







## Shape Your Future... in South Yorkshire 2016/17

Careers Yorkshire and the Humber

### Inspiration

'A person, place or experience that makes someone want to do or create something'

(Definition from the Merriam Webster dictionary)

2 Shape Your Future in South Yorkshire 2016/17

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### About the Area

Welcome to 'Shape your Future in South Yorkshire' which aims to provide some key facts about the labour market in South Yorkshire.

It has been produced in response to feedback from a wide variety of teachers, advisers, employers and other key influencers of young people.

There are many more extensive sources of LMI; this provides some key messages linked to the growth sectors and skills issues. Some other useful sources are highlighted on pages 22 and 23.



#### Visit the Inspiration Portal www.inspiringyandh.co.uk

Please note the majority of employment statistics in this publication are South Yorkshire rather than SCR which covers parts of Derbyshire and Bassetlaw (Nottinghamshire). Wages information is national (average), based on the Annual Survey of Hours and Earnings, Office for National Statistics.

### Introduction to the Area

The Sheffield City Region has a broad and mixed economic base. The following sectors are important in driving future growth, jobs and success:

Advanced Manufacturing, Low Carbon, Construction, Logistics, Creative and Digital, Manufacturing, Financial and Business Services, Retail, Healthcare Technologies, Sport, Leisure and Tourism.

The economic base has transformed over the last twenty years from being dominated by more traditional manufacturing to a wider range of knowledge economy sectors.

The City Region's strategic location at the heart of the UK, strong transport links, its diversity of cultural offer, two Universities and a number of higher education colleges, make it an attractive place in which to live, work, visit, study and invest.

According to a recent report, 'The Digital Revolution;'

'As machines take over more and more routine tasks, paid work of all kinds and at every level will increasingly depend on applying knowledge in novel contexts and performing non-routine tasks.'

Global changes in the labour market means the demand for an increasingly flexible highly skilled workforce will increase. Knowing where the opportunities lie is part of planning for the future.

We encourage people to use this resource in as many ways as possible; in discussions and research, lesson material (where appropriate) and creating a link to your own website to disseminate the key messages as widely as possible.

We hope you find 'Shape Your Future in South Yorkshire' useful in your role in inspiring future generations of the workforce.

\*The Digital Revolution (May 2016) http://www.edge.co.uk/news/2016/may/the-digital-revolution

## Changes in the labour market

Change	How will it affect careers of the future?	Which job areas	will be important?
New technology is being developed all the time.	New technology is the main reason for old jobs disappearing. There will be more jobs needing higher level skills. Workers' skills need to be kept up to date. Think about the self-service machines in supermarkets. Robots on production lines work a lot of machines that used to be operated by people.	Electronics Design engineering Creative and media	ICT and big data Aerospace Cyber security
People are living longer.	People will need more health care and social care. There will be demand for research into drugs and ways for people to keep their independence. More care, health and social workers will be needed look after an ageing population.	Health care Social care Bioscience	Pharmacology Leisure
The skills of people around the world are improving.	There is more competition from the rest of the world. China and Japan both have more than twice as many graduates as the UK. Competitive apprenticeship programmes in countries such as Germany.	Education Science Engineering Creative and media (including gaming)	Manufacturing ICT Finance
'Green' issues; We must take more care of the environment.	More research into saving energy and developing greener technologies. If we all start driving electric cars we'll need skilled mechanics to maintain them. New building materials and ways to use less energy. More efficient design and use of materials. Less pollution of the environment.	Engineering including; Motor vehicle Chemical processing	Recycling Agriculture Energy and utilities Innovation
People are thinking carefully how they spend their money, especially in their leisure time.	Demand for services such as catering, fitness, health spas and gaming. Some farms are turning to tourism on top of farming. More overseas visitors. More Hotels are offering spa facilities.	Health and beauty Sport and leisure Hospitality and tourism	Creative and media Sales and marketing

(Content on this page has been adapted from 'What Work' publication).

## Advanced Manufacturing and Engineering

• Metals and metal products

Motor vehicles and other

Advanced engineering has an

are skills shortages in most

engineering and technology

Manufacturing jobs are available

in a wide range of sectors.

There are strong links to other

sectors, including Healthcare

Technology and Low Carbon.

ageing workforce and the sector

really needs young people. There

optical 2,500

transport 3,000.

work areas.

20,500 Computers, electrical and



One in five manufacturing empLoyees work in medium and High technology environments in Sheffield City Region.



South Yorkshire is known worldwide for the cutting edge quality of its precision engineering, metals and alloys. Engineering and manufacturing seem to have have an image problem; young people often mistakenly see them as a 'grimy' professions linked with old fashioned hard industry. But increasing investment and development of technologies including robotics means many jobs are in clean high-tech environments. The growth in this sector is linked to the 'advanced' jobs, rather than the more traditional side of manufacturing or engineering.

- South Yorkshire is known worldwide for its precision engineering, metals and alloys and high quality design and manufacture of a wide range of manufactured products.
- 59,000 people are employed in engineering and manufacturing. These include:
- Food and drink 6,900
- Wood, paper and printing 4,800
- Chemicals, rubber, plastic and other non-metallic mineral products 8,700
- Machinery and equipment 3,800

Sources: Business Register Employment Survey, Annual Survey of Hours and Earnings, Office for National Statistics.

