



Report

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Norwich Economic Analysis Part 1: Norwich Economic Geography

Research commissioned by Norwich city council into the functional economic geography of Norwich and its growth potential

June 2017

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For and on behalf of GVA Grimley Limited

1. Introduction

- 1.1 This document has been prepared by GVA and Hatch on behalf of the Norwich City Council to provide a detailed economic assessment which demonstrates that Norwich and its wider urban area provides a core driver for accelerating the delivery of jobs and housing growth for the East of England. This supports the recent identification by Centre for Cities of Norwich as one of the "Fast Growth Cities" group.
- 1.2 To undertake this assessment the report has been divided into three parts:
- 1.3 Part 1: Norwich Economic Geography: This report is part 1 of this series, providing an overview of the multiple economic geographies of Norwich which include the local authority area, the urban area, the Norwich Policy Area (NPA), the Greater Norwich Area, Travel to Work Areas (TTWAs) and commuting patterns, and the Broad Rental Market Area (BRMA) and Housing Market Area (HMA). This review informs the use of the NPA as a study area or 'reference geography' that is used as the basis for analysis of the local economy in following sections and parts 2 and 3 of this series. This part of the series also assesses the commercial and housing property market, the role of infrastructure and growth locations as growth drivers, and how these come together as a cluster to form the engine of growth and development around the Norwich core.
- 1.4 Part 2: The Norwich Policy Area: a dynamic, resilient growth oriented economy: The second part of this series provides a review of the competitiveness of the Norwich economy within the UK and a detailed socio-economic overview of the NPA and its contributions to the regional and national economy. This part refers to current and historic data in additional to forecasts for the future to provide a comprehensive analysis of the strengths and weaknesses of the NPA economy. This analysis is based upon eight success factors that are attributed to resilient, adaptable and fast growing cities;
 - Scale and Quality of Assets
 - Population, Workforce and Skills Base
 - Dynamic Enterprise Culture
 - o Strong Representation in High Value Growth Sectors
 - o Growing Capabilities in Key Technologies for the Future
 - An Attractive and Vibrant Urban Core
 - o Opportunity Areas, Well Connected Sites and Premises
 - Leadership

- 1.5 **Part 3: Future Growth Sectors:** The third part identifies priority sectors within the NPA, based upon detailed quantitative analysis and stakeholder input, which are expected to deliver employment and productivity growth over the next 25 years. Each section within part 3 pertains to a particular priority sector and includes three sub-sections;
 - Sectoral Composition: A review of employment within sub-sectors that make up the current priority sector and the role of key businesses and organisations;
 - Sectoral Change: An analysis of the change of employment within a priority sector over the 2010 2015 period with comparison to other city economies;
 - *Prospects for Growth:* A bespoke forecast, utilising projections developed by HATCH based on the Cambridge Econometrics EEFM, of prospective employment growth within sub-sectors that will drive future growth in the NPA.
- 1.6 The priority sectors that have been identified within the NPA include:
 - Financial Services
 - Life Sciences
 - Advanced Manufacturing
 - Food and Drink
 - Digital Technology
 - Creative Industries
 - Knowledge Intensive Business Services (KIBS)

2. Geographies and Context

- 2.1 Norwich is a regional economic hub with a large catchment for homes, jobs and businesses. The city is home to more than 123,000 jobs and more than 8,000 businesses. Further, almost 50% of jobs are based in large companies and the city is one of the largest sources of employment in Greater South –East England (Norwich Economic Strategy, 2016). It is one of the key economic core cities in the east with connections to other regional economies such as Cambridge and London, and with international connectivity via ports and the Norwich Airport (Figure 1).
- 2.2 Norwich has a series of geographies that relate to its physical and economic footprint that do not neatly conform to its local authority area. Catchments for housing and labour often extend outside of cities and the Norwich local economic geography has long been recognised to expand beyond its institutional boundary. Further, these geographies change overtime as the local economy adapts, matures, and grows.
- 2.3 This section therefore sets out to review these geographies and draw out how each of these geographies shape and respond to the Norwich economy. This review will then be referenced to provide a study area that will form the basis of the subsequent analysis. This study area or 'reference geography' is not necessarily intended to represent a singular spatial definition of the Norwich economy but will provide a sufficient level of detail to capture its spatial and economic dynamics.
- 2.4 The geographic areas that are reviewed below include:
 - Norwich Local Authority Area, the "City Centre" (i.e. the core of the city which accommodates the critical mass of commercial activity) and the Norwich "Urban Area" (i.e. broadly the contiguous built up area within the local authority areas of Norwich, Broadland and South Norfolk) – shown in Figure 2 below;
 - Norwich Policy Area;
 - Greater Norwich;
 - Norwich Travel to Work Area (TTWA);
 - Norwich Broad Rental Market Area (BRMA) and Housing Market Area (HMA).



Figure 1: Norwich Location and Strategic Connections

Source: Amended Joint Core Strategy for Broadland, Norwich and South Norfolk, 2014

Norwich City centre, Local Authority Boundary and Beyond

- 2.5 Norwich's city core, local authority area and periphery are shown in Figure 2. The City centre shown with a red circle includes the historic area, city centre and the core central area of Norwich. The Norwich local authority boundary is shown in green and the continuous urban footprint includes the periphery of the green bounded local authority area plus the areas outlined in red.
- 2.6 Clearly, a significant proportion of the "urban area" that is considered Norwich in fact falls outside of the City local authority area boundary. Much of the "urban area" that falls outside of the local authority area (those areas labelled as Continuous Urban Extensions on Figure 2) contains some of the largest commercial and residential locations and development opportunities. These include sites such as the Norwich Research Park, Rackheath, and Broadland Business Park. The Norwich City local authority area boundary also poorly captures some of the key infrastructure that serves and is planned to serve Norwich, such as the A47 and the Northern Distributor Route (NDR).
- 2.7 Given that many of these peripheral commercial locations provide high skilled jobs, much of Norwich's economic strengths are poorly captured by analysis conducted at the local authority level. Further, examples such as the recent move of some of Aviva's activity from the city centre to Broadland Business Park suggest that the city centre competes with the wider "urban area" and locations beyond it to attract businesses and to provide commercial floorspace.
- 2.8 These findings infer that the local authority area is not an accurate geography in seeking to understand or capture the true economic value or potential created by Norwich or the spatial and economic dynamics that play out in the area. It is also unlikely that the "urban area" (is sufficient to capture how businesses, jobs and housing locations are in direct competition around Norwich given that there are proximate commercial and industrial locations that do not form part of the Norwich's built-up/ continuous "urban area". It is instead likely that the economic influence of Norwich extends beyond this urban area.

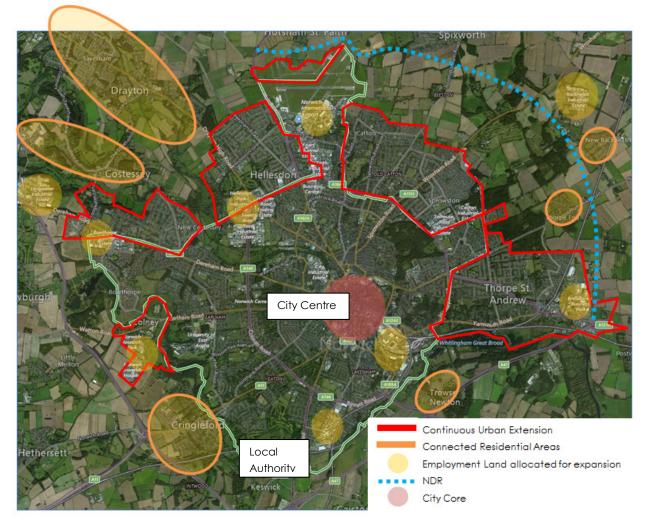


Figure 2: Norwich (City Centre, Local Authority and Built Up Area)

Source: Bing, 2017.

Norwich Policy Area

- 2.9 The **Norwich Policy Area (NPA)** is a long standing spatial definition, devised in the mid-1970s and including the Norwich local authority and parts of Broadland and South Norfolk, which was designed to facilitate the management of growth driven by the city. Shown in Figure 3, the key objective for the NPA is to achieve a better local balance between homes and jobs so as to reduce the need to travel and to keep Norwich-related growth as close to the city as possible.
- 2.10 Figure 3 illustrates that the NPA is based on parish boundaries and includes settlements such as Wymondham and Long Stratton. These settlements are not considered part of Norwich city but have been recognised for their strong economic ties. Villages and other rural locations are unlikely to make large economic contributions to area but their proximity to Norwich, and distance away from any other large urban centre, suggests a dependence on and connectedness to Norwich in the form of access to services and employment.

