

Skills for Employment

York's 10-year Strategy



Foreword

Stakeholders from across the city have come together, recognising the importance of skills for employment in helping residents and businesses to fully experience the benefits of York's enterprising, resilient and inclusive economy.

Whilst we continue to concentrate on post-pandemic recovery and prepare for opportunities like devolution we recognise an increased need to support people of all ages into work, to progress or change careers, and to ensure that businesses can access the skills and talent they need to diversify or grow.

The city's one-year plan: 'Helping People Through Change' Skills for Employment in York york.gov.uk/YorkSkillsPlan was agreed in March 2021, setting out the five shared commitments upon which York's 10-year Skills and Employment Strategy will be delivered.

- **York works:** skills support for individuals
Support those entering, re-entering or displaced from the workforce to re-train or upskill and connect them with good jobs in sustainable and growth sectors.
- **Empowered employers:** skills support for businesses
Support businesses of all sizes to access national, regional and local skills provision to help them plan, diversify and grow.
- **Pioneering provision:** productive partnerships
Work in partnership to make the most of national, regional and local initiatives and adapt local skills provision in response to emerging needs.
- **Education to employment:** York's talent pipeline
Support positive progressions for all by preparing those transitioning from education or re-entering the world of work for a culture of lifelong learning and entrepreneurship.
- **York shares:** communicating the offer
Develop a coherent and effective marketing and communications strategy to ensure information, advice and guidance is provided at the point of need in a timely and effective way.

Building on this plan, this strategy puts in place the vision and steps to achieve a city workforce that is equipped, not only to weather the storms of economic shocks such as a global pandemic but to thrive and grow in a historic city that embraces the power of technology and digital transformation.

The essence of what makes this strategy different is that it is built on partnership and shared endeavour. The stakeholders and organisations that have contributed to this strategy are committed to making our ambitions a reality. We want people from all backgrounds and abilities to fulfil their potential and as regional plans develop, we look forward to working with partners across North Yorkshire to capitalise on the existing talent and highly skilled workforce that already exists in York.

Foreword

We will embrace technological advances to build on our distinctive assets in areas such as life sciences, agritech and biotechnology as well as transforming the visitor experience to reflect the digital age. Our long track record in high-value sectors such as the rail industry will also be enhanced by attracting young talent in STEM industries.

Above all, we are committed to ensuring that York is a place where everyone can thrive; harnessing and growing the city's existing skills-base to enable residents and businesses to make the most of future opportunities and make prosperity a reality for all.



Lee Probert

Principal and Chief Executive, **York College**
Chair of the Skills and Employment Board

A handwritten signature in black ink, appearing to read 'Lee Probert'.

A handwritten signature in black ink, appearing to read 'Andrew Waller'.

Cllr Andrew Waller

Executive Member for Economy and
Strategic Development, **City of York Council**



Vision

Pioneering provision aligned to the needs of the city, its people and its businesses, developed and delivered in partnership to support economic growth and attract, retain and develop talent.

Principles that underpin our vision

- Foster a culture of **lifelong learning**.
- Put **mental health** and well-being at the centre of what we do.
- Focus on the **demand for skills** from businesses and residents as a priority.
- Ensure individuals have the all-round '**people**' skills that employers want.
- Build and champion **partnerships** to enhance all aspects of skills provision.
- Positively include **disadvantaged people** when planning and delivering skills provision.
- Embrace **technology and digitisation** to maximise opportunities for people and businesses.
- Contribute to **net zero** ambitions by proactively adapting and developing skills provision.

Foreword

Our partnership



Our 10 year vision for skills

Work is already underway to transform the way skills and training is delivered in York. We will work together not only to streamline and simplify skills provision in the city, but to introduce new opportunities for learning state-of-the-art skills that can harness technological change for the benefit of businesses and residents. We want the needs of business to be at the heart of transformation and seek to forge new and lasting partnerships to make this happen.

To achieve the city's net zero carbon reduction targets, new **green skills** must be embedded across all areas of learning.

Models of delivery are changing and we will support that change so that businesses, especially small ones, can be instrumental in crafting new courses in modular, bite-size, and on-demand formats. We want individuals to be able to access qualifications at a time and in a way that suits them.

York is resilient and we have put in place **skills support** for our residents and workers to deal with change and access support and training when they need it. This includes ensuring that those people more adversely affected by economic shocks such as Brexit and the pandemic (young people, women, people with lower-level skills and workers from hardest-hit sectors) are front and centre of our plans for the future.

Transferable skills are at the heart of this, especially for those leaving rapidly shifting sectors such as **retail and hospitality**.

Foreword

It is likely that the main sectors where we will see **job growth in York** over the next 10 years are health and social care, IT and digital, rail, professional services and construction. All of these sectors will be impacted by automation and new technology which will have many beneficial effects such as boosting productivity and reducing carbon emissions. It will however inevitably displace jobs, particularly in lower grade roles.

We have world-renowned facilities and expertise in **agritech, life sciences and the bioeconomy** and this will enable us to be at the forefront of the **green economy**. We can use this know-how to accelerate the pace of change by increasing the number of people with higher-level skills in this sector and those aligned with it such as **food manufacturing** and **construction**.

York is a historical city and the advances in digital technology mean that this unique **heritage** can now be accessed by a global audience. Businesses and individuals need the **digital skills and creativity** to respond rapidly and in innovative ways to these opportunities. For those visiting the city, we can harness new trends in tourism that will rely less on passive consumption and more on immersive, individualised experiences.

We know we have untapped talent in our workforce that we want to foster and utilise better. Many women are highly skilled but too few are finding work in these critically important sectors so there is work to be done on ensuring that **women** with the right skills are enabled to access good jobs in **STEM industries**. This also goes for people from **diverse backgrounds** who are under-represented in high-value jobs and senior positions.

York has huge capital investment schemes occurring in the next 10 years such as York Central which will rely on high numbers of people with **construction** skills in the workforce being readily available. There is also the challenge to address the deficit in low carbon construction skills to respond to the UK's net zero by 2050 ambition. We will encourage employers to take on apprentices at all levels and support the rollout of T Levels to ensure that there is a pipeline of talent to meet these needs and provide good jobs for local people.

