



Local Industrial Strategy Evidence Base

Version for Analytical Panel Submission November 2019

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EXECUTIVE SUMMARY

The EM3 Economy: Diverse, Complex, Successful... but at a crossroads?

The Enterprise M3 region is a £50.1bn economy by GVA, containing 1.5 million people and 770,500 jobs. With GVA per hour worked of £38.60, it is the third most productive LEP area behind only London and Thames Valley Berkshire.

Productivity increased at an annual rate of 2.2% between 2012-17, outpacing the national rate of 2.1%. This growth is especially impressive given that EM3 was spared the worst effects of the global financial crisis, meaning productivity growth has carried on from an already-high starting point.

The economy is diverse, complex and resilient. This makes it more adaptable and capable of diversifying from current strengths. The economy prospers on multiple fronts: through its knowledge-driven businesses operating at the cutting-edge of innovation; and through its service-driven economy which supports the local, mostly-affluent population. It is built on deep foundations of high-skilled workers who are attracted to the area's quality of life, varied job opportunities and good wages. 12% of employment is in Science, Professional and Technical activities (9% in UK) and 7% in Information and Communication (4% in UK). Innovative businesses in sub-sectors like

Space, Digital, Gaming and Telecommunications are drawn here to reap the benefits of the region's knowledge-based economy, skilled labour, proximity to London, and excellence in exporting goods and services. Clean growth and environmental specialisms are embedded throughout the region's sectors and value chains. Clearly, EM3 has the hallmarks of a successful economy.

Yet dig a little deeper and there are some signs of concern. Jobs growth has been stagnant since 2016 with 12,200 net job losses. This is equivalent to an employment shrinkage of -1.6% compared to +2.8% jobs growth in England. This places EM3 2nd lowest in employment growth across LEPs between 2016-19. Many of these jobs have been shed from EM3's most productive and specialised sectors, at a time when those sectors are growing rapidly in other parts of the country. Similarly, the net business birth rate has slowed since 2015, suggesting business caution about the region's economy.

EM3 is preparing its local industrial strategy at an opportune moment to ensure the economy remains on its historically successful path. Key to ensuring future success is making the most of EM3's distinctive offering as a diverse economy where innovation occurs across sectors and

places, supplemented by extra focus on innovation in the sectors where it adds most value to the local – and national - economy.

A powerhouse of R&D and innovation, with plans to unlock even more value

Business investment is the primary source of R&D here (80% of total). EM3's businesses spend 1.8 times more on R&D than businesses in the UK, with notably high-value innovation occurring in priority sectors such as Space, Digital Services and Materials & Manufacturing. Commercialising innovation is a stand-out strength of EM3's businesses. The region attracts an average of £13.5m of Innovate UK funding each year (and £19.1m in 2018/19). Innovate UK funding has supported more than 1,200 projects in the region since 2003/04 – the 4th highest number among LEPs.

More can be (and is being) done to support the innovation ecosystem. The region is working to spur innovative activity further by developing closer ties between businesses and Higher Education institutions. Science and research parks are providing dedicated spaces for innovation to occur and proliferate. Standout clusters, such as Gaming, are receiving targeted support.

EXECUTIVE SUMMARY

A peri-urban polycentric place within London's gravitational pull

EM3 is a region without a single dominant settlement of its own. Instead, it contains a network of towns interspersed between rural areas and green spaces. The largest of these towns by population are Basingstoke, Guildford, Woking, Farnborough and Andover. Of course major cities are nearby, with London to the north east and Southampton - with its strategically vital ports – to the south.

Proximity to London creates opportunities and challenges. Opportunities, because proximity to London's complex economy and substantial infrastructure assets (particularly airports and rail networks) directly benefits EM3; challenges, because (as one example) EM3's residents and even its businesses are drawn to opportunities in the capital, resulting in high churn in the labour market and a large daily outflow of residents (32% of EM3's total employed population) to jobs elsewhere. EM3's residents are high-skilled: one priority is to encourage more of these talented people to live *and* work in EM3.

The population is employed and skilled, but growing older

The employment rate here is 82%, highest among

LEPs and well-clear of the UK employment rate of 75%. Over the past decade the share of working aged residents with an NVQ4 or above increased by 11.5%, exceeding the national increase of 9.9%. EM3 has the lowest share of residents with no qualifications of all LEPs, although many of its young people choose to attend university outside the LEP's boundaries.

EM3's population has been growing at an annual rate of 3% from 2013-18, with all 13 local authorities growing. But the population is also ageing, particularly in rural areas where population growth is driven by older people moving into the area to enjoy retirement. This is a national trend from which EM3 is not exempt, but managing how this demographic shift occurs will matter greatly to the region's future.

Overall, deprivation levels are quite low, although there are pockets of high deprivation to the north of Staines-upon-Thames, north east of Bordon, and around Basingstoke and Andover.

Infrastructure deficits limit EM3's potential

Infrastructure has not kept pace with economic growth. The region is held back by congestion on its major roads (east-west travel can be particularly difficult) and digital infrastructure which cannot keep up with the ambitions of EM3's companies. Strategic rail links require improvement to more

effectively link priority industrial regions together, and to connect the South East (of which EM3 is a central part) with the rest of the country.

EM3 is endowed with abundant natural capital, including green belt, national parks and Areas of Natural Beauty. Protecting the natural environment and responding to climate change are top priorities here, embedded into decision making and throughout sectors. Yet physical space to grow is required — both for housing and commercial purposes. Finite land must be carefully managed.

Strategic thinking will keep EM3 on the right track

EM3 has been historically successful and is well placed to be successful in the future. There is scope for vertical, sector-based interventions to support more collaboration, innovation, and diversification from existing strengths. Crucially, these must be supported by horizontal interventions on skills, housing, infrastructure and the vitality and viability of the region's towns to ensure EM3 remains a great place to live and a productive, dynamic, diverse economy which makes a valuable contribution to the UK's prosperity.

INTRODUCTION

INTRODUCTION

Metro Dynamics has been commissioned by the Enterprise M3 LEP (EM3 or Enterprise M3 in this document) to develop an evidence base to underpin their emerging Local Industrial Strategy (LIS).

This data pack consolidates EM3's existing evidence base, a range of other reports commissioned to feed into the Local Industrial Strategy, technical reports, propositions and strategies, and additional analysis conducted specifically for the evidence base.

It also includes updated GVA analysis (overall GVA and growth, GVA per head and growth, and broad sector productivity) using data for 2018 and reflecting the 2019 changes to the LEP's administrative boundaries. Other data may be quoted for earlier years, based on the latest data available or where we have drawn from existing EM3 source documents.

The analysis has considered EM3 as a whole, but also variation within the LEP area. This involves looking at differences between the 13 local authorities, each of which make distinct contributions to the regional economy.

EM3 is a polycentric place without a single major city within its own boundaries (though it borders London to the north and Southampton to the south), so our analysis looks into the role EM3's network of towns play in driving productivity.

Comparators have been used to provide context for EM3's performance, data permitting. Comparators include the nearby Coast 2 Capital LEP, Buckinghamshire Thames Valley LEP, Thames Valley Berkshire LEP, Solent LEP, and also the South East and United Kingdom as a whole when appropriate. Where possible, temporal data and change over time has been used to contextualise current performance and show trends.

This pack is organised into seven sections. The first two sections give an overarching summary of EM3's economy:

- Economy and productivity analyses overall economic growth and productivity
- **Sectors** provides detailed analysis of EM3's sector specialisms, looking in detail at specialist sub-sectors within the economy.

To closely align with the national Industrial Strategy, the next five sections are structured by the 'five foundations of productivity':

- Ideas covers R&D and innovation, with a focus on innovation assets
- Business environment includes a detailed analysis of the business base covering distribution by sector, spatial distribution, births and deaths, research and development, exports and inward investment
- People provides in depth analysis of the labour market, including demographics, employment patterns, wages, deprivation, skills and migration
- Infrastructure covering digital, transport and energy
- Place presents commuting patterns, population clusters, house prices and affordability, natural capital, land use and towns.

THE EM3 REGION



A globally competitive region, unique for our digital, design and knowledge-based economy.

Innovation and enterprise are the drivers of growth and productivity amongst our high performing, high tech businesses.

Businesses lie at the heart of our ambition to deliver prosperity in our region. This includes keeping up with changing national and international markets and new opportunities for emerging technologies.



- EM3 LEP

EM3 ONE PAGE SUMMARY

Economy and Sectors



£50.1bn GVA



Productivity is 3rd
highest among
LEPs: GVA per
hour = £38.60



2.2% GVA growth over 5 years, above UK average of 2.1%



770,500 jobs



6% employment growth over 5 years, lower than UK growth of 9%



Service exports = £11.5bn

Highest among all LEPS

Specialisms in Hi-Tech, knowledge-based industries



Air and Spacecraft



Gaming



Digital Services incl. Computer programming & consultancy



Telecommunications incl. Wired and Wireless

ldeas

80% R&D spend from businesses

Business R&D spend 1.8x higher than UK average

5th highest LEP for commercialisation performance

High-value innovation in Space, Digital Services, Materials & Manufacturing



79,625 businesses

High scaleup activity, increasing by 4.7% between 2014-17

Foundations of Productivity



People

1,524,800 population

3% population growth from 2013-

Highest employment rate among LEPs at 82%

Lowest share of residents with no qualifications <4%

The population is ageing – 9.8% growth in 65+ age bracket



Infrastructure

Strategic Roads are the M3 and M25 and A3

Strongest broadband connection in the north east closest to London

Strong reduction in fossil fuel reliance with 38% reduction in CO² emissions since 1990



Place

68% of workers live within the area.

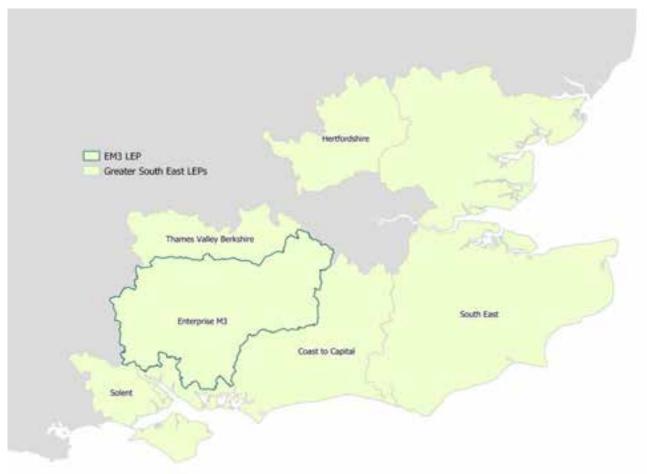
Net labour importer (+20k) with 180,000 workers living outside EM3

487,544 rural population, 31% of total

639,010 housing stock, 4% increase between 2013-18

COLLABORATION ACROSS REGIONAL GEOGRAPHIES: THE GREATER SOUTH EAST

LEPs in the Greater South East (Hertfordshire, South East, Coast to Capital, Solent, Enterprise M3, and Thames Valley Berkshire) have been exploring common opportunities and challenges for their Local Industrial Strategies.



- Greater South East is bigger than all seven Combined Authority areas put together, with:
 - A combined population of over 11 million people substantially bigger than London itself – and a large and generally well-qualified resident workforce
 - Just under half a million businesses and 5.7 million jobs and some outstanding global businesses (many of which are internationally owned) including Microsoft, Bayer, McLaren, and Amex.
 - Economic output that sums to about £300bn currently with clear sectoral specialisms notably in the sphere of digital technologies; life sciences; medical technologies, marine and maritime; and cultural and creative industries and a fast-developing infrastructure to accelerate processes of commercialisation and innovation (e.g. Surrey Technology Park, Southampton Science Park, Stevenage Bioscience Catalyst, Thames Valley Science Park and Discovery Park).
- The region hosts most of the UKs international gateways (ports and airports) and has an international focus growth in the South East is not at the expense of other parts of the UK.
- London needs the Greater South East to function but these strong links with London create major shared issues for the Greater South East – across labour and housing markets; in relation to sector growth dynamics and in terms of land use and other environmental and natural capital constraints.

OPPORTUNITIES FOR COLLABORATION

In the context of the foundations of productivity, the Greater South East LEPs recognise a range of priorities for them to pursue:



Ideas

Work the area's knowledge assets harder through a range of interventions, accelerating processes of commercialisation and encouraging even greater investment in R&D



Business Environment

Make better use of (increasingly scarce) employment land and ensure that provision is better aligned with sectoral growth priorities. The LEPs are proposing an inquiry into employment land provision.

Engage fully in international trade, recognising the competitive advantages stemming from international gateways. The LEPs are proposing a joint approach to the UK's international gateways to ensure that their full economic potential is recognised



People

Equip more people with skills and knowledge in science, technology, engineering and mathematics, in part to ensure that they can navigate multiple career changes



Infrastructure



Place

Deliver substantial numbers

Use digital technologies better, not least to reduce the pressures of congestion.

Ensure that the economic potential linked to major infrastructural investments is harnessed fully, most immediately Crossrail. The LEPs are proposing a common approach with London to future strategies for the main corridors into the capital

of new homes, particularly through new Garden Towns, Villages and Communities which are scattered across the Greater South East. The LEPs are proposing a shared dialogue with Homes England / MHCLG to accelerate the delivery of new Garden Towns/Villages, recognising that these must be nurtured as enterprising communities

ECONOMY AND PRODUCTIVITY

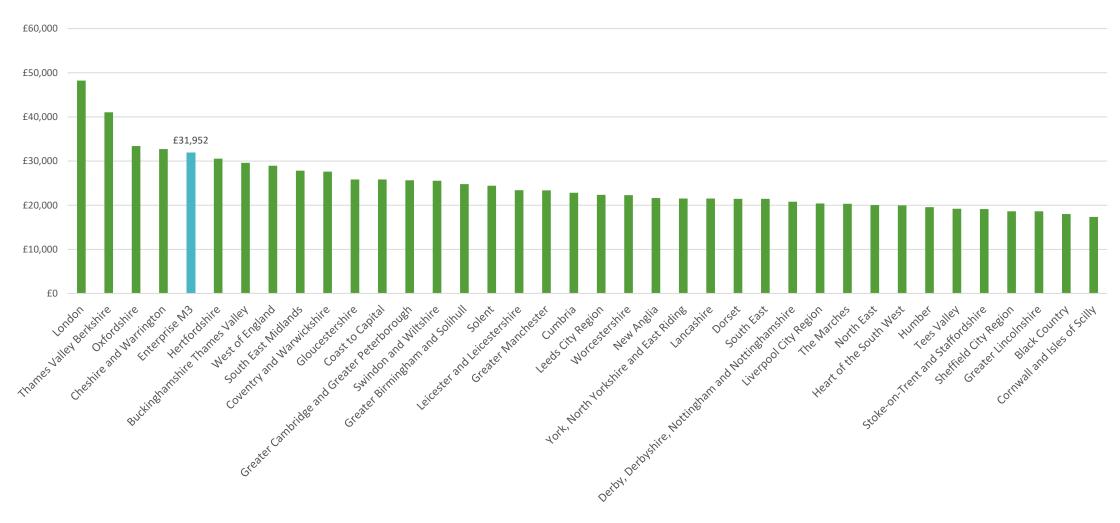
ECONOMY AND PRODUCTIVITY – SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

- EM3 is a £50.1bn economy by GVA.
- EM3's GVA grew by 12.9% from 2012-17. This is higher than C2C's growth of 8.9%, Solent's 5.9%, TV Berk's 6.3% and Bucks TV's 10%.
- EM3 is a highly productive economy ranking 5th highest in terms of GVA per head at £31,952.
- GVA per hour worked was £38.60 in 2017. This is the third highest among LEPs behind London (£44.90) and Thames Valley Berkshire (£41.30).
- The 5-year GVA growth rate from 2012-2017 was 2.20%, the highest among comparator LEPs and beating the national average (2.1%).
- The region contains 770,500 jobs. However, many areas are experiencing employment decline, both in absolute and relative terms.
- 11 of 13 local authorities experienced GVA growth from 2012-17. The highest rates of GVA growth were in Elmbridge (+8.7%) and Rushmoor (+8.2%).
- The total value of EM3's services exports was £11.5bn, highest among LEPs
- Complementing the excellence of its service exports, **EM3** has a clear strength in exporting goods: in 2015 the value of goods exported from the region was £14.6bn. Goods are bound for EU and non-EU destinations.
- The number of FDI projects in EM3 more than doubled from 2013/14 to 2018/19. The spread of FDI projects is diverse in terms of geography and sectors.

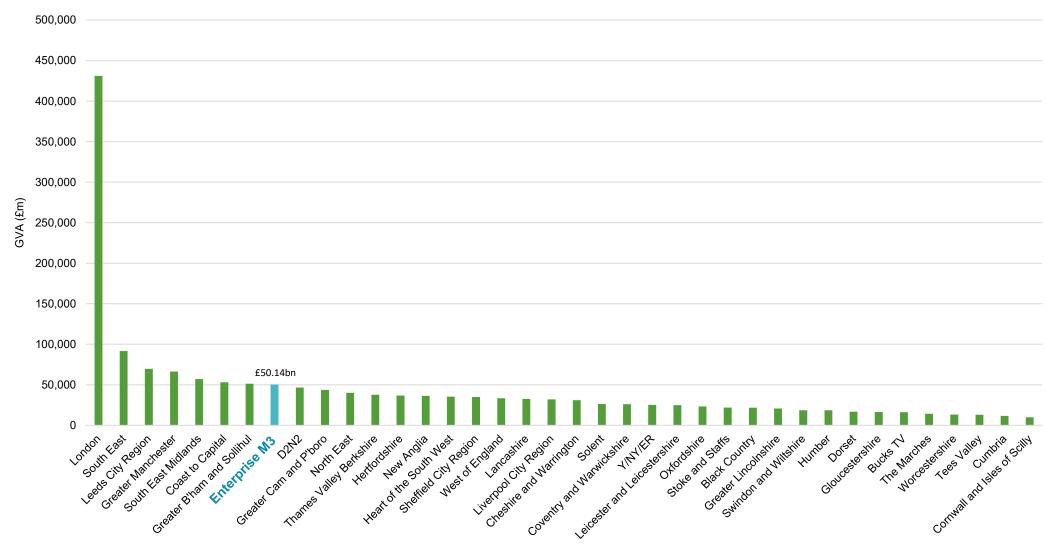
SIZE OF THE ECONOMY

GVA per head of English LEPs (2017)



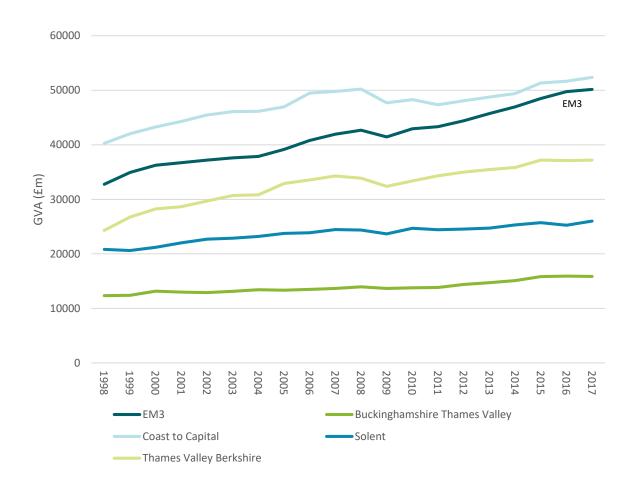
SIZE OF THE ECONOMY

GVA of English LEPs (2017)



GROWTH TRAJECTORY

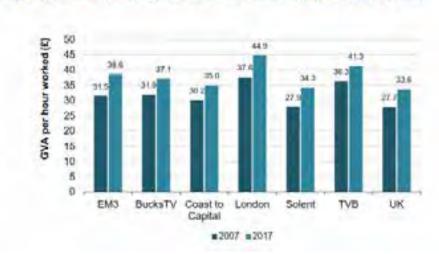
GVA growth 1998-2017



- This graph shows growth trajectories for EM3 and comparator LEPs from 1998-2017.
- GVA has increased for all LEPs since 1998, with EM3 growing the most in that time.
- Data from the past five years of 2012-2017 show that EM3 has grown faster than comparator LEPs and is closing the GVA gap with C2C.
- EM3's GVA grew by 12.9% from 2012-17. This is higher than C2C's growth of 8.9%, Solent's 5.9%, TV Berk's 6.3% and Bucks TV's 10%.
- For EM3, year-on-year growth rates have been:
 - **2012 2017: 2.5%**
 - 2007 2017: 1.8%
 - 1998 2017: 2.4%

GVA PER HOUR WORKED

Figure 2-1: Nominal (smoothed) GVA per hour worked (current prices, 2007 and 2017)



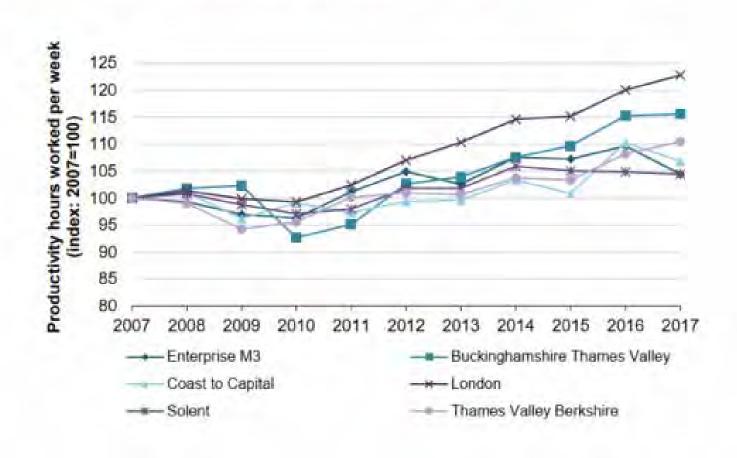
GVA per hour worked and growth rates (2007-17)

	GVA per hour worked (£)			Five-year CAGR		
	2007	2012	2017	2007-12	2012-17	
Enterprise M3	31.5	34.6	38.6	1.90%	2.20%	
Buckinghamshire Thames Valley	31.9	35.7	37.1	2.20%	0.80%	
Coast to Capital	30.2	32.4	35.0	1.40%	1.60%	
London	37.6	40.6	44.9	1.60%	2.00%	
Solent	27.9	30.7	34.3	1.90%	2.20%	
Thames Valley Berkshire	36.3	38.7	41.3	1.30%	1.30%	
UK	27.7	30.3	33.6	1.80%	2.10%	

- The graph above shows GVA per hour worked in 2007 and 2017 in EM3 against comparator LEPs and the national average.
- The table below shows the same information along with the compound annual growth rates (CAGR) for 2 periods 2007-12 and 2012-17.
- GVA per hour worked in EM3 was £38.60 in 2017. This is the third highest among LEPs behind London (£44.90/hour) and Thames Valley Berkshire (£41.30/hour) but well ahead of the national average (£33.60).
- The 5-year growth rate from 2012-2017 was 2.20%, the highest among comparator LEPs and beating the national average.

PRODUCTIVITY TRENDS 2007-2017

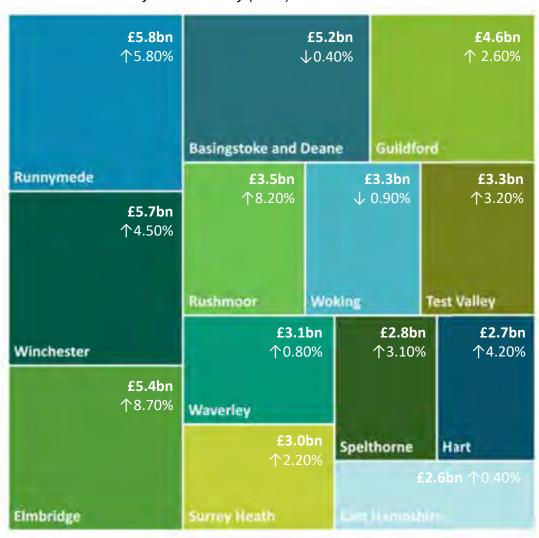
Figure 2-3: Productivity hours worked per week (index: 2007=100)



- This graph shows productivity in hours worked per week as an index measured with 2007 as the base year.
- It shows that EM3's productivity increased by 5% over the time period, which is similar to Solent LEP and C2C but well below the productivity growth experienced in London and the Thames Valley LEPs.

GVA BY LOCAL AUTHORITY

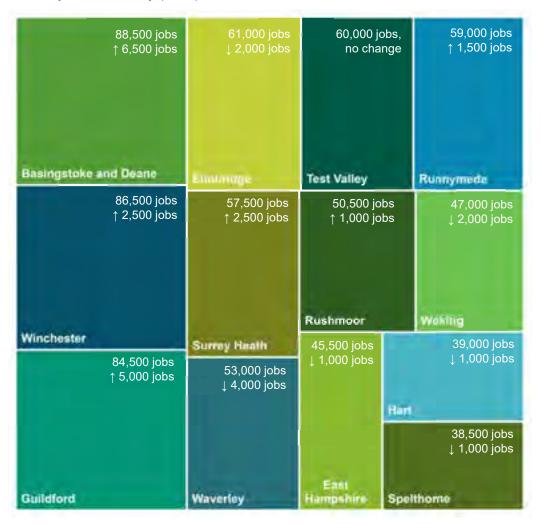
GVA contribution by local authority (2017)



- This chart shows the contribution of each local authority to EM3's total GVA (in 2017). It also shows the GVA growth rate from 2012-2017 for each of the 13 local authorities.
- Four local authorities contributed nearly half of total GVA: Runnymede (£5.8bn), Winchester (£5.7bn), Elmbridge (£5.4bn) and Basingstoke and Deane (£5.2bn).
- With the exception of Basingstoke and Deane and Woking which both experienced a marginal decrease in GVA, falling by 0.4% and 0.8% respectively, 11 of 13 local authorities experienced GVA growth from 2012-17.
- The highest rates of GVA growth were in Elmbridge (+8.7% growth) and Rushmoor (+8.2% growth). The next highest GVA growth were in Runnymede (+5.8% growth) and Winchester (+4.5% growth).

JOBS BY LOCAL AUTHORITY

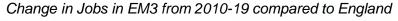
Jobs by local authority (2018)

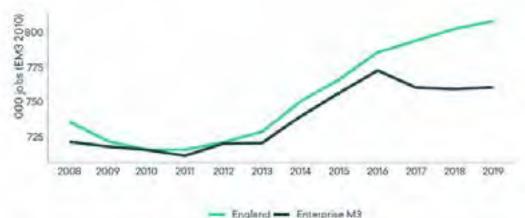


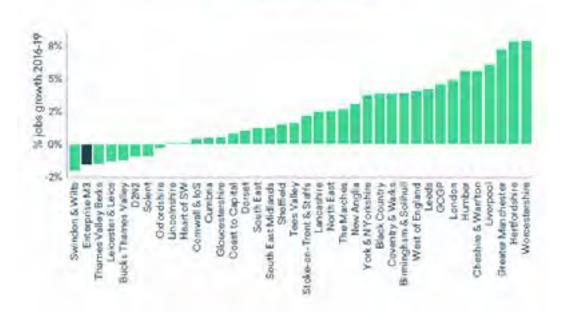
- This chart shows the number of jobs in each EM3 local authority for 2018 and the change in jobs from 2015 to 2018.
- 2015 has been chosen due to a methodology change in data collection that occurred in this year, meaning these are the most up-to-date numbers available as of November 2019.
- There were a total of 770,500 jobs among the 13 local authorities. These figures do not include those who are self-employed below the VAT threshold or are not enrolled in PAYE schemes.
- The total number of jobs increased by 1% from 2015-18, equivalent to 8,000 new jobs over 3 years.
- Basingstoke and Deane, Guildford and Winchester account for over one third of total employment in EM3, equivalent to 259,500 jobs.
- Runnymede is an especially productive area, given that it is the largest in terms of GVA but 9th largest in terms of jobs count. This suggests that the jobs within Runnymede are in productive, high value sectors.
- Between 2015-18, among EM3's 13 local authorities:
 - 6 local authorities experienced jobs growth. Basingstoke and Deane experienced the highest employment increase in both absolute and percentage terms, growing by 8% or 6,500 jobs.
 - 1 local authority, Test Valley, experienced no change in jobs
 - 6 local authorities experienced jobs decline. Waverley had the largest jobs decrease in absolute and percentage terms, shrinking by 4,000 jobs and 7%. East Hampshire, Elmbridge, Hart, Spelthorne, and Woking all experienced jobs shrinkage of 1,000-2,000 jobs, equivalent to 2%-3% of their labour market.