2.11 The figure shows that the NPA captures the parishes within which the Norwich urban area falls and would better accommodate analysis of some of the spatial and economic dynamics that prove more challenging at the smaller local authority and urban area geographies.

Figure 3: Norwich Policy Area



Source: Norwich City

Greater Norwich

- 2.12 **Greater Norwich**, shown in Figure 4 below, is a construct of the now defunct Regional Spatial Strategy for the East of England which identified the area as an engine of growth. The 2015 Norwich Economic Assessment notes that the three local authorities are now referred to collectively as the Norwich City Deal area and the Greater Norwich Growth Board area. The Joint Core Strategy (JCS) for Broadland, Norwich and South Norfolk is the key planning policy document for the Greater Norwich area and forms part of the Local Plans for the districts of Broadland, Norwich and South Norfolk.
- 2.13 Considering Norwich, Broadland and South Norfolk together has proven useful from a policy perspective in directing existing institutions to deliver coherent plans, such as the JCS, for Norwich and its hinterland. The three/four authorities have cooperated to facilitate growth which has enabled opportunities such as the Broadland Business Park, Norwich Research Park, and NDR to come forward.
- 2.14 However, the Greater Norwich area is large and alludes to a centralised perspective with a dependence on Norwich which may not necessarily be the case for peripheral towns and villages. The scale of the Greater Norwich area also dilutes analysis of the distinct band of valuable employment areas that form a ring around Norwich. As pinpointed above, there is a need to more clearly capture the influence of these peripheral sites, particular as they continue to compete with the Norwich city centre. As such, the Greater Norwich area is considered too large a reference geography and the NPA is instead preferred.

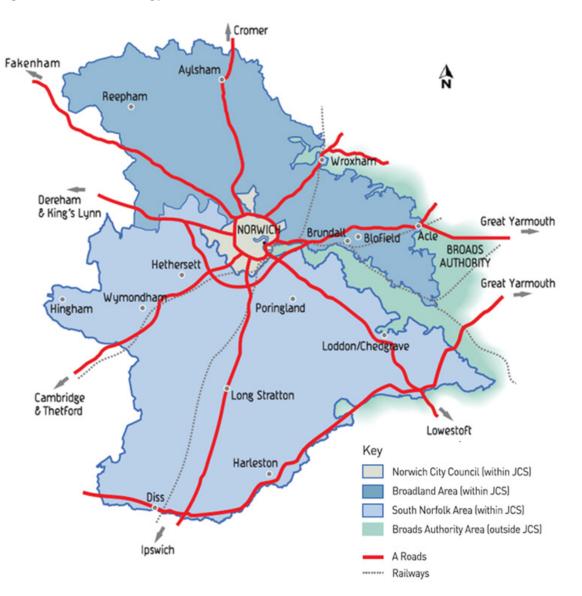
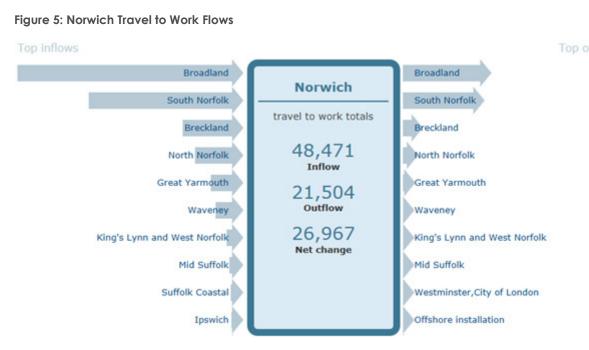


Figure 4: Joint Core Strategy Area

Source: Amended Joint Core Strategy for Broadland, Norwich and South Norfolk, 2014

Norwich Travel to Work Areas

- 2.15 Travel to Work Areas (TTWAs) are a statistical tool designed by the Office of National Statistics that provide a useful indication of the connectedness of locations based on labour movements. Figure 5 draws upon 2011 Census data and shows that the majority of those who travel in and out of Norwich for work live within Greater Norwich. Given than parts of the Norwich urban area fall within its neighbouring local authority boundaries, some of this cross boundary movement is in fact likely to be movement within the Norwich urban area.
- 2.16 Figure 5 shows that 125% (26,967) more individuals travel into Norwich for work than those who travel out. 41% (19,976) of people who travel into Norwich for work are from Broadland and 26% (13,361) from South Norfolk. Of the 21,504 people that commute out of Norwich for work, 36% (7,681) travel to Broadland and 33% (7,025) to South Norfolk.



Source: Census, 2011

- 2.17 Figure 6 shows functional relationships based on 2001 origin-destination data (2011 data is currently safeguarded for small areas). Drawn from the 2016 Central Norfolk SHMA, the size of the urban centres (the coloured circle) is proportional to the number of workers who live within the area. The more workers, the larger the circle; hence Norwich is the largest circle.
- 2.18 The links that exist between the urban centres are also illustrated by the joining lines, with stronger links having heavier lines. The thickness of the line does not simply represent the number of workers, but it is based on a 'score' that is based on the strength of the connection when taking into account the number and the proportion of the resident and workplace populations in both areas.
- 2.19 The figure shows that Norwich has strong labour connections with 11 proximate settlements¹ and functions as part of a wide and partially interconnected network. Norwich is the prime employer in the Central Norfolk study area and provides jobs for an extensive catchment that includes settlements across Greater Norwich and outside it.

¹ Wymondham, Hethersett, Mulbarton, Long Stratton, Poringland, Loddon and Chedgrave, Brundell, Lingwood, Acle, Spixworth, and Reepham.

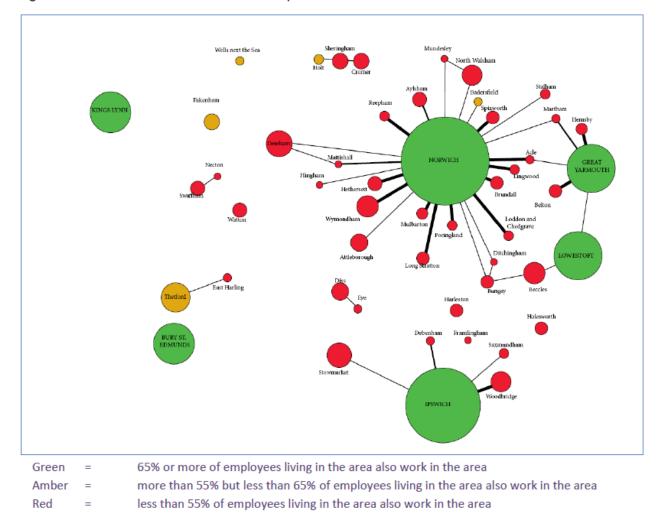


Figure 6: 2001 small area functional relationships

Source: Central Norfolk Strategic Housing Market Assessment, 2016

2.20 As shown in Figure 7, the Norwich TTWA includes the Norwich Local Authority and all of Broadland and South Norfolk local authorities plus parts of the local authority areas of North Norfolk, Breckland and Mid-Suffolk. The Norwich TTWA is much larger than the Norwich Policy Area (NPA) and reflects the increased range of commuting brought about by greater car ownership and higher employment mobility which has widened the functional economic area and the real functional reach of the city.



Figure 7: Norwich Travel to Work Area

Source: Norwich Local Economic Assessment, 2015

- 2.21 The 2015 Norwich Local Economic Assessment notes that the Norwich TTWA has 234,986 economically active residents and 220,540 residents in work, 191,408 of Norwich residents work in the 221,571 jobs that exist in the TTWA. Around 87 per cent of employed residents work within the TTWA and 86 per cent of jobs in the TTWA are held by TTWA residents.
- 2.22 Norwich's economic footprint, that is the degree to which firms and households are integrated into the local, regional and national economy in terms of their purchases and sales, is difficult to determine and even more difficult to quantify. Without doubt the urban area of Norwich acts as a regional service centre and a locus for services such as health, retail and leisure. It is a major employment centre, providing almost two-thirds of the TTWA's jobs. Much of the Norwich TTWA is rural with very low population densities; so although parts of the North Norfolk and Mid Suffolk local authority areas fall within the Norwich TTWA the actual numbers of people involved are very small.

