# Inventing our future Collective action for a sustainable economy

The regional economic strategy for the East of England 2008–2031





## **Contents**

1	Where are we now?	
1.1	The purpose of the regional economic strategy	6
1.2	Policy context	9
1.3	Long-term trends and strategic challenges	18
2	Where do we want to be?	
2.1	Vision	30
2.2	Headline regional ambitions	31
3	What do we need to change?	
3.1	Enterprise	50
3.2	Innovation	54
3.3	Digital Economy	58
3.4	Resource Efficiency	62
3.5	Skills for Productivity	67
3.6	Economic Participation	71
3.7	Transport	76
3.8	Spatial Economy	82
3.9	The spatial response	87
4	How do we get there?	
4.1	Leadership, governance and delivery	112
4.2	Monitoring	126
5	Appendices	
5.1	Underlying principles	140
5.2	Key terms	145
5.3	Acronyms	151
5.4	List of stakeholders involved in the process	153

## Key

Throughout this document the icons below will signpost you to further sources of information



For further information, see the evidence base



For further information, see the RES-RSS joint modelling project report



For further information, see the integrated sustainability appraisal documents



For further information, see the resource-use and  ${\rm CO}_2$  emissions modelling report

### **Foreword**

Welcome to the East of England, the UK's leading innovation region and home to world-beating companies, universities and research institutes. Located within striking distance of London, our region plays a crucial role as the UK's gateway for international trade.

We have come a long way since the publication of the last regional economic strategy (RES), A Shared Vision, in 2004. Our region has overtaken the rest of the UK to become the country's top location for private sector research and development and is among Europe's top three. We have gained more than 10,000 extra businesses. New university campuses are opening and major new investment is now earmarked to expand our international ports.

To build on this success we cannot be complacent. The next few years are likely to be a period of accelerating change. Our region faces challenges on several fronts, from the immediate issue of the credit crunch, to the long-term pressures of globalisation, demographic change, housing affordability and climate change.

We know that for the East of England to flourish in the future, it will need to continuously improve its performance across the board. To achieve this, we will need to work together towards common goals and objectives. The RES sets out a vision of a forward-looking and globally competitive region and for the first time, bold targets for increasing productivity, skills levels, employment and resource efficiency, while reducing inequalities and greenhouse gas emissions.

This strategy has been launched with an unprecedented level of stakeholder buy-in and the unqualified endorsement of the East of England Regional Assembly (EERA). The RES is the culmination of around 18 months of strategy development and extensive engagement with partners throughout the region. The vision and targets are consistent with the East of England Plan – the region's spatial strategy – and this consistency is the basis for a joint implementation plan for both strategies now being developed by EEDA, EERA and our partners. This is another first for our region and illustrative of the close partnership in which stakeholders are working to drive forward economic development here.

Richard Ellis

chair, East of England Development Agency

Autumn 2008

John Reynolds

chairman, East of England Regional Assembly



# Support from across the region

This regional economic strategy sets out a clear vision of what needs to be done to ensure a prosperous future for the East of England. It has bold priorities and targets that we must observe and meet if we are to maintain and enhance our global competitiveness. It also identifies what the region needs to do to respond to the increasing pressures of globalisation and the challenges of climate change.

What we, as the people and organisations that make up the East of England, must now do is take positive, collective action on the actions outlined in this strategy to secure our region's future and make sure that it continues to thrive as a great place in which to live, work and do business.

Barbara Follett MP

Minister for the East of England

Michael Allen

East of England Environment

Richard Lacy East of England Chambers

Forum

Mike Carver

East of England Regional Assembly

John Yates East of England

Mark Mitchell

Rural Forum Forum Eastern Region Jerry Golland

Institute of Directors East of England

Richard Tunnicliffe

Confederation of British Industry, East of England Balbir Singh Chahal Minority Ethnic Network

Eastern Region

Michael Large

East of England

**Business Group** 

of Commerce

Megan Dobney

Trades Union Congress

and East of England

in London, the South East

Community and Voluntary Federation of Small Businesses

Ron King

Shaun Thomas Natural England

Harvey Bradshaw **Environment Agency** 

Members of EEDA's Strategy Committee and statutory consultees on the integrated sustainability appraisal demonstrate regional support for the RES.

# Where are we now?

1.1	The purpose of the regional economic strategy	6
12	Policy context	(

1.3 Long-term trends and strategic challenges 18



For further information, see the evidence base



For further information, see the integrated sustainability appraisal documents



For further information, see the RES-RSS joint modelling project report



For further information, see the resource-use and CO<sub>2</sub> emissions modelling report Where are we now? The purpose of the regional economic strategy

# 1.1 The purpose of the regional economic strategy

Setting a vision for the East of England

The East of England has been one of the fastest-growing regional economies in the UK. It benefits from a number of major assets – such as globally renowned research departments and institutes, leading companies in growing markets, major new investment to expand international ports and a strong relationship with London, the world's leading financial centre. It also has many inspirational places including some of the UK's finest natural habitats and over a quarter of England's historic market towns.

The next few years are likely to be a period of accelerating change for our region – the pressures of globalisation will increase, we will need to respond to the effects of climate change and our region will continue to experience considerable growth. How we address these challenges and capitalise on our opportunities will contribute to the region's wider sustainable development objectives and affect the quality of life of the region's population.

This regional economic strategy (RES) sets out a vision, bold targets and priorities so that we can drive forward as a globally competitive region. In short, the strategy shows where we want to go and how we will get there. The strategy is owned by the region, and will be delivered through the collective work of political, business and community leaders and institutions.

The RES is published alongside the following supporting documents:

- a final evidence base, analysing the economic performance of the region and the market failures the RES is designed to address
- α new environment-economy modelling report that underpins RES CO<sub>2</sub> and resource-use targets and policies
- a final integrated sustainability appraisal statement and an additional investigation into the impacts of growth on biodiversity, flood risk, the historic environment and landscape.

In addition, regional partners are now working collaboratively to produce a joint implementation plan for the regional economic and spatial strategies. This will continue work to prioritise policies and actions.

Where are we now? The purpose of the regional economic strategy

### What has been achieved since the 2004 RES was published?

A number of positive outcomes have been achieved:

- economic growth: between 2004 and 2006, residence-based gross value added (GVA) grew from £101 billion to £110 billion, while workplace-based GVA grew from £91 billion to £99 billion
- **employment:** the labour force has increased by 90,000 people between October 2004 and October 2007 albeit that unemployment has also risen
- **businesses**: the region gained over 10,000 extra (VAT-registered) businesses between the start of 2004 and the start of 2007
- **exports:** between 2004 and 2007, the value of exports from the East of England increased from £18 billion to £19.8 billion
- innovation: expenditure on research and development (R&D) by UK businesses in the East of England increased from £2.7 billion to £3.6 billion between 2004 and 2006 and increased from 21 per cent to 26 per cent of all R&D expenditure by UK businesses
- **skills:** the number of working-age people with higher-level qualifications increased by over 10,000 between 2005 and 2006
- growth: 72 per cent of new dwellings were built on previously developed land in 2006/07, up from 64 per cent in 2003/04. New dwellings provision increased in total to 24,800 in 2006/07 from 20,400 in 2003/04, an additional 21 per cent per annum.

Other major decisions and actions that will shape our economic future have been made:

- approval for the port expansions at Felixstowe South, Harwich Bathside Bay and London Gateway, strengthening the East of England's role as the UK's premier gateway region and providing major employment opportunities
- London has won the right to stage the London 2012 Olympic Games and Paralympic Games, and the region has responded with a business plan to seize the economic and community opportunities, alongside developing potential venues and training camp facilities
- a new university and college campus has opened at Southend-on-Sea, with major progress also being made on new university facilities in Ipswich, Peterborough and Harlow
- reform of business support has seen an increase in the number of front line advisors engaging with businesses
- the region continues to attract major private sector R&D facilities and a number of enterprise hubs have opened and are supporting the growth and innovation activities of business
- Local Area Agreements have been developed that provide a new mechanism for aligning activity and addressing needs and priorities at the local level
- Regional Cities East has provided a nationally recognised model for small and medium-sized city growth and collaboration
- local delivery vehicles have developed robust plans for the long-term development of key centres of development and change
- the region has been at the forefront of renewable energy generation with over 50 MW of generating capacity added between 2004 and 2006.

Where are we now? The purpose of the regional economic strategy However, we still face major challenges. This includes addressing our recent slowdown in economic performance; the impacts of the current credit crunch on financial and housing markets; rising food, energy, fuel and commodity prices; skills and infrastructure deficits; developing a more sustainable economy and improving economic development leadership and delivery.

More than ever, there needs to be concerted action to deliver the shared targets and priorities that have emerged through the process of developing the strategy. To this end, the RES seeks to direct the activities and investment of key regional and national agencies; inform the economic outcomes agreed with local authorities through Local Area Agreements and enable local government to contribute effectively to the region's sustainable economic growth. However, it is vital to recognise that the private sector is the main driver of growth and job creation.

Critically, the East of England cannot achieve its ambitions for sustainable economic growth without the support of the government. This is particularly important because the East of England receives the lowest level of public expenditure per head of any UK region.

Accordingly, the regional economic strategy outlines a number of 'asks' of the government, around which further dialogue will need to take place:

- stronger regional influence on the major drivers of the East of England's performance, and in particular the scale and timing of skills and transport investment
- greater freedoms and flexibilities to enable the region to better leverage capital from the market, specifically through approval for a new Regional Infrastructure Fund
- greater share in the proceeds of growth, including the increasing returns from aviation tax gains from the region's expanding airports, back to respective local authorities and the Regional Infrastructure Fund, to better manage the impacts of growth
- continued development and delivery of national policies that will enable the East of England to meet ambitious targets for carbon reduction
- increased investment to maintain and grow the globally renowned science and innovation base of the East of England – a unique asset for UK plc – in the face of increasing international competition for talent and R&D expenditure.

# 1.2 Policy context

# Regional strategies

The regional economic strategy (RES) is one of a suite of regional strategies that aims to improve the quality of life for people who live and work in the East of England. Its primary focus is to set an ambitious vision for the economy to 2031 and priorities for action that contribute to that vision. It is intended to ensure that 'those responsible for economic decision-taking are working effectively together, with common goals and accepted priorities for regional development'. It is developed with regional partners and goes through a formal consultation and appraisal process. It is an important framework document for other regional and sub-regional strategies and plans, including Local Area Agreements.

The RES complements the East of England Plan – the regional spatial strategy (RSS). The RSS is a statutory document and guides local development documents over the period 2001–2021. The Plan was launched in May 2008 and a review of the regional spatial strategy is under way, taking into account the Housing Green Paper and analysis by the National Housing and Planning Advisory Unit. This regional economic strategy has been informed by the East of England Plan and will, in turn, inform subsequent spatial planning.

Government guidance for developing the regional economic and spatial strategies requires that both are consistent and synergistic<sup>i</sup>. This is achieved by ensuring that the economic aspirations for the region set out in the RES underpin the planning framework of the region. Conversely, the economic aspirations must be consistent with, and achievable within, the statutory plans for physical development.

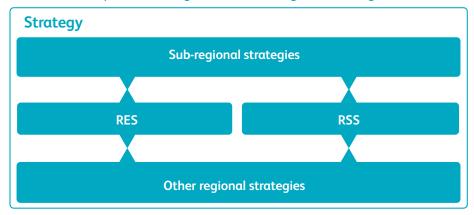
There is a strong and complementary relationship between the two strategies:

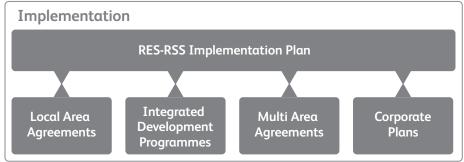
- they share an understanding of the spatial priorities of the region, particularly around the key centres of development and change.
   The RES adds an economic analysis of the scale and roles of key centres for development and change
- the East of England Plan includes policies to support economic diversity and business development that support the priorities outlined in the RES
- the headline regional ambitions in the RES are consistent with the housing supply targets in the East of England Plan
- there are shared objectives in the two strategies covering housing, infrastructure and regeneration
- both the RES and East of England Plan have been prepared in accordance with the region's sustainable development priorities, and the underlying principles in the RES are consistent with the emerging Integrated Sustainability Framework (ISF)
- the RES and the associated evidence base provide material input to the review of the East of England Plan in setting the context for the region's development needs to 2031.

Where are we now? Policy context

The relationship between the strategies will be strengthened further at the delivery stage. The region will develop an East of England Implementation Plan that will define a prioritised, phased and resourced programme to deliver the two strategies and align local objectives. Other regional strategies set priorities for different aspects of sustainable development, all of which have an impact on the region's economic development. The RES has been informed by, and is designed to add value to, these regional strategies and national government policies.

Figure 1
The relationship between regional and sub-regional strategies





### Underlying principles – sustainable development

The regional economic strategy sets out targets and priorities to make the East of England an exemplar in sustainable economic growth. In so doing, it understands the complex effects of economic growth and reflects a responsibility to promote and enhance the environmental, economic and social well-being of everyone in the East of England, both now and for future generations. The strategy has therefore adopted the shared UK principles of sustainable development, as set out in the national strategy Securing the Future.

The emerging Integrated Sustainability Framework (ISF) provides a regional slant to these principles. It identifies overarching objectives for sustainable development to inform strategy development in the East of England. These are to:

- promote sustainable growth within environmental limits
- reduce poverty and inequality and promote social inclusion
- reduce greenhouse gas emissions
- adapt to the impacts of climate change
- promote employment, learning, skills and innovation
- increase resource efficiency and reduce resource-use and waste
- conserve, restore and enhance the region's natural and built environment
- move goods and people sustainably
- meet the needs of the changing regional demographic
- provide decent, affordable and safe homes for all.

Where are we now? Policy context

The application of the shared UK principles of sustainable development to the RES has been tailored to reflect the objectives of the ISF. They inform the strategy as follows:

**Living within environmental limits –** mitigating and adapting to the effects of climate change, conserving and enhancing the natural and historic environment and reducing the region's ecological footprint will be critical to the sustainability of the East of England. The need to address this principle is embedded within the goals of the strategy (see the Underlying principles appendix) and headline regional ambitions (in the aspirations around water usage and reducing  $\mathsf{CO}_2$  emissions).

Ensuring a strong, healthy and just society – the region has real strength in the most vital factor for modern economies – the human capital offered by our greatest asset, the East of England's people. However, the ambitions of the RES can only be achieved if we address current inequalities and the region's diverse communities are enabled to contribute to, and share in, the benefits of economic growth. This will require understanding and addressing the needs of the region's changing demography in areas such as housing, public services, education and skills development. The contribution of each goal to this principle is summarised in the Underlying principles appendix.

Achieving a sustainable economy – the regional economic strategy sets out targets and priorities to achieve the stable, long-term growth and competitiveness of the East of England.

**Promoting good governance** – the leadership, governance and delivery section of this strategy sets out principles for developing regional and sub-regional governance to better deliver sustainable economic growth.

**Using sound science responsibly –** the principle of using a sound evidence base to inform policy and decision-making has been applied throughout the strategy development process. The regional economic strategy is accompanied by a robust evidence base, which has assessed the viability of each of the priorities set out in the strategy.

### Integrated sustainability appraisal

The regional economic strategy has benefited from an innovative approach to sustainability appraisal. A single, integrated sustainability appraisal (ISA) has been independently conducted and overseen by stakeholders.

This has combined a number of assessments:

- strategic environmental assessment
- · equality impact assessment
- rural proofing
- urban proofing.

The ISA included a specific examination of the strategy's possible impacts on health, in line with best practice. The contribution of the strategy to the sustainable development of the East of England – including the targets, goals and priorities – has been informed by the findings of the ISA and stakeholder comments on its recommendations. The ISA is available as a supporting document to the strategy and can be found at www.eastofengland.uk.com/res



For further information, see the integrated sustainability appraisal documents

The region faces significant challenges in managing the environmental impacts of economic growth.

