RAMBOLL

## **Bottleneck Vacancies in Greece**

### Decreased difficulty in filling vacancies

The difficulty that employers face when filling vacancies has lessened markedly during the period 2008-2012 (Manpower, 2013 and IOBE 2013), as a result of the economic crisis and the sharp increase in the unemployment rate from 7.7% (2008) to 24.3% (2012). However, it is expected that recruitment difficulties may arise in the future, as skilled workers leave to find work in other countries.

# Engineers, ICT professionals and other high-skilled positions in demand

The bottleneck occupations can be classified into four major groups: a) Information and Communications Technology professionals, b) specified sales workers, c) managers and d) craft and related trades workers. The bottleneck vacancies mainly appear within high skilled occupations. The vacancies within ICT as well as the craft and related trades workers are persistent, since 2008. The reduction of internal demand created pressures on companies to turn to the external markets, increasing the demand for sales workers and managers specialised in exports with specific skills, such as engineering knowledge or advanced knowledge of foreign languages.

# Lack of technical qualifications and work experience behind many bottlenecks

The main reasons for the bottlenecks vacancies are the lack of sufficient work experience, lack of soft skills and lack specialisation. The crisis and the high rate of unemployment led workers to accept jobs, notwithstanding low wages, the lack of career prospects, the poor image of the sector. Nevertheless, a combination of factors, for example, the low wage and the cost of travelling to work, may discourage unemployed from accepting a job.

# Responses include reorganisation of work and outsourcing

The strategies that are pursued by employers to overcome the recruitment difficulties consist of increase of working hours and reorganisation of work. Outsourcing is another common mitigation strategy adopted by firms, especially for the ICT occupations.

The Ministry of Labour, Social Security and Welfare is implementing two voucher programmes, which include training and working practice.

### Assessment of available evidence





TOP 20 Bottleneck Vacancies in Greece 2013					
Occupation (ISCO-08)	Development since 2008				
Software developers	<b>→</b>				
Web and multimedia developers	<b>→</b>				
Database designers and administrators	<b>→</b>				
Systems administrators (LINUX)	<b>→</b>				
Computer network professionals	<b>→</b>				
Engineering professionals n.e.c.	2				
ICT sales professionals	2				
Marketing professionals (online sales)	2				
Technical and medical sales pros.	2				
Retail and wholesale trade managers	2				
Finance managers	2				
Sales and marketing managers	2				
R&D managers (clinical research assoc.)	2				
Managing directors and chief executives	2				
Industrial and production engineers	2				
Electronics engineers	2				
Telecommunications engineers	<b>→</b>				
Plumbers and pipe fitters	<b>→</b>				
Building and related electricians	<b>→</b>				
Carpenters and joiners	<b>→</b>				
* Note: a ranking of the occupations was posible (see page 5);	not Page 1				



# **Top 20 Bottleneck Vacancies**

The Bottleneck Vacancies have been identified mainly and applications, especially mobile applications, Java, based on interviews with representatives of the Ministry J2EE, .NET, C#, PHP and Drupal Framework, web user of Labour, Social Security and Welfare, OAED (Manpower interface designing, Web Developments, LINUX and sys-Employment Organization), employers and employees tem testing for specific protocols (e.g. TCP/UDP/GTP/ associations, chambers of commerce, HR companies and SIP). Senior developers are also in demand. centres for educational training. In addition, a recruitment agency's database of 93,000 job advertisements, covering the period 2008-2012, was used to verify findinas.

In Greece, bottlenecks appear within high skilled occupations such as Information and Communications Technology professionals, specified sales workers and managers, as well as for elementary workers, such as technicians.

The period needed to fill vacancies has decreased due to the high unemployment rate. Nevertheless, employers are more cautious and have adopted more complicated recruitment processes to fill vacancies during the crisis period, to avoid the cost of failed recruitment.

cialised in specific programming languages, developments (See p. 5)

The reduction of domestic demand created the need for firms to export their products, increasing the demand for executives specialised in trade exports, such as sales engineers, and with specific skills, e.g. knowledge of foreign languages, marketing and on-line sales.