19

RECENT JOBS DECLINE RELATIVE TO THE UK



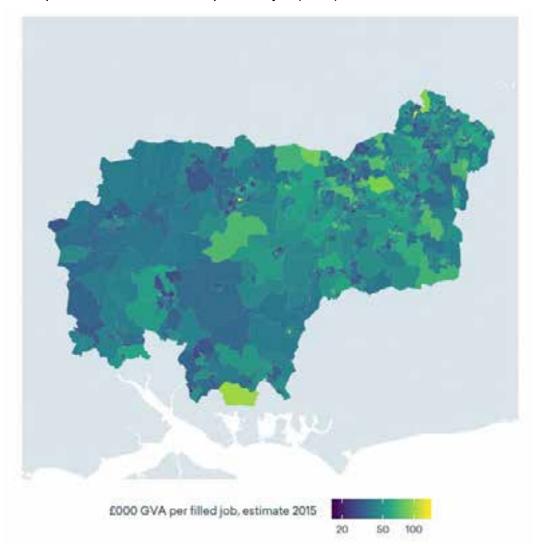




- The two charts to the left are taken from EMSI's labour market analysis for EM3's Skills Talent Advisory Group.
- The top chart shows the number of jobs in EM3 compared to the England average between 2008-19.
- The bottom chart shows the jobs growth in EM3 from 2016-19 compared against all LEPs in England.
- In 2019, EM3 is the 11th largest labour market and has **the highest employment rate** (82%) among all LEPs. The national employment rate is 75%.
- However, jobs growth has been stagnant since 2016 with 12,200 net job losses. This is equivalent to an employment shrinkage of -1.6% compared to a +2.8% jobs growth in England. This places EM3 at the 2nd lowest in employment growth across LEPs Between 2016-19 indicated by the bottom chart.
- **Between 2010-19 EM3 had the 10th lowest jobs growth among LEPs.** Employment grew by 6.3% since 2010, less than half the England average growth of 12.9% after the recession.

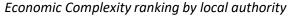
SPATIAL DISTRIBUTION OF GVA PER FILLED JOB

Spatial Distribution of GVA per filled job (2015)



- The map to the left is taken from EMSI's labour market analysis for EM3's Skills and Talent Advisory Group. It maps an estimate of GVA per filed job at the LSOA level based on an area's industry mix and productivity at the Local Authority level.
- A distinctive feature in EM3's economy is that high productivity is spatially concentrated in small areas, although across the region the average level of productivity is high.
- In contrast to some other rural parts of the country, **EM3's rural areas tend to have high productivity**. Larger urban centres tend to have a lower GVA per job. This is possibly due to their more mixed pattern of production and residential housing.
- The high GVA per job in small areas suggests that single employers/workplaces have a significant influence on productivity.
- The most productive area in 2015 was Basingstoke. Egham and Southwick have the 2nd and 4th highest productivity respectively. Both have a cluster of science and engineering R&D activity. Runnymede has the 3rd highest productivity supported by a mix of Gas Utility Trading, Computer Consulting, and Head Offices activity.

ECONOMIC COMPLEXITY





An Introduction to Economic Complexity

The Economic Complexity Index (ECI) measures how complex a local authority is relative to other local authorities. To calculate it, we first ask, for each place, how many specialisms it has. A specialism is defined as an industry with a Location Quotient (LQ) of greater than 1. We then ask: how specialist are these activities? This is achieved by an iterative process that determines the number of local authorities performing such activities.

This may be misleading as not all specialisms which are held by a few places are high-value. We again ask the diversity question – how many of these places have diverse industries? Assuming that economies with more knowledge will generally be able to perform more activities, the more diverse the industry mix, the more knowledge is contained within an economy and the more complex it is.

Economic Complexity – Enterprise M3

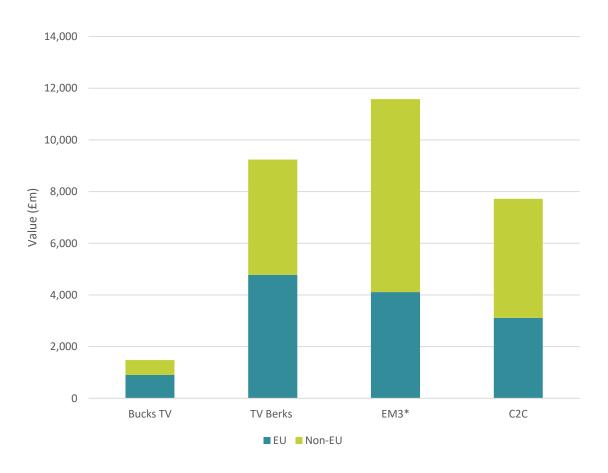
Enterprise M3 is the sixth most complex LEP and has the fifth highest GVA per head (measured against the previous LEP boundary). Complexity is high by national standards – this is a function of EM3's high skills base, industry composition, and proximity to London's complex economy.

Excluding the majority of core cities, the more complex economies are located close to London or contiguous to such economies. London's influence can be seen even within EM3's boundaries – areas closer to the capital (in the east) are more complex than areas in the west. Runnymede and Guildford are the 26th and 38th most complex local authorities in the UK, respectively. Both contain towns with direct rail links to London. Conversely, Winchester and Andover are further away from London and have less complex economies (86th and 193rd most complex). Southampton is nearby, however, which will add to the economic complexity of both places.

Complexity also depends on other characteristics such as skill levels and the attractiveness of a location – being close to London is not everything. Elmbridge and Spelthorne are closer to London but have a lower complexity rank than Runnymede, Woking and Guildford, for example.

EXPORTS - SERVICES

Service exports by destination (2017)



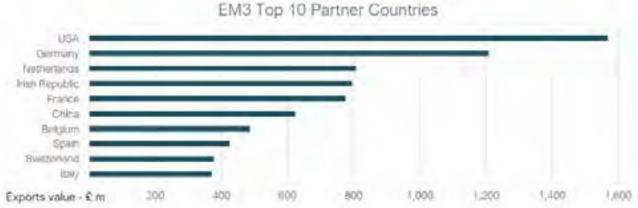
- This chart shows the total value of EM3's and comparator LEPs' service exports in 2017, split by destination. Please note this definition is based at the NUTS 3* level of geography and includes New Forrest.
- The data highlights EM3's excellence in service exports.
- The total value of EM3's services exports was £11.5bn, highest among LEPs, and equivalent to one third of the service exports generated in the Camden and City of London NUTS 3 area, which is the UK's dominant source of service exports and economic activity.
- To illustrate the significance of EM3's service exports, the average value of service exports from NUTS 3 areas (excluding London) is £1.1bn. EM3 contains three NUTS 3 areas, which between them average £3.85bn of service exports.
- EU-bound service exports account for 36% of EM3's total value compared to 40% for C2C, and in excess of 50% for the two Thames Valley LEPs.
- Although a sectoral breakdown of EM3's service exports is not available at the NUTS 3 level, a wider analysis at the NUTS 2 level shows that the Surrey, East and West Sussex and Hampshire and Isle of Wight area has a high level of services exports in transport and storage, information and communication, financial services and business-based professional services.

^{*}There are 168 NUTS 3 level areas in Great Britain. EM3 includes New Forrest at the NUTS 3 level Source: Metro Dynamics analysis of subnational service exports 2017

EXPORTS - GOODS

Value of goods exports for EM3 and comparator LEPs, 2015





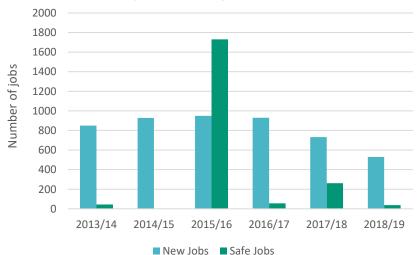
- The charts to the left are from the evidence prepared to support EM3's Strategic Economic Plan. They show the value of goods exports for EM3 and comparator LEPs in 2015.
- Complementing the excellence of its service exports, EM3 has a clear strength in exporting goods: in 2015 the value of goods exported from the region was £14.6bn. This is twice the value of exports from Cheshire and Warrington, which is recognised as a successful manufacturing-focused, export-driven region.
- Taking into account the number of jobs in the LEPs, EM3's goods exports still stand out. At £19,605 per job, EM3 is exporting more goods on a per-job basis than comparator LEPs Cheshire and Warrington (£15.7k per job), TVB (£14.kk per job) and Coast to Capital (£7.9k per job).
- In 2015 a high share of EM3's goods exports were bound for non-EU destinations (59%): primarily the USA, which accounted for more than 10% of total goods exports by value. That being said, EU destinations still accounted for 41% of EM3's exports in 2015.
- Updated data (for EM3 only) for 2017 shows total goods exports from EM3 of £14.56bn. Of this, £7.47bn was bound for EU destinations (51.3% of total) while £7.09bn (48.7%) went to non-EU destinations. The methodology for capturing estimates of export values for subnational areas changed between 2015 and 2017 so these datasets should not be compared directly. That is to say the updated figures do not imply with any certainty that the value of EM3's goods exports have decreased. One point worth noting, however, is the substantial increase in the proportion of EM3's exported goods which are bound for EU destinations.

INWARD INVESTMENT

Number of Inward Investment projects occurring in EM3 (2013-19)



Jobs created / safeguarded through Inward Investment (2013-19)



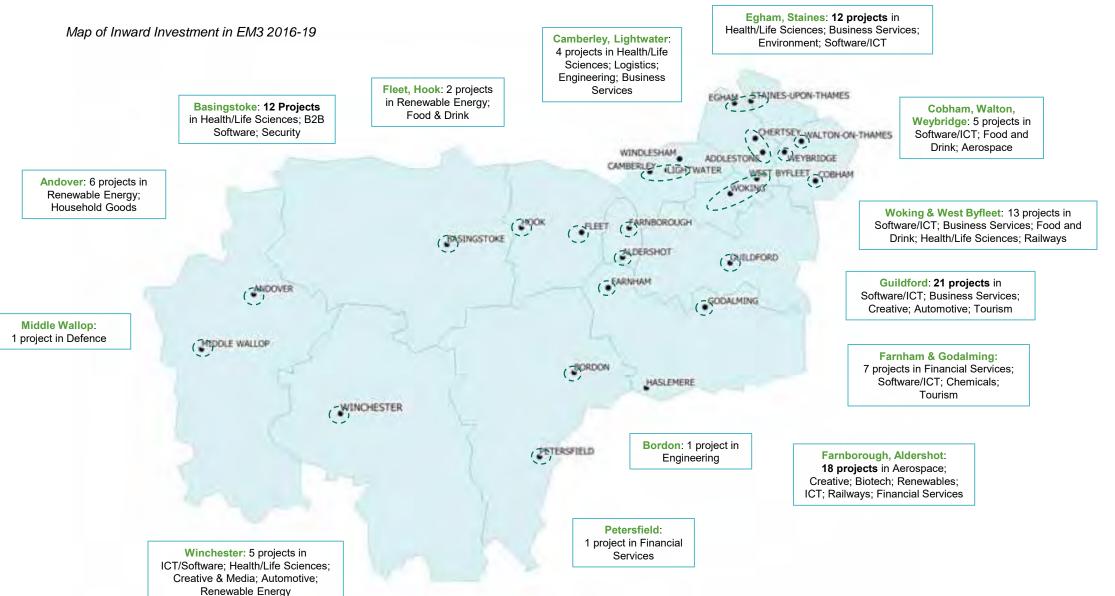
- The top chart shows the number of inward investment projects in EM3 from 2013/14 to 2018/19. 'Involved' / 'non-involved' refers to DIT involvement in the project.
- The number of FDI projects in EM3 more than doubled from 2013/14 to 2018/19.
- The bottom chart shows the number of new jobs created in blue and the number of jobs safeguarded in green. From 2013-2017, inward investment created between 750 - 1,000 jobs each year. This decreased to approximately 530 jobs in 2018/19.

Separate analysis shows that:

- By countries: the **USA** is the largest investor in the LEP area (17 projects / 36%) followed by France, the Netherlands and India (all with 3 projects).
- By sectors: companies in software and computer services made the most investments (10) followed by life sciences (5) and then aerospace (4).
- By project location: Guildford, Basingstoke and Farnborough account for 60% of all inward investments.

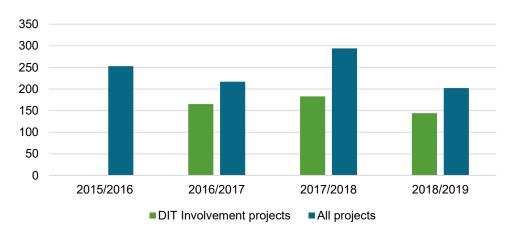
Source: DIT analysis provided to EM3

INWARD INVESTMENT MAP

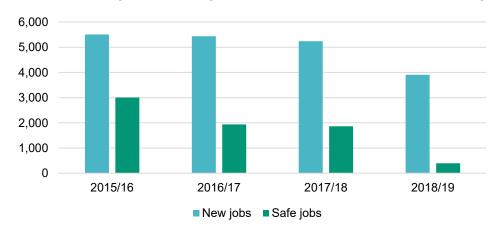


INWARD INVESTMENT REGIONAL COMPARISON

Number of inward investment projects occurring in the South East region (2015 - 2019)



Jobs created / safeguarded through inward investment in the South East region (2015 - 2019)



Note: The most publicly available data from the DIT has been used for this analysis. DIT involvement projects data was not collected for 2015/2016.

The two charts to the left show the number of inward investment projects and jobs created/safeguarded through inward investment between 2015-2019 in the South East region.

In 2018/2019, there were **223 projects** in the South East region (including multi area projects). Enterprise M3 represents **21.1%** of the total share of projects found in the region. In 2018/2019, the region had a higher share of its projects with DIT involvement at **71.3%** compared to the EM3 share of **58.3%**

The chart below shows that **3,905 jobs** were created through inward investment in the South East region in 2018/19. The number of new jobs created in EM3 through inward investment was **530**, accounting for **13.6%** of the region's total.

SECTORS

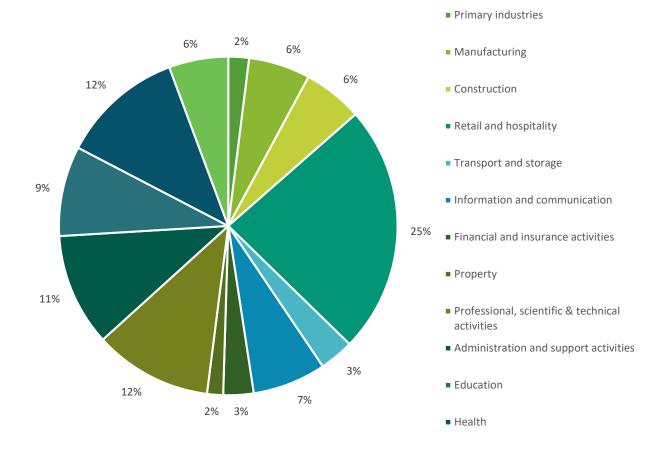
SECTORS – SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

- EM3 contains a greater proportion of high-skilled jobs than the national average.
 - 12% and 7% of employment is within Professional, Scientific & Technical activities and Information & Communications compared to 9% and 4% nationally.
- There has been **positive employment growth since 2013** (+47,000 jobs / +6.5%), but growth has not kept pace with the national average (+9.2%).
- Science and industry feature strongly in EM3's specialist sub-sectors. Six of EM3's top 10 specialist sectors fall within the Hi-Tech industry and three within the Production Sector.
 - Scientific R&D, computer programming & consultancy and the manufacture and installation of machinery are the most specialised sub sectors.
- EM3 is becoming more specialised in: Repair and installation of machinery and equipment; Manufacture of paper and paper products; and Forestry and logging.
- EM3 is becoming relatively **less specialised** in: Computer programming, consultancy and related activities; Activities of membership organisations; and Scientific research and development (though in all of these things EM3 remains more specialised than the national average).
- Business concentration analysis identifies niche strengths in Space (aircraft and spacecraft), the strength in Gaming, Digital (computer programming and computer consultancy) and Telecommunications (wired and wireless telecommunication activities and the manufacture of fibre optic cables).

EMPLOYMENT BY SECTOR

Employment by broad sector (2018)



EM3 contains a greater proportion of high-skilled jobs than the national average.

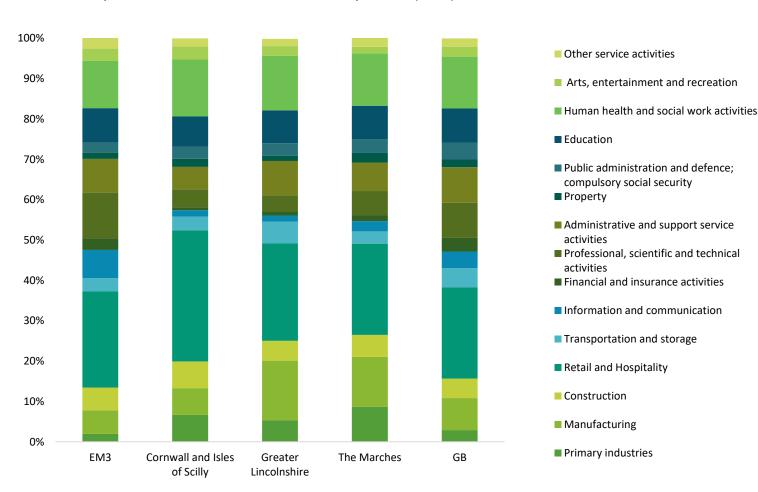
12% and 7% of employment is within **Professional, Scientific & Technical** activities and **Information & Communications** compared to 9% and 4% nationally. Other high-skilled professions reflect proportional employment levels similar to the national average: Education, Health and Financial professions.

Retail employment is high across the country, and the story is no different within EM3. Employment in Retail & Hospitality represents 25% of the LEP-wide employment, providing jobs to an estimated 182,000 individuals. Deeper analysis shows that the LEP specialises in the **food service and public houses and bars** sectors. Given its proximity to London and the south coast, the local authorities comprising EM3 provide a strong evening economy offer.

The proportion of those employed in production is lower than the national average. **Primary Industries** and **Manufacturing** comprise of only 2% and 6% of employment in EM3 respectively; nationally they comprise of 3% and 8%. While the sector-wide employment is low, the LEP does hold a number of specialisations in the Primary Industries.

SECTOR COMPOSITION COMPARISON

Sector Composition in EM3, LEP and national comparators (2018)



Note: the definition of financial, business and professional services in the text, includes the industries; financial and insurance activities, professional, scientific and technical activities and administrative and support service activities.

This chart shows the sector composition of EM3 against the LEP comparators of Cornwall and Isles of Scilly, Greater Lincolnshire and the Marches. GB is also included as a comparator. The intention is to highlight the diverse nature of EM3's sector composition relative to other parts of the country where sectors tend to be more concentrated.

EM3 has higher proportions of its employment base within high skilled industries. For instance, EM3 has a higher share of its workforce within information and communication (7%) compared to Cornwall and the Isles of Scilly (2%), Greater Lincolnshire (2%), the Marches (3%) and the GB average (4%).

EM3 has just under a quarter of its employment base within finance, business and professional services. This is notably larger than the other LEP comparators that have proportions below 15% and the GB average of 21%.

EM3 has a **lower share** of it's employment base within **lower skilled industries**. EM3 has **2**% of its jobs within primary industries compared to Cornwall and the Isles of Scilly **(7%)**, Greater Lincolnshire **(5%)**, the Marches **(9%)** and GB **(3%)**.

CHANGE IN COMPOSITION FROM 2013

Change in broad sector employment (2013-2018)

Industry	Employment 2013	Employment 2018	Employment Change	% Change EM3	% Change GB
Professional, scientific & technical activities	75,750	86,500	10,750	14.2%	18.9%
Health	79,000	89,750	10,750	13.6%	6.1%
Retail and hospitality	173,425	182,325	8,900	5.1%	8.0%
Construction	37,625	43,625	6,000	15.9%	15.8%
Transport and storage	21,175	25,175	4,000	18.9%	17.5%
Manufacturing	42,250	45,125	2,875	6.8%	4.2%
Education	64,500	66,000	1,500	2.3%	2.7%
Administration and support activities	81,475	82,625	1,150	1.4%	11.1%
Property	10,850	11,750	900	8.3%	10.4%
Arts, entertainment, recreation & other services	42,750	43,500	750	1.8%	8.6%
Primary industries	14,490	15,200	710	4.9%	11.4%
Financial and insurance activities	22,150	22,200	50	0.2%	0.9%
Information and communication	56,750	53,875	-2,875	-5.1%	15.3%
Total	723,500	770,500	47,000	6.5%	9.2%

The picture across EM3 is one of employment growth, but employment growth at a rate below the national average.

The **Professional**, **Scientific and Technical** sector has the largest growth in absolute terms. This is a sign of business confidence that EM3 can deliver the conditions and skills necessary for high-value growth, although employment growth is below the national average for the industry.

The **Transport & Storage** sector has seen the largest growth in employment over the last five years as a proportion of total employment. That is to say: Transport & Storage has become a proportionally more significant part of EM3's total employment.

In many high-skilled industries, activities are high-value and high productivity, driving local growth and masking declines in employment in some other high-value sectors. Employment in Information & Communications and Financial & Insurance has declined across EM3, but has grown nationally. The growth in employment in Education has been positive, but lagging behind the national average.

Employment in the **Health** sector is high and growing at more than double the rate nationally, observing employment growth in excess of 10,000. Such a large growth in employment is positive in a sector that struggles to recruit and retain staff. The LEP specialises in general and specialist medical practice activities, as well as in residential nursing and social work activities.

TOP 10 SPECIALIST SUB-SECTORS

Most specialised SIC2 sectors (2018)

Sector	Sub-sector	LQ	Employment Change	Employment (2013-18)
Professional, scientific and technical activities	Scientific research and development	2.27	1,190	17.7%
Information and communication	Computer programming, consultancy and related activities	2.23	2,375	6.2%
Manufacturing	Repair and installation of machinery and equipment	2.02	2,410	65.3%
Manufacturing	Manufacture of computer, electronic and optical products	1.80	-815	-13.8%
Professional, scientific and technical activities	Activities of head offices; management consultancy activities	1.57	6,050	23.7%
Professional, scientific and technical activities	Veterinary activities	1.53	920	54.1%
Arts, entertainment and recreation	Sports activities and amusement and recreation activities	1.49	1,250	7.8%
Agriculture, Forestry and Fishing	Forestry and logging	1.48	175	43.8%
Information and communication	Telecommunications	1.43	-3,065	-30.4%
Professional, scientific and technical activities	Architectural and engineering activities; technical testing and analysis	1.40	1,025	5.6%

This table shows the sectors that EM3 specialises in by using Location Quotients (LQs). LQs show the proportion of the workforce employed in a sub-sector – in this case, in EM3 – compared to Great Britain. For example, in scientific research and development, the proportion of employees working in this sector in EM3 is 2.27 times as large as in Great Britain.

Science and industry feature strongly in EM3's specialist sub-sectors. Six of the specialist sectors fall within the Hi-Tech industry (Information and Communications and Professional, Technical and Scientific), and three within the Production Sector.

The majority of these professions require specific training and a specific set of skills, adding to the complexity of the activities. The two largest employing specialist sectors fall within the HiTech industry, but they're not necessarily the most specialist – nor have they grown considerably over time. In fact, four of the six Hi-Tech sectors have become less specialist since 2013.

Of the top four specialist sub-sectors (at the top of the left-hand table), two are within the Production Sector in **Manufacturing**. The repair and installation of machinery and equipment has grown relatively more specialised compared to other sub-sectors since 2013 (see the following slide). Furthermore, the growth in employment has outpaced many others.

10 FASTEST GROWING SUB-SECTORS

The ten fastest growing SIC2 sectors by LQ growth (2018)

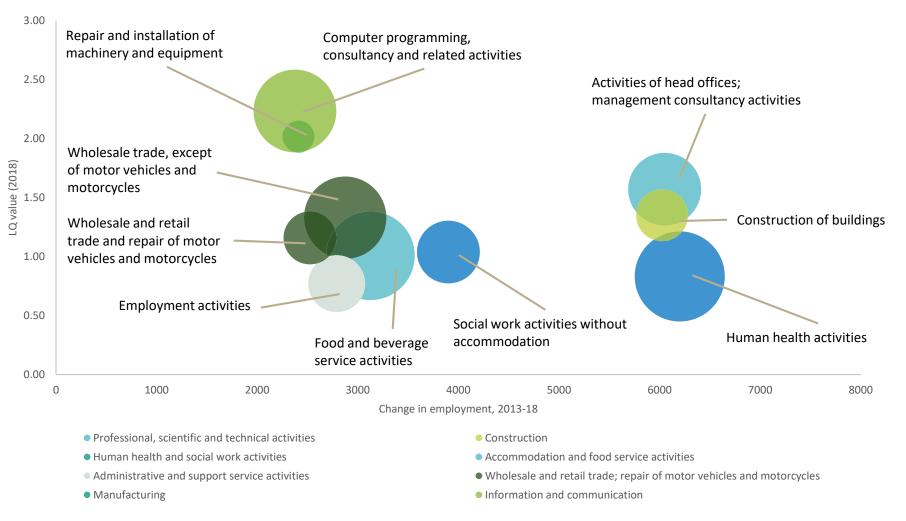
Sector	Sub-sector	LQ 2018	LQ Growth	Employment 2018
Manufacturing	Repair and installation of machinery and equipment	2.02	0.76	6,100
Manufacturing	Manufacture of paper and paper products	0.60	0.37	860
Agriculture, Forestry and Fishing	Forestry and logging	1.48	0.33	575
Manufacturing	Manufacture of motor vehicles, trailers and semi-trailers	0.84	0.31	3,490
Construction	Construction of buildings	1.35	0.29	15,925
Professional, scientific and technical activities	Veterinary activities	1.53	0.25	2,620
Professional, scientific and technical activities	Other professional, scientific and technical activities	1.18	0.20	6,425
Manufacturing	Manufacture of other non- metallic mineral products	0.52	0.20	1,110
Human health and social work activities	Social work activities without accommodation	1.04	0.20	23,375
Transportation and storage	Postal and courier activities	0.82	0.18	5,005

The ten fastest growing SIC2 sectors by employment growth (2013 - 2018)

Sector	Sub-sector	LQ 2018	Employment 2018	Employment Growth
Human health and social work activities	Human health activities	0.83	48,125	6,200
Professional, scientific and technical activities	Activities of head offices; management consultancy activities	1.57	31,525	6,050
Construction	Construction of buildings	1.35	15,925	6,025
Human health and social work activities	Social work activities without accommodation	1.04	23,375	3,900
Accommodation and food service activities	Food and beverage service activities	1.01	46,625	3,125
Wholesale and retail trade; repair of motor vehicles and motorcycles	Wholesale trade, except of motor vehicles and motorcycles	1.33	40,250	2,875
Administrative and support service activities	Employment activities	0.77	19,100	2,790
Wholesale and retail trade; repair of motor vehicles and motorcycles	Wholesale and retail trade and repair of motor vehicles and motorcycles	1.16	16,575	2,525
Manufacturing	Repair and installation of machinery and equipment	2.02	6,100	2,410
Information and communication	Computer programming, consultancy and related activities	2.23	40,500	2,375

FASTEST GROWING SECTORS

The fastest growing SIC2 sub-sectors by Employment growth (2013-18)



This graph shows the change in absolute employment between 2013 and 2018 along the x-axis, the 2018 LQ value along the y-axis, and the relative size of employment in the sub-sector (as the size of the bubble). Those sub-sectors with high LQs are highly specialised (have considerably higher employment than the national average).

The activities of head offices; management and consultancy services sector demonstrates a high level of specialisation and employment has grown significantly – reflected in its location far right.

