20%. Although the present nationality structure of immigration suggests a slight shift toward a lower level of qualification, there can be no talk of an influx of unskilled workers. A change in the qualification structure in favor of better-educated workers can also be observed among cross-border commuters (see Figure 27). A comparison of the wage structure survey for the years 2002 and 2012 shows that the share of cross-border commuters with advanced vocational training or a qualification from a higher technical college or university of applied sciences rose from 13% to 16%; the share with a university degree even doubled from 6% to 12%.

Nevertheless, not all sectors employ highly qualified staff and immigration does not appear to exclusively benefit those areas suffering from a shortage of skilled labor in all sectors. Figure 28 illustrates these differences by way of a comparison of the construction sector with the ICT sector. Building contractors above all recruit workmen (62%) and unskilled labor (14%) abroad, primarily for bricklaying and the finishing trade. These job profiles are also reflected in the low level of qualification of migrants in this sector: almost half the migrants have only completed compulsory schooling and around a fifth of the total number of migrants with this level of education work in construction. The picture in the ICT sector is completely different. Over 60% of the workers recruited from abroad in this sector have an academic background and a further 22% perform a management function. Accordingly, 87% of the migrants in this sector hold a degree from a university or university of applied sciences. The migrants primarily comprise software developers, system analysts and academic professionals in information and communications technology. If we now compare the job profiles of migrants in both sectors with indicators regarding the shortage of skilled labor and our survey, it becomes apparent that, in the construction industry, recruitment abroad above all appears to satisfy a demand for manual skills and does not so much represent a response to the shortage of construction engineers and managers. By contrast, in the ICT sector, which has particular difficulty recruiting people with IT skills, the job profiles of migrants more closely match the skills in demand.

Figure 27: Level of qualification of cross-border commuters increasing

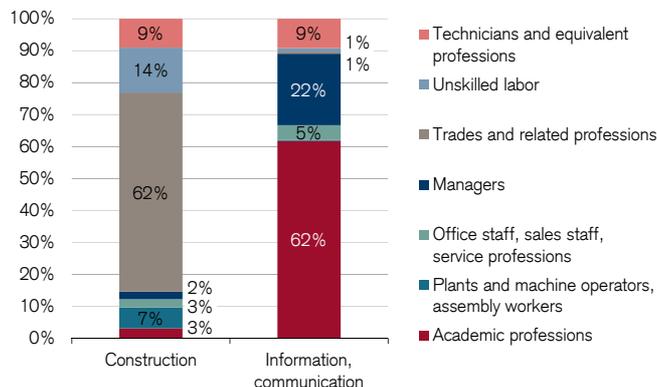
Level of education of cross-border commuters in %



Source: Swiss Federal Statistical Office, Credit Suisse

Figure 28: Job profiles of migrants: construction vs. ICT

Migration in the period 2011-2014, by job category in %



Source: Swiss Federal Statistical Office, Credit Suisse

Shortage of skilled labor – education system

More apprenticeships

While a majority of SMEs are satisfied with the Swiss education system, around a third consider it to be only moderately or even poorly geared to the skilled-labor requirement. Most SMEs would like to see a higher weighting placed on apprenticeships.

Most but by no means all SMEs are satisfied with the education system

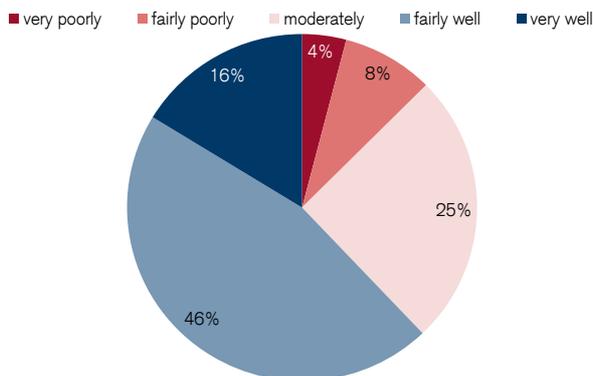
The education system plays a central role in meeting the skilled-labor requirement. It generally earns much praise in public discussion, particularly the dual vocational training system. When asked whether they share this judgement, SMEs responded with a conditional "yes." Sixty-two percent of the survey participants believe that the Swiss education system is well or very well geared to the needs of their company regarding skilled labor (see Figure 29). Although only 12% provide a poor or very poor assessment, a quarter of the SMEs consider the education system to be only moderately geared to their needs. This is not bad, but is also not very outstanding. This assessment is generally spread across all sectors and regions, although there are certain differences. Corporate service providers are most frequently satisfied (69%) and SMEs from the ICT sector are least frequently satisfied (53%). The assessment in the towns and cities is not significantly better or worse than in the countryside or mountainous regions. However, Ticino SMEs are considerably less frequently satisfied with the education system (41%) than their counterparts in German- and French-speaking Switzerland (between 60% and 67% depending on the region).

