

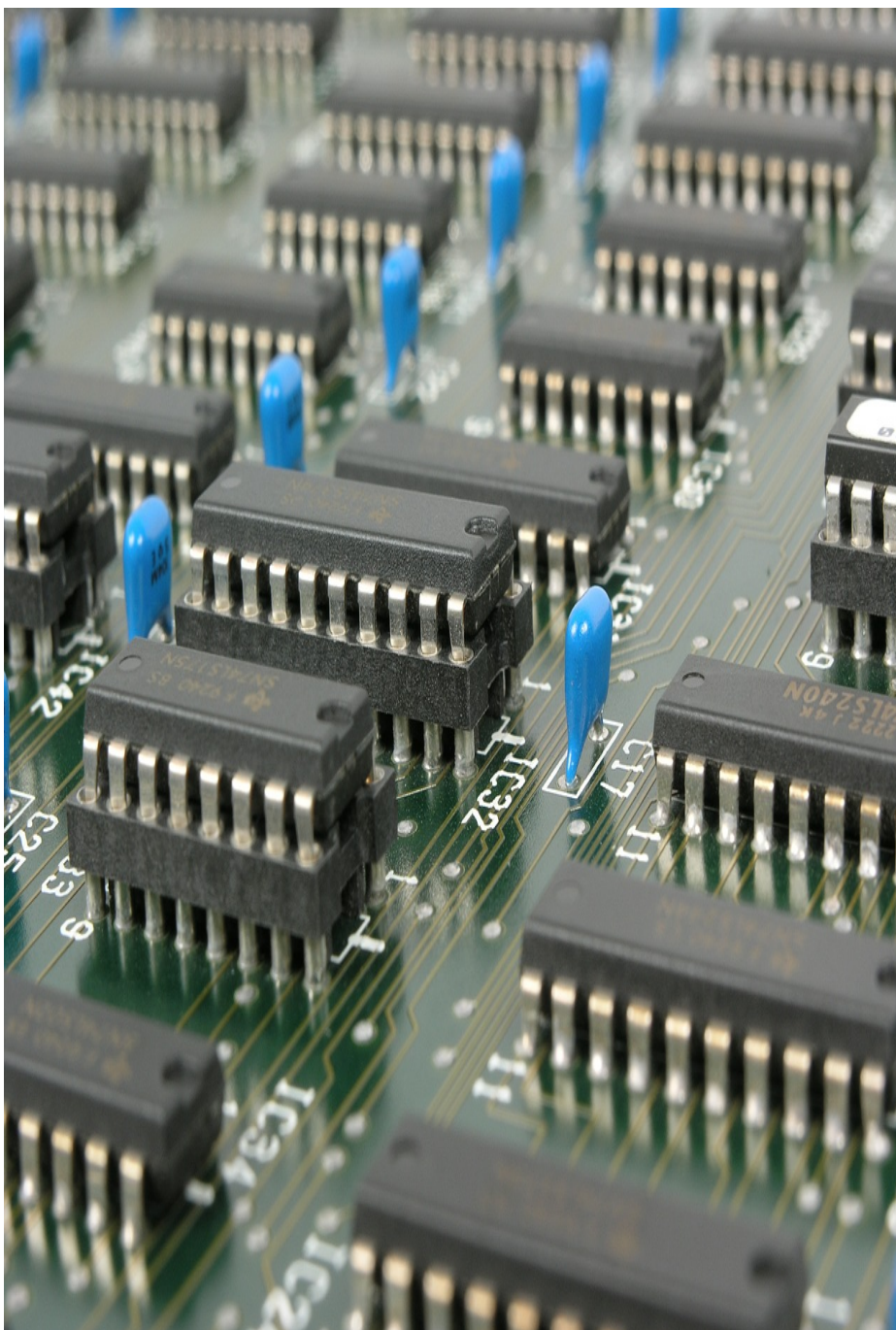


## BRIEFING PAPER

Number CBP 7610, 2 June 2016

# Digital economy: statistics and policy

By Chris Rhodes  
Daniel Rathbone



### Contents:

1. Defining the digital economy
2. Contribution to the economy
3. Contribution since 2008
4. Regional importance
5. Challenges in the Digital Economy
6. Digital Economy Bill

# Contents

<b>Summary</b>	<b>3</b>
<b>1. Defining the digital economy</b>	<b>4</b>
<b>2. Contribution to the economy</b>	<b>5</b>
2.1 Digital sectors	5
<b>3. Contribution since 2008</b>	<b>7</b>
<b>4. Regional importance</b>	<b>8</b>
<b>5. Challenges in the Digital Economy</b>	<b>9</b>
Stakeholder Comment	9
Parliamentary Comment	9
<b>6. Digital Economy Bill</b>	<b>10</b>
6.1 Government Digital Strategy	10




## Summary

The 'digital economy' is a widely used phrase. The [UK government defines it](#) to include the manufacture of digital equipment, publishing, media production and computer programming.