It is primarily the medium-sized and large firms, which face difficulties when looking to fill vacancies for specialised executives and managers. Firms are more careful in the selection for their executives because good economic management is crucial to their operations during the crisis. Furthermore, employers set high requirements for recruitment, such as high levels of work experience.

Occupations are not ranked; bottlenecks were identified In the ICT sector employers are looking for workers spe- mainly on the basis of interviews with different stakeholders.

Rank	Bottleneck Vacancies ISCO-08	Skills level (ISCO-08)	Geographical aspects
-	Software developers (Java/Developer, J2EE Developer, .NET, C#)	HS	Urban
-	Web and multimedia developers (PHP and Drupal Framework etc.)	HS	Urban
-	Database designers and administrators (specialists)	HS	Urban
-	Systems administrators (LINUX)	HS	Urban
-	Computer network professionals (system testers eg. TCP/UDP/GTP)	HS	Urban
-	Engineering professionals n.e.c. (sales, exports, specific languages)	HS	Urban
-	ICT sales professionals	HS	Urban
-	Advertising and marketing professionals (online sales)	HS	Urban
-	Technical and medical sales professionals (excluding ICT)	HS	Urban
-	Retail and wholesale trade managers (sales, exports, languages)	HS	Urban
-	Finance managers	HS	Urban
-	Sales and marketing managers	HS	Urban (rural to some extent)
-	R&D managers (clinical research associates)	HS	Urban
-	Managing directors and chief executives	HS	Urban (rural to some extent)
-	Industrial and production engineers	HS	Urban
-	Electronics engineers	HS	Urban
-	Telecommunications engineers	HS	Urban
-	Plumbers and pipe fitters	Elem	Urban
-	Building and related electricians	Elem	Urban
-	Carpenters and joiners	Elem	Urban



### **Sectors with Bottleneck Vacancies**

Sectors	Bottleneck vacancies	The main sectors registering bottleneck va-
Information and Com- munication	Software developers, web and mul- timedia developers, database de- signers and administrators, network	cancies include ICT, wholesale and retail trade and pharmaceuticals.
	professionals	Within the ICT sector, there is high demand for software developers with knowledge of specific programming languages and various
Wholesale and retail trade	Engineering professionals n.e.c. with sales skills and languages), ICT sales professionals, Advertising and marketing professionals (online sales)	other roles, such as database designers. Within the wholesale and retail trade, engi- neering professionals with cross-cutting skills (e.g. languages, sales ability) are in high de- mand.

### **Bottleneck problems in pharmaceuticals**

According to a McKinsey report on future growth models for Greece, the rising sectors upon which the future recovery of the Greek economy could potentially be based include the manufacturing of generic pharmaceuticals, as well as aquaculture, cargo-logistics and waste management (McKinsey, 2012).

The manufacturing of generic pharmaceuticals is a sizeable sector ( $\in$ 1.3 billion sales in 2010) and is expected to grow by 5-9%, both at the national and the international level.

The bottlenecks recorded in this sector comprise, among others, regulatory affairs specialists within genome science, clinical research associates and pharmacovigilance officers.

### **Main reasons for Bottleneck Vacancies**

### Lack of candidates with sufficient work experience and technical competencies

The bottlenecks identified within the ICT sector can be explained in part by a lack of both sufficient work experience and a lack of specialisation of candidates. Rapid technological change also results in persistent demand for these hard-to-find skills.

### Increased focus on sales abroad

As companies increasingly turn to external markets, there is unmet demand for sales workers and managers specialised in exports with specific skills, such as engineering knowledge or advanced knowledge of foreign languages. The lack of both sufficient work experience and workplace competencies (soft skills) are the main reasons for these bottlenecks. Furthermore, in the retail sector, the labour turnover is high in this sector, as before the crisis, because employees prefer to work temporarily, until they find a job tailored to their needs, interests and skills.

