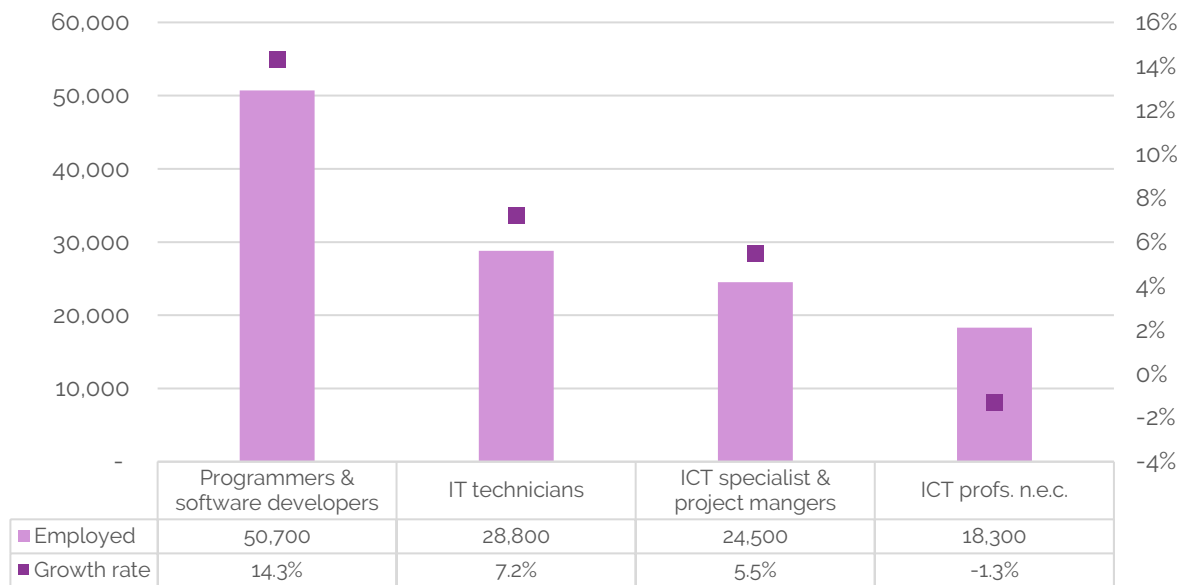


## 10.2 ICT Occupations

Figure 10.2 Annual Average Employment (2022) & Annual Average Growth Rates (2017-2022)



<b>Overall employment</b>	<b>122,300</b>
<b>Share of total workforce</b>	4.8%
<b>Main sectors of employment</b>	70% - ICT 9% - Financial activities 8% - Industry
<b>Employment growth</b>	+37,700 between 2017 and 2022 +7.7% on average annually (compared to +3.0% for total workforce)

2022	% Female Q4	% Full-time Q4	% Aged 55 years & over Q4	% Irish citizens Q4	% Third level graduates Q4	Number of new employment permits	Recruitment Agency Survey
ICT specialist & project managers	[30%]	97%	...	81%	87%	974	✓
Programmers & software developers	[17%]	98%	[10%]	61%	92%	4,332	✓
ICT profs. n.e.c.	...	97%	...	59%	82%	3,511	✓
IT technicians	[32%]	94%	...	62%	75%	251	✓
<b>Overall total</b>	<b>24%</b>	<b>97%</b>	<b>9%</b>	<b>65%</b>	<b>86%</b>	<b>9,068</b>	

Source: SLMRU (SOLAS) analysis of CSO (LFS) data, DETE, and SLMRU Recruitment Agency Survey (RAS)  
Numbers in square brackets should be treated with caution; an ellipsis ( ...) denotes numbers too small to report

## Overall Outlook for these Occupations

Following a period of expansion during the COVID-19 pandemic, many of the large ICT firms in Ireland announced layoffs, restructuring and recruitment freezes in 2022. These changes have not been reflected in the employment data, with employment in the ICT sector reaching its highest levels ever in quarter 2 2023. Online job advertisement data for 2023 to date shows that although strong demand for ICT occupations continues, it is at a lower rate than in 2022. Demand for these roles is evident in all sectors of the economy with ICT skills the second most frequently mentioned skill in job adverts across all occupations (after business/admin). The Summer Economic Insights report from the Department of Finance highlights the fact that continued digitalisation is likely to see demand for these roles continue in the medium term and that the skills profile of those employed in the ICT sector are highly transferable and indeed highly sought after.<sup>1</sup>

A considerable share of persons employed are non-Irish citizens which is also reflected in the large volume of employment permits issued for this group. Although the overall number of new employment permits issued grew considerably in 2022, the numbers issued in 2023 to date are far lower, although still above 2021 numbers. Supply from the education and training system remains strong, with nearly 8,000 graduates from ICT programmes at third level alone. Despite this, demand for a range of ICT skills remains strong across sectors, with shortages likely to persist, although possibly less acute than in earlier years.