The following table summarises the contribution of this sector to the economy.

### Digital economy summary table

*Great Britain, 2014*

		% of total	Trend	
Employees	1.3 <i>Million</i>	5%		2009-2014
Businesses	204 <i>Thousand</i>	9%		2010-2015
Economic contribution	118 <i>£ billion</i>	7%		2008-2014

Sources: Employment: ONS, *Business register and employment survey* (2009-2014)

Businesses: ONS, *Business activity size and location* (2010-2015), UK figures

Economic contribution: ONS, *Annual Business survey*; ONS, *Blue Book* series ABML (2008-2014)

Economic contribution is Gross Value Added, similar to GDP, UK figures, 2014 prices (GVA deflator)

Digital economy as defined by UK Government

- The digital economy employed 1.3 million people in 2014, 5% of all employees in Great Britain.
- There were 204,000 digital economy businesses, 9% of the UK total in 2015.
- The economic contribution of the digital economy in terms of Gross Value Added was £118 billion, 7% of the UK total in 2014.

Innovate UK's [Digital Economy Strategy \(2015-18\)](#) identifies a number of challenges in the digital economy including skill shortages, the cost of protecting intellectual property, funding support and investment in digital infrastructure.

The [Government indicated in the Queen's Speech](#) on 18 May 2016 that it intends to bring forward a *Digital Economy Bill* that will "make the UK a world leader in digital provision". The Bill is expected to contain provision for a broadband Universal Service Obligation (USO), reform of the Electronic Communications Code and powers for Ofcom to make switching broadband providers easier for consumers.

# 1. Defining the digital economy

The Government have defined the digital economy in their recent paper, [Digital sector economic estimates](#).<sup>1</sup>

This note uses the Government's definition of the digital sector which includes the following industries:

- Manufacture of computer and digital equipment
- Wholesale of computer and digital equipment
- Publishing activities
- Software publishing
- Media production (including TV, film, music)
- Telecommunication activities
- Computer programming activities
- Data processing
- Repair of computers and digital equipment<sup>2</sup>

On this definition, the digital sector encompasses several manufacturing and services industries that work to capture, transmit and display data and information electronically. The publishing and media production industries are included because their work involves intensive use of digital equipment.

As with many industries, there are alternative definitions which include other parts of the economy and other kinds of economic activity.

---

<sup>1</sup> Department for Culture Media and Sport (DCMS), [Digital sector economic estimates](#), 26 January 2016




<sup>2</sup> The DCMS analysis uses the internationally agreed [OECD definition of the digital sector](#). The Standard Industrial Classification codes for this industry are 26.1, 26.2, 26.3, 26.4, 26.8, 46.5 58.1, 58.2, 59.1, 59.2, 60.1, 60.2, 61.1, 61.2, 61.3, 61.9, 62.0, 63.1, 63.9, 95.1

## 2. Contribution to the economy

The following table summarises the contribution of the digital economy to the overall UK economy.

### Digital economy summary table

*Great Britain, 2014*

		% of total	Trend	
Employees	1.3 Million	5%		2009-2014
Businesses	204 Thousand	9%		2010-2015
Economic contribution	118 £ billion	7%		2008-2014

Sources: Employment: ONS, *Business register and employment survey* (2009-2014)

Businesses: ONS, *Business activity size and location* (2010-2015), UK figures

Economic contribution: ONS, *Annual Business survey*; ONS, *Blue Book* series ABML (2008-2014)

Economic contribution is Gross Value Added, similar to GDP, UK figures, 2014 prices (GVA deflator)

Digital economy as defined by UK Government

The digital economy has grown on all major measures over the last 5 or so years

In 2014, the digital economy employed 1.3 million people, 5% of all employment in Great Britain.

In 2015, there were 204,000 digital economy businesses, 9% of all businesses in the UK.

The economic contribution of the digital sector was £118 billion in 2014, 7% of total UK Gross Value Added, a measure of economic output that is similar to GDP.

### 2.1 Digital sectors

The constituent sectors that make up the digital economy are summarised in the table and charts on the following page.