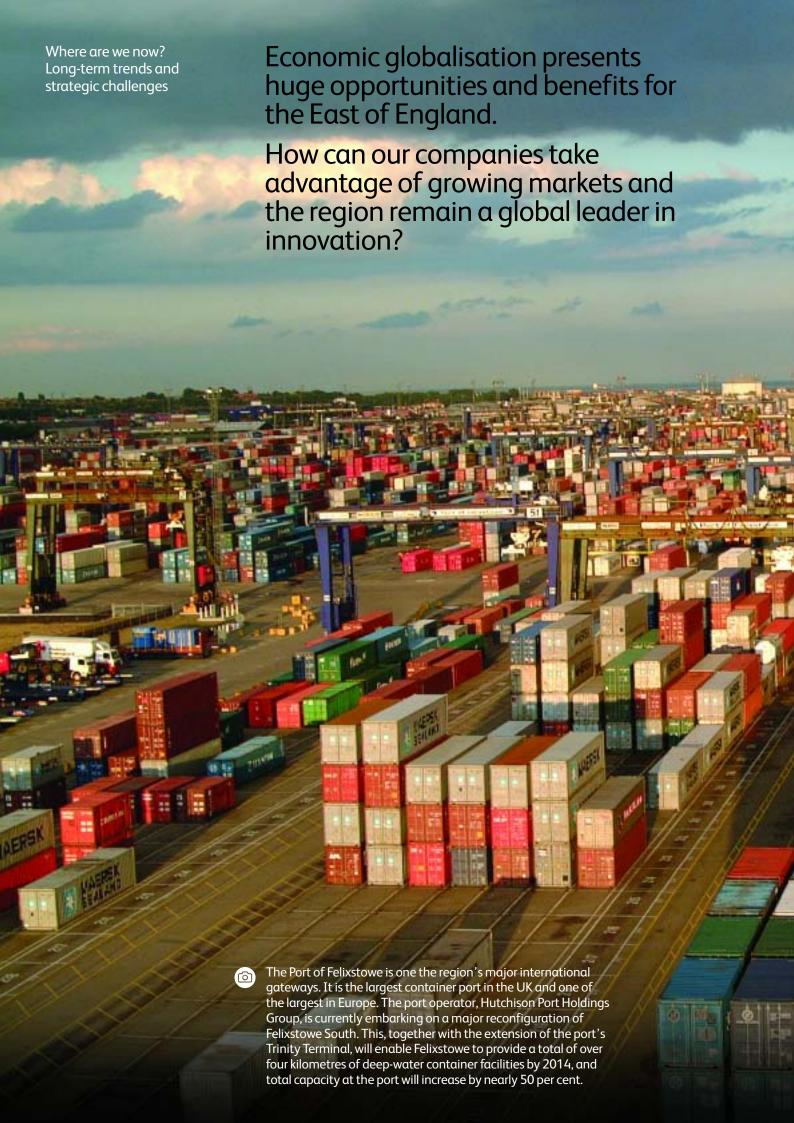
How can we best harness the world-leading expertise in the region to gain economic advantage from action to mitigate and adapt to the effects of climate change?











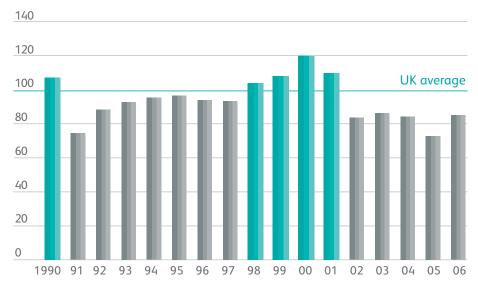


# 1.3 Long-term trends and strategic challenges Getting economic growth back on track in the East of England

The East of England's economy has been successful over the past 20 years and this has contributed to the attractiveness and population growth in the region. However, continued economic success is not guaranteed. For the past five years, the East of England's economic growth rate has lagged behind the national growth rate, as shown at Figure 2. Despite having one of the highest long-term economic growth rates amongst UK regions, recent performance is a cause for concern.

The main challenges for the East of England are to raise rates of productivity growth, increase entrepreneurship and to better manage the impacts of economic success in terms of economic participation and environmental quality.





Source: ONS, Figures calculate growth rates in total GVA indexed to UK rates, where UK=100 (2008)



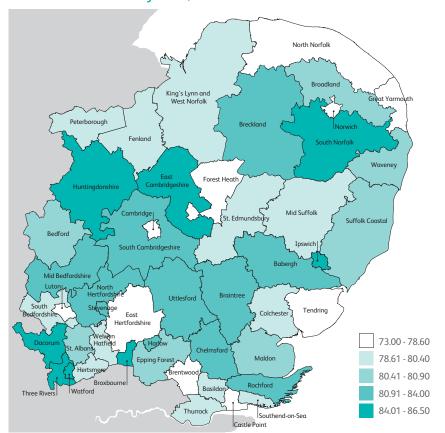
For information on sources of data used within 'Long-term trends and strategic challenges', please see the evidence base, part 1 section 2, 'Economic performance of the East of England'

### Improving economic performance across the region

Headline figures may show that the region has been a strong performer over the long-term, but growth has slowed recently. However, between counties and local areas there are real differences and continued divergence in performance.

On aggregate, the region performs well in terms of the proportion of its working-age population in employment or actively seeking work. However, when a local view is taken, areas of high and persistent unemployment and economic inactivity remain around the region's northern and eastern periphery, especially North and West Norfolk, Waveney in Suffolk and Tendring and Thurrock in Essex. Figure 3 illustrates this by presenting economic activity rates for 2006.

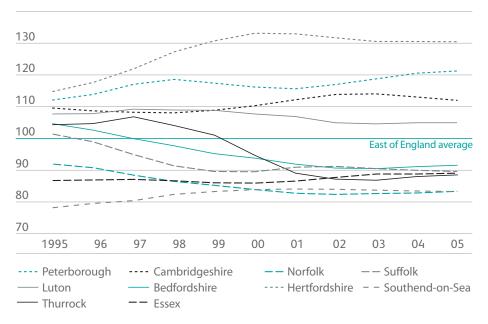
Figure 3
Economic activity rates across the region, where lighter shading indicates lower economic activity rates, 2006



Source: ONS, Annual Population Survey (2006)

Income distribution is similarly varied throughout the region. In 2007, average gross workplace earnings for employees in the East of England reached £24,400, just above the UK average. Workers in Hertfordshire earned the most at £29,100 per annum. Within the region, Peterborough and Norfolk have the lowest annual earnings. This is also reflected in divergent outcomes for GVA per capita. The causes of this divergence are complex, such as industrial restructuring, access to large markets and differences in employment rates and skills.

Figure 4
Workplace-based GVA per head in NUTS 3 areas indexed to the East of England average (East of England = 100)



Source: ONS, Regional Accounts (2007)

The uneven pattern of growth across the region has emerged through the complex and place-specific interactions of people, businesses and institutions. Different solutions will be required to raise growth rates in different areas. This involves building on the specific assets, market opportunities, sector and technology strengths of each area. The strong growth of Hertfordshire and Cambridgeshire is not assured, and requires continued investment to nurture their long-term competitiveness. Other places in the North and East of region, such as Norfolk, Suffolk and parts of Essex require new strategies and concerted action to stimulate higher growth rates and prosperity. The economies of these areas are particularly hampered by a weak skills base and poor road and rail connectivity to key national markets such as London.

### Competing in the new global economy

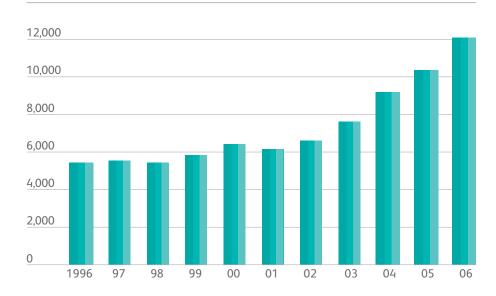
Globalisation is reshaping the economy of the East of England. The UK and its regions have long been operating in highly competitive global markets. The East of England must continue to seek opportunities in international markets and remain fully aware of the challenges presented by competitor regions and emerging economies.

The region's relationship with the rest of the world is growing in importance – between 2003 and 2004, East of England exports grew by 9.8 per cent in value, exceeding the average UK growth rate. The region is already the third biggest exporting region in the UK after London and the South East. Export markets in EU accession countries, Latin America and the Caribbean are significant for the region relative to the UK. Trade opportunities will continue to increase in line with recent trends. As Figure 5 shows, the value of world merchandise exports increased from US \$5.4 trillion in 1996 to \$12.1 trillion in 2006. World exports in services are also growing markedly – up from a value of US \$1.2 trillion in 1996 to US \$2.8 trillion in 2006.

Inward investment will continue to be important for the region. The UK remains a leading location for foreign direct investment (FDI) and headquarter operations in Europe, with a total of 204,000 jobs created from FDI projects in the UK between 2001 and 2007. In the East of England, the number of inward investment projects successfully completed each year has been on an upward trend since 1999, with 52 in 2006/07 compared to 41 in 1999/00.

Markets are becoming more open and flows of trade and investment are growing. This is largely due to economic growth and development in emerging economies such as Brazil, China, India, Russia, Mexico, Taiwan and South Korea. Many of these emerging economies have grown at rates exceeding the UK's growth rate. In 2005, India and China achieved annual economic growth rates of 5.4 per cent and 10.2 per cent respectively. The UK, alongside other major European economies, is forecast to account for a smaller share of global output growth as emerging economies expand.

Figure 5
Total value of world merchandise exports 1996–2006, US \$ billions



Source: World Trade Organisation (2008)

Globalisation offers many opportunities and benefits for the East of England. This includes new or expanding markets for regional goods and services, the potential for international collaboration in research and innovation or as a source of skilled workers.

Alongside the opportunities, there are challenges. The world is becoming more competitive, and the emerging economies are competing on factors other than cost. China is projected to double its present rate of investment in R&D to 2.5 per cent of GDP by 2020. A survey of leading multi-national corporations indicated that 75 per cent of planned new R&D facilities are to be built in India or China.

Advanced industrialised regions such as the East of England will continue to compete in the new global economy. The East of England retains significant economic advantages in the global marketplace – not least leading technology companies and research capability, proximity to London – the world's leading financial market – and international transport gateways. However, to guarantee the region's competitiveness,

we need to enhance performance across the board in terms of the region's enterprise base, skills, innovation activities and assets. Businesses and organisations will also have to adapt to new pressures brought about by the growing demand for resources, demand from emerging economies and global uncertainty. This includes rising food, energy and fuel prices, which will impact on many sectors, not least those operating in international commodity markets such as agriculture and food processing and manufacturing.

### Remaining at the forefront of the innovation agenda

The region must build on its major strengths — as a creative region, with a history of leading R&D and innovation. The region has the highest level of business enterprise research and development (BERD) per unit of GVA in the UK and amongst the highest levels in the EU. It also has technology, health and life sciences clusters of international scale and repute.

The nature of innovation is changing – and the region must change and adapt with it.

- multi-national corporations are increasingly distributing R&D activities across global value chains
- alongside technological innovation, where the East of England has historically excelled, there is increased focus on innovation in services and business models
- innovation is taking place at the boundaries of disciplines and sectors and there are new collaborations between higher education, research institutes, the National Health Service and the private sector
- consumers and suppliers are being increasingly involved in the development of products, services and digital content
- the arts and creative practise are being increasingly drawn on to innovate
- the next generation of web-based communities and social networking is providing new channels for people to shape their own lives and experiences.

Creativity therefore needs to be centre stage in education, in the way we design our towns and cities, and in the strategies of all private and public sector organisations.

To remain a leading international region for R&D activity, the East of England must also maximise the benefits of its position as part of the Greater South East. The Greater South East comprises the East of England, London and the South East and is one of the world's most successful and dynamic centres of the knowledge economy. The East of England plays vital roles in the Greater South East — as a centre of world-class technology clusters and R&D, connecting the UK to global markets through expanding international gateways, as a source of high-skilled labour and as a residential and leisure destination of choice for London. The Greater South East is the powerhouse of the UK economy and the largest market for other UK nations and regions.

Together, the three regions account for:

- 35 per cent of UK's population at 22 million people it is of a similar scale to Shanghai
- annual GDP of £451 billion − 42 per cent of UK output
- 40 per cent of government R&D and 60 per cent of private R&D investment
- 71 of the UK's 131 higher education institutes, including the UK's leading research universities
- 54 per cent of UK venture-backed companies and 70 per cent of venture investment
- UK leadership in exports and international business collaborations
- 100 per cent of net regional receipts to HM Treasury.

The Greater South East can lay claim to the position as Europe's only credible challenger with the critical mass to rival the major US economies and emerging mega-regions in Asia. In the period 2000–2005, the Greater South East has seen leading rates of real hourly productivity above the levels of US comparator regions and Ile de France, the next largest EU mega-region.

The Greater South East's leadership in the knowledge economy is demonstrated by:

- London's increasing lead in global financial markets, driven by excellence in product innovation, the ability to attract global talent, market access and a competitive regulatory framework
- London topping the Global and World Cities indices of world city financial and business connectivity, and Europe's best city in which to locate a business
- in 2005, the Greater South East accounting for £992 million of venture capital investment, significantly above the total levels for France (£457 million) and Germany (£363 million). London and Cambridge are in the top five EU locations for venture capital activity
- Cambridge being home to EU-leading biotechnology and ICT clusters
- the Greater South East leading Europe in terms of world-class universities, corporate research facilities and centres of excellence
- four universities being in the top 30 of Shanghai Rankings 2006 (Cambridge, Oxford, Imperial and University College, London) with only one other European university in the top 30
- Greater South East universities matching many top US universities in investment attracted to spin-outs and licensing returns
- the Greater South East containing major research facilities for over half of the top 20 global companies for R&D, which together account for \$116 billion (28 per cent) of global R&D spend.

The long-term competitiveness of the Greater South East is not assured. The Greater South East suffers major constraints, such as housing supply and affordability, among the highest levels of congestion in Europe, lagging investment in science and a weak skills base in comparison with competitor regions.

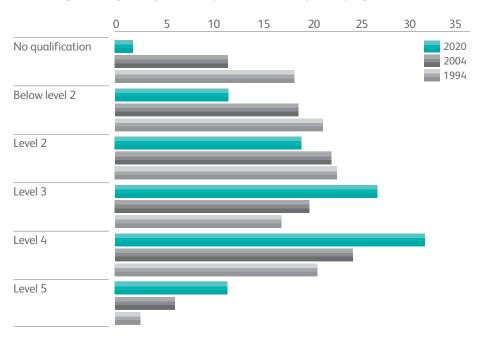
Commuting to London has major impacts on economic performance in the Greater South East. The East of England's commuters are concentrated in the southern half of the region in Hertfordshire, Essex and along the main rail radials into London – and account for the £10 billion difference between the region's workplace and residence-based GVA. The benefits of the Greater South East go beyond the wealth generated by residents who live in the East of England and commute to London. The challenge

for the region is to build on the economic linkages within the Greater South East to create further sources of competitive advantage and growth. The size and dynamism of markets and innovation excellence in the Greater South East is outstanding, and there is huge potential for additional growth through greater collaboration between our businesses and institutions and promoting our collective strengths.

### Improving skills to meet changing demand

One of the principal drivers of economic performance is skills. Evidence reveals that the East of England workforce has relatively poor skills attainment in terms of higher-level (NVQ3 and NVQ4+) qualifications. There are two potential reasons for this. One is that there may be a lack of supply of skills, caused by out-migration, out-commuting, lack of demand from individual learners, or a lack of capacity in further and higher education provision. There may also be a lack of demand for these skills by employers. Demand for higher-level skills will increase dramatically over the next 20 years.