#### Interested? For more information...

www.futuremorph.org AMRC http://www.amrctraining.co.uk/ http://www.tomorrowsengineers.org.uk/home/ http://semta.org.uk/

Types of Job	National Average Salary £
Mechanical engineer	£45,429
CAD designer	£30,962
Design engineer	£41,132
Biological scientist	£41,415
Engineering technician	£36,066



#### Skills/qualities

- Problem solving
- Attention to detail
- Communication
- Accuracy
- Creative thinking

#### Useful subjects include;

- Maths
- Physics
- Chemistry
- ICT
- Biology
- Design

#### Some local employers

Sheffield Forgemasters

Swann Morton (Medical instruments)

AESSEAL

Gripple

Premier Foods

Advanced Manufacturing Park and the Advanced Manufacturing Research Centre (AMRC)



## Construction and Property

Activity in this area is expected to grow in the next few years. There is increasing demand for 'sustainable' construction skills linking to a greener society and use of new technologies of materials, so different roles will emerge within the sector.

 This sector is expanding locally; £1.4 billion of new infrastructure projects are planned for the region. The construction sector employs around 37,000 people (based in Sheffield and Doncaster\*) in a huge variety of roles from labouring to electricians to architects.

THE

CONSTRUCTION

**INDUSTRY IS NOW** 

SHOWING STRONG

GROWTH.

**AROUND 64.000** 

**PEOPLE ARE** 

EMPLOYED IN

SHEFFIELD CITY

REGION

 $\times \times$ 

- Most employers are small (employing less than 10 people) and it is an industry with many opportunities to be self-employed.
- It is anticipated that the expansion in the sector will create more opportunities within skilled trades and higher level occupations.
- New roles involving green
   technology, use of
   new materials an
   environmental specialisms will
   also emerge.

Sources: Business Register Employment Survey, Annual Survey of Hours and Earnings, Office for National Statistics. \*CITB June 2016

#### Interested? For more information...

http://www.goconstruct.org http://www.citb.co.uk http://www.citb.co.uk/bconstructive/

2	decorator	£23,766	
nsion ades	Electrician	£31,453	
of nd	Civil engineer	£42,788	
I	Chartered surveyor	£42,044	
	Plumber	£28,756	
Ŵ			

Types of Job

Architect

Painter/



#### Skills/qualities

National

Average

Salarv £

£44.883

- · Practical and technical
- Problem solving
- Attention to detail
- Team working
- Communication
- Safety aware
- · Able to work at heights
- Able to read drawings
- Accurate measurement

#### Useful subjects include;

- Maths
- English
- Design
- Physics
- ICT
- Some local employers Amco Construction Premier Construction Keepmoat Eton Construction Kier



Many roles in the creative and digital sector involve working with the latest technologies which are helping to drive the sector forwards. Job areas include film and TV, social media, advertising, fashion, computer games and animation.

• This sector is growing at a faster rate than anywhere else in the UK; employment in the sector has increased by over 50% in the last decade.

PROBLEM

**OF OVER** 

- The region one is of the leading digital and development centres in the country. There are approximately 27,000 people employed in this sector (many on a self-employed and freelance basis).
- Interactive Media Interactive services, applications and content bring together the worlds of computing, the web, mobile phones and console games. We have a national

- reputation as leaders in this field, including hosting a leading international documentary film festival.
- E-learning The region has established itself as the UK centre of e-learning with over 1000 people employed in e-learning development and service businesses.
- The more experience gained, the better the chances of success. The sector is very competitive for many of the roles available.

Sources: Business Register Employment Survey, Annual Survey of Hours and Earnings, Office for National Statistics 2015.

Types of Job	National Average Salary £
Photographer	27,843
Journalist	£35,275
Graphic designer	£27,005
Clothing designer	£28,300
Creative director (advertising)	£39,356
Software development engineer	£41,794



- Good problem solving skills
- Communication
- Creativity
- Strong ICT knowledge (and experience)
- · Attention to detail

#### Useful subjects include;

- Design
- English
- Maths
- ICT
- Art
- Media

#### Some local employers

Fripp Design (Industrial Design) Learn Direct Ledgard Jepson

(Design Agency) Plusnet

#### Interested? For more information...

www.skillset.org/careers (search through vast range of roles available) www.bigambition.co.uk www.creative-choices.co.uk www.futuremorph.org

## Finance and Business Services



Employs 43,200 people in south yorkshire.

Increasing emphasis on Digital skills useb in many administrative, customer facing and professional roles.

Includes: Financial services Lecal services Accountancy services Management consultancy Advertising and marketing Employment agencies Human resources provision

Administrative services including contact centres South Yorkshire is a growing location in the UK for business, professional and financial services companies. This varied sector is expected to continue to grow in the region, creating hundreds of ne jobs in the next few years.

- The sector has an output of almost £2.5 billion in Sheffield City Region, and employs 43,200 people in South Yorkshire.
- Financial services providers in the area include HSBC's global IT shared service centre, the largest private sector employer in the region (it employs over 4,500 people!).



Interested? For more information...

www.cipd.co.uk www.financialskillspartnership.org.uk www.thetechpartnership.com/tech-future-careers

region, creating hundreds of new	Types of
<ul> <li>South Yorkshire has a long standing legal sector with</li> </ul>	Contact centre wo
<ul> <li>4,900 people employed across international firms such as DLA Piper, Nabarro and Irwin Mitchell who sit alongside smaller niche firms.</li> <li>Contact centres include Aviva,</li> </ul>	Chartered accountar
	Financial adviser
<ul> <li>Sky, XLN Telecom and Capita.</li> <li>There are strong links to other sectors, especially ICT, with an increasing amphasis and sectors.</li> </ul>	Finance officer

sectors, especially ICT, with an increasing emphasis on use of technology.

> Sources: Business Register Employment Survey, Annual Survey of Hours and Earnings, Office for National Statistics.

