

Information Economy: Economic Estimates 2013

A joint publication by:

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Key findings

Business population

- Between 2009 and 2012 the number of Information Economy enterprises rose by 7% even as the overall number of enterprises in the UK declined by 0.1%.
- The Information Economy now comprises 131,000 enterprises and 138,000 local units representing 6% and 7% respectively of the total number in the UK.
- Just under one half (48%) of Information Economy enterprises are based in London/the South East of England.
- Just over one quarter (26%) of Information Economy enterprises are less than 2 years old compared with around one in six (16%) UK enterprises as a whole.

Economic impact

- GVA for the Information Economy amounts grew by 5% between 2010 and 2011 more than double the rate of growth within the economy as a whole (2%) over the period.
- In total, GVA from the Information Economy is estimated to be approximately £72bn representing 5% of the UK total.
- At £99,000 per head, GVA per worker in the Information Economy is more than double the industry average (£47,000).
- Total turnover for the Information Economy in 2011 (latest data) was £145bn, £65bn (45%) of which was associated with the Telecoms sector.

Employment

- The number of people working in the Information Economy industries grew 8% over the 2009-12 period – a rate four times that recorded for the workforce as a whole (2%).
- With a workforce of 760,000 people, Information Economy firms accounted for approximately 3% of the entire workforce though the figure rises to 1.4m or 5% when taking into consideration the Information Economy specialists employed in other sectors.
- Women are severely under-represented within Information Economy sector within which 78% of workers are male (compare with 54% within the economy as a whole).
- Information Economy workers are almost three times more likely to hold 'professional' roles than workers as a whole (i.e. 60% and 19% respectively hold such positions).

Skills

- Information Economy workers tend to be more highly educated than average with just under two thirds (65%) holding some form of higher award (compared with an workforce average of 40%).
- The Information Economy provides employment to approximately 10% of undergraduate leavers and in 2012, 11,100 graduates from full-time courses found employment within an Information Economy firm/role.

1 Introduction

1.1 Defining the Information Economy

The Digital Industries are at the heart of the Information Economy (IE) and this report provides economic estimates for the Information Economy as defined by a Standard Industrial Classification (SIC 2007) codes used by HMG in the production of the Information Economy Strategy (June 2013) i.e.

58.21	Publishing of computer games
58.29	Other software publishing
61.1	Wired telecommunications
61.2	Wireless telecommunications
61.3	Satellite telecommunications
61.9	Other telecommunications
61.9	Other telecommunications
61.9	Other telecommunications
62.01	Computer programming activities
62.02	Computer consultancy activities
62.03	Computer facilities management activities
62.09	Other information technology and computer
63.11	Data processing, hosting and related
63.19	Web portals
63.91	News agency activities
63.99	Other information service activities n.e.c (not elsewhere classified)

Within the Information Economy Strategy document, it is stated that; *"at its core, [The Information Economy] spans the familiar sectors of software, IT services and telecommunication services, and this is the definition we use in this Strategy. However, the reach of the information economy is broader than this as it is constantly evolving and pushing into new areas"*.

Though not the specific focus of this report, the IT/Telecoms sector is thus recognised as a key element of the Information Economy and as such a full definition of the sector (again as defined by relevant SIC codes) has been included for reference purposes within Annex A of the report.

1.2 Defining the Information Economy – an occupational view

The Information Economy workforce comprises two main elements; a) individuals working within sectors shown above, and b) IT specialists working in other sectors of the economy. In this case, IT specialists are defined by the following Standard Occupational Classification (SOC2010) codes:

1136	Information technology and telecommunications directors
2133	IT specialist managers
2134	IT project and programme managers
2135	IT business analysts, architects and systems designers
2136	Programmers and software development professionals
2137	Web design and development professionals
2139	Information technology and telecommunications professionals n.e.c.
3131	IT operations technicians
3132	IT user support technicians
5242	Telecommunications engineers
5245	IT engineers

1 Introduction

1.3 Defining the Information Economy – a readers view

To aid readability, this report simplifies the SIC/SOC descriptors listed above. This simplification does not affect numerical values. Full details of the SIC/SOC descriptors and their simplifications as used in this report are provided in Annex B together with a brief glossary and notes on data presentation.

1.4 Data sources

Four main sources of data have been used in the production of this report:

- 1) In section 2 - The ONS (Office for National Statistics) Interdepartmental Business register (IDBR)
- 2) In section 3 - The ONS Annual Business Survey (ABS)
- 3) In section 4 - The ONS Quarterly Labour Force Survey (LFS) and the Higher Education Statistics Agency (HESA) Destinations of Leavers from Higher Education (DELHI) survey

2 Scoping the Information Economy

2.1 Size distribution of Information Economy 'enterprises'

ONS describe a business enterprise as 'the smallest combination of legal units (generally based on VAT and/or PAYE records) which has a certain degree of autonomy within an enterprise group'. Enterprise numbers are monitored regularly, and latest data from the IDBR show the Information Economy comprising of approximately 131,000 enterprises in 2012 - 6% of the UK total.