EMPLOYMENT OF FIRST DEGREE GRADUATES BY SECTOR

Employment of first degree graduates



^{*}Information relates to the old EM3 boundary – including the New Forest and isolating areas of Test Valley, Winchester an East Hampshire

Just shy of a quarter of first degree graduates enter into employment in the Professional, Scientific & Technical sector – one of Enterprise M3s most specialist and fastest growing sectors. It is also one of the most high-value, highly innovative sectors within the LEP. Enterprise M3 appears to have little trouble recruiting to this industry, reflecting its strength and performance. Health & Social Work and Education are the next two largest graduate employing sectors. These are similarly high-skilled areas. Social work activities (without accommodation) is one of the fastest growing specialities in the LEP by employment, growing by 3,900 since 2013.

BUSINESS AND EMPLOYMENT CONCENTRATION

- Given that over 90% of businesses in EM3 are microbusinesses and that the
 economy specialises in more high-tech and niche sectors such as Space and
 Gaming, it is helpful to supplement LQ analysis at the SIC4 level with an analysis
 of business concentration (see table on next page).
- Experian MarketIQ has been supplemented with official UK Business Count data for the gaming sector only to capture companies that are not on the Interdepartmental Business Register (IDBR). Please note that Experian MarketIQ and IDBR data is self-reported and non-exhaustive. It is intended to provide a snapshot of how the share of companies in specialist sectors within EM3 compare to the UK, rather than a definitive value.
- The table overleaf shows the employment figures and business count alongside LQs and business concentration ratio for EM3, compared to the UK average. The rows in light green shows the total employment and company count for the whole sector. Sub-specialisms of note are included in the white rows.
- With the exception of Gaming, strategic sectors such as Aerospace/Defence/Space; Digital; Telecommunications have seen stagnant or even decreases in jobs count across SIC4 sub-sectors.
- More encouragingly, some subsectors maintain a high LQ despite job losses indicating that EM3 maintains a specialism but that additional interventions may be needed to secure these specialism into the future.
- In the Aerospace/Space/Defence sector there has been a 10% decrease in jobs between 2013-18. Some specialised sub-sectors are the Repair and Maintenance of Aircraft and Spacecraft (SIC 3316) which has seen a 23% increase in employment accounting for 1,230 workers. Its LQ of 2.40 indicates it twice as specialised as the UK average

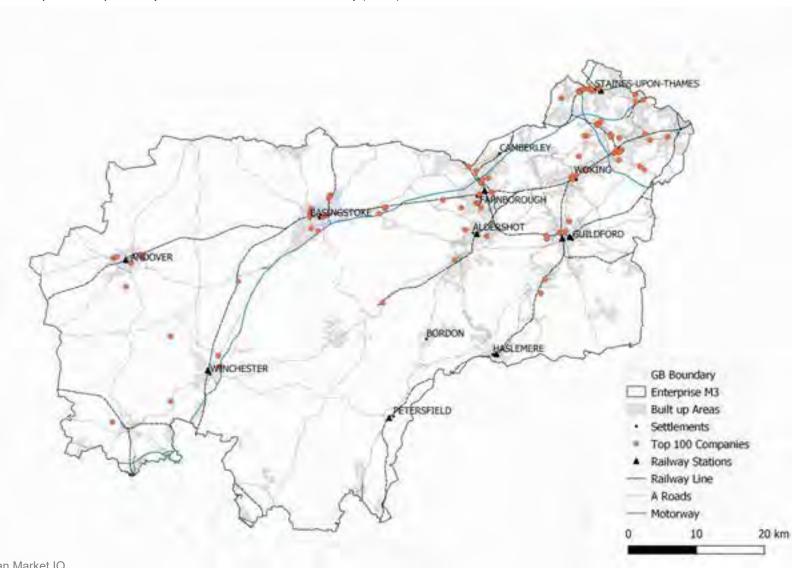
- Due to confidentiality issues with Business Count data, the number of Defence Activities (SIC 8422) companies has been rounded to 0. In reality, there are likely between 1-5 companies engaged in Defence Activities (SIC 8422) within EM3 boundaries. This sector employs 2,835 workers and has an LQ of 2.27.
- In the Digital Sector, there has been an 1% overall increase in the number of jobs. There are 9,160 digital companies in EM3 employing 47,630 workers, this concentration of companies and jobs is twice the UK average. However, many sub-sectors that have experienced job losses, which account for the overall subdued employment growth between 2013-18.
- Telecommunications employment decreased by 29% between 2013-18. Overall, the sector is 1.5x as specialised as GB, with particular strengths in wholesale of electronic and communication equipment and, more substantially, the manufacturing of fibre optic cables. All telecommunications sub-sectors have experienced decreases in employment with the exception of manufacture of fibre optic cables
- Gaming emerges as a strong sector in terms of companies and jobs concentration. It is the only sector showing strong employment growth between 2013-18. This uses Experian data and highlights the publishing of computer games as almost 5 times as specialised as GB. However, SIC code classification in gaming is inconsistent and these figures should be viewed with caution.

SIC4 LQs and Companies Concentration Analysis

Sector/Sub-sector	Companies Count (2019)	Jobs Count (2018)	Jobs change (2013-18)	Business Concentration (2018)	LQ employment (2018)
Aerospace/Space/Defence	120	5,510	-600	1.62	1.23
2540 : Manufacture of weapons and ammunition	5	35	-165	1.90	0.11
3030 : Manufacture of air and spacecraft and related machinery	40	1,260	-490	1.95	0.61
3040 : Manufacture of military fighting vehicles	0	110	10	0.00	1.60
3316 : Repair and maintenance of aircraft and spacecraft	70	1,230	230	1.52	2.40
6130 : Satellite telecommunications activities	5	40	-20	1.29	0.15
8422 : Defence activities	0	2,835	-165	0.00	2.27
Digital	9,160	47,630	415	1.93	2.05
2611 : Manufacture of electronic components	25	110	-215	1.74	0.31
2612 : Manufacture of loaded electronic boards	15	260	-690	1.97	1.30
2620 : Manufacture of computers and peripheral equipment	30	395	145	1.49	2.26
2640 : Manufacture of consumer electronics	25	70	-90	1.98	0.70
4651 : Wholesale of computers, computer peripheral equipment and software	105	2,830	830	2.04	2.83
5829 : Other software publishing	100	485	135	1.70	1.62
6201 : Computer programming activities	1,480	11,110	610	1.77	2.34
6202 : Computer consultancy activities	5,955	24,000	2,000	2.08	2.42
6203 : Computer facilities management activities	30	45	-65	1.43	0.65
6209 : Other information technology and computer service activities	870	5,580	-420	1.82	1.63
6311 : Data processing, hosting and related activities	110	970	-1,280	1.38	0.89
6312 : Web portals	65	140	-30	1.87	0.40
6399 : Other information service activities n.e.c.	130	205	-220	1.44	0.63
8020 : Security systems service activities	75	390	210	1.20	1.04
9511 : Repair of computers and peripheral equipment	120	890	-485	1.07	1.19
9521 : Repair of consumer electronics	25	150	-20	1.54	2.00
Gaming	179	1,100	195	7.19	6.28
3240 : Manufacture of games and toys	20	15	0	1.18	0.13
5821 : Publishing of computer games	15	85	-5	1.87	1.5
62011 Ready-made interactive leisure and entertainment software development	144	1,000	200	3.56	3.08
Telecoms	630	10,890	-4,475	1.64	1.55
2630 : Manufacture of communication equipment	50	490	-635	1.67	1.40
2731 : Manufacture of fibre optic cables	5	110	60	5.71	3.52
2732 : Manufacture of other electronic and electric wires and cables	5	55	-45	0.89	0.31
2733 : Manufacture of wiring devices	0	0	-75	0.00	0.00
4652 : Wholesale of electronic and telecommunications equipment and parts	150	2,760	-490	2.03	2.94
4742 : Retail sale of telecommunications equipment in specialised stores	10	305	-120	0.31	0.53
4743 : Retail sale of audio and video equipment in specialised stores	30	45	-95	1.78	0.51
6110 : Wired telecommunications activities	85	315	-435	1.99	1.33
6120 : Wireless telecommunications activities	80	605	-145	2.10	0.90
6190 : Other telecommunications activities	195	6,110	-2,390	1.55	1.64
9512 : Repair of communication equipment	20	95	-105	1.19	0.63

TOP 100 COMPANIES

The top 100 companies by revenue within the LEP boundary (2018)



This map shows the registered address location of EM3's largest 100 companies by revenue.

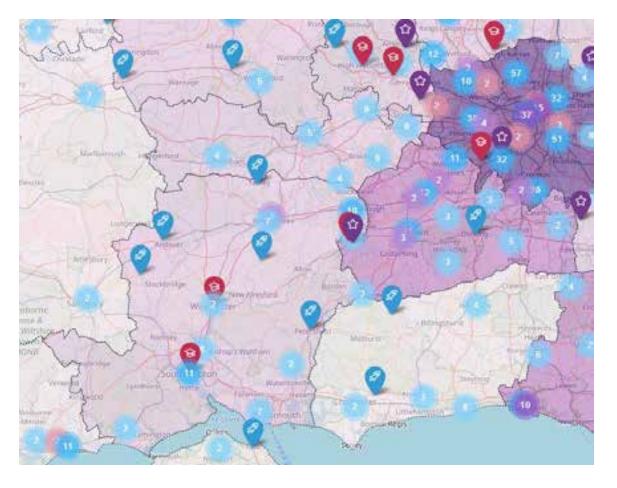
Most large companies are located in the north-east of the LEP's geography, in proximity to London. This aligns with the differences in economic complexity between different parts of the LEP's geography.

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Source: Experian Market IQ

SPOTLIGHT ON GAMING

Map of Game Developers, Service Companies and Universities (2019)



- The map to the left was developed by UKIE and Nesta following a report in 2014 and has since been updated.
- This sector is difficult to capture with SIC codes, therefore will be underrepresented using standard LQ methodologies.
- The Nesta report identifies Guildford and Aldershot as one of 12 gaming sector hubs nationwide. Both areas have a high number concentration of games companies and a high number of games developed. In Surrey and Hampshire counties there were:
 - 146 game developers and publishers
 - 4,362 games published
 - 9 games related courses on offer
- The most popular platforms for published games were Windows PC games; mobile games, primarily on iOS and Android to a lesser extent; and console games on Xbox and PlayStation.
- The Winchester School of Art and University of Creative Arts Farnham offers undergraduate course such as a BA in Games Design and a BSc in Computer Games Technology
- Some notable companies include Hello Games and EA games. Hello Games has a reported turnover of over £25 million and resides in Guildford. Its latest release is No Man's Sky in 2016; EA Games, the 2nd largest gaming company in Europe and North America, also has a game development studio in Onslow House, Guildford.

Source: UKIE & Nesta Games Map 2019

LOW CARBON AND ENVIRONMENTAL SECTOR (LCEGS)

EM3 commissioned an in-depth study of the Low Carbon and Environmental Goods and Services (LCEGS) Sector in EM3, addressing the whole market including core and non-core activities). The results of this analysis are presented here.

LCEGS Sector Overview

- The Enterprise M3 LEP LCEGS sector had total sales in 2017/18 of £18.2bn, which includes all the core and non-core activities within the sector. At first glance these figures may appear to be high, however they include all activities and services which are relevant to the LCEGS sector and its chain of supply.
- The value of sales for core activities within the sector was £4.6bn 25% of total LCEGS sales. £13.7bn, or 75% of the total LCEGS sales were within non-core, midstream activities. This is a high proportion of mid-chain activity and highlights how the LCEGS sector is embedded throughout EM3's economy.
- The EM3 LEP has a core specialty in high-end engineering, which includes mechanical, electrical and electronic engineering and the associated design, computing and software, particularly at the machine control level, which are all especially relevant in the mid-supply chain in many sectors. There is a strong engineering centre that can and does apply itself to many sectors, which helps explain the strong mid-stream LCEGS capabilities.

Employment

• Employment in 2017/18 was 126,824, up from 111,095 in 2015/16. Annual growth rate in employment was 6.8% between 2015/16 and 2016/17 and 6.9% between 2016/17 and 2017/18. This rate of growth was slower than the UK average of 8.4% between 2015/16 and 2016/17 and the same as the UK average between 2016/17 and 2017/18.

Companies

- There were 7,169 companies in EM3's LCEGS sector in 2017/18, up from 6,489 in 2015/16. Annual growth rate in the number of companies was 3.4% between 2015/16 and 2016/17 and 6.9% between 2016/17 and 2017/18. This rate of growth is slower than the UK average for the same periods.
- There is a marked characteristic within the EM3 LEP, particularly within the higher tech businesses, of strong business resilience. This refers not only to the ability of a company to achieve longevity, but also the length of contracts and other factors that provide stability. This can explain why employment and company growth in the LEP may be slower than the UK average.
- Companies within the EM3 area provide products and services to multiple sectors including LCEGS, Motorsport, Automotive, Marine (especially motor yachts), Aerospace, Industrial, Defence and so on. For example, there are engineering companies who will provide components which are used in several different sectors.

Exports

- The value of exports in EM3's LCEGS sector in 2017/18 was £1.3bn, an increase from £1.1bn in 2015/16. This accounted for 9.8% of the UK's LCEGS exports in 2017/18 and is in line with EM3's 9.8% share of the overall UK LCEGS market.
- EM3's LCEGS exports grew by 10.9% and 5.7% over the last two years which was significantly higher than the UK average of 6.0% for the first year and slightly slower than the UK average of 6.8% for the second year.

LCEGS SUB-SECTOR SPECIALISMS

The LCEGS sector is split into three areas: low carbon, renewable energy, and environmental. In EM3 activity is distributed across these three areas, with 49% of activity occurring in Low Carbon, 35% in Renewable Energy and 17% within Environmental.

Within each area there are a range of sub-sectors. EM3 is particularly strong in five of these, which between them account for 64% of total activity in EM3.

Sub-sector specialisms

EM3's five largest sub-sectors by sales have all enjoyed high levels of growth in sales, number of employees and number of companies between 2015/16 and 2017/18:







Alternative Fuels

Sales have grown from £2.51bn to £2.94bn (17%), number of employees by 15% and number of companies by 7%.

This includes R&D functions, alternative fuel providers and process implementation accounting.



Sales have grown from £2.29bn to £2.65bn (16%), number of employees by 13% and number of companies by 12%.

This includes head office functions, building systems design and consultancy and building systems providers and installers.

Wind

Sales have grown from £2.12bn to £2.54bn (20%), number of employees by 22% and number of companies by 25%.

This includes control systems development and manufacture, drive train development, manufacture and systems integration and consulting houses.

Alternative Fuel Vehicle

sales have grown from £1.63bn to £1.83bn (12%), number of employees by 13% and number of companies by 4%.

This includes process designers and consultancy, process implementation and sales and application development specialists.

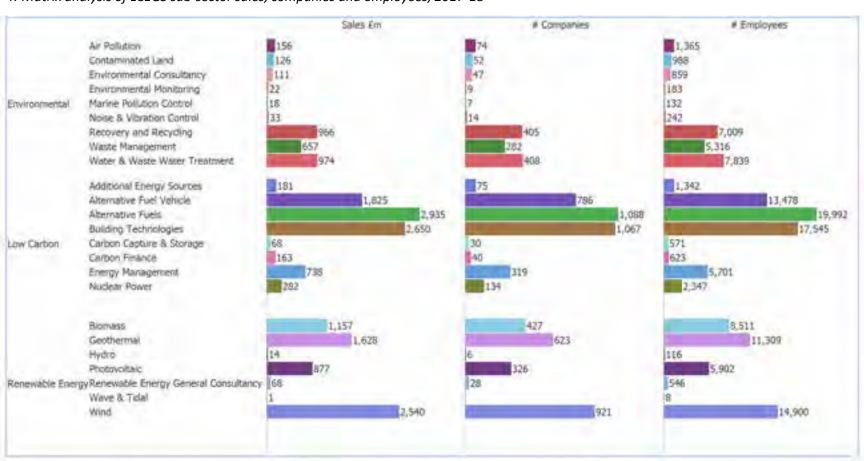
Geothermal

Sales have grown from £1.46bn to £1.63 (12% increase), number of employees by 13% and number of companies also by 8%.

This includes head office functions, systems and design and international consultancy.

LCEGS SUB-SECTOR SALES, COMPANIES AND EMPLOYEES

K-Matrix analysis of LCEGS sub-sector sales, companies and employees, 2017-18



This chart, produced by K-Matrix, shows sales, business count and employment across 24 sub-sectors within the LCEGS sector.

It shows that five leading sub-sectors accounted for 64% of sector activity in 2017/18: Alternative Fuels (16%), Building Technologies (15%), Wind (14%), Alternative Fuel Vehicle (10%) and Geothermal (9%).

There is then a second grouping of six sub-sectors that are: Biomass 6%, Water and Waste Water Treatment 5%, Recovery and Recycling 5%, Photovoltaic 5%, Energy Management 4% and Waste Management 4%; that make up a further 30% of the LCEGS sector sales in 2017/18. These 11 sub-sectors dominate the LCEGS sector sales and together made up 93% of its overall sales in 2017/18.

IDEAS / INNOVATION

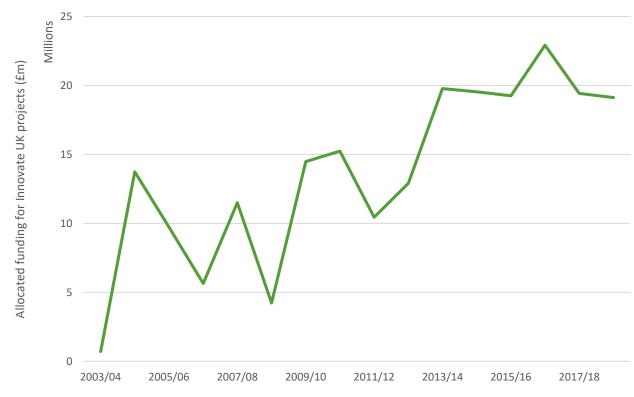
IDEAS – SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

- A dynamic economy and an engaged, innovative business base.
- £216.6m of Innovate UK funding since 2003/04, at an average of £13.5m per year.
- £19.12m of funding for Innovate UK projects in 2018/19.
- 1,283 projects have attracted Innovate UK funding since 2003/04, the 4th highest number among all LEPs. However, EM3 is 14th among all LEPs for total funding received, suggesting a lower average amount of funding per project.
- Business investment is the primary source of R&D in EM3 (80%). EM3's businesses spend 1.8 times more on R&D than businesses in the UK.
- Notably high-value innovation occurs in Space, Digital Services and Materials & Manufacturing.
- Innovation funding is primarily business-led through Digital, Space, Aerospace and Telecommunication project grants, however the academic institutions of the University of Surrey and University of Southampton are essential links to this activity, which can be difficult to measure.
- There is a strong west-east divide, with the proximity to London influencing industry, innovation and business clustering. Primary hubs are Basingstoke, Guildford and Farnborough, whilst Winchester and Andover are seemingly isolated.
- Innovation Benchmarking: high performers in commercialisation of innovation (5th highest LEP), creation of new/improved products (7th) and bringing new products to market (8th highest). Low in marketing innovation.

INNOVATE UK FUNDING SINCE 2003/04

Grant funding for Innovate UK projects (2003/04 – 2018/19)



^{*}Figures have not been smoothed

Organisations within Enterprise M3 attracted £19.12m in funding for innovate UK projects over 2018/19. Grant funding in 2003/04 was £712,046, increasing to £13.74m in the following year, and has continued to grow in size since. Although 2018/19 reflects a large level of investment, it was the LEP's lowest funding allocation since 2012/13.

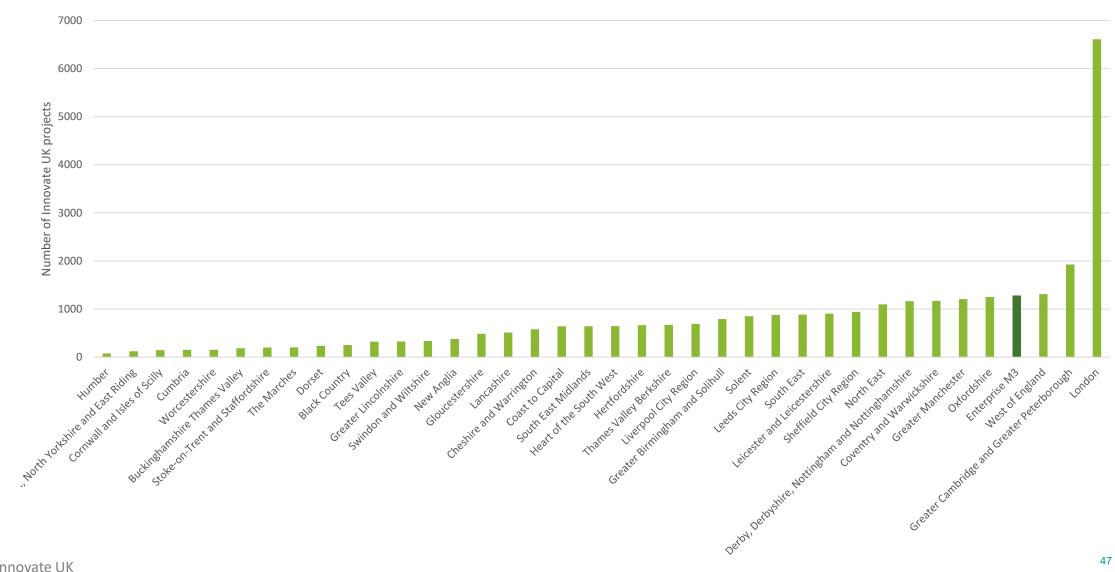
Just shy of half of this funding was allocated to projects in the **Manufacturing**, **Materials & Mobility sectors** (49.6%), with the next highest proportion in Ageing Society, Health & Nutrition Research (16.2%).

Enterprise M3 has attracted £216.6m of project funding since 2003/04, at an average of £13.5m per year. In comparison, project grants in 2018/19 attracted a higher than average level of investment despite being the lowest since 2012/13.

46

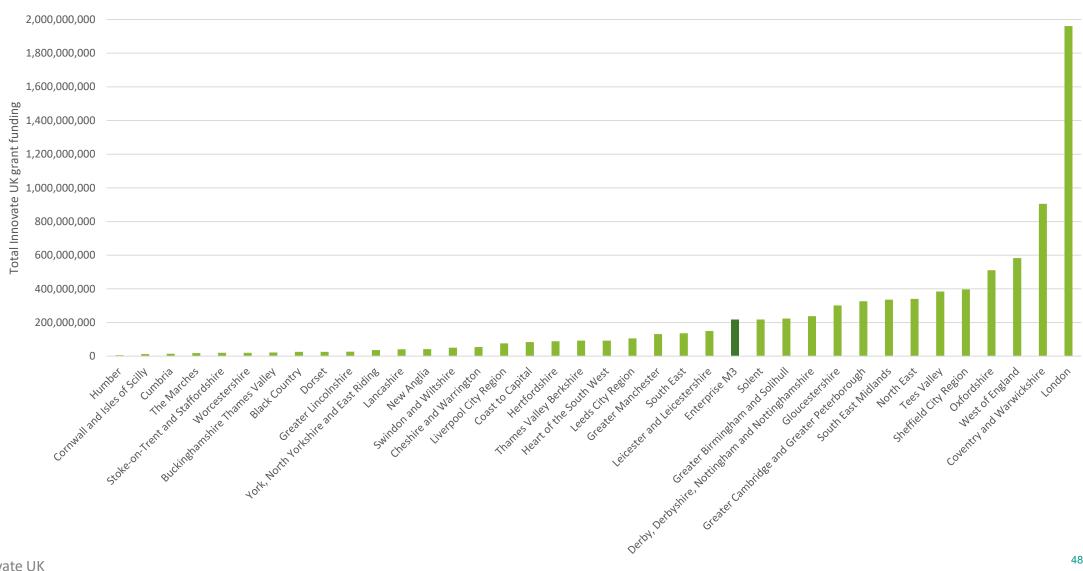
TOTAL NUMBER OF PROJECTS ACROSS LEPS

Total number of Innovate UK projects across all 38 LEPs (2003/04 – 2018/19)



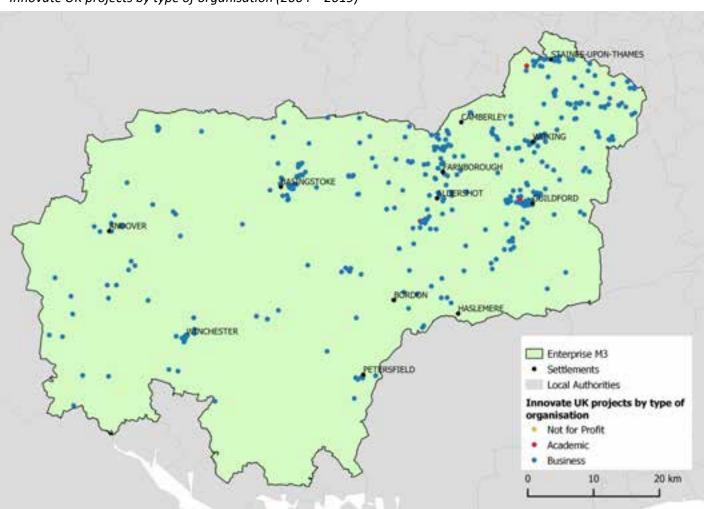
TOTAL GRANT FUNDING ACROSS LEPS

Total grant funding for Innovate UK projects across all 38 LEPs (2003/04 – 2018/19)



SPATIAL DISTRIBUTION OF INNOVATE UK FUNDING

Innovate UK projects by type of organisation (2004 – 2019)



A lot of the innovation activity in EM3 happens in the east of the LEP, specifically the north-east, closer to London. This activity is mainly from businesses and is clustered around major settlements like Farnborough, Guildford, Woking, Staines-Upon-Thames and Aldershot.

The trend of clustering is the same in the south and south-east of the LEP, but there is a lower overall number of Innovate UK projects. Activity is clustered around Winchester and Andover, mainly.

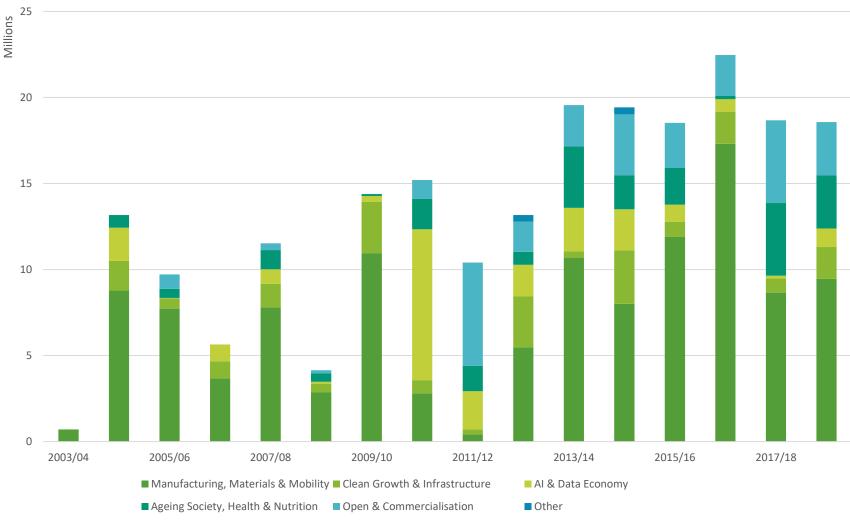
The low number of Innovate UK projects undertaken by Academic Institutions is a noted problem, and is reflected in the map of Innovate UK projects. Since 2004, Academic organisations have accounted for 9% of EM3s total projects, and 7% of funding.

Not for Profit organisations are organisations such as charities, who have conducted two innovate UK projects since 2004. These projects are usually small, but in 2010/11, HoiP conducted a project that attracted £302,964 of funding from Innovate UK.

Source: Innovate UK

INNOVATE UK FUNDING BY SECTOR

Grant funding for Innovate UK projects by sector (2003/04 – 2018/19)



Projects in Manufacturing, Materials & Mobility account for a high proportion of total grant funding in EM3. From 2003/04 to 2009/10, the sector always received at least 65% of total funding.