		/
Types of Job	National Average Salary £	
Contact centre worker	£17,982	
Chartered accountant	£42,887	
Financial adviser	£45,458	
Finance officer	£25,331	
Insurance underwriter	£45,401	

#### Skills/qualities

- Communication
- Presentation skills
- ICT
- Problem solving
- Customer service
- Numeracy and literacy
- Accuracy and attention to detail
- Sales

#### Useful subjects include;

- English
- ICT
- Business Admin
- Maths

#### Some local employers

AEON Finance services Norton Finance Aviva Nationwide Nabarro Irwin Mitchell DLA Piper

9

## Healthcare Technologies

SHEFFIELD CITY REGION IS ONE OF THE LARGEST CENTRES FOR ORTHOPAEDIC, MEDICAL DEVICE AND INSTRUMENTATION COMPANIES IN THE UK.

SOME OF THE MOST EXCITING CAREER OPPORTUNITIES OF THE NEXT FIVE YEARS ARE PREDICTED TO OCCUR IN THESE SECTORS; PROBABLY JOBS THAT DON'T EXIST AT THE MOMENT!



Healthcare technology may not be familiar to you, but it is a growth area for jobs; there are strong links to the Engineering and Advanced Manufacturing and Health Care sectors.

This industry is so varied; you could work in a laboratory finding cures/ diagnoses for diseases, designing new surgical instruments, working in prosthetics (artificial limbs), developing new technology for online health services to name a few options.

- Employment numbers are not high at 1,570 in South Yorkshire, but this is an important and thriving sector.
- People with engineering, maths and science skills earn more on average. Starting salaries for engineering and technology jobs can be as much as £32,000, putting them in the top 20% of starting salaries (nationally).
- Over the years, there has been a big increase in skills shortages in scientific and healthcare technology careers and some of the most exciting career

- opportunities of the next five years are predicted to occur in these sectors.
- Regenerative medicine has been identified as one of the 8 great technologies by the government. Sheffield Teaching Hospital Trust has international recognition for its work in neurosciences, spinal injuries, and orthopaedics.

Sources: Annual Survey of Hours and Earnings, ONS 2015.Business Registyer Employment Survey 2014, NOMIS 2016 Engineering UK 2016-06-03 Gradaute Labour market Statistics2015, BIS

Types of Job	National Average Salary £
Biomedical scientist	£41,415
Critical care technologist	£26,805
Measurement and control technician	£29,542
Pharmacologist	£41,415
Prosthetist orthotist	£34,470
Design engineer	£26,805
Biomedical engineer	£43,396

#### Skills/qualities

- Problem-solving
- Communication
- Teamwork
- IT and technology

#### Useful subjects include;

- Maths
- Physics
- Chemistry
- Biology
- Design
- ICT

#### Some local employers

Braun Medical Ltd JRI Orthopaedics Symmetry Medical Swann Morton ADL Smartcare (help for independent living in the elderly)

#### Interested? For more information...

www.ipem.ac.uk www.ibms.org http://semta.org.uk/ www.futuremorph.org Manufacturing



Over 10% of the population in South

Yorkshire is employed

in manufacturing

sector

(compared with 8%

in Great Britain).

To work in engineering at any level, maths and science are important and to enjoy finding solutions to challenging problems. Practical skills and being a good communicator, well organised, resourceful and well motivated are also important.

There is much growth in the Advanced Manufacturing and Engineering sector, but Manufacturing and Engineering as a whole is still important to the South Yorkshire economy.

- South Yorkshire is known world-wide for its precision engineering, metals, high quality design and manufacture of a wide range of products. Increasing investment and development of technology means many work environments are clean and modern.
- Many jobs in manufacturing and engineering are in demand, partly due to the ageing workforce in the sector. Expansion in road and rail networks (locally and nationally) mean opportunities in manufacturing and engineering.
- HS2 will be the UK's new high speed railway, providing fast, frequent and reliable services. connecting eight of the largest cities in the UK. Think how many people will need to engineer and manufacture all the parts involved in this development; this is just one example!
- Many local engineering businesses offer apprenticeships that help you learn all aspects of the work. Apprenticeships offer excellent opportunities as you get paid while you train and the chance to progress.

interested: For more information.	Interested?	For	more	inform	nation
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http://semta.org.uk/ http://www.tomorrowsengineers.org.uk/home/ AMRC http://www.amrctraining.co.uk/ http://www.themanufacturingforum.org.uk/skills (links to apprenticeship providers, list of member companies and other useful info)

Types of Job	National Average Salary £	Ski •
Auto electrician	£17,982	•
Craft machinist	£42,887	Us
Heating and ventilation engineer	£45,458	•
Rail engineering technician	£25,331	• Sol
Sources: Business Register Employment Survey, Annual Survey of Hours and Earnings, Office for National Statistics.		
		Gr

ills/qualities

- Problem solving
- Attention to detail
- Communication
- Accuracy
- Creative thinking
- eful subjects include;
- Maths
- Physics
- Chemistry
- ICT
- Design

me local employers

kinson Walker

SSEAL

wyMarkham

ripple

Polypipe

Volker Rail

It is also home to the Advanced Manufacturing Park and the Advanced Manufacturing Research Centre (AMRC)



MEADOWHALL. ATTRACTS 30 MILLION VISITORS A YEAR

THE SECTOR EMPLOYS APPROXIMATELY **57.000 PEOPLE N** SOUTH VORKSHIRE

MEADOWHALL ATTRACTS 30 MILLION VISITORS A YEAR.