Table 1: Distribution of Information Economy enterprises by sub-sector and size, 2012

	Micro	Small	Medium	Large	TOTAL
ALL ENTERPRISES	89%	9%	2%	0.4%	2,149,200
Information economy:	95%	4%	1%	0.2%	131,000
IT – games publishing	86%	10%	5%	-	100
IT – other software publishing	92%	7%	1%	0.3%	1,700
Telecoms – wired	94%	4%	1%	0.5%	1,000
Telecoms – wireless	92%	6%	1%	0.6%	800
Telecoms – satellite	93%	7%	-	-	100
Telecoms – other	89%	9%	2%	0.7%	5,400
IT – programming	95%	4%	1%	0.2%	25,400
IT – consultancy	96%	3%	1%	0.1%	68,000
IT – facilities management	94%	6%	-	-	300
IT – other	93%	6%	1%	0.1%	21,300
IT – data	89%	8%	2%	0.5%	2,900
IT – web	96%	3%	1%	-	1,300
Information services – news	95%	3%	1%	0.7%	800
Information services – other	95%	5%	1%	0.0%	1,900

Source: e-skills UK analysis of ONS IDBR data

The size distribution of Information Economy (IE) enterprises appears similar to that of enterprises as a whole, with 99% classed as Small or Medium Sized Enterprises (SMES). Information Economy SMEs do, however, tend to be slightly smaller (in employment terms) than other SMEs, with 95% falling under the category of micro enterprises (less than 10 employees) compared with 89% within the wider economy.

2.2 Geographic distribution of Information Economy enterprises

As with other sectors, the Information Economy is found to be concentrated within England, and London/the South East in particular where just under one half (48%) of all related enterprises are based. This geographical focus is however, much greater than that exhibited in other elements of the economy, as overall, these areas are only home to just under one third (32%) of all enterprises.

As illustrated in the following table, the proportion of Information Economy establishments based within each of the (devolved) nations are all below what would be expected given the general distribution of businesses in the UK. This observation is most pronounced in Northern Ireland which accounts for only 1% of Information Economy enterprises but 3% of enterprises more generally.

2 Scoping the Information Economy

Table 2: Distribution of Information Economy enterprises by nation/region, 2012ⁱ

	Information Economy		All enterprises	
	Enterprises	Share of total	Enterprises	Share of total
England	120,700	92%	1,842,700	86%
North East	2,000	2%	56,400	3%
North West	10,000	8%	205,700	10%
Yorkshire and The Humber	6,200	5%	150,100	7%
East Midlands	6,500	5%	144,500	7%
West Midlands	8,600	7%	171,200	8%
East	14,400	11%	216,600	10%
London	33,100	25%	359,900	17%
South East	29,200	22%	337,800	16%
South West	10,600	8%	200,500	9%
Wales	2,800	2%	88,600	4%
Scotland	6,500	5%	150,500	7%
Northern Ireland	1,000	1%	67,500	3%
TOTAL	131,000	100%	2,149,200	100%

Source: e-skills UK analysis of ONS IDBR data

2.3 Age distribution of Information Economy 'enterprises'

Overall, just over one quarter (26%) of Information Economy enterprises are less than 2 years old – a figure well above that for businesses more generally within the UK (16%). The age distribution varies widely according to Information Economy sub-sector however, ranging from less than one in ten enterprises classed as; 'other' software publishing, 'other' IT enterprises and news services, to more than one half of those operating in the IT programming or web sectors.

Table 3: Information Economy enterprises by age of business, 2012

	Less than 2 Years	2 - 3 Years	4 - 9 Years	10 or more Years	Total
ALL ENTERPRISES	16%	12%	28%	44%	2,149,200
Information economy total	26%	16%	31%	27%	131,000
IT – games publishing	29%	14%	24%	33%	100
IT – other software publishing	8%	9%	26%	57%	1,700
Telecoms – wired	52%	31%	9%	8%	1,000
Telecoms – wireless	48%	26%	17%	9%	800
Telecoms – satellite	43%	36%	11%	11%	100
Telecoms – other	25%	18%	38%	20%	5,400
IT – programming	54%	22%	10%	14%	25,400
IT – consultancy	21%	15%	39%	26%	68,000
IT – facilities management	30%	44%	17%	9%	300
IT – other	8%	10%	33%	49%	21,300
IT – data	29%	18%	34%	18%	2,900
IT – web	56%	34%	8%	2%	1,300
Information services – news	5%	7%	54%	35%	800
Information services – other	35%	19%	21%	25%	1,900

