

According to IDC, IT Roles in Cybersecurity and Data Management and Analytics Will Record the Highest Demand in Europe Through 2023

International Data Corporation (IDC) forecasts that ICT full-time employment (FTE) will total 11.3 million in Europe in 2020, and will register year-on-year growth of 2.5%, according to IDC's first [Worldwide Technology Employment Impact Guide](#). Over the 2019-2023 forecast period, ICT FTE will post a compound annual growth rate (CAGR) of 2.4% to exceed 12 million in 2023.

As noted in a recent [IDC Survey Spotlight](#), among the biggest issues caused by the lack of IT skills among European organizations are delays in developing new products and services, delays in deployment of new hardware or software, and difficulties in meeting objectives. "Organizations are experiencing big IT skills gaps that hinder them from increasing their competitiveness and benefitting from rapidly evolving technologies," says Lubomir Dimitrov, senior research analyst with IDC's Customer Insights & Analysis Group.

The data published in the IDC Worldwide Technology Employment Impact Guide can help organizations determine which skills they need right now, as well as to build a strategy for acquiring the necessary IT capabilities for the next three to five years. IDC estimates employment demand based on a solid foundation of market research, a combination of qualitative and quantitative data from several primary and secondary sources (population statistics, economic growth predictions, employment rates, age distribution, IT workforce statistics, and IT spending and predictions). FTE in the ICT industry is estimated by standardized role group, industry, region, technology, and digital transformation type (DX or non-DX).

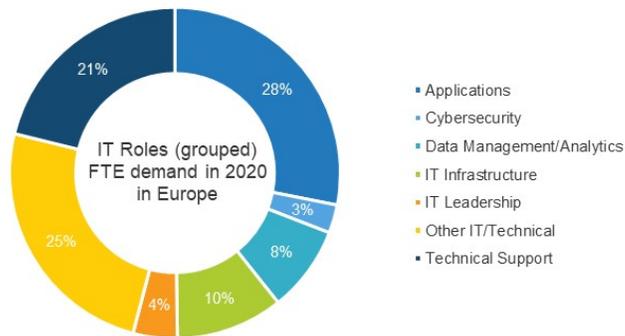
ICT job roles are related to activities within projects, programs, and lines of business, such as development of

software, hardware, or related services. ICT job roles are not necessarily presented only in companies from ICT services, software, and hardware industries, but can be found in any kind of industry, enterprise, or organization.

Applications is the largest role group, which includes eight roles related to software development and management. Taken together with the Technical Support group (consisting of five roles), Applications will account for nearly 50% of all ICT FTE in 2020.

Figure 1

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The fastest growing role group during the next five years is expected to be Cybersecurity, with a CAGR of 8.1%, while the Other IT/Technical group will post a negative CAGR of 1.3%.

“There is a shortage of skills in IT specialist roles throughout Europe,” says Martin Sundblad, research manager at IDC.

“This is partly due to digital

transformation making IT more integral to every business process, but also to rapid technology development, demand for skills in areas like cloud, automation, and AI simply outpaces the supply. Organizations will need to invest in the development, sourcing, and matching of skills to remain competitive.”

Of the 40 technology jobs covered in the Technology Employment Impact Guide, the top 3 — software developer/engineer, user support specialist, and systems analyst — are expected to maintain their positions in terms of demand in Europe during the forecast period. Demand for machine learning designer/developer/engineer will record the highest five-year CAGR at 12.1%, followed by data scientist at 12% and data engineer with 11.3%.

In order to assess the impact which digital transformation (DX) is having and will have on skills and roles within an organization, the Technology Employment Impact Guide splits all job roles into DX or non-DX-related. IDC applied its digital transformation definition to quantify these shifts in employment. All DX-related job roles focus on applying new technologies to radically change processes, customer experience, and value. Non-DX job roles are more focused on less strategic activities and help support day-to-day operations. “In Europe,

the importance of DX roles will increase over the next five years, rising from 28% of all FTE roles in 2018 to 46% in 2023. Worldwide, the share of DX-related roles will increase a bit faster, reaching more than 52% in 2023.

IDC follows the FTE across five sectors, which are then broken down into 19 industries. The demand for IT skills will vary in terms of industry specifics across different regions. For example, in 2020, the most demanded IT skills in Central and Eastern Europe will be seen in manufacturing and resources, while distribution and services is expected to record the highest demand in Western Europe. Driving this demand is the fact that the distribution sector (retail and wholesale) and services (professional services, media, transportation and personal services) have been among the strongest adopters in recent years of innovation accelerators, such as IoT, AI, AR/VR, blockchain, and robotics. For more information, see [European IT Spending Forecast, 2019-2023: Key Digital Trends Across European Industries](#).

“As their DX initiatives increase and gain momentum, organizations are forced to change their tactics of workforce development, as traditional work models are simply not agile enough to adapt to the changing business environment,” says Carla La Croce, senior research

analyst with IDC's [Customer Insights & Analysis Group](#). The success of DX journeys, for most organizations, will largely depend on having a flexible and relevant IT infrastructure and human resource pool.

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IDC's Spending Guides provide a granular view of key technology markets from a regional, vertical industry, use case, buyer, and technology perspective. The spending guides are delivered via pivot table format or custom query tool, allowing the user to easily extract meaningful information about each market by viewing data trends and relationships.

For more information about IDC's Spending Guides, please contact Monika Kumar at mkumar@idc.com.

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