Key to the decarbonisation agenda is the investment in the **rail sector**. There are c5,000 people employed in the rail industry and its supply chain in York and planned extensive investment in rail infrastructure in the next decade will require a substantial increase in the workforce particularly in the digitisation of the network, electrification, data analysis and signalling. This means that there are numerous and growing opportunities to work in skilled, well-paid jobs with prospects for future development.

Skills attainment is a major factor in transforming people's prospects especially if those skills help people secure high-value jobs that are in demand.

I. Introduction

Strengths to build on for a strong York workforce

- High proportion of higher-skilled, non-manual sectors such as education, finance and professional services contribute to resilience in the economy.
- Significant graduate pipeline that is attractive to employers.
- Low numbers of people seeking work compared to other cities.
- High-quality learning institutions.
- Growth in key sectors such as rail and construction with high demand for staff.
- Vibrant visitor economy which offers flexible work to a broad range of people.
- World-renowned expertise and facilities exist in important areas such as agritech, bioeconomy and life sciences.
- High-quality Information, Advice and Guidance (IAG) is routinely offered by good providers.
- York is an attractive city to live in with good schools and good transport links.
- High number of job vacancies in highly skilled sectors such as health and engineering.
- Existing partnerships such as Higher York, BioYorkshire and the Yorkshire and Humber Institute of Technology demonstrate the commitment of local organisations to boosting local skills.

Challenges

- Automation in industries such as retail and food manufacture reduces the need for people with lower-skilled jobs.
- Business models have rapidly altered to offer online access to goods and services, requiring new skills and resources to support these changes.
- People need new skills to access jobs in new sectors after they have been displaced due to automation or redundancy.
- The demand for digital skills at all levels outstrips supply.
- Changes to the available workforce as a result of Brexit, the pandemic and the ageing population put extra pressure on businesses trying to recruit locally.
- Graduates who wish to remain in the region may be unable to access graduate employment.
- Current models of employment do not always support people to fulfil their potential e.g. those with disabilities, low skills attainment, caring responsibilities, neurodiversity.
- High proportion of part-time jobs creates challenges with lower Gross Value Added (GVA) per resident.
- High number of hard-to-fill vacancies and skills gaps in important sectors such as health and social care, rail and technology.
- Ageing population is leading to a lack of skills as people retire from the workforce more quickly and in larger numbers than people can be trained or recruited.
- The demographics for people in highly paid, higher-skilled jobs in STEM industries do not reflect the population, with a lack of representation from all parts of society.

I. Introduction

Opportunities

- Putting business closer to the heart of skills planning.
- Rise of technology and automation creates new and exciting jobs in all sectors.
- Investment in large scale developments creates construction jobs in the medium term and a range of jobs in the longer term.
- Devolution brings more opportunities to shape and develop provision using funding more creatively to address local issues e.g. Adult Education Budget.
- Expertise at a high level already exists in the workforce and can be utilised to greater effect by high performing work practices.
- To work with Higher York to ensure that the strong graduate pipeline meets local and regional needs.
- Changes to local Government structures in North Yorkshire open a new chapter of cooperation between the two authorities.
- Big data offers new opportunities to individuals and businesses e.g. vacancy data from recruitment sites gives real-time information to support people to transition to new jobs mid-career.
- Technology offers innovation to traditional industries and opportunities for entrepreneurship among a wider group of people.
- High productivity levels compared to other cities regionally.
- To work with education and skills partners to better align careers education, information, advice and guidance with the needs of York's labour market.

Case study

Mediaworks and York St John University

Mediaworks (a market leader in this area) partnered with the York St John University Business School to offer an online course specialising in digital marketing. Together they have created an introductory version of the MSc Digital Marketing and Data Analytics to help local businesses learn more about the basics of digital marketing.

This was created during the lockdown period of the pandemic to respond to the needs of businesses that rapidly needed to adapt to an online offer. With several courses delivered during the year, this was an ideal way for people to build their skills through a 3-week taster course and gain the confidence to take their knowledge to a higher level, perhaps even enrolling on the full MSc programme.

2. Maximising new national initiatives for local benefit

There are a range of initiatives and forthcoming investments which will have skills and jobs implications across the city.

Building stronger links between the businesses and public sector organisations involved in those initiatives and the education providers will help ensure a pipeline of talent. Examples include:

York Central

A 42 hectare site, which will provide up to 2,500 new homes and create around 6,500 new jobs, with up to 1.2 million square feet of commercial development and an upgrade to the National Railway Museum.

In the short term, there will be significant demand for construction-related jobs at all levels. Long term the site has been designated as an **Enterprise Zone** providing demand for new high skilled jobs in a range of sectors including professional services, digital and IT and the rail engineering sector.



BioYorkshire

BioYorkshire is a strategic initiative that will use bio-based innovation to transform Yorkshire's economy through world-

class research and translation facilities, a network of specialised business incubators, training, networking and entrepreneurial support generating up to 4,000 new jobs.

To support the demand for jobs and ensure the availability of technical and professional skills development in this sector, a bioeconomy skills academy will be established.



Guildhall Redevelopment

York Guildhall is being redeveloped to create high-quality office spaces with the potential to create an estimated 250 jobs in high-value sectors, especially the creative and digital sectors and creating an £848k annual income and an additional estimated £117m boost to the city's economy over the next 5 years.

An additional 50 jobs and £7m GVA will also be created during the construction phase.



2. Maximising new national initiatives for local benefit

York Accelerator

There are plans for the development of a business accelerator to expand the city's technology capabilities and support the creation of significant numbers of high-value and high-skilled jobs aligned to key growth sectors and national and international trends. It could also enable and support tech start-ups to succeed in the city and attract additional high-value inward investment.



Carbon Neutral Aims and the Green Economy

York has an ambition to be a net zero carbon city by 2030. This aim impacts many sectors including construction, engineering, transport and energy and will require investment in a wide range of green skills. It has been reported that the low carbon workforce is set to triple by 2030 so we must ensure our training and education providers engage with local employers to understand future skills needs. York is already well placed with York College having recently been awarded £150,000 to boost skills training in electric vehicle technologies.



The funding will be used to extend workshop space and technologies, helping to address a skills shortage around low carbon electric vehicle maintenance.