Source: e-skills UK analysis of ONS IDBR data

2 Scoping the Information Economy

2.4 Number of Information Economy 'local units'

Aside from enterprise data, ONS also collect/present data on 'local units' (individual sites, offices, or branches of a store chain for example) and in 2012, each Information Economy enterprise was associated, on average, with around 1.1 business units – equating to 138,000 in total across the UK (i.e. compared with 131,000 enterprises). This is a slightly lower ratio than for enterprises as a whole at that time (i.e. 1.2:1 for UK enterprises) and this observation was apparent for all Information Economy sub-sectors at this time bar other Telecoms Services (where a ratio of 1.7:1 was noted).

Table 4: Information Economy enterprises/local units, 2012

	Enterprises	Local units	Units/ enterprise
Whole economy	2,149,200	2,610,500	1.21:1
Information economy total	131,000	137,800	1.05:1
IT – games publishing	100	100	1.00:1
IT – other software publishing	1,700	1,700	1.01:1
Telecoms – wired	1,000	1,200	1.12:1
Telecoms – wireless	800	800	1.06:1
Telecoms – satellite	100	100	1.07:1
Telecoms – other	5,400	8,900	1.65:1
IT – programming	25,400	25,900	1.02:1
IT – consultancy	68,000	69,500	1.02:1
IT – facilities management	300	300	1.02:1
IT – other	21,300	21,800	1.02:1
IT – data	2,900	3,400	1.19:1
IT – web	1,300	1,300	1.00:1
Information services – news	800	800	1.05:1
Information services – other	1,900	1,900	1.02:1

Source: e-skills UK analysis of ONS IDBR data

2.6 Trends in Information Economy enterprise numbers

After falling by 3% between 2009 and 2010, the number of enterprises in the Information Economy grew in each successive year, and by 2012 there were 7% more Information Economy Enterprises in the UK than at the start of the 2009-12 period. By comparison, within the economy as a whole, though the decline in enterprise numbers between 2009 and 2010 was proportionately lower (-2%), so too was subsequent growth experienced, and as a result the overall enterprise count in 2012 remained 0.1% lower than that recorded in 2009.

Much greater changes were observed at the sub-sector level however, most notably for: Wired Telecoms Services (a 225% increase in the number of enterprises over the 2009-12 period), Web portals (up 179%), IT programming (158%), IT facilities Management (108%), Satellite communications (100%) and wireless telecoms services (90%).

In the main, these growth figures can be attributed to growth in the number of micro enterprises (i.e. those with under 10 employees) and generally from a relatively low base (i.e. <500 enterprises). In the case of IT programming however, there has also been notable growth in the number of medium and large enterprises (up 9% and 29% respectively) and this from a base of just under 10,000 enterprises in total.

2 Scoping the Information Economy

Table 5: Information Economy enterprises, 2009-12

	2009	2010	2011	2012	Change	
					2009 -12	2011 -12
Whole economy	2,152,400	2,100,400	2,080,900	2,149,200	-0.1%	3%
Information economy total	122,700	119,000	121,300	131,000	7%	8%
IT – games publishing	100	100	100	100	24%	11%
IT – other software publishing	2,100	1,900	1,800	1,700	-18%	-5%
Telecoms – wired	300	600	800	1,000	225%	32%
Telecoms – wireless	400	500	600	800	90%	30%
Telecoms – satellite	100	100	100	100	100%	4%
Telecoms – other	5,300	5,100	5,000	5,400	2%	8%
IT – programming	9,800	13,200	18,400	25,400	158%	38%
IT – consultancy	71,400	66,700	65,800	68,000	-5%	3%
IT – facilities management	100	200	200	300	108%	29%
IT – other	27,000	24,600	22,200	21,300	-21%	-4%
IT – data	2,800	2,700	2,700	2,900	2%	6%
IT – web	500	900	1,100	1,300	179%	18%
Information services – news	900	900	800	800	-18%	-4%
Information services – other	1,900	1,700	1,700	1,900	2%	10%

Source: e-skills UK analysis of ONS IDBR data

3 Economic impact

3.1 Introduction

Economic data relating to the Information/wider economy are available from the ONS Annual Business Survey (ABS) and a summary of key indicators from this series is presented here. Unfortunately, ABS data is currently available till 2011 only (as opposed to 2012 as with the IDBR figures cited earlier) whilst collection/categorisation and presentation issues again, mean that the estimates presented in this section are on a slightly different basis than those shown earlier. The differences are not great however and are explored in detail within Annex C.