PAY

Retail is the largest private sector employer in the UK - that's big business! The industry relies heavily on young people; many work in shops as students before moving on to other careers. But many are attracted to it as a career in itself, with fast promotion opportunities. good financial rewards and diverse roles including buving. merchandising as well as sale assistants and managers.

- · The sector employs approximately 57,600 people and has an output of £1.6 billion in the South Yorkshire. It is expected that there will be 500 additional jobs created this year in Sheffield City Region.
- · Meadowhall is the tenth largest shopping centre in the UK, with over 280 stores, and attracts 30 million visitors a year.
- The retail industry is vital to South Yorkshire: it offers many employment opportunities. Around half the workforce are employed in sales and customer service, with management the second largest group.

• For large companies, there are strong links to logistics and distribution (think of all the

SHOP

online shopping that we do!).

Sources: Business Register Employment Survey, Annual Survey of Hours and Earnings, Office for National Statistics 2015.

		/
	Types of Job	National Average Salary £
	Retail buyer (experienced)	£33,351
	Sales Assistant	£ 17,046
	Window dresser	£21,667
	Retail manager	£ 31,801
	Customer service	£20,440
-		
		BUY

3 DAYS ONLY

• END OF SEASON

### Skills/qualities щ Employers look for; Teamworking Communication Problem solving Flexibility Customer focus Useful subjects include; Business Admin Maths English • ICT Design Some Local Employers Frenchgate Centre Meadowhall Parkgate Centre Amazon

Interested? For more information...

Source Academy (for training) www.thesourceacademy.co.uk www.nsaforretail.com www.fashionretailacademy.ac.uk www.apprenticeships.gov.uk LIMITED TIME

## Sport & Active Leisure

Within the region, the work areas of sport, leisure and tourism is classed as a growth sector. Working in the sport and leisure sector can be tough; expect long hours and relatively low wages in the beginning. Career prospects are good and often progression to management level is possible. There are strong links to the Travel and Tourism sector, plus aspects of health (for jobs such as Physiotherapist and Fitness Workers).

- There were around 11,500 jobs in this sector in South Yorkshire in 2014, up from 11,000 in 2011.
- Venues such as Doncaster Racecourse, Yorkshire Wildlife Park and Ponds Forge contribute to increased jobs in leisure, tourism and sport.
- The region is well known as a centre for sporting excellence. This has been boosted by its association with Olympic and World Champion Gold medal winner Jessica Ennis-Hill.
- For this sector (along with many others), it's important to gain not only qualifications but also experience. Look at doing a relevant coaching course, volunteering/helping younger students.
- 12 per cent of the UK population are registered members of a health and fitness club or publicly-owned gym. And almost 90 per cent of people live within two miles of one.

Sources: Business Register Employment Survey, Annual Survey of Hours and Earnings, Office for National Statistics.

#### Interested? For more information...

Coaching Courses http://www.sysport.co.uk/support/training-courses/ http://www.clubdoncasterfoundation.co.uk/education/ National English Institute of Sport https://www.sivltd.com/eiss http://www.skillsactive.com/

Types of job	National Average Salary £
Fitness trainer	£19,368
Leisure centre attendant	£17,309
Sports coach	£24,387
Sports physiotherapist	£34,647
Sport and exercise psychologist	£40,812



#### Skills/qualities

- Team working
- Customer Focus
- · Commitment to exercise
- Specific sporting skills
- Communication skills
- Problem solving
- Negotiation skills
- Patience

#### Useful subjects include;

- English
- Maths
- Sciences
- Business admin
- ICT
- Physical education

#### Some local employers

Ponds Forge Doncaster Dome Barnsley Metrodome Private health clubs (including the Nuffield chain) Local authority sport and leisure centres Self-employment opportunities



Tourism is flourishing in South Yorkshire and an increasing number of people are attracted to our historic towns and cities, countryside and national parks.

In Sheffield City Region there are forecast to be around 48,000 vacancies in transport and storage and 42,300 in accommodation and food between 2012 and 2022. This sector includes passenger transport (by land, sea, inland water and air), hotels and other holiday accommodation, catering, museums and other cultural attractions, and amusement and recreation. Nationally, the long-term prospects for the sector are good; demand for graduates is expected to grow, with 69,000 more managerial jobs over the next eight years.

- Within SCR, the work areas of sport, leisure and tourism is classed as a growth sector. It has an output of £800 million and generates around 50,000 jobs.
- Doncaster Sheffield airport handled 856,592 passengers in 2015; this is set to increase significantly with many new flights running in 2016.
- In 2014 there were around 49,500 jobs in travel and tourism, up from 45,000 in 2011.
- The Tour de France 'Grand Depart' in 2014 and The Tour de Yorkshire have boosted visitor numbers and tourism generally to the area.
- High profile visitor attractions include Doncaster Racecourse and the Yorkshire Wildlife Park (one of the fastest growing attractions in the area).
- Good people skills are essential for most jobs within this sector, dealing with customers on a daily basis.

#### Interested? For more information...

www.hospitalityguild.co.uk www.skillsactive.com

Visit this website to find places to visit and potential employers or where you can become a volunteer; Welcome to Yorkshire http://www.yorkshire.com/places/south-yorkshire

Types of Job	National Average Salary £	
Air cabin crew	£23,667	
Hotel manager	£32,486	
Tourist information centre assistant	£21,996	
Cruise ship steward	£21,996	

Sources: Business Register Employment Survey, Annual Survey of Hours and Earnings, Office for National Statistics, www.welcometosheffield.co.uk, Sheffield LEP, www.fodsa.co.uk People 1st State of the Nation 2013



#### Skills/qualities

- Team working
- Communication skills
- Problem solving
- Negotiation skills
- Patience
- Customer Focus

#### Useful subjects include;

- English
- Maths
- Sciences
- Business admin
- Languages
- ICT

#### Some local employers

Doncaster Sheffield Airport Yorkshire Wildlife Park

Welcome to Yorkshire http:// www.yorkshire.com/places/ south-yorkshire (places to visit and potential employers)

Transport, hotels and restaurants.

