

Bottleneck Vacancies in Austria

ICT, hospitality, construction, and building sectors suffering labour shortages

The main sectors displaying persistent vacancy filling difficulties are the hospitality sector (even though it does not appear in the top-20 list, see p. 3), the building and construction sectors and the ICT sector. The ICT sector exhibits particular shortages of analysts, software developers and systems technicians. The main labour shortages in Austria are among engineering professionals and associate staff, construction workers and electricians, as well as machinery and metal workers. Bottleneck vacancies predominantly appear in technical/industrial occupations and related crafts. A shortage of health associate professionals is observed in the health sector. With the exception of vacancies for nursing associate professionals, which have seen a slight improvement, all bottlenecks have worsened or remained at similar levels since 2008. Data on the nature of the shortages were not available.

Regional concentration of sectors and demographic change as main reasons

The geographical clustering of industries with the subsequent concentration of labour shortages in specific regions (in combination with low mobility of potential employees) constitutes the main reason for bottleneck vacancies. Additional reasons are demographic changes, which are aggravated by a low participation of women in the labour force. This is particularly the case within technical occupations. There has also been a decrease in the offering of vocational education and training.

Cooperation between policy makers and employers to mitigate bottleneck situation

Mitigation strategies to cope with labour shortages are mainly coordinated efforts between employers and national and regional policy makers. The main focus of efforts lies on the recruitment of skilled labour in neighbouring European countries. In this respect, regulations facilitate the immigration of labour force based on a list of bottleneck vacancies. The list is updated yearly and produced via negotiations between the national government and relevant social partners.

Another core initiative to manage labour shortages is the increase of female labour market participation to mitigate the effects of demographic change. Likewise is the promotion of firm and school-based VET an instrument to handle issues connected with shrinking age cohorts and rising numbers of university enrolment figures.

Assessment of available evidence



Good. See page 5 for more information.



TOP 20 Bottleneck Vacancies in Austria 2012

Occupation (ISCO-08)*	Development since 2008
Milling machinists—metal working op...*	↗
Metal turners—metal working operat...*	↗
Mechanical eng. techs (higher training)	↗
Roofers	→
Electrical engineers	↗
Welders and flamecutters	↗
Carpenters and joiners	→
Electrical line installers and repairers	↗
Agri. machinery mechanics and repair...	→
Electrical engineering technicians	↗
Mechanical engineers	↗
Plumbers and pipe fitters	→
Joiners*	→
Mechanical engineering technicians	↗
Toolmakers and related workers	↗
Construction and furniture joiners	→
Systems analysts; Software developers	↗
Power engineers—electrical eng.*	↗
Nursing associate professionals	↘
Phys. and eng. science techs. non else-where classified (n.e.c.)	↗

*Where an occupation has been identified on a more specific level than ISCO 4-digit, this is used.

Top 20 Bottleneck Vacancies

Based on the ratio between unemployed and ready-to-fill vacancies, a yearly list of labour shortage occupations is negotiated between policy makers, such as the *Bundesministerium für Arbeit, Soziales und Konsumentenschutz* and the *Bundesministerium für Wirtschaft*, and relevant employer associations. The ranking is based on the most recent instalment of the negotiation process dated November 2012.

Five of the top-20 listed vacancies fall within the category "Physical and engineering science technicians" (ISCO 311), with 162,400 employed in these high-skilled occupations in 2012. Three occupations on the list belong to the skill level of professionals: Electrical Engineers, Mechanical Engineers, and Systems Analysts/Software developers. The remaining 11 occupations are categorised within skilled manual occupations.

It is notable that craft and related trades workers, which dominate the list, are found in industrial mechanical/electrical construction and building sectors. Likewise electrical and mechanical engineers on the skill level of professionals are found in the same sectors.

The situation in Austria is characterised by a strong regional concentration of bottlenecks. The regions of Steiermark, Niederösterreich, and Oberösterreich have a high share of industrial production and require large numbers of employees in craft and related trades. The region of Vorarlberg is characterised by a concentration of high technology industry requiring relatively many employees in ICT-related occupations and other professionals. The listed occupations related to the building sector are national bottlenecks.