3. Our priorities for action

Commitment I York Works for individuals

Work within and across communities to provide access to skills for employment and self-employment for all.

Priorities

- Support entry-level and basic skills (including maths, English, digital skills, employability and transferable skills).
- Enhance skills opportunities and IAG for entrepreneurs and those seeking self-employment with a focus on hard-to-reach communities.
- Utilise talent more effectively so that people from all backgrounds get better chances to access good jobs.

Our rationale

- Support entry-level and basic skills (including maths, English, digital skills, employability and transferable skills).

York benefits from a workforce that is more highly skilled than comparators in the north of England and this makes the city more resilient. We can build on this skills base to enhance and transform the local economy but we must ensure that those without the fundamental skills to enter and sustain good jobs are enabled to gain them. If we do not focus on enabling adults to achieve functional levels of maths, English and digital skills we risk them falling behind in their chances of a fulfilling future with good jobs and prospects.

For adults in low skilled sectors, digital skills have become as important as maths and English to enable people to access jobs in new sectors. Provision in the city therefore must enable those without basic skills to attain them in a flexible and supportive way. We also want to ensure that people displaced from traditional service (and often low paid) sectors are supported to gain skills in sectors with job vacancies (such as the health and social care sector).

There is an established and well-regarded offer of adult and community learning delivered in the city and this has been able to adapt as demand for learning evolves.

For people who are in work but on low incomes, the prospect of reskilling can be challenging and confusing. It's therefore important that information, advice and guidance can be accessed in community settings and helps people to understand the training that will help them progress in employment or self-employment.

Community outreach will be key, with York Learning and North Yorkshire's Adult Learning and Skills Service acting as a gateway to upskilling and reskilling opportunities.

3. Our priorities for action

- Enhance skills opportunities and IAG for entrepreneurs and those seeking self-employment with a focus on hard-to-reach communities.

Start-ups, given the right support to nurture talent and ambition, can be the SMEs of tomorrow. It is critical that people embarking on self-employment or starting a business for the first time get all the help they need to maximise their chances of success in the longer term. This is especially the case if those budding entrepreneurs are not from conventional business backgrounds or live in disadvantaged neighbourhoods. Developing 'an enterprise for all' culture with the appropriate facilities, advice and training will be essential to ensure both new and existing start-ups not only survive, but thrive and hopefully, in the long term provide new jobs across the city.

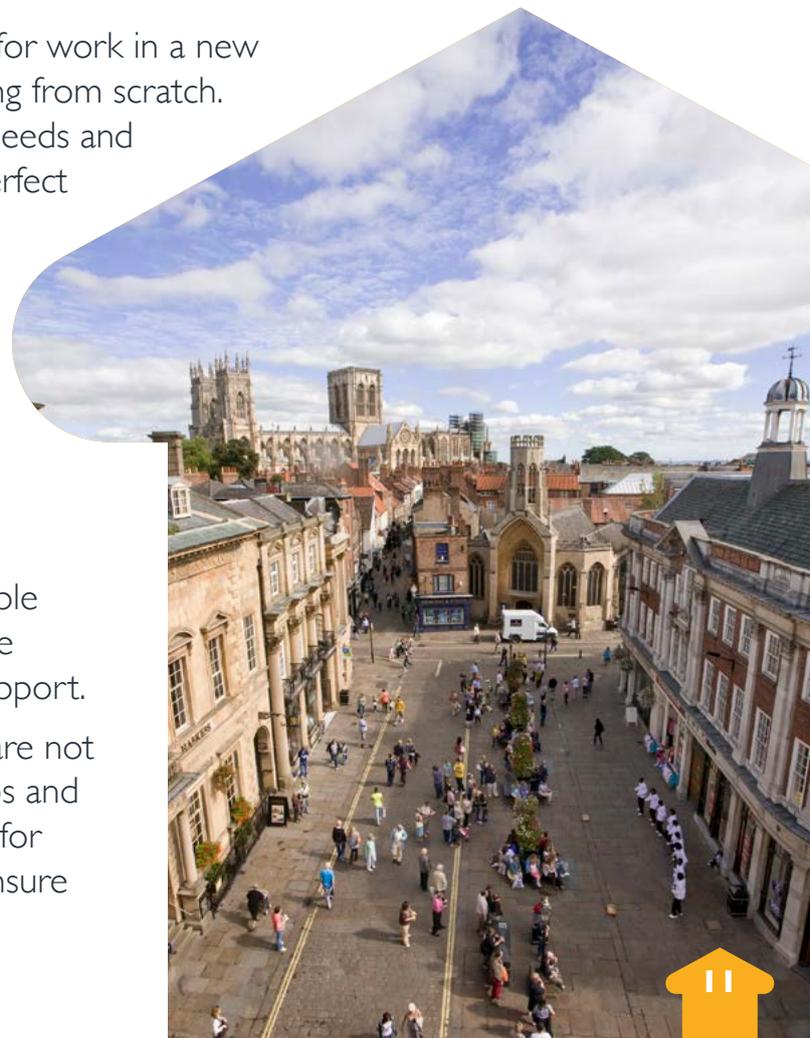
- Utilise talent more effectively so that people from all backgrounds get better chances to access good jobs.

Prior to March 2020, around 1% of the working-age population was claiming out of work benefits which represented the lowest figure for decades. However, as Brexit and the pandemic impacted the economy, this figure sharply rose to 3.6% (around 5,000 people) by March 2021. In comparison with other areas, this increase is not as pronounced. Our challenge is to support people looking for work to gain the necessary skills for available jobs. It is therefore essential that those who are seeking work have access to high-quality advice and guidance as well as the relevant skills and retraining to help them re-enter the workforce.

What can be disheartening for people looking for work in a new sector is the perception that they will be starting from scratch. The reality is that many jobs have similar skills needs and those with experience in one field may be a perfect fit in another. The challenge is connecting the two together. Information about how people can migrate from one sector to another, using their transferable skills is high on our agenda.

People who have multiple barriers to work either from a skills perspective or due to other factors now have a greater challenge to secure employment. Support is needed to enable people furthest from the labour force and with multiple barriers, to access training and wrap-around support.