## **I** Transport and Distribution (Logistics)

Employs around 27,900 people in South Yorkshire

Need to be good at problem solving

Need to be able to organise things efficiently

Many diverse iob roles available

Increasingly hi-tech roles available

South Yorkshire is well-placed for transport and logistics due to excellent road and rail connectivity.

As in many other sectors, there is a big demand for younger, replacement employees due to an ageing workforce. Job areas within the sector include mail and couriering, warehousing and storage, wholesaling, freight transport and removals.

- This sector has an output of £930 million in Sheffield City Region. It employs around 27.900 people in South Yorkshire, plus a further 20,500 in wholesale and is set to grow, creating hundreds of additional jobs in the next few years.
- The sector needs young people to join the sector and there are many diverse job roles available.
- Over 8,300 people are employed in this sector in Doncaster. This is set to grow/expand due to

developments in the airport corridor and the i-port.

- The world's largest aircraft (AN-225) is chartered through DS Airport by global companies, including Shell. It costs over f2 million to hire!
- The sector is becoming more complex as our needs for goods and services becomes more competitive. Employers need a workforce that can solve problems and organise things efficiently.

Types of Job	National Average Salary £	Skills/ • Tea
Airport baggage handler	£27,280	<ul> <li>Prol</li> <li>Goc</li> <li>Attention</li> <li>Con</li> </ul>
Storage and warehouse manager	£31,776	<ul> <li>Con</li> <li>Con</li> <li>Abil</li> <li>press</li> </ul>
Large goods vehicle driver	£27,268	Useful • ICT
Fork lift truck driver	£22,430	<ul> <li>Mat</li> <li>Bus</li> <li>Eng</li> </ul>
Logistics analyst	£30,735	• Lan
		ASOS Amazo

#### qualities

- ım workina
- blem solving
- od organisation
- ention to detail
- ofidence
- mmunication
- lity to work under ssure

#### subjects include;

- ths
- iness studies
- lish
- quages

### local employers on Seymoor Transport GIST

#### Norbert Dentressangle **Doncaster Sheffield Airport**

#### Interested? For more information...

www.lovelogistics.co.uk/index.html www.deliveringyourfuture.co.uk www.skillsforlogistics.org



BY 2020 IT IS PREDICTED THAT THE ENERGY SECTOR WILL CREATE MANY NEW JOBS IN YORKSHIRE AND THE HUMBER, WITH:

OFFSHORE WIND CREATING 11,500 JOBS

ONSHORE WIND CREATING 750 JOBS

WAVE AND TIDAL POWER CREATING 250 JOBS With a move away from coal and oil and a focus on environmental and economic concerns, the government is targeting renewable sources of energy. The focus is on the future when it comes to green technology.

'Green jobs' are found in many work sectors including Construction (buildings need to be energy efficient), Engineering and Manufacturing (creating new materials).

The numbers employed in this sector are relatively low, but this sector is set to grow and become more significant as we strive to make our society greener and more energy efficient.

In South Yorkshire there are centres of excellence for research and development including the Siemens Wind Power Research Centre, Sheffield University Waste Incineration Unit, and the nuclear Advanced Manufacturing Research Centre (AMRC). It is also home to companies innovating in renewable energy, low carbon transport and supply chain technologies, including Magtec, the UK's largest supplier of hybrid and electric drive systems (such as electric buses!)

Jobs in demand include; most types of engineers, energy managers, landscape and forestry managers to name but a few. All STEM qualifications and higher level skills will be essential for nearly all 'green' jobs.

#### Interested? For more information...

Types of Job	National Average Salary £
Biomass and renewable maintenance engineer	£30,850
Conservation manager	£32,823
Energy engineer	£42,396
Project manager	£52,162
Laboratory technician	£24,420

Plant operator £26,609



#### Skills/qualities

- Problem-solving
- Creating solutions
- Planning
- Communication
- Presentation skills
- Team working

#### Useful subjects include;

- Chemistry
- · Physics
- Maths
- Engineering
- ICT

#### Some local employers

ITM Power

Magnomatics

Construction companies

Universities and other research laboratories/companies

www.talentsourcenetwork.co.uk www.tomorrowsengineers.org.uk www.lantra.co.uk www.engc.org.uk http://www.greenenergyjobs.com/career-guide/ http://namrc.co.uk/

### **Other Sectors**

There is currently a focus on the 'Growth Sectors' as described in this publication. But other sectors employ large numbers of people in South Yorkshire.

**Health and social care** is one of the main employment sectors, accounting for over 16% of employment in South Yorkshire. Other large employers are currently wholesale and retail, manufacturing and education.

The most **new jobs** created between 2009 and 2013 were in administration and support services, professional, scientific and technical activities, and water, sewerage and waste management.

For **all** sectors, according to forecast figures (published by Working Futures UKCES), it would be reasonable to assume that there will be more competition for administrative jobs, skilled trades, and operative jobs.

There is likely to be higher demand than currently for managers, professionals and associate professionals (also known as technicians) and care workers.