Figure 6
Percentage of UK jobs by level of qualification required: projections to 2020



Source: CE/IER employment projections (2005)

It will be vitally important that people in the region are encouraged and supported to progress up the 'skills escalator'. Improving skills levels and training have major impacts on business productivity and earnings. For example:

- raising the proportion of workers trained in a given industry by 5 per cent can be associated with a 4 per cent increase in value added, and a 1.6 per cent increase in wages
- skills shortages can often act as a barrier to the take-up of new technologies and innovations. Research has shown that a 10 per cent increase in the number of firms reporting skilled labour shortages in an industry will lead to a permanent 10 per cent reduction in its fixed capital investment and a temporary 4 per cent reduction in its R&D expenditure.

In common with the rest of the UK, the bulk of skills deficiencies reported by employers are in soft skills such as communication, team-working and customer-handling skills. These types of skills are also often essential in getting unemployed or inactive residents back into work. Over the next 20 years, workplaces will become increasingly dense in their use of technology – across all sectors and occupational levels. The challenge is to equip young people with the skills for this new environment and constantly upgrade the existing workforce.

Evidence suggests that employers in the region have particular deficiencies in management skills. In the most recent Learning and Skills Council (LSC) Employer Skills Survey, employers reported that 30 per cent of employees with skills gaps lacked management skills – the joint highest of the English regions. International comparative studies suggest that management skills are a major driver in the productivity advantage of leading economies over the UK.

The skills challenges are to increase employer demand for and utilisation of high-level skills; better tailor skills and educational provision to employer needs and ensure adequate access to education and skills development in parts of the region that have lower levels of attainment than average. The region also needs to match other leading economies in developing an active approach to managing migration. This is essential for attracting highly skilled workers and researchers, enabling potential entrepreneurs to stay and maintaining networks with those that leave, so as to realise international trade and collaboration opportunities.

### Embracing change – demography, health and work

The region's population grew by over 14 per cent between 1981 and 2005, which is more than double the rate for the UK as a whole and second only to the South West. The population is now at 5.5 million, but further growth to 6 million by 2021 is likely under current trends." According to predictions from Anglia Ruskin University's Chelmer demography model, Cambridgeshire, Essex and Hertfordshire are projected to account for over two-thirds of this growth."

The region's population is aging. The Government Actuaries Department predicts that, over the next 20 years, the share of the region's population aged 15 to 49 will decrease from 46 per cent in 2004 to 42 per cent in 2021, while the share aged 65 and over is expected to increase from 17 per cent to 21 per cent. This has major implications for housing markets and public services, but also provides businesses with a growing market for new products and an experienced labour supply.

The region is increasingly open to migration from other parts of the UK and overseas – with people coming to live, work, visit or study. Successful regions and communities tend to be outward-looking and tolerant, with a proactive approach to attracting talented people and managing the effects of migration.

ii. According to predictions from Anglia Ruskin University's Chelmer demography model.

iii. East of England Annual Monitoring Report 2006 Background Paper: Demographic Issues in the East of England 2006: Table 6.

Just as the population is changing, so too are the factors that impact on people's well-being and productivity. The central importance of the health status of the population to productivity is increasingly recognised, as are the economic and social costs of poor health. Health contributes to economic outcomes through four main channels: higher productivity, higher labour supply, improved skills as a result of increased participation in education and training and increased savings for investment in physical and intellectual capital (as opposed to healthcare).

The CBI estimates that sickness absences represent an annual cost in the UK of £11.6 billion of lost productivity, whilst Layard has estimated that poor mental health alone costs £13 billion in lost output, before considering the wider £10 billion of costs to the Exchequer from related incapacity benefits. 180,000 people in the East of England are receiving sickness and disability-related out of work benefits. Central to efforts to raise productivity growth in the region must be to improve healthy years of life and tackle major determinants of health status, such as education, employment status and income inequalities.

Access to quality employment is seen as one of the principal determinants of an individual's well-being. Adults spend a high proportion of their lives at work and depend on the workplace for income, friendships and social networks and fulfilment. Employers therefore have a major role to play in the health of the workforce through workplace organisation and job design.

The health system in the region also makes a major, direct contribution to the economy. The NHS in the East of England spends in excess of £7 billion per annum and is the region's largest employer. This offers huge potential to stimulate innovation, source locally, improve skills and deliver climate change mitigation and resource-use ambitions.

### Infrastructure for a competitive and sustainable economy

The private sector consistently identifies transport infrastructure deficits and housing affordability as key constraints to its competitiveness. The East of England has low population densities combined with long-distance commuting, resulting in a higher rate of travel per head than in any other region. Currently, 75 per cent of trips to work by the region's residents are made by car. The region suffers further from congestion in urban areas and on the strategic road network and overcrowding on rail routes to London. Road and rail access to ports and airports does not adequately support the development of their future capacity, nor enable a greater proportion of goods and people to be moved by rail, which is important in reducing the environmental impacts of growth.

The continued attraction of the East of England and the Greater South East to mobile businesses and talented people will be determined in large part by our ability to keep pace with the investment in, and effectiveness of, the transport system of our competitors.

Key drivers will be improving journey times and journey time reliability through:

- investment to tackle pinchpoints in the strategic road and rail network
- improved access to our international gateways and increased capacity in the network that links regional cities to major markets such as London, the Midlands and the North
- increasing the share of journeys using public transport and rail
- greater use of technology to enable individuals and businesses to use the network more productively and in managing demand.

Tackling the growing problems of housing demand and affordability will also be important. Housing affordability affects the ability of businesses to attract and retain a skilled labour force, can dampen entrepreneurship as people are forced to lock up wealth in their homes, and lack of access to the private housing market can foster inter-generational cycles of deprivation. It is vital that the region responds effectively to these pressures over the long term to avoid a drain of talented people to other regions and nations.

### Ensuring the region is an attractive place to live, work and do business

The region's success as an economy is increasingly dependent on its quality as a place to live, work and do business. Many international cities and regions are now placing major focus on the factors that attract and retain talented and highly skilled people and their families.

### This includes:

- the quality of the school system and designing safe and exciting places for children
- improving the public realm and creating new spaces for community use and interaction
- a vibrant and distinctive retail, cultural and sporting offer
- access to high-quality green spaces and landscapes
- providing an affordable, diverse and high-quality housing stock
- embedding technology in homes and places to transform access to a wide range of services and leisure activities
- networking communities and businesses to provide new opportunities for collaboration.

The East of England has unique environmental and cultural assets that can differentiate it from other regions in the UK and abroad. This includes the distinctive urban fabric and heritage of the region's cities and market towns, exceptional landscapes, habitats and coastal areas. Growth must be managed carefully to conserve these assets – but growth also offers opportunities to increase access, enjoyment and resources to manage these assets.

### Managing the environmental impacts of growth

The region needs to ensure that economic growth is environmentally sustainable – which means ensuring that the natural resource needs of future generations are not compromised by current activities. The threat of global warming is very significant for the region as it is very vulnerable to the increases in sea levels associated with climate change. There is increasing evidence that, to limit global warming, industrialised economies may need to make an 80 per cent cut in their 1990-level  ${\rm CO_2}$  emissions by 2050. This represents an annual reduction in the order of 3.5 per cent.

### The region also needs to:

- radically change patterns of resource-use energy, materials, water to reduce our unsustainable ecological footprint and carbon emissions
- conserve existing landscapes, biodiversity and heritage assets and prevent habitat fragmentation
- develop a network of new and restored, large-scale habitats, bringing major ecological, leisure and tourism benefits
- encourage and support businesses to better understand the risks posed by climate change and adapt. Some of the effects of climate change will be specific to certain locations (eg industrial developments close to fluvial or coastal environments) or sectoral (eg on agriculture and food processing), however others will have effects across the economy – for instance, through disruption to supply chains, utilities and the transport system. It will be key for businesses to build the skills for adaptation and for all sectors to work together to build a more resilient system.

# Where do we want to be?

2.1	Vision	3
22	Headline regional ambitions	<b>9</b> .



For further information, see the evidence base



For further information, see the integrated sustainability appraisal documents



For further information, see the RES-RSS joint modelling project report



For further information, see the resource-use and CO<sub>2</sub> emissions modelling report



### 2.1 Vision

The regional economic strategy's vision for the East of England is:

By 2031, the East of England will be:

- internationally competitive with a global reputation for innovation and business growth
- a region that harnesses and develops the talents and creativity of all
- at the forefront of the low-carbon and resource-efficient economy.

### and known for:

- exceptional landscapes, vibrant places and quality of life
- being a confident, outward-looking region with strong leadership and where communities actively shape their future.

Setting a target date of 2031 brings the global economic forces faced by the East of England economy sharply into focus. The region operates in an increasingly competitive marketplace, where knowledge, ideas and networks are the currency as the global economy is being reshaped.

The vision also emphasises other major drivers:

- that developing, attracting and retaining talent drives economies, and as people are more mobile they increasingly make choices on the basis of the vitality, environments and the quality of life offer of places
- that leadership in transforming to a low-resource-use and low-carbon economy, and success in adapting to climate change, is both an environmental necessity and a major opportunity for business growth.

Where do we want to be? Headline regional ambitions

# 2.2 Headline regional ambitions

Through extensive consultation regional targets have been set to achieve the strategy's vision.

These targets address the distinctive set of challenges facing the region over the next generation and describe the leading and sustainable economy to which the East of England aspires. Though ambitious, the coordinated action of local, regional and national partners will ensure the East of England improves both its economic and environmental performance while addressing inequality. They aim at improving the quality of life in the broadest sense.

### Targets to achieving a more prosperous and sustainable economy

As a key indicator of economic well-being, improving the growth rate of output per capita is necessarily a headline ambition for the regional economic strategy (RES). Achieving it will require faster growth in the productivity of those who live and work in the region and higher employment rates. This will bring important challenges such as population and housing growth, sectoral change and environmental and resource-use pressures.

A comprehensive programme of research was undertaken to provide stakeholders with the information necessary to weigh up these complex considerations.

### These included:

- the RES-RSS joint-modelling project: an economic forecasting model built specifically for the East of England that jointly models economic, housing and population growth
- REEIO environmental and resource-use modelling: testing economic growth scenarios and policy options for their impact on greenhouse gas emissions, water use, energy consumption and waste arisings
- analysis of the impacts of economic growth scenarios on biodiversity, historical heritage and other environmental receptors.

The headline regional ambitions are designed to:

- anticipate the performance of the wider UK and world economies
- be consistent with the scale and distribution of future physical development as laid out in the regional spatial strategy
- minimise the environmental and resource-use impacts of economic growth
- recognise infrastructure constraints and pressure on public services
- be consistent with other headline targets and objectives, other key regional strategies and public service agreements
- take account of the region's governance structures and changing institutional landscape.

### Where do we want to be? Headline regional ambitions

### Overarching ambitions for sustainable economic development

### Productivity and prosperity

Productivity and prosperity	
Annual growth in real workplace-based GVA over 2008 –	2031
Per capita	2.3 per cent
Per worker	2.1 per cent
Employment	
Employment rate by 2031	
Working-age population	80 per cent
16–74 population	70 per cent
Skills	
Share of working-age population with qualifications by 2	2020
(aged 19 to state pension age)	
NVQ level 2 or equivalent qualification and above	90 per cent
NVQ level 3 or equivalent qualification and above	68 per cent
NVQ level 4 or equivalent qualification and above	40 per cent
Inequality	
Earnings	
Level of lower-quartile to average incomes by 2031	60 per cent
<u>Greenhouse gases</u>	
End-user-attributed CO <sub>2</sub> emissions by 2031	
Reduction on 1990 baseline level	60 per cent
Water resources	
Household per capita consumption of water	
Reduction on 2008 baseline level by 2030	20 per cent

<sup>\*</sup>per head per day

### **Productivity and prosperity**

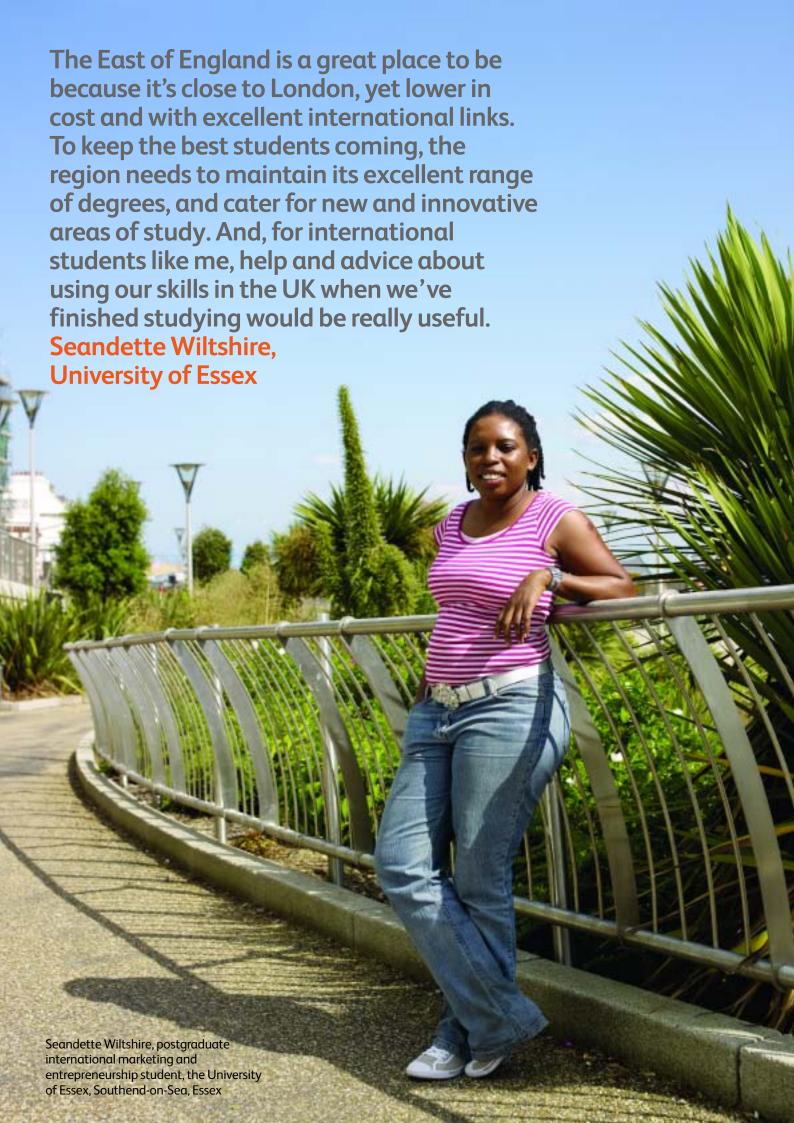
Per capita consumption in 2030

If growth in output per worker increased to just 2.1 per cent each year, by 2031 real GVA per head would be over 70 per cent higher than today.

120 litres\*

Workplace-based gross value added (GVA) measures the total economic output of the region. On a per capita basis it is a key indicator of material prosperity. On this measure, the East of England is less prosperous than many other European regions with similar populations and industrial structures.





### Where do we want to be? Headline regional ambitions

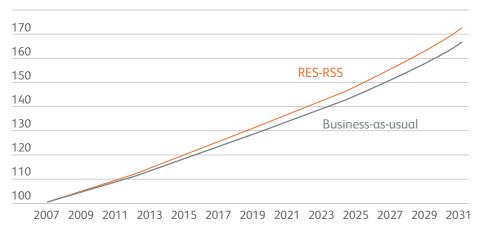
### Comparison with other European regions

Region	GVA per capita (PPP, East of England = 100) v		
	2006	2000–2006	
		percentage growth	
		per annum <sup>vi</sup>	
East of England	100	1.90	
Bavaria	103	1.21	
Stuttgart	105	1.36	
Madrid	65	1.33	
Catalonia	58	1.60	
Southern and Eastern Ireland	d 145	5.61	
East Austria	96	0.95	
Mainland Finland	107	2.32	
Stockholm	174	2.26	
Zurich	212	0.00	

Though growth in GVA per capita in the East of England has been reasonable by European standards, it has been slower than for the UK as a whole over each of the past five years.

