

Commission of Inquiry Vision for Hampshire 2050

Evidence summary report
Work, Skills and Lifestyle

26 Oct 2018



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1. Purpose

This report summarises evidence gathered for the Work, Skills and Lifestyle theme to assist commissioners to consider, alongside the full evidence pack and hearing, the following three questions:

1. What do you think might happen in the future?
2. How will that effect/impact on what we do?
3. How will the County Council and Partners need to react in light of this?

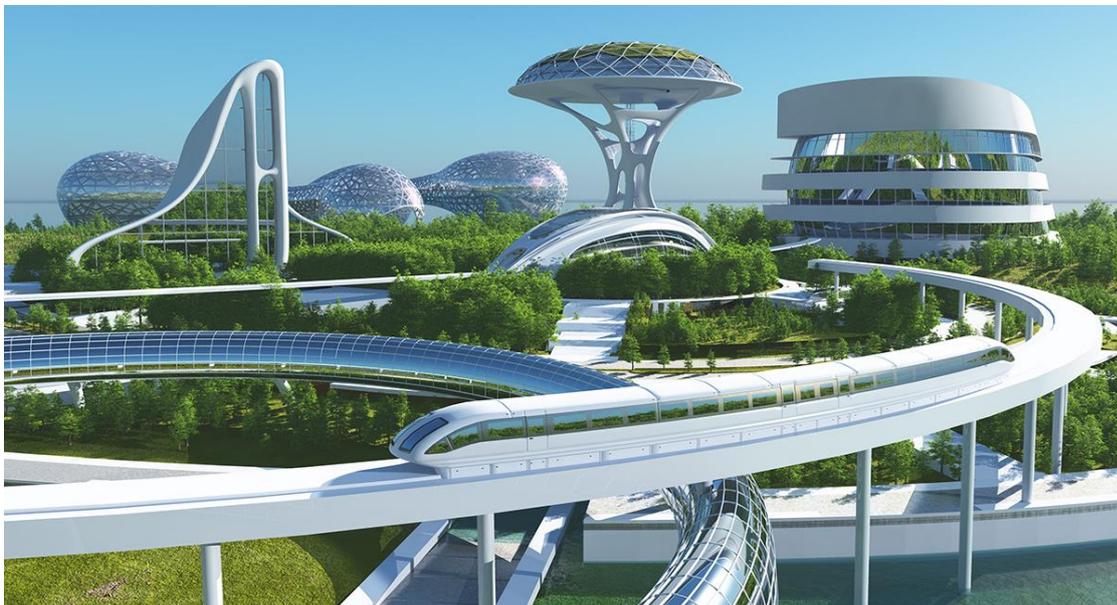
2. Introduction

The Work, Skills and Lifestyle theme will help to support the following strategic aims of the current Serving Hampshire Plan:

- Hampshire maintains strong and sustainable economic growth and prosperity
- People in Hampshire enjoy being part of strong and inclusive communities

It also links to the strategic priorities of Hampshire County Council's Hampshire Futures Service:

- Preparing all young people to make a successful transition to adult life
- Supporting schools and education providers to help all young people to participate, succeed and progress
- Supporting adults to achieve economic wellbeing and quality of life
- Helping businesses access the skilled workforce they need to meet current demands and future economic growth



3. Theme scope

This theme aims to examine future learning and working patterns and skills needs in the future as well as wider quality of life within Hampshire, such as arts, culture, leisure and community health and wellbeing. We attempted to address some of the following questions:

1. Future Learning and Skills

How will people learn, how and where will they access learning and how will learning be organised? What will the Hampshire skills infrastructure need to look like and how can our schools and colleges prepare to respond to future needs? What are the core skills required for the future? What are the Hampshire-specific skills required to support growth (skills for key sectors and the public sector workforce) and how can we achieve skills equity?

2. Future Work

How will the nature and shape of employment change in an increasingly automated and technologically advanced world? Can we predict what our future jobs might be? How can we ensure that Hampshire is able to attract and retain a skilled workforce? Which sectors will be key employers in the area? How do we ensure that we are utilising the skills and capacity of all within our community? How can technology support the economically inactive to enter the workforce and prolong the productive capacity of people in work?

3. Future Communities

What will our lifestyle look like in 2050? How can we ensure community health, wellbeing and resilience in an increasingly digital environment? What is the future of leisure, art and culture in an increasingly digital world, and what will the relationship be between the 'real' and 'virtual' world? How can we harness the potential of technology to promote social and economic inclusion and support vulnerable members of the community?

We make reference to questions related to adult health and wellbeing in relation to both our **future communities theme** (ensuring that communities are cohesive and resilient and technology is used to support inclusion) and our **future work theme** (good quality jobs for all and wellbeing to promote and extend the productive capacity of the workforce).

The theme is not explicitly focused on adult health and social care or how technology could be used to improve the provision of health and care services to support an ageing population as this is a significant topic in its own right.