Norwich Broad Rental Market Area and Housing Market Area

- 2.23 The Broad Rental Market Area (BRMA) is the geographical area used by the Valuation Office Agency (VOA) to determine the Local Housing Allowance rate (LHA), the allowance paid to Housing Benefit applicants living in the private rented sector. The BRMA area is based on an area where a person could reasonably be expected to live taking into account access to facilities and services for the purposes of health, education, recreation, personal banking and shopping. When determining BRMAs the Rent Officer takes account of the distance of travel, by public and private transport, to and from these facilities and services.
- 2.24 Figure 8 shows the BRMA area for Central Norfolk and Norwich which has a reasonable degree of fit with the Norwich TTWA. Aligned with the analysis of the TTWA, the BRMA indicates Norwich has an influence on residential location decisions that extends beyond the Greater Norwich area.

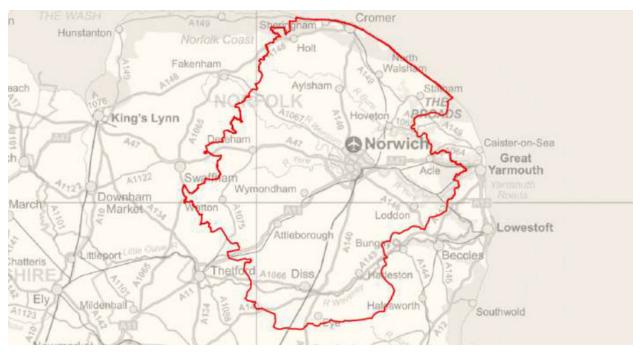


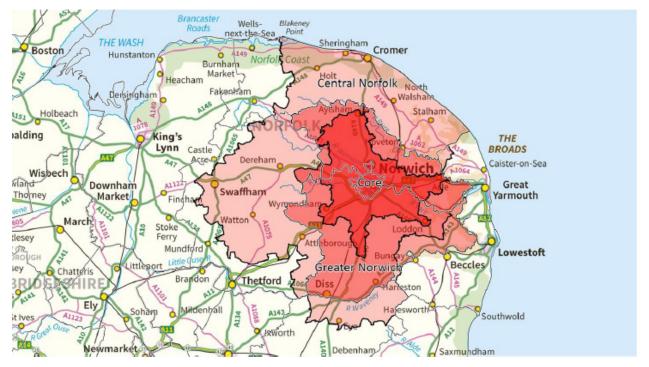
Figure 8: Central Norfolk and Norwich Broad Rental Market Area

Source: Norwich Local Economic Assessment, 2015

- 2.25 Figure 9 shows the **Central Norfolk Housing Market Area (HMA)** identified by the 2015 Central Norfolk Strategic Housing Market Assessment. The wider catchment is reflective of the scale of the BRMA and TTWA, reinforcing the observation that Norwich has a large geographic influence and acts as a prominent economic centre in East Anglia.
- 2.26 The Core area shows the settlements with the strongest connections to the Norwich Urban Area which is similar to the Norwich Policy Area. This suggests that a large proportion of housing should be delivered in these locations that are peripheral to the Norwich local authority area. This is

illustrative of the cohesion within the NPA, noting that the HMA core does not simply align to the local authority boundary or continuous urban area.





Source: Central Norfolk Strategic Housing Market Assessment, 2016

Section Summary/Findings

- 2.27 Close alignment of Norwich Policy Area with Norwich Urban Geography: Each of these geographies illustrates the extent of influence that Norwich has over its sub-regional hinterland and the complexity of its catchments for jobs, labour and homes. The figures above show that Norwich's catchment for those working in the city and depending on its services is larger than the Norwich City Authority area.
- 2.28 The study continues below by reviewing the infrastructure and site assets, referred to as 'growth drivers' that form the nodes and spokes around which much of the development and growth driven by Norwich is located. Acknowledging that the local authority area poorly captures extensive growth opportunities positioned on outside the city authority boundary but within the continuous urban area and that overly large Greater Norwich area renders analysis obtuse and unrefined, the Norwich Policy Area is considered the best reference geography for the following sections of this report.
- 2.29 The NPA is a useful reference geography because, as shown in this section, the majority of assets that are of strategic importance are located within this area. The NPA therefore closely aligns with the Norwich functional economic area. Further, as analysis of functional relationships with

neighbouring centres and HMA shows, Norwich is most strongly connected to settlements and development sites within this area. Unlike the local authority and Greater Norwich areas, the NPA is therefore shown to be of an agreeable size that enables detailed and commensurate analysis. Moreover, the NPA is an existing designation that is recognised and supported by each of the local authorities within Greater Norwich and its continued use enables reference to an established evidence base.

3. Market Review

Commercial Market

- 3.1 This section provides a review of the property geographies within the NPA reference geography as designated within the previous section. To undertake the analysis we have compared NPA with the city centre and "urban area" as shown in Figure 10. It reviews total quantum, vacancy levels, rents, and net absorption as a measure of market activity. An extensive baseline analysis is available for the Norwich local authority area and neighbouring local authorities as part of the Greater Norwich Employment, Town Centres and Retail Study.
- 3.2 Figure 10 shows that the majority of commercial buildings are concentrated in the Norwich urban area with heightened concentration in the city centre. Outside of the urban area, commercial buildings are primarily located in key business and industrial sites which are reviewed in the following growth drivers section.

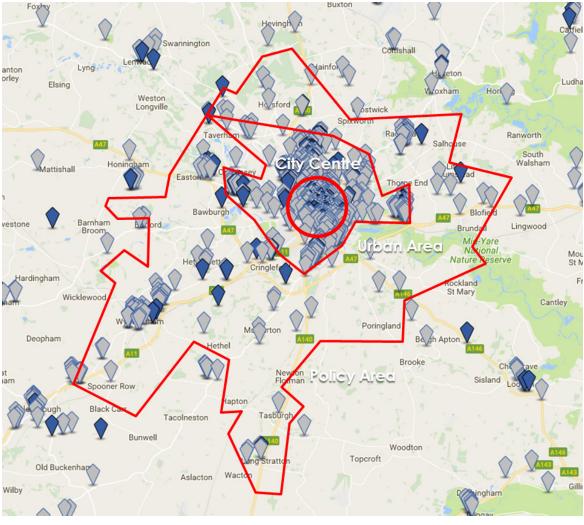


Figure 10: Commercial Properties within Norwich Policy Area

Source: Costar, 2017

3.3 **Quantum of commercial floorspace:** Figure 11 reviews office and industrial stock by floorspace across the three different geographies. It shows that the majority of the office space in the wider Norwich Policy Area (494,051 sqm) is located in the urban area of Norwich (453,284 sqm) and more specifically in the city centre (334,875 sqm). Industrial floorspace is more dispersed throughout the Norwich Policy Area (937,698 sqm), with a large proportion located in the urban area (738,823 sqm) but in more peripheral locations such as in industrial estates rather than in the city centre (188,766 sqm).

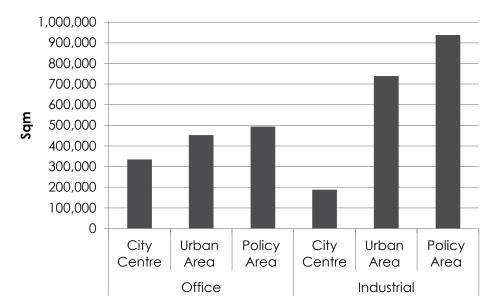
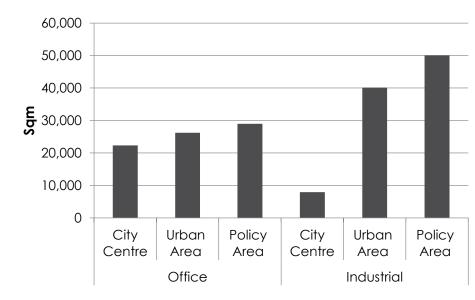


Figure 11: Existing Floorspace

- 3.4 Vacancy Rates: Vacant floorspace shown below in Figure 12 are reflective of the existing floorspace in their proportions. Office vacancy rates are slightly higher than industrial vacancy rates and whereas city centre industrial vacancy rates are relatively low, city centre office vacancy rates are relatively high. There are a number of factors that are driving this relationship. Firstly it there is a much lower supply of industrial floorspace meaning there is less choice for businesses seeking to service the city and therefore occupancy rates would be expected to be higher.
- 3.5 More importantly, like many locations that have had a historically large office based economy, the city centre has seen a large proportion of its stock rendered redundant as buildings have aged, refurbishments considered unviable and newer stock delivered outside of the city centre. Coupled with changes to occupier requirements and preferences for stock much of the older provision has now become redundant and therefore lies vacant. This provides a drag on the city centre market, with high vacancy rates (of units that are unlikely to be re-used) deflating rental values.