The RES ambition for GVA is a statement of consistency between the regional economic and spatial strategies. It is to achieve growth rates over the 2008–31 period that are more ambitious than the government's current Regional Economic Performance Public Service Agreement (REP PSA) and are consistent with the level of physical development laid out in the East of England Plan. Vii On the assumption that the housing supply targets in the Plan are achieved and rolled forward to 2031, average growth of 2.1 per cent per annum on a per worker basis and 2.3 per cent per annum on a per capita basis would achieve this ambition. By 2031 real GVA per head would be over 70 per cent higher than today. The performance of the economy relative to other UK and world regions would also be much improved.

Figure 7
GVA per capita (2007=100) indices under the RES-RSS and business-as-usual scenarios



Source: East of England Forecasting Model (RES-RSS joint modelling project)



For further information on GVA data for the East of England, see the RES-RSS joint modelling report.

v. Purchasing Power Parity (PPP) estimates adjust for differences in the cost-of-living, Cambridge Econometrics (2007).

vi. Not evaluated at PPP.

vii. The REP PSA is based on raising the rate of per capita growth over 2003–2012 above the average for the period 1990–2002. The East of England Plan includes a target for a net increase of 508,000 new homes over 2001–2021.

# **Employment**

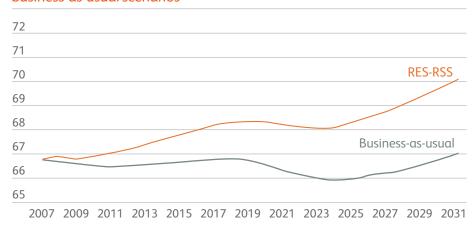
If the employment rate of 16–74 year olds in the region reached 70 per cent by 2031, there would be over 424,000 more residents with jobs than today.

In both a UK and global context, employment rates are high in the East of England. Currently, around 77 per cent of the working-age population are in employment (April 2006 to March 2007). Yet this partly reflects the low provision of higher education places: there is a net outflow of students who leave the region to study elsewhere and as a result, a large share of young people are in work rather than in full-time education or training. The post-retirement age workforce is an increasingly important source of employment growth. The employment rate of 16–74 year-olds was around 67 per cent over 2006/07.

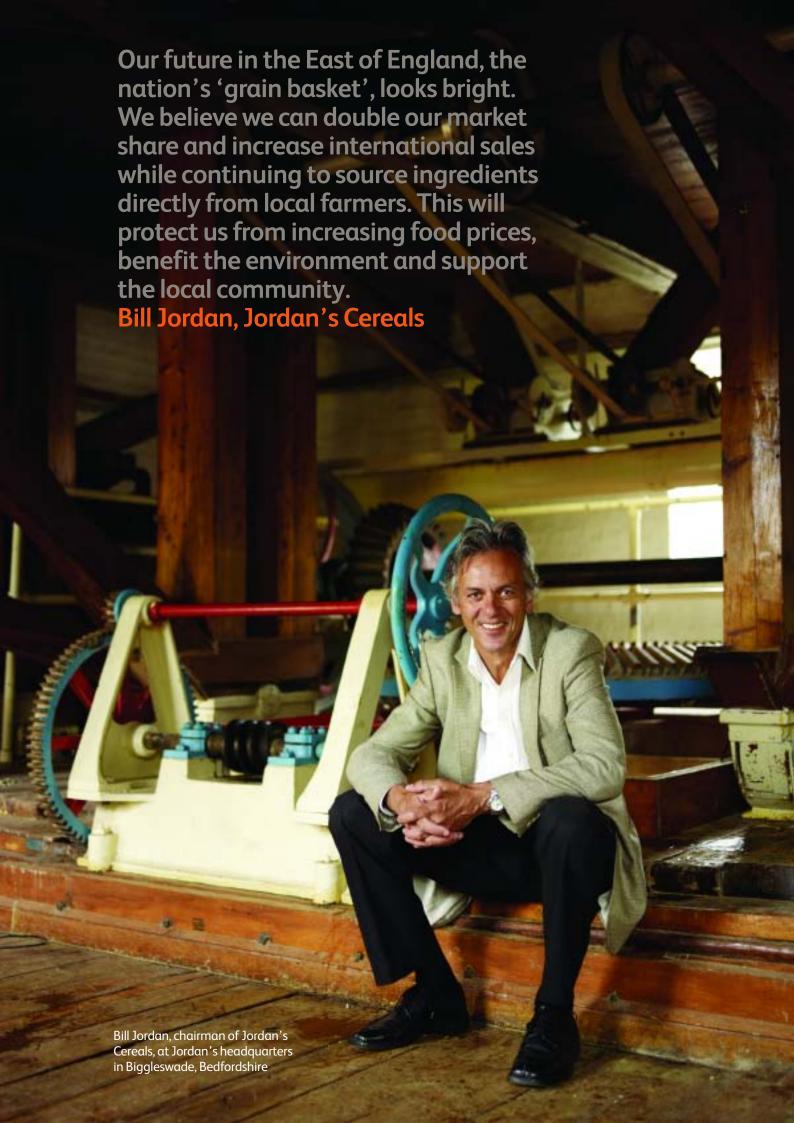
The picture is varied around the region, with the working-age employment rate at around 85 per cent in Harlow and South Norfolk, and less than 70 per cent in Luton and Cambridge. In Cambridge this reflects the share of the population who are students and who are not in paid employment during term time; in Luton, economic activity rates are low among females in certain ethnic minority communities.

Employment performance is also dependent on economic growth and structural factors such as skill levels. In setting regional ambitions around employment, the RES-RSS joint modelling project was used to investigate the levels and rates consistent with the region's ambition on GVA. Based on this research, the RES sets the ambition of a 70 per cent employment rate of the 16–74 population and, on past trends, this is consistent with a minimum 80 per cent employment rate for the working-age population (on the current definition of 16–59/64). This is a challenging ambition that, if achieved, would see 424,000 more residents with jobs than today. Careful monitoring will be required to understand the evolution of employment over the RES period and, in particular, that improved performance is underpinned by increasing skill levels and not by falling participation in education and training.

Figure 8
Percentage of 16–74 year olds in employment under the RES-RSS and business-as-usual scenarios



Source: East of England Forecasting Model (RES-RSS joint modelling project)





### **Skills**

If the RES skills targets are achieved by 2020 and maintained to 2031, there will be 643,000 more adults qualified to at least level 4, 1.1 million more adults qualified to at least level 3 and 1.2 million more adults in the region qualified to at least level 2 than today. viii

Skills are a key driver of productivity, economic participation and prosperity. The ability of firms to update working practices, products, processes and business models in the face of growing international competition depends on the quantity and quality of skilled labour available. With employment prospects for the least skilled declining, a good skills base also helps people to find employment, progress their careers and improve their pay prospects. Qualification attainment is a measure of the level of skills and expertise that are available within the region's economy.

At an international level, the UK's skills base is relatively weak. In Organisation for Economic Co-operation and Development (OECD) comparisons of 30 countries, the UK ranks 17th on low skills, 20th on intermediate skills and 11th on high-level skills. At a regional level, the East of England's skills profile compares unfavourably with the national average: in 2006, 26.6 per cent of adults'x in the East of England were qualified to level 4x and above, 44.6 per cent were qualified to level 3xi and above and 66.3 per cent were qualified to level 2xii and above. This compared with national averages of 28.9 per cent, 47.8 per cent and 68.1 per cent, respectively.

Significant improvements in the region's skills base are therefore required. The Leitch Review of Skills has recommended that, by 2020, the UK will need to achieve:

- over 40 per cent of adults qualified to at least level 4
- 68 per cent of adults qualified to at least level 3
- over 90 per cent of adults qualified to at least level 2.

The RES ambition is to achieve these stretching targets in the East of England by 2020 and to maintain these levels up to 2031.

viii. The skills targets are based on adults aged 19–state pension age. As the East of England Forecasting Model does not contain population projections by age group, an estimate has been produced using ONS national population projections. These projections suggest that 59 per cent of people in England will be aged 19–state pension age in 2031. The number of people aged 19–state pension age in the East of England in 2031 has therefore been estimated to be 59 per cent of the total population projected in the East of England forecasting model (RES-RSS scenario).

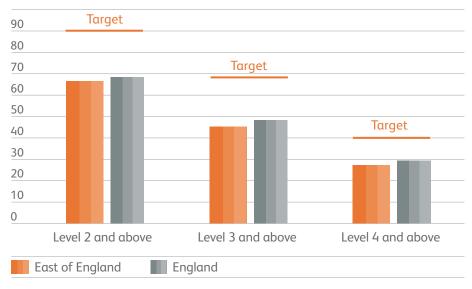
ix. Adults relate to those aged 19-state pension age.

x. Level 4 equates to degree level qualifications.

xi. Level 3 equates to two or more A Levels or their vocational equivalents.

xii. Level 2 equates to five A\*-C GCSEs or their vocational equivalents.

Figure 9
Percentage of the population aged 19–state pension age by highest level of qualification compared to RES targets



Source: Annual Population Survey (2006)

Achieving these targets will help us to achieve improved productivity through investing in intermediate and higher-level skills and reduced inequality and poverty by improving the skills and employment prospects of the least skilled.

# Inequality

By more effectively harnessing the talents of all, raising lower-quartile gross earnings to 60 per cent of the regional average, would reverse the rise in wage inequality seen in recent years and promote economic inclusion.

While prosperity has increased in the East of England over the past five years, the outcomes for those at different earnings levels has varied greatly. The increase in average real wages has been driven largely by those at the top end of the wage distribution. In contrast, the gross earnings of those in the lowest quartile have barely kept up with inflation. A large number of factors have influenced wage differentials, including educational attainment, off-shoring of both manufacturing and services, technological change, the skills premium, international price movements, immigration and sectoral change.

Research puts skills attainment at the heart of these phenomena: as the balance of jobs shifts away from lower to higher-level skills requirements, the premium on higher-level skills is increasing. Recent studies also find that differences in the type and quantity of workplace training undertaken by employees have contributed to growing wage inequality: highly skilled workers typically undergo more training than lower skilled employees, and the financial return is greater too. \*\*vi

Growing inequality can exacerbate social exclusion and will need to be addressed if the East of England is to harness and develop the talents and creativity of all. The RES therefore sets the ambition of raising

xiii. Annual Survey of Hours and Earnings, Resident Analysis (2008).

xiv. Ability, Sorting and Wage Inequality, Carneiro and Lee (2005).

xv. Off-shoring and Wage Inequality in the UK, 1992–2004, Employment Relations Research Series No. 91, Claudia Canals (December 2007).

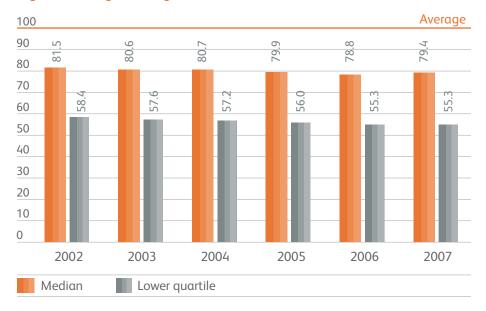
Employee Training, Wage Dispersion and Equality in Britain, Almeida-Santos and Mumford (2006).





lower-quartile earnings to 60 per cent of average earnings over the lifetime of the strategy and thereby reversing the decline seen in recent years. A progression in skill levels will be among the key tools for achieving this.

Figure 10 Gross full-time, median and lower-quartile earnings as a share of regional average earnings ( % )



Source: Annual Survey of Hours and Earnings (2007)

# Greenhouse gases

Reducing  ${\rm CO_2}$  emissions to 60 per cent below 1990 levels by 2031 would put the region at the forefront of tackling climate change and in a prime position to exploit the global commercial opportunities of the \$548 billion environmental goods and services market.

With its long coastline, low-lying geography and vulnerability to coastal flooding, the East of England is the UK region most at risk from the effects of climate change. The twin challenges of adaptation to and mitigation of these effects, and the academic and commercial expertise within the region, provide a strong rationale for bold action to put the region at the forefront of global regions.

The draft Climate Change Bill proposes binding UK targets of at least a 60 per cent reduction of CO<sub>2</sub> emissions below a 1990 baseline by 2050, with an interim target of between 26 and 32 per cent by 2020. \*\*viii The Climate Change Bill also seeks to set five-year carbon budgets, recognising that it is not just a 2020 or 2050 end point that is important, but the cumulative level of emissions and the need to live within carbon budgets in getting there. \*\*viii Yet there is increasing evidence that to limit global warming, average temperatures need to remain within a 'safe level' of 2°C above pre-industrial levels. This may require industrial economies to make near to an 80 per cent cut by 2050. \*\*ix

2°C stabilisation level. The government is currently reviewing the national target of α 60 per cent reduction in emissions by 2050, and whether this should in fact be closer to 80 per cent by 2050, in line with the trajectory that underpins the RES headline target.

43

xvii. Draft Climate Change Bill, Department for Environment, Food and Rural Affairs (2007). xviii. Akin to a financial budget, a 'Carbon Budget' refers to the aggregated quantity of  ${\rm CO_2}$  emissions.

The draft Climate Change Bill proposes that carbon budget periods be set at least three periods (ie for 15 years) ahead. This approach provides for both certainty and flexibility in the system: emissions can vary between years provided the total over a five year period does not exceed the budget.

xix. This is consistent with maintaining atmospheric concentrations of CO<sub>2</sub> at or below 450ppmv, which recent IPCC evidence suggests would give us a reasonable chance (30 per cent) of not exceeding the

For further information, see the resource-use and CO<sub>2</sub>

emissions modelling report

Given the significance of climate change as an environmental challenge, the RES sets the ambition for a 60 per cent reduction in CO<sub>2</sub> emissions by 2031. This target is defined on an end-user basis.\*\* This would put the region on a trajectory to reach 80 per cent by 2050.\*\* Converting leadership in tackling climate change into commercial leadership is a huge opportunity for the region, which is supported by each of the RES goals. In 2005, the UK market for environmental goods and services was around £25 billion; the global market was worth \$548 billion and is expected to grow by 45 per cent by 2015.\*\*

Achieving the  $\rm CO_2$  emissions target is consistent with the other regional ambitions around economic performance if bold policies are in place to de-couple economic growth from resource-use and greenhouse gas emissions. The REEIO environmental modelling project undertaken to support the RES investigated the impact on emissions of achieving the RES-RSS scenario of GVA and employment growth to 2031. Although existing policies would see the continued de-carbonisation of electricity and most sectors of the economy achieving strong reductions in the energy intensity of their production, they will be insufficient to achieve the objective for  $\rm CO_2$ . New policies are needed to achieve major carbon savings for households, the transport, manufacturing, services and electricity generation sectors, whilst there is also a need to increase the scope or effectiveness of current policies.

The RES also recognises the wider range of greenhouse gas emissions such as  $N_2O$ , methane and hydrofluorocarbons. Ongoing work with expert partners will establish baselines and policy options. Informed by the emerging regional climate change action plan, the Spatial Economy section of the RES addresses adaptation.

That is, the emissions associated with the electricity consumed in the region are attributed to the region and not the emissions associated with the electricity generated in the region. The indicator also includes emissions from both domestic and international aviation. For reasons of attribution, the treatment of aviation in the target is limited to emissions from take-offs and landings and an imputed share of domestic cruise. See Resource-use

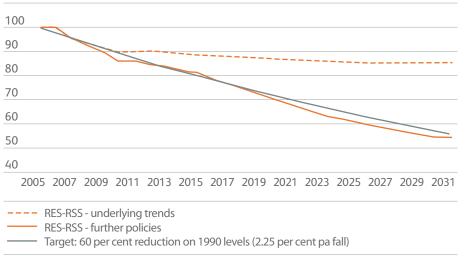
and CO<sub>2</sub> Emissions Modelling Cambridge Econometrics (April 2008) for a detailed

- definition.