Sixty-three percent would like to see a higher weighting placed on apprenticeships.

The discussion has repeatedly flared up in recent years as to whether young people too often opt for the high school model compared with the apprenticeship model. The discussion is complex and we can only make a small contribution to it in what follows. We asked our survey participants what they thought about this issue. The verdict is at first glance decisive: 64% of Swiss SMEs would like more young people to opt for an apprenticeship in the future rather than continuing at high school, and then possibly continue their education later at a university of applied sciences or higher technical college. Conversely, only 15% favor a greater emphasis on the high school and university model. Twenty-one percent would prefer to keep things as they are today. At second glance, however, the picture is more complex. There are relatively large sector (see Figure 30) and regional differences. For instance, SMEs in German-speaking Switzerland wish to place a greater emphasis on apprenticeships much more frequently than companies in Western Switzerland and Ticino. And, in the ICT sector, 47% of companies would like to see a strengthening of the high school education model or a retention of the status quo. Altogether, however, it is clear that the dual vocational training system is held in high esteem by Swiss SMEs. The participants in our SME roundtable also agree on this (see page 27 onward).

Figure 29: One quarter only moderately satisfied with education system

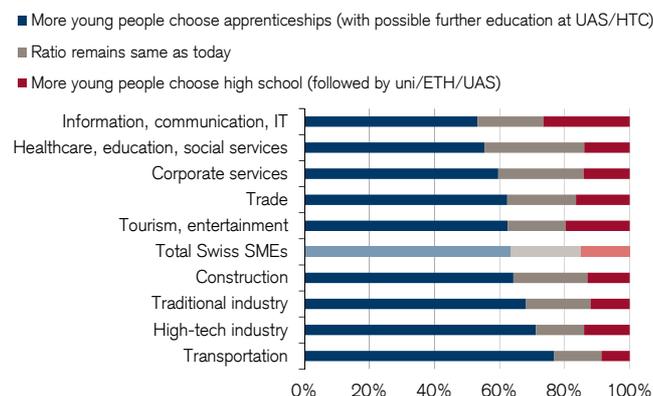
Share of responses to question about how well the education system is geared to the skilled-labor requirement of the company



Source: Credit Suisse 2017 SME Survey

Figure 30: SMEs wish to strengthen dual vocational training

Response to question of what development would be most welcomed regarding the choice of education model with a view to own skilled-labor requirements



Source: Credit Suisse 2017 SME Survey

Shortage of skilled labor – forthcoming challenges

Megatrends: Digitalization and demographic change

The aging population and technological progress are continuing apace. How can Swiss SMEs respond to these trends and what implications does this have for their skilled-labor requirements?

Aging and stagnating working population

The Swiss working population is stagnating and growing older. Although it will continue to grow marginally in the next few decades, the ratio of workers to the overall population will decrease markedly. By 2040, the share of the working population will fall from over 54% to just under 49% (see Figure 31). This has clear implications for the supply of and demand for skilled labor. The aging population will be manifested in the near future in the wave of retirements among the baby boom generation. According to our forecasts, almost half a million people will reach statutory retirement age in Switzerland in the next five years. Despite this, Swiss SMEs predominantly estimate the additional need for skilled labor due to staff retirements in the next five years to be low (59%) to moderate (26%). Only just under 15% of the survey participants expect their future requirements to rise sharply or very sharply.

Major sector differences with regard to additional needs

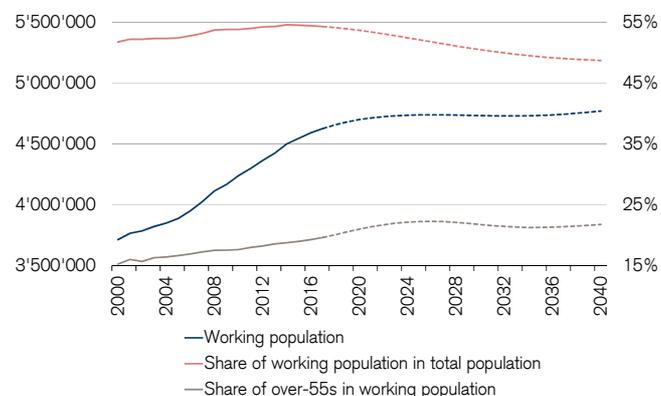
If we examine the additional need due to staff retirements in the individual sectors, various differences come to light. In particular, those sectors that, according to official employment data, employ a higher share of older employees actually tend to be anticipating a high additional need for skilled labor more frequently in our survey. Here it becomes clear that, above all, healthcare, traditional industry and the transportation sector are increasingly having to address the challenge of an aging population (see Figure 32).