Source: Costar, 2017

3.6 In limited cases, such as the Union Building on Rose Lane, this stock has been repurposed to provide a mix of commercial space, including some office/co-working alongside food and beverage and other services to create a different environment for businesses.





3.7 **Rents:** As is typical, office rents per sqm are higher than industrial rents. Average office rents are higher in peripheral locations rather than in the city centre, this reflects the stock condition issues discussed above and the increased demand this has led to in out of centre locations, in a more 'healthy' market rents in the centre would typically be higher. Industrial rents are however higher in the city centre and this is reflective of most urban areas, given the lack of available industrial units in centres and sites to accommodate such uses.

Source: Costar, 2017

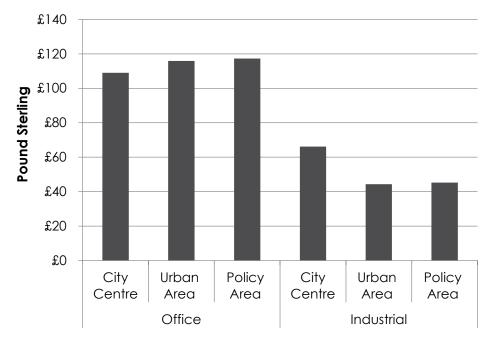


Figure 13: Rents per sqm

3.8 Leasing Activity: Figure 14 and Figure 15 shows leasing activity trends in Norwich for both office and industrial market. Leasing within the office market has fluctuated in recent years with a significant fall in 2016 across the three geographies. This fall may not necessarily be representation of a wider trend but illustrates that activity within the geographies is primarily driven by external factors rather than simply movements across NPA sites. Leasing activity for industrial floorspace seems to have improved in recent years and is reflective of the wider UK trend of increasing industrial floorspace take-up

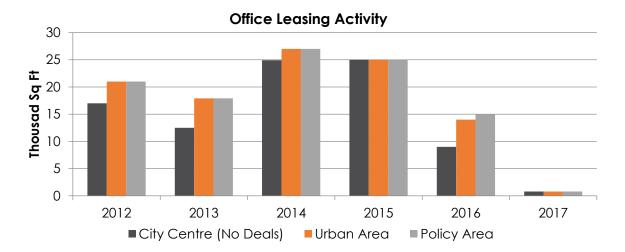
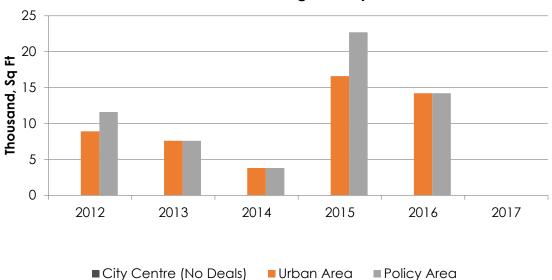


Figure 14: Office Leasing Trends by Year

Source: Costar, 2017

Source: Costar, 2017

Figure 15: Industrial leasing Activity by Year



Industrial Leasing Activity

Source: Costar, 2017

3.9 Overall the property analysis above suggests a lower demand for office space than industrial space across the NPA which is particularly acute in the city centre. Although a long term trend is difficult to pinpoint, there does appear to be some reduced activity in the office market. Examples such as the relocation of some of Aviva's activity from the core to the Broadland Business Park as well as potential negative impacts surrounding outcomes of the current political climate (such as Brexit) does suggest a need to capture changing needs of office and industrial typologies in line with location, occupier needs and sectoral focus.

Housing Market

- 3.10 Alongside the geographies of commercial property floorspace and cost, house price affordability is also of interest because it reflects how well a local economy is doing, how desirable an area is, whether there may be affordability issues for attracting talent, and is comparable across the country. In Lloyds Bank's 2017 housing affordability report², Norwich's housing market was ranked the 15th most expensive in the country. Norwich is therefore considered a desirable place to live and work, which is also reflected in its large HMA catchment as discussed above.
- 3.11 Figure 15 below shows housing affordability in postcode areas across Greater Norwich. It shows that the most affordable locations are primarily located in the Norwich urban area, the highest value postcodes in Norwich are those to the south west. These value dynamics are driven by a complex range of inter-related factors including stock typology and age, mix of housing tenures, amenities and transport provision, quality of environment etc.

² http://www.lloydsbankinggroup.com/globalassets/documents/media/press-releases/lloyds-bank/2017/250217-affordablecities.pdf

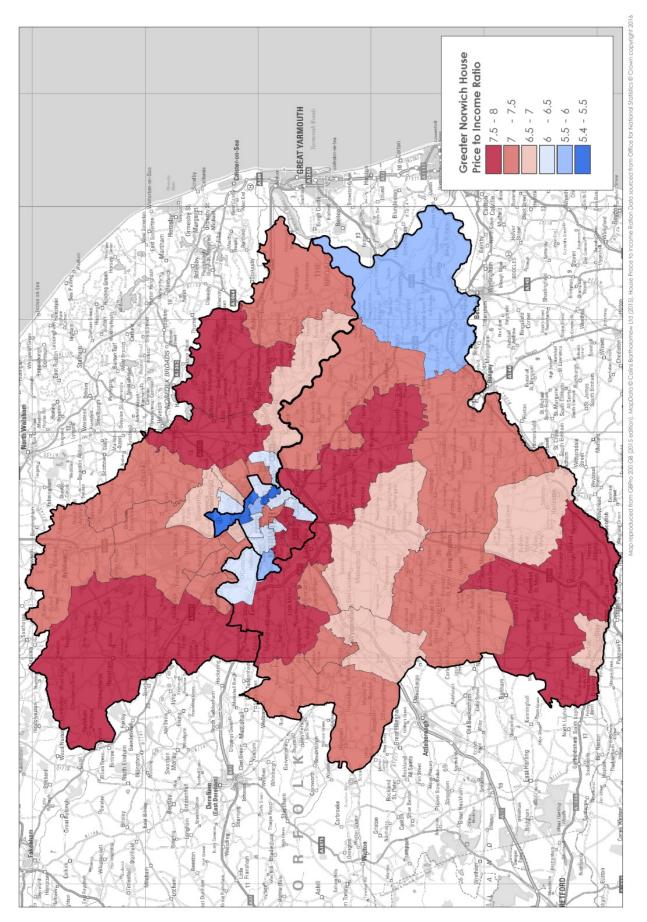


Figure 16: Greater Norwich House Price to Income Ratio by Postcode Area

Source: GVA, ONS, 2017

4. Growth Drivers

- 4.1 Growth drivers refer to the physical assets, principally infrastructure and growth locations, on and around which much of the development driven by the Norwich economy is likely to be positioned. This view recognises that local economic areas typically comprise a cluster of nodes (growth locations) and spokes (infrastructure) that are, in this case, centred around Norwich.
- 4.2 The value of these physical assets as growth drivers and how they come together to shape the Norwich economy is discussed below. Growth locations and key infrastructure are reviewed individually and then discussed together regarding their influence. Growth locations are discussed first as hubs of commercial and economic activity and key infrastructure is discussed second in how they facilitate connectivity between these nodes. Growth locations and key infrastructure reviewed below include:
 - Growth Locations
 - Norwich Research Park/ Cringleford
 - Broadland Business Park
 - o Old Catton Sprowston, Rackheath, St Andrew Growth Triangle
 - Longwater/Easton/Cotessey
 - Wymondham and Hethel
 - Hethersett
 - Long Stratton
 - Norwich Airport
 - Norwich Urban Area
 - Key Infrastructure
 - Northern Distributor Road
 - All Corridor (Tech corridor)
 - Long Stratton Bypass
 - Sustainable Transport Corridors/Green Infrastructure
 - Norwich International Airport
 - Rail Improvements
- 4.3 In addition to the above two sub-sections, the Norwich city centre is discussed separately and in more detail because of its role as the primary hub in the economy and because of the unique circumstance of loss of occupiers to other hubs in the NPA.