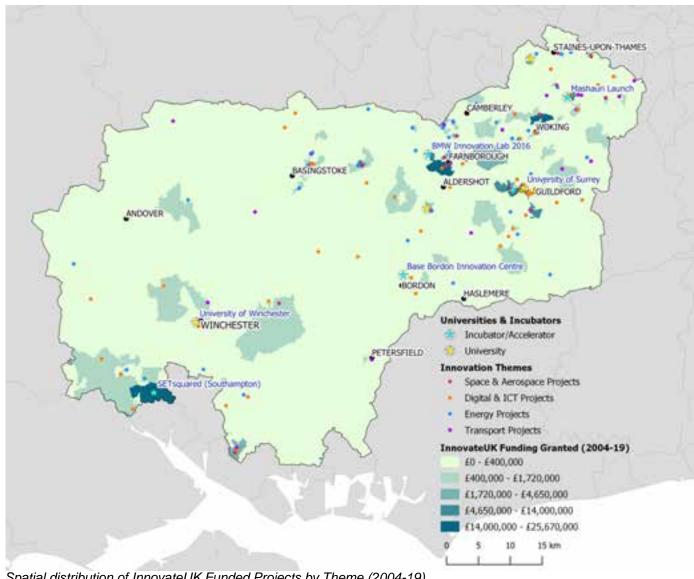
Open & Commercialisation has grown in traction as a sector since 2011/12, and recently so has Ageing Society, Health & Nutriton.

Allocations to Clean Growth & Infrastructure, and Al & Data Economy, remain relatively small.

Source: Innovate UK

^{*}Other includes the Innovate UK sectors: Connect, Global, Strategy and Investments

SPATIAL DISTRIBUTION OF INNOVATE UK BY THEME



Spatial distribution of InnovateUK Funded Projects by Theme (2004-19)

This colour-coded heat map represents the total funding allocated within each LSOA. It is intended to emphasis that one single area, such as Surrey Science Park, can have multiple projects occurring within close proximity of one another.*

Guildford consistently emerges as a strong area for innovation activities across all themes. The is unsurprising considering the support from the University of Surrey and Surrey Research Park.

Areas around Southampton Science Park also has a high level of grant funding received, benefiting from close proximity with the University of Southampton

Farnborough has high level of grant funding, with projects receiving between £14-£25 million. The area supports large budget investments in High Value Manufacturing, Transport, Aerospace and Space, whilst being home to the BMW Innovation Lab that supports start-ups.

Advanced Propulsion received the 2nd highest funding from InnovateUK at £25 million over 14 projects. Woking is central to this activity, receiving £16 million of this total grant funding pot.

Space projects received over £10 million of funding spread among 44 projects. These projects are clustered around four areas; the University of Surrey in Guildford, which has the most projects and funding; followed by Farnborough; Rushmoor; and Winchester.

Other thematic areas receiving a high level of funding are High Value Manufacturing, Energy, Healthcare and Challenge Led projects which crosses multiple sectors from energy to healthcare. These themes received a cumulative funding of £66 million.

AREAS OF HIGH VALUE INNOVATION

Grant funding offered by Innovate UK (2014-2018)



^{*}Information relates to the old EM3 boundary – including the New Forest and isolating areas of Test Valley, Winchester an East Hampshire

Enterprise M3 firms are very active in Research & Development, spending 1.8 times that of the average LEP.

Enterprise M3 produces notably high-value innovation in Space, Digital Services and Materials & Manufacturing. The broad industries these sub-sectors fit into – Professional, Scientific & Technical, Information & Communications and Manufacturing –are all recognised as specialist areas within the LEP. All three sub-sectors have attracted a higher than average amount of funding relative to other LEPs.

Many sub-sectors have received grant funding beyond the LEP average, reflecting EM3s highly innovative nature across a range of fields. A significant proportion of these are high-skilled, high-value, technological industries. Such industries drive an economy's complexity as they require a diverse range of knowledge.

Source: Smart Specialisation Hub

TOP ENTERPRISES BY VALUE OF INNOVATE UK FUNDING

Top 10 enterprises by grant funding for Innovate UK projects

Funding since 2003/04								
Organisation	Total Grant Funding (£)							
McLaren Automotive Limited	14,220,855							
QinetiQ Group PLC	13,917,802							
Thales UK Limited	13,253,009							
BAE Systems (Operations) Limited	12,407,561							
University of Surrey	12,311,317							
QinetiQ Limited	11,645,972							
Surrey Satellite Technology Limited	9,013,588							
Gordon Murray Design Limited	8,897,143							
NPL Management Limited	7,728,266							
BMW Motorsport Limited	5,730,804							

Funding since 2010/11								
Organisation	Total Grant Funding (£)							
McLaren Automotive Limited	14,220,855							
Thales UK Limited	11,447,730							
University Of Surrey	9,292,159							
Surrey Satellite Technology Limited	9,013,588							
QinetiQ Limited	6,864,511							
BMW Motorsport Limited	5,730,804							
Gordon Murray Design Limited	5,617,052							
BAE Systems (Operations) Limited	5,100,181							
McLaren Applied Technologies Limited	4,714,947							
NPL Management Limited	3,749,163							

Funding since 2015/16								
Organisation	Total Grant Funding (£)							
McLaren Automotive Limited	10,234,081							
University of Surrey	6,212,711							
BMW Motorsport Limited	5,730,804							
Thales UK Limited	5,728,254							
McLaren Applied Technologies Limited	4,714,947							
Gordon Murray Design Limited	3,376,083							
The Pirbright Institute	2,531,477							
Alvant Limited	1,970,099							
Autodesk Limited	1,792,837							
Siemens PLC	999,441							

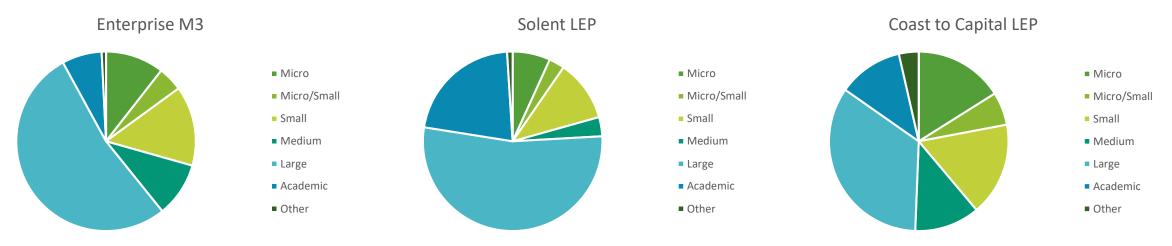
Above are details of the highest value innovators in the Enterprise M3 region; the right-hand table illustrates this in the last five years. This table shows a **high concentration of high-value**, **highly innovative car manufacturers**, **designers and engineering companies** working in the automotive, aerospace and defence industries.

3

INNOVATE UK FUNDING BY ENTERPRISE SIZE

Enterprise M3 has a high level of innovation – generating £216.6m from 2003/04 to 2018/19. Over half of this funding has been allocated to large organisations, whilst Academic Institutions have received a comparably low level of funding.

Grant funding for Innovate UK projects by enterprise size (2003/04 – 2019/20)



Large organisations in Enterprise M3 have attracted the most funding since 2003/04, accounting for 53% of the total grant value for the LEP. This is directly comparable to Solent LEP, where 53% of total funding has also been allocated to large organisations. Coast to Capital on the other hand have a much lower level of overall funding, and large organisations only capture 34% of it. Small and Micro businesses attract the next largest levels of grant funding in Enterprise EM3 – 14% and 11%, respectively.

Micro, Small and Medium size organisations have claimed a larger share of Innovate UK funding in Enterprise M3 than in Solent LEP; the proportion of funding allocated to these firms in EM3 is comparable, but shy of that of Coast to Capital organisations.

EM3 has three universities, same as Solent LEP and Coast to Capital, so the LEP isn't underrepresented in terms of academic institutions, but the value of grants allocated to universities in Enterprise M3 is considerably lower than in neighbouring LEPs (7% compared to 21% and 12% in Solent LEP and Coast to Capital).

54

Source: Innovate UK

BUSINESSES LEAD R&D EXPENDITURE

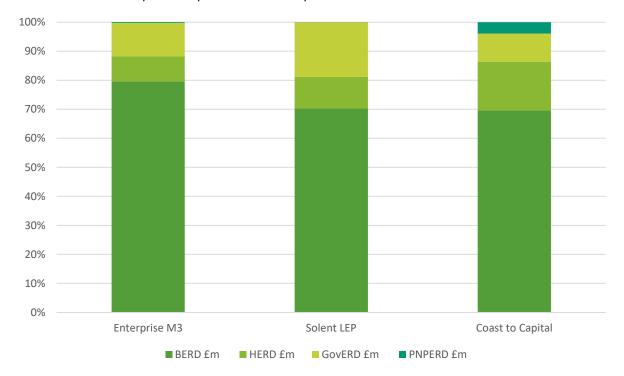
BERD EXPENDITURE £M (2015)

£1,359

HERD EXPENDITURE £M (2015)

£115

Research and Development expenditure in Enterprise M3



^{*}Business Enterprise Research and Development (BERD): **2015**; Higher Education Research and Development: **2014**; Government Expenditure Research and Development (GERD): **2014**; Private Non-Profit Expenditure Research and Development: **2014**

BERD constitutes 80% of total research and development expenditure in Enterprise M3, compared to 70% in both the Solent LEP and Coast to Capital.

Similar to the trend in the LEPs innovate UK project funding, only a small proportion of research and development expenditure is spent by Academic Institutions (HERD). Only 9% of total R&D expenditure came from within higher education in Enterprise M3, compared to 11% and 17% in the Solent LEP and Coast to Capital.

Local government comprises 11% of R&D expenditure in Enterprise M3 - the seventh highest proportion of all LEPs. This compares to 19% in the Solent LEP (third highest of all LEPs) and 10% in Coast to Capital.

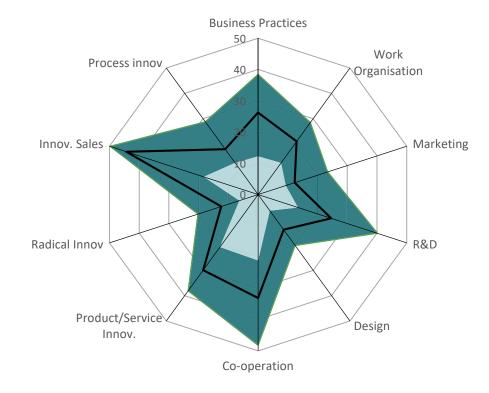
The private sector is much more active in Enterprise M3 than in neighbouring LEPs, whilst spending by academic institutions is considerably lower.

INNOVATION BENCHMARKS

Innovation Benchmarks: 2014-16







Source: Enterprise Research Centre - Benchmarking local innovation, the innovation geography of England: 2019

Innovation activity share and ranking

Innovation activity	Share	Rank
Introduction of new business practices by local economic area (% of firms)	26.2%	9/39
Introduction of new methods of work organisation by local economic area (% of firms)	21.0%	16/39
Marketing innovation by local economic area (% of firms)	12.3%	29/36
Percentage of firms undertaking R&D by local economic area (% firms)	24.6%	9/38
Percentage of firms undertaking design investment for innovation by local economic area (% firms)	13.9%	16/35
Collaboration for innovation by local economic area (% of innovating firms)	33.1%	18/39
The proportion of firms undertaking product or service innovation (% of firms)	29.9%	7/39
New to the market product and service innovation by Local Area (% firms)	12.4%	8/35
Sales of innovative products and services by Local Area (% sales of innovating firms)	44.3%	5/39
Process innovation by local economic area (% of firms)	17.9%	19

INNOVATION BENCHMARKS

- The radar chart on the previous slide shows EM3's innovation performance against 10 innovation benchmarks. The data is sourced from the ERC's UK Innovation Survey 2017 with a total sample size of 14,000 firms of which 315 are in EM3
- The area in dark green shows the performance of the top ranked LEP against each benchmark, the area in light blue shows the performance of the lowest ranked LEP. The thick black line indicates EM3's performance.
- EM3 is ranked within the Top 10 for five out of 10 innovation benchmarks. It performs best in the commercialisation of innovation, where EM3 is ranked 5th. Over 44% of innovating firms' (a smaller sample size than all 315 firms) have sales derived from innovative products and services.
- Overall there is a high level of innovation in EM3: almost 30% of surveyed EM3 firms introduced a new or significantly improved product of service over 3 years. This is the 7th highest among LEPs.

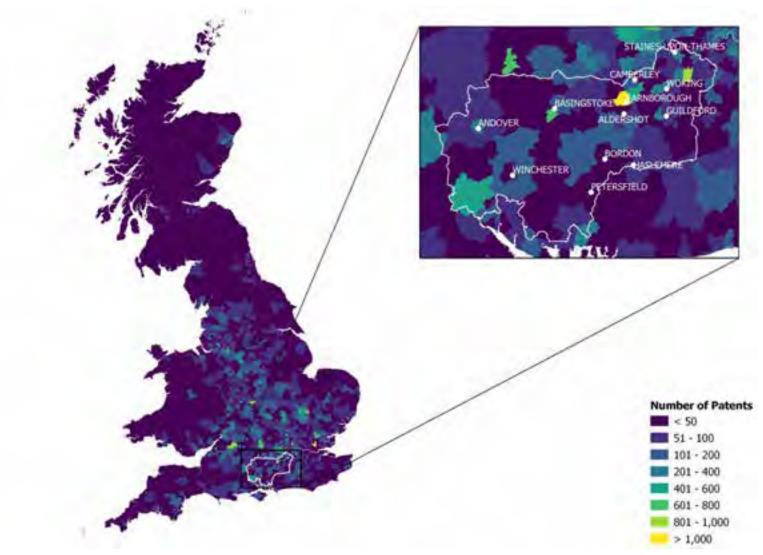
- EM3 is also successful in introducing "new to the market" product or services with 12.4% of firms surveyed achieving this benchmark. This is the 8th highest among 38 LEPs where data is available. This means that EM3's firms play a major role in diversifying the product or service offering in the market.
- EM3 is ranked 9th highest for the following 2 benchmarks: introduction of new business practices and percentage of firms undertaking R&D. 26.2% of the 315 EM3 firms surveyed having adopted new business models over 2014-16 and 24.6% of firms undertook R&D over the same period.
- EM3's lowest performance is in marketing innovation where it ranked 29th out of out 38. Performance in the introduction of new methods of work organisation is 16th out of 38. EM3's high performance in introducing new business models has not translated to a high ranking in new work organisation and marketing innovation. This is unusual given that performance in these 3 benchmarks are usually linked.

ERC INNOVATION BENCHMARK DEFINITIONS

- **Introduction of new business practises**: Firm adoption of new organisational processes over the 2014-2016 period. Examples of this type of innovation would be: supply chain management, business re-engineering, knowledge management, lean production and quality management.
- **New methods of work organisation**: This is the way work is organised and structured. It relates to firms adoption of new methods of organising work responsibilities and decision making. Examples are firms using a new system of employee responsibilities, team work, decentralisation, integration of de-integration of departments and new education/training systems
- Marketing innovation: Where firms have implemented changes to marketing concepts or strategies.
- Research and development: This reflects the expertise of R&D personnel, links between specific teams in order to undertake innovation or particular technologies that enables R&D
- Design investment for innovation: Firms investment in all forms of design related to the development or implementation of new or improved goods, services and process.
- Collaboration for innovation: Collaboration can deliver significant benefits for innovating firms. This metric is based on firms that were collaborating for innovation during 2014-2016. This is includes continuous and one-off instances but also innovation that is not necessarily local.
- **Product and service innovation**: This metric measures the percentage of enterprises that have introduced a new or significantly improved product or service. Differences across areas will reflect both the innovativeness of local firms and to some extent the structure of local industries. For example, high-tech industries or those with high competition may have higher levels of innovation.
- **New to the market innovation**: It is generally thought more radical 'new to the market' innovations generate higher returns. This metric provides an indication of the percentage of firms which are introducing new to the market innovations (either products or services).
- Sales of innovative products/services: This relates to the proportion of innovating firms sales which are derived from innovative products or services. It is measured as the average proportion of firms sales derived from innovative products or services.
- Process innovation: This is in similar nature to that of product or service change and relates to the percentage of firms in each local area introducing new or significantly improved processes during 2014-2016.

SPATIAL DISTRIBUTION OF PATENTS

Number of patent applications by postcode district



The left-hand maps illustrate the number of patent applications submitted since 1978. The LEP has submitted a relatively high number of patents – circa 6,950.

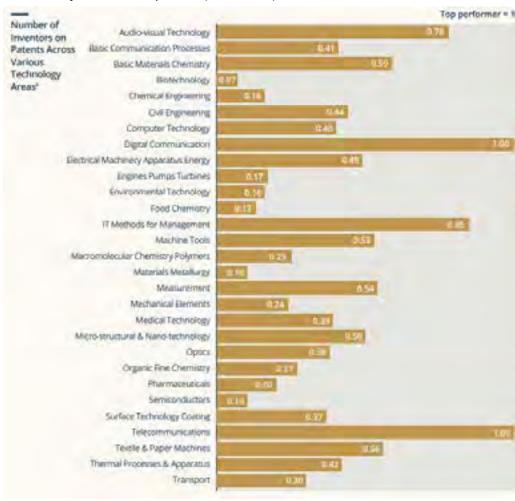
The postcode district of Farnborough has submitted in-excess of 1,000 patent applications – not many districts across the UK have. This constitutes around 15% of the LEPs total applications.

The postcode district of Weybridge has submitted 892 applications and Basingstoke has submitted 62. There doesn't appear to be a strong correlation between the number of patent applications and a districts proximity to London, however.

Guildford and Winchester are home to two universities and yet they have a comparatively small number of patent applications. As innovations hubs, this is surprising.

PATENT ACTIVE FIRMS

Number of inventors on patents (2015-2017)



^{*}Information relates to the old EM3 boundary – including the New Forest and isolating areas of Test Valley, Winchester an East Hampshire

The number of innovation active firms in Enterprise M3 is 1.13 times greater than the LEP-wide average.

Telecommunications and Digital communication are very innovative sectors, drawing activity from a high number of firms. The top performer refers to the top performing LEP, and EM3 is the most collaborative innovator in these sectors. Audio-visual technologies also involve a comparably high number of firms in innovation – the third highest in England. All of these firms are involved in Media and Electronics.

EM3 specialises in innovation in the technology sector, with a number of these industries achieving a benchmarked score of around 0.50 or greater. Technology has also been incorporated in the science and manufacturing sectors – the former with a little less success than the latter in terms of the number of patent innovation firms.

60

Source: Smart Specialisation Hub

BUSINESS ENVIRONMENT

BUSINESS ENVIRONMENT – SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

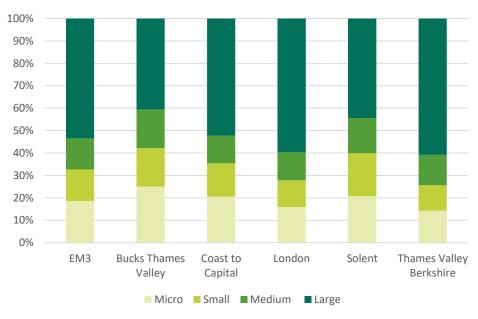
- 79,265 businesses in EM3 in 2017.
- Micro-businesses comprise roughly 90% of the business base, and employ 19% of workers. These proportions are similar to UK and comparator LEP averages.
- 52% of EM3's workers are employed in large businesses
- Overall, there has been a positive net business birth rate in EM3. This means the size of EM3's business base has grown since 2012. However, since 2015, growth has slowed.
- business survival rates in EM3 are similar to UK survival rates.
- **EM3 has a high level of scale-up activity.** Scale-up growth is above average with a 4.7% increase in the number of scale-ups from 2014-17.
- Scale-ups and Start-ups are prevalent throughout EM3, particularly with the science parks, research parks and incubators (like SETsquared), catered towards supporting and growing smaller businesses.

BUSINESS COUNT BY SIZE AND EMPLOYMENT

VAT-Registered Business count by size (2017)

Area	Total businesses	Micro (0 to 9)		Small (10 to 49)		Medium (50 to 249)		Large (250+)	
		Total	%	No.	%	No.	%	No.	%
Enterprise M3	79,265	71,715	90.5	6,095	7.7	1,160	1.5	295	0.4
Bucks Thames Valley	31,080	28,375	91.3	2,185	7	425	1.4	90	0.3
Coast to Capital	90,335	82,075	90.9	6,875	7.6	1,120	1.2	265	0.3
Solent	41,635	36,670	88.1	4,155	10	670	1.6	140	0.3
Thames Valley Berkshire	44,680	40,290	90.2	3,390	7.6	755	1.7	245	0.5
London	505,655	459,440	90.9	37,035	7.3	7,185	1.4	1,995	0.4

Employment by business size (2017)



Source: SQW Headlines Productivity Report (2019) based on ONS Business Count data

Source: Metro Dynamics analysis of ONS employment by Enterprise Size data

- The table to the left shows EM3 and comparator's business count broken down by size and share of the total business stock. The chart to the right shows the share of people employed by businesses of different sizes
- Micro-businesses comprise roughly 90% of the business base in EM3 and most of the comparator LEPs, and employ 18%-25% of workers.
- Small and medium businesses account for roughly 8%-12% of the total business base and employs 25%-35% of workers. Large

- companies with over 250 employees account for 40%-60% of employment and less than 0.5% of the business base.
- 52% of EM3's workers are employed in large businesses. Coast to Capital, London and Thames Valley Berkshire all have over 50% of workers employed in large businesses
- Buckinghamshire Thames Valley has the lowest share of workers employed in large businesses at only 40%. It also has the highest share of workers employed in micro businesses at roughly 25%.

BUSINESS COUNT BY SECTOR

Summary table: Business count by sector (2019)

	Production		Wholesale & retail; Transport; Accommodation		Professional Services		IT & Finance		Public sector, Education, Health		Arts, recreation & other services	
	No.	Share	No.	Share	No.	Share	No.	Share	No.	Share	No.	Share
EM3	15,130	19%	15,410	19%	28,655	35%	12,620	16%	4,175	5%	5,025	6%
Buckinghamshire Thames Valley	6,460	21%	5,595	18%	11,015	35%	4,370	14%	1,695	5%	2,010	6%
Coast to Capital	19,065	21%	19,950	22%	29,895	32%	12,035	13%	5,410	6%	6,325	7%
London	73,010	14%	101,895	20%	197,075	38%	87,665	17%	26,905	5%	35,695	7%
Solent	10,650	24%	13,380	30%	11,345	26%	3,905	9%	2,565	6%	2,640	6%
Thames Valley Berkshire	7,245	16%	8,650	19%	15,480	34%	9,110	20%	2,295	5%	2,620	6%
United Kingdom	645,270	24%	657,500	24%	800,805	29%	286,845	11%	153,995	6%	174,020	6%

Source: ONS Business Count Data (2019)

- The table above shows the sector composition of EM3's business base. Professional Services is the largest sector by business count at over 35% of the business base. Only London has a higher share of Professional Services firm at 38%.
- The next two largest sectors by business count are the Production sector – which includes Agriculture; Mining & Utilities; Manufacturing and Construction – and Wholesale & retail; Transport; Accommodation sector. Both of these broad sectors account for 19% of EM3's business base respectively.
- Within the Production sector, Construction has the largest number of businesses with over 9,565 businesses equating roughly 63% of the 15,130 businesses within the sector.
- Within IT & Finance, 8,340 businesses are within Computer Programming, Consultancy and related activities equating to roughly 2/3 of the 12,620 businesses within the sector.
- Within the Professional Services firms, Activities of Head Offices;
 Management Consultancy activities account for 9,045 businesses,
 or roughly 1/3 of the total 28,655 businesses.

BUSINESS DEMOGRAPHY

Figure 4-5: Business births and deaths in Enterprise M3, 2012-17

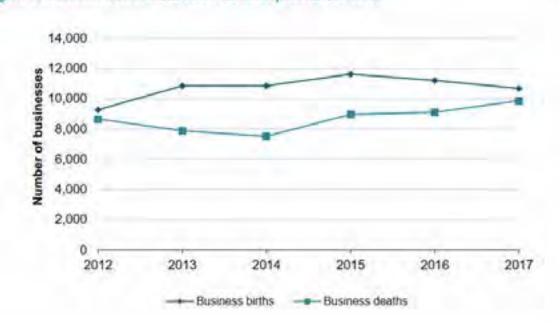
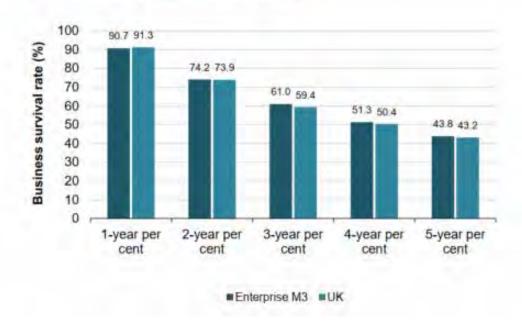


Figure 4-6; Survival rates of businesses born in 2012



- The left-hand graph shows business births and business deaths in EM3 in the five years between 2012-2017. The graph on the right shows the 5year survival rates of businesses in EM3 over the same period.
- Overall, there has been a positive net business birth rate in EM3.
 This means the size of EM3's business base has grown since 2012.
 However, since 2015, this growth has slowed.
- Business births have declined slightly, while business deaths have increased. Despite these trends, there remains a positive net business birth rate
- The graph below shows that business survival rates in EM3 are similar to UK survival rates across all years, with survival rates for EM3 being marginally higher than the UK rate from the second year onwards.

SCALEUP BUSINESSES



NO. BY EMPLOYEE GROWTH

NO. BY TURNOVER GROWTH

990

NO. BY EMPLOYEE AND TURNOVER GROWTH

235

total turnover £20.3bn

TOTAL EMPLOYEES

112,242

1,200

Top Visible Scaleups by Employee Growth

445







Top Visible Scaleups by Turnover Growth





Scaleups are supported by the EM3 Growth Hub, working with private and public sector partners including SETsquared and County Councils of Hampshire and Surrey.

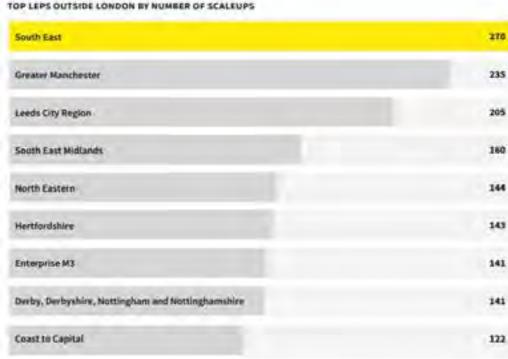
The Growth Hub works with businesses, not by focusing on products or programmes, but by understanding the support they require in order to grow as a business.

There is a core focus to provide business support and advice to scaleups within identified priority sectors. This is delivered through a small full-time team with senior commercial backgrounds and over 15 sector experts who have experienced scaling.

Source: ScaleUp Institute Review 2019

SCALEUP BUSINESSES

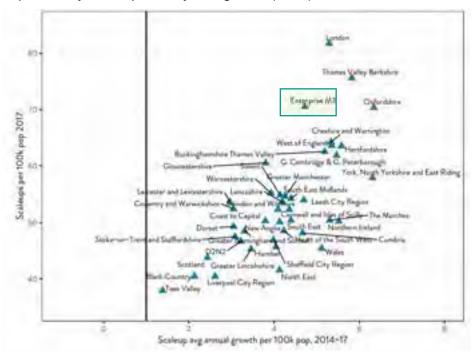
Top LEPs outside of London by number of scaleups (2019)



Source: ScaleUp Institute and Beauhurst (2019) The ScaleUp Index 2019

- The graph to the left shows the ranking of LEPs by the number of scaleups. The map to the right shows the ranking of LEPs by the density of scaleups per 100,000 population and the average annual growth of scaleups.
- EM3 has a high level of scaleup activity. In 2019, EM3 was ranked the 7th highest LEP nationwide by quantity with 141 scaleups in total. This has declined from 5th in 2018. It is the 4th highest by scaleup density with over 70 scaleups per 100,000 population.