3.2 The Information Economy generating added value

One of the key economic indicators provided by the ABS is - Gross Value Added (GVA), and, broadly this equates to the revenue (turnover) generated by a service or product less the associated input costs (primarily purchases) involved in productionⁱⁱ. In 2011, turnover amongst enterprises making up the Information Economy was £145bn whilst the associated cost of purchases required was in the order of £73bn – giving rise to a GVA figure of approximately £72bn or just over 5% of the total for the entire economy.

Table 6: Turnover, purchases and GVA for the Information Economy, 2011

	Turnover	Purchases	GVA	
	£m	£m	£m	Propn of UK total
Whole economy	-	-	1,360,900	100%
Information economy total	145,100	73,200	71,700	5.3%
IT – games publishing	800	600	200	0.02%
IT – other software publishing	1,200	300	800	0.06%
Telecoms – wired	1,500	700	800	0.06%
Telecoms – wireless	1,500	700	800	0.06%
Telecoms – satellite	1,300	-	-	-
Telecoms – other	61,300	-	-	-
IT – programming	16,000	6,300	9,600	0.71%
IT – consultancy	31,300	13,300	17,300	1.27%
IT – facilities management	100	-	-	-
IT – other	19,300	8,300	11,000	0.81%
IT – data	6,400	2,200	4,200	0.31%
IT – web	800	300	500	0.04%
Information services – news	3,100	900	2,200	0.16%
Information services – other	800	300	500	0.04%
Telecoms services (total)	65,500	40,700	25,301	1.86%

Source: Source: e-skills UK analysis of ONS ABS data/ONS Blue Bookⁱⁱⁱ

The largest sub-sector contributions to Information Economy GVA were via IT programming, consultancy and 'other services' (accounting for 13%, 24% and 15% respectively of the Information Economy total), and though no data for individual Telecoms sub-sectors are available, it is notable that Telecoms services as a whole have generated approximately £25bn in GVA during 2011 (i.e. 35% of the Information Economy total and just under 2% of the total generated by all public/private organisations in the UK).

3 Economic impact

3.3 GVA per head

Obviously, a sector may generate a high level of GVA simply due to the fact that it is associated with a large number of employers/workers, and as such, to obtain an understanding of the relative contribution made by elements of the Information Economy at a micro-level, a better indicator is GVA/worker.

In 2011, GVA per worker within the Information Economy is estimated to have been more than double (211%) the level within the economy as a whole (i.e. £99,000 per head and £47,000 per head respectively). Further analysis by industry sub-sector however, shows that in certain areas the difference is even greater with 'other' IT services in particular associated with a GVA/head figure – six times (663%) the overall UK average.

In fact, only in three Information Economy sub-sectors was the GVA per head figure found to be lower than average during 2011 i.e. wireless/wired telecoms and IT facilities management.

Table 7: GVA per head, 2011

	GVA/ worker	Propn of UK figure
Whole economy	£47,000	100%
Information economy total	£99,000	211%
IT – games publishing	£128,000	271%
IT – other software publishing	£52,000	111%
Telecoms – wired	£13,000	27%
Telecoms – wireless	£9,000	19%
Telecoms – satellite	-	-
Telecoms – other	-	-
IT – programming	£46,000	98%
IT – consultancy	£74,000	158%
IT – facilities management	£6,000	12%
IT – other	£312,000	663%
IT – data	£254,000	540%
IT – web	-	-
Information services – news	£273,000	580%
Information services – other	£75,000	160%
Telecoms services (total)	£136,000	288%

Source: Source: e-skills UK analysis of ONS ABS data/ONS Blue Book

3.4 Trends in value added generation

Following a small decline between 2009/10, GVA from the Information Economy rose by 5% in 2010/11, an increase more than double that recorded for the economy as a whole over the period (2%). Still greater increases were observed for a number of Information Economy sub-sectors however, notably: Games publishing (up 132%) and IT facilities management (110%).

Though these increases are impressive, an annual decline was also observed within two sub-components of the Information Economy over the period i.e. IT consultancy (down 7% between 2010 and 2011) and Information Services (down 3%).