The computer programming, consultancy and related activities sector is the most significant part of the digital economy in terms of employment, businesses and economic contribution:

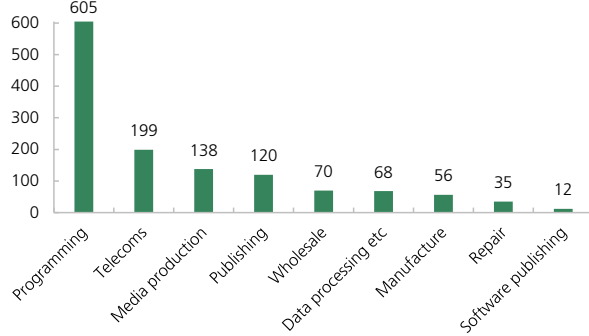
- Computer programming employs 605,000 people, 46% of digital economy employees
- There are 140,000 computer programming businesses, 69% of all digital economy businesses
- Computer programming contributes £46 billion to the economy, 39% of the digital economy total

The computer programming and related activities sector is the largest of the digital sectors

## 6 Digital economy: statistics and policy

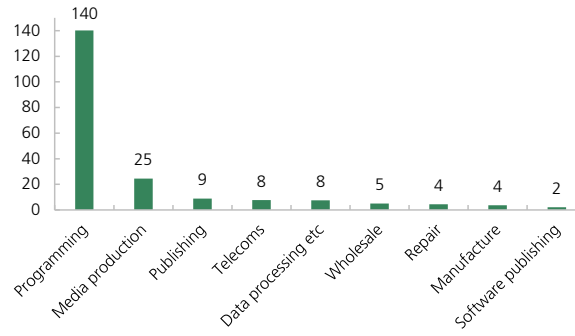
### Employees in digital sub-sectors

2014, thousands



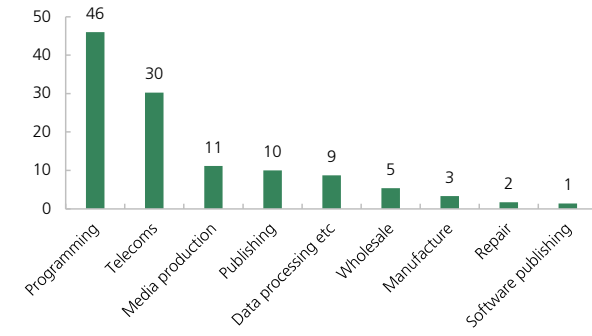
### Businesses in digital sub-sectors

2015, thousands



### Economic contribution of digital sub-sectors

2014, £billions, Gross Value Added



### Employees, businesses and economic contribution of digital sectors

2014

	Employees		Businesses (2015)		Economic contribution	
	Number	%	Number	%	£ billion	%
Manufacture of computer/digital equipment	56,000	4%	3,630	2%	3.3	3%
Wholesale of information and communication equipment	70,000	5%	5,100	2%	5.4	5%
Publishing	120,000	9%	8,940	4%	10.0	8%
Software publishing	12,000	1%	2,170	1%	1.4	1%
Film, TV and music production	138,000	11%	24,570	12%	11.2	9%
Telecommunications	199,000	15%	7,830	4%	30.2	26%
Computer programming, consultancy and related activities	605,000	46%	140,160	69%	46.0	39%
Data processing, hosting and related activities; web portals	68,000	5%	7,520	4%	8.7	7%
Repair of computers and communication equipment	35,000	3%	4,400	2%	1.7	1%
<b>Total</b>	<b>1,303,000</b>		<b>204,310</b>		<b>118.0</b>	

Source: ONS, Business Register and Employment Survey; ONS, Business activity size and location

Notes: Employees rounded to nearest 1000, businesses rounded to nearest 10

Does not include businesses with turnover below £82,000 and with no employees

### 3. Contribution since 2008

A consistent time series for the importance of the digital economy is only available from 2008 onwards due to changing sources and industrial definitions.

The following table summarises these data.

#### Digital economy

UK

	Economic contribution		Employment		Businesses	
	£ billions		1000s	% of total	1000s	% of total
	(2014 prices)	% of total				
2008	110.4	7.2%	-	-	-	-
2009	102.0	6.9%	1,194	4.5%	-	-
2010	103.6	6.9%	1,204	4.5%	156	7.4%
2011	108.3	7.1%	1,211	4.6%	158	7.6%
2012	108.1	7.0%	1,190	4.4%	170	7.9%
2013	112.1	7.1%	1,249	4.6%	176	8.1%
2014	118.0	7.3%	1,303	4.7%	190	8.4%
2015	-	-	-	-	204	8.3%
Change earliest to latest	7.6	-	109	-	48	-
% change earliest to latest	7%	-	9%	-	31%	-

Sources: Employment: ONS, *Business register and employment survey* (2009-2014)

Businesses: ONS, *Business activity size and location* (2010-2015)

Economic contribution: ONS, *Annual Business survey*; ONS, *Blue Book* series ABML (2008-2014)

Economic contribution is Gross Value Added, similar to GDP, UK figures, 2014 prices (GVA deflator)

Digital economy defined as by UK Government

On all measures featured here, the digital economy has grown since 2008.