Many companies approaching corporate succession

Not only employees, but also the management and owners of many SMEs are affected by this demographic trend. One in five SMEs was already approaching corporate succession in the next five years in 2016. This share is set to increase further in the next ten years owing to the baby boom generation with its high birth rate⁸.

Figure 31: The working population is getting older

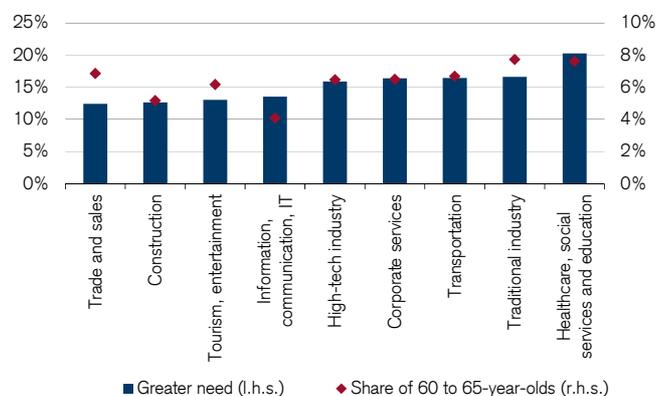
Working population of Switzerland (20 to 69-year-olds, l.h.s.); shares in % (r.h.s.)



Source: Credit Suisse, Swiss Federal Statistical Office

Figure 32: Additional need due to retirements greatest in healthcare

Share of companies with a high need for skilled labor due to staff retirements in the next five years; share of 60 to 65-year-olds in working population



Source: Swiss Federal Statistical Office, Credit Suisse 2017 SME Survey

⁸ Credit Suisse (2016): *Company Succession in Practice*

Necessary adjustment to aging population

But what are the implications of these developments? In the medium term, the ongoing aging of the population means that an increasingly larger share of the workforce potential will consist of older people. It will become more and more difficult to replace departing employees with new and younger ones. At the same time, it is necessary to ensure that key company-specific knowledge is passed on by employees who are retiring as otherwise this knowledge is at risk of being lost. One in five employees is already aged 55 or above today and the trend is continuing to rise. Swiss SMEs will not be able to avoid the need to adjust to the aging population and the consequences resulting from this. But are they prepared to draw on the often unutilized workforce potential of older people as the Skilled Workers Initiative launched in 2011 by Federal Councilor Schneider-Ammann aims to promote? Or does the preconception continue to prevail that older workers are inflexible and less productive than younger ones?

Labor market situation good for older people, but scope for improvement

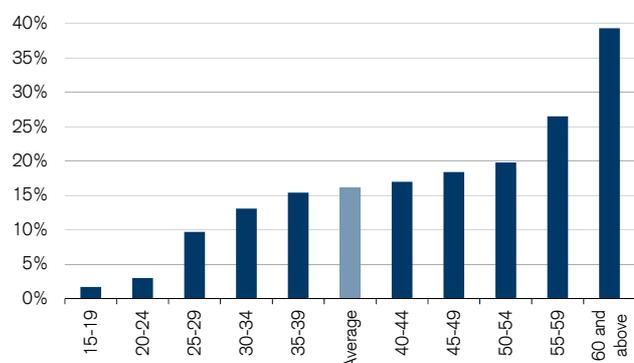
Compared internationally, older employees in Switzerland have a high labor participation rate that has also increased over the last 20 years. Switzerland is even among the OECD countries with one of the highest employment rates among 55 to 64-year-olds. Older people are also less frequently affected by unemployment than younger workers. But, once they are unemployed, older workers have significantly more difficulties finding a new job. The likelihood of becoming affected by long-term unemployment is significantly greater for employees aged over 50 than for younger age groups (see Figure 33). Although job advertisements with an upper age limit are on the wane and the share of such advertisements has fallen from almost 15% in 2006 to around 4% in 2016, age continues to play a role in the job market⁹. Particularly problematic are the generally higher wage level and social insurance costs incurred for older staff. Moreover, the level of education of older employees tends to be lower than that of younger generations. This additionally impedes the search for employment as older workers do not always have the desired level of qualification (documented by a diploma). The increased likelihood of long-term unemployment for older workers is therefore not exclusively attributable to the age effect, but also to the differing levels of education from generation to generation.