4. Expert evidence

- We approached all of our key partners: FE Colleges, Universities, Solent and EM3 LEP and HCC Adult and Childrens' Services, CBI (employer voice) and Hampshire Youth Parliament (young people's voice).
- We received written submissions from Healthwatch Hampshire, Solent LEP, EM3 LEP, HCC Adults Health and Care and Childrens' Services.
- We commissioned EMSI (Skills & Economic Consultancy Company, Basingstoke) to provide evidence on Hampshire's future labour market and skills requirements.
- We commissioned Carswell Gould (Creative Communications Agency, Southampton) to provide evidence on future community and lifestyle. This included a workshop with young people to gather their views on life in Hampshire in 2050.
- In addition, we undertook desk research particularly focusing on the future of work, skills and technology. (See full data pack for details.)



5. Key points

The following summarises the key findings from our desk research and submissions from experts. The first section considers lifestyle and community, setting the scene for how we think society will function in 2050. The second section covers employment and skills, and the third section considers the concept of work and how we think this might change, particularly in the light of new and emerging technology.

The report concludes with some key points that the commissioners may wish to give further consideration to during the hearing.

5.1 Lifestyle and Community



5.2 Employment and Skills



5.3 Future Work



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5.1 Lifestyle and Community



5.1 Lifestyle and Community

The way in which the virtual and digital world evolves and interacts with the real, physical world of ‘authentic’ experience will define how we live our lives in future.

We commissioned Carswell Gould to explore how emerging technology will impact on our way of life through a combination of desk research and workshop sessions, including a discussion with students and young people. The conclusions are loosely based on the available evidence but are also a creative interpretation of information and discussion.

Trends and evidence clearly indicate that technology will develop to ‘make lives easier’, and a by-product of this is it will offer people ever more realistic gaming and simulation experiences through the likes of Virtual and Augmented Reality.

In time, these simulations will invade, improve and change other aspects of how we live day-to-day. By 2050 we are likely to use simulation to help us to be in more places at once e.g. meeting face to face, at sports events, entertainment etc. Work will utilise this technology, as will medicine and education.

We suggest that, as time passes, we will become more reliant, trusting and invested in simulation as a key part of our day.

Conversely, this means that ‘real life’ authentic experiences will therefore become less common and we will be less reliant on doing things for real. We suggest that this will result in ‘authentic’ experiences becoming more valued. Live experiences may command a greater premium than virtual or simulated.

This will affect the way we experience the world and frame our thinking around the following key themes:

- Recreation and Daily Activity
- Entertainment/Music/Arts /Heritage/Museums
- Sport/Health/Activity
- Relationships and Family
- Creative and Cultural Sector

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Our predictions for life in Hampshire in 2050 – these are based on our creative interpretation of the evidence and the discussion we had in workshop sessions.

Technology will help the creative and cultural sector flourish

Advancements in AI, simulation VR and AR will contribute to a seismic shift in how people interact and consume creative output.

Creative tech and community hubs

We see that community tech and creative hubs will be common-place in places with lower incomes or less tech infrastructure. These will show live, simulated and projected arts content, and double as a gallery, theatre and collaboration space.

Our 'local identity' should be protected

In 2050 the world will feel small. We will be able to be anywhere at the touch of a button. A few giant global companies will run industry and we will be exposed to more global information and messaging. There is potential that places will become more harmonised and we will lose sight of 'place'. We suggest that a focus on local identity, building protection and nurturing the local brand will be key to maintaining Hampshire's identity, visibility and uniqueness. This is vital when we build a Hampshire with a future (a place people want to be).

Businesses that bring us together locally and on a small scale

We foresee the growth of micro businesses that play to localised niche audiences. We suggest that by 2050 the majority of what we buy, consume and do will be controlled by a handful of businesses (currently around 10 businesses control food). In an increasingly globalised world, niche community businesses will offer us something local. We also suggest that a rise in home/solitary working will mean there will be a gap for businesses that find ways of bringing like-minded people together.

The effect of migration

2050 will see a world-wide migration away from areas affected by climate change. This will see more people moving to major urban centres and cities across UK and Europe. This may also see Hampshire developing its unique position based on its physical assets. Some areas of Hampshire will, in turn, increase in value or be developed by a growing city presence.

3D printing everything

By 2050 everything from food to sports kits will be able to be printed. This means people will have easier access to an endless range of kit, tools, artefacts and indeed, anything. The impact on lifestyle could be immense, but some more trivial examples could include; if you want a famous sculpture in your kitchen you can have it, if you want to try your hand at the old hobby of knitting you can create the tools you need.

Death of home ownership impacts our lifestyles

Due to ever increasing house prices, owning a home may not exist. Will councils maintain the responsibility to provide housing or will private landlords win out in the control of bricks and mortar? Our research shows trends towards building higher, with high-rise building providing all services and activities in one place. These towers will combine to create the mega cities the future will need to house the nine billion plus population.