The biggest proportional increase has been in terms of the number of businesses which has increased by 48,000 or 31% between 2010 and 2015.

Employment in the digital economy grew by 9% or 109,000 between 2009 and 2014

The economic contribution of the digital sector in terms of value added has increased by £7.6 billion or 7% between 2008 and 2014.

It should be noted that the economy as a whole has grown by 8% between 2008 and 2015.<sup>3</sup>

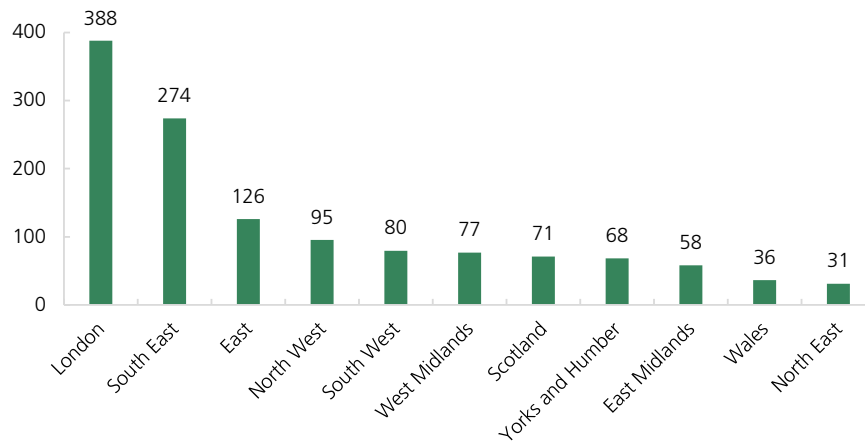
<sup>3</sup> ONS, Gross domestic Product CVM seasonally adjusted, [Series YBEZ](#)

## 4. Regional importance

Employment in the digital economy varies quite widely by region and country of Great Britain.

### Employment in digital sectors by region and country

2014, 1000s



*There are more digital economy employees in London and the South East than in all of the other regions and countries combined*

There were 388,000 digital sector employees in London in 2014, 8% of employment in London, but 30% of all digital sector employees in Great Britain.

The North East has 31,000 digital sector employees, the fewest of any region or country in Great Britain. This is 3% of employees in the region and 2% of digital economy employees in Great Britain.



## 5. Challenges in the Digital Economy

Innovate UK (formerly the Technology strategy Board) identifies a number of challenges facing the Digital Economy in its [Digital Economy Strategy \(2015-18\)](#) (pages 6-7).<sup>4</sup> These include skill shortages, the cost and sluggishness of protecting intellectual property, funding support from Government and investors and investment in digital infrastructure and inclusion. Many of these challenges stem from the fact that these processes are slower to resolve than the development of new technologies and ideas.

### Stakeholder Comment

BCS, the Chartered Institute for IT, [summarised some of the challenges facing the digital sector](#) and possible solutions as identified by various industry organisations and think tanks ahead of the General Election in 2015. These included a skills shortage and legislative frameworks, including problems with pre-digital laws and regulations and data protection.<sup>5</sup>

The Coalition for the Digital Economy (Coadec) is a non-profit organisation that campaigns for policies that support digital start-ups. In its [start-up manifesto](#) it calls on the Government to:

- Improve access to finance
- Improve access to talent
- Build world class digital infrastructure
- Bring laws and regulations into the 21st Century
- Use digital government to unlock innovation.<sup>6</sup>

### Parliamentary Comment

The ad-hoc House of Lords Digital Skills Committee published its report [“Make or Break: The UK’s Digital Future”](#) on 17 February 2015 in which it set out a number of recommendations on the digital economy for the incoming Government that focus on digital skills.<sup>7</sup>

The Science and Technology Select Committee are currently undertaking an inquiry on the [Digital Skills Gap](#).