We also know that some highly skilled groups are not represented as they should be in high-value jobs and we, therefore, want to maximise opportunities for people from minority groups and women to ensure that they fulfil their potential in our workforce.



3. Our priorities for action

Case Study

Bettys and Taylors Group and York College

Over a number of years, York College has worked with Bettys and Taylors Group to adapt engineering provision to suit the specific needs of the company as it has expanded and modernised the production of its world-famous range of products.

In order to increase productivity Bettys and Taylors Group has retrained existing staff to support the food manufacturing operation by building on its apprenticeship programme and Performing Engineering Operations NVQ and offering bespoke training in engineering skills that are specific to their business. This includes welding, engineering maintenance, fitting, health and safety and refreshers in IT and maths skills.

Reviewed regularly, plans are in motion to offer advanced manufacturing training in mechanical maintenance and robotics to reflect technological advances with an emphasis on efficiency and continuous improvement.



Commitment 2 Empowered Employers

Support local businesses to increase productivity and build resilience through training and upskilling their workforce.

Priorities

- Invest in the sectors that drive prosperity in York.
- Support businesses to access talent, tailored provision and support for upskilling.
- Focus on helping small and micro businesses to thrive.

Rationale

- Invest in the sectors that drive prosperity in York.

The partnership has selected eight sectors to focus on in the coming years. Evidence tells us that these are the sectors that are critical to the future prosperity of York. These priority sectors reflect the distinct nature of the workforce in York, building on strengths such as the knowledge base and facilities in the bioeconomy as well as addressing challenges that must be tackled in the coming years.

3. Our priorities for action

Health and Social Care for example accounts for the biggest deficit in the availability of skilled employees whilst the heritage sector and visitor economy is rapidly changing to reflect new ways in which businesses operate online and therefore require new digital and technical skills.

Large scale developments in the city require a boost in workers with modern construction skills and these skills must contribute to the ambition to deliver net zero carbon emissions in the next decade.

The eight priority sectors are;

- ▶ Adult Health and Social Care
- ▶ Agritech, Bioeconomy and Life Sciences
- ▶ Property and Construction
- ▶ Creative and Communications
- ▶ Engineering (includes food manufacture, transport and rail)
- ▶ Heritage
- ▶ IT and Digital
- ▶ Tourism, Hospitality and Retail

More detail on the priority sectors can be found in Section 5.

- Support businesses to access talent, tailored provision and support for upskilling.

Forward thinking leaders have remodelled their operations, sometimes radically, to future-proof their business. Businesses with highly effective leaders invest in their staff and adopt high performance work practices.

The use of technology to enable safe, remote working in sectors that can accommodate it has become the norm rather than the exception. Business models have swiftly altered to offer accessible online access to goods and services requiring new skills and resources to support the changes.

These rapid changes inevitably have a knock-on effect in terms of skills requirements both in the short and long term. Not only the skills to enable employees to utilise technology but also interpersonal skills needed for managing remote teams and performance management.

Businesses have told us that they value personal skills such as resilience, adaptability and teamwork as much as the technical skills required in their sectors. They have also become much more aware of the importance of mental health and are committed to their responsibilities to ensure mental well-being in the workplace and know how to support their employees in times of mental ill-health.

Demand for health and well-being, business resilience and managing through change courses are growing in demand as businesses look for ways to support their staff in a holistic way.

3. Our priorities for action

- Focus on helping small and micro businesses to thrive.

One of the challenges that businesses tell us they face is that they do not have enough information or advice about the most appropriate provision for their needs. The complexity of the offer and bureaucracy involved puts a barrier in the way of training. There is little to be gained by embarking on skills training without a robust understanding of the impact it will have so it is important that training needs analyses are offered as well as a coherent and coordinated offer that is communicated well.

Skills provision for businesses, especially small and micro ones (which account for the majority of businesses in York) regardless of the sector need to be offered in ways that are accessible. This means bite-size, modular, responsive and flexible.

With the rise of e-commerce, businesses report an increase in the need for digital skills. This ranges from day-to-day digital skills that enable staff to operate in an increasingly technical world, to more complex skills that are required to handle complex online business models.

Commitment 3 Pioneering Provision

Work in partnership to create a flexible city-wide skills system that responds to local needs.

Priorities

- Use the partnership to join up provision across the city to deliver a united and streamlined skills offer.
- Ensure provision is aligned to future growth sectors and skills needs in the city.
- Embed the business voice into provision and planning by fostering more links between Further Education, Higher Education, Independent Training Providers and businesses.

Rationale

- Use the partnership to join up provision across the city to deliver a united and streamlined skills offer.

York is fortunate in having high-quality learning institutions which serve the city and offer good provision at all levels. However, it is not always clear to individuals and businesses what is available and how it will meet their needs. Information can be full of jargon which can be confusing for local people and this prevents them from accessing qualifications and skills that can transform their lives.

The relationships between the institutions and the routes for progression are sometimes unclear and difficult to navigate. We want to ensure that there is a joined-up approach to skills and clearly articulated progression pathways.

3. Our priorities for action

We also want to transform the curriculum so it increasingly meets the needs of businesses. Whilst there are good examples of businesses working with colleges and universities there is lots more that can be done. We want to develop a framework for partnership working that will enable innovative, agile development of new provision with employers at the heart of it.

- Ensure provision is aligned to future growth sectors and skills needs in the city.

The focus on a low carbon economy will also create significant demand for new jobs and new skills. This includes not only skills in the low carbon and environmental goods and services sector, but also those needed to help all businesses use natural resources efficiently and sustainably to become resilient to climate change. Dedicated low carbon education and training programmes as well as ensuring that green skills are embedded in existing qualifications will be a major focus of curriculum developments.

Efforts to rapidly upskill the existing workforce in new green skills is paramount in our priority sectors. For example, we want to enable local businesses in the construction industry to gain the skills needed to retrofit existing buildings to achieve greater energy efficiency.

As businesses digitise, there has been an increased demand for entry-level right through to higher-level digital skills with acute demand for coding, programming and software engineering.

- Embed the business voice into provision and planning by fostering more links between Further Education, Higher Education and businesses.