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A travel revolution

We discussed that improvement with travel will mean people will move around the world faster and with less impact on the environment. We also explored how VR and simulation could offer people a way to vacation with their family anywhere from their own home. The impact of this would mean the location and experiences could become digital commodities that people look to access.

Hampshire could attract real life visitors which would mean more investment and more interest from around the world, but also making itself available to the connected web. It could become the go-to place for all outdoor activities including sailing in the Solent and camping in the New Forest, which could all become simulations accessible to people anywhere to experience.

Full connectivity vs. blackout zones

In 2050 it's estimated individuals will have 20+ connected devices, meaning that people will expect the best when it comes to connectivity. Investment in and support for world leading technology infrastructure is key in the run up to 2050 to ensure this county and region is ahead of the rest of the UK. Core to this is internet connectivity, 5G capacity and data speeds. It becomes a reason to avoid moving to a new house or office. It will be critical to invest fully in digital infrastructure to maintain the attractiveness of the area.

An age of solitude awaits

We explored how we will physically collaborate, meet and engage. Where will community fit in and 'face to face' remain? How will these developments affect our lifestyle? Are flexible working spaces a temporary trend?

Google and Amazon invest in spaces to make sure their offices are as easily accessible to staff as possible. An example of this is including benefits such as gyms and nurseries on site to ensure all employees can work the same hours and be productive together. This is key to getting the right people to engage in their work. We maintain the necessary role of hubs for meetings but predict we will all spend less time physically with the people we work with.

Robots and Tech take jobs, but arts, creativity and music will stay human

By 2050 many basic tasks and jobs will be automated by robots or AI. Driving, shopping, entertainment, booking a table for dinner and other tasks we associate with lifestyle will no longer be for us to sort out. In work, everything from farming to accountancy and building will be affected dramatically, thus reducing the number of humans needed to 'get things done'.

This will obviously have a huge impact on lifestyle. Positively, it's suggested we will have more free time and less work hours. This will lead to a change in lifestyle with people looking to find more to do in their spare time.

5.2 Employment and Skills



5.2 Employment and Skills – context

Hampshire is a relatively high performing economy. However there are significant variations between areas/districts and not all communities are benefiting from growth.

Economy and Employment

In Hampshire the population is projected to increase from 1,362,700 (2017) to 1,473,500 by 2024. However, this growth is concentrated significantly in the older population, (65+ and 85+) with the smallest increase of 5.4% or 44,000 people in the working age group of 16-64.

The total dependency ratio is projected to increase to 70.9 dependents per 100 people of working age (up from 66.5 in 2017).

This means that productivity will need to rise if output and living standards are to be maintained.

In terms of economic performance, the Hampshire economy generates about £50bn GVA and represents the largest sub regional economy in the South of England.

There are significant variations in economic performance across the county, with North

and Central Hampshire outperforming the UK economy by 15% and 10% respectively but the South of Hampshire performing at 8% below the UK average in terms of GVA per head. GVA per head in the two cities varies considerably with Southampton performing at 7% below the UK average and Portsmouth 1% above. Employment levels are high in Hampshire at 82.5%, (above the England average of 75.5%).

This is also the case for young people age 16-24 year olds – nationally the unemployment rate for 16-24 yrs is 11.3%, the lowest since comparable records began in 1992. Locally, the 16-24 yrs unemployment rate for Hampshire is 8.8%, which increases to 10.5% for the Hampshire Economic Area (including the cities of Southampton and Portsmouth). However, for the Isle of Wight this increases to 16.2%. (ILO unemployment seasonally adjusted - March 2018.)

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Skills

At headline level, Hampshire has a highly skilled workforce. However, on some measures we perform below UK averages and there are wide variations in skills levels between our districts.