Occupation	Economic summary
ICT specialist & project managers  <b>Skills shortage: IT project managers</b>	<p>The annual average employment growth rate for this occupation over the five-year period was strong, with employment levels growing annually since 2018. Those employed were primarily male (70%), working full-time (97%) and the share of non-Irish citizens at 19% was in line with the national average. The number of employment permits issued grew from 359 in 2021 to 974 in 2022; although the majority were for the ICT sector, they also spanned a range of other sectors, with roles including IT project/program manager and technical lead. Vacancies for IT project managers were identified in the Recruitment Agency Survey and by employers (Spotlight on Skills and Skills for Growth) as being difficult to fill. While demand may be slowing, shortages persist for this occupation.</p>
Programmers & software developers  <b>Skills shortage: Software developers/engineers</b>	<p>Employment has grown strongly for this occupation each year over the five-year period, particularly between 2020 and 2021, where it grew by over 9,000 persons. Those employed are primarily male (83%), working full-time (98%), and 85% were aged 25-54 years (exceeding the national average of 69%). Four-fifths were employed in the ICT sector, with the remainder spread across many sectors. Recent job hires in 2022 exceeded any employment growth indicating that job churn is a factor for this occupation. Almost two-fifths (39%) were non-Irish citizens (compared to a national average of 19%). At over 4,300, the number of employment permits issued in 2022 was almost equivalent to the increase in employment over the same time period. Although the number of new employment permits issued in the first five months of 2023 have slowed, they remained above 2021 levels. Most employment permits were issued for the ICT sector, for software engineering/development roles, although permits were also issued across many sectors of the economy.</p> <p>There was a high volume of difficult-to-fill mentions in the Recruitment Agency Survey (various developer roles) and vacancies for software engineers were the most frequently cited occupation in the Skills for Growth data as being difficult to fill, with demand occurring across a range of sectors including manufacturing (e.g. med tech), fintech, ICT, and professional services; the most commonly sought technical skills included scrum/agile and SQL, while transversal skills such as data analysis, data management, communication and problem solving were also in demand. After other engineering professionals, this occupation had the highest number of job postings advertised online in 2022, although the number declined by 6% compared to 2021.</p> <p>While shortages are likely to have eased somewhat compared to earlier years, demand for software developers remains high and shortages are likely to persist economy-wide, including in the industry, finance, education, health, and wholesale/retail sectors.</p>

<sup>1</sup> <https://www.gov.ie/en/publication/e7766-economic-insights-summer-2023/>

<p>ICT profs. n.e.c.</p> <p><b>Skills shortage: IT analysts/ engineers</b></p>	<p>The negative average annual employment growth rate over the five-year period for this occupation is partly related to changes in the LFS in 2017; however, employment has declined annually since 2020. Those employed were primarily male, working full-time and held third-level qualifications. The share of non-Irish citizens employed far exceeded the national average (41% compared to 19% nationally). Despite the decline in employment, over 3,500 new employment permits were issued in 2022 across a range of roles including IT analysts/engineers (cloud, security, systems, network, test). There was a high volume of mentions in the Recruitment Agency Survey for network/security and site reliability engineers while vacancies for software testers were cited as difficult to fill by employers in the Skills for Growth data, particularly for those with cybersecurity, cloud computing and HTML skills. The number of online job adverts declined by 12% in 2022, predominantly due to the fall in postings for systems analysts which alone accounted for nearly half the total decline in ICT job postings in 2022.</p> <p>Despite falling employment numbers, strong demand remains evident across the indicators in key areas such as network/cloud and security engineering. The move to remote working since the onset of the pandemic, along with the war in Ukraine, have increased the prevalence of cybersecurity threats<sup>2</sup> with demand for these skills likely to persist. The fall in online vacancy advertisements indicates a slowing in demand but shortages remain, at least in the short-term.</p>
<p>IT technicians</p>	<p>There was a strong annual average employment growth rate over the five-year period for this occupation, although employment declined in the most recent time period. Those employed are primarily male, working full-time, and three quarters hold third level qualifications. The share of non-Irish nationals, at 38%, is far above the national average. Employment permits issued for this occupation in 2022 were for roles including community operations analysts, technical/IT support engineers and customer support. Mentions of difficult-to-fill vacancies in the Recruitment Agency Survey primarily related to technical support roles and content reviewers (with language skills required for both). The number of online job adverts, although small, remained almost unchanged in 2022; more recent data shows, however, that while IT technician postings overall grew slightly (nearly 1%) in quarter 1 2023, the number of job adverts for IT user support technicians declined.</p> <p>Although issues remain in attracting people with specific foreign language skills for some roles within this occupation, the falling employment numbers and the static online job vacancies (potentially related to restructuring and a freeze on hiring in the ICT sector) suggest that there is no overall shortage for IT technicians, at least in the short-term.</p>

<sup>2</sup> Cybersecurity: main and emerging threats | News | European Parliament (europa.eu)