Growth Locations

- 4.4 Growth locations are the hubs or nodes within a cluster, which forms a local economic area, where the majority of economic and commercial activity takes place. These centres typically attract the co-location of businesses, jobs and homes and therefore form the principal economic drivers of the geography in which the cluster/local economic area is located.
- 4.5 Figure 16, Figure 17 and Figure 18 show the geographies of business that specialise in finance and business services, the creative sector, media and publishing, and production and manufacturing respectively. The maps show that the majority of high value businesses cluster in the city centre and eight growth locations that are identified in Figure 19. The geographies of these businesses provide further support to the use of the NPA as the reference geography for this study because the majority, particularly those which are large, fall within this area.
- 4.6 The characteristics of these growth locations are tabulated below in Table 1. The table draws out key figures for these hubs, with reference to both commercial and residential potential, and which sectors they cater to. The table also makes reference to key infrastructure that is supporting continued growth. These centres are considered to be the points around which the NPA and the Norwich economy are plotted.

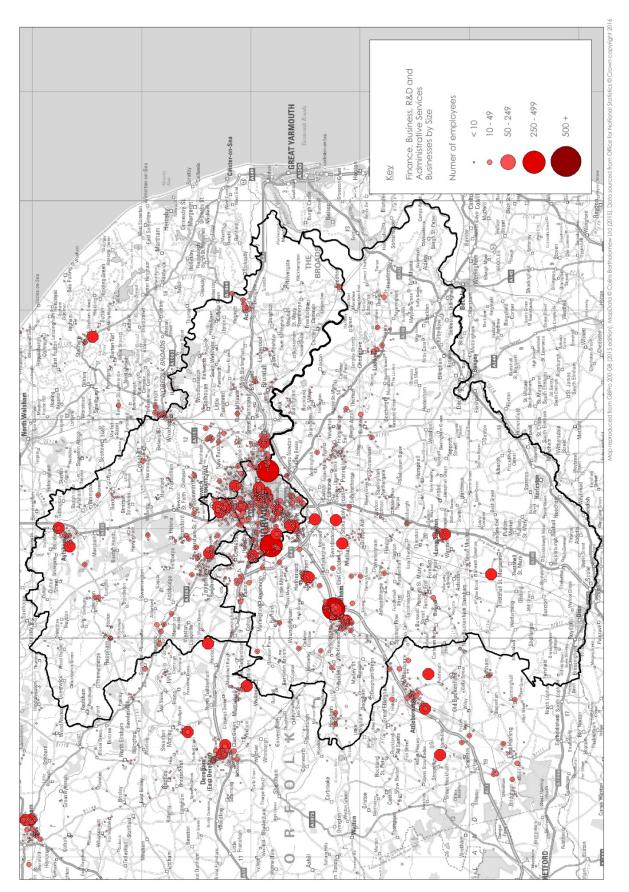


Figure 17: Business unit count based on number of employees: Finance, Business, R&D and Administrative Services

Source: EGi, 2017

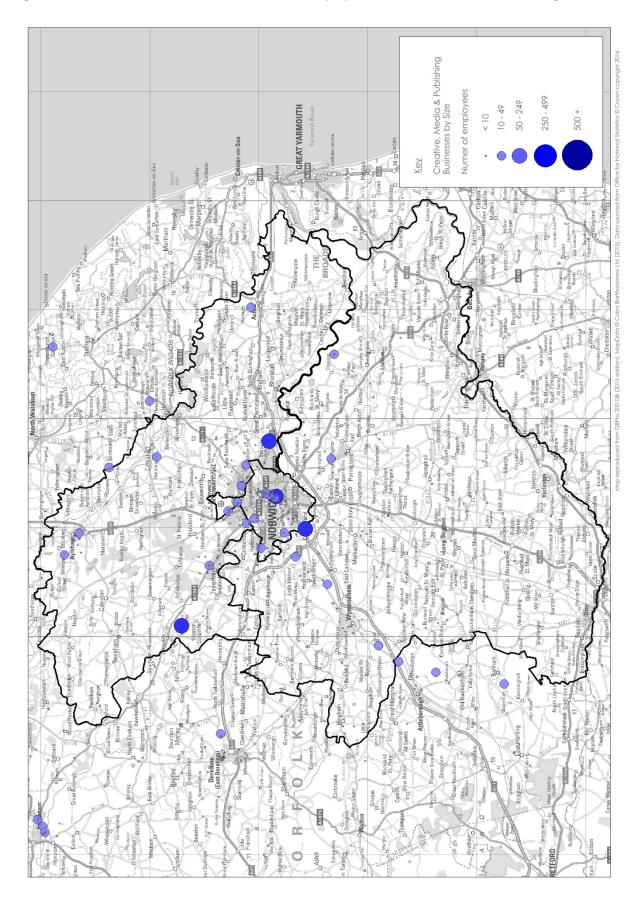


Figure 18: Business unit count based on number of employees: Creative, Media and Publishing Businesses

Source: GVA, EGi, 2017

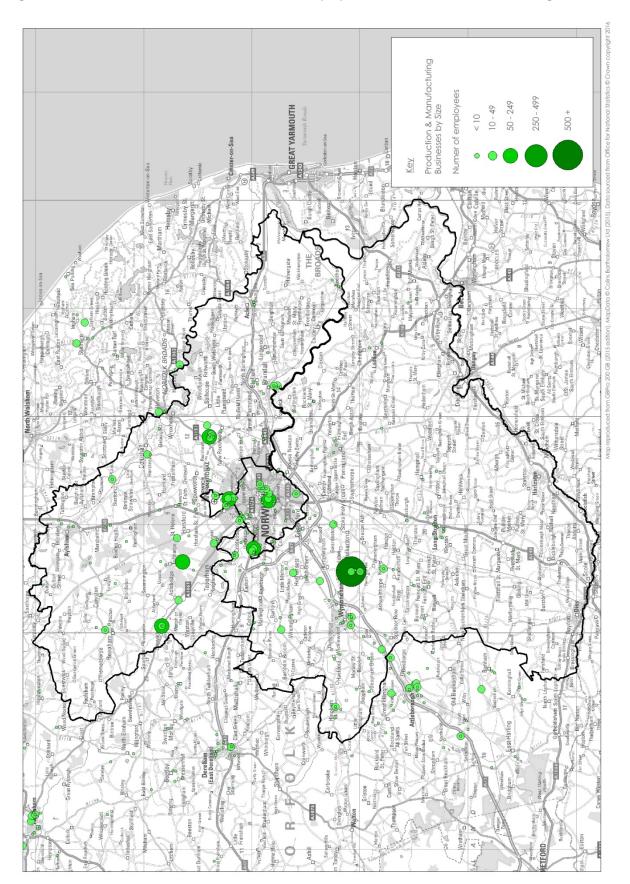
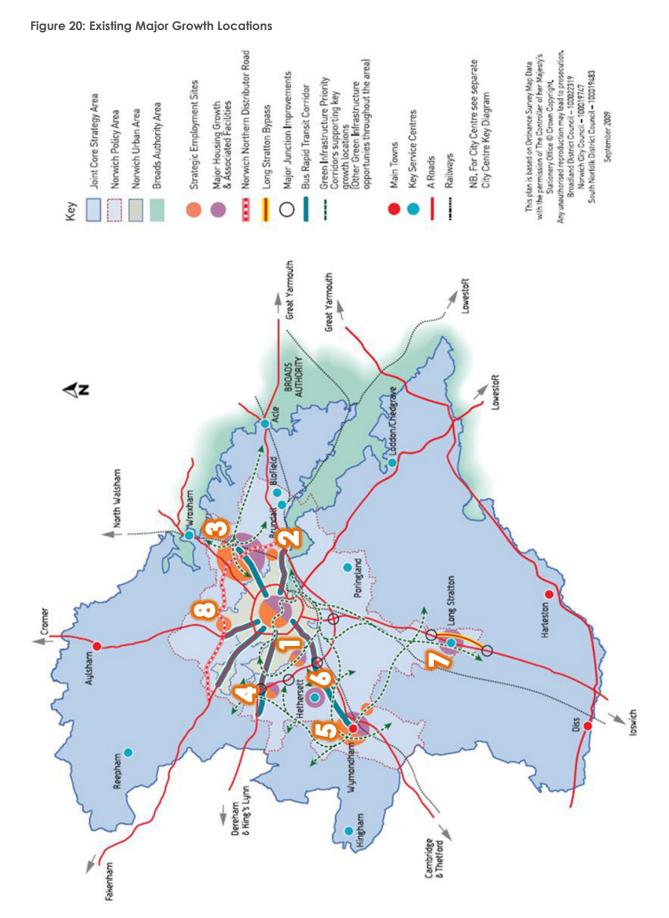