3 Economic impact

Table 8: **GVA trends for the Information Economy, 2009-11**

	2009	2010	2011	Change	
				2009-11	2010-11
Whole economy	1,280,300	1,327,900	1,360,900	6%	2%
Information economy total	68,600	68,200	71,700	5%	5%
IT – games publishing	42	100	200	424%	132%
IT – other software publishing	600	700	800	29%	24%
Telecoms – wired	400	500	800	86%	55%
Telecoms – wireless	800	700	800	2%	17%
Telecoms – satellite	100	-500	-	-	-
Telecoms – other	25,700	24,200	-	-	-
IT – programming	7,300	7,700	9,600	32%	25%
IT – consultancy	18,500	18,500	17,300	-6%	-7%
IT – facilities management	-	-	100	271%	110%
IT – other	8,700	9,600	11,000	27%	15%
IT – data	3,400	3,700	4,200	22%	14%
IT – web	300	300	500	58%	58%
Information services – news	2,300	2,200	2,200	-5%	1%
Information services – other	400	500	500	13%	-3%
Telecoms services (total)	27,000	24,900	25,300	-6%	2%

Source: Source: e-skills UK analysis of ONS ABS data/ONS Blue Book

4 Information Economy employment

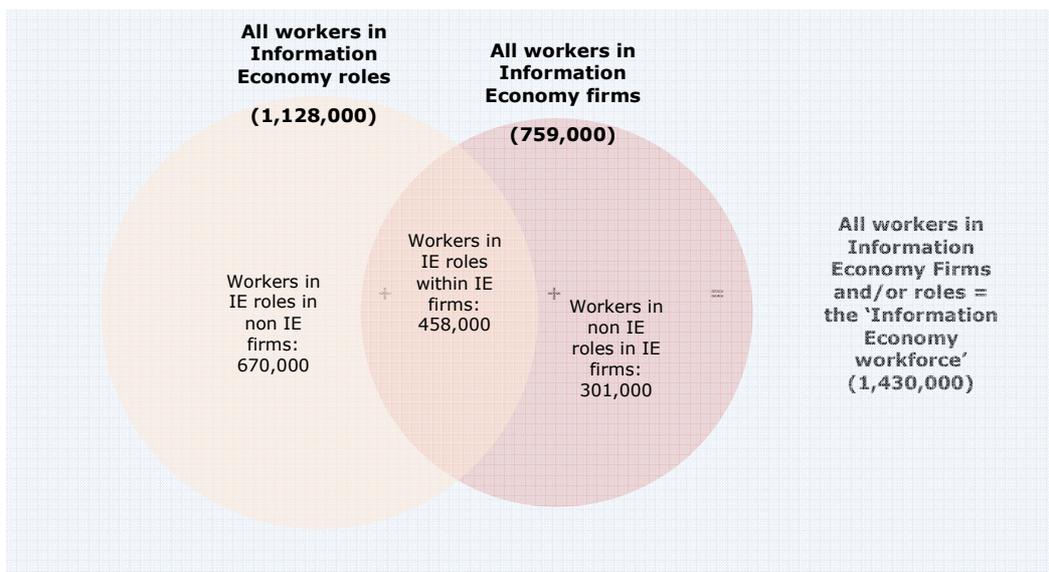
4.1 Introduction

Though the IDBR and ABS do provide some information on employment by sector, the data available is limited - particularly at sub-sector level. Hence within this section, estimates from the ONS Labour Force Survey (LFS) have been used to give a more detailed picture of employment levels and associated characteristics within the Information Economy. A basic comparison of workforce estimates using the different sources is presented within Annex C.

4.2 The Information Economy workforce

Latest estimates (2012) show the 'Information Economy workforce comprising approximately 1,430,000 people or 5% of total employment in the UK. Of these 1.4 million Information Economy Workers, just over one half (53% or 759,000 people) work in Information Economy businesses and the remainder (47% or 670,000) are in Information Economy roles (as defined by the IT SOC groups highlighted in section 1 of the report) within other sectors of the economy, notably IT&T Telecoms and Financial Services (see Annex D for details).

Figure 1: The Information Economy workforce



Source: e-skills UK analysis of ONS LFS data

IT consultancy and IT programming are by far the largest components of the Information Economy (in employment terms), and in total approximately 519,000 people work within these two sub-sectors (i.e. 68% of all those working in Information Economy businesses/36% of the entire Information Economy workforce).

IT consultancy is also notable for being associated with one of the largest increases in employment in recent years (of the Information Economy sub-sectors) and at 26%, employment growth over the 2009-12 period was well above the average for the Information Economy industries as a whole.

At 8% however, employment growth within the Information Economy industries (i.e. excluding Information Economy workers in other sectors of the economy) was still substantial and around four times the level associated with the overall UK workforce during this period (2%).