The national classification used by the Austrian Public Employment Services, on which the list is based, does not differentiate between a number of IT-related occupations. This results in a variety of IT occupations identified when using the ISCO-08 classification. The three most influential occupations in terms of number of vacancies and degree of labour shortage were included.

Occupations are ranked primarily using the ranking provided in the report (see p. 5).

Rank	Bottleneck Vacancies ISCO-08 (4-digit-level)	ISCO-08 skill-level	Number of employed (2012) ISCO 3-digit-	Geographical aspects
1	Metal working machine tool setters and operators (milling machinists)	SM	71,700	Regional
2	Metal working machine tool setters and operators (metal turners)	SM	71,700	Regional
3	Mechanical engineering technicians (higher level of training)	HS	162,400	Regional
4	Roofers	SM	77,200	National
5	Electrical engineers	HS	13,000	Regional
6	Welders and flamecutters	SM	26,100	Regional
7	Carpenters and joiners	SM	90,600	National
8	Electrical line installers and repairers	SM	75,000	Regional
9	Agricultural and industrial machinery mechanics and repairers	SM	88,400	Regional
10	Electrical engineering technicians	HS	162,400	Regional
11	Mechanical engineers	HS	34,200	Regional
12	Plumbers and pipe fitters	SM	77,200	National
13	Carpenters and joiners (joiners)	SM	90,600	National
14	Mechanical engineering technicians	HS	162,400	Regional
15	Toolmakers and related workers	SM	71,700	National
16	Carpenters and joiners (construction and furniture joiners)	SM	90,600	National
17	Systems analysts; Software developers; Computer network and systems technicians	HS	24,600-44,400	Regional
18	Electrical engineering technicians (Power engineers)	HS	162,400	Regional
19	Nursing associate professionals	HS	75,800	National
20	Physical and engineering science technicians (n.e.c.)	HS	162,400	Regional

Main sectors with Bottleneck Vacancies

Sectors	Bottleneck vacancies
Industrial production and construction	Machine tool setters and operators, mechanical and electrical engineering technicians
Building	Roofers, carpenters, joiners
ICT	Software developers, computer network and systems technicians
Healthcare/Nursing	Nursing associate professionals
Hospitality	Cooks, waiters/waitresses

The main sectors with bottleneck occupations are the industrial production/construction sector, the building sector as well as the ICT and the healthcare/nursing sectors. While the first two are the traditional backbones of the Austrian economy, the ICT sector experienced strong growth in recent years. The shortages in the healthcare/nursing sector are mainly caused by demographic change and regulations impeding adjustment to changed demands.

Bottlenecks in hospitality sector

The hospitality sector and its occupations are frequently mentioned by studies and interview partners, but does not appear among the top-20 list. Two reasons can explain this. Firstly, as the Austrian labour shortage list is negotiated on the basis of national data, labour shortages confined to specific regions are underestimated, which particularly affects the evaluation of the hospitality sector. Secondly, the hospitality sector (e.g. waiters) is characterized by low-threshold occupations requiring little formal education. Following this, unemployed persons are frequently regarded as belonging to this group despite not being suited for the respective professions, e.g. lack of soft skills and the physical demands of the occupation. Other reasons include: health concerns (hospitality sector reports exceptionally high share of sick-leave); low and volatile wages due to high gratuity share as well as statutory restrictions in the recognition of foreign VET (particularly foreign-cuisine cooks).

Main reasons for Bottleneck Vacancies

Decrease in the offer of vocational training

A combination of school- and firm-based apprenticeship system has traditionally been the backbone of the Austrian vocational education and training (VET) system. However a decrease in the willingness of firms to offer VET has been observed for the past years. Enterprises, especially small and medium-sized ones (SMEs) fear the investment connected with offering VET.

Applicant mobility

The four regions mentioned in the previous section are predominantly rural which makes recruiting of professionals harder as potential applicants are trained at urban centres and are reluctant to relocate.

Lack of practical work experience

Complaints over a lack of basic skills of young school leavers and lacking practical work experience are widespread.

Initiatives to cope with Bottleneck Vacancies

In order to mitigate labour shortages, multiple approaches are pursued by national policy makers, employers and employer associations.

The most prominent approach is to facilitate the immigration of skilled labour. For example, in the past four years approximately 18,000 employees in the hospitality sector have been integrated into the Austrian labour market under special agreements with new EU Member States.