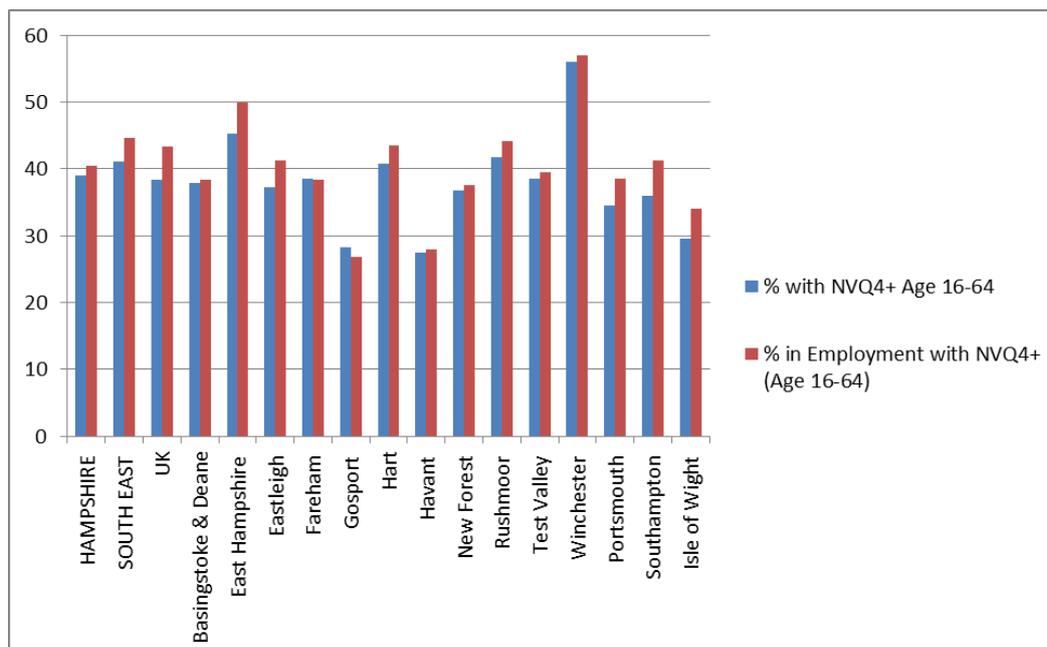
The skills of the workforce are of critical importance in driving economic growth and around 20% of the UK's growth in recent decades has been attributed to increased skill levels in the workforce. The CBI identifies primary and secondary education as the single biggest driver of long-term economic growth, and evidence suggests that even moderate improvements in educational standards and adult skills could lead to large benefits for future growth.

(Source: Future of Skills & Lifelong Learning, Government Office for Science 2017)

Currently, 39% of the working age population in Hampshire (age 16-64) are qualified to NVQ L4+ (equivalent to degree level), which is slightly higher than the UK average 38.4% but lower than the South East (41.4%).

However, there is significant disparity between districts, with Winchester performing the highest at 56% and Havant the lowest at 27.5%.

Although, for people in employment, Hampshire performs below both UK and South East averages, with 40.5% of people in employment having a level 4+ qualification compared to UK (43.4%) and South East (44.6%) averages. This suggests that our relatively large older population has a proportionally higher share of degree level qualifications than those of working age. Local variations are also significant, with 26.9% of people in work in Gosport having a L4+ qualification compared to 56.9% in Winchester.



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Educational Attainment

There are similar variations in primary educational outcomes with 65.6% of Hampshire pupils meeting or exceeding age related expectations at Key Stage 2 (compared to 62% in England). Both Gosport (52.7%) and Havant (55.4%) perform below the UK average, and Hart (73%) and Winchester (70.1%) perform well above.

At Key Stage 4, Hampshire performs above national average with 45.5% of pupils gaining GCSE at grade 5 or above in English and Maths in 2017 compared to 42.7% nationally. Again there are wide variations between individual school performances ranging from 17% to 73%.

Whilst highlighting variance between districts, it is important to understand that geography alone is not a predetermining factor.

Educational attainment data for those aged 19 underlines the attainment gap between different cohorts of learners across the area, specifically the gap between those eligible for Free School Meals and those not.

The table below shows Level 2 (GCSE equivalent) and Level 3 (A level equivalent) achievement by Hampshire young people who turned 19 in the academic year 2016/17 (DfE published May 2018).

% L2 Attainment at age 19 in 2016/17			
	All	Free School Meals	Attainment Gap
Hampshire	85.2%	61.5	25.8
South East	84.1%	61.4	25.1
England	83.6%	66.4	20.1

% L3 Attainment at age 19 in 2016/17			
	All	Free School Meals	Attainment Gap
Hampshire	59.8	27.1	35.5
South East	58.7	29.0	32.8
England	57.5	35.9	25.2

Overall at post-16, Key Stage 5 (students achieving 2+ L3 qualifications equivalent to 2 A levels at grade A-E), Hampshire performs slightly above UK averages with 84.6% gaining 2+ L3 qualifications compared to 83.6% nationally.

(Source CS D&IT analysis 2017)

This variation in performance is also reflected in progression to Higher Education at Local Authority level. The proportion of young people in state schools age 15 who progress to Higher Education by age 19 is below the South East and England average of 38% in all four upper tier local authority areas:

- Hampshire 35%
- IOW 30%
- Portsmouth 24%
- Southampton 28%

(Source: DfE 2014-15 participation data – latest available published data)

Employment and Skills – The Future

We cannot predict with certainty what skills will be in demand in the future but we expect these will be focused on interpersonal, higher order cognitive skills, 'human' skills, and technical systems and higher-level digital skills.

We do know that skills are of critical importance to economic performance and individual wellbeing, and this is likely to become even more pronounced in the future as the nature of work itself evolves.

Seventy percent of people today are in jobs where we cannot know for certain what will happen in the future, and 65% of children entering primary school today will ultimately work in new jobs and functions that don't currently exist.

Occupations and skill requirements are fluid and will react to shifts in economic

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environment. It is therefore difficult to predict with certainty what will happen.

Many but not all lower/medium skilled jobs are likely to see a fall in employment, due to technological change and globalisation, and this is expected to affect particularly jobs in manufacturing, administration, secretarial and sales. In skilled trades, agriculture and construction, the pattern is expected to be more complex with some opportunities being created throughout the skills ladder.