The Skills and Post-16 Education Bill introduced in May 2021 set out the expectation from the Government that further and higher learning institutions embed business needs in the curriculum to a much greater extent than is currently the case.

York has a good track record of employer engagement but this must be dramatically enhanced and barriers overcome if provision is to properly reflect the current and future needs of the economy.

We commit to working with employer representative bodies and businesses to make this ambition a reality.

Initiatives such as the Yorkshire and Humber Institute of Technology (IoT), of which York College, York St John University and Askham Bryan are partners, is an example of how business and education can work together to transform facilities and technical provision in the area. The IoT has enabled investment in learning facilities and is set to be further developed to produce a step-change in higher skills attainment which is linked to growth sectors in the city.

3. Our priorities for action

Case Study

Aptamer Group and University of York

Based in the Bio Centre at York Science Park, Aptamer Group develops Optimiser[®] binders as antibody alternatives for use as therapeutics and in diagnostic tests. Optimiser binders can be targeted to bind a specific molecule to inhibit, activate or label the target for use as therapeutics or as diagnostic and research reagents. Additionally, Optimiser binders are being used to deliver drugs and gene therapies to specific cells and tissues within the body, to improve the therapeutic efficacy. The company works with a range of pharmaceutical, biotechnology, diagnostic and research partners to enable new treatments, tests and analyses.

Operating in such close proximity to the University of York has increased ties with the institution to offer graduates commercial experience during their training and improve collaborations with academics across several fields.

Aptamer Group engages with the University in several ways, including establishing research collaborations that have helped validate Optimiser technology and allow researchers to use novel reagents to advance their projects, PhD student internships, graduate recruitment, and equipment access.

The University's PAPI (Product and Process Innovation) project supported Aptamer Group with a £20,000 grant to purchase equipment to boost its cell-based Optimiser development process, ensuring safety while increasing the process throughput to meet demand.

From working closely with the University's scientists, Aptamer Group has gained information about useful targets to pursue through our development pipeline that can fill gaps in the current reagent market and offer new solutions to help drive translatable research. Aptamer Group has also recruited several staff members from the pipeline of talented graduating undergraduate and PhD scientists.

Commitment 4 York's Talent Pipeline

Through high-quality provision and a culture of lifelong learning, ensure a pipeline of talent that meets business needs and attracts, trains, retains and re-trains people in the city.

Priorities

- Focus on occupations in highest demand e.g. nurses, caregivers, and software developers, and help people who are underrepresented in high-value professions to enter them.
- Increase apprenticeships especially at higher levels and in STEM industries.
- Ensure talent pipeline of graduates and people with higher-level skills is enhanced and aligned with priority sectors.

3. Our priorities for action

Rationale

- Focus on occupations in highest demand e.g. nurses, caregivers and software developers, and help people who are underrepresented in high-value professions to enter them.

One of the biggest challenges we face is generating a pipeline of people with the right skills for current and future jobs. This is because the skills needs of many professions are changing rapidly due to innovation and advances in technology, and skills acquisition for high-level jobs takes years to accomplish. Even with a focus on the occupations that are most in-demand, this is not a quick fix.

It is therefore critical that we focus on helping people make the right choices and also ensure that information, advice and guidance is available for individuals at every stage of their working life.

We will continue our commitment to helping people from diverse backgrounds and from under-represented groups get access to the same opportunities as others so that they can get the skills and confidence needed to enter occupations that are in the highest demand.

- Increase apprenticeships especially at higher levels and in STEM industries.

There is a collective and long-standing commitment to apprenticeships in the city. Efforts over recent months have resulted in over 150 apprenticeship vacancies available in York across a wide variety of sectors and levels which is a testament to the commitment that businesses have made to apprenticeships. Whilst this is a positive picture, data shows us that those from disadvantaged backgrounds are less likely to participate in apprenticeships.

Therefore, there is a job to be done in York to open up the accessibility of apprenticeships to people from disadvantaged backgrounds. At the same time, we need to keep the momentum going at the higher and degree level of apprenticeships to ensure businesses can recruit staff with the requisite skills. For our priority sectors such as agritech, the bioeconomy and construction, an emphasis on STEM subjects is paramount.

The role of independent training providers and colleges is critical here in building further on the expertise and commitment to apprenticeship provision in the area. Independent training providers are also agile when responding to business needs and are often able to provide tailored solutions in timescales that are challenging for larger institutions.

3. Our priorities for action

- Ensure a talent pipeline of graduates and people with higher-level skills is enhanced and aligned with priority sectors.

The workforce in York is characterised by its high proportion of people with at least level 4 qualifications but evidence shows us that this is falling. The majority of graduates leave the city once they have gained their degree (level 6). We need to work with businesses more closely to ensure that there are suitable graduate jobs available and encourage a stronger partnership between Higher Education (HE) institutions and businesses.

High-quality Information, Advice and Guidance (IAG) is routinely offered by good providers and this should be applauded. The best providers understand ladders of opportunity in the local area and tailor their offer to enable people who are starting at a low level to understand the trajectory they are on from the outset. This also means aligning their offer with other providers especially when it comes to progression pathways within the city.

York is well served by HE provision but the majority of young people who go on to HE choose to leave the city to study at degree level. The challenge is how to attract talent back.