Figure 19: Business unit count based on number of employees: Production and Manufacturing Businesses

Source: GVA, EGi, 2017



Ref	Growth	Description	Infrastructure	Priority Growth
No	Location		Influence	Sectors
1	Norwich Research Park/	Renowned Science Park and centre for employment where	All(Tech Corridor)	Life Sciences and KIBs
	Cringleford	nationally and internationally	and A47	
		significant research is		
		undertaken.		
		 The site is set over 230 ha and includes a community of over 75 businesses and 3,000 scientists with strengths in food, diet and health. 		
		 Home to the John Innes Centre, University of East Anglia, Genome Analysis Centre, Institute of Food Research, Sainsbury Laboratory and the Norfolk and Norwich University Hospital (N&N). 		
		 Importance of sector strengths to the UK economy likely to drive expansion alongside further co-location of similar businesses, spin offs and residential development. 		
		 Expansion likely to be set over 55 ha with 1,200 dwellings planned. 		
		• Expected cost of associated road works: £13,000,000.		
2	Broadland Business Park	• Large business park located on the eastern fringe of the Norwich urban area which includes a collection of grade A offices and industrial units.	Access to A47 and Northern Distributor Road	KIBs, Financial Services, Food & Drink, and Advanced Manufacturing
		 The park is home to many of the largest companies in the region, including Aviva, Lovewell Blake, and RBS. 		
		 The business park is one of the best connected in the NPA with direct access to the A47 		

 Table 1: Growth Locations, influencing infrastructure/ growth corridors and priority growth sectors

Ref No	Growth Location	Description	Infrastructure Influence	Priority Growth Sectors
		and soon to be completed NDR. • As a relatively new		
		development location, further space is available on existing sites and additional sites are allocated to enable continued expansion of the location.		
		• The site will continue to present some of best opportunities for businesses that require large and high quality space in proximity to urban amenities and a high skill labour pool.		
3	Old Catton Sprowston, Rackheath, St Andrew Growth	 Rackheath Industrial Estate is an established site located to the northeast of Norwich with a range of industrial occupiers. 	Northern Distributor Road	Advanced Manufacturing and Food & Drink
	Triangle	 The site is set to benefit from the completion of the NDR that will lie in proximity and greatly increase connectivity. 		
		• The site is also set to form part of the North Rackheath masterplan and wider growth triangle which is planned to deliver a large amount of residential and commercial floorspace.		
		• The Growth Triangle is expected to have capacity for over 13,000 homes and 25 ha of employment land.		
		 Expected cost of the Growth Triangle internal link road: £14,350,000. 		
4	Longwater/ Easton/	 Longwater is an industrial area located to the west of Norwich with direct access to 	Access to A47 and completion	Food & Drink

Ref No	Growth Location	Description	Infrastructure Influence	Priority Growth Sectors
	Costessey	 the A47. The area has historically had a large amount of open storage use that is now seeing change towards big box retail and industrial units. 	of Northern Distributor Road	
		Access to the A47 has enabled occupiers such as Pasta Foods to locate on site and proximity to Norwich researchpark and the Bowthorpe Employment Area suggest potential for opportunities for potential occupiers in the food production and technology sector.		
		 The site is also set to benefit from the completion of the NDR that will lie in proximity and further improve connectivity. 		
5	Wymondham and Hethel	 Wymondham is a town located to the south west of Norwich following the A11. Hethel is a rural location that lies in proximity to Wymondham. 	A11 (Tech Corridor)	Advanced Manufacturing and KIBs
		• The area has recently seen substantial development across its industrial sites which cater to a range of sectors in typically sizeable units.		
		• Hethel is the home to Group Lotus, which is located rurally to accommodate a test track, and the high value Knowles Engineering Centre.		
		 Regarding development, 2,200 homes are planning for Wymondham and, on land between the Group Lotus and Knowles Engineering Centre sites, a 20ha 		

Ref No	Growth Location	Description	Infrastructure Influence	Priority Growth Sectors
		Technology Park is planned for Hethel.		
6	Hethersett	Hethersett is a large village located to the south west of Norwich following the A11.	A11 (Tech Corridor) and A47	
		• The Hethersett North masterplan is expected to create a large contribution to meeting the Central Norfolk housing need with 1,196 homes planned for the area.		
		• The development is likely to make a large contribution to the talent pool, providing high quality homes to attract skilled workers.		
7	Long Stratton	 Long Stratton is a civil parish to the south of Norwich following the A140. 	A140, Long Stratton Bypass	
		• The Long Stratton Area Action Plan was adopted in 2016 and anticipates that a minimum of 1,800 new homes and 12 ha of employment land.		
		• Development is likely to create a shift change for the area, which will be supported by the delivery of the Long Stratton bypass, creating a new centre in the NPA.		
8	Norwich Airport	Norwich Airport is located towards the north of Norwich and has a large site with associated industrial use on its boundary.	Northern Distributor Road	Advanced Manufacturing; ICT
		• The NDR, when completed, will pass to the north of the airport and is set to create a series of development opportunities on airport land and to the north of it.		
		• Following the completion of		

Ref	Growth	Description	Infrastructure	Priority Growth
No	Location		Influence	Sectors
		the NDR, further phases of the Aeropark development are also expected to continue, which previously promised 1,000 jobs set over a 100 acre site to secure the future of the airport.		

Key Infrastructure

- 4.7 Infrastructure acts as the spokes between nodes that facilitates accessibility and connectivity to create the wider cluster system that underpins a local economic area. In this sense, an effective transport network is critical to fostering sustained economic growth within a local economy. These connections enable businesses to reach their customers, connect with suppliers and draw from a wide pool of labour that is either located in other hubs/nodes within the area or further afield. These connections have led to Norwich becoming an economic centre in East Anglia, with strong multi-transport connections between NPA centres and to other regional economies such as London and Cambridge.
- 4.8 This section considers both existing and yet to be completed infrastructure, discussing the value of existing transport links and the growth that is likely to come forward with further connectivity. Figure 19 above and Figure 20 below show the existing and proposed infrastructure schemes that encourage growth in the NPA. Much of the proposed infrastructure provides improved links and accessibility to existing growth locations, but also provides new development opportunities on sites that were previously poorly connected. The characteristics of key infrastructure are tabulated in Table 2 which includes descriptions and the particular growth locations that these transport links support.