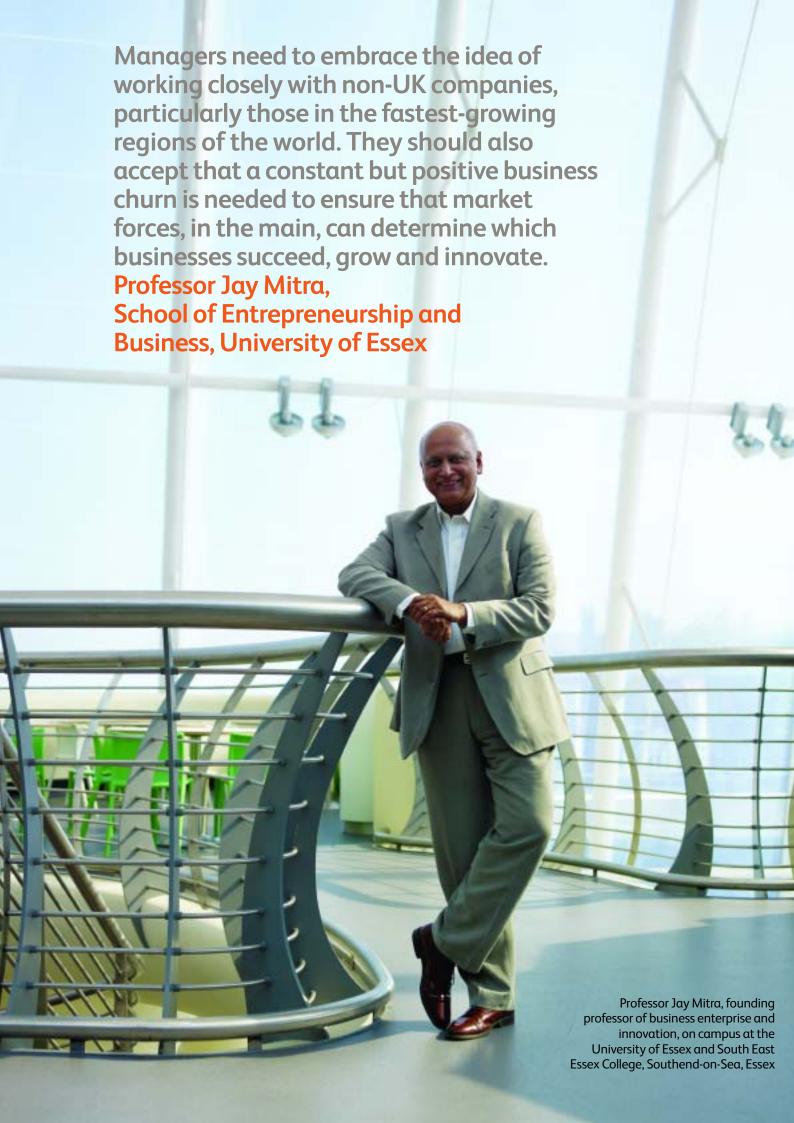
  xxi Memorandum submitted by the RSPB to the EFRA Select Committee on the Draft Climate Change Bill (2007).
- xxii Environmental Goods and Services Core Script, Environmental Industries Sector Knowledge Team (BERR).

xxiii The 2.25 per cent pa rate of decline projected is consistent with delivery of  $\alpha$ 60 per cent reduction in emissions from their estimated 1990 level by 2031. At the present time, estimates of regional CO<sub>2</sub> emissions for 1990 are unavailable on a consistent basis with the data used in the REEIO model. However, these data will be forthcoming through SCPnet. To illustrate the sensitivity of the future rate of declines necessary to achieve the 60 per cent reduction target, if emissions in 2005 were at the same level as in 1990, then the taraet reduction by 2031 would require emissions to be cut by an average of 3.5 per cent pa from 2005.

Figure  $11^{xxiii}$ Reduction in  $CO_2$  emissions on 2005 levels (2005=100) under the RES-RSS underlying trends and further policies scenarios; target line



Source: REEIO model



# CO<sub>2</sub>

For further information, see the resource-use and CO<sub>2</sub> emissions modelling report

xxiv Based on research undertaken by the Environment Agency using the COPS model (February 2008). In this 'deficit' scenario the water-supply would still outstrip projected demand but be below the target headroom that needs to be maintained for contingencies.

xxv Water resource zones represent the level at which water is supplied (sub-regional, water company areas).

xxvi RSS14 Housing and Water Efficiency Scenarios, Environment Agency, Water Resources Planning (February 2008). xxvii Litres per head per day.

xxviii The RES water target of 120 l/h/d relates to all housing and includes water used both internally and externally. It is consistent with the ambition in the East of England Plan to reduce internal water consumption in metered new-build properties to 105 l/h/d (Level 3 of the Code for Sustainable Homes). Making allowance for external use results in a per capita consumption target for new-build housing of 115 l/h/d. These targets are illustrated in Figure 12.

### **Water resources**

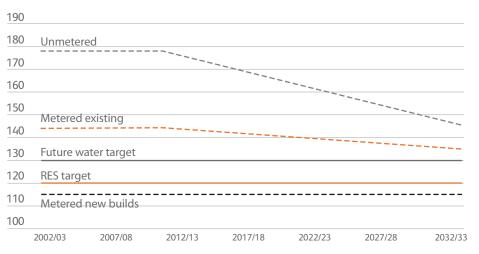
Reducing the per capita consumption of water by 20 per cent by 2030 would support the RES ambitions on GVA, housing and employment.

Water is a vital economic input: neither industry nor domestic households can function without it. Unlike electricity, there is no national grid in water supply and both the Department for Environment, Food and Rural Affairs' (DEFRA) national strategy for England, Future Water, and the Environment Agency's consultation document, Water for People and the Environment, ruled out such a network over the lifetime of this strategy. The region's water resources will need to sustain the coming increase in housing and population, yet the East of England is the country's driest region and water resources in some local areas are already over-committed. Even with the new resources and infrastructure currently planned by water companies, the housing supply targets in the East of England Plan, if achieved and rolled forward to 2031, could lead to a deficit by the early 2030s in the absence of further action. Without greater levels of water efficiency, individual water-resource zones could be in deficit as early as 2015, with the greatest stress in the South of the region. \*\*Xiv, XXV\*\*

The centrality of water to future physical development and the challenge of water-stress demands a headline regional ambition to achieve greater efficiency in our use of water. Research suggests that, if economic and population growth placed no additional demands on the water supply over the RES period, deficits could be avoided. To achieve this, per capita consumption in existing houses would need to fall steadily from around 150 l/h/d today to at least 130 l/h/d by 2041. \*\*xvi, xxvii\*\*

Future Water sets a more ambitious target to achieve 120–130 l/h/d by 2030. In addition to addressing future stress on water availability, this will also benefit business and the environment: tackling over-abstraction will benefit the ecology of rivers and wetlands, supporting tourism and fisheries. Given the unique challenges in this region, the RES sets the ambition to achieve 120 l/h/d per capita by 2030. \*\*XVIII\* This will require incorporating high, water-efficient standards into future development, reducing leakage rates, increasing the efficiency of existing buildings and behavioural change in how we use water in our homes.

Figure 12
Domestic water consumption (I/h/d) under water-neutral RES-RSS growth



Source: Environment Agency

# What do we need to change?

3.1	Enterprise	50
3.2	Innovation	54
3.3	Digital Economy	58
3.4	Resource Efficiency	62
3.5	Skills for Productivity	67
3.6	Economic Participation	71
3.7	Transport	76
3.8	Spatial Economy	82
3.9	The spatial response	87



For further information, see the evidence base



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What do we need to change?
Introduction to the goals

# Introduction

The following section sets out eight goals and associated priorities that provide a clear framework for action if we are to deliver the ambitions set out for the East of England.

The goals and priorities have been informed by:

- analysis of the principal market failures in the East of England and potential options for addressing these market failures
- understanding of the key trends and drivers affecting the region both now and looking forward
- models of economic change, including the HM Treasury's five drivers of productivity (skills, enterprise, innovation, investment, competition)
- consideration of both demand and supply-side factors, and the key role of the private sector as the main driver of growth
- development and testing of the goals and priorities through stakeholder surveys, events and the consultation process
- evaluation of the impacts of previous policies and actions.

Alongside the eight goals are short sections addressing the key strategic priorities for the engines of growth, rural and coastal areas.

This recognises that:

- the particular history and geography of places shape economic performance and future pathways for growth
- in taking forward delivery, there will need to be a careful consideration of the appropriate spatial scale of action, eg neighbourhood, local labour market, city-region, region or pan-regional.



**Image right:** The Paper Trail in Apsley, Hertfordshire, has converted a working Victorian paper mill and disused buildings with significant industrial heritage into a self-financing education, business and heritage centre. Its outstanding entrepreneurial spirit and culture of innovation was publicly recognised in 2007 when it was crowned regional winner and national runner-up of the 2007 Enterprising Britain awards.



What do we need to change? Enterprise

# 3.1 Enterprise

# Improving business performance and a stronger culture of entrepreneurship

Improving the performance of the region's enterprises and encouraging more people to start an enterprise can contribute significantly to economic growth, productivity and job creation. New enterprises and increased market competition can also help to stimulate the adoption and development of innovations. Enterprises can increase their performance by taking advantage of opportunities in the international economy.

A number of enterprises also have the ambition and prospects to realise high growth. These enterprises will become some of the major innovators and employers of the future. Responding to their needs, and assisting growth potential in these enterprises, will also sustain and help improve the region's economic performance. New and growth enterprises can also inject new wealth and jobs into the economies of areas that are deprived or that are in need of regeneration.

There are persistent disparities in rates of entrepreneurship according to ethnic background, disability, age and gender. This represents untapped potential which, once addressed, will boost the overall rate of entrepreneurship in the region.

The regional economic strategy seeks to encourage entrepreneurship and improve leadership and management capacity amongst existing and potential entrepreneurs. The strategy aims to seek further benefits and opportunities in the international economy, using the advantage of the proximity of the region to core European markets. Being responsive to growth enterprises, and the need to enable improved business performance, the strategy seeks to improve the accessibility and impact of business support services.

# What will success look like?

- start-up rates increased to 60 per 10,000 resident adults by 2031 (around 12,000 more new businesses created each year than in 2004)
- total entrepreneurship activity rates to 2031 that are:
  - higher than in 2008
  - above the UK average
  - demonstrating female entrepreneurship rates closer to male rates than in 2008.
- an increase in the share of small and medium-sized enterprises (SMEs) using external advice
- an increase in the proportion of the region's SMEs that operate internationally.



For information on sources of data used within the Enterprise goal, please, see the evidence base, part 2 section 3 and statistical annex

What do we need to change? Enterprise

# **Priority 1:**

# Strengthening the region's enterprise culture

New enterprises contribute to job and wealth creation and help drive productivity growth and the development and adoption of new innovations. Entrepreneurship is also a vehicle for economic inclusion if it occurs within a deprived community or disadvantaged group.

There is a need to create an embedded culture of entrepreneurship amongst all groups and parts of the region, and to increase leadership and management capacity for both new and existing enterprises. As well as improving enterprise performance and the survival and growth rates of business, this will lead to improved rates of enterprise start-ups, particularly where there is untapped potential for entrepreneurship such as amongst women, ethnic minorities, the disabled, in deprived neighbourhoods and amongst young people.

# **Priority 2:**

# Increasing opportunities from international trade, investment and collaboration

There is a wide range of opportunities in the international economy that the East of England can compete for and access, and the region is in a prime geographical position in terms of access to European markets. As well as continued efforts to capture and retain foreign direct investment and secure new or expanded export markets, there are opportunities for using new ideas and innovations from overseas, collaborating with international partners, or deploying intangible assets internationally such as skills or intellectual property. The region continues to be an attractive location in terms of access to European markets. Only a small percentage of enterprises in the region trade internationally, and support to increase the level of internationalisation of the economy is warranted.

# **Priority 3:**

# Enabling high-growth businesses to realise their potential

The East of England can improve the rate of growth in its enterprises that have the potential or aspiration to grow. Managing the process of growth is complex for businesses of any size, but is particularly problematic for small firms. They may need guidance in understanding regulation, the practicalities of entering a new export or product market, or developing appropriate skills. Predicting where the next growth enterprise or home-grown multi-national corporation will come from is difficult. Support for growth businesses must necessarily be responsive and enabling and able to recognise the diversity of the enterprise base. The region will need to prioritise assistance to businesses with recognised potential for productivity improvement or growth.

The region must ensure that potential and existing entrepreneurs are encouraged and nurtured and have the opportunity to develop the leadership and management potential required to support growth businesses.

What do we need to change? Enterprise

# Priority 4:

# Improving enterprise performance through effective business support

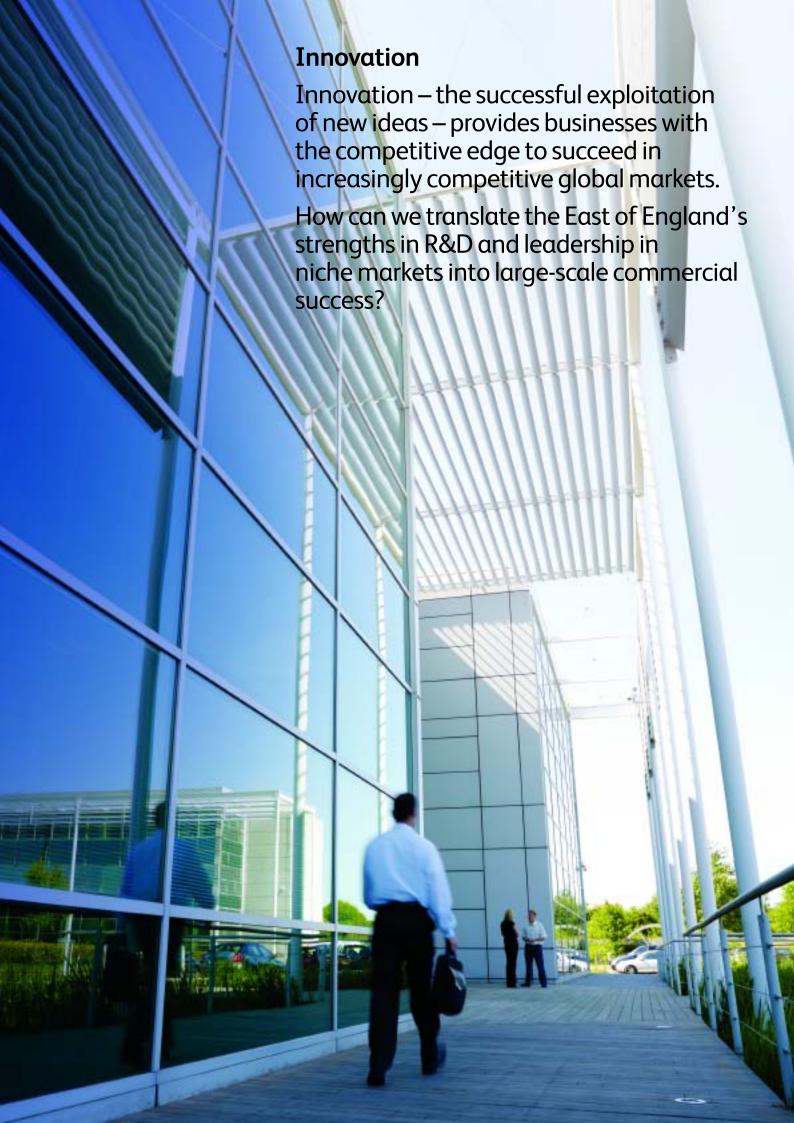
Evidence shows that enterprises that seek advice tend to report greater profits than those that do not. Ensuring that enterprises are aware of, and access, the right business support services for their needs, will improve enterprise performance in the region. The key objective, as laid out in the region's business support strategy 'Better for Business', is to provide and direct enterprises to high-quality advisory services that meet business needs and are easy to access. For start-ups and early-stage businesses, business support services can make a big contribution by improving the investment-readiness of business ideas. More generally, quality business support services play an important role in spreading good business practices.