All employers agree that the **skills** of a prospective employee are as important as knowledge. In an increasingly competitive international job market, attributes such as



#### According to a recent report,

### 'The Digital Revolution'\*

The need for technical and practical skills will not disappear in the digital revolution. In some cases, demand will increase precisely because we need people to create and operate digital and automated systems'.

being resilient, adaptable, creative, problem solving and able to communicate and work as part of a team are essential.

It is estimated that 'replacement' demands (job openings created by people leaving the labour force temporarily or permanently) will contribute almost eight times as many job openings as net job growth over the next decade: 302,000 openings compared with 39,000.

There will be a need to recruit suitably skilled people across all broad occupational groups, including those projected to decline. (From the UKCES Sheffield City Region (SCR) LEP LMI Summary)

Find out more on the Inspiration Portal Job Market Information pages;

https://inspiringyandh.co.uk/job\_info/region/ south\_yorkshire

\*The Digital Revolution (May 2016) http://www.edge.co.uk/news/2016/ may/the-digital-revolution

## Top Employers Recruiting in South Yorkshire in 2015

Employer	Vacancies	Sector	Location
National Health Service	3,759	Health	Regional
University of Sheffield	1,025	Education	Sheffield
Rotherham MBC	856	Local authority	Rotherham
CRA Consulting Inc	843	Financial and legal agency	Regional
Brewster Pratap	455	Agency	Regional
Doncaster MBC	421	Local authority	Doncaster
Sue Ross Legal	344	Legal agency	Regional
Forde Education	307	Education agency	Sheffield
Barnsley MBC	285	Local authority	Barnsley
A For Appointments Ltd	282	Agency	Regional
MacDonalds Restaurants	245	Food service	Regional
Four Seasons Healthcare	224	Health	Regional

2015 figures, Labour Insight. Some employers who use agencies may not be listed as the employer is not specified by the agency.

## Jobs in the future

Some examples of 'new jobs' that didn't exist 20 years ago. Many more new roles will be created in the future!

and the second second			
Job	What is it?	Job	What is it?
Social Media Strategists	Social media strategists use social media tools to help companies interact with customers, increase brand awareness, create buzz, increase traffic and provide information.	Virtual Business Service Providers	Many people are forming their own companies by way of telecommuting, offering such virtual services as customer service, concierge services or even public relations from their homes.
Green Funeral Directors	Green funeral directors incorporate environmentally friendly options to meet the needs of families who want a green service.	App Designer	Design the look and feel of the app.
Bloggers	Bloggers research and write blog posts in a conversational style to engage readers online.	App Developer	Plans all aspects of how a user will navigate their way through an app.
Interior Re-designers	Interior re-designers remodel your home using the things you already have, either repurposing them for other uses or putting them in other rooms.	Green Deal Assessor	The Green Deal allows consumers to make energy-saving improvements to their home or business without having to pay all the costs upfront.
Patient Advocates	There are several types of patient advocates, and although their services vary, all of them want to make sure that the patient and family are informed and help to make things easier on everyone.	Social Media Manager	A social media manager is generally responsible for all social media activity carried out by a company, including Facebook, Twitter, Flickr, YouTube, Pinterest, Instagram and others.
Community Managers or Content Managers	Community managers or content managers are an extension of a typical marketing role, but on a more personal level. They serve as a liaison between the company and the public, managing a Web site that allows them to engage with community members and spread the word about the company.	Chief Listening Officer	One step up from a "social media manager," the Chief Listening Officer keeps their ears (and eyes) on social channels and real life conversations to keep the company up to speed on what their customers are saying. Before social media, business was a one way channel of communication.
Senior Move Management	Senior move management companies help older adults and families with the physical and emotional demands of downsizing, relocating or modifying their homes.	Elderly Care	As the population ages and baby boomers become grandparents, an increasing amount of attention is being turned to the care of the elderly.
User Experience Analyst	User experience analysts look for ways to make using a web site easier, more pleasant and more engaging for consumers.	Sustainability Expert	Sustainability Experts are hired by companies to share their expertise in the "green or alternative energy space" so companies can help their business move in the direction of having better sustainable
Video Journalists	In the 1980s, reporters had to shoot and edit their own stories because of lack of manpower and resources. To save money,		practices in place.
Journalists	now almost 30 years later, this role is back, where large-market news groups hire small-market reporters as video journalists at a fraction of the cost.	User Experience Design	What is user experience design? Quite simply, experiences created and shaped through technology and how to make them happen.

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### Jobs in the future

		1	/	
Job	What is it?		Job	,
Market Research Data Miner	As customer information becomes more and more vital to the retail experience, businesses are compiling data in droves-and hiring experts to make sense of it.		The Cloud Services Specialist	
Search Engine Optimisation Specialist	SEO Specialist manages clients paid search campaigns to research keywords and provide ideas to help improve the clients ranking on search sites like Google and yahoo.		The Digital Marketing Specialist	
Web Content Strategist	A Web content strategist is responsible for planning content creation, delivery, and management of content written or in other media.		·	
The Android Developer	The Android Developer is someone who develops and works on new and existing applications and framework for android devices.		STE Most of these	
The Data Scientist	A data scientist is somebody who does not simply just collect and report on data, but also looks at it from many angles, determines what it means, then recommends ways to apply the data.		many of the <u>c</u> Employers va	grov
Chief Privacy Officer	The Chief Privacy Officer is a senior level executive within a business or organisation who is responsible for managing the risks and business impacts of privacy laws and policies.		It is very likely the future (so	me
3D- Printed Clothing Designer	3D designs have recently appeared on catwalks. 3D printing presents affordable manufacturing possibilities.		Imagine you <ul> <li>Inventing</li> </ul>	a n
Virtual Lawyer	As more of our daily life goes online, we need specialist lawyers to resolve legal disputes.		<ul> <li>Curing an</li> <li>Building t</li> </ul>	
The Big Data Architect	The Big Data Architect provides advanced technical support in the research, experimentation, business analysis and use of systems technology including architecture, integration capabilities and database management.		<ul><li>Developir</li><li>Developir</li></ul>	5

Job	What is it?
The Cloud Services Specialist	Cloud Storage Specialist has obtained an in-depth level of proficiency with the mechanisms, devices, technologies, practices, and overall assessment criteria pertaining to cloud storage technologies and services.
The Digital Marketing Specialist	The Digital Marketing Specialist manages the execution of all digital and online marketing.