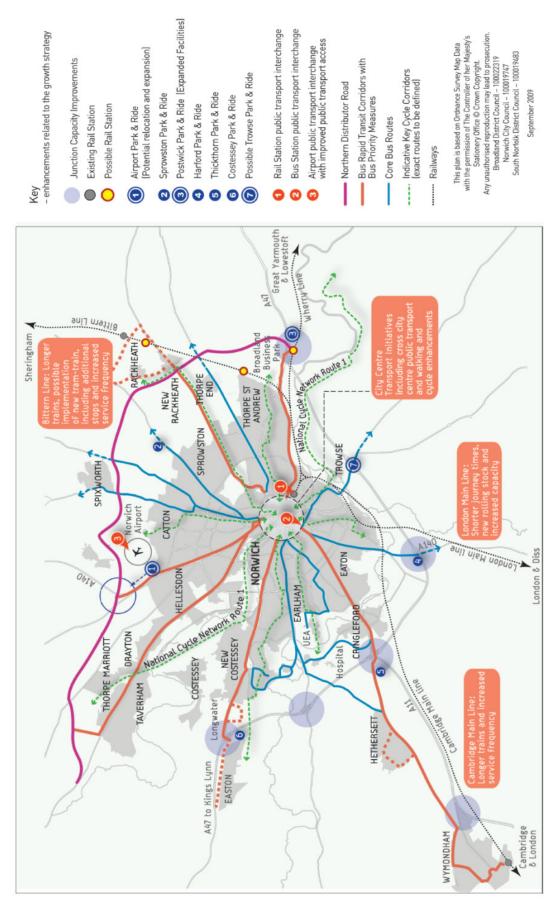




Table 2: Key Infrastructure and growth Locations

Key Infrastructure	Description	Growth Locations Principally Supported
Northern Distributor Road	 The Northern Distributor is a 20km dual carriageway road under construction to run from the A47 at Postwick, east of Norwich, to the A1067 Fakenham Road north of Taverham. As alluded to above, the NDR will improve accessibility to a series of growth locations alongside improving connection to the A47 and routes that lead north out of Norwich. 	 Longwater/Easton/ Cotessey Norwich Airport Old Catton Sprowston, Rackheath, St Andrew Growth Triangle Broadland Business Park
	 The route is also set to reduce cross-city congestion and in doing so will support the Norwich infrastructure stately to encourage more sustainable transport in the city. Overall, the NDR is expected to deliver £1bn of economic 	
	 benefits to Norfolk and support the creation of new businesses and jobs. The £96.5 million committed by the Department for Transport (DfT) for the Northern Distributor Road (NDR) is ones of the largest single transport investments in the East of England since the 2008 financial crash. 	
	 A further £40 million is drawn from the Community Infrastructure Levy, the Norfolk County Council, the New Anglia LEP, and Growth Points Fund. The overall expected cost is £178,950,000. 	
A11 Corridor (Tech Corridor)	 The A11 links Norwich to Cambridge and leads to the M11 motorway for London. The A11 provides access to several growth locations that are likely to see some of the strongest 	 Norwich Research Park/ Cringleford Hethersett Wymondham and Hethel

Key Infrastructure	Description	Growth Locations Principally Supported
	growth, particularly regarding the delivery of homes, in the NPA.	
	 Following the dualling of the 64 mile route between Norwich and Cambridge, the road is now considered a tech corridor. 	
	 Activity on the tech corridor is expected to create £558m for the economy and the NPA will capture a sizeable amount of this in its growth locations and from Cambridge overflow. 	
A47 Corridor/ Bypass	 The A47 bypasses Norwich to the south from Longwater in the west to Postwick in the east. 	 Longwater/Easton/ Cotessey Broadland Business
	• The A47 is the main east west connection in northern East Anglia which connects Norwich with Great Yarmouth to the east and to Kings Lynn to the west, which ultimately connects to Peterborough.	Park • Norwich Research Park/ Cringleford
	 The A47 is a key transport route for Norwich and improves the connectivity for arguably all of its growth locations. 	
	 6 schemes are planned to improve the A47 with 2 falling within the NPA at Easton and the A47/A11 Thickthorn junction. The collective cost is estimated at £300 million. 	
	 Figure 20 shows that junction improvements are planned for most of the junctions on major roads that pass the A47 as they lead into Norwich. 	
	 Part of the improvements are likely to include a park and ride at Thickthorn that is expected to cost £30 million. 	
A140 Corridor/ Long Stratton Bypass	 The Long Stratton Bypass was proposed as part of the Long Stratton Area Action Plan which 	 Long Stratton

Key Infrastructure	Description	Growth Locations Principally Supported
Key Infrastructure	 Description was formally adopted in May 2016. The scheme is expected to cost £25 million and facilitate the delivery of 1,800 homes by 2026. The route will relieve traffic through the centre of Long Stratton and improve the route to Ipswich. Norwich Airport gives the city an international presence with domestic services linking to Iocations across the UK and over 1,000 worldwide destinations from the connection at Schiphol, Amsterdam. The airport provides a crucial service given that nearest airport following Norwich is London Stansted which lies 86 miles away. The airport not only forms a transport hub but has attracted businesses in associated sectors to co-locate around the site. To secure the future of the airport, an Aeropark development was proposed which delivered 150 	
	jobs in its first phase. • Further phases of the Aeropark have outline consent and once delivered will unlock a further c.850 new jobs 100 ha of land, focused on aviation related.	
Rail Improvements	 Norwich railway station forms the northern terminus of the Great Eastern Main Line with journey times to London Liverpool Street of less than two hours. Norwich also has rail connections to Midlands and the North, and regional services to Cambridge, Sheringham and Great Yarmouth. Norwich is also the site of Norwich Crown Point Traction 	 Supports all with focus on: Old Catton Sprowston, Rackheath, St Andrew Growth Triangle Broadland Business Park

Key Infrastructure	Description	Growth Locations Principally Supported
	 Maintenance Depot. As shown in Figure 20 rail stations have be considered the Rackheath and Broadland Business Park growth locations which would provide regional access to these sites via public transport. An extension of the East-West Rail (EWR) line is also being considered that would connect Cambridge to Bedford and provide direct access to the regional centres of Oxford and Milton Keynes in the South East. 	

Game Changer: East-West Rail

The East West Rail (EWR) line received support in the 2011 Autumn Statement with £270 million confirmed in funding and a subsequent £45 million package from local authorities that make up the EWR corridor. A review of the Eastern Section of the EWR, which will connect to Norwich via existing tracks that require dualling, is being undertaken by Atkins Consultants and conclusions can be expected in May 2017. An update of the economic case undertaken in 2014 by ARUP suggests that the EWR line could boost the regional economy by £72.7 million per annum and deliver a benefit cost ratio (BCR) of 6.3. It can be expected that these benefits would be proportional in the Greater Norwich local economy, and may prove particularly acute given Norfolk's less central location and need for connectivity.

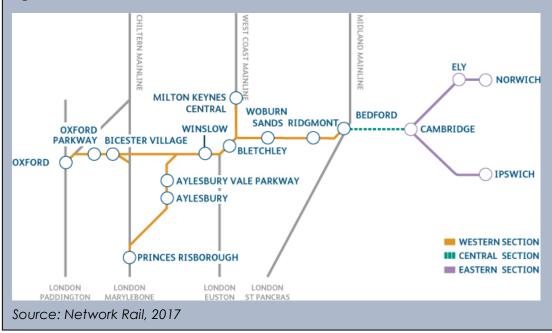


Figure 22: East West Rail Routes

City centre

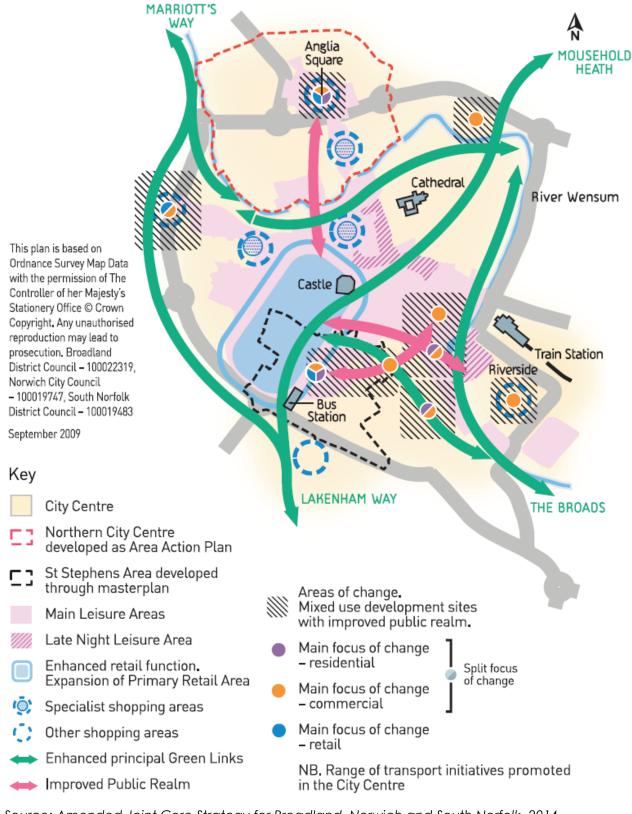
- 4.9 The Norwich city centre is the primary employment centre in the Norwich economy. As shown in the property section, the city centre accommodates 68% of the existing floorspace in the NPA and a sizeable amount of industrial floorspace. The core is home a variety of businesses, particularly those within finance and knowledge intensive businesses (KIBs). Further, the core is seeing growth with 100,000m2 of office floorspace proposed for the city centre³.
- 4.10 The city centre is also a hub for education and the arts based around the City College, and the Norwich University of the Arts with wider provision, including Easton & Otley College, in the city's rural hinterland. These institutions are critical to supplying the city with a skilled labour force across a range of sectors, including the KIBs, technology and food/land based science and research
- 4.11 Norwich University of the Arts provides a strong supply of graduates in video games art, design, digital photography, and film, underpinning the strength of the local digital technology sector.
- 4.12 The University of East Anglia, is a critical asset to the Norwich economy, attracting students from across the UK and internationally. It provides market leading research and development activity in a range of core growth sectors including environmental science and climate change, health, food science and digital technology and is a key supporting factor in promoting the city on the international stage. Its specialisms in the life and health sciences in particular underpin major links to other hubs such as Cambridge, helping support a wider ecosystem of activity.
- 4.13 Teaching activity in fields such as legal and accounting, computer science, software engineering and film, television and media studies all provide a strong workforce for businesses located in (or seeking to locate in) the city.
- 4.14 A talented labour pool is not only important for meeting the needs of businesses but also helps to contribute to the amenities and services that make a place desirable to live and work. As is shown in the property section, Norwich is one of the most desirable places to live in the UK and this is the result of such amenities as well as factors such as access to good jobs. The city has an historic character, which is supported by the prominence of the Norman castle and cathedral, as well as a strong retail and leisure offer than includes a series of independent stores set within the Norwich lanes. The strength of these amenities was acknowledged within the winning of the Great British High Street Award in 2014 in the city category.
- 4.15 Such amenities are valued for attracting skilled labour and retaining graduates who are some of the most mobile in the UK labour force. However, the city centre has been struggling in recent years to retain office occupancy levels as shown in the property section of this report, albeit some