Other measures to fight against bottlenecks consist of increasing the labour market participation of women and improving vocational education and training (VET).

Skilled labour immigration

The most prominent programme to facilitate employment related immigration into Austria is the "Rot-Weiss-Rot-Karte" (Red-White-Red-Card). This special work permit is meant to facilitate employment of foreigners in certain occupations, mainly technical related/industrial occupations. It is based on the national negotiation process of social partners defining labour shortage occupations. Although workers from new EU Member States (Croatia, Bulgaria, Romania) face/have faced transitional provisions with respect to free labour movement, Austria instated special agreements with the respective countries to facilitate employment related mobility into Austria, particularly within the hospitality sector.

Recognition of qualifications

Cooperation exists between the employers of the Austrian region "Vorarlberg" and the chambers of industry and commerce to directly recruit highly specialised technicians in Spain for an engagement in Austria.

The chamber of economic affairs, the public employment services and an integration fund cooperate to relieve recruitment and recognition of qualifications of foreigners and present immigrants. The programme provides support to immigrants in the process of having existing qualifications recognized, supports employer based mentoring programmes, and offers government sponsored internships for foreigners.

Improving vocational training

One block of measures focuses on the improvement of provision and general quality of vocational training. Particularly small and medium-sized enterprises (SMEs) are unwilling to train young people as large firms appear more attractive to graduates. The PES offers financial incentives to increase their willingness to offer firm-based VET.

To improve the labour market potential of shrinking age cohorts, national PES cooperate with chambers to offer trainings for school leavers to help reach minimum qualifications for taking on VET.

Participation of women

The Public Employment Services are committed to mitigate labour shortages stemming from the low participation rate of women in the labour market. One of the initiatives is the "FiT – Frauen in Technik" (Women in Technical Occupations) programme which is intended to promote participation of women and interest of female school leavers in technical occupations.

To increase female labour market participation, pilot projects initiate the instalment of corporate child care services and adapt working schedules to the needs of parents.

Main sources used to identify Bottleneck Vacancies in Austria

Based on the ratio between unemployed and ready-to-fill vacancies, a yearly list of labour shortage occupations is negotiated between policy makers, such as the Bundesministerium für Arbeit and the Bundesministerium für Wirtschaft, and relevant employer associations.

This ranking of bottlenecks has been the main source to draw the top 20 list of occupations. The strengths are considered to outweigh the weaknesses particularly in light of other reviewed sources of information.

Additional studies were used to gather information regarding underlying reasons and mitigation strategies of identified bottleneck occupations. Of particular importance were the "AMS Großbetriebsmonitoring 2011", to cross-validate the identified bottlenecks, and a supporting survey focusing on the characteristics on the identified labour shortages.

Interviews with experts were conducted on a general level and for specific sectors and occupations to gain further insights into underlying reasons and mitigation strategies. The hospitality sector took special consideration as it has frequently been mentioned in studies and general interviews but does not appear in the top-20 list of bottleneck occupations. A dedicated interview has been conducted to explore the specific characteristics of this sector.

Overall, the data quality is assessed to be good.

Strengths: The ranking is produced through a negotiation process with social partners, taking the ratio of unemployed to ready-to-fill vacancies as a basis. It produces societal relevant data on labour shortages and thus increases support for coordinated measures to mitigate bottleneck situations.

The timeliness of data can be considered very good as the list is renegotiated yearly. The report is based on the most recent instalment of the negotiation process dated November 2012.

Weaknesses: The quota of vacancies registered within the Public Employment Services (PES) nationwide covers 36.1% of all newly employed. Occupations requiring tertiary education are underrepresented in the list of bottleneck vacancies. Most of these openings are unregistered at PES as enterprises tend to rely on other forms of recruitment, particularly in the ICT sector.

The aggregation of regionally diverse bottleneck situations to national level in combination with low mobility of potential applicants leads to potentially biased figures. Regional bottlenecks may be cancelled out by oversupply in other regions. This is the case of the hospitality sector: none of the occupations was included in the top-20 list of bottlenecks, despite emphasis by interviewees and studies.

Sources

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Own calculation of bottleneck trend data based on special data delivery by Public Employment Service Austria (AMS).

Nine interviews conducted with key stakeholders and experts.