There is likely to be growth in services such as food and hospitality where they relate to differentiated products likely to be valued by consumers (for example, the re-emergence of artisanal employment in industries such as barbering, brewing, textiles). There will be opportunities for job redesign and upskilling in these areas to increase further product variety and differentiation to meet demand.

There is also predicted growth in public sector occupations – in particular education and healthcare – due to our ageing population, an increasing interest in lifelong learning, and the preferences and consumption behaviour of Millennials for services such as health and fitness and therapy, etc.

Buoyant demand is likely for some (but not all) professional occupations reflecting growth in the service sector. For example, the creative, digital, design and engineering, and environmental and architectural occupations which will benefit from greater urbanisation and focus on environmental sustainability. There is likely to be more variation in ‘white collar’ occupations – some growth in jobs expected to benefit from the reorganisation of labour such as management consultancy, HR, training and development but a decline in financial sector and sales.

There will be an emphasis on interpersonal, higher order cognitive skills, systems skills and

an increasing importance of social skills in the labour market. Higher order cognitive skills will be in demand such as originality, fluency of ideas and active learning. System thinking, judgement, analysis and evaluation will also be in demand. There will be a need for broad based knowledge as well as specialised features for specific occupations.

These ‘complementary skills’ can be bolted onto occupations to improve their likelihood of being in demand in the future, eg. customer/personal service; judgement and decision making; technology design; fluency of ideas; science and operations analysis. These are also the ‘human factor’ skills that are least likely to be replaced by technological developments such as AI.

(Source: NESTA report 2017)

Five key challenges for the UK:

- Young adults in the UK have relatively poor literacy and numeracy skills and evidence suggests they are falling further behind international competitors
- Employers believe labour market entrants are not properly prepared for the workforce. Again, the UK compares poorly against other countries
- The UK has relatively large mismatches between the supply of, and demand for, skills
- Many places and sectors in the UK are in a ‘low skills equilibrium’ (where the availability of low skilled jobs is matched by a low skilled workforce, meaning there is little incentive for people to gain higher level skills or stay in the area if they do, so employers adapt but are constrained by low skills supply)

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- Participation in formal learning declines with age. Adult learning is in overall decline and is disproportionately more likely to be taken up by wealthy, more highly skilled individuals

(Source: Future of Skills and Lifelong Learning, Government Office for Science 2017)

Evidence from the Employer Skills Survey also paints a mixed picture.

- Overall the number of vacancies increase from 587,000 in 2011 (14% of establishments) to 1,007,000 in 2017 (20% of establishments)
- In 2011, 190,000 vacancies (or 16%) were due to skills shortages
- This increased to 226,000 (or 22%) in 2017)
- These skill shortage vacancies are concentrated in 6% of UK business establishments
- The proportion of skills gaps (people in the workforce considered to be not fully proficient) has declined from 6% to 4% over the period. This is still significant as it accounts for 1,267,000 members of staff in the UK reported as not being fully proficient in their role

Business Services and Construction sectors are most affected by skills shortage vacancies and skilled trade occupations (for example, chefs, electricians, vehicle technicians) have a particularly high incidence of skills shortage vacancies (42%) which has increased over the 2011-2017 period.

However, the proportion of skills gaps caused by a lack of advanced or specialist ICT skills has fallen from 27% in 2015 to 19% in 2017, affecting in particular administrative and clerical staff (58%) as well as public administration (50%).

