LABOR MARKET BRIEFINGS SERIES
LABOR MARKET INFORMATION FOR RESEARCHERS

THE INFORMATION TECHNOLOGY SECTOR IN EUROPE
As part of the Labor Market Briefings Series, this report will give an overview of the IT sector specifically in Europe and how European researchers can begin making their career in the sector. While providing a general overview of the IT sector, this report will focus on the IT sector in three European countries, the United Kingdom, Germany, and Israel (non-European-Associated country), as all three countries boast significant IT sectors. It should be noted that this is a general overview of the IT sector and does not seek to give specific information, rather a glimpse of the sector.

**What?**

IT or ICT- “is a combination of manufacturing and services industries that capture, transmit and display data and information electronically”

The sector employs millions of highly trained Europeans who receive extremely competitive pay and benefits.

**U.K.**

The U.K. has one of Europe’s most dominant and fastest growing IT sectors.

**Germany**

The sector is growing quickly in Germany. So much so that demand for IT professionals has well outstripped supply in the country.

**Israel**

The sector is the largest and most lucrative in Israel.

**Researchers in the Sector**

**Occupations**- most researchers work as managers and data analysts.

**Research fields**- computer science, engineering, analytics, and management.

**Skills**- communication, technical, problem-solving, logical and objective thinking, creativity, enthusiasm, time management, organizational, project-management, and presentation skills.
The IT sector stands for the Information Technology sector in recent years. Multiple bodies such as the OECD have begun calling the IT sector the ICT sector. In their classification of the ICT sector, the OECD defined it as, “as a combination of manufacturing and services industries that capture, transmit and display data and information electronically.” In this report, we have expanded the definition of the IT sector not only to ICT but to any sector classification that has to do with Technology or High-Tech. The last two decades have seen the information technology (IT) industry become one of the most important and dominant industries/sectors in the world. The birth of the IT sector over the last few decades has created unparalleled economic growth worldwide and specifically in the "West". This sector is defined by large IT economies which attempt to meet the exploding technology demands from businesses and private citizens. Not only has the sector become a force of production and output but one of employment as well. The sector employs millions of highly trained employees around the world who, for the most part, receive extremely competitive pay and benefits.

The IT sector is only expanding and growing with no end to its growth in sight. Therefore, there has never been a better time than now to begin a career in the IT sector.
As Europe and the European economic area are diverse places with significant distinctions between the economies of the different member states (and associated countries), a focus on the IT sector in a few specific countries can help us glean an overview of the sector in Europe. Three countries within Europe (the ERA) with significant national IT sectors are Germany, the UK, and Israel. It is in the IT sectors in these three countries that recent graduates looking to make a career in the IT world should begin starting their search.

**GERMANY**

The demand for IT professionals in Germany has been on the rise as employers focused on big data, cloud computing, cybersecurity and mobile platforms. Employers struggled to attract and retain specialists, but generalist professionals were in more plentiful supply, with salaries remaining largely static. Candidates with strong project management and systems operations experience were increasingly sought after. Overall upward pressure on salaries is being seen in the IT sector in Germany as demand outstrips supply for highly skilled IT professionals.

**THE U.K.**

The demand for IT professionals in the UK is on the rise, with e-commerce, retail, and digital specialists becoming increasingly more in high demand. Mid-level roles such as project managers with experience in business intelligence and big data were particularly sought after with the addition of developers. The demand for IT professionals remained steady over the last few years, even withering the referendum (BREXIT-2016) vote, with demand even peaking slightly after the vote.

**ISRAEL**

After years of extended growth, the Israel high-tech sector was expected to slow down eventually, especially after experiencing a slight slowdown in 2015. This would not be the case, as 2016 saw the high-tech sector bounce back and even increase its employment demands. IT employees in Israel have seen their salaries rise in tandem with an overall increase of ten percent since 2014. Demand for IT professionals in Israel regularly outstrips supply resulting in many employers often having to settle for less qualified talent. The IT sector is by far the largest and most lucrative sector in Israel and IT jobs can be found in abundance.

Overall, demand for candidates in the UK outstrips supply, with employers becoming increasingly more prepared to offer training to high potential professionals with long-term retention potential. Employers will continue to actively hire throughout 2017 and the near future with demand for IT professionals only expected to rise.
The last decade has seen a proliferation of High-Tech companies worldwide many of whom have become household names wielding significant financial and market influence. These companies have become behemoths employing thousands of highly skilled IT workers and constantly looking to recruit the best IT talent around. When we think of these companies we often think of the United States and Silicon Valley. Yet, Europe is no stranger to these companies, boasting a significant amount of local IT behemoths. Some examples of which are,

**Europe**
- Thales, BAE Systems, and the BT group.

**Germany**
- Deutsche Telekom, SAP, and SIEMENS.

**The UK**
- Accenture, Infosys, and Ubisoft.

**Israel**
- Amdocs, IAI, and Elbit Systems.

Employment in the ICT sector is on the rise throughout Europe. With the growth in the employment of ICT specialists averaging 3% over the ten-year period between 2006-2015, which is more than eight times higher than the average growth rate for total employment over the same period (EUROSTAT, 2016). Employment of ICT specialists has been largely unaffected by the uncertainty seen in global labor markets during and after the economic crisis (2008): with the growth remaining steady at 3% since 2006. The Israeli government does not collect similar statistics and is therefore incomparable in this regard. Yet we can see that the ICT/High-Tech sector in Israel saw an increase of 6,300 ICT jobs from 2014 to 2015. Signifying an increasing demand for ICT/IT specialists in that country as well, with many years since 2006 experiencing higher than 3% growth.
Ph.D. and Postdoc holders in Engineering, Mathematics, Computer Science, and Technology can look forward to finding well-paying employment in the IT sector.

While a Ph.D./Postdoc is not a prerequisite to finding significant employment in the IT sector it can be useful for distinguishing oneself from other potential job candidates. It may also allow for accelerated upward mobility in the employee hierarchy in large companies. Despite this, it should be noted that experience in the sector is a priority for many IT employers, with experience often valued over degree attainment. Therefore, when committing to additional extended studies one should be wary of the expense in potential experience in the sector. Many Ph.D./Postdoc graduates have been able to leverage their studied specialties and areas of expertise to find employment in specific projects undertaken by companies in the IT sector. Overall, employment and career prospects are looking up for researchers.

The most relevant skills required for most IT positions are the ability to maintain existing software applications and develop new ones, experience in the application of technical standards, theories and techniques, and communication skills. While those are the main required skills some additional ones that can be beneficial to have are: problem-solving skills, logical and objective thinking, creativity, enthusiasm, good time management ability, organizational and project management skills and presentation skills.
The IT sector is one of the fastest growing sectors worldwide. Europe is no stranger to the growth of the IT sector, boasting significant sectors in some of the EU member states and associated countries. For recent graduates looking to make their way in the IT sector there has never been a better time, with employment opportunities skyrocketing.

Other useful sources of information and links