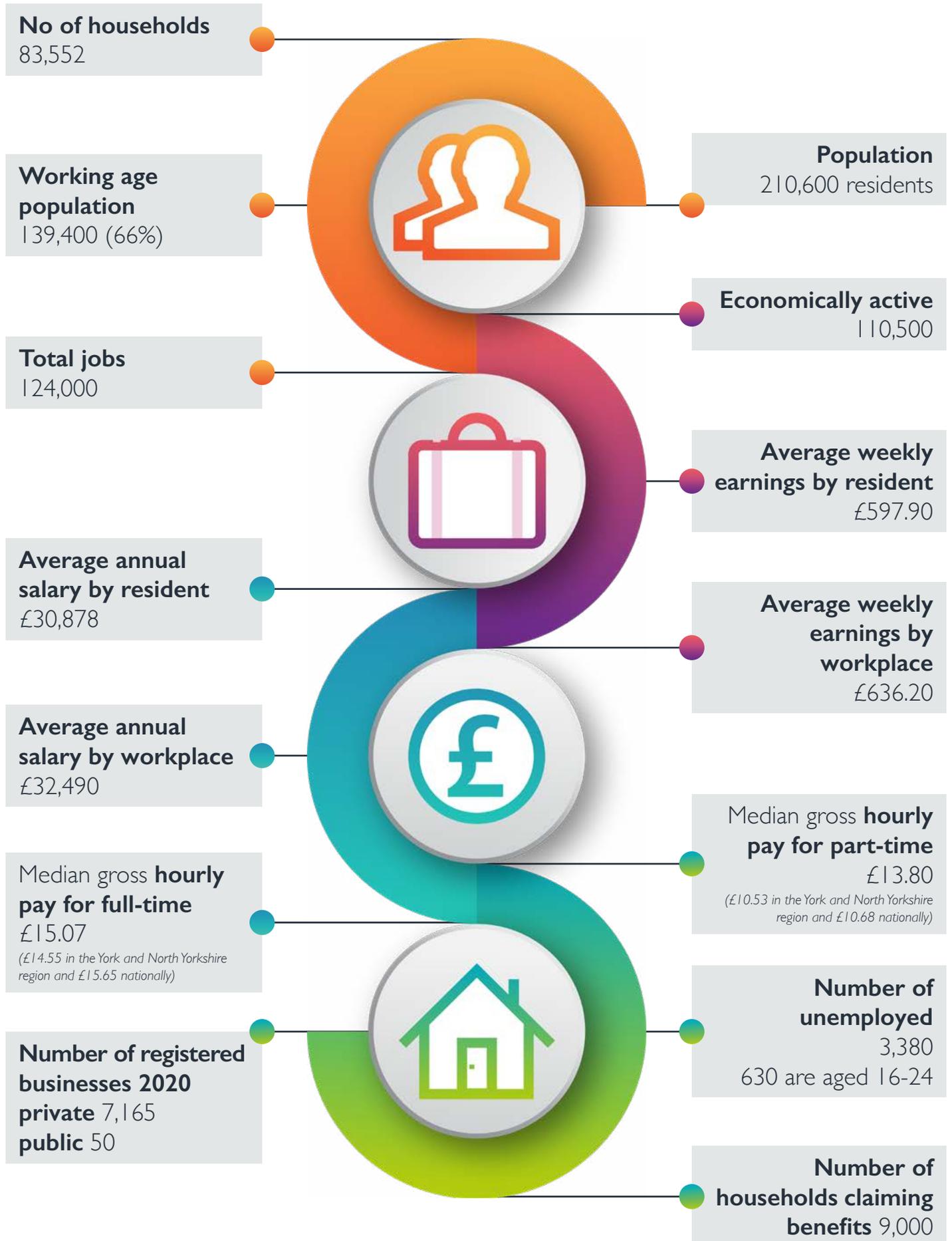
The mix of provision for undergraduates could be adapted to better reflect skills requirements in York and this is exacerbating the challenge that employers have when trying to recruit people with the technical skills they need.

People from disadvantaged groups are less likely to study for a degree. New and innovative approaches to tackle the issue are needed, for example scrutinising the potential biases in recruitment processes within organisations rather than a focus on individuals in outreach settings.

Progression routes from Further to Higher Education for adults need to be strengthened which is one of the key aims of this strategy. It is particularly important for progression pathways to be clearly articulated for adults already in the workforce to enable those from under-represented groups to gain level 4 or above qualifications.



4. Economic data (as available in September 2021)



5. Priority sectors now and in the future

The partnership has selected eight sectors to focus on in the coming years. Evidence tells us that these are the sectors that are critical to the future prosperity of York. These are not the only sectors important to York but they are the ones in which skills partnership efforts can bring about the greatest impact.

Many skills are relevant across different sectors and an aim of this strategy is to support the smooth movement of employees across different industries so that businesses attract the right talent at the right time.

- **Adult Health and Social Care** - a substantial and growing need for skilled people now and in the future, to respond to skills shortages, an ageing population and an ageing workforce. By 2038 a quarter of people in York will be over the age of 65 compared with one in five now and this will intensify the demand for care.
- **AgriTech, Bioeconomy and Life Sciences** - growth sector and distinct for York with its world-renowned facilities and expertise.
- **Construction and Property** - to keep pace with demand, prepare the workforce for low-carbon construction skills, encourage diversity and support capital developments. The construction sector is buoyant in York currently and with large investment projects such as York Central in the pipeline, it looks set to grow further. Skills shortages in most areas of the sector mean that we must train young people from all backgrounds and adults already in the workforce to take up jobs in the sector. Construction provision in the city is high quality and offers a breadth of provision at a range of levels including apprenticeship provision. There is also a growing, responsive part-time offer that enables people mid-career to re-train or gain higher-level skills in the sector.
- **Creative and Communications** - there are 62 professional arts and heritage organisations operating in the city and over 140 creative enterprises. Attracting and developing new talent as well as being a major contributor to the international reputation of York as a cultural and heritage centre makes this sector critical for the city. This aligns with the York Culture Strategy (makeityork.com/culture/yorks-creative-future-york-culture-strategy-2020-2025/) which highlights skills needed to enhance the sector.
- **Engineering (includes food manufacture, transport and rail)** - high-value jobs in sectors that increase productivity, however businesses struggle to recruit people with the right STEM skills.

5. Priority sectors now and in the future

- **Heritage** - using the uniqueness of York to utilise technology in innovative ways which enhance the cultural offer and create new, digitally-enabled visitor experiences. York has a strong reliance on the consumer-facing service economy and occupations linked to hospitality, tourism and accommodation and this brings its own long-standing challenges with service related skills. The way that visitors plan their visit and choose to spend their time (and money) is changing - it is more individualised and online. This is exciting for York which has a strong heritage and cultural offer and world-renowned visitor attractions. Significant opportunities in entrepreneurship in this sector are likely as we see the increased use of Artificial Intelligence (AI), Augmented Reality (AR) and Virtual Reality (VR) in our heritage offer.
- **IT and Digital** - skills needed at all levels now and in the future. As businesses have rapidly digitised there has been an increased demand for digital skills at all levels and tech companies providing digital services have experienced exponential growth. That means that people with high-level technical skills are in great demand and companies report difficulties filling vacancies.
- **Tourism, Hospitality and Retail** - the highest proportion of the workforce is in these sectors but all are vulnerable to changes in the economy and the advances of technology. The workforce is often part-time, with low pay and can be transient.