### science, technology, engineering and maths

bs rely on STEM, technology and high level skills, linked to wth sectors outlined in this brochure.

the skills developed in STEM subjects and careers.

nere is going to be many skilled jobs available in these areas in of which do not exist yet!)

ould be responsible for:

- new means of low carbon transport
- ness or disease
- tallest tower in the world
- a new 3-D pattern cutting machine
- disease resistant crops

## It's all about skills!

These are skills which are sometimes called 'transferable skills'. They are needed in many different types of jobs by employers. Think about how you can show and develop your skills.



Skill	What is it?	How to show itsome suggestions
Communication	Getting along well with others, listening and understanding instructions. Joining in with discussions.	Contributing at school. Being good at writing. Presenting in school or college.
Making decisions	People who can make decisions, who gather the important facts, consider alternatives and ask for advice, think about the effects so that they can make a good decision.	Having a researched career plan and a back up if things don't work out. Knowing where to find things out (using information well).
Showing commitment/ Accepting responsibility	People who are interested, dependable, reliable, enthusiastic, and enjoy hard work. These people need less supervision.	Work experience (vital for some careers), part-time work, feedback from teachers/other adults. Persevering (trying hard!) if things don't work out first time.
Flexibility	People who are adaptable and flexible. Employers like people who have a 'can-do' attitude.	Having a part-time job. Managing different subject deadlines.
Time management	People who are organised. These people are good time keepers and can prioritise.	Managing a number of deadlines (different subjects at school). Fitting in a part-time job with studies.
Leadership skills	People who lead by example, constantly look to improve, motivate themselves, are positive, and know when to follow instructions and when to show initiative.	Undertaking things such as Duke of Edinburgh (D of E) Award, joining local cadet programmes.
Creativity and problem-solving skills	People who apply both logic and creativity to solve problems.	Write a blog on something that interests you. Learn to computer code.
Being a team player	Team players who have the team goals in their mind and works with others to achieve them. People how are open and honest and listen to others.	Sport activities, contributing to projects at school/college, volunteering.
Enterprise	People who show initiative. People who are motivated and present themselves well.	Undertaking D of E, setting up a new club at school. Attending employer talks/visits if offered through school.
Ability to work under pressure	People who can work to targets or deadlines.	Being organised with homework deadlines for a number of subjects.

### Attitudes

Closely linked to skills, employers are looking for the right kind of 'attitudes'. People showing positive attitudes (see below) are more likely to be successful in their careers.

Attitude	Remember	
Resilience	Resilience is about not giving up. Keep trying (persevering) if you get a knock back. Have a fighting spirit and be confident in your abilities.	
Cooperative	Can you work as part of a team? Being cooperative is about working well with others to achieve a common goal.	
Aspirational	Create your own destiny. Life is here and now and you should aim to be th Think about 'new jobs' as well as existing ones. Aim high!	e best you can. What are your career plans?
Informed	Think about what YOU want to do. Research your ideas and look at your options. If you're going for an interview, be prepared for questions. What makes you the best candidate.	CANDIDATES
Confidence	Believe in yourself. Take the initiative.	
Experienced	Make the most of any work experience and other contacts with employers. Do you do any volunteering?	
Motivated	If you are motivated and enthusiastic you will potentially learn things more quickly.	
Interested	Explore your real passion in life. Try to be a 'can-do' type of person.	
Reliable	Be on time – everytime. Be someone people can rely on. Take responsibility for your own actions.	

## Further information and contacts

On the next two pages you will find some key local contacts and some further relevant websites. Please note this is not an exhaustive list.

#### Barnsley

Visit http://iknowican.co.uk/ for independent and impartial information about education, employment, training and opportunities to help young people in Barnsley achieve their potential.

#### Doncaster

Visit www.connectu2.co.uk for impartial careers information, on-line prospectus, and support for Doncaster young people about learning, training and employment.

#### Rotherham

Visit www.youthi.org.uk and click on 'your careers and education' for information on a wide range of relevant topics and useful links, or see the vacancies section where you can search for current opportunities.

#### Sheffield

Visit www.sheffieldfutures.org.uk (contact number 0800 652 9900) for local information. Also www.ucasprogress.com for where to learn in Sheffield and around the UK.

#### Sheffield City Region (SCR) LEP

http://sheffieldcityregion.org.uk/

The Local Enterprise Partnership (LEP) exists to make decisions that drive economic growth and create new jobs.

### Enterprise Adviser Network (EAN) in Sheffield City Region (SCR)

SCR Enterprise Adviser Network is part of a national campaign launched by the government backed Careers and Enterprise Company (CEC). It aims to benefit students and employers by bridging the gap between education and work.