Reducing the complexity of government-funded business support is the aim of the national Business Support Simplification Programme (BSSP): improvements to the 'East of England offer' must be considered in this context. Business support services need to continue to evolve to meet the needs of businesses and entrepreneurs, against a backdrop of changing regulation, technology and globalisation.

# Implementation priorities

- developing the suite of high-quality business support products accessed through the single Business Link East gateway service
- developing a strong enterprise culture in under-represented groups by widening mainstream support and developing targeted programmes
- creating an integrated system of support for international trade, investment and collaboration
- improving access for regional businesses to leading-edge leadership and management training, advice and support
- ensuring all publicly funded business support is consistent within an agreed BSSP framework
- providing a comprehensive business support package and access to finance for high-growth businesses.





What do we need to change? Innovation



For information on sources of data used within the Innovation goal, please see the evidence base, part 2 section 4 and statistical annex

# 3.2 Innovation

# Realising the value of innovation by bringing ideas to market

If the East of England is to thrive in the global economy, then it will increasingly be on the basis of ideas and knowledge and not on cost. Innovation – the ways ideas become products, processes and new business models – is changing. Open innovation is increasingly prevalent in a number of forms – specialist research and development (R&D) companies and universities working with local and global businesses; consumer-driven development of products, services and digital content; innovation at the intersections of disciplines and sectors; and the next generation of web-based communities, social networking and other new channels for people to shape their own lives and experiences.

The East of England has the opportunity to be at the forefront of this new era and, as part of Greater South East, to be one of the ten to 15 global innovation poles that will emerge in the period to 2031. The East of England is already an EU-leading region for research and development activity, crucial for innovation. Private-sector R&D accounts for a higher proportion of economic output than in any other UK region. In addition, the region hosts world-class research institutes, university departments and the University of Cambridge, a global top-five research university.

However, our strength in R&D is not matched by a record of commercialising or adopting technologies and processes. UK and international comparisons show that the East of England's firms are less likely to introduce a new or significantly improved product, service or process, and less likely to allocate funds to training or make capital investments to support innovation. Crucially, it is the use of technology not the generation of technology that has the biggest impact on growth, and this presents important opportunities for all sub-regions and sectors.

### What will success look like?

- an increased share of businesses that are innovation active
- an increased share of businesses that translate new ideas and research into new products, services and processes
- an internationally renowned science base and hi-tech clusters, reflected in European-leading levels of private-sector R&D and venture capital investment
- becoming the UK exemplar region for open innovation and absorption of existing technologies.

### **Priority 1:**

# Developing a thriving culture of innovation and creativity

To prosper, the region needs to increase innovation activity in all businesses. This must be matched by a culture of creativity and collaboration, in education and civic life. Many of the biggest challenges facing the region – climate change, inequality and an aging demographic – are resistant to conventional approaches and demand innovation. The public sector is an important driver of innovation – in terms of developing new and more effective services, promoting creativity in education and workforce development and, crucially, through using procurement to

What do we need to change? Innovation

generate innovation and product viability. The third sector can also be a source of social innovation, improving and complementing mainstream public service provision.

Leading innovative companies and organisations share a number of attributes. These include recruiting innovative employees, providing training in creativity and innovation, developing a learning culture, empowering employees to take forward new ideas and rewarding successful innovation.

# **Priority 2:**

# Commercialising R&D and adopting innovation

Despite the region's strengths in R&D, evidence suggests a problem in translating new products and services into profit or scaling up innovative companies beyond niche markets. In part, this can be explained by the fact that innovation often takes time to have a major impact on economic growth. However, it also reflects the fact that the region and key cities are often 'knowledge-generating' locations as opposed to 'knowledge-using' locations. Business profitability and wider economic growth are often driven more by adoption of existing ideas, products or processes in the workplace and implementing them to improve quality and efficiency, or to develop new goods and services. Innovative companies are often prevented from becoming keystone companies of local economies through financial drives for early exit or acquisition, limited management, creative and technical skills pools.

Universities are a critical part of the regional innovation system. Close collaboration between universities, research institutes, businesses and the government is a feature of successful regions. This goes beyond knowledge transfer, spin-outs and licensing, to a wider range of interactions with businesses and society. Universities provide access to new ideas; skilled labour and internships; levering research funds and grants; consultancy services; public space and levering intellectual resources from a wider range of disciplines than a single business could do on its own.

Success in commercialising and adopting innovation can be increased through effective business support, access to a range of finance products, effective business and social networking and exposure to national and international markets. Collective public sector procument can also create demand for emerging technologies and services.

### **Priority 3:**

# Strengthening clusters around leading private sector R&D companies and research-intensive universities

The East of England contains the major facilities of a number of global top 50 R&D companies, the internationally renowned University of Cambridge and the associated technology cluster in the Cambridge sub-region, with in excess of 1,400 companies and employing 43,000 people. The region has major 'knowledge-generating' clusters in health and life sciences, ICT, and emerging strengths in high-growth areas such as environmental technologies and renewable energy.

During the lifetime of this strategy, there needs to be a focus on the sectors and clusters in which the region has existing or potential international advantage. To retain, attract and nurture companies at the forefront of innovation and R&D, the region needs to develop networks and a leading innovation infrastructure. This includes 'third-generation' science parks and business infrastructure linked to major R&D companies, institutes and research-intensive universities. Beyond high-quality commercial, research

What do we need to change? Innovation

and incubation space, these parks and enterprise hubs will offer businesses access to technology expertise, skilled labour pools, finance providers, support services and networks.

Development of key clusters will also require a positive planning approach to wider housing, infrastructure and utilities provision to enable the continued growth of high-value activity and employment.

# **Priority 4:**

# Positioning the East of England and Greater South East as global innovation regions

Large-scale R&D and innovation is a global, open activity involving many players in many locations. Rising costs and skill shortages in traditional locations of R&D activity, growth in emerging markets such as China and India and advances in information and communications technologies are driving this trend. Research demonstrates that the investment decisions of innovation-based companies are heavily influenced by proximity to markets, suppliers and skilled workers. These are often in technology and research-intensive clusters.

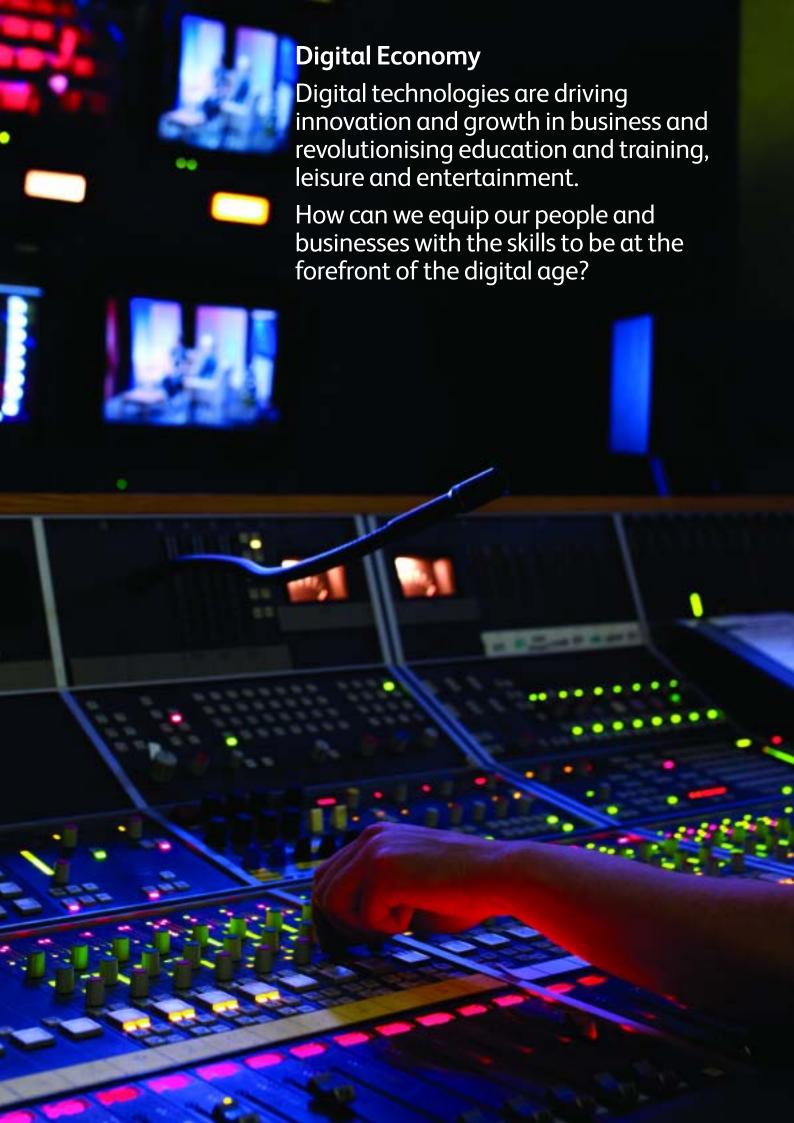
The East of England must be at the forefront of places that are attractive to major innovators and investors. For global impact, the region can be marketed as part of the Greater South East, Europe's leading innovation super-region. There must also be a focus on developing and promoting the region's key strengths – health and life sciences, ICT and environmental technologies – and the benefits of location in, or collaboration with, the East of England's key clusters. This requires a bold approach to promotion in international markets, matching other leading technology locations, such as the US, Israel and Sweden.

# Implementation priorities

- developing a positive planning framework, ensuring timely delivery of key infrastructure and utilities provision, and tailored skills provision to create research and technical talent pools to enable growth of existing and emerging clusters
- increasing rates of commercialisation of R&D, technology uptake and innovation in finance, marketing and distribution through an integrated business support and access to finance package
- maximising the productivity benefits of co-locating private sector, research institutes and universities and progressing the development of next-generation science parks
- expanding the full range of knowledge exchange, skills provision and business engagement of regional universities and increased investment in the international quality research departments and institutes
- promoting dense business and social networks to enable flows of ideas, advice and investment opportunities
- developing shared marketing propositions with key partners in London and the South East to promote international investment and talent attraction
- developing a suite of financial products, support for creativity and incentives to encourage social and public sector innovation.



**Image right:** The East of England Production Innovation Centre (EPIC), on the site of the former Anglia TV studios in Norwich, is one of the most advanced higher definition broadcast production facilities in Europe, hiring out studios and post-production to the UK broadcast and production industry. It is recognised as a centre for the development of new services and digital communications technologies. EPIC works with universities and colleges and other training organisations to develop the creative talents of the digital age.



What do we need to change? Digital Economy



For information on sources of data used within the Digital Economy goal, please see the evidence base, part 2 section 5 and statistical annex

# 3.3 Digital Economy

Accelerating the use of digital technologies in public services, society and commerce

Digital technologies are rapidly shaping economies through broadband, digital broadcasting, telecommunications and wireless technologies. This is driving competition, productivity, innovation and growth in business; influencing work patterns; access to public services; revolutionising education and training, leisure and entertainment.

Our global competitiveness and prosperity depend upon securing the maximum benefit from digital technologies. The region has a relatively high take-up of broadband, but there are sub-regional differences and the quality of the broadband available is still an issue. The challenge for us is even wider adoption of information and communications technologies (ICT) to improve efficiency and enable innovation.

The ability to adopt digital technology is vital to the effectiveness of all organisations as it presents new opportunities for the way services are planned and delivered, for example, in healthcare, education and in community participation in decision-making.

Economic growth through the effective exploitation of digital technologies requires next-generation broadband and digital infrastructures offering a utility service available throughout the region at affordable prices. Leading cities and regions are already planning the provision of next-generation services and integrating technology into buildings. This region must ensure it is not left behind as faster broadband becomes available and, with its expertise in digital and building technologies, must strive to be a leader in this area too.

### What will success look like?

- widespread access to the latest digital infrastructure for businesses and households
- a more efficient and innovative economy through maximum exploitation of ICT by businesses and households
- businesses and individuals able to use ICT proficiently, with a reduction in information technology skills gaps among the region's workforce
- transformation in working methods, with an increased share of enterprises adopting smarter/flexible working practices
- reduction in overall travel resulting from use of ICT
- a digital infrastructure that ranks highly among leading international regions.

What do we need to change? Digital Economy

# **Priority 1:**

# Improving efficiency and innovation through the application of digital technologies

Many of the region's businesses, small and medium-sized enterprises (SMEs) in particular, have yet to exploit fully the benefits that ICT can bring. They need access to specialised high-quality and independent ICT expertise to demonstrate how ICT and digital technologies can improve productivity in their unique circumstances.

Embracing digital applications, systems and services will ultimately transform the region's businesses and help reduce 'digital exclusion'. Evidence indicates that the major driver of the productivity lead of the US over Europe is its rapid adoption of ICT right across the economy, combined with better management practices.

ICT makes flexible working an option for many organisations, increasing the availability of labour and providing significant environmental benefits. ICT can change working methods, aid the management of demand for travel and improve the flow of people and goods.

The region's public sector has a particular role to play in encouraging SMEs to participate in e-procurement, an integral part of the buying and selling process.

# **Priority 2:**

# Equipping people and businesses with the skills and capability to innovate through digital technologies

Recent research on ICT skills in the region suggests that only 58 per cent of businesses are confident that staff have the knowledge to develop their ICT. \*\*xix\*\* Scarcity of appropriately skilled personnel may be a serious threat to the region's businesses and economy. ICT user skills will continue to be a factor in enabling individuals to find work.

ICT is fundamental to business change, innovation, creativity and entrepreneurship, so in addressing ICT skills gaps, it is equally important for the region's organisations to have the right management and leadership skills to derive full benefits from ICT implementation.

Literacy and numeracy are basic-level skills or 'skills for life' and now ICT skills are equally important, especially in the workplace. ICT training can motivate people to develop literacy, numeracy and language skills and is an increasingly popular way to acquire and develop skills.

What do we need to change? Digital Economy

# **Priority 3:**

# Investing in a leading digital infrastructure

The region has good basic broadband availability (99.7 per cent of the region). The region needs higher-speed services to remain competitive, to attract new and retain existing businesses and to meet business requirements. Higher speeds will bring better, faster and more productive ICT solutions for business, service delivery and the home.

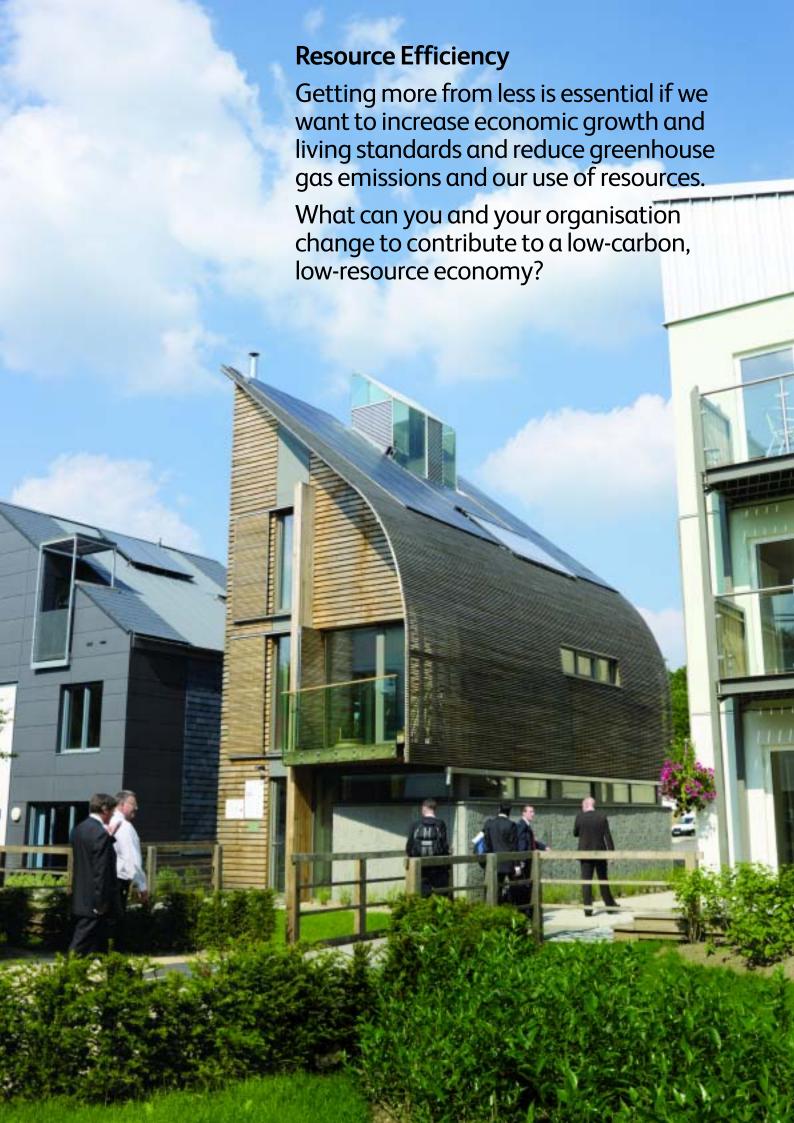
Broadband, telecommunications, wireless technologies and software are the foundations of the region's digital infrastructure. We must continually monitor and benchmark the region's digital infrastructure against our competitors and ensure that excellent services are available throughout the region. Where necessary, we must stimulate demand for such services and promote their benefits.