Employment beyond statutory retirement age still fairly rare

Employment beyond statutory retirement age as a further option for making better use of the workforce potential of older workers is something practically only considered by those Swiss SMEs already today expecting a high additional labor requirement due to staff retirements (see Figure 34). Across all the companies surveyed, only just under a quarter of SMEs sometimes or often make use of this measure to ensure their skilled-labor requirements (see section entitled “Shortage of skilled labor – strategies”, p. 19).

Figure 33: Risk of long-term unemployment increases with age

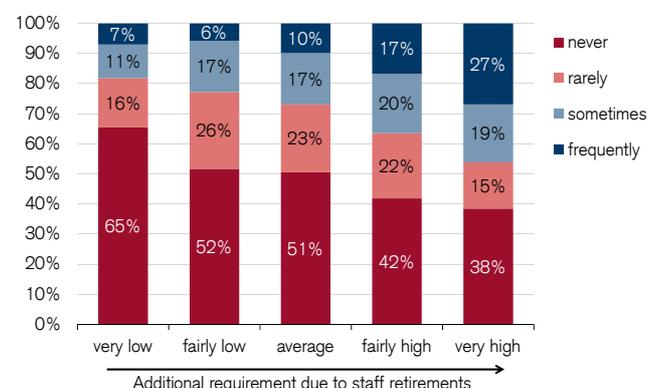
Long-term unemployed as a share of total unemployed by age group in %, 2016



Source: State Secretariat for Economic Affairs, Credit Suisse

Figure 34: SMEs with large retirement numbers increasingly focusing on work beyond retirement age

Share of responses to question about measures for meeting the skilled-labor requirement of the company: promotion of employees working beyond statutory retirement age in %



Source: Credit Suisse 2017 SME Survey

⁹ University of Zurich: Job Market Indicator

Digitalization is both a challenge and an opportunity

Not only do demographic changes pose an important megatrend that will substantially influence the future skilled-labor requirement, but there is also the digitalization of the economy and society. Online shopping, e-banking and Industry 4.0 are developments that we can now barely imagine living without. But what implications does this have for the Swiss labor market and the skilled-labor requirements of SMEs? The automation of activities that are today still executed by skilled labor could offset the growth-inhibiting effects of the stagnation of the working population. At the same time, digitalization poses an immense challenge as it is set to radically alter the job profile of many professions and reduce the need for skilled labor in certain sectors, while increasing it in others.

Routine activities with highest automation potential

A substitution of activities by automated processes is to be expected above all in those sectors with a high share of routine activities. Both manual and analytical routine activities can potentially be replaced by automated computer processes and artificial intelligence. Throughout Switzerland, we estimate that around 49% of workers have jobs with medium automation potential and 6% have jobs with high automation potential¹⁰. However, this does not mean that all the affected jobs will become redundant due to digitalization as the implementation and monitoring of computer processes, machines and robots require manpower and a very large amount of knowledge, which in turn generates a need for skilled labor.

Swiss SMEs see a rising need for skilled labor due to digitalization

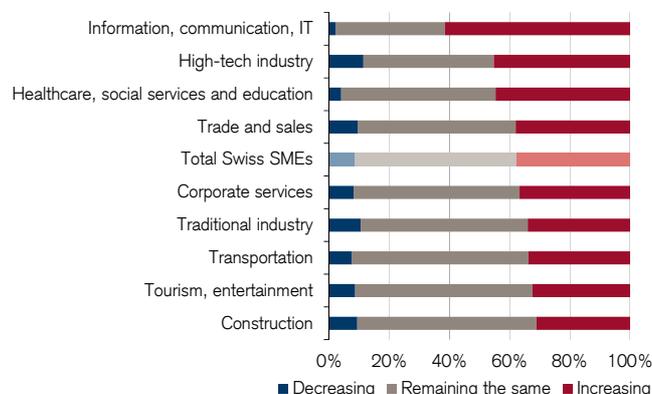
According to our survey, 38% of Swiss SMEs expect digitalization to result in an increased need for workers with specific expertise. Only 8% of companies expect a fall in requirements, while 54% believe they will remain about the same (see Figure 35). However, there are considerable sector differences that need to be emphasized. It comes as no surprise that the ICT sector considers the need to be greater than the hotel industry, which clearly requires fewer IT specialists, while the healthcare sector and high-tech industry also anticipate an above-average additional need on a sector comparison for workers with specific expertise owing to digitalization.

Digitalization as a means of combating the shortage of skilled labor

The automation of activities may sound quite threatening from an employee perspective as there will be less demand from companies for certain activities on the labor market. At the same time, however, this will also enable bottlenecks in relation to skilled-labor requirements to be reduced. A good quarter of the SMEs canvassed today already make use of digitalization and automation as an explicit means of combating the shortage of skilled labor. It can be seen that the share of SMEs making use of digitalization as a measure against the shortage of skilled labor correlates with the automation potential of the corresponding sector (see Figure 36).