### Decrease in vocational education and other factors

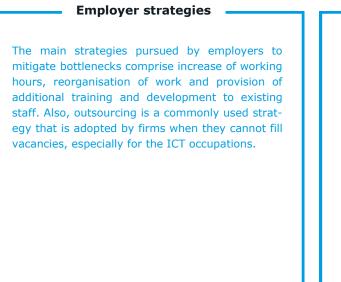
The deterioration of vocational education, the regulatory framework of technical professions, the poor image of the "blue collar" workers and the health and safety risks in the workplace are the main factors behind the low supply of technicians, such as plumbers and carpenters. The employers face difficulties to fill these vacancies due to the lack of technical competencies and sufficient work experience among candidates.

# Initiatives to cope with Bottleneck Vacancies

The main strategies implemented by employers to mitigate bottlenecks include the provision of additional training, the development of existing staff and the improvement of working conditions (reorganisation of work, improvement of terms and conditions offered for the job).

At the level of the employer, strategies include moreover campaigns and marketing to attract candidates and other recruitment activities aimed at related occupations.

At the national level, the main initiatives are based on training and apprentice programmes. Two voucher programmes have been implemented by the Ministry of Labour, Social Security and Welfare.



### National

At the national level, the Ministry of Labour, Social Security and Welfare is implementing a voucher programme, covering all sectors and including 80 hours of training and 500 hours of apprenticeship while a similar programme is in progress in the tourism sector.

Finally, the Ministry of Labour, Social Security and Welfare plans to establish an online system of mapping the labour market needs.

### Training

Graduates of the Vocational Upper Secondary School, specialising in technological applications, economy and management, agronomy, food technology and nutrition and finally shipping professions, can participate to the "Classroom Apprenticeship", which includes one year training in the workplace and attendance of courses. This programme is implemented by the Ministry of Education and more specifically by the Vocational Upper Secondary School in cooperation with the OAED (Greek Manpower Employment Organization)."

## Main sources used to identify Bottleneck Vacancies in Greece

The bottleneck vacancies have been identified mainly based on interviews with representatives of the Ministry of Labour, Social Security and Welfare, OAED (Manpower Employment Organization), employers and employees associations, chambers, HR companies and centres for educational training.

In addition, a recruitment agency's data base of 93,000 job advertisements, covering the period 2008-2012, was used in the study to verify the findings.

Explanations and reasons and mitigation strategies have been explored through interviews and other studies.

Overall, the quality of the data is assessed to be scarce.

There are no official or scientific quantitative data available about bottlenecks.

The 20-top bottlenecks, thus, have been identified through interviews and ranking them was not possible.

The majority of interviewees agree that employers face difficulties to fill jobs in the following categories of occupations: a) Information and Communications Technology professionals b) specified sales workers, c) managers and d) craft and related trades workers.

In addition to interviews, the recruitment agency's data base and other studies have been used as a source of verification of the findings emerged in the interviews.

#### Sources

ALBA Graduate Business School, (2013), *Recruitment Confidence Index: Greece*, First Semester 2013, September (in Greek).

European Commission, (2012) European Vacancy and Recruitment Report 2012, available at: http://ec.europa.eu/ social/main.jsp?catId=738&langId=en&pubId=7267

Foundation for economic & Industrial Research (IOBE), National Technical University of Athens, (2012), *Research on businesses for the predictions of changes in regional production systems and local labor markets*, Athens.

Manpower Group, (2013a), *Talent Shortage Survey Results-2013.*, available at: http://www.manpowergroup.com/ wps/wcm/connect/587d2b45-c47a-4647-a7c1-e7a74f68fb85/2013\_Talent\_Shortage\_Survey\_Results\_US \_high+res.pdf?MOD=AJPERES

McKinsey & Company, (2012), Greece 10 Years Ahead: Defining Greece's new growth model and strategy Report, Athens, executive summary available at: http://www.mckinsey.com/locations/athens/greeceexecutivesummary\_new/

Fourteen interviews conducted with key stakeholders and experts.