4 Information Economy employment

Table 9: Information Economy employment, 2009-12

	2009	2010	2011	2012	Change	
					2009 -12	2011 -12
Whole economy	28,760,000	28,743,000	28,941,000	29,394,000	2%	1%
Information Economy industry	705,000	684,000	723,000	760,000	8%	5%
IT – games publishing	-	-	-	-	-	-
IT – other software publishing	20,000	20,000	16,000	18,000	-12%	11%
Telecoms – wired	58,000	61,000	63,000	48,000	-17%	-24%
Telecoms – wireless	79,000	86,000	91,000	79,000		-13%
Telecoms – satellite	-	-	-	-		
Telecoms – other	38,000	25,000	31,000	27,000	-29%	-12%
IT – programming	189,000	197,000	209,000	220,000	17%	5%
IT – consultancy	237,000	206,000	233,000	299,000	26%	29%
IT – facilities management	10,000	11,000	11,000	8,000	-19%	-24%
IT – other	40,000	40,000	35,000	26,000	-34%	-26%
IT – data	11,000	13,000	17,000	12,000	18%	-25%
IT – web	-	-	-	-	-	-
Information services – news	7,000	8,000	8,000	13,000	77%	65%
Information services – other	9,000	10,000	6,000	-	-80%	-77%
Information Economy workers in other industries	680,000	703,000	687,000	670,000	-1%	-3%
Total Information Economy workforce	1,385,000	1,387,000	1,411,000	1,430,000	3%	1%

Source: e-skills UK analysis of ONS LFS data

4.3 Employment characteristics

Whilst men and women are quite evenly represented within the UK labour market as a whole (i.e. 54% of workers are male and 46% female), the gender balance amongst the Information Economy workforce is instead, heavily towards male employment (79% of workers).

As with the overall workforce, the majority (88%) of those working in the Information Economy are employees and observation this is still more pronounced for Information Economy workers found in non-Information Economy firms (93% of which were thought to be employees in 2012.)

Considering hours of work, again, as with the wider workforce, most Information Economy workers work full time hours though in this case the proportion is significantly higher than the overall UK average (91% amongst Information Economy workers compared with just 73% for the workforce as a whole).

Lastly, considering the nature of work undertaken, the most notable difference between Information Economy workers and those within the UK workforce as a whole is the abundance of individuals working in 'professional' roles – this group accounting for six in ten (60%) Information Economy workers but only around one fifth (19%) of workers more generally.

4 Information Economy employment

Table 10: Key Information Economy employment indicators, 2012

	All workers	Workers in Information Economy firms	Information Economy workers in other firms	All Information Economy workers
Gender				
Male	54%	78%	81%	80%
Female	46%	22%	19%	21%
Total	100%	100%	100%	100%
Mode of employment				
Employees	85%	84%	93%	88%
Self-employed	14%	15%	7%	11%
Total	100%	100%	100%	100%
Hours of work				
Full-time	73%	90%	92%	91%
Part-time	27%	10%	8%	9%
Total	100%	100%	100%	100%
Occupational group				
Managers/Directors/Senior Officials	10%	10%	4%	7%
Professionals	19%	55%	65%	60%
Associate professionals/technical	14%	17%	23%	20%
Administrative/secretarial	11%	7%	-	4%
Skilled trades	11%	4%	9%	6%
Caring/leisure/other services	9%	-	-	-
Sales/customer service	8%	5%	-	3%
Process/plant/machine operatives	6%	-	-	-
Elementary	11%	1%	-	1%
Total	100%	100%	100%	100%

Source: e-skills UK analysis of ONS LFS data

4.4 Workforce skills

Information Economy workers tend to be more highly educated than others in the workforce, and in 2012 it was estimated that just under two thirds (65%) held a degree/other HE qualification compared with just two fifths (40%) of the UK workforce as a whole. Similarly, just 1% of Information Economy workers had no qualifications compared with 6% of the UK total.

Table 11: Level of educational attainment amongst Information Economy workers, 2012

	All workers	Workers in Information Economy firms	Information Economy workers in other firms	All Information Economy workers
Degree/HE qualification	40%	67%	63%	65%
GCE A Level or equivalent	24%	17%	20%	18%
GCSE grades A-C or equivalent	21%	11%	13%	12%
Other qualifications	9%	3%	3%	3%
No qualification	6%	2%	1%	1%
Total	100%	100%	100%	100%

Source: e-skills UK analysis of ONS LFS data

4 Information Economy employment

4.5 The talent pipeline

Of the 111,450 undergraduates responding to HESA's Destinations of Leavers from Higher Education (DELHI) survey DELHI that took up full-time employment^{iv} over the 2011/2012, period, approximately 10% (11,160) started work within either a) the Information Economy sector (5% or 5,380 graduates) or, b) an Information economy role within a different sector (again 5% or 5,780 graduates).