Top LEPs by scaleup density and growth (2017)

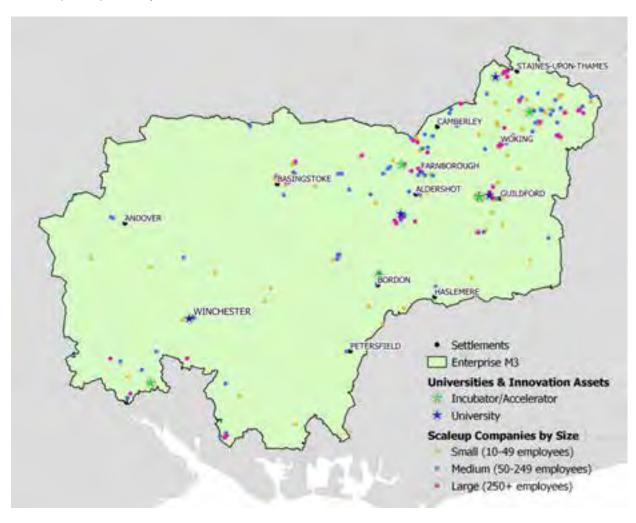


Source: ScaleUp Insights ONS ScaleUp Landscape (2019)

- EM3's high start-up density suggests even spatial distribution of scaleup activity, whereby multiple local authorities within the LEP have a high count of scale up. This is supported by 2016 data with Winchester & Waverley being among the top 10 local authorities nationwide by number of scaleups per 100,000 population.
- EM3's scaleup growth is above average with 4.7% increase in the number of scaleups from 2014-17. This is a marginal increase of 0.4% from the 2013-16 scaleup growth rate.

SCALEUP COMPANIES BY SIZE AND LOCATION

Scaleup Companies by Size



- The map to the left shows the distribution of Scaleup Companies in EM3, categorised by size. It shows companies that have had a turnover growth of over 20% between 2014-2016.
- There was a total of 325 scaleups in EM3. The majority of scaleups were in small and medium sized companies. There were 134 scale ups in small companies, 127 scaleups in medium companies, and 64 scale ups in large companies.
- The combined turnover for these 325 scaleups was over £23bn. The average turnover growth was 92%. This means that on average, turnover almost doubled following a scaleup.
- Scale-up activity is concentrated in the North East of EM3 closest to London. Elmbridge had the highest turnover count at 57. Runnymede, Basingstoke and Deane and Surrey Heath had all had a turnover count of 30 or above.
- Hart, East Hampshire had a scale up count of 16 and 14 respectively. Spelthorne had 1 scaleup, however, the turnover growth was high at 225%.
- Aerospace & Defence companies often exhibit high turnover growth. Some companies include BAE Systems, Qio Technologies, Cubic Defence, Farnborough International Ltd (which hosts air shows).

BUSINESS BARRIERS

The information below summarises the barriers to growth outlined in other sections of this Evidence Base document on People and Skills, Infrastructure and Commercial Premises. This content is specific to EM3. Information on Access to Finance and Business Support is not drawn from datasets or reports specific to EM3, but due to the similarities between EM3's business base and that of the rest of the country this information is also relevant to the barriers EM3's businesses face currently.



People and Skills

21% skills shortage vacancies in 2017

Over 60% of Finance employers have vacancies

Over 40% of Arts; Primary Sector and Utilities employers have vacancies

Labour demographic skewed toward older workers



Infrastructure

Infrastructure deficits limit EM3's potential

Congestion on major roads; digital infrastructure not aligned with business needs

Rail links require improvement to link South East together

Poor broadband and mobile connectivity in some areas



Commercial Premises

Supply not kept up with demand.

Rising market rents but negative delivery since 2015

Lack of commercial space can inhibit growth, particularly for high-tech startups



Housing

Affordability and availability of housing is a problem for recruitment and retention of labour

PEOPLE

PEOPLE – SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

Population:

- The total population for 2018 was 1,524,800.
- All local authorities have experienced population growth, leading to an overall growth rate for EM3 of 3% from 2013-2018.

Employment:

- As of 2018, EM3 has a higher employment rate than the UK and comparator LEPs at 82%
- EM3's share of those in "prime working age" between 20-49 years old has decreased since 2013.
- EM3's dependency ratio as of 2018 is 329, above England's average of 291 and ranked 16/38 LEPs.

Skills:

- Between 2007-18, the share of working aged residents with an NVQ4 or above increased by 11.5%, exceeding the national increase of 9.9%.
- EM3 has the lowest share of residents with no qualifications of all LEPs. It has the 4th highest A8 attainment score for 16 year olds among LEPs and the 5th highest share of 19 year olds qualified to Level 3.
- Subject choice of graduates are not aligned with sector specialisms. There is a lower uptake of Computer Science and Medicine/Life Sciences subject
 in EM3 compared to the national level.

Young people:

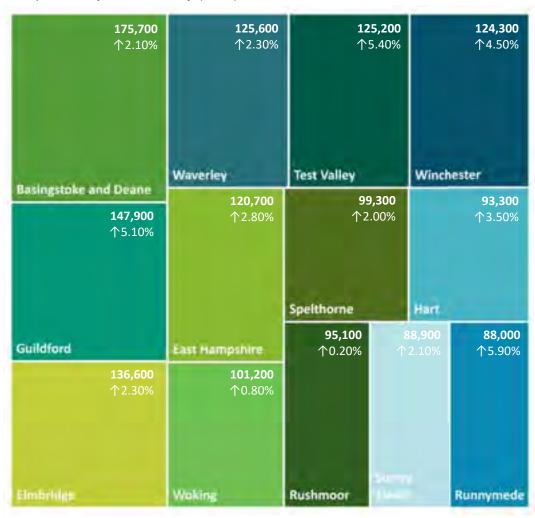
- Young people are clustered around the north east of EM3 in areas closest to London. The areas around Guildford, Farnborough and Aldershot have shares of young people ranging between 30-40%.
- EM3 has the 10th lowest share of 25-34 year olds among LEPs.

Deprivation:

Overall, deprivation levels are quite low, although there are pockets of high deprivation to the North of Staines-upon-Thames, North East of Bordon, around Basingstoke and Andover. EM3's rural areas are different to many other rural areas in that they do not exhibit high levels of deprivation.

POPULATION CHANGE BY LOCAL AUTHORITY

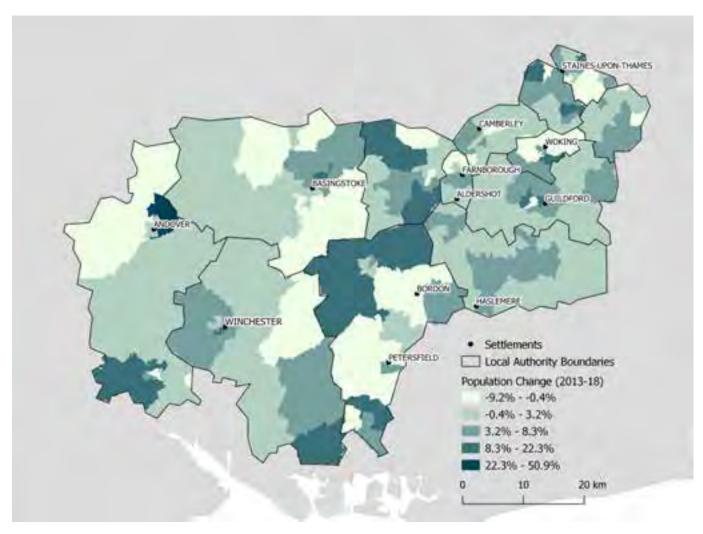
Population by local authority (2018)



- This chart shows the population of each local authority. It also shows the rate of population growth between 2013-18.
- The total population for 2018 was 1,524,800.
- All local authorities have experienced population growth, leading to an overall growth rate for EM3 of 3% from 2013-2018.
- Between 2013-18, **3 local authorities grew by more than 5%**. Runnymede experienced the highest population growth of 5.9% (+4,900 people) followed by Test Valley at 5.4% (+6,400 people) and Guildford at 5.1% (+7,200 people).
- 8 of out 13 local authorities had a population growth of below 3% -EM3's overall average. Rushmoor had the lowest population growth at 0.2%, followed by Woking at 0.8%.
- In ascending order, the remaining 6 local authorities with a population growth of below 3% are Spelthorne (+2.0%), Surrey Heath (+2.1%), Basingstoke and Deane (+2.1%), Elmbridge (+2.3%), Waverley (+2.3%) and East Hampshire (+2.8%).

POPULATION CHANGE BY MSOA

Population Change 2013-18



- The map on the left shows the population change from 2013-18 for each local authority in EM3 at the MSOA level.
- It reveals that there have been pockets of population decline to the South of Basingstoke and Deane, North of Rushmoor and around Woking.
- There is strong population growth between 8%-22% to the North of East Hampshire but pockets of population decline in the middle of the local authority.
- Guildford and Waverley experienced population growth in most areas, which account for their overall population increase of above 5% between 2013-18.
- Test Valley's high population growth is largely driven by areas east of Andover, where the population increased in excess of 22%.

AGE PROFILE

Age profile EM3 and Comparators (2018)

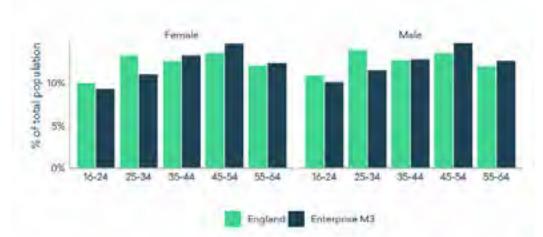


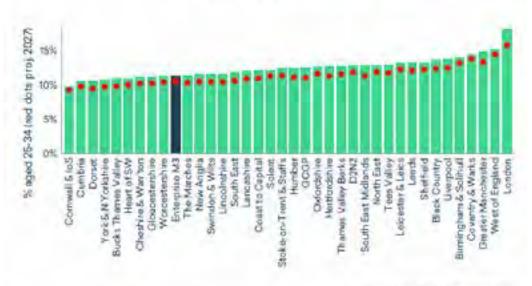
- The graph to the left shows the age profile for EM3 and comparator LEPs. The data label shows the population growth for each age group between 2013-18.
- EM3's population is ageing: the age bracket experiencing the highest population growth in EM3 between 2013-18 was those aged over 65, growing by 9.8%.
- This is higher than over-65 growth in C2C at 8.4% and Solent at 8.5% but lower than the growth in Bucks TV, London and TV Berkshire which were all above 10%.
- The second highest population growth was for those aged between 50-64, increasing by 8.6% between 2013-18.
- EM3's share of those in "prime working age" between 20-49 years old has decreased since 2013. EM3 and C2C are the only LEPs where the share of 20-34s and 35-49s have both decreased
- The share of young people aged between 20-34 decreased by 0.4%. The share of people aged between 35-49 decreased by 3.9%. The share of those in "prime working age" in EM3 decreased by 2.4% overall, double C2C's decrease of 1.1%.

AGE PROFILE COMPARED TO ENGLAND AND OTHER LEPS

Data, Email 2019.1 Demographility



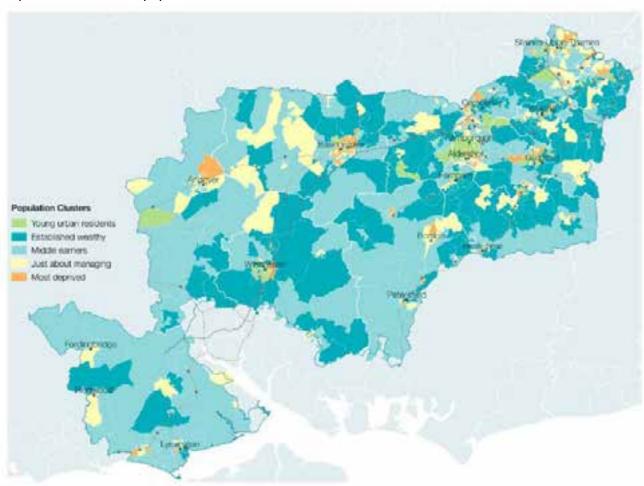




- These charts are from EMSI's labour market analysis for EM3's Skills Talent Advisory Group.
- The top chart shows the age distribution of the general population for EM3 compared to England categorised by age and sex.
- The bottom chart shows the share of young, working aged people between 25-34 years old compared to other LEPs.
- **EM3 has an older age profile** with 7% fewer 16-24 year olds and 17% fewer 25-24 year olds compared to England.
- Despite having the 10th lowest share of residents aged between 25-34, EM3 is ageing more slowly than some areas. The red dot in the bottom graph shows that the share of 25-34 year olds in EM3 is projected to decrease modestly in 2027 compared to major urban centres such as London and Greater Manchester.

YOUNG URBAN RESIDENTS

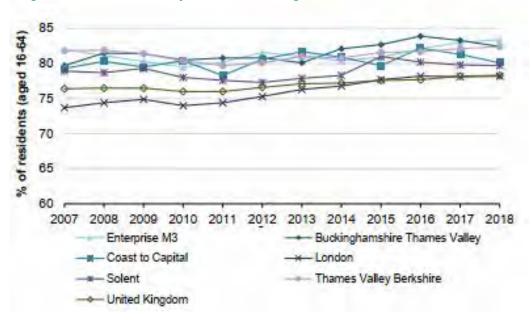
Spatial distribution of population clusters, 2017



- This map (based on 2017 data and showing old LEP boundaries) shows an analysis of EM3's population clusters. It is generated from a series of over 35 demographic and economic variables processed through specialist algorithms to identify predominant socio-economic groups across the region.
- The map reflects the wealth of EM3, as there are large swathes of established wealthy and middle earners, particularly in rural areas. Equally, there are few pockets of deprivation. The areas of deprivation which do exist are mainly in towns, such as in north east Andover, Basingstoke and North Guildford.
- The area has distinct concentrations of Young Urban Residents, particularly in the area extending north from Aldershot to Farnborough. Large groups can also be found in Guildford and Winchester, and smaller groups in Staines-upon-Thames, Woking, Camberly, Basingstoke, Farnham, Haslemere, Bordon, Petersfield and Lymington.
- Young Urban Residents are sought after as a key element for growth in places. They are commonly highly-mobile and qualified 25-34 year olds and are known for creating new jobs and enabling future wealth.

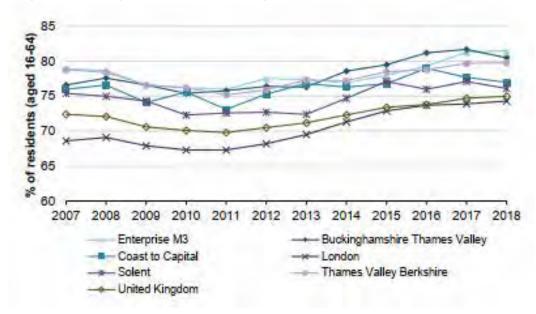
EMPLOYMENT PROFILE

Figure 4-3: Economic activity rate of residents aged 16-64



- The left chart shows the economic activity rate of EM3's working aged residents: those aged 16-64. The economic activity rate includes those who are in work and seeking work. It includes both those who are employed and unemployed. The righthand chart shows the employment rate of EM3 and comparator LEPs. It only includes those who have a job.
- From 2007-18, EM3's economic activity rate has increased by 1%. This is lower than the UK average increase of 1.8%, London's increase of 4.4%, BTV's increase of 3.6% and C2C's increase of 2%. This indicates that the number of people in work or seeking work in EM3 has

Figure 4-4: Employment rate of residents aged 16-64

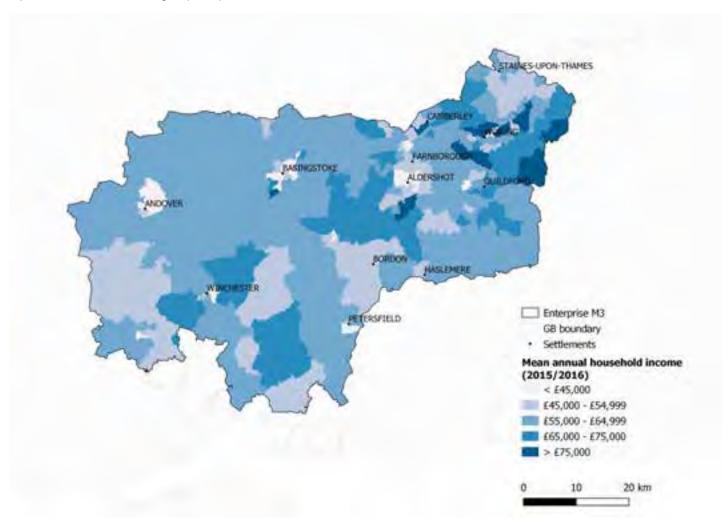


grown at a rate slower than the national picture.

- As of 2018, EM3 has a higher employment rate than the UK and comparator LEPs at 82%. The employment rate has risen by 2.4 percentage points. The increase in EM3's employment rate is higher than the UK increase of 2.3 percentage points.
- EM3's employment rate rising faster than its economic activity rate, coupled with net job losses in EM3 since 2016, indicates that more of EM3's residents may be commuting out of the LEP for employment.

WAGE DISTRIBUTION

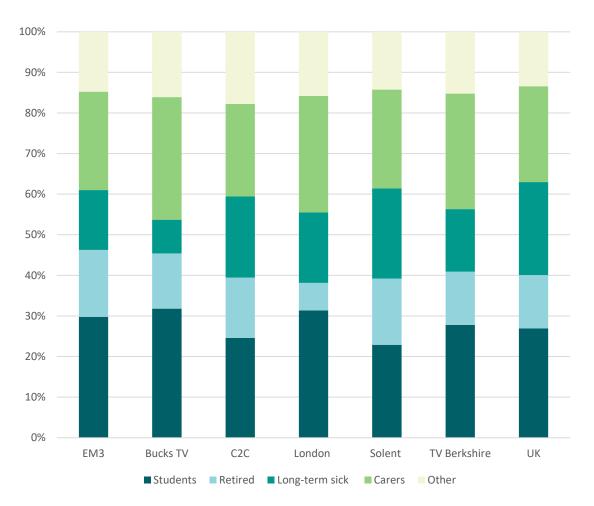
Spatial Distribution of Wages (2018)



- The map to the left shows the spatial distribution of income for EM3 at the MSOA level.
- Areas in the north east of EM3 in Surrey County around Elmbridge, Woking and Guildford have pockets where annual household incomes are above £75,000
- Moving South and West of the LEP area, household income tends to decrease.
- Areas around larger towns such as Aldershot, Basingstoke and Andover have household incomes of lower than £45,000. This is possibly due to the higher share of young people who are more likely to live alone and therefore have only one income source per household.

ECONOMIC INACTIVITY PROFILE

Economic Inactivity by Reason (2018)



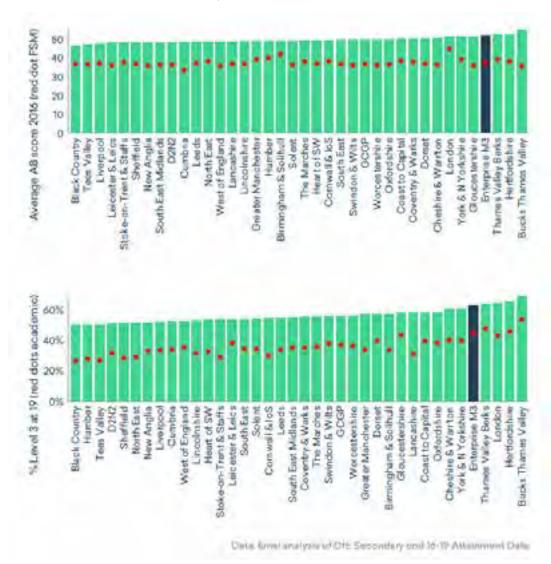
- The chart to the left shows the economic inactivity profile for EM3 and comparators by reason for those aged 16-64 years old.
- For data reliability reasons, those who are economically inactive due to temporary illness, discouragement and other reasons have been grouped into one category.
- The most common reason for economic inactivity is that the person is in full-time education. EM3 has one of the higher student populations at almost 30%, behind London and Buckinghamshire Thames Valley's 32%.
- The next most common reason for being economically inactive is that the person is a carer for family/friends. 24% of EM3's residents fall into this category, marginally higher than the UK and C2C averages.
- 17% of EM3's residents are economically inactive due to retirement. This is the highest share of economic inactivity due to retirement among LEPs shown, above the UK average of 13% and London average of 6%.
- EM3's dependency ratio* as of 2018 is 329, above England's average of 291 and ranked 16/38 LEPs.

^{*}Dependency Ratio is the ratio of those aged below 15 and over 64 to those aged between 16-64. Data is expressed as the proportion of dependents per 100 working age population people, so a higher ratio indicates more dependents per worker in a region.

Source: Metro Dynamics Analysis of Workforce Survey (2018)

EM3 EDUCATION SYSTEM PERFORMANCE

Education Attainment of 16-19 year olds compared to LEPs



- The two charts to the left are taken from EMSI's labour market analysis for EM3's Skills Talent Advisory Group.
- The top chart shows the average Attainment 8 (A8) score in 2015 for EM3 compared to other LEPs. It measures a student's average attainment across 8 GCSE (or equivalent) subjects with English and Maths having double weighting. The red dot shows the A8 attainment score for students eligible for Free School Meals (FSM).
- The bottom chart shows the share of 19 year olds qualified to Level 3. The red dot shows the share of 19 year olds who have achieved their Level 3 qualifications via an academic route such as doing their A-levels rather than a vocational route e.g. doing an Apprenticeship
- EM3 has the 4th highest A8 attainment score among LEPs at 52.6 points compared to the England average of 50.1 points.
- Although the sample size is small, there appears to be an education inclusivity gap, with EM3 falling to 14th place for A8 score of students eligible for FSMs. There are 7% of 16 year olds in EM3 eligible for FSMs, the 2nd lowest behind Buckinghamshire Thames Valley.
- EM3 has the 5th highest share of 19 year olds qualified to Level 3 at over 63% compared to the England average of 57%. This reflects the area's high level of participation in Higher Education.
- The majority of EM3's 19 year olds have achieved their Level 3 qualifications through an academic route, indicated by the red dot in the bottom chart compared to Midlands or Northern LEPs where half achieved Level 3 qualifications through the vocational route.
- There are stark differences in Level 3 attainment among local authorities. Winchester and Hart has the highest share at over 70% compared to Rushmoor with under 50%.

SKILLS PROFILE

Figure 4-1: Percent of residents aged 16-64 with NVQ4 or above

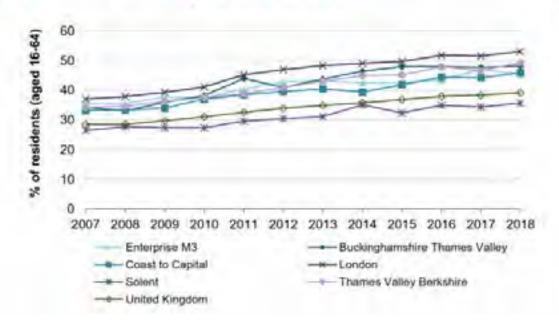
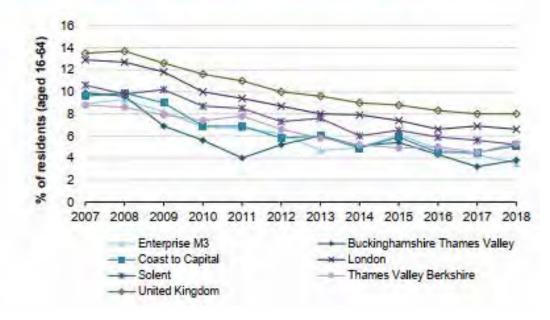


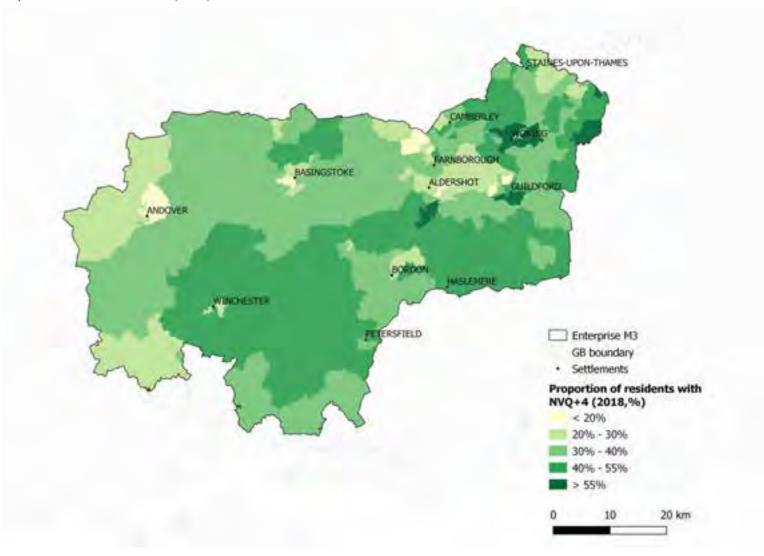
Figure 4-2: Percent of residents aged 16-64 with no qualifications (NVQ)



- The left graph shows the change in share of residents with NVQ4 or above from 2007-18 for EM3 and comparator LEPs. The righthand graph shows the share of residents with no qualifications.
- Between 2007-18, the share of working aged residents with an NVQ4 or above increased by 11.5 percentage points. This is higher than the national increase of 9.9 percentage points.
- BTV, TVB, and London all experienced a greater increase the share of residents with an NVQ4 or above in the range of 12-14 percentage points.
- **EM3** has the lowest share of residents with no qualifications of all LEPs. In 2007, the area already had the lowest share of residents with no qualifications, which could explain why the rate of decrease has been slower compared to the UK average and comparator LEPs.
- Despite a slight increase between 2013-15 which coincided with a decrease in the employment rate within the area, EM3 still has the lowest share of residents with no qualifications of all areas.

SKILLS DISTRIBUTION

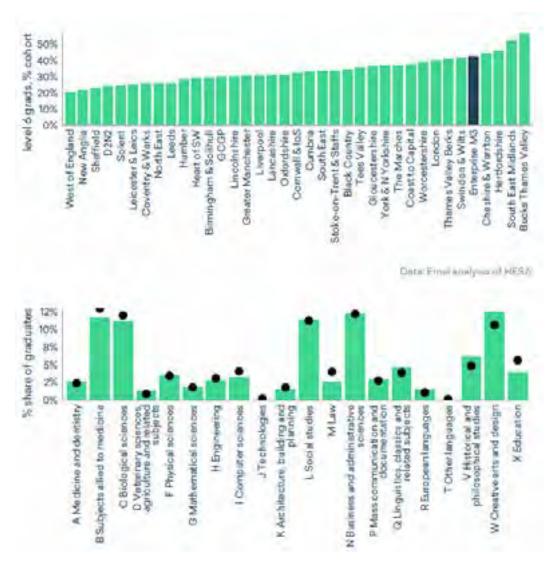
Spatial Distribution of Skills (2018)



- The map to the left shows the spatial distribution of skills in EM3 based at the MSOA level based on Census and Population Survey estimates.
- Areas to the north east of EM3 around Woking and Guildford have a high share of residents with NVQ4+ at over 55%.
- Areas around Andover and south of Basingstoke have a lower proportion of residents with NVQ4+ at below 20%.