loss as a result of change of use, and now competes with peripheral locations, exemplified by the relocation of parts of Aviva's activity the centre to the Broadland business park.

- 4.16 Taking a more united approach across the broader NPA area, rather than the local authority level, will aid in managing some of the movements in a way that works for Norwich as a whole. There is, however, scope to attract businesses to Norwich, particular given the noted desirability of the city and the quality of its amenities. The 2016 Tech Nation report⁴ identifies Norwich as an early-stage cluster, with potential across a range of tech sectors and a burgeoning network of tech groups such as Hot Source, Norfolk Developers and SyncNorwich.
- 4.17 Currently, as noted in previous sections, there is an existing stock of space available within the city centre, however only a small share provides the quality and nature of space that is likely to be attractive to suit tech businesses, particularly start-ups. The Tech Nation report notes that co-working spaces such as Whitespace are providing affordable space for startups and helping the market, however our assessment is that further space will be required of the appropriate type/quality.
- 4.18 Tech Nation also noted wider challenges to startups which are gradually being addressed, albeit more could be done. For example the challenge of access to finance is slowly being addressed with schemes such as Grants4Growth. Further, Norwich's key asset is its access to talent, which is commonly found to be the biggest issue for tech firms and KIBs more generally, with the third highest concentration of science and research parks in the country and two leading universities.
- 4.19 As the Tech Nation report finds, Norwich not only has a suite of amenities that are attractive to a range of businesses, but also has an existing cluster of KIB businesses and networks, affordable workspace, finance provision, and skilled labour force that makes the city attract to high value tech businesses. Providing evidence, 5,306 digital tech jobs were identified in Norwich, with many based in the core, creating £148m in GVA from digital firms that increased by 22% between 2010 and 2014. As suggested, there is clear potential to further improve on this existing strength and to build on what differentiates the core from peripheral locations and to attract businesses that prefer to locate in central, 'buzzing' locations.

⁴ http://www.techcityuk.com/wp-content/uploads/2016/02/Tech-Nation-2016_FINAL-ONLINE-1.pdf

Figure 23: Norwich City Centre



Source: Amended Joint Core Strategy for Broadland, Norwich and South Norfolk, 2014

Summary/Findings

- 4.20 This section shows that the Norwich has series of key assets or 'Growth Drivers' that define the Norwich economy and deliver growth within it. The majority of commercial properties are located on or near these assets and, as shown below in Figure 23, many of the emerging sites in the NPA are too. Figure 24 provides a useful illustration showing how Norwich functions as a cluster and the assets that growth locations provide for the area. Overall, this section suggests that the NPA is in fact a good representation of how the Norwich economy functions and, given its existing use within policy, would function well as reference area for future growth potential.
- 4.21 This section also shows that there is some competition between growth locations in the Norwich that may not be being managed effectively and is causing loss of office occupancy in the city centre. Management at the NPA level will aid to deliver a strategy that works better for Norwich as a whole, creating greater scope to attract more businesses to the NPA as well as better organising movements within it. Other sections in this document focus on growth sectors but this section highlights how the character of the city centre, and the property typology within it, is suited to tech firms and KIBs that function well within city centre locations that support networks and face to face working. There is an existing suite of amenities and services that support tech firms and Norwich would benefit from delivering a strategy that builds on these assets.

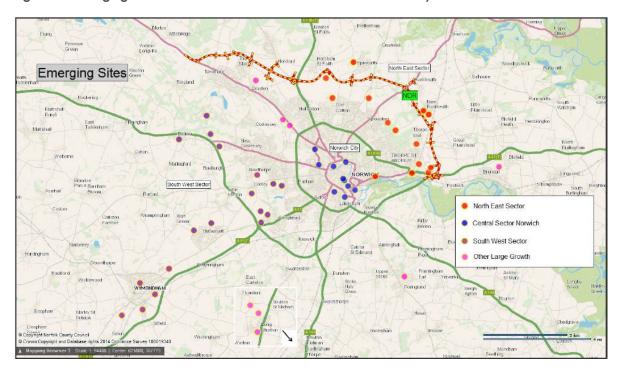
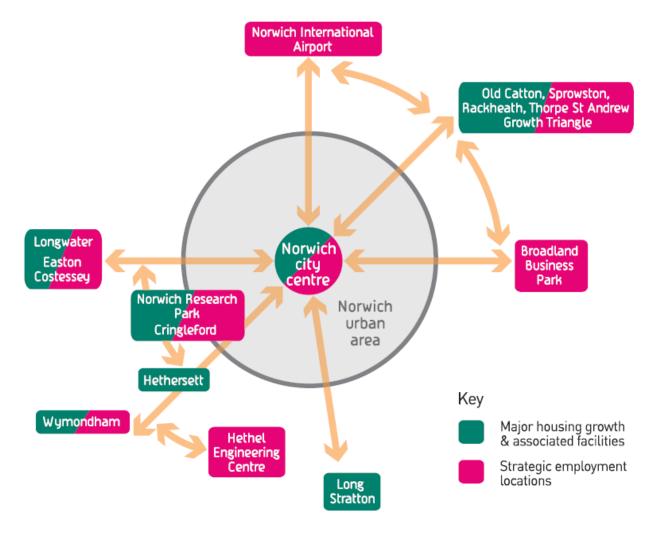


Figure 24: Emerging Sites shown to fall in Growth Locations and near Key Infrastructure

Source: Greater Norwich Infrastructure Plan, published in July 2016





Source: Amended Joint Core Strategy for Broadland, Norwich and South Norfolk, 2014

5. Conclusions

- 5.1 Our analysis explores several political and functional area geographies for Norwich. It illustrates the extent of influence that Norwich has over its sub-regional hinterland and the complexity of its catchments for jobs, labour and homes. Consequently, the local authority area poorly captures extensive growth opportunities positioned on the city's periphery while the overly large Greater Norwich area dilutes the concentration and intensity of more urban economic activity given it incorporates large rural areas and more natural assets such as the Broads. The analysis shows that NPA is useful reference geography because, it closely aligns with the functional economic areas and the majority of assets that are of strategic importance are located within this area.
- 5.2 Overall the property analysis suggests a lower demand for office space than industrial space across the NPA which is particularly acute in the city centre. Although a long term trend is difficult to pinpoint, there does appear to be some reduced activity in the office market. Examples such as the relocation of some of Aviva's activity from the core to the Broadland Business Park as well as potential negative impacts surrounding outcomes of the current political climate (such as Brexit) does suggest a need to capture changing needs of office and industrial typologies in line with location, occupier needs and sectoral focus.
- 5.3 When looking at the physical growth drivers in terms of infrastructure and growth locations, we found that there are points of significant infrastructure led growth locations that are coming forward in the Norwich Policy Area. Each of these growth locations are based on economic cores that are expected to be led by priority or growth sectors (referenced in the Part II and III of this report). Overall, our analysis shows that the NPA is in fact a good representation of the Norwich economic influence and, given its existing use within policy, would function well as reference area for the reach and extent of the Norwich economy.