Table 12: Undergraduate entry into the Information Economy, 2011/12

	Number	Proportion of total/(IE total)
All graduates starting full-time work	111,450	100%
within the Information Economy sector	5,380	5%
IT – games publishing	20	(<1%)
IT – other software publishing	110	(2%)
Telecoms – wired	100	(2%)
Telecoms – wireless	130	(2%)
Telecoms – satellite	30	(1%)
Telecoms – other	430	(8%)
IT – programming	1,750	(32%)
IT – consultancy	730	(13%)
IT – facilities management	30	(<1%)
IT – other	1,480	(28%)
IT – data	180	(3%)
IT – web	60	(1%)
Information services – news	60	(1%)
Information services – other	290	(5%)
within IT&T roles in other sectors	5,780	5%
All graduates starting full-time work in the IE	11,160	10%

Source: e-skills UK analysis of HESA data

Annex A: Additional IT/Telecoms sub-sectors

As noted within section 1 of the report there are a number of IT/Telecoms sub-sectors which do not feature within the HMG definition of the Information Economy i.e.

- 18.20/3 Reproduction of computer media
- 26.2 Manufacture of computers & peripheral equipment
- 26.3 Manufacture of communication equipment
- 27.31 Manufacture of fibre optic cables
- 46.51 Wholesale of computers, computer peripheral equipment & software
- 46.52 Wholesale of electronic & telecommunications equipment & parts
- 47.41 Retail sale of computers, peripheral units & software in specialised stores
- 47.42 Retail sale of telecommunications equipment in specialised stores
- 95.1 Repair of computers & communications equipment
- 95.11 Repair of computer & peripheral equipment
- 95.12 Repair of communication equipment

Annex B: Terminology and data notes

1) SIC codes

The following abbreviations/amendments have been made to the Standard Industrial (SIC 2007) referenced in this publication. These alterations/adjustments have been made solely for presentation purposes and to aid readability/interpretation of the data presented.

SIC (2007) code	SIC (2007) descriptor	Amended descriptor
58.21	Publishing of computer games	IT – games publishing
58.29	Other software publishing	IT – other software publishing
61.1	Wired telecommunications	Telecoms – wired
61.2	Wireless telecommunications	Telecoms – wireless
61.3	Satellite telecommunications	Telecoms – satellite
61.9	Other telecommunications	Telecoms – other
62.01	Computer programming	IT – programming
62.02	Computer consultancy	IT – consultancy
62.03	Computer facilities management	IT – facilities management
62.09	Other IT and computer related	IT – other
63.11	Data processing, hosting and related	IT – data
63.12	Web portals	IT – web
63.91	News Agency activities	Information services – news
63.99	Other information service	Information services – other

2) Enterprises/local units

Enterprise 'An Enterprise is the smallest combination of legal units (generally based on VAT and/or PAYE records) which has a certain degree of autonomy within an enterprise group' (ONS)

Local unit An 'individual site (for example a factory or shop) in an enterprise'.

3) Size bands

Micro	Up to nine employees
Small	10-49 employees
Medium	50-249 employees
Large	250 or more employees

4) Totals

Figures may not always comply due to rounding. Rounding conventions employed are: Enterprise counts – nearest 100, GVA/LFS figures - nearest 1,000, graduate destinations – nearest 10.

5) Missing values

In cases where data have been deemed by ONS to be disclosive or unreliable (e.g. LFS estimates below 6,000) estimates have been removed and marked accordingly: '-'. This mark has also been used to indicate missing values/values below common publication thresholds.

Annex C: Data sources compared

1) Business data

The two main sources of enterprise counts (IDBR and ABS) are based upon data collected via two fundamentally different methodologies (administrative records vs. survey data) and as such will not comply exactly in 100% of cases. The table below provides a summary of the differences arising for each of the sub-sectors making up the Information Economy:

Comparison of ABS/IDBR enterprise counts, 2011

	ABS	IDBR	Difference	
			n	%
Whole economy	1,941,400	2,080,900	139,400	7%
Information economy total	129,100	121,300	-7,800	-6%
IT – games publishing	100	100	-	-
IT – other software publishing	1,800	1,800	-100	-3%
Telecoms – wired	900	800	-	-
Telecoms – wireless	700	600	-	-
Telecoms – satellite	100	100	-	-
Telecoms – other	5,200	5,000	-300	-5%
IT – programming	22,900	18,400	-4,500	-19%
IT – consultancy	66,900	65,800	-1,100	-2%
IT – facilities management	200	200	-	-
IT – other	23,400	22,200	-1,200	-5%
IT – data	3,000	2,700	-300	-9%
IT – web	1,200	1,100	-100	-10%
Information services – news	800	800	-	-
Information services – other	1,800	1,700	-	-