EM3 HIGHER EDUCATION

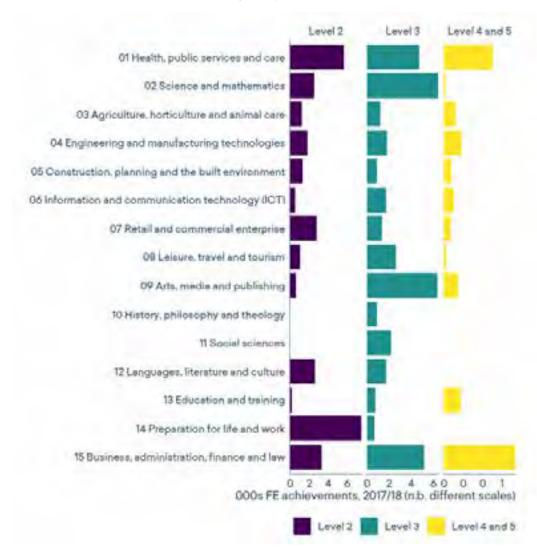
Share of Graduate Cohort by Sector and compared to LEPs (2019)



- The two charts to the left are taken from EMSI's labour market analysis for EM3's Skills Talent Advisory Group.
- The top chart shows the share of graduates as a proportion of 19-24 year olds in EM3 compared to other LEPs.
- The bottom chart shows graduates' subject choices based on HESA's 1 digit JACs code classification. The black dot shows the subject choice of graduates in the UK.
- EM3 places 5th highest among LEPs and Combined Regions for the share of graduates among a typical cohort of 19-24 year olds as indicated by the top graph. Over 40% of 19-24 year olds are likely to have a Bachelors' degree, equivalent to 8,500 graduates.
- Although there is a high level of participation in Higher Education among 19-24 year olds, popular subject choices do not necessarily align with sectoral strengths. For example in EM3 there is:
 - A lower share of students choosing to study Medicine/Life Sciences subjects compared to the national average
 - A lower share students choosing to study Computer Science subjects compared to the national average
 - A lower share of students choosing to study Law compared to the national average

EM3 FURTHER EDUCATION

Further Education Achievements by Subject and Level (2017/18)



- The chart on the left is taken from EMSI's labour market analysis for EM3's Skills Talent Advisory Group. It shows the number of Further Education achievements i.e. those who have completed an apprenticeship categorised by level and subject area.
- It shows the importance of Level 2/3 achievements as a stepping stone to higher qualifications particularly in the field of Health and Professional Services where they account for a large volume of achievements.
- At level 2, the top 3 subjects are Preparation for Life and Work; Health, Public Services and Care; Business, Administration, Finance and Law. There were 6,400 achievements in Preparation for Life and Work; 3,400 achievements in Business, and over 5,000 achievements in Health.
- At Level 2 The most popular 2nd tier subject in Business Administration is the general Administration. In Health Counselling and Psychology is the most popular 2nd tier subject area at Level 2
- At level 3, the top subjects in terms of attainment volumes are Science and Mathematics; Arts, Media and Pushing; Business Admin, Finance, Law. Science and Maths along with Arts and Media are notable given their high volume of achievements at Level 3 and lower volumes of achievement at Levels 4/5. The Apprenticeship Levy may change this pattern in the medium to longer term.
- Within Business Administration, Business Management is the largest 2nd tier subjects accounting for over half the volume of achievements across levels 3-5.
- Within Arts and Media, 2nd tier subject choice are evenly split between Crafts, Creative Arts & Design; Media; and Performing Arts.

JOB VACANCIES



256,000 job postings in the last 12 months

Ranked 8/38 among LEPs 23% above England's job posting level



6.9% postings growth from 2017-19

Ranked 21/39 among LEPs for growth Below England's posting growth of 8.4%



21% skills shortage vacancies in 2017

Ranked 27/38 among LEPs for share Below England's skills shortage of 22%



120 skills diversity index in 2019

Ranked 3/38 for skills diversity Above LEP index of 100

HIGH DEMAND FOR JOBS IN



6,753 Programmer postings in the last 12 months

25.6% increase in programmer postings



25,000 Customer Service postings in the last 12 months



24,000 Information Security postings in the last 12 months



14,000 Nursing postings in the last 12 months

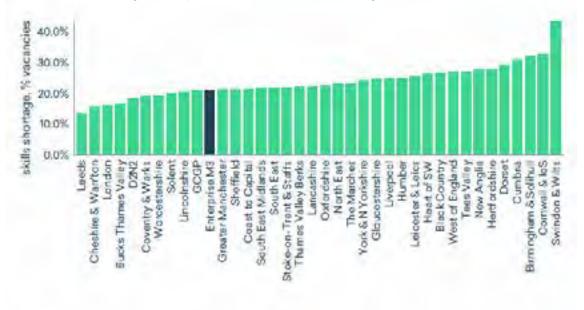


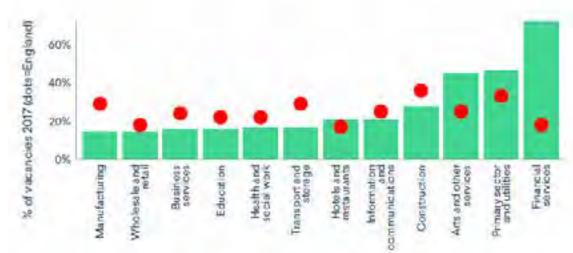
Financial Services will experience skills shortages

85

SKILLS SHORTAGES

EM3 Skills Shortages compared to other LEPS and England (2017)

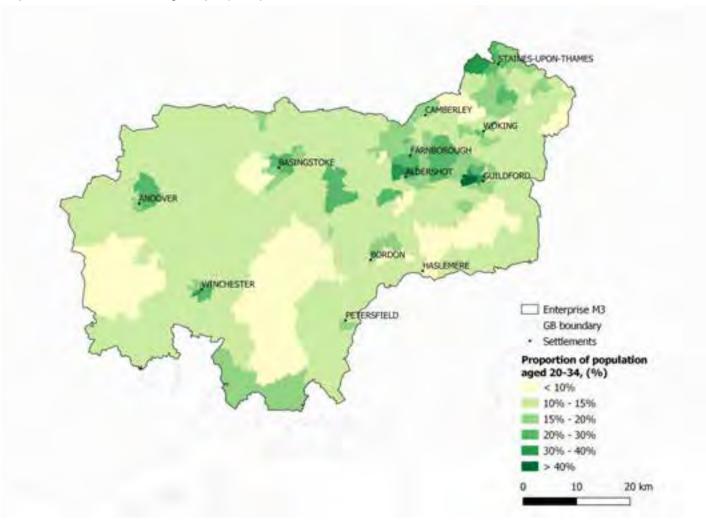




- The two charts to the left are taken from EMSI's labour market analysis for EM3's Skills Talent Advisory Group.
- The top chart shows the share of skills shortage vacancies in EM3 compared to other LEPs based on Employer Skills Survey 2017 results.
- This is based on a sample of 2,161 EM3 employers who reported having a "hard-to-fill" vacancy due to skills shortages.
- The bottom chart shows the sector distribution of EM3's skills shortages compared to England's average which is indicated by the red dot.
- EM3 has a lower share of skills shortage than the LEP average, placing among the bottom third reflecting the area's highly skilled labour profile.
- 3 industries in EM3 have a higher share of skills shortage vacancies compared to the English average:
 - Financial Services
 - Primary sector and utilities
 - Arts and other services.
- Over half of Financial Services employers in EM3 have had skills shortages. This possibly reflects local EM3 employer's difficulty in attracting workers compared to neighbouring markets such as London, the Thames Valley, or Southampton.

DISTRIBUTION OF YOUNG PEOPLE

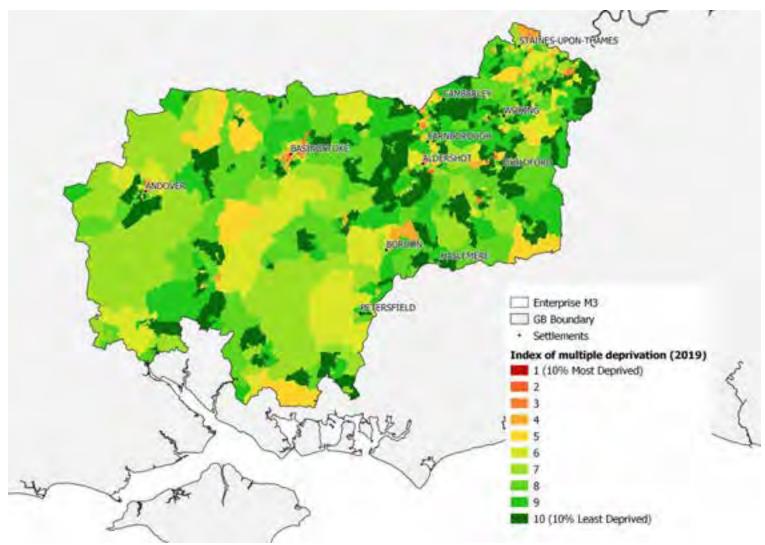
Spatial Distribution of Young People (2018)



- The map to the left shows the distribution of young people (aged 20 – 34) throughout EM3 in 2018 at the MSOA level.
- Young people are clustered around the north east of EM3 in areas closest to London.
- In a pattern that mirrors the rest of the country, young people tend to congregate in urban areas. Many rural parts of EM3 find young people make up less than 15% of the population.
- The areas around Guildford, Farnborough and Aldershot have shares of young people ranging between 30-40%.
- The distribution of young people decreases moving South and West of EM3.
- Areas around Basingstoke, Winchester and Andover also have a higher share of young people ranging from 20%-30%.
- Areas bordering Southampton have a higher share of young people ranging from 15%-20%.

DEPRIVATION MAP

Index of Multiple Deprivation (2019)



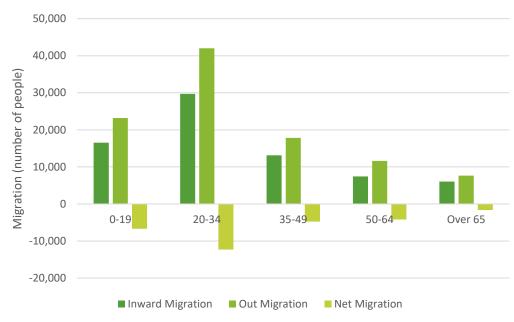
- The map to the left shows the Index of Multiple Deprivation for EM3 at the LSOA level.
- The IMD combines information from multiple domains of deprivation such as income, health and crime, and is used to identify areas of relative high and low deprivation in England.
- Overall, deprivation levels in EM3 are quite low. Most areas are in the 60th percentile or above in deprivation.
- Areas around Guildford and Haslemere are among the 10% least deprived in England.
- There are pockets of high deprivation to the North of Staines-upon-Thames, North East of Bordon, around Basingstoke and Andover.

DOMESTIC MIGRATION PATTERNS

Internal migration for local authorities in EM3, 2018

	Inflow	Outflow	Net Flow
Elmbridge	3,722	8,898	-5176
Guildford	8,268	13,200	-4932
Spelthorne	2,162	6,235	-4073
Woking	4,042	7,038	-2996
Runnymede	5,106	7,609	-2503
Rushmoor	4,796	7,208	-2412
Waverley	6,302	8,564	-2262
Basingstoke and Deane	6,595	8,602	-2007
Surrey Heath	4,643	6,048	-1405
Winchester	8,908	10,191	-1283
Hart	5,163	5,740	-577
Test Valley	6,602	6,580	22
East Hampshire	6,486	6,428	58
Enterprise M3 Total	72,796	102,341	-29,545

Net migration for EM3 by age, 2018

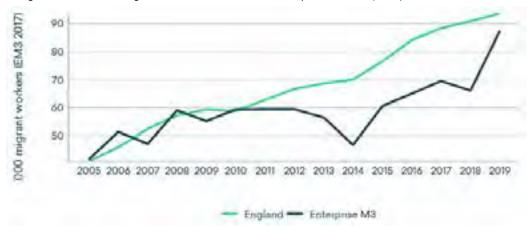


2018 saw a high level of net outward migration from the local authorities within Enterprise M3. 29,545 people are estimated to have moved outside of the LEP boundary. Only Test Valley and East Hampshire experienced net inward migration, but this was on a small scale

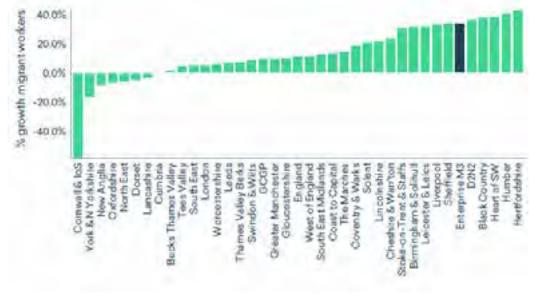
The largest net outward migration was of those aged 25-34 years old, with an estimated 12,317 having left the area. Young professionals and young families make up this age cohort, containing a high proportion of skilled individuals. This cohort is often one of the more financially weak and have lower levels of accumulated wealth, leaving them vulnerable to the high and growing costs of living. There are also a high number of 0-19s leaving the area (6,672).

INTERNATIONAL MIGRATION PATTERNS

Migrant workers entering local authorities within the Enterprise M3 Area (2017)



Growth in the number of migrant workers as a percentage of the current migrant workforce – LEP comparison (2017)



These charts are taken from the EMSI labour market analysis for EM3's Skills and Talent Advisory Group.

International migration into the LEP area has been steadily growing since 2005, bolstered by the introduction of the EU Accession states – new countries entering the EU, like Romania in 2007. It is estimated that the number of foreign national workers more than doubled in the enterprise M3 region between 2005 and 2019, from 41,600 to 87,300.

International migration into the region had been higher than the England average in a number of years prior to 2010, but recent trends show that the levels have been considerably lower than the England average; this is in part due to the rapid growth in the England average from 2010 onwards, and the stagnation of international migration into the LEP area around the same time.

The LEP area of Enterprise M3 has seen a relatively high growth in the number of migrant workers relative to other LEPs. As a proportion of the current migrant workforce, the number of migrant workers grew by 34%. This was the sixth highest of all LEPs. Several of the LEPs with higher growth rates were growing form a smaller historic base, reflecting in a higher proportional score.

INFRASTRUCTURE

INFRASTRUCTURE – SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

Transport / Congestion:

- The strategic roads are the M3, M25 and A3. They link EM3's major urban centres to London, the South East and serve as international gateways. Congestion does currently and will continue to affect these roads.
- Strategic transport infrastructure priorities are:
 - Better connectivity between major economic hubs, international gateways (ports, airports and rail terminals) and their markets.
 - More reliable journeys for people and goods travelling between the South East's major economic hubs and to and from international gateways.
 - A more resilient transport network to incidents, extreme weather and the impacts of a changing climate.
 - More integrated land use and transport planning that helps partners across the South East meet future housing, employment and regeneration needs sustainably.
 - A 'smart' transport network that uses digital technology to manage transport demand, encourage shared transport and make more efficient use of roads and railways.

Air Quality Management Areas:

In EM3, there are currently 17 AQMAs. In the last 10 years, EM3 has revoked 3 AQMAs.

Commercial Property:

- Market rent per square foot declined across the LEP area after 2009 in the wake of the financial crisis; at the same time, vacancy rates have generally increased.
- Since the end of 2018, the commercial property stock has grown along with uptake. Growing rental values have been accompanied by declining vacancy rates, reflecting the upturn in demand.

Digital Infrastructure:

Broadband speeds tend to improve in proximity to London. The north east of the LEP is best-served by digital infrastructure.

Energy:

- In Enterprise M3, there are 7.5% of households that are considered to be fuel poor, compared to the England average of 10.9%.
- Reliance on fossil fuels has fallen significantly in EM3 with a 38% reduction in C02 emissions since 1990.

TRANSPORT CORRIDORS



The map shows the key corridors first identified from the Transport for the South East Economic Review, and sourced from Strategic Policy Context Document. These are corridors that link the locations of businesses in eight priority sectors* with each other and with wider supply chains.

The strategic economic corridor for EM3 is the **South Western Corridor**. This comprises the **A3** Portsmouth Direct Line; the **M3/M26** South Western Mainline; the **A33** Basingstoke-Reading Line; and the **A34** South Western Main Line.

The A3 and M3 forms the M25 to Solent Corridor. Highways England has identified this corridor as a priority investment for Government. There are constraints on the M3 from Farnborough to the M25 and North of Guildford on the A3.

^{*}Priority sectors identified as Advanced Engineering and Manufacturing; Creative Industries; Financial and Professional Services; IT and Data Services; Low Carbon Environmental Industries; Marine, Maritime and Defence; Tourism; and Transport and Logistics

STRATEGIC INFRASTRUCTURE PRIORITIES: RAIL



The rail network across the LEP region connects major settlements to London and across the South East. With a number of ports, the nation's busiest airports, Heathrow and Gatwick, and access to the Channel Tunnel, the authorities that make up Enterprise M3 are well placed to benefit from strategic rail investment.

Providing faster, more reliable connections to the airports and ports in the South East is one of the highest priorities. A lower amount of time lost to travel disruption will increase the money entering these economies.

Future investments in rail services are being considered to improve business travel, the leisure and tourism sector and local connectivity, hoping to prove a key component in the delivery of more housing to the South East.

CONGESTION ON MAJOR SOUTH EAST TRANSPORT CORRIDORS



The map shows the current congestion challenges in the South East area.

Significant parts of the highway network experience high levels of congestion during peak hours.

The highest levels of congestion are on roads closest to major urban centres. Congestion is concentrated to the north east of EM3 in Elmbridge, Woking and Guildford area and in the south west of EM3 to Southampton.

FORECAST GROWTH IN ROAD TRAFFIC

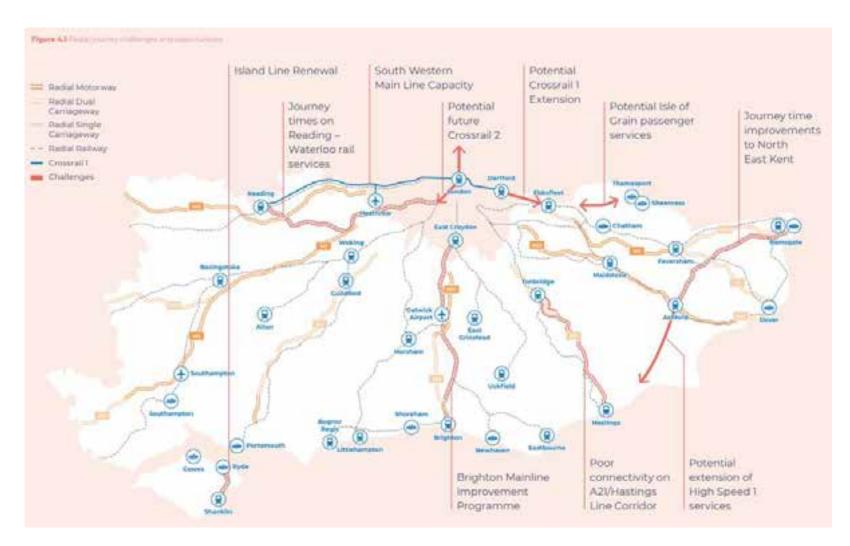


This map shows forecast growth in traffic for the South East from 2018-50.

The number of weekday trips in the South East is expected to grow by approximately 15%, equivalent to 24 million trips by 2050 according to DfT forecasts.

Areas in EM3 with the highest forecasted growth in road traffic are in Basingstoke, Blackwater Valley and Winchester area

RADIAL JOURNEYS: CHALLENGES AND OPPORTUNITIES



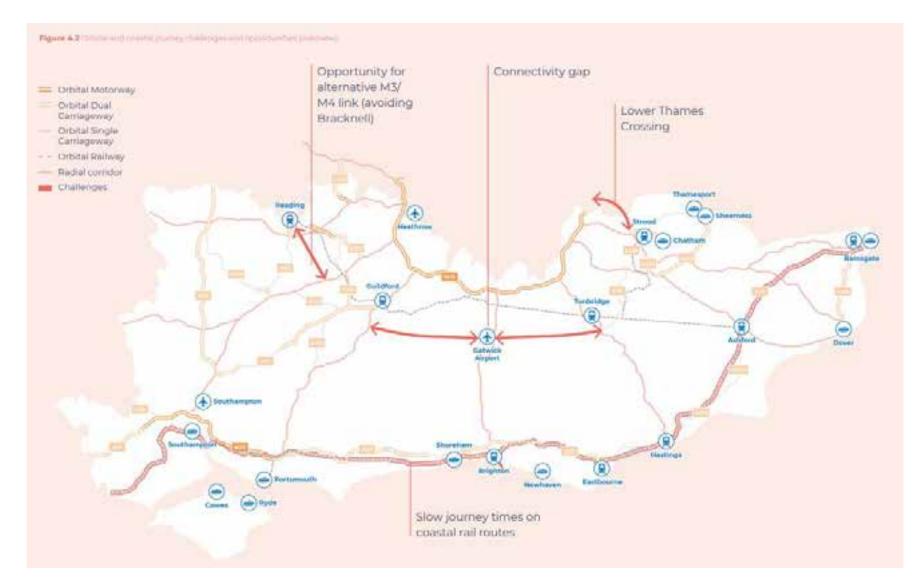
This map shows the challenges and opportunities for radial road journeys in the South East. Radial journeys refer to longer distance trips between the South East and Greater London.

In general, major settlements on radial routes, including those in EM3, are well-linked to London.

However, the A3/Portsmouth Direct Line suffers from poor air quality and noise pollution which can undermine health and wellbeing of residents.

There is also significant congestion around Guildford on the A3 and on the M3/South Western Main Line Corridor. Capacity constraints on the M3 could undermine Basingstoke's ability to support economic growth

ORBITAL ROAD JOURNEYS: CHALLENGES AND OPPORTUNITIES



The left hand map shows the challenges and opportunities for orbital and coastal road journeys in the South East.

Orbital and coastal road journeys link economic hubs across the South East. Compared to radial trips linking the South East to London, orbital trips are sparser and have lower speeds.

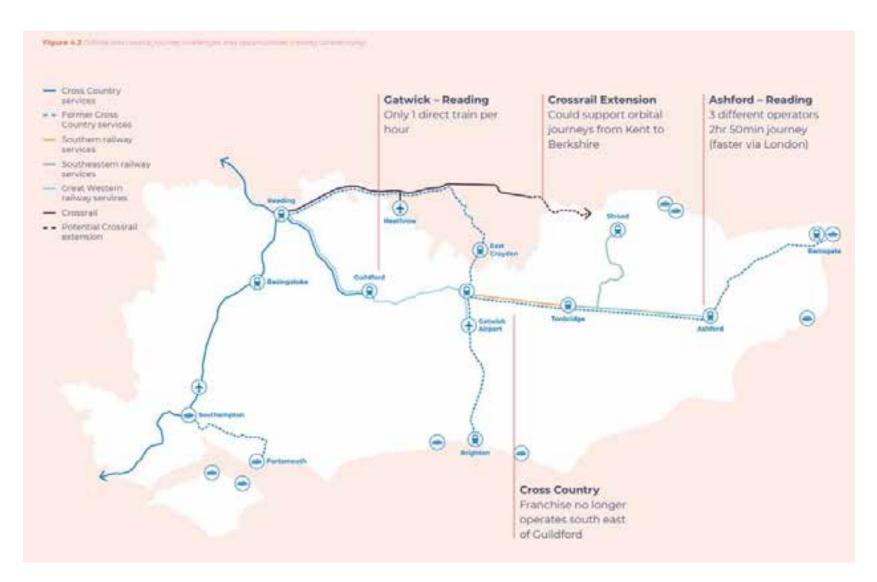
Protected landscapes heavily constrain orbital corridors between the North and South Downs.

Road and rail networks are not aligned along orbital corridors. Some routes are only served by road, others only by rail.

The main challenges for orbital road journeys are:

- Gaps between the M20, M23/A23 and A3
- Bottlenecks on orbital links between the M3 and M4
- Limited capacity for expansion along the M25 corridor.

ORBITAL RAIL JOURNEYS: CHALLENGES AND OPPORTUNITIES



This map shows the challenges and opportunities for orbital and coastal rail journeys in the South East.

Rail journey times along orbital routes are slow due to lower speeds and fragmented ownership of rail route operators.

There is currently no direct train from Guildford to Gatwick airport and very few long-distance orbital rail services in the South East.

The quality of the railway infrastructure on orbital and coastal corridors is a barrier to economic development in these areas. For example, not all tracks have been electrified and the quality of infrastructure is poor in some parts.

KEY FREIGHT AND INTERNATIONAL GATEWAY CORRIDORS



This map shows the key corridors serving international gateways for freight journeys in the South Fast

The international gateways serve as an employment and transport hub for the South East with large business parks near to Heathrow and Gatwick.

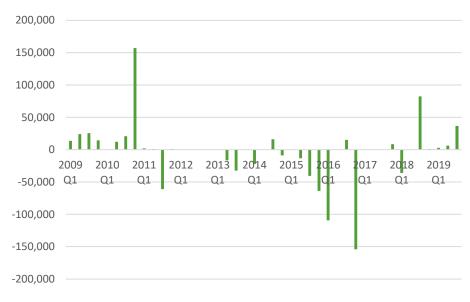
The M3/A34 corridor is an important gateway linking southern parts of the EM3 to regions west and north of London.

Some challenges and opportunities are the:

- Southern Rail Access to Heathrow.
 The airport has plans to develop a third runway which will increase traffic volume.
- The port expansion at Southampton which will need good road and rail support such as junction improvements across the M3/A34.

COMMERCIAL PROPERTY ACROSS ENTERPRISE M3

Net deliveries of office properties (sf) across EM3, 2009-19

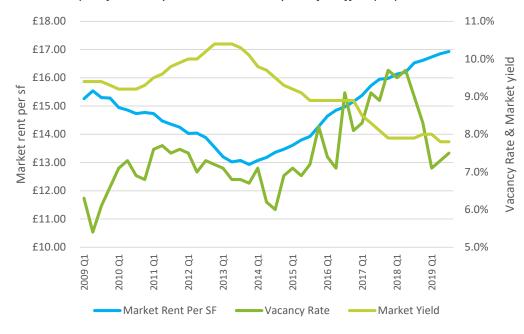


The chart on the left shows change in the stock of commercial property in EM3 from 2009 – 2019. The righthand chart shows market rents, vacancy rates and market yields for office property in EM3.

Market rent per square foot declined across the LEP area after 2009 in the wake of the financial crisis; at the same time, **vacancy rates have generally increased** (despite a fall from 2012 – 2014).

There were signs of limited confidence and hence low demand in the commercial property market in the wake of the financial crisis. Market yields were rising while even though market rents were falling – which is symptomatic of property prices falling at a faster rate than market rents.

Market rent per sf, Vacancy Rates and Market yields for office properties across EM3



More commercial properties were being delivered between 2009 and 2011, but this was creating excess supply and causing market rents to fall, reflected in a rising vacancy rate. Excess supply was later absorbed.

The upturn in market rents in most cases is indicative of a growing demand for office property. Across EM3, however, this is at least partly the result of supply being stripped back from 2015 - 2018. Net deliveries were negative in all periods in 2015.

Since the end of 2018, the commercial property stock has grown along with uptake. Growing rental values have been accompanied by declining vacancy rates, reflecting the upturn in demand.

COMMERCIAL PROPERTY: SPOTLIGHT ON WINCHESTER

Net deliveries of office properties, 2009-2019

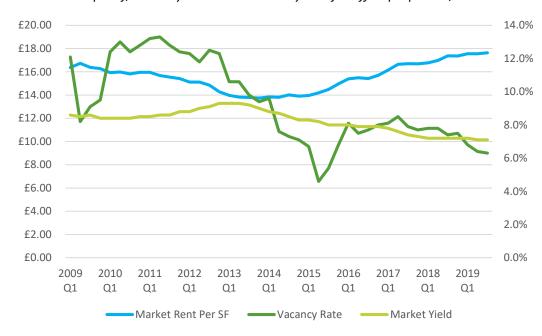


Vacancy rates have been high in Winchester, peaking at 13.3% in 2011Q2. They have steadily declined since then, with the exception of an increase midway through 2015.

There were high levels of excess supply in Winchester during 2009 and 2010 leading to a high and rising vacancy rate. This coincided with the aftermath of the financial crisis. Since then, vacancy rates have fallen. Absorption – the rate at which the market acquires vacant floor space – has picked up and net absorption levels have been in positive figures, generally.

Winchester still has a relatively high vacancy rate (6.3% in 2019 Q3) in

Market rent per sf, Vacancy Rates and Market yields for office properties, 2009-2019

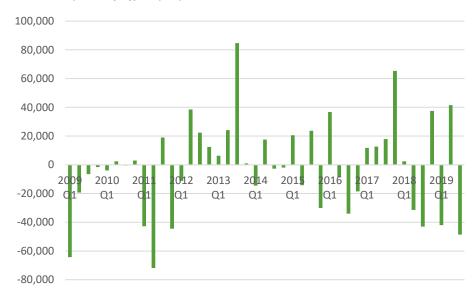


relation to the UK average (5% 2019 Q3), but exhibits a stronger commercial market that has started to bounce back.

Little development has happened in Winchester since 2012, but market rents have been growing steadily. The little impact of supply on market prices highlights that demand has been growing in the city as absorption rates grow. Two significant periods of development in 2018 and 2019 have coincided with a decline in the vacancy rate, as these properties appear to have been absorbed by the market. Property prices are also growing at a faster rate than rental prices, reflected in the declining nature of market yields in Winchester.