---

<sup>4</sup> Innovate UK, Digital Economy Strategy 2015-18, February 2015

<sup>5</sup> BCS Policy Hub, Manifestos: Making the UK the IT place to be [accessed on 26 May 2016]

<sup>6</sup> Coadec, [Start-up Manifesto](#), September 2014

<sup>7</sup> Digital Skills Select Committee, [“Make or Break: The UK’s Digital Future”](#), 17 February 2015

## 6. Digital Economy Bill

The Government indicated in the Queen's Speech on 18 May 2016 that it intends to bring forward a *Digital Economy Bill* that will "make the UK a world leader in digital provision".<sup>8</sup>

The Bill is expected to contain a Universal Service Obligation (USO) for Broadband.<sup>9</sup> A USO would introduce a legal right to request a broadband connection from a provider at a minimum speed, currently expected to be 10Mbps. Plans to introduce a USO were first [announced by the Government](#) in November 2015.<sup>10</sup> For more information on Broadband policy see the Library briefing paper: [Fixed Broadband: Policy and Speeds](#) (SN 06643, 11 January 2016).

The Bill is also expected to contain changes to the Electronic Communications Code (ECC). Changes to the ECC were previously dropped from the *Infrastructure Bill 2014* (now the *Infrastructure Act 2015*). For more information on reforming the ECC see the Library briefing paper: [Reforming the Electronic Communications Code](#) (CBP 7203, 26 May 2015).

The Government has said that it wants to make switching communication providers easier for consumers and that the Bill will contain provisions allowing Ofcom to require providers to coordinate switches so that consumers only have to deal with their new provider. The Government [launched a call for evidence](#) on switching on 25 May 2016.<sup>11</sup>

The Bill is expected to contain provisions requiring age verification for websites that contain pornographic content. A [consultation on this proposal](#) ran from 16 February 2016 to 12 April 2016 and the Government has yet to publish its response.

The Government has said that the Bill will also contain provisions for protecting intellectual property, use of Data by Government and the public sector to improve public services and protection for consumers from spam email and nuisance calls.<sup>12</sup>

### 6.1 Government Digital Strategy

Speaking in March to the Business, Innovation and Skills Committee, the Minister of State for Culture and the Digital Economy, Ed Vaizey MP, stated that publication of the Government's digital strategy was imminent:

*Mr Vaizey:* The digital strategy has been drafted and is ready to go. We are looking for a slot from Downing Street. Obviously, we are affected by purdah, so we are affected by issues such as local

---

<sup>8</sup> HM Government, [The Queen's Speech](#), 18 May 2016

<sup>9</sup> *Ibid.*

<sup>10</sup> DCMS Press Release, [Government plans to make sure no-one is left behind on broadband access](#), 7 November 2015

<sup>11</sup> BIS, [Call for Evidence on Improving the Consumer Landscape and Quicker Switching](#), May 2016

<sup>12</sup> HM Government, [The Queen's Speech](#), 18 May 2016, p15

elections and, indeed, the European referendum, which people seem to be getting quite exercised about. I imagine that it will probably be published after the European referendum, when the decks have been cleared and we can move forward. It is a good and very comprehensive strategy. To a certain extent, it addresses what I have just been talking about—for example, it will have sections on what is happening in terms of health or of transport, education or other areas. It will give a good overview of what the Government are doing in terms of digital.<sup>13</sup>

---

<sup>13</sup> BIS Committee, [Oral Evidence: The Digital Economy HC571](#) (Q486), 22 March 2016

### About the Library

The House of Commons Library research service provides MPs and their staff with the impartial briefing and evidence base they need to do their work in scrutinising Government, proposing legislation, and supporting constituents.

As well as providing MPs with a confidential service we publish open briefing papers, which are available on the Parliament website.

Every effort is made to ensure that the information contained in these publicly available research briefings is correct at the time of publication. Readers should be aware however that briefings are not necessarily updated or otherwise amended to reflect subsequent changes.

If you have any comments on our briefings please email [papers@parliament.uk](mailto:papers@parliament.uk). Authors are available to discuss the content of this briefing only with Members and their staff.

If you have any general questions about the work of the House of Commons you can email [hcenquiries@parliament.uk](mailto:hcenquiries@parliament.uk).

### Disclaimer

This information is provided to Members of Parliament in support of their parliamentary duties. It is a general briefing only and should not be relied on as a substitute for specific advice. The House of Commons or the author(s) shall not be liable for any errors or omissions, or for any loss or damage of any kind arising from its use, and may remove, vary or amend any information at any time without prior notice.

The House of Commons accepts no responsibility for any references or links to, or the content of, information maintained by third parties. This information is provided subject to the [conditions of the Open Parliament Licence](#).