The region is strong in developing digital technologies and software, with higher levels of long-term GVA and employment growth than the national average. The continued growth of this internationally renowned cluster is a priority, not least because it helps to deliver economic and social benefits to the wider region through enabling technology and knowledge transfer.

# Implementation priorities

- enabling SMEs to enhance their productivity using new digital technologies through advice and skills development
- increasing the quantity and quality of ICT skills provision to increase the rate of adoption of digital technology
- lobbying, collaborating and planning for region-wide availability of high-speed broadband services comparable to competitor regions across the world.





What do we need to change? Resource Efficiency

# 3.4 Resource Efficiency

Benefiting from a low-carbon, low-resource economy

Global climate change poses a very real threat to the East of England. Our low-lying geography, vulnerable coastline and already scarce water resources make us the region most at threat from climate change and degradation of ecosystems services in the UK. Following the Stern Report, climate change has become a central matter of economic policy. As energy and carbon emissions become constrained, businesses, communities and individuals contributing to regional economic development must take resource productivity seriously as a source of competitive advantage.

In response to changing demand, tighter regulation and scarcer natural resources, the market for environmental goods and services is growing sharply. The global market was worth \$548 billion in 2005 and is expected to grow by 45 per cent by 2015. This presents a huge opportunity for sustainable wealth creation, reinforced by the increased focus of governments on carbon pricing that will impact on all sectors of the economy in the East of England.

Getting more from less is essential if we want to enjoy improved living standards in a way that significantly reduces carbon emissions, use of resources and increases competitiveness. To do so requires large reductions in the use of energy, fuels, water and other materials such as packaging, as well as more effective and efficient use of those resources that are required. We also need to minimise the use of resources in the manufacture and full life-cycle of products through improved design and development. Finally, we must de-carbonise and de-centralise our energy supply, for reasons of both efficiency and security.

# What will success look like?

- end-user CO<sub>2</sub> emissions in 2031 that are 60 per cent below 1990 levels and reduced emissions of other greenhouse gases
- waste arisings per £ million GVA in 2031 that are 37 per cent (143 tonnes) below 2005 levels
- increased recycling rates for household and municipal waste
- per capita consumption of water by households in 2030 that is 20 per cent below 2008 levels, or 120 litres/head/day (I/h/d)
- an increased share for the region's businesses of the markets for environmental goods and services
- growth in the region's sustainable energy sector with 20 per cent of electricity demand being generated from renewable sources by 2020 and the region's lead position being maintained through to 2031
- for the East of England to be a renowned leader in resource efficiency and climate change adaptation.



For information on sources of data used within the Resource Efficiency goal, please see the evidence base, part 2 section 6 and statistical annex

What do we need to change? Resource Efficiency



For further information, see the resource-use and  ${\rm CO}_2$  emissions modelling report

# **Priority 1:**

# Improving resource efficiency through behavioural change

Non-renewable resources are being consumed at an unsustainable level. With rising prices and increasing concern over energy supply, the price and availability of resources is becoming a priority for many businesses. Electricity prices for the non-domestic sector have risen by 60 per cent in real terms between 2002 and 2007 and gas by 64 per cent over the same period, while prices for copper and lead have tripled since 2004. Such rises are likely to increase further as markets respond to imbalance between supply and global demand.

Minimising resource-use is therefore a key to the profitability of businesses, the development of a sustainable economy and to meeting growing consumer expectation of high environmental standards. The regional economic strategy (RES) sets the challenging target of reducing waste arisings per £ million GVA to 37 per cent below 2005 levels by 2031. Achieving this is consistent with the regional ambitions around economic performance if bold policies are enacted to de-couple economic growth from resource-use. Resource efficiency requires attention at all stages of the product life-cycle, from design and material specification, through efficiency in use, to end-of-life recovery in resources. To be fully effective, this requires changing the behaviour of individuals, businesses and organisations.

Poor information can affect our consumption and production choices. Organisations or individuals may not change behaviour, due to a lack of enabling services or infrastructure. Actions under the Transport, Digital Economy and Spatial Economy goals are particularly relevant to this agenda.

The East of England currently has one of the highest levels of resource-use of the UK regions. The region has already made progress on a number of fronts: increasing the levels of renewable energy generating capacity and recycling, as well as developing a supportive policy framework for resource efficiency. However, more needs to be done to position the region as among the best in Europe on this agenda. The RES sets the challenging ambition of reducing end-user  $\mathrm{CO}_2$  emissions to 60 per cent below 1990 levels by 2031 and to reduce emissions of other greenhouse gases. This would put us on course for an 80 per cent reduction in  $\mathrm{CO}_2$  emissions by 2050, the position many scientists now believe needs to be achieved to avert climate change.

What do we need to change?
Resource Efficiency

# **Priority 2:**

# Leading the UK in sustainable energy production

The East of England has a strong skills and science base for energy technologies. The region has a rich history of energy generation and supply, including supplying nearly half of the UK's domestic gas needs, provision of nuclear energy, as well as being the leading region for renewable generating capacity.

The region will continue to require a broad sustainable energy infrastructure. The proposed levels of growth in the East of England present a major opportunity for widespread deployment of renewable and low-carbon energy technologies, both offshore and onshore. In particular, the region will need to continue to maximise its potential in the wind, bio-renewables and on-site renewables arenas. There are also significant opportunities in further R&D and technology development for offshore renewables through wind, wave and tidal and in carbon-abatement technologies such as carbon capture and storage. This goal of the RES sets the ambition of renewable sources accounting for 20 per cent of energy generation by 2020 and maintaining the region's lead position through to 2031.\*\*

Regional companies and universities have specialist expertise in elements of the wider energy supply chain, and developing new capacity and generation presents a major opportunity to create new businesses, jobs and investment.

# **Priority 3:**

# Increasing share of environmental goods and services markets

Environmental goods and services businesses run across the broad spectrum of sectors and the East of England is well placed in all parts of the supply chain. The region has a wealth of environmental technology-focused university and research establishments, related specialisms within its agriculture, energy and engineering sectors, as well as expertise in understanding and adapting to the impacts of climate change.

The region also has the third highest level of employment in the environmental sector in the UK and the second highest number of companies. The business support needs of the sector are the same as the wider economy – investment, innovation, strengthening the skills base, business management and support.

The focus on climate change, changing targets, regulation and consumer demands, increases the opportunities for the sector. Indeed, many opportunities exist to use technologies or redesigned processes to reduce costs and save resource. The Spatial Economy goal recognises the business opportunities from retro-fitting to existing buildings and from enhancing the natural environment. Growth in global markets presents a major export opportunity, particularly in mature markets such as

What do we need to change?
Resource Efficiency

pollution control, water, waste and other materials management. In this area, our export growth lags behind that of international competitors and we are less successful in exploiting research. While we must strengthen the science base, we must also stimulate demand, enabling near-market technologies to become viable.

# Priority 4:

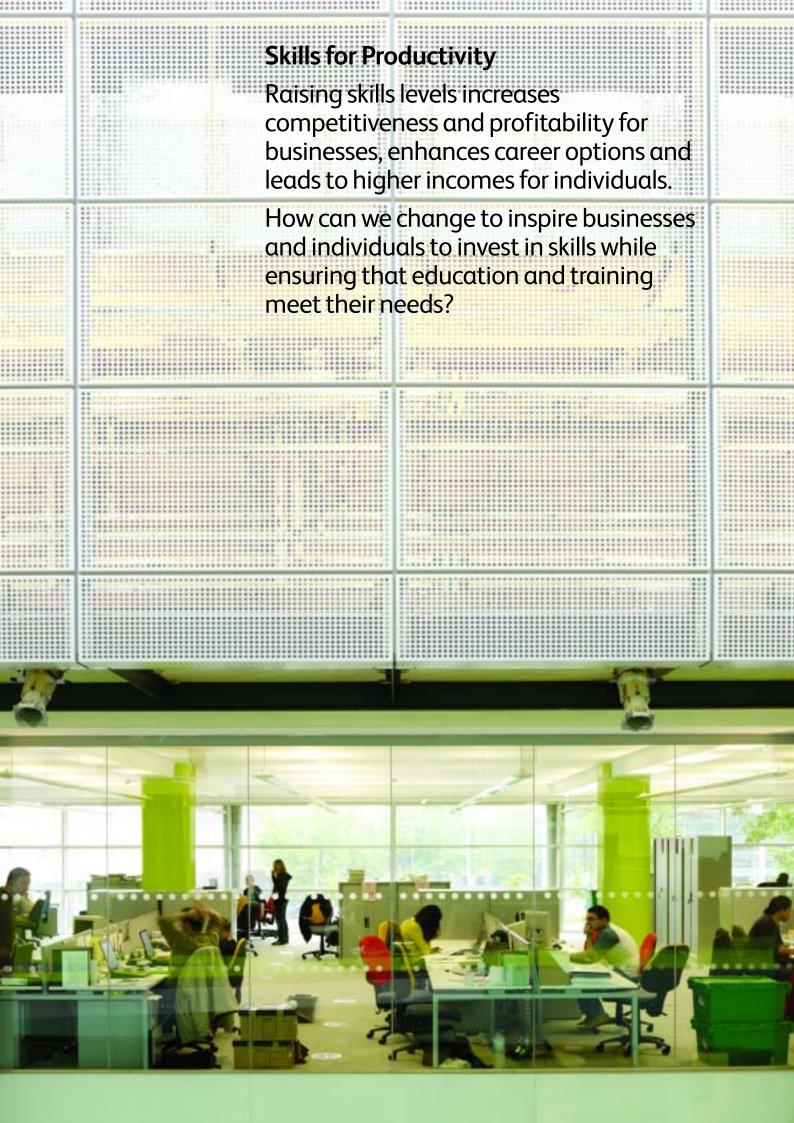
# Making the East of England a water-efficient region

Water is a fundamental resource requirement for the economy, supporting industry, services and households. Research undertaken for the RES finds that the trend towards water efficiency in manufacturing is already strong, but the coming growth in population and the services sector will put additional pressure on this scarce resource. The East of England is the UK's driest region and the lack of a national grid for water means there are limited opportunities to draw on surpluses elsewhere in the country. Even with the planned investment in infrastructure by water companies, there is an urgent need to stabilise and reduce per capita use. The Environment Agency has estimated that, without additional policies, the region could move into deficit by the early 2030s.

The RES sets the challenge of steadily reducing per capita household water use to achieve a 20 per cent reduction on the levels in 2008 by 2030 (from around 150l/h/d to 120l/h/d). This will require incorporating high, water-efficient standards into future development, reducing leakage rates, increasing the efficiency of existing buildings and behavioural change in how we use water in our homes and businesses. Introducing water-saving measures also benefits resource efficiency more generally. For example, using less water can reduce trade effluent. Tackling over-abstraction will also benefit the ecology of rivers and wetlands and the tourism and fisheries sectors they support.

### **Implementation priorities**

- coordinated action to implement Local Area Agreement (LAA) commitments to reducing carbon emissions and increasing recycling rates
- reinforcing the East of England's position as the UK's leading region in renewable energy infrastructure through a positive planning framework, applied R&D and supply chain development
- increasing demand for, and the viability of, near-market environmental technologies through public-sector procurement, business support and finance
- providing high-quality business support to enable businesses to improve their resource efficiency and profitability
- a network of private sector and university centres of excellence for applied research in environmental technologies, goods and services
- creating a regional system that reduces waste arisings and manages waste effectively
- raising standards for water efficiency in new-build and supporting a major retrofit programme through a regional centre of excellence for water efficiency.



What do we need to change? Skills for Productivity

# 3.5 Skills for Productivity

# Developing skills for the changing economy

Improving the skills of the workforce is central to the region's economic development. For businesses, a more highly skilled workforce will achieve increased competitiveness and profitability. For individuals, better skills lead to enhanced career options and higher wages. The region's economy and the available job opportunities and skills requirements have also changed significantly over time and will continue to change. Workers must therefore adapt their skills to move into new sectors and work with new technologies. This will be particularly important as working lives lengthen.

Overall, the East of England's skills base compares unfavourably with the national average, particularly in terms of its supply of intermediate and higher-level skills. This can be partly explained by the low percentage of adults undertaking job-related training, the low percentage of graduates and postgraduates remaining in the region and the high number of people entering low-skilled employment after compulsory education. The East of England's entry rate to higher education is lower than average, with higher rates of economic activity among young people being a key reason for the region's high employment rate. However, the picture is not uniform across the East of England. Alongside localities exhibiting low-skilled, low-productivity activity – particularly the peripheral areas of Great Yarmouth, Fenland, Maldon, Castle Point and Tendring – are areas such as Cambridge and St Albans, with residents and workforces that are amongst the highest skilled in the country.

For the region to develop as a successful economy, skills levels must be raised across the board. The region needs to increase the demand for learning among individuals, employees and employers, and improve progression to intermediate and higher-level skills. This will involve enhancing the skills of our indigenous population and embracing the skills and talent of migrant workers and international students. Given the difficulties of predicting and planning the future supply of skills, the regional economic strategy also seeks to ensure that skills provision responds flexibly to changing demand.

# What will success look like?

- an increased percentage of graduates who view the region as a place to exploit their higher-level skills, with graduate retention rates above the UK average
- an increased share of people gaining higher-level skills, through increased participation in academic and vocational education and training at level 4 and above
- a culture of learning embedded at an early age, with an increased percentage of young people participating in post-compulsory education and training
- an increase in qualification attainment with over 40 per cent of adults qualified to at least level 4, 68 per cent of adults qualified to at least level 3 and over 90 per cent of adults qualified to at least level 2, consistent with Leitch targets
- development and use of economically valuable skills, leading to a reduction in skills gaps and shortages
- improved productivity resulting from an increase in work-related learning.



For information on sources of data used within the Skills for Productivity goal, please see the evidence base, part 2 section 7 and statistical annex



Image left: Cranfield University is one of the region's leading universities for postgraduate education. It is also ranked in the UK's top five research-intensive universities and its MBA is 11th in the world according to the Economist Intelligence Unit. 94 per cent of students graduating go on to relevant work or study within six months.

What do we need to change? Skills for Productivity

# **Priority 1:**

# Increasing the demand for and supply of higher-level skills

A highly skilled workforce is adaptable to structural changes in the economy and is well positioned to grasp new opportunities. Higher-level skills lead to higher productivity for employers and higher incomes for employees, and are crucial to realising a higher standard of living for the region's residents. The demand for higher-level skills is increasing and the share of jobs in sectors that use highly skilled labour intensively is set to rise.