Figure 35: Digitalization calls for skilled labor

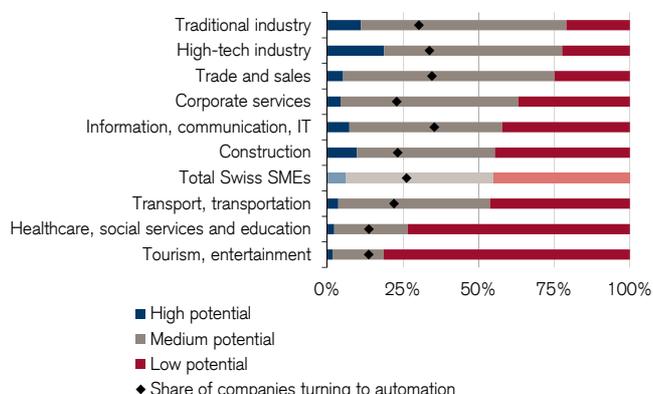
Expected additional need for workers with specific expertise due to increasing digitalization in the next five years, in %



Source: Credit Suisse 2017 SME Survey

Figure 36: Those that can be turning to digitalization

Substitution potential of employees through automation in % and share of SMEs drawing on digitalization as a means of combating the shortage of skilled labor in %



Source: Swiss Federal Statistical Office (structural survey), Credit Suisse 2017 SME Survey

¹⁰ Based on Dengler and Matthes (2015): *Folgen der Digitalisierung für die Arbeitswelt*. For further details about the methodology, see *Credit Suisse Monitor Switzerland* (1/2017), p. 11.

Roundtable

Singing the praises of dual vocational training

The roundtable participants underline the importance of investing in one's own employees as a strategy against the shortage of skilled labor and praise Switzerland's dual vocational training system.

Roundtable participants

Jürg Kohler, CEO of HauserTschan Kälte Klima AG

Marco Petruzzi, Director of Haus zur Heimat

Reto Conconi, Head of Development at BORM-Informatik AG

Moderation

Sara Carnazzi Weber, Head of Swiss Sector & Regional Analysis

Andreas Christen, Senior Economist

The shortage of skilled labor poses a challenge for many SMEs. Your presence at this roundtable reflects the fact that your company is also affected by this issue. What does this mean for your business? Can certain orders not be processed or not be processed on time? In which areas is there a lack of skilled labor?

Jürg Kohler We could turn the question around and instead ask in which areas it isn't lacking. It would probably be easier to count these.

Marco Petruzzi We have a parched labor market in healthcare. It is particularly difficult to find good people with tertiary education. Ninety-two percent of nursing homes are having difficulties finding staff in this area. The mass immigration initiative has not done the situation any favors. Although this issue has now been partially resolved, recruiting staff from abroad is nevertheless becoming more difficult and a lot of skilled workers from Germany are returning to their home country. Fortunately, we have not reached the stage where we are no longer able to accept clients due to a lack of staff. But replacing and retaining staff really is a daily battle.

Jürg Kohler It is not the case at present that we are unable to do business because we don't have the people. We are simply becoming more creative. We are outsourcing certain activities that don't necessarily have to be done by our own people, partly also to foreign providers. We are starting to think more about how to do the right thing correctly to the right extent and asking ourselves questions such as: Who can do this? Do I need to hire a cooling system technician, a rare breed of species? Can I not find someone else to do this?

Reto Conconi I would say that certain projects are definitely taking longer due to the shortage of skilled labor. For example, if you wish to launch a new product or software module, you need two to three people to do this. If you are unable to obtain them, the project launch will be delayed. On top of this, our main market is Switzerland and the German-speaking area, and we wish to develop our products in the proximity of our customers. We therefore do not have the option of outsourcing a project abroad. Furthermore, another of our challenges is that IT know-how about our software is also required in customer project management. We invest in new staff in this area for six to twelve months before they are able to deliver anything productive. But we first need to find these people. It is not the case that we receive a large number of applications. An IT specialist often has a choice of a wide range of jobs. He can go to six companies and will be offered a job by three or perhaps even more. If we don't find enough skilled labor, we have to start making priorities. This may possibly also generate a positive effect.



"We are currently investing around 200 training days per year. This for me is a major key to success."