COMMERCIAL PROPERTY: SPOTLIGHT ON GUILDFORD

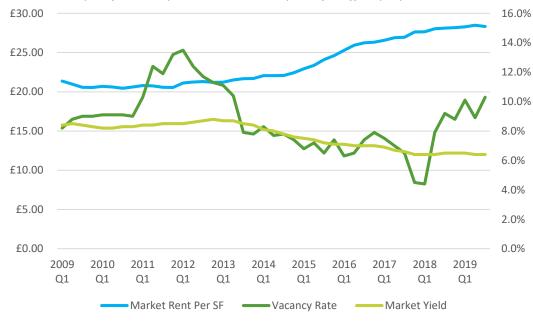
Net absorption of office properties



Guildford has a high vacancy rate, which has not fallen significantly over the course of the last ten years. There has been little development of note (other than a 90,000 square foot development in 2018 Q2) contributing to the growth in vacancies, but it has mainly been driven by negative levels of net absorption in the market.

The sometimes large levels of property absorbed in Guildford are often masked by preceding or succeeding quarters of negative absorption. This

Market rent per sf, Vacancy Rates and Market yields for office properties



has meant that vacancy rates fall for one or two periods and then rise again. A period of general decline in the vacancy rate occurred from 2012 to 2017, but current rates are higher than they were in 2009.

However, market rents have been increasing in Guildford. Market rents in 2019 Q3 are 33% higher than they were ten years ago (2009Q1), growing at an average rate of 0.7% per guarter during this time.

BROADBAND COVERAGE

The two maps on the following page show maximum and average broadband download speeds at the local level by Mbit/s for the EM3 area. This can be used to see which areas have the highest and lowest connectivity. The maps overleaf use data from Ofcom Connected Nations (2018).

Maximum speeds allow us to see the constraint on connectivity, i.e. what is possible to get in any area as demonstrated by the fastest connections available. Areas with the highest maximum speeds of 100 Mbit/s and over are found primarily in the north east boundary of the EM3 area, including urban areas such as Aldershot, Guildford and Woking, but also feature in other patches of the EM3 area such as the around within and around Andover, Winchester, Basingstoke and Petersfield.

There are large parts of the EM3 area that have high maximum download speeds of (70-80 Mbit/s), including urban places such as Bordon and Hasslemere.

Areas with lower maximum download speeds (10 - 30 Mbit/s) are mostly found in some rural parts of EM3, including the area north of Andover and East of Woking. Places that experience the lowest maximum download speeds are the patches of land between Winchester and Petersfield

and south of Petersfield, which see maximum download speeds of between 0 – 10 Mbit/s.

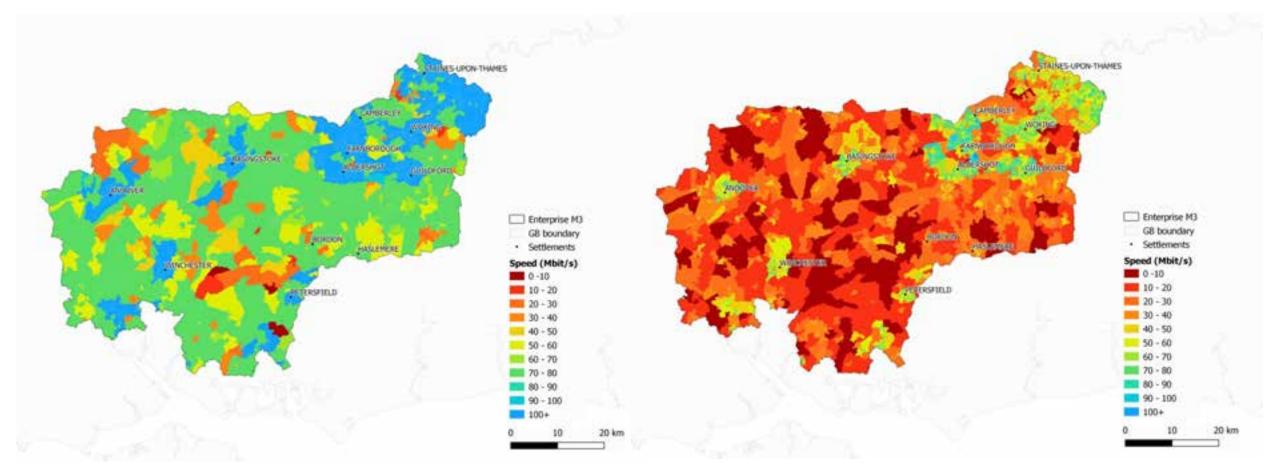
The pattern of average download speeds largely reflects that of the maximum. The area in the north east boundary of EM3 towards London, along with primary urban areas such as Basingstoke, Andover, Winchester and Petersfield are where average download speeds are at their highest.

Parts of EM3 where average download speeds are at their lowest tend to be located within rural areas. Much of the land in the centre of EM3 has either 0 - 10 Mbit/s or 10 - 20 Mbit/s average download speeds.

BROADBAND COVERAGE

Maximum download speeds across EM3 (2018)

Average download speeds across EM3 (2018)



Source: Ofcom Connected Nations (2018)

MOBILE COVERAGE

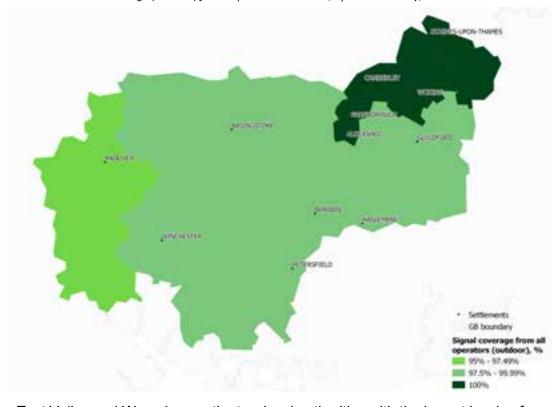
All local authorities within the LEP boundary have good network coverage, but coverage is better in those authorities in the east of the LEP, closer to London. Being inside a building can limit the access to 4G across most local authorities, reflected in the lower levels of "indoor" coverage across the LEP area relative to "outdoor" coverage.

Mobile network 4G coverage (indoor) for all operators combined, by local authority, 2018



Access from indoors is lowest in Test Valley; access to 4G is possible in only 95.5% of the local authority. This is followed by the local authority of Waverley, where coverage climbs to 97.1%. Conversely, Rushmoor and Spelthorne both have 100% 4G coverage, and Woking and Elmbridge have 99.99% coverage.

Mobile network 4G coverage (outdoor) for all operators combined, by local authority, 2018



Test Valley and Waverley are the two local authorities with the lowest levels of outdoor 4G coverage, with 96.9% and 99.16% coverage, respectively. All other local authorities have levels of coverage in excess of 99%, with Woking, Rushmoor, Elmbridge, Surrey Heath, Runnymede and Spelthorne all achieving 100% coverage.

AIR QUALITY

- An Air Quality Management Area (AQMA) is an area that local authorities recognise as needing improvements to air quality it is a legal requirement to declare these areas, in the interests of public health and safety.
- The five pollutants most likely to affect health on a day-to-day basis are: Ozone; Nitrogen dioxide (NO₂); Sulphur dioxide (SO₂); Particulate matter (as PM₁₀); and Fine particulate matter (as PM_{2·5}).
- In EM3, there are currently 17 AQMAs. In the last 10 years, EM3 has revoked 3 AQMAs, in relation to poor quality attributed to road transport and industrial sources. The number of AQMAs remains large relative to the number of AQMAs that have been revoked, indicating that air quality remains a problem in EM3.

Guildford – 2 AQMAs currently:

- The Street Compton Surrey AQMA- major pollutant: N02.
- A281 The Street Shalford Surrey AQMA major pollutant: N02

Elmbridge – 7 AQMAs currently:

 Esher, Walton road Molesey, Weybridge, Hampton Court, Cobham, Hinchley and Walton AQMAs – major pollutant N02.

Runneymede – 2 AQMAs currently:

- M25 AQMA- major pollutant (PM10) AND N02.
- Addlestone AQMA major pollutant N02

Spelthorne – 1 AQMA currently:

Spelthorne AQMA – major pollutant N02

Waverley - 2 AQMAs currently:

- Farnham AQMA major pollutant N02.
- Godalming AQMA- major pollutant N0²

Winchester – 1 AQMA currently:

Winchester Town Centre AQMA – major pollutants N02 AND PM10.

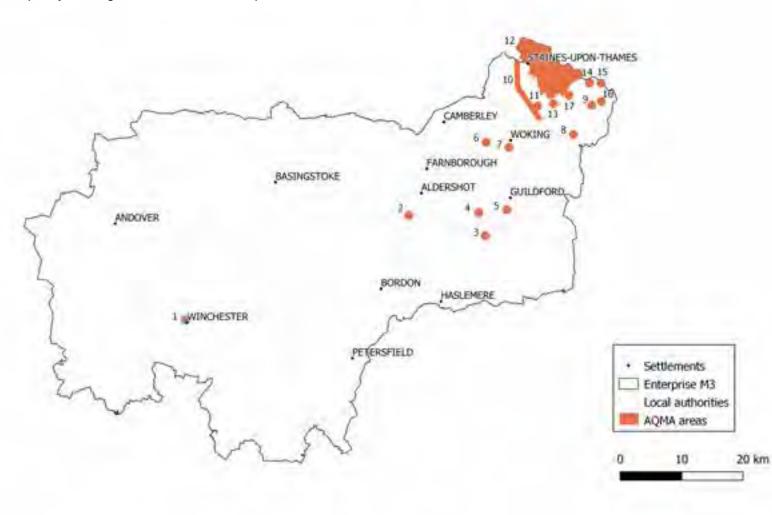
Woking – 2 AQMAs currently:

- Anchor Hill AQMA Major pollutant N02
- Guildford Road to the south of Constitution Hill AQMA major pollutant N02

Source: DEFRA (2018)

AIR QUALITY - EM3 MAP OF AIR QUALITY MANAGEMENT AREAS

Air quality management areas EM3 map

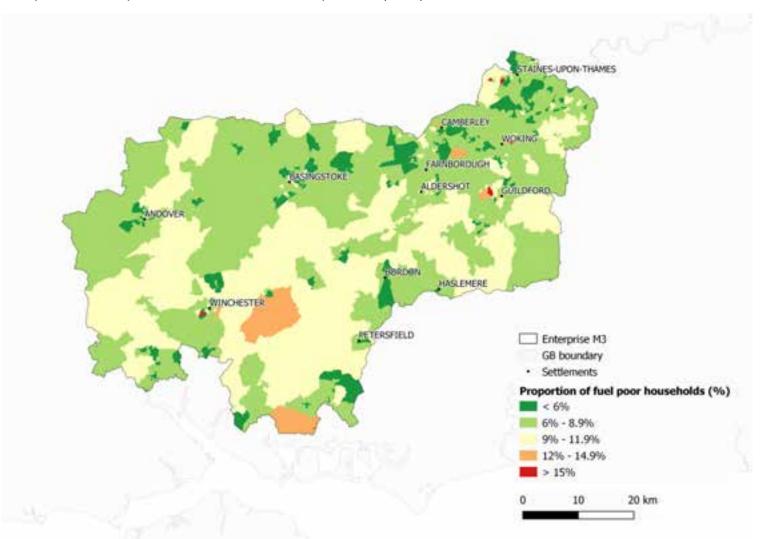


- 1. Winchester Town Centre AQMA
- 2. Farnham AQMA
- 3. Godalming AQMA
- 4. The Street Compton AQMA
- 5. Shalford AQMA
- 6. Anchor Hill AQMA
- 7. Guildford Road AQMA
- 8.Cobham AQMA
- 9. Esher AQMA
- 10. M25 AQMA
- 11. Addlestone AQMA
- 12. Spelthorne Borough AQMA
- 13. Weybridge AQMA
- 14. Walton Molesley AQMA
- 15. Hampton Court AQMA
- 16. Hinchley Wood AQMA
- 17. Walton AQMA

Source: DEFRA (2018)

FUEL POVERTY

Proportion of fuel poor households across Enterprise M3 (2017)



The figure on the left shows the proportion of fuel poor households across the EM3 area.

Large parts of the EM3 area have relatively low rates of fuel poverty, including rural areas, such as the land west of Basingstoke, around Woking and Halsemere and south of Winchester. These rates can also be found in urban areas such as Farnborough, Guildford, Aldershot and Staines upon Thames.

There are pockets of even lower fuel poverty (< 6%) that are typically found in and around urban areas such as Andover, Bordon, Petersfield and Camberley but also feature rurally such as the land located at the north east boundary.

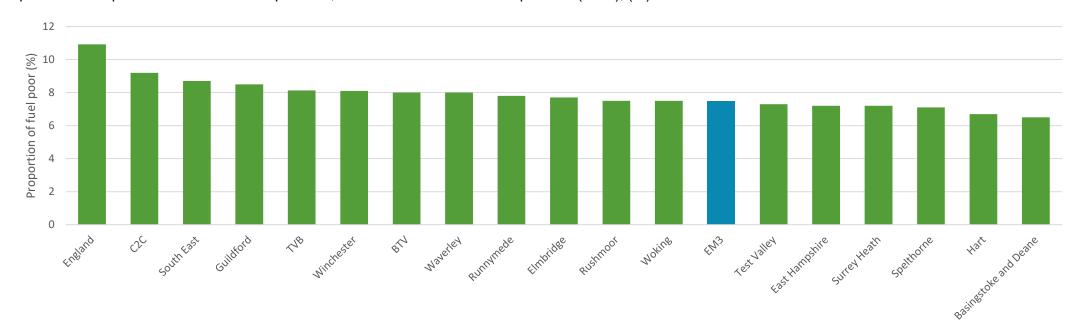
Large areas of higher fuel poverty (9% - 11.9%) can be found in the centre of EM3, with a large concentration located in rural areas. Rates of fuel poverty continue to rise east of Winchester and at the southern boundary.

Places that experience the highest fuel poverty in the EM3 area, can be found west of Guildford, Winchester and Staines upon Thames with the proportion of of fuel households over 15%.

Source: BEIS (2017)

FUEL POVERTY

Proportion of fuel poor households in Enterprise M3, its local authorities and comparators (2017), (%)



Fuel-poor households are those where the required fuel costs are above the national median level, and were they to spend that amount on energy, residual income would place the household below the official poverty line.

In Enterprise M3, there are 7.5% of households that are considered to be fuel poor. This is below that of the national and south east region averages of 10.9% and 8.7% respectively.

Amongst other LEP comparators, EM3 also has a lower proportion of fuel households compared to Thames Valley Berkshire (8.1%) and

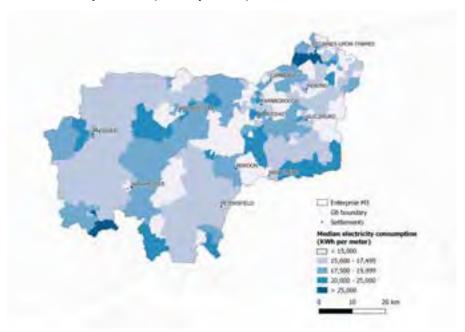
Buckinghamshire Thames Valley (8.0%).

Within the EM3 area, the highest rates of fuel poverty are in Guildford (8.5%), and Winchester (8.1%), whereas the authorities with the lowest include Basingstoke and Deane (6.5%), and Hart (6.7%).

Source: BEIS (2017)

ENERGY CONSUMPTION IN EM3

Median electricity consumption by KWh per meter across EM3.

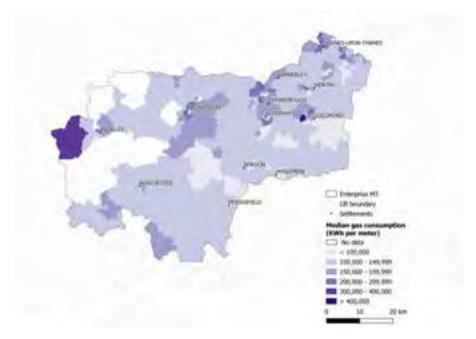


The two maps above show median gas and electricity consumption within the EM3 area for 2017.

Areas of low electricity consumption of less than 15,000KWh per meter are found in the rural areas east of Aldershot, Guildford and Farnborough. Large areas of EM3 have consumption in the next bracket up (15,000 – 17,499 kWH) including the land at the west boundary and surrounding Petersfield.

Urban areas tend to have higher median consumption of 17,500 – 19,999 kWh per meter such as Woking, Guildford, Andover and Winchester. Interestingly some of the highest consumption in EM3 is found in rural places, for instance, the patch on the far south west boundary and outside of Staines upon Thames.

Median gas consumption by KWh per meter across the EM3.



The map on the right shows median gas consumption in EM3. Note shading in white refers to missing data. A large proportion of EM3 has gas consumption between 100,000 – 149,999 kWH.

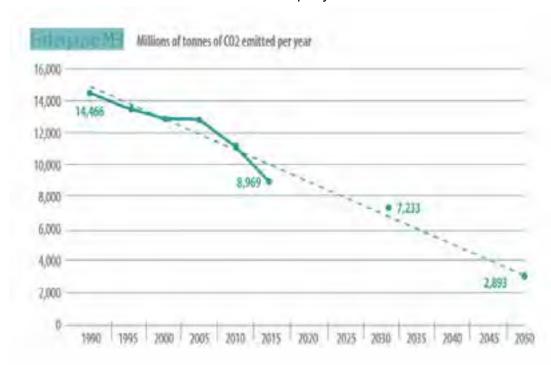
Many urban areas including Guildford, Woking, Bordon, Winchester and Petersfield have median consumption between 150,000 – 199,99 kWH. Basingstoke, Staines upon Thames and Andover are the urban areas with the highest gas consumption (200,000 – 299,999 kWH).

Similar to electricity consumption, the highest consumption is found outside of built up areas, such as the land west of Andover and Guildford.

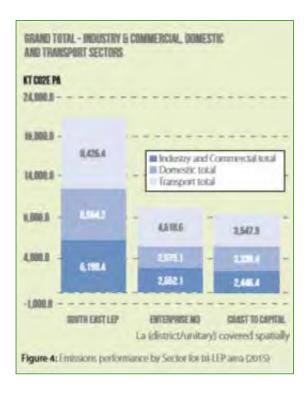
Source: BEIS (2017)

TRENDS IN THE EM3 ENERGY SECTOR

Millions of tonnes of C02 emissions emitted per year



- Reliance on fossil fuels has fallen significantly in EM3 with a 38% reduction in C02 emissions between 1990 and 2015, attributed to increased efficiency in motor vehicles and elimination of coal fire energy generation.
- The number of C02 emissions emitted each year is expected to fall by a further **19.4%** up to 2030.
- C02 emissions per capita in EM3 are high relative to neighbouring LEP



- areas with **6.1 tonnes of C02e per capita** compared to **4.6** for Coast to Capital and **5.9** against the national average.
- Transport represents the biggest cause of emissions in EM3, accounting for 45% of the total.
- 1/3 of total energy generation within EM3 is used to produce heat which accounts for a quarter of total emissions.

THE FUTURE FOR THE EM3 ENERGY SECTOR

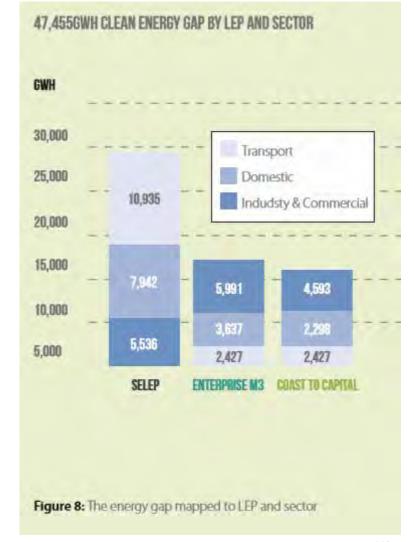
As part of EM3 Local Energy Strategy developed alongside the Coast to Capital and South East LEP, two main goals have been identified for the energy sector:

- **De-carbonisation**; targeting efforts to reduce emissions in the **electricity**, **heat** and **transport sectors**.
- Foster clean growth: supporting public and private investment in low carbon technologies

Five priority themes have been identified to achieve these goals, including low carbon heating, renewable energy generation, energy saving and efficiency, smart energy systems and transport.

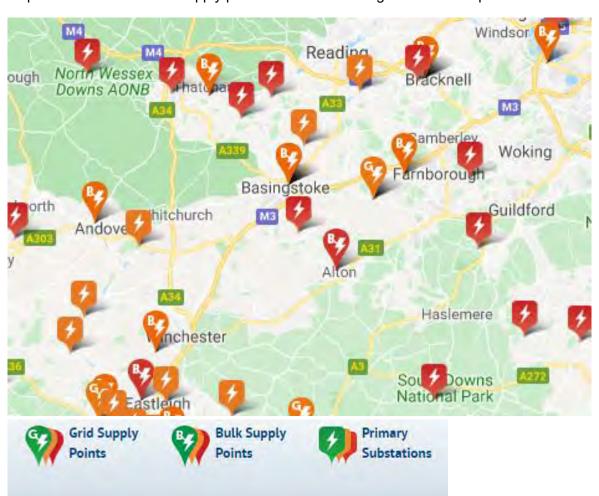
- The Tri LEP area aims to transition 47,455 GWh from polluting high carbon generation to clean energy resources by 2032.
- The chart on the right shows that **15,055 GWh** produced in EM3 is required to change to clean energy by 2032 in order to meet the transition target.
- The Tri LEP area has secured £14.8bn of investment for commercially viable projects to ensure this goal is met.

Number of GWh required to transition to clean energy by LEP by sector



ENERGY GRID SUPPLY CAPACITY

Map of constrained SSEN supply point connections to large scale developments.



- The map to the left shows the supply points that are constrained with regards to connecting large scale energy generation projects to the grid within the EM3 area.
- Connection to supply points with a red classification indicate that there is a requirement for significant network reinforcements to overcome the impact of the network constraints.
- Orange refers to connections that will likely require network reinforcements to establish a connection.
- There are network constraints found within urban areas such as Basingstoke, Winchester, Andover and Farnborough.
- Constraints in the network can also be found within rural areas such as south east of Guildford, east of Andover and south of Basingstoke.
- It is important to note that this map shows only the supply stations under the Scottish and Southern Electrical Network ,and does not include those under the UK Power Networks that also distribute electricity within the EM3 area.

PLACE

PLACE – SUMMARY OF FINDINGS

Towns & Functional Economic Areas (FEMAs):

- Towns in the Outer London/Northern Surrey FEMA have a higher level of productivity compared to towns in FEMAs further from London.
- EM3's broad network of interspersed towns serve a variety of purposes and have varying levels of productivity, employment, major assets and services.

Commuting Patterns:

• EM3 has 68% of its workers living within the area (385,978). 160,627 EM3 residents leave the area each day for work – as a proportion of the employed workforce this is 3rd highest among LEPs. Just over 180,000 workers each day commute into EM3 from outside the boundary. Given that, this means EM3 is a net importer of labour.

Natural Capital:

- Most of EM3's natural capital assets are close to built up areas.
- As of November 2019, both Surrey and Hampshire County Councils have declared a Climate Emergency.

Rural Areas:

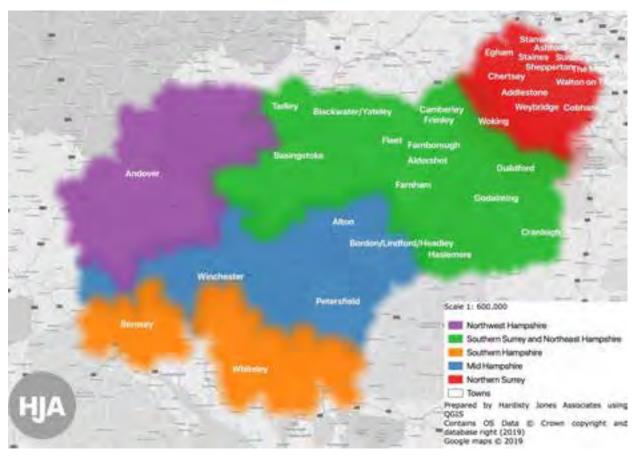
• The total population for rural areas is 487,544. Rural areas account for 31% percent of EM3's total population. Since 2013, the rural population has increased by 2.9%. Population growth in rural areas is largely driven by older residents moving into the area.

Housing:

- Total housing stock of 639,010 dwellings. Housing stock increased by 4.1% between 2013-18.
- The lowest housing affordability within the EM3 area is found in Guildford and areas located at the north east boundary with prices 14 times over that of net annual incomes.
- There are large parts of EM3 that have seen a fall in housing affordability, such as the area surrounding Winchester and west of Bordon with affordability decreasing by 10% to 29.9%. Guildford and the surrounding areas, have seen the largest decline in housing affordability, with a fall by over 50% between 2011 2016.

FUNCTIONAL ECONOMIC AREAS

Functional Economic Areas in EM3



- The map to the left shows five functional economic areas (FEMAs) in EM3. These areas were determined based on combining travel to work areas, commuting flows and commercial property data.
- Northern Surrey is primarily a residential area. Most towns have a residential population of below 30,000. These towns typically have lower industrial and retail floor space
- Southern Surrey and Northeast Hampshire FEMA is both a residential and employment hub. It contains Basingstoke, the only town with a population over 100,000. The area supports a strong, high-value innovative business base with specialisms in Space, Gaming, Aerospace and Defence. Anchor Institutions such as the University of Surrey is located in the area around long the gaming cluster in Guildford. There is a high level of Aerospace and Advanced Manufacturing activity in Farnborough.
- The Mid Hampshire FEMA has specialisms in pharmaceuticals in Petersfield and technology businesses in Winchester. Winchester is the "anchor" town for the area, having a high level of employment, although the area's job mix is skewed towards the public sector in public administration, defence, and health.
- Northwest Hampshire FEMA is a more rural part of the LEP, and is based around Andover. Andover is among the larger towns in EM3, with a high employment ratio and floorspace for commercial and retail purposes. Andover lacks sector specialisms, although it does have a key cluster in manufacturing.
- Southern Hampshire is an important innovation hotspot. The area is close to the University of Southampton. Romsey is home to Southampton Science Park generating over £550 million in economic impacts. South Winchester M27 corridor has the highest employment ratio, indicating that there are more workers in the town than people who live there.

TOWNS

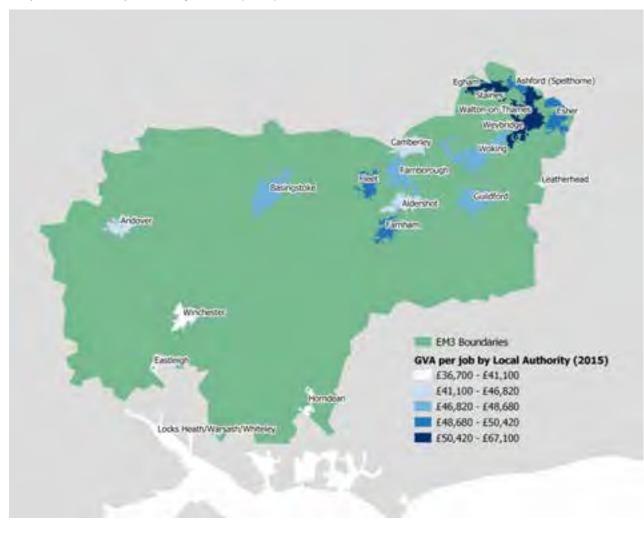
- EM3's towns can be split into 4 categories:
 - Major towns with a population of over 50,000
 - Large towns with a population of 30,000 50,000
 - Medium towns with a population of between 20,000 - 30,000
 - Small towns with a population between 10,000 - 20,000
- There are 5 large towns. In descending order of population they are
 - Basingstoke with a population of 110,000
 - Guildford with a population of 78,000
 - Woking with a population of 78,000
 - Farnborough with a population of 58,000
 - Andover with a population of 56,000
- Basingstoke is the employment, leisure, culture, health and education hub of Northern Hampshire. It is EM3's largest population centre. It has diverse clusters of businesses. Median house prices are below the LEP value.
- Guildford has clusters of distinctive niche sectors such as Gaming and Space. It has high levels of employment and availability

- of floorspace for commercial purposes. Median house prices are lower than the LEP value.
- Woking has specialisms in Advanced Manufacturing such as making low-emissions engines. There is a high level of employment and availability of commercial space however, levels of in-commuting are low.
- Farnborough specialises in Information and Communications. It is a residential town with a high out-commuting population.
- Andover has a lower share of residents qualified the NVQ4+ level compared to the UK average. The town does not have sector specialisms although it does possess a key cluster in manufacturing.
- There are small but productive towns that such as Egham, Petersfield, South Winchester M27 Corridor which supports important business and science parks.