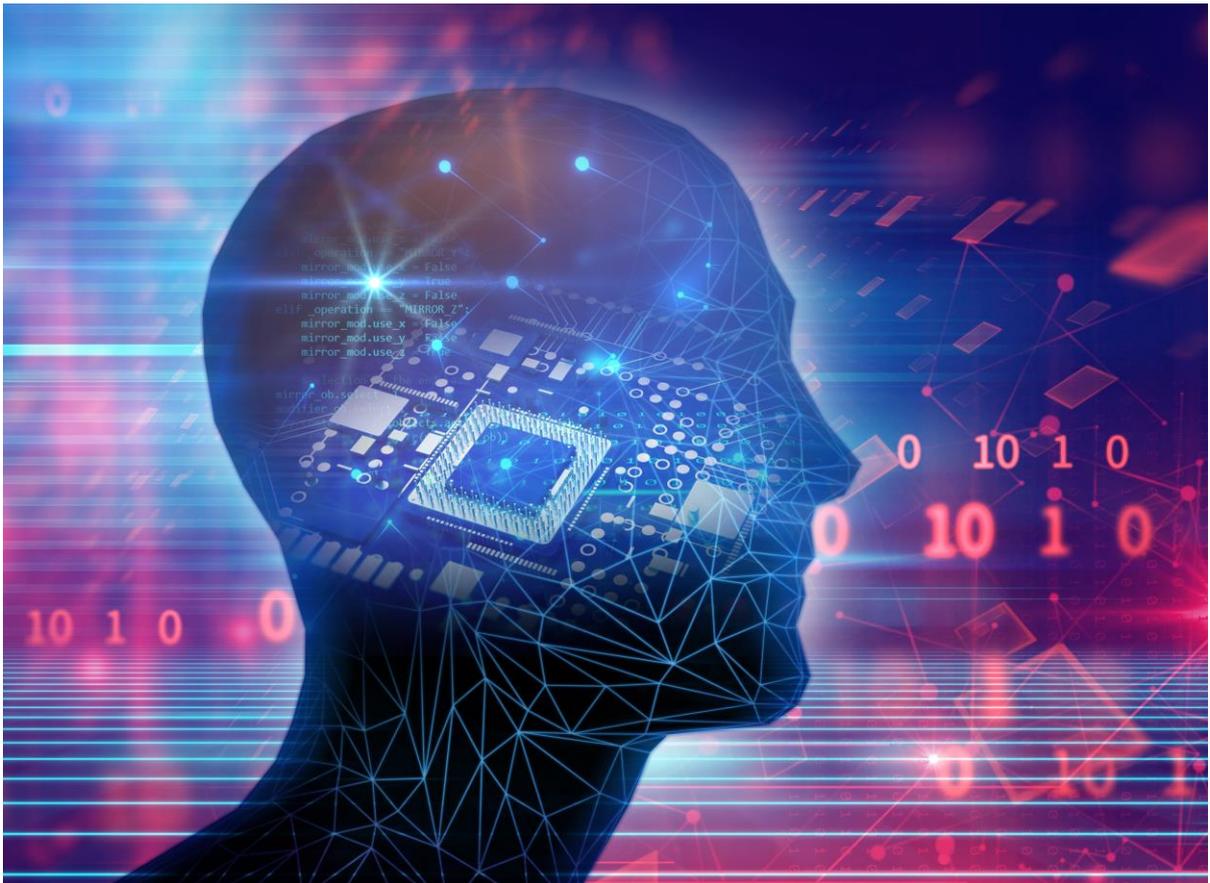
(Source: Employer Skills Survey 2017, IFF research Aug 2018)

There is also much debate about how Brexit might impact on the availability of labour in the UK. Firms expect that the biggest changes in the next three years will be tougher competition for well-qualified talent, development of existing staff, and the increasing difficulty in recruiting senior and skilled employees. Businesses will need to remain alert to the potential changes, and be agile in their responses to be able to continue attracting and retaining people with the best skills and potential for their needs.

(Source: CBI ([Resourcing and Talent Planning 2017 survey](#)))

Equally, we will need to ensure that our local skills system is able to respond appropriately to the current and future need of our local labour market. Currently, policy and governance of the complex skills landscape is heavily centralised. Recently there have been some moves towards devolution of adult education funding to a minority of areas (Combined Authorities) but this is not occurring consistently to all areas and there is no clear policy to address this.

5.3 Future Work



5.3 Future Work – context

The Hampshire economy employs approximately 689,000 people and is home to 65,000 businesses, with key strengths in sectors including science and technology. Employment levels are high at 82.5%.

Between 1998 and 2016 the production sector (including manufacturing) has declined from 20% to 13% of the economic output in Hampshire. Notable growth sectors in the Hampshire economy during this period were ICT (+8%) and Professional and Business Services (+12.5).

Key sectors are: Aerospace; Marine & Maritime and Digital Technology. Hampshire has a particularly significant science and technology sector, including digital technology, which accounts for 20% of all businesses and 23% of employment.

The ICT and digital media sector employs around 62,000 people in 8,000 businesses and generates around 10% of the county's economic output.



Future work and how will the concept change?

It is important to consider the concept of work in context. There is a wider social and political impact of work – it is not simply about earning a wage. Work will evolve as a direct consequence of the application of innovative technologies, including how work is organised and how workers are recruited, monitored, organised and rewarded.

The Future of Work Commission sets out a number of principles that should constitute the 'good work' of the future:

- Work is valuable in itself, not just as a source of income – it gives people a sense of purpose and is part of individual and community identity and one of the most important ways that citizens contribute to collective life
- Work is an important source of dignity and respect and we should pay more attention to the recognition given to jobs that are essential to the functioning of our society
- Work should provide security, and offer a fair and predictable income without excessive risks to individuals
- Work should provide autonomy where individuals have choice about their work and their future and are able to exercise creativity and judgement
- Good quality work should be accessible to every citizen and not limited by social or economic circumstances, gender, race or disability

(Source: Future of Work Commission 2017)

The future of work will be influenced by a wide range of factors, not just developments in technology. For example, environmental sustainability, urbanisation, increasing inequality, political uncertainty, globalisation and demographic change will also have a significant impact on the structure of our future labour market and the types of jobs we will need to prepare for.