Jürg Kohler

Proprietor/CEO of HauserTschan Kälte Klima AG

Jürg Kohler is proprietor and CEO of Hauser-Tschan Kälte Klima AG. After working for many years in banking, he took over the SME from the Canton of Aargau specializing in refrigeration and air conditioning in 2011. He is a Swiss-certified banking specialist and SME financing expert and completed his postgraduate studies in general management. The SME currently employs ten employees, three of whom are in training.

Marco Petruzzi In view of these challenges, this above all means for us that we should primarily train our own staff and retain such self-trained employees – I refer to them as our "native talent." This starts with careful recruitment and optimum professional support at secondary level 2. Later – for employees completing tertiary level education – we need to look at the underlying conditions. For example, we pay students at higher technical colleges wage subsidies so that they aren't forced to run after money. For their part, they undertake to remain with us for three years. In principle, I spend 90,000 francs on a student at a higher technical college in three years. That's a lot of money and this investment naturally needs to pay off. But, by doing so, I create optimum underlying conditions. Other such

underlying conditions for me are five weeks' vacation for everyone up to the age of 49 and six weeks thereafter. Soft factors such as personal interaction also play an important role, as does the use of IT solutions to relieve employees, such as the provision of care documentation on the employee's iPad. Another example is the outsourcing of monotonous tasks.



"I belong to this baby boom generation. I do not believe that we can afford simply to let them depart from the workforce."

Marco Petruzzi

CEO/Director of Haus zur Heimat

Marco Petruzzi has been CEO and Director of the Haus zur Heimat nursing home in Olten since 2013. Alongside this, the qualified chef and Swiss-certified nursing home director is a member of the board of the education department of GSA, the association of nursing homes in the Canton of Solothurn, and a member of the education committee of the Swiss association of nursing homes CURAVIVA. The home currently employs around 80 employees, 15 of whom are presently in training.

Jürg Kohler We arrived at a very similar finding: we need to invest in people ourselves. We are now training mechanics and electricians who we are recruiting from our network. We are making the same investments here as you, Mr. Petruzzi. We pay these people a normal wage, but they spend at least one day a week at school. In addition, they attend a technical college. We are currently investing around 200 training days per year in four to five people. This for me is a core key to success.

Reto Conconi We have long since stopped writing in job profiles that candidates need to master this or that programming language. We simply write that they need to be able to think analytically and be mathematically gifted. If someone is interested and has the mathematical know-how, we can teach them the rest on the job by way of internal training. I now feel sure that we have not chosen the wrong path here. Either way, whether or not new employees are familiar with the programming language we use, it always takes six to twelve months before they are fully inducted.

Alongside investments in the training of its own employees, setting priorities e.g. in the deployment of staff obviously also belongs to the core strategies of an SME in combating the shortage of skilled labor. What other approaches are conceivable to obtain sufficient specialist staff?

Jürg Kohler Another possible strategy is to tap various additional sources such as retirees. We now have two retirees working for us. One works 10% to 15% and the other 20%. They are incredibly motivated. It's a real pity when, to put it crudely, robust iron is simply abandoned at the tip. These people make valuable contributions and also relieve our specialists. I have the impression that there are many other opportunities available to us for motivating older skilled labor to continue working longer part-time or to return to the workforce. They don't necessarily have to be previous employees from the same company. It is perfectly conceivable to switch sectors completely after retirement.



"I see an enormous amount of unused potential in women who have what it takes for technical careers, but do not follow this path."

Reto Conconi

CTO and joint proprietor of BORM-Informatik AG

Reto Conconi is Head of Development and joint proprietor of Schwyz-based BORM-Informatik AG, an SME specializing in the development of flexible end-to-end ERP solutions. Reto Conconi holds a master's degree in computer science from ETH Zurich and has been Head Developer at BORM-Informatik AG since 2011. The IT SME employs over 80 staff throughout the group, including three apprentices.

Marco Petruzzi I belong to this baby boom generation. I do not believe that we can afford simply to let them depart from the workforce. The 2020 Pension Reform is probably not the ideal solution, but it is a move in the right direction and capable of gaining a political majority. A retirement age of 67 would never be accepted by the electorate. But if we find some intelligent models to facilitate part-time work beyond retirement, this could enable us to retain some very motivated people in the workforce who don't want to be put on the shelf. We had a model with a member of staff from administration: we were glad that she worked until she was 66. Although she didn't work more than 50%, she was extremely motivated. There need to be more such examples. However, the current discussion surrounding the pension level is counterproductive in this respect. Owing to the falling conversion rates, there is an incentive at present to

retire earlier in order to secure the previous – better – rates. This runs counter to the efforts to keep employees in work for longer. At the same time, pursuing an occupation beyond retirement age would often make sense in particular for low pensions – particularly for women, who often do not have a lot of pension fund assets.