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TOWN-LEVEL PRODUCTIVITY

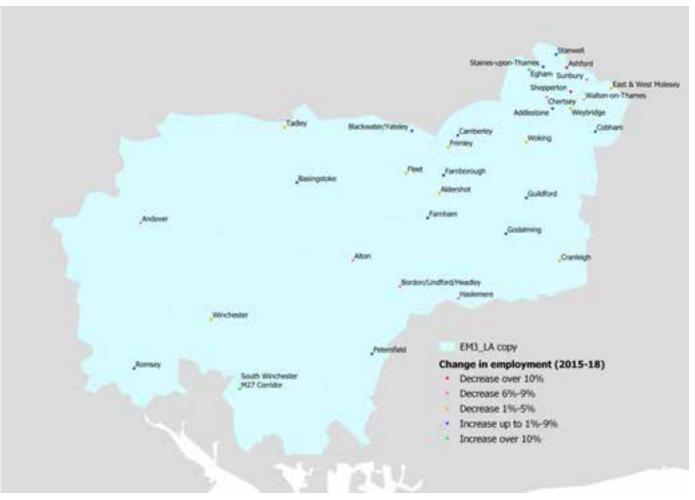
Map of Town-level productivity in EM3 (2015)



- The map on the left is taken from EMSIs labour market analysis prepared for EM3's Skills and Talent Advisory Group (STAG). It shows the distribution of productivity for EM3's towns based on 20 Built-up Areas.
- Egham in Spelthorne has the highest GVA per job at £67,100. This is 40% higher than the regional average.
- Other highly productive town areas with a GVA per job of over £50,000 tend to be clustered in the counties closest to London in Spelthorne; Elmbridge; Runnymede.
- Fleet and Farnham are the exception to this trend as they both have a GVA per job exceeding £50,000 but are further away from London. This is possibly due to the capital-intensive nature of business activities occurring in these areas. Farnham has a high level of activity in the aerospace sector whilst Fleet has high budget inward investment in renewable energy.
- The 3 largest labour markets are Basingstoke (64,200 jobs; £3.1bn economy); Guildford (57,400 jobs; £2.8bn economy); Woking (49,000 jobs; £2.3bn economy). Their GVA per job is in the middletier ranging from £46,000-£48,000.
- Winchester and Eastleigh have a lower GVA per job compared to other town areas. Given that Winchester is the 4th largest labour market in EM3, it suggests the town is underutilising its assets. Eastleigh's proximity to Southampton Science Park and the University of Southampton makes its lower GVA per job surprising.

TOWN CHANGES IN EMPLOYMENT

Map of Town-level Percentage Changes in Employment (2015-17)



- The map to the left maps the relative change in employment for 33 main towns in EM3 between 2015-17 using BRES data. It is taken from Hardisty Jones' Towns Report.
- The 2 towns with the employment growth of over 10% were Egham and South Winchester M27 Corridor.
- The 2 towns with employment declines of over 10% are Ashford and Shepperton.
- Highly productive towns with strong employment growth such as Egham and Staines are close to towns which have experienced declining employment, such as Shepperton and Ashford.
- There is no local authority where all major towns have experienced employment growth. This supports the theory that a single employer/workplace can significantly influence each town's productivity or employment patterns.

TOWN CHANGES IN BUSINESS UNITS

Map of Town-level Percentage Change in Business Count (2016-18)



- The map to the left maps the relative change in business count for 33 main towns in EM3 between 2015-17 using ONS Business Counts data. It is taken from Hardisty Jones' Towns Report.
- South Winchester M27 and Egham are in the highest tier for both business and employment growth.
- Towns with business count growth will not always have employment growth. Woking and Winchester have had business growth of over 10% but have had employment declines. This supports the theory that workforce retention may be an issue for EM3's local employers.
- Shepperton experienced both an employment and business count decline of greater than 10%. Between 2016-18, its business count declined by 15%, almost twice as high compared to Haslemere, which experienced the 2nd highest business count decline at 8%.
- It is also possible to have business count decline but employment growth. Guildford is one example of this. This is likely because large businesses account for over 50% of EM3's employment share despite accounting for under 1% of the total business count.

TOWN ASSETS

Figure 3.21: Towns with Hospitals

Town	District	District Hospital	
Yes			
Andover	Test Valley	Andover War Memorial	
Basingstoke	Basingstoke & Deane	Basingstoke & North Hampshire	
Frimley	Surrey Heath	Frimley Park	
Guildford	Guildford	Royal Surrey County	
Stanwell	Spelthorne	Ashford	
Winchester	Winchester	Royal Hampshire County	

Figure 3.22: Educational Institutions

Town	District	University/HEI	
More than one			
Guildford	Guildford	Guildford The Academy of Contemporary Music Guildford College University of Surrey Waverley Farnham College University for the Creative Arts	
Farnham	Waverley		
One	9 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1		
Andover	Test Valley	Andover College	
Ashford	Spelthorne	Brooklands College*	
Basingstoke	Basingstoke & Deane	Basingstoke College of Technology	
Egham	Runnymede	Royal Holloway	
Farnborough	Rushmoor	Farnborough College of Technology	
Weybridge	Elmbridge	Brooklands College*	
Winchester	Winchester	University of Winchester	

- These tables are taken from Hardisty Jones' Towns report on EM3's 33 main towns. It shows the Health and Education assets for each town area in EM3. The top table shows the main hospitals. The bottom table shows the University/HEI institutions.
- There are 6 hospitals in EM3 spread across 6 local authorities. Runnymede is close to St Peter's hospital, just outside of the Addlestone and Chertsey town area. Despite being the 3rd largest urban centre, Woking does not have its own hospital.
- Guildford has a strong University; Higher and Further Education Presence. The University of Surrey serves as a leading research institute with specialisms in Space; Digital/IT particularly on 5G infrastructure.
- Royal Holloway is based in Egham, providing a University presence in the town, contributing to its consistently high economic metrics.

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9 out of 33 towns have a University/HEI/FE presence.

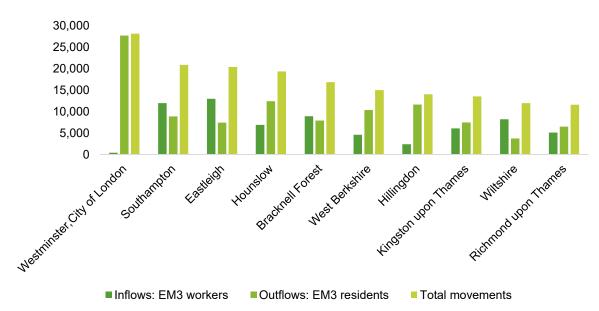
Source: Hardisty Jones Towns Report (2019)

COMMUTING PATTERNS

Total commuting flows (2011)

Movement	Number of people
People who live and work in EM3	385,978
People who live in EM3 but work outside of the area	160,627
People who live outside of EM3 but work in the area	181,595

Commuting flows by main local authorities for total population in employment (2011)



The table summarises commuting movements in EM3 by those people who live *and* work in the EM3 area, outflows of residents in EM3 to other places and inflows of people who work in the EM3 but live elsewhere.

EM3 has 68% of its workers living within the area (385,978). Just over 180,000 workers each day commute into EM3 from outside the boundary. Given that 160,627 EM3 residents leave the area each day for work, this makes EM3 a net importer of labour.

The chart to the left shows the top ten local authorities by inflows and outflows to EM3, demonstrating the strong links between neighbouring areas.

The chart shows that the highest number of movements is between EM3 and the City of London. There is a large outflow of EM3 residents to London, with over **27,632** workers commuting out to work while just **440** London residents commute to EM3.

Movements between Southampton and Eastleigh are also very high, with 3,082 and 5,508 more people respectively coming to the EM3 area to work than leaving.

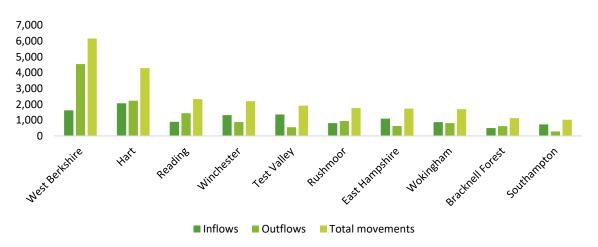
Source: Census (2011)

COMMUTING PATTERNS: SPOTLIGHT ON BASINGSTOKE

Total commuting flows (2011)

Movement	Number of people
People who live and work in Basingstoke	31,167
People who live in Basingstoke but work in another part of EM3	9,972
People who live in Basingstoke but work outside the EM3 area	13,310
People who live within the outer EM3 area but work in Basingstoke	13,623
People who live outside of the EM3 area but work in Basingstoke	11,964

Commuting flows by main local authorities for total population in employment (2011)



The table summarises commuting movements in Basingstoke by those people who live *and* work in the Basingstoke area, outflows of residents in Basingstoke to other places and inflows of people who work in Basingstoke but live elsewhere.

Basingstoke has 54.9% of its workers living in the town area (31,167). There are 25,587 workers who commute into Basingstoke from outside the area, (evenly split between the EM3 area and outside of the EM3 area). Given that 23,282 Basingstoke residents leave the area for work, this means Basingstoke is a net importer of labour, at 2,305 workers.

The chart to the left illustrates the top ten local authorities by inflows and outflows to Basingstoke, demonstrating the strong links between neighbouring areas.

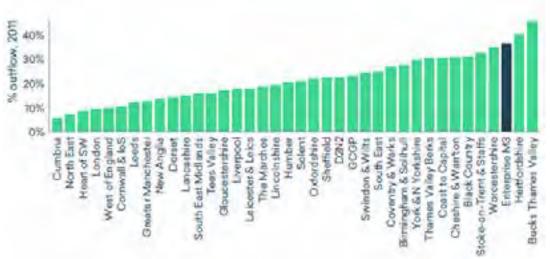
The chart shows that the highest number of movements is between Basingstoke and West Berkshire. There is a large outflow of Basingstoke residents to West Berkshire with over 6,000 workers commuting there to work. The inflows from West Berkshire are much lower at 1,617.

Movements between Hart and Reading are also high but also see more people leaving than coming with 161 and 546 more people commuting out respectively.

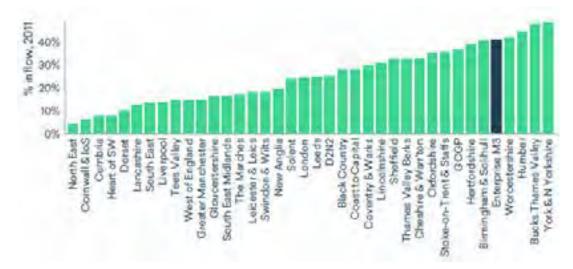
Source: Census (2011)

LEP COMMUTER FLOWS

The percentage of the Enterprise M3 workforce leaving the region for work, daily (2011)



The percentage of the Enterprise M3 workforce commuting from outside the region, (2011)



The charts to the right are taken from the EMSI labour market analysis for EM3's Skills and Talent Advisory Group.

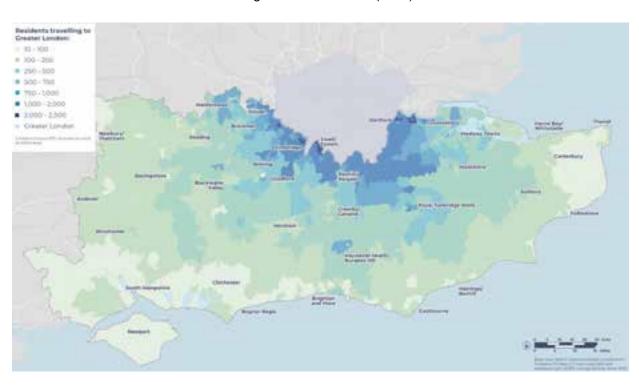
The labour market of Enterprise M3 has a high churn rate, attracting a high proportion of non-resident workers and losing a high proportion of residents to neighbouring employers.

Taken from Census 2011 data, the Emsi analysis shows that EM3 is the third-highest LEP for proportional outflows (top chart). The highest concentration of EM3 residents in employment were in London (16% of resident workforce), Solent (8%) and Thames Valley Berkshire (6%).

Meanwhile, around 42% of the region's workforce came from outside EM3's boundaries, the fifth highest proportion among LEPs (bottom chart).

COMMUTER FLOWS IN THE GREATER SOUTH EAST

Greater South East residents commuting to Greater London (2011)

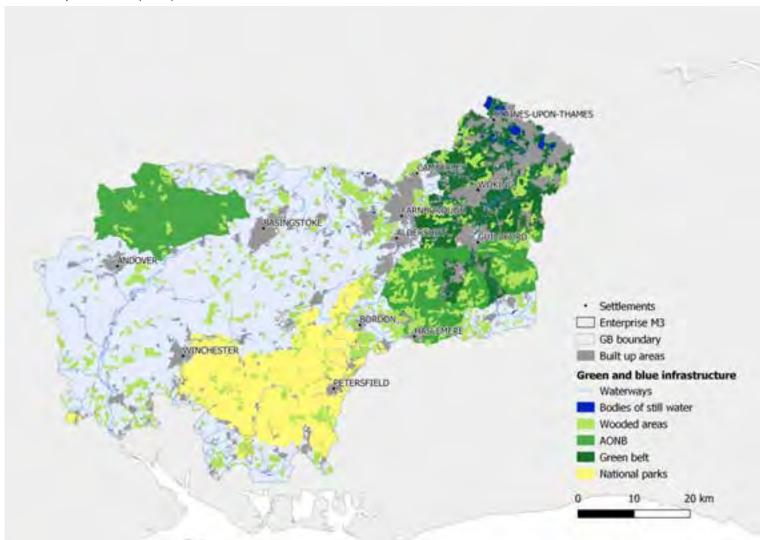


Greater London residents commuting to Greater South East areas (2011)



NATURAL CAPITAL

Natural Capital Assets (2019)



- The map to the left shows EM3's natural capital assets, including its green belt, AONBs, national parks, wooded areas and bodies of water. The area in grey shows where built-up areas are distributed.
- Most of EM3's natural capital assets are close to built up areas. This indicates that people residing in these built-up settlements have easy access to nature.
- The North-East of EM3 in the areas closest to London have the highest high concentration of natural capital.
- To the North of EM3 covering much of Camberley, Woking, Farnborough are areas of green belt. To the south of the Green between Guildford, Aldershot and Haslemere is the South Downs AONB.
- North Wessex Downs stretches between Andover and Basingstoke with wooded areas being distributed throughout Most towns are within 10km of either a greenbelt or AONB.

CLIMATE EMERGENCY DECLARATION





- The UK has set a goal to achieve net zero carbon emissions by 2050. Surrey and Hampshire CC are taking action on these commitments as set out in the Community Vision for Surrey 2030 strategy and the Hampshire 2050 Vision for the Future Commission.
- As of November 2019, both Surrey and Hampshire County Councils have declared a Climate Emergency. Councillors in both areas recognise the positive contribution of environmental stewardship to increasing the economic resiliency of their areas. As part of this, both Councils are taking steps to:
 - Retrofit council buildings and homes to increase energy efficiency or run on renewable energy
 - Embed zero carbon targets into planning applications
 - Use LED bulbs in streetlights
 - Increase the uptake of renewables such as PV cells
 - Replace council owned transport with electric vehicles
 - Increase the number of electric vehicle charging ports
 - Introduce more cycling lanes and public transport options
 - Encourage community involvement to generate ideas and consensus on appropriate solutions

- Hampshire is already 7 years ahead of target, having reduced its carbon consumption by over 40% and reducing energy costs by £30 million since 2010.
- Surrey County has been investing £13 million a year to increase the energy efficiency of buildings since 2009.
- Surrey Nature Partnership published a Natural Capital Investment Plan in 2018 to create a Natural Capital Investment Fund totalling £20 million by 2030. The objective is to set out a transformative approach to mobilise local delivery.
- Hampshire has published a Biodiversity Action Plan. Local Authorities such as Hart and Winchester City Council have also produced their own Biodiversity Action Plans
- Some Local Authorities such as East Hampshire have published a Green Infrastructure Strategy, identifying assets and gaps in provision. It shows that EM3 has taken a holistic approach to appraising the natural capital assets and maximising its value.

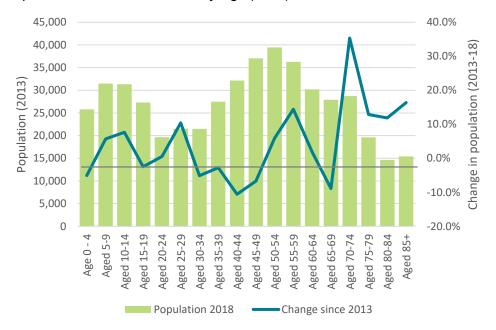
RURAL SNAPSHOT

Map of Rural Areas in EM3



- The map to the left shows the rural areas of EM3 in a light green shade. The darker shade shows the 33 town areas as defined by Hardisty Jones analysis at the MSOA level. "Rural" is defined as areas which are not towns.
- The total population for rural areas is 487,544 of a total of 1,524,809. Rural
 areas account for 31% percent of EM3's total population. Since 2013, the rural
 population has increased by 2.9%.
- The chart to the right shows the age distribution of rural areas in EM3 and the population change in each age group from 2013-18. The green bar chart and left axis shows the distribution, the line chart and right axis shows the change in population.

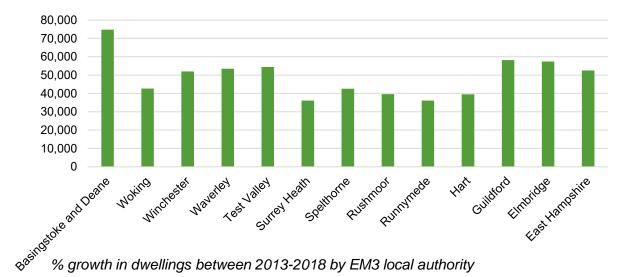
Population of EM3 Rural Areas by Age (2018)

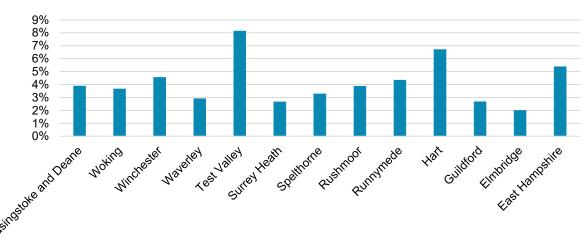


- The largest age group in rural areas are those aged between 45-59 years old.
- The number of 70-74 year olds in rural areas has increased by 35%, the highest of any age group.
- The change in "young people" is a mixed picture. The number of 25-29 year olds has increased but the number of 30-39 year olds has decreased.
- EM3's rural areas are distinct from some other rural regions of the country, in that EM3's rural places tend to be highly productive with high wages and employment, and relatively low levels of deprivation.

EXISTING HOUSING STOCK

Number of dwellings by EM3 local authority in 2018.





The chart on the top shows the dwelling stock for EM3 authorities.

Overall, the EM3 area has a housing stock of 639,010 dwellings. The largest proportion of the dwelling stock was found in Basingstoke and Deane with 74,750 dwellings (12% of the total).

Other authorities that possess large housing stocks include Guildford, Elmbridge and Test Valley, all each having a 9% share of the total EM3 dwelling stock. Authorities with the lowest shares include Hart and Runneymede.

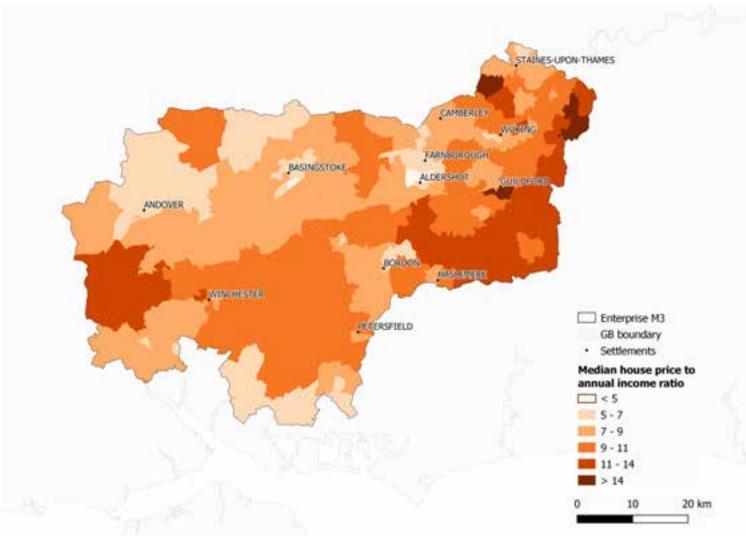
The bottom chart shows the growth in dwellings between 2013-2018 by EM3 local authority. Overall the housing stock in EM3 increased by 4.1% between 2013-2018.

The authority that has experienced the highest change in dwelling stock is Test Valley, which observed an 8.2% increase. This is followed by Hart (6.7%) and East Hampshire (5.4%). The authorities experiencing the lowest growth in housing stock include Elmbridge (2.0%), Surrey Heath (2.7%) and Guildford (2.7%).

Source: MHCLG (2018)

HOUSING AFFORDABILITY

Housing affordability in EM3 (2016)



The map to the left shows housing affordability for EM3 in 2016. Housing affordability is calculated by dividing the median house price by the net annual household income found within that area. Darker areas on the map indicate places of lower affordability.

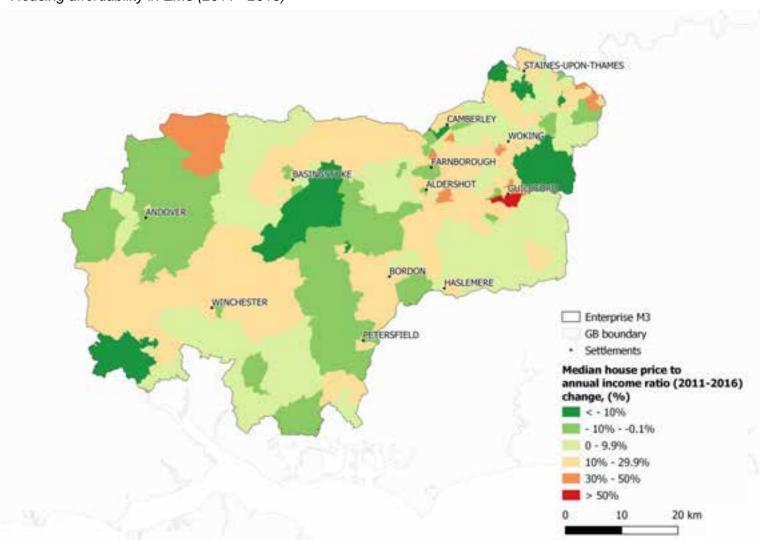
Areas of higher affordability can be found in parts of Basingstoke and Aldershot, with house prices at below 5 times that of net annual household income. Places with slightly lower housing affordability can be found in urban areas such as Andover, Bordon and Farnborough with median house prices between 5 – 7 times that of net annual household income.

There are large parts of the EM3 area particularly around the centre, that experience low housing affordability, with house prices between 7 - 11 times greater than net annual household income. Affordability is found to be even lower in parts of the far west and east, with prices between 11 – 14 times that of net annual household income.

The lowest housing affordability within the EM3 area is found in Guildford and areas located at the north east boundary with prices 14 times over that of net annual incomes.

HOUSING AFFORDABILITY CHANGE

Housing affordability in EM3 (2011 - 2016)



The figure to the left shows housing affordability % change between 2011-2016 in EM3. If there is a positive % this means that housing affordability has decreased, whereas if there is a negative % this indicates that housing affordability has increased.

Areas that have seen the greatest improvements in housing affordability are found in the area south of Basingstoke, the patch of land found around the south west boundary, east of Guildford and around Staines upon Thames. Urban areas of Aldershot, Farnborough, Petersfield and Andover have also seen improved housing affordability.

There are large parts of EM3 that have seen a fall in housing affordability, such as the area surrounding Winchester and west of Bordon with affordability decreasing by 10% to 29.9%. Guildford and the surrounding areas, have seen the largest decline in housing affordability, with a fall by over 50% between 2011 – 2016.

HAMPSHIRE 2050: VISION FOR THE FUTURE

Working together, Hampshire County Council and its partners will shape and respond to these drivers for change ensuring the County is resilient and well-equipped for the future. We will draw on our strong economy, the abilities of our people and communities, and the richness of our natural heritage.



Changing Climate

Vision: Recognising the changing climate as the biggest threat, a well-adapted and resilient Hampshire will be essential to ensure that Hampshire's economy, environment and society continues to thrive and prosper.

Policy: Develop and promote a focus on embedding climate resilience and mitigation across key policies and sectors, working with communities across Hampshire.



Changing Environment

Vision: Recognise Hampshire's natural and historic environment and the services it provides as its most valued asset and an essential component of Hampshire's attractiveness and prosperity.

Policy: Develop and promote a focus on sustaining and enhancing Hampshire's environment to strengthen Hampshire's economy and society.



Changing Economy

Vision: A thriving and prosperous economy is essential to support excellent public services, provide high quality and inclusive employment and business opportunities, maintain and enhance the quality of life in Hampshire, and reduce inequality and economic exclusion.

Policy: Maintain a focus on fostering a knowledge-based and sustainable Hampshire economy, working closely with businesses and relevant agencies in Hampshire including our universities.



Changing Population and Society

Vision: Communities that are connected, diverse, sustainable and happy are the cornerstone of a thriving, equitable and prosperous society, placing people at the centre so a culture of resilience and self-help can be nurtured.

Policy: Maintain a focus on promoting the evolution and development of communities that support equity, connectivity, diversity, sustainability and resilience.

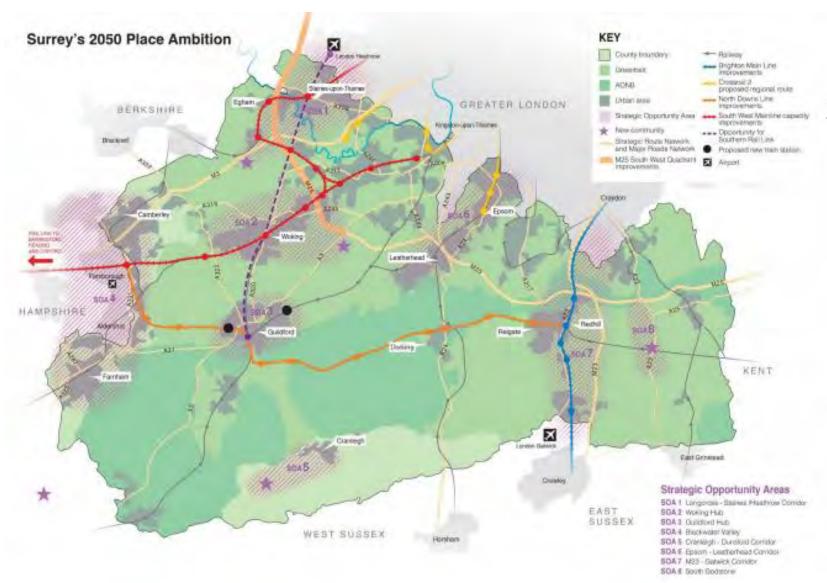


Changing Technology

Vision: Hampshire should take advantage of the opportunities of technology to people, place and economy; maximising the benefits whilst mitigating against the negative impacts.

Policy: Prioritise a focus on opportunities offered by technology to enhance business and economy, public services, social infrastructure and connectivity; that complement rather than compromise human relationships and quality of life.

SURREY 2050 PLACE AMBITION



Surrey's 2050 Place Ambition has three strategic aims:

- Improve connectivity both within Surrey and between strategically important hubs
- Enhance the place offer of Surrey's towns
- Maximise the potential of our strategic economic assets
- The Place Ambition is based around the eight Strategic Opportunity Areas(SOAs) highlighted on the map. The strategy aims to deliver transformational projects over the next 30 years which will enhance each SOA's economic status and boost their investment profile.

Source: Surrey's 2050 Place Ambition (2019)



Delivering prosperity through innovation

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