Adult Health and Social Care

Now

- 16,000 employees (15%)
- 50/50 full-time/part-time split
- Average national salary: Nurse £32K, Care Assistant £19K, Doctor £42K
- Nurses and health care workers accounted for the top two job vacancies in 2020
- Majority female demographic
- Mental Health (14,669) / Learning Disabilities (9,691) / Primary Care (3,877) are significant skills for Yorkshire and Humber region

Future

- Increasing aging population leading to greater needs for health and care
- Public perception of the sector adversely affects recruitment though this could be positively affected by COVID-19 and Brexit
- Around 70% of roles at high risk of automation are currently held by women
- Globalisation and technological change are also changing approaches and creating new opportunities

5. Priority sectors now and in the future

Agritech, Bioeconomy and Life Sciences

Now

- Around 1,400 (2%) employees
- 62% are full time
- Average national salary: Agricultural Engineering Technician £35K, Biochemist £41K
- World leading knowledge, facilities and potential for growth but under-developed job opportunities
- Priority sector for area and subject of significant investment
- Relatively few direct employees but a growth sector nonetheless
- This sector is strongly impacted by Brexit

Future

- BioYorkshire - a partnership between University of York, Askham Bryan College and FERA to deliver on the green agenda, create jobs, boost the regional economy and develop sustainable solutions for environmental challenges
- Growth potential due to the existing expertise, skills and facilities, business base in the sector and policy commitments by leading institutions and strategic bodies



5. Priority sectors now and in the future

IT and Digital

Now

- 315 enterprises
- 1,800 (2%) employees
- 83% full time
- Average salary: IT Technician £31K, Cyber Intel Officer £53K, IT Project Manager £54K
- Computer consultancy activities is the largest sub-sector in York
- High level skills such as programming, developing and coding are at a premium and in short supply, recruitment of people with these skills is challenging
- Majority male dominated - around 80%

Future

- Industry will be in the process of constantly reskilling and learning as technology develops, employees must enjoy continuously learning and be flexible
- Key sub-sections of this industry have and will continue to increase such as data science, machine learning and AI
- Creativity and critical thinking skills are essential for the future
- Communication and leadership skills will be essential in making teams effective



5. Priority sectors now and in the future

Heritage

Now

- 15 enterprises
- 1,000 (1%) employees
- Average national salary: Museum Curator £25K, Visitor Attraction Manager £35K
- 50/50 part-time and full-time
- The strength of the heritage offer is critical to the success of other sectors such as hospitality

Future

- New trends in the way visitors 'consume' the York experience will require digital skills as standard
- Opportunities for entrepreneurship in this sector as niche, individually tailored tourist 'experiences' increase
- Attractions that have an older demographic will need to change to attract younger audiences who are digitally savvy

Creative and Communication

Now

- 3,250 employees (3.5%)
- 230 of enterprises
- Average national salary: Digital Marketer £39K, Community Arts Officer £26K, Social Media Manager £43K
- 64% of workers are part-time
- Most self-employed or freelance

Future

- Industry crucial for the survival of many retail businesses
- New Creative Centre at York St John University
- Links with the York Culture Strategy, which sets out steps needed to create a vibrant, evolving and flourishing cultural offer

5. Priority sectors now and in the future

Property and Construction

Now

- 4,000 employees (4%)
- 75% full-time, predominantly male workforce
- Average national salary: Quantity Surveyor £43K, Construction Site Supervisor £29K, Construction Project Manager £41K, Electrician £31K, Labourer £28K
- Skill shortages are a national problem for this sector
- Industry bodies such as CITB are active in addressing skills needs

Future

- Adapting to green construction and automation is a priority
- Large scale developments in the city such as York Central will create a demand for construction jobs that will continue for years to come
- Challenge to recruit a more diverse workforce and attract new entrants

Tourism, Hospitality, Retail and Leisure

Now

- 1,605 enterprises
- 20,000 employees (18%) c2/3 part-time
- Average national salary: Waiter/ess £17K, Retail Supervisor £20K, Barista £22K, Store Manager £20K, Head Chef £24K
- Consistent growth in the industry, an increase of 7.8% from 2017-2020

Future

- Challenge of supporting people displaced from retail jobs into new employment with prospects
- Digital skills and confidence with technology will be essential in this sector
- Core skills such as customer service are sought by employers in most sectors so transferable skills may be at a premium if targeted correctly
- Whilst traditional large store retail is in decline, online retailing is on the increase with a 60% surge occurring in 2020
- Long term and persistent issues with skills shortages (e.g. chefs)

5. Priority sectors now and in the future

Engineering (including manufacturing, rail and transport)

Now

- 8,000 employees (7%)
- 78% full-time and 22% part-time
- Average national salary: Rail Engineering Technician £34K, Track Maintenance Officer £34K, Train Driver £57K, CAD Technician £45K, Manufacturing Systems Engineer £44K, Production Manager £62K
- General engineering skills deficit of Mechanical Engineering, CNC/CAM (Computer Numerical Control and Computer Aided Manufacture), Electrical Electronic Engineering, Manufacturing / Production Engineering (inc robotics / PLCs), Maintenance Engineering, Engineering Design (inc CAD/E Computer-Aided Design/Engineering)
- An ageing workforce and predominantly male
- Institute of Technology is developing high tech provision and increasing skills levels

Future

- New sustainable technologies and technological uncertainties threaten to cause structural unemployment at the lower-skilled end but also offer opportunities
- The rapid change from fuel to electric and alternative sources of energy
- Requiring high skilled flexible workforce to be able to adapt to new technologies quickly
- Significant opportunities in the rail sector particularly in the digitisation agenda. Jobs in data analysis, signalling and electrification
- Automation is replacing low skilled workers
- Growth sector generating high skills and well paid jobs
- Potential for apprenticeship growth
- New Bosch embedded vehicle technology centre to be opened in York

6. What we will do and how we will do it

The partnership will oversee progress and provide accountability. The partners will contribute resources to making the strategy a reality and structures will be put in place to coordinate activity.