Find out more about local activity and contact your Enterprise Coordinator at www.enterpriseadviserscr.org.uk or contact SCR Enterprise Adviser Network Skills Lead Mike Garnock-Jones at: mike.garnock-jones@sheffield.gov.uk

Find out more about the CEC here https://www.careersandenterprise.co.uk/

### HEPP (Higher Education Progression Partnership)

http://extra.shu.ac.uk/hepp/

HEPP brings together all partners with an interest in promoting higher level education and skills to young people and adults across Sheffield City Region.

### **Inspiration Portal**

#### www.inspiringyandh.co.uk

The 'Inspiration Portal' brings together the best of resources and organisations to inspire young people about their career choices and futures. The site includes LMI at regional and local level (down to local authority districts).

#### Jobs, Careers, Routes

The **National Careers Service** website is suitable for all ages and includes general information on routes into careers, skills and qualities required, and pay.

Find out more at:

www.nationalcareersservice.direct.gov.uk (or search online for National Careers Service)

Careersbox http://www.careersbox.co.uk/

Plotr https://www.plotr.co.uk/

iCould http://icould.com

#### Apprenticeships

https://www.findapprenticeship.service.gov.uk/ apprenticeshipsearch Ring 0800 015 0400 for information

#### **National Citizen Service**

#### http://ncsyes.co.uk/

Provides opportunities for 15-17 year olds to develop by taking part in team projects to help their community.

#### Do-it www.do-it.org

A site dedicated to volunteering for people and causes.

#### Unistats https://unistats.direct.gov.uk/

The official website for comparing UK higher education course data.

#### UCAS

https://www.ucas.com/

Not going to Uni http://www.notgoingtouni.co.uk/

### Federation for Industry Sector Skills and Councils

http://fisss.org/sector-skills-council-body/

This site provides links to all Sector Skills Councils and National Skills Academies.

#### **National STEM Centre**

https://www.stem.org.uk/ http://www.cegnet.co.uk/news/getting-to-gripswith-the-stem-careers-toolkits (link to specific careers/STEM resources).

**STEMNET**- the Science, Technology, Engineering and Mathematics Network www.stemnet.org.uk

#### Labour Market Information (LMI) data http://www.nomisweb.co.uk/

#### UKCES

UK Commission for Employment and Skills https://www.gov.uk/government/organisations/ uk-commission-for-employment-and-skills

#### **Careers Education and policy**

#### Gov.UK

https://www.gov.uk/ https://www.gov.uk/government/publications/ careers-guidance-provision-for-young-peoplein-schools

Link to most recent version of statutory guidance for careers (March 2015) at time of publication a newer version was anticipated Autumn 2016.

#### CEGNET

#### www.cegnet.co.uk/

An online community for teachers, careers professionals and supporters of career development to share news and resources.

#### **Career Development Institute** (CDI) http://thecdi.net

The CDI operates for careers professionals. The remit of the organisation includes quality assurance, training and development and production of key resources. Visit http://www.thecdi.net/Reports---Resources

#### Gatsby Foundation http://www.gatsby.org.uk/education/ programmes/good-career-guidance

The Gatsby Foundation commissioned Sir John Holman to research what actions could improve career guidance in secondary schools. The resulting 'benchmarks' are being piloted in schools.

- 1. A stable careers programme (overarching benchmark)
- 2. Learning from career and labour market information
- 3. Addressing the needs of each pupil
- 4. Linking curriculum learning to careers
- 5. Encounters with employers and employees
- 6. Experiences of workplaces
- 7. Encounters with further and higher education
- 8. Personal guidance

### **Careers Awards** http://www.qualityincareers.org. uk/quality.php?page=ceiag-quality-awards

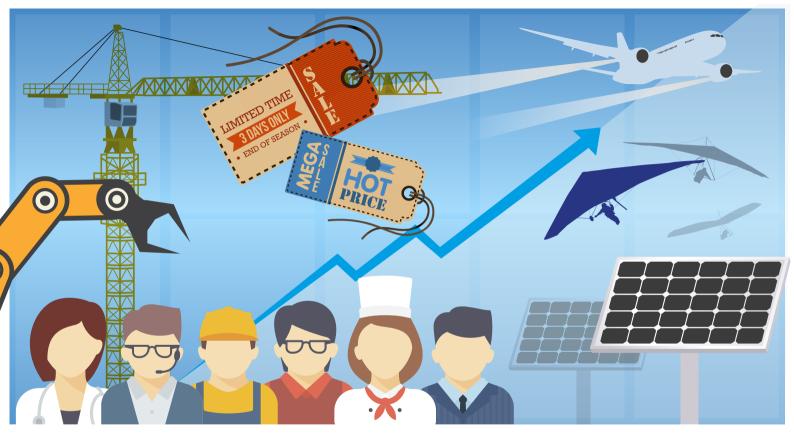
For information about all the Quality in Careers Standard (QiCS) nationally accredited awards, visit the Careers England website (see above).

These materials have been produced by staff of Careers Yorkshire and the Humber in response to local feedback and many ideas have been incorporated.

Suggestions are always welcome as we seek to improve any further materials we produce.

To give feedback on this brochure or find out more about the Inspiration Agenda in South Yorkshire and the work of Careers Yorkshire and the Humber, contact Sonia Hardwick (Partnership Coordinator).

You can download and print a copy of this brochure at: www.inspiringyandh.co.uk



#### Disclaimer

Careers Yorkshire and the Humber (CYH) staff have researched the web links referenced in this publication. However, website information can change rapidly. CYH does not endorse organisations or accept any responsibility for the content of external sites.

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Twitter @InspiringSYorks



### Careers Yorkshire and the Humber

Prime contractor for the National Careers Service in Yorkshire and the Humber