(Source: NESTA 2017)

The average working week is likely to reduce (trend: decline from 50 hours in 1900 to 30 hours today). People who work fewer hours tend to be more productive – as working time increases, average output per hour decreases. New forms of working 'atypical contracts' are growing, for example five million self-employed, 900,000 zero hours contracts and 800,000 agency workers currently in UK.

(Source: Future of Work Commission 2017)

A more multi-generational workforce will be a key feature in future, with a projected increase of 42% in the 65+ working age population by 2030 and a reducing proportion of younger people in the workforce. Another characteristic will be growth in diversity – it is expected that women will take 2/3 of net growth in higher skilled jobs over the next decade. Rising global mobility is likely to result in a more ethnically diverse workforce in UK. However, this is alongside increasing income uncertainty and lack of wage growth, particularly for low earners, and projected real terms reduction in income and growing household and regional inequality. If trends continue, it is estimated that by 2030 the proportion of income accounted for by the wealthiest 0.1% in the UK will rise from 5% to 14%. There is also a growing desire for a better work life balance and growth in flexible working patterns.

(Source: Future of Work UKCES report)

The Government's vision for the UK is outlined in its Industrial Strategy published in 2017, which sets out how it intends to create an

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innovative economy that boosts productivity and earning power and creates prosperous communities throughout the UK. Local areas are being asked to develop their own Local Industrial Strategies over the coming years, alongside Government and LEPs.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/730048/industrial-strategy-white-paper-web-ready-a4-version.pdf

Impact of technology

In 2016 the World Economic Forum described the Fourth Industrial Revolution as 'more comprehensive and all encompassing than anything we have ever seen'. This describes the combination of a number of changes including automation and robotics, digital technology and the internet of things as well as artificial intelligence and new technologies such as biotechnology. Some examples are as follows:

- Mobile internet and cloud technology will enable the more efficient delivery of services and opportunities to increase workforce productivity although with the possible negative impact of increasing industrial disruption
- Advances in computing power will require new systems and capabilities to maximise the full potential of technological change
- The Internet of Things will provide enormous amounts of data with the potential to identify patterns and design systems and services on a scale never before possible, but the right workforce and leadership are needed to capitalise on this opportunity

- Automation and robotics are generally expected to replace mainly low and medium skilled roles especially in sectors such as manufacturing, but are also expected to disrupt all sectors and roles including higher skilled jobs, while also creating new skills needs and job roles

(Source: Solving Future Skills Challenges, Universities UK 2018)

There is differing opinion about how these changes will affect the global and UK workforce. The consultancy PwC projects that seven million UK jobs will be lost to machines by 2014. The Bank of England says it will be closer to 15 million, five years sooner. Although it is difficult to predict with any degree of certainty exactly what technological advances will mean for the world of work, it is very clear that work will evolve as a direct consequence of the application of innovative technologies – including how work is organised and how workers are recruited, monitored, organised and rewarded.

(Source: Good Work in an Age of Radical Technologies, RSA Future Work Centre 2018)

In many areas of the economy, technology will have an increasingly significant impact on the nature of work and the skills required in the labour market, and is already presenting challenges such as falling productivity, falling real wages, increasing inequality and the growth of a vulnerable workforce. Evidence is suggesting that the benefits of technological innovation are currently not fairly shared. So, we need to prepare for the technological revolution and make sure that everyone is equipped to share in its benefits and success.

(Source: The Future of Work Commission, 2017)

Implications for Hampshire – work, employment and skills

There are significant opportunities to build on our existing strengths and shape our skills to meet the needs of the future economy but we must ensure that these opportunities are shared throughout all communities.

The need for ‘human’ skills in sectors such as education, health and care will play a critical role in the future health and wellbeing of the wider community, and will also become increasingly valued in the wider economy. Our education and skills system will need to equip young people with these capabilities, as well as higher level technical skills.

Understanding the future of skills in Hampshire requires understanding supply, demand and the potential for choices along the way. We can project future labour market demands from past patterns, and shed light on skills needs, but disruptions in trade, technology and policy can all cause those trends to change.

Understanding our current position and direction can provide a baseline for thinking critically about how we might like that direction to change, to create an economy better suited to Hampshire's future.

There are a range of significant variables at play in understanding Hampshire's potential future as an economy and labour market: the strengths of different industries; the tasks those industries have to do and the skills they need; the changing preferences of workers; and the potential for technology – especially automation – to change where and how workers are most needed. Along the way, there's also a need to consider what work can be done by technology, or be outsourced, compared to those needs which must be delivered locally. This is the point where the skills discussion ties closely with the discussion on the health and social care needs of an ageing community.

At the same time as we understand the future direction and the different possibilities it offers, there is a need to understand how Hampshire's wide and varied geography links with that. For example, which industries are important, where? Are there good job opportunities in every part of the county, offering a ladder of mobility to young people where they live? How can we ensure economic development maximises our productivity while also creating those kinds of opportunities?

(Source: EMSI commission)

Potential future opportunities have been identified in commercialisation of emerging technology and digital enabling technology in key sectors, however there are challenges around the availability of skills for key sectors.