We will evaluate the success of the partnership to deliver our ambition and the extent to which the partnership itself is an engine of change for the city's skills provision. Emphasis will be placed on the added value of the partnership rather than a sum of its parts but we will also track appropriate metrics to assess the impact of our work.

An implementation plan will be developed with actions and outcomes. This will be developed in the months following the adoption of the strategy. Measures of success will be partially assessed by publicly accessible metrics but the emphasis will be placed on the added value of the partnership.

Our implementation and evaluation strategy will use three themes to measure the impact of our partnership to deliver the changes we seek.

1. Accessibility - the extent to which information, provision and support is available to those that need it.

2. Sustainability - activity is self-generating and able to continue 'naturally' in the city.

3. Scalability - activity is repeatable and scalable to other places.



7. Further reading and sources

Publically available data on skills

[NOMIS](#) - Office for National Statistics dashboard

[Data.gov.uk](#) - Government dashboard of open data sites

[Office for Students](#) - website containing policy documents, data and analysis of Higher Education in England

[Explore Education Statistics](#) - Government dashboard hosting statistics on apprenticeships, FE and HE

[Migration Advisory Committee Skills Shortage List](#) - using SIC codes this scholarly article is used to indicate skills in short supply

[ONS UK Productivity Analysis](#) - analysis of productivity data across UK 2010-2019 (latest figures available)

[FE Data library](#) - Government site holding FE data

Government policy documents

[National Skills Fund](#) - part of government's Plan for Jobs to support adults to achieve skills that improve job prospects including Level 3 entitlement, and boot camps

[Institutes of Technology](#) - investment in higher level technical skills

[Skills for Jobs White Paper Jan 2021](#) - sets out government's plans to create Local Skills Improvement Plans (LSIPs) led by employer representatives such as Chambers of Commerce, an opportunity to develop college business centres and a duty for colleges to review how well their provision meets the needs of employers

[UK Shared Prosperity Fund](#) - House of Commons briefing paper on plans to date relating to the funding which will replace European Structural and Investment Funds

[Hospitality Strategy](#) - recently launched plan to support the recruitment and skills challenges in the hospitality industry

7. Further reading and sources

Skills reports and resources

[Apprenticeships](#) - Government site containing information and search options for learners and employers plus information for influencers

[British Chamber of Commerce](#) - policy reports and publications

[CIPD Knowledge Hub](#) - wide range of resources on human resource management, leadership, diversity, organisational development and future trends

[WISE](#) - resources, information, reports and data to support women in science, technology, engineering and maths

[The Gatsby Foundation](#) - aims to strengthen science and engineering skills in the UK by developing innovative programmes and informing national policy. Influential reports on the need to increase Level 4 and 5 technical skills

[The Missing Middle](#) and [Beyond the Missing Middle](#)

[Learning for Life; the role of adult community education](#) - Local Government Association report on the impact of learning on community

[Association of Colleges](#)

[Skills Futures Singapore](#) - aspirational plan to unite skills provision in lifelong learning in Singapore

[NESTA The future of skills 2030](#)

[Centre for Cities Levelling Up](#) - setting out how investment decisions can support fairer Government decisions

[APPG on Diversity and inclusion in STEM](#) - report from British Science Association on equality on STEM

Local reports on York skills

[York and North Yorkshire Labour Market Analysis 2021](#) - in depth review of data and evidence related to local workforce, skills supply and demand.

[York and North Yorkshire LEP Skills Strategy 2021-26](#) - sets out the main skills priorities and actions for the Y and NY LEP

[WYCA Employment and Skills Framework 2021](#) - West Yorkshire Combined Authority

Skills Strategy

7. Further reading and sources

Sector bodies

[Skills for Care](#)

[Skills for Health](#)

[CACHE](#) - specialists in care sector qualifications

[National Skills Academy for Rail](#)

[COGENT](#) - Sector Skills Organisation for science

[LANTRA](#) - sector awarding body for land based sector

[Enginuity](#) - sector body for engineering

[CITB](#) - Construction Industry Training Board

[IEEE](#) - technical and advanced electrical engineering skills

[Federation of Small Businesses](#) - skills hub for small businesses

[Financial Skills Partnership](#)

[People 1st](#) - sector body for range of service sectors including retail

[Creative and Cultural Skills](#)

[National Skills Academy Food and Drink](#)

[Engineering Construction Training Board](#)

Sector specific reports

[Back on Track - Rail Industry Skills](#)

[A Workforce in Crisis - Saving our Early Years](#)

[Ten Point Plan for a Green Industrial Revolution](#)

[UK Digital Strategy](#)

[Circular Economy Strategy YNY LEP](#)

[Building Skills For Net Zero](#)

[IET Skills for a net zero green recovery](#)

7. Further reading and sources

COVID-19 response plans

[Build Back Better](#) - UK Government plans to rebuild the economy after the pandemic

[Greener, Fairer, Stronger](#) - COVID-19 response plan from YNY LEP

[IES Getting Back to Work](#) - Institute for Employment Studies report on economic challenges brought about by COVID-19

[CBI Economics - The revolution of work report](#)

[AOC Skills Led Recovery Plan](#)

Transferable skills and IAG

[EMSI](#) - economic modelling site contains free resources and paid for services

[Building Bridges Towards Future Jobs](#) - City and Guilds and Burning Glass Technologies report into how people mid-career can transfer to new sectors

[National Careers Service](#) - provides online support for adults seeking career support

[Career and Enterprise Company](#) - national service giving employer focussed careers education information advice and guidance to young people in schools and colleges

[NYBEP](#) - York based careers advice aimed at young people and young adults

[NESTA Mapping Career Causeways](#) - groundbreaking report into ways adults can navigate from one career path to another using transferable skills

[Go Construct](#) - website for careers and information in the construction industry

[York Learning and North Yorkshire Adult Learning and Skills Strategy](#) - sets a clear strategy for adult learning across York and North Yorkshire

If you would like this document in an alternative format, please contact:

Phone: 01904 551550

Email: ycc@york.gov.uk

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