What is the situation in the IT sector? One hears that IT companies often do not even consider hiring a 50-year-old, for example. Is this just a cliché?

Reto Conconi We generally receive relatively few applications in response to job advertisements – regardless of age group. However, there are even fewer older applicants. Three applicants occur to me immediately over the last six years who were aged over 50. These applicants sometimes have not necessarily done any programming in their previous career or have never completed any IT-specific basic training as is customary today. IT is a young discipline. I received a letter from the Swiss Federal Institute of Technology a couple of years ago informing me that the department was now celebrating its 30th anniversary. This therefore limits the period in which there was anybody with IT as their initial course of education. As I already mentioned before, we would nevertheless be prepared to train intelligent and mathematically gifted people on the job. But the salary expectations must then also take account of this circumstance at some point. The question arises in such a fast-moving sector as to why someone aged 50 or above and offering less know-how should earn much more than someone who graduated from the Swiss Federal Institute of Technology five years ago. There is to some extent a lack of flexibility here, which I can also understand. Perhaps there is a mortgage or children to be paid for. But such an applicant needs to realize that for a long time he primarily poses an expense for us and is unable to be productive immediately. Somewhere this also needs to pay off for the company.

Your companies are partly located outside the major centers. Does this pose a disadvantage for the recruitment of new staff?

Reto Conconi We partially perceive this in the case of graduates. If, in the event of an unsuccessful application process, we ask them why they didn't choose us, the normal reply is: "I sent off five applications, received four job offers and you are the only ones I would have to spend half an hour travelling to by train. The other companies are all in my town where I already live and have my social environment." But for the over-30s it's often no longer that important whether or not the employer is based in Zurich. For instance, they sometimes want to buy their own home, which may be easier in the countryside than in town.

Jürg Kohler Somewhat different criteria apply with us. As we have an on-call service, we need our employees to live fairly close by. If someone lives further away or moves away, this also

affects us. We always provide the vehicle and the journey costs are borne by us. Much more decisive for us is to ensure that no-one has too many on-call shifts. This is a killer criterion. How often must someone be on-call per year? This is an issue we can score or not score on.

Demographics not only plays a role with regard to the baby boom generation, but also in terms of gender distribution. This is particularly true in the case of nursing homes and the IT sector where distribution is very imbalanced. Are there any strategies here?

Marco Petruzzi It is particularly important for nursing homes to shape the underlying conditions in such a way that women can be retained in the workforce. This involves a wide range of accompanying measures, for instance in terms of childcare. The traditional day nursery with its fixed hours does not suffice for our working time patterns.

Reto Conconi The situation regarding gender distribution is the exact opposite in the IT sector to the nursing home sector. The share of women among IT students at the Swiss Federal Institute of Technology in 2014 was 11%. I see an enormous amount of unused potential in women who have what it takes for technical careers, but do not follow this path. The question then arises as to whether the socially perceived job profile is wrong.

Marco Petruzzi Society naturally always plays a very big role. What is cool and what isn't? We would be delighted if more men were to display an interest in the nursing profession. To put it crudely, we would also be prepared to release some women. The choice of career is definitely linked to the pictures people have in their minds.

Reto Conconi I don't know how you can influence such social preconceptions. I also wouldn't say to anybody that the politicians should do it. I don't know whether SMEs should simply accept this as given. Changing our views is something that starts in each one of us. I can change my own views and undertake to question each of my steps: for example, am I addressing the wrong audience with a given advertisement?

Marco Petruzzi But the question also arises as to whether we can set the course for this relatively early, for example at school or during vocational training.

Jürg Kohler Sometimes I wonder in this context whether enough attention is paid when choosing a course of study or career to the future requirements and what the labor market will potentially be able to absorb. There will be fewer and fewer resources needed for certain functions in the future. And yet, despite this, people are clearly constantly being trained without due regard for the market. They could include some potential IT specialists. Here is where politicians probably need to come in

and announce more targeted investments in professions that will be strongly required in the future.

Marco Petruzzi Whereby parents still remain the key to the choice of career. Parents play a very major role in influencing what their child one day wants to be.

There has been repeated discussion in this context as to whether apprenticeships or the high school model should be strengthened. Our survey suggests that Swiss SMEs would like to strengthen the dual vocational training system at the expense of the high school and university model. Is that also how you see it?

Jürg Kohler Absolutely. I think that the dual vocational training model is one of the really competitive benefits that we have in Switzerland. This is internationally recognized and to some extent also copied. It is possible in Switzerland to have both completed an apprenticeship and gone to university. That's fantastic. And on top of this you might also have military training where you also learn something new. This way you can become an all-rounder. Obviously university graduates have other advantages. But I think that dual vocational training is much sounder and makes people more multi-skilled and flexible.