Hampshire will need to position itself as an attractive place where people want to live, work and take advantage of leisure and cultural opportunities. This will mean:

i) Focus on developing a knowledge intensive economy

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The most innovation and STEM intensive sectors are the most likely to endure and thrive in the future. Knowledge focused businesses are reliant on high-skilled workers – places with a greater concentration of highly qualified individuals are more likely to attract knowledge-focused businesses

ii) Developing the local skills base to meet the demands of the leading industries

Developing the skills of the local workforce is critical as is attracting (and retaining) high-skilled people but we must anticipate the ‘tension’ created by productivity improvements – some types of jobs will be eliminated and people need to be supported in being re-skilled and our young people must be ‘work ready’ Key employers need to embrace the responsibility of leading the skills development system by defining future job requirements and helping educators to refine their programmes to meet those needs.

(Source: Economy evidence summary report)

Evidence from Solent and Enterprise M3 LEPs also highlight the importance of aligning the local skills offer to meet the needs of businesses. Of particular significance to Solent are higher level technical skills and developing Apprenticeships.

Enterprise M3 highlight 5 key themes which reflect our wider findings:

- The impact of AI on certain jobs and areas of employment
- Upskilling and reskilling existing workforces
- Technical and professional level skills
- Skills and opportunities for an ageing workforce
- Preparing young people for the changing world of work

Furthermore, they also support the need for an inclusive approach to skills development

which must provide opportunities to all members of the community to gain and develop skills for learning, work and life.

The Good Things Foundation highlights in particular the need for digital inclusion. In the UK, 11.3 million people don't have the basic digital skills they need to thrive in today's world. A lack of digital skills and access can have a huge negative impact on a person's life, leading to poorer health outcomes and a lower life expectancy, increased loneliness and social isolation, and less access to jobs and education. It can also mean paying more for essentials, financial exclusion and an increased risk of falling into poverty.

These are key considerations locally, as we expect to see growth in our digital, technology and knowledge based sectors in the future, as well as ensuring our communities have access to services and leisure opportunities that we expect to become more digitised. In Hampshire, districts identified as being at potentially higher risk of digital exclusion are: Basingstoke & Deane; East Hampshire; Rushmoor; Test Valley and Winchester.

(Source: the Tech Partnership 2017 Heatmap: <http://heatmap.thetechpartnership.com/>)

A key challenge for our education and skills system will be to ensure that young people have access to opportunities to develop the wider social skills that will become increasingly important in the future labour market as well as providing the higher level technical skills (science, technology, engineering and maths) to meet the needs of the knowledge intensive sectors of the future.

Equally, we will need to increase participation in lifelong learning (which has declined in recent years) to ensure all members of our community have access to the opportunity to develop skills throughout their lives.

6. Concluding themes and issues

An inclusive future - utilising the talents of all members of our community.

Hampshire is a large and diverse area with a mixed economic and social landscape. Currently there are significant variations in economic performance and skills levels throughout the county.

We need to consider how we can use our influence and work with our partners to ensure that we are closing the gap – in educational attainment; skills levels and economic productivity.

It will be critical to ensure that we are fully utilising the talents of all members of our community as demographic challenges (an ageing population and higher dependency ratio) and political challenges (impact of Brexit) will make it harder for employers to access the skilled workforce they need.

The increasing prevalence of technology will change the way we work and the nature of jobs and skills. There are opportunities we can take now to ensure that people have the digital, technical and 'human' skills they need to thrive in the rapidly changing labour market of the future.

An authentic future – valuing the 'human factor' in a digital world.

As digital technology becomes increasingly prevalent in all aspects of our lives, we need to ensure that we are maintaining a focus on the 'human factor' – through personal relationships, working arrangements, community engagement and leisure activities. We need to recognise there is a risk of individuals and communities becoming isolated and ensure that we are using

technology to combat rather than reinforce this as people are likely to be spending an increasing amount of time 'online'.

However, it is also likely that authentic human skills and qualities such as creativity, originality, empathy and social skills will be in increasing demand in the future labour market. We need to prepare our young people now to ensure they are developing these skills through both their interaction with the education system and their wider socialisation experiences.

A productive future – the value of work and skills.

As traditional employment models change, we need to think of 'work' in a broader sense as contributing to the health and wellbeing of individuals and communities, not just as a way of generating income.

Our workforce will need to become increasingly productive in order to maintain and grow living standards in the future. As boundaries between work and leisure are likely to become more fluid, and ways of organising work and reward change, we will be increasingly reliant on authentic, human skills such as self-motivation, time management and social skills – as well as the ability to utilise technology – in order to achieve this in the future.

Equally, we will need to ensure that we are able to meet the increasing demands of a knowledge intensive and technologically focused labour market. This will mean equipping our young people and adult workforce with higher level technical skills and ensuring that we are meeting and anticipating the skills needs of our local employers and key sectors.