Source: e-skills UK analysis of ONS data

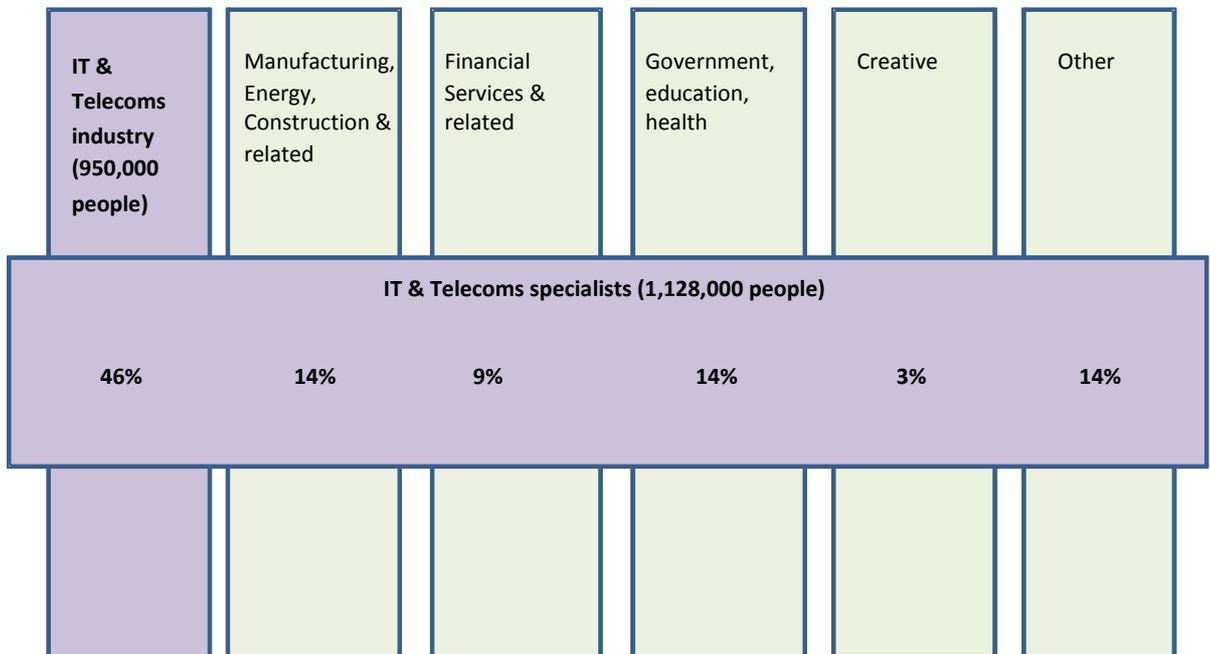
2) Workforce estimates

Workforce estimates contained within this document are four quarter averages of relevant quarterly Labour Force Survey datasets and have been used not only to provide an analysis of the information Economy workforce, but also as the basis for the GVA/head estimates presented. The LFS (as opposed to the Annual Business Survey or Business Register and Employment (BRES) Survey) has been employed here for consistency as not only does it provide workforce estimates but also allows a much broader analysis to be undertaken, including for example the analysis of educational attainment reported in section 4. The difference between estimates from different sources is not large and at UK level, the latest estimates from BRES suggest an overall workforce count in the order of 28.6m (2012) compared with the figure of 29.3m presented within this report (i.e. a difference of 2%).

It should also be noted when reading section 4 that the way in which occupations are classified in the LFS was changed in 2011 when the current version of SOC(2010) was incorporated within the data collection process. Accordingly, to enable a historical comparison of workforce figures, we have undertaken a SOC mapping exercise for previous years (2009-11) based upon dual coded outputs provided within the 2011 datasets, further details of which are available on request.

Annex D: Information economy workers by sector

Distribution of Information Economy (IT & Telecoms) occupations across different sectors of the economy



Source: e-skills UK analysis of data from the ONS Labour Force Survey, 2012. Standard definition of IT& Telecoms industry/other recognised sectors employed. Definition of Creative Industries is as presented by DCMS (excluding IT elements) and includes advertising & marketing, architecture, design; film & TV, publishing, music and the arts.

End notes

- i Government Office region
- ii GVA estimates do not equate exactly to turnover – purchases as other (relatively) small input costs also feature in this equation such as business rates, insurance claims, subsidies, duties etc
- iii Total figures obtained from ONS 'Blue Book' all other data from the ABS
- iv Figures rounded to nearest 10 and relate to those of UK domicile entering full-time employment in the UK on graduation from a full-time undergraduate (first degree) course, providing responses to relevant questions.

e-skills UK is the employer-owned organisation responsible for ensuring the UK has the technology skills to compete in the global economy.

Intellect is the go-to organisation for the UK tech industry. It is the trade association for the UK's tech sector, which represents developers and suppliers of digital technology and services. From 07 November 2013, Intellect will be rebranding as techUK.

BCS, The Chartered Institute for IT champions the global IT profession and the interests of individuals engaged in that profession for the benefit of all.