Reto Conconi Absolutely, the dual vocational training system is very important for our economy. It's a brilliant system that we need to promote. At our company we're dependent on the skills of graduates for many development tasks and are therefore able to make more polyvalent use of them. But you still notice a difference if someone embarks on the dual vocational training path and then completes advanced vocational training on top of this. We recently had our first applicant who has made complete use of the dual system: he completed an apprenticeship with a Federal Vocational Baccalaureate, then a bachelor's degree at a university of applied sciences and finally a master's degree at the Swiss Federal Institute of Technology. And you can already notice the difference. He understands how a company works, which is not the case with all graduates.

Marco Petruzzi But the prestige mentality of certain people sometimes poses a complete obstacle here. Many parents think it's essential that their kids should complete high school. But there are some young people who ought not necessarily opt for this path and for whom an alternative is possible that would be better for them.

Jürg Kohler Teachers also bear a lot of responsibility here. They have rarely experienced the inside of a company themselves and they influence their students in laying the foundation and may well steer them toward the high school model. As Mr. Petruzzi has already pointed out, this might make sense for many young people, but for others an apprenticeship would be much better. An acquaintance from my environment is a very good secondary school student and wants to train to become a bricklayer. But his teacher is trying to dissuade him from this.

He says, "You can't do that. You can easily get into high school." And yet he is very intelligent and also knows precisely what he wants and what he doesn't want – for instance, that he doesn't just want to become a bricklayer. He intends to climb the ladder further and will undoubtedly make a valuable contribution to the economy as a whole. He'll probably end up with you, Mr. Conconi.

So we have an excellent system in Switzerland and simply need to make better use of it?

Jürg Kohler Precisely. We as a company also benefit directly from the modular system of progressive training. Our employees undergoing training learn in small classes of eight to twelve, thereby creating platforms with very intensive mutual discussion and lively dialog. Problems that we are unable to solve are discussed in these groups. I find this fascinating. These people also motivate each other afterwards to go further and continue with something else.

Marco Petruzzi This permanent transfer of knowledge is one of the driving forces enabling us also to improve and perhaps also implement ideas differently.

Jürg Kohler The keyword is lifelong learning and an awareness of this. We need to make this clearer at all levels and explain what it is actually about. A great deal is at stake for the Swiss economy. We are heading straight for a vacuum – not just regarding a shortage of skilled labor, but regarding a shortage of labor per se. If we wish to continue growing at 1.5% to 2%, we really need to consider a lot of things and become very creative as otherwise at some point we will stagnate.

Interview with Hans-Jörg Mihm

CEO and delegate of the Board of Directors of EXTRAMET AG



Hans-Jörg Mihm is CEO and delegate of the Board of Directors of EXTRAMET AG. He has managed the independent family enterprise in its second generation since 2003. The carbide manufacturer founded in 1980 has developed into a globally active company with over 200 employees. With

a focus on innovation, precision and advanced technology, customized solutions are created for clients from the high-tech industry.

How great is the shortage of skilled labor really and in what areas is it particularly pronounced?

Hans-Jörg Mihm There is really only a general shortage of skilled labor to a limited degree. But some trade and industrial occupations are no longer as attractive because future technologies are being insufficiently integrated and job profiles developed too slowly. Many companies lack staff in the areas of robotics and data analysis, as well as vocational support for handling new technologies.

What are the reasons for the shortage?

Hans-Jörg Mihm The fact is that technologies can today be developed and further developed faster, but the necessary training is significantly lagging behind.

What is your company doing to obtain sufficient skilled labor?

Hans-Jörg Mihm We offer our own in-house training in commercial and technical operations and plan training and education measures in a targeted manner with all staff. We also plan and conduct appropriate training courses on a cross-sector and technology-related basis with other companies. Alongside their specialist skills, all trainees are also trained in self-responsibility and entrepreneurial thinking in order to be better prepared for the future challenges. I myself am increasingly becoming involved in a company I co-founded that focuses on combined learning methods and new teaching content for the future. I also support additional technical events and workshops for children and young people in the MINT and robotics segment.

What do politicians and associations need to do?

Hans-Jörg Mihm Politicians and associations ought to concentrate on the targeted further development of existing occupations as well as future-oriented tools and processes, the integration of IT and digitalization, and exchange platforms. This must all be conceived on a nationwide basis and

implemented in accordance with the local requirements. It is also very important to reduce bureaucratic obstacles in order to facilitate new occupational models, job profiles and learning methods.

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