The East of England performs below the national average in the proportion of the workforce with higher-level skills – both qualification-based and more transferable skills such as management, leadership, team-working, communication and problem-solving. The region also produces and employs relatively low proportions of graduates and postgraduates relative to the size of the population. To counteract this, we need to establish a virtuous circle, in which employers recognise the value of – and therefore demand – higher-level skills, while highly skilled people can be confident of finding high-quality employment opportunities in the region. This will require increased engagement and investment from employers and individuals in higher education, addressing market failures around information and risk, and ensuring that the higher education system is geared towards meeting workforce needs.

# **Priority 2:**

# Creating a culture where people aspire to train and learn throughout life

Continuous participation and investment in skills – by individuals, employees and employers – enables our economy to keep pace with global economic and technological change and provides economic security for our residents and workers. Levels of participation in education and training must therefore improve.

In the East of England, a significant number of young people with GCSE achievements leave education early for – often low-skilled, low-wage – work, where no further training or vocational education is offered. This reduces the pool of intermediate and technician-level skills in the region's labour market. For many adults, particularly those in parts of the region with lasting legacies as low-skilled economies, participation in learning is not seen as an integral part of their working lives. The East of England also has an increasing supply of older workers, who are more likely to have to update their skills but are least likely to participate in training. To motivate young people to stay in education and training and to continue to learn and improve their skills as adults, we must therefore raise aspirations and communicate the links between learning, work and prosperity. With the majority of our 2031 workforce having already left compulsory education, it is particularly important to ensure that the culture of continuous learning becomes embedded in the workplace.

# Priority 3:

# Providing clear progression pathways for learning that improves business performance

Young people taking up vocational and further education opportunities after compulsory school-leaving age will improve their future career prospects, while adults progressing towards higher-level skills will contribute to increased productivity. Individuals must therefore be free to progress up the skills ladder.

What do we need to change? Skills for Productivity In the East of England, many individuals face blockages to progression, with the transition from lower to intermediate and higher-level skills being complicated by different provision and funding arrangements. Progression across the further and higher education divide is particularly problematic due to such issues as non-recognition of further education qualifications by higher education institutions and financial contributions being required from individuals and/or employers. There are also market failures in the provision of work-related learning, with employers often more prepared to invest in skills than in whole qualifications, and workers being unable to commit to full-time learning while remaining in work. Removing barriers to progression, improving the links between further and higher education and offering more flexible provision into the workplace market, often as accredited units that lead to full qualifications and progression over time, are therefore important in improving participation and skills attainment in the region.

# Priority 4:

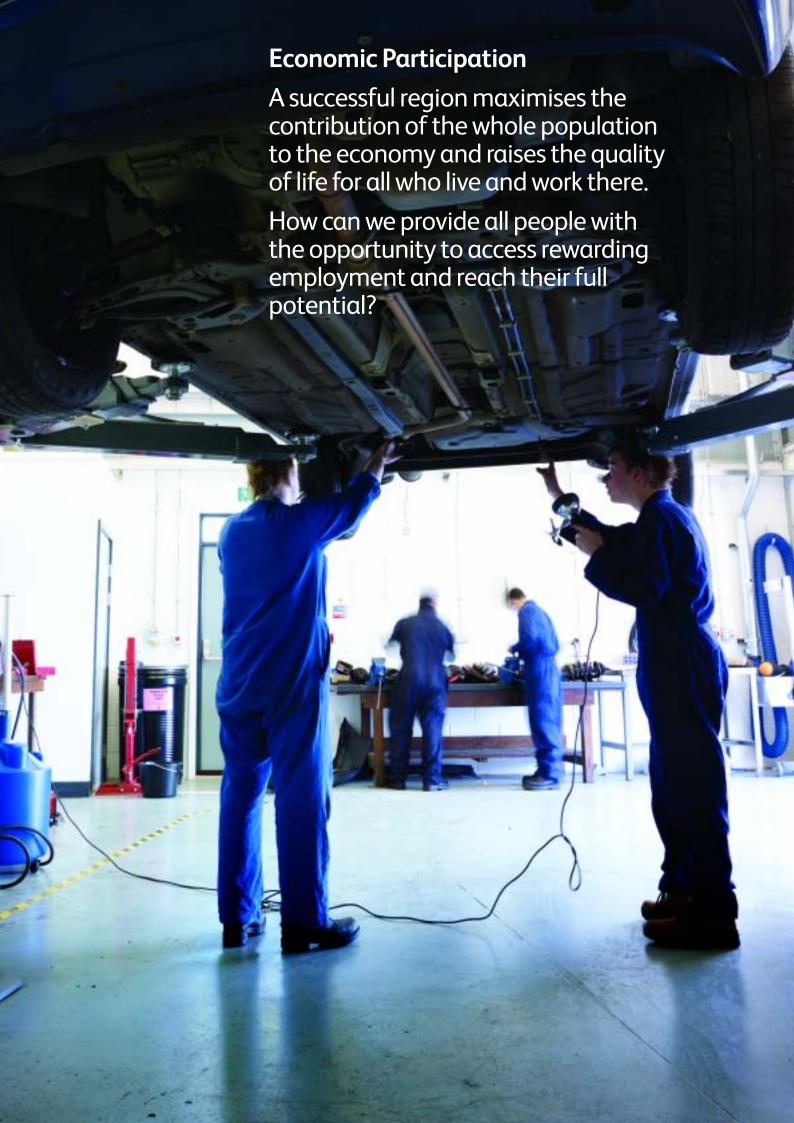
# Providing education and training that meets the needs of individuals, employers and the economy

Value added from participation in education and training will be maximised if skills provision is economically relevant and meets the needs of individuals, employees and employers. The Leitch Review therefore advocates a shift to a more demand-led system of flexible provision to deliver what employers and individuals need: this will help to manage global market pressures, given the difficulties of predicting and planning the future supply of skills.

At present, the complexity and bureaucracy of skills provision, combined with the large number of qualifications available that are not valued by individuals and employers, has constrained investment in skills. There is therefore a need to assist employers to influence provision and to participate in the design of relevant courses, and to assure existing and planned vocational courses so that they reflect the skills that are valued by employers. Services to help employers identify and meet the training needs of their workers will also need to be expanded, while the format and location of course delivery will need to be flexible to encourage the take-up of learning by individuals and employees. The region's schools, colleges, universities and other providers will need to adapt and develop their courses and methods of delivery to respond to this challenge. As such, major investment programmes are renewing the region's schools and further education colleges, while universities are adapting to improve access to higher education.

## **Implementation priorities**

- continuous work between employers, sector skills councils, local authorities, commissioning bodies and providers to understand current and future skills demand
- major upgrades of the skills infrastructure through Building Schools for the Future, the further education capital programme, national skills academies and university expansion programmes
- ensuring accessible and flexible vocational provision and pathways between skills levels and institutions to meet individual business needs
- improving demand for and access to new level 4 products and higher-level skills training in the workforce.



What do we need to change? Economic Participation

# 3.6 Economic Participation

# Opportunity for all in the sustainable economy

Successful regions seek to maximise the contribution of the whole population to the economy, and the opportunities for everyone to benefit. They actively attract and embed new groups, generate wealth within all communities and respond quickly and positively to change.

Accelerating economic change has had positive effects on many parts of the region. However, some people have not been able to benefit from this growth and achieve their full potential because of the barriers they face. These may include a lack of appropriate skills, knowledge or confidence; lack of access to business support; having a work-limiting illness or employer attitudes or practices. These barriers to participation may particularly affect people in certain geographical locations or in a certain demographic sector of the population. They have costly implications for the individuals concerned, for the communities in which they live and for overall quality of life.

Supporting economic participation is a key driver of productivity. By overcoming these barriers, the region will be able to: harness the untapped time, skills and creativity of its people; reduce the costs of benefit claims; grow its workforce to meet our economic targets and raise the quality of life for all who live and work in the region.

The regional social strategy provides a full analysis of the nature and sources of social exclusion and disadvantage in the East of England, and sets out a strategy for tackling the issues. The regional economic strategy is not intended to duplicate the regional social strategy, but to work alongside it by addressing the economic factors identified there as important causes of disadvantage. Economic Participation tackles the barriers that inhibit people's opportunities to participate in the economy and make the most of their potential.

## What will success look like?

- economic activity rates for disadvantaged communities that are higher than in 2008 and closer to the regional average
- a regional employment rate of 70 per cent for residents aged 16-74 and 80 per cent for working-age residents by 2031
- a reduction in income inequality for those in work, with lower-quartile earnings at 60 per cent of regional average earnings
- 95 per cent of adults with functional literacy and numeracy (basic skills) by 2020 and maintained to 2031
- fewer inequalities in skills attainment and health between disadvantaged communities and the regional average
- business start-up rates in disadvantaged communities that are higher than in 2008 and closer to the regional average.



**Image left:** North Suffolk Skills Centre takes an innovative approach to training young people in vocational skills while still at school, linking them into further education and skilled employment. It offers courses including mechanics, catering, hairdressing, engineering, health and social care. In a rural area with low levels of qualifications, the centre is creating economic opportunities for young people and providing valuable skills for the local economy.



For information on sources of data used within the Economic Participation goal, please see the evidence base, part 2 section 8 and statistical annex

What do we need to change? Economic Participation

#### **Priority 1:**

## Equipping people with the confidence, skills and choices for employment and entrepreneurship

Employment rates are high throughout most of the East of England. However, for many people access to rewarding employment remains difficult. Basic skills – and enhanced progression routes to higher skills levels – are essential, along with raising aspirations and self-confidence, to increase the likelihood of getting into work, education or training.

Certain social groups systematically experience greater barriers than others. Some people aged over 50, some black and minority ethnic communities, people with disabilities or mental health needs and single parents, for example, are more likely to experience barriers to economic participation. Reducing these barriers will require targeted programmes, effective multi-agency working and ensuring an offer shaped around individual circumstances.

For single parents, worklessness or low-paid, part-time work can be a major determinant of severe and persistent poverty. Targeted support to reduce barriers to rewarding work for single parents – in particular availability and affordability of childcare – will make a valuable contribution to the government's goal of eliminating child poverty, as well as making additional talent available in the labour market.

#### Priority 2:

## Tackling barriers to employment in the poorest 20 per cent of communities

Certain places exhibit levels of worklessness consistently above local and regional averages. Frequently, communities where a high proportion of people are not in work also experience other forms of disadvantage, such as crime, anti-social behaviour, poor educational outcomes, access to public services and transport.

Health and health inequalities have a major impact on productivity, employment and educational performance. A concerted focus on tackling persistent health inequalities, and adding to the quality and length of life of local people will have a major impact on the economic outcomes at community and regional level.

Lack of access to transport can also be a significant barrier to employment, particularly amongst young people in isolated rural areas and for those with childcare responsibilities.

Local Area Agreements (LAAs) are a powerful mechanism for delivering an ambitious and integrated approach to improving well-being, access to services and the economy in communities. Within LAAs, a concerted focus on the poorest 20 per cent of communities will have a profound effect on narrowing the gaps in employment and wider outcomes, contributing not only to improved life chances for individuals, but also to stronger communities and improved regional economic performance.

What do we need to change? Economic Participation

#### **Priority 3:**

## Increasing economic demand in areas with low economic activity rates

Some communities exhibit low levels of employment demand, entrepreneurship or diversity of enterprise. This can result from a legacy of industrial change or from thin labour markets in sparse or remote rural and coastal areas. This limits job opportunities, wealth generation and reduces resilience in the face of economic shocks. These places need comprehensive packages of support and investment to encourage start-up and growth of indigenous enterprises, including social enterprises, and relocation of external employers. Public-sector location, employment practices and procurement can stimulate areas with low economic activity rates.

Enterprise is about more than just new businesses and jobs. It's about enterprising behaviour. Therefore, there needs to be more emphasis on increasing community capital. This includes supporting communities to take on ownership of local buildings as a base for local enterprises, or supporting local people to set up social enterprises to address local issues, for example, where a village shop has closed or where recycling facilities are poor.

#### Priority 4:

#### Employers valuing a flexible, diverse and healthy workforce

Globalisation and migration have created a more ethnically and culturally diverse workforce in the East of England. The region also has an aging population, a growing number of women in the workforce and an increasing number of people who balance care and work responsibilities. In the context of a tight labour market, it is more important than ever before to promote the full economic participation of all sections of the potential workforce and to use the talents of all.

Employers increase profitability through responding positively to changes in the labour market and helping to remove barriers to participation for groups who are under-represented in employment. To benefit from the full range of talent in the population, some employers may need support in engaging with the potential available and in providing appropriate training. There are many benefits of a flexible and diverse workforce, including motivation, enriched creativity and access to new markets.

There is also a growing recognition that businesses that invest to create healthier jobs and working environments benefit greatly from a more productive workforce. Collaboration between the NHS, employers and business support organisations to improve the health of the workforce will deliver major long-term benefits to individuals, businesses and economic growth.

What do we need to change? Economic Participation

#### **Priority 5:**

#### A vibrant, skilled and resourced third sector

Third-sector organisations often have a good understanding of need at individual and community level, and the ability to deliver services in a tailored and sensitive way. The cultural sector and the third sector — voluntary and community organisations and social enterprises — can play important roles in helping to empower people and communities to tackle local issues and have major economic impact in their own right. Additional support for community capacity-building and local leadership will help to ensure that interventions are most effectively targeted and shaped in response to need.

The opportunity for engagement in volunteering and cultural activities offers people pathways towards employment as skills are enhanced, confidence is gained and, importantly, as they have access to new social networks and opportunities. Government policies envisage an enhanced role for the third sector. To help ensure that third-sector organisations can fulfil this contribution, appropriate support is needed to enhance their capacity.

#### Implementation priorities

- Local Area Agreements improving economic and wider outcomes in disadvantaged communities
- comprehensive regeneration programmes to improve quality of place and economic opportunities in disadvantaged communities
- Multi-agency programmes shaped to individual and community needs
- a concerted focus through Local Area Agreements and Multi Area
   Agreements to improve basic skills and meet Leitch level 1 and 2 targets
- leveraging finance from Capacitybuilders and Financebuilders to provide effective and coherent packages of support for the third sector, including social enterprise, community asset development and land trusts
- effective and coherent packages for migrants and improving workforce health and childcare
- improving local and regional intelligence and evaluation to increase the impact of programmes.



A transport system that enables the efficient and sustainable movement of people and goods, contributes to international competitiveness, investment and employment opportunities.

How should we change behaviour, harness technology and invest to create a leading 21st century transport system?



#### 3.7 Transport

## A transport system that fully supports sustainable economic growth

To increase international competitiveness, investment and employment opportunities, the East of England's transport network must enable the efficient and sustainable movement of people and goods. This requires reliable access to ports and airports, excellent inter-urban corridors, enhanced links to London, improved rural accessibility and seamless intra-urban connectivity.

The combination of a low-density population and long-distance commuting to major employment centres, including London, results in a higher rate of travel per head than any other region. The region suffers from congestion in urban areas and on the strategic road network, overcrowding on passenger rail routes to London, and inadequate road and rail access to ports and airports for freight and people. Transport accounted for around 36 per cent of end-user carbon emissions in 2005 and is the sector of the economy most resistant to major reductions.

The regional transport strategy (RTS) sets out the framework for the delivery of transport investment and policy in the East of England. xxxi

This regional economic strategy (RES) aims to maximise the economic benefits of the RTS framework by:

- fully exploiting economic opportunities arising from the development of international gateways
- supporting productivity growth arising from agglomeration in our growing cities and towns
- enhancing productivity from improved connectivity on the key inter-urban network.

In supporting improvements to the transport infrastructure and services, we must also moderate demand and carry a greater proportion of movements in a more sustainable manner.

#### What will success look like?

- a reduction in the cost of congestion in the region
- a free-flowing transport system with improved journey times and increasing journey-time reliability
- flourishing transport gateways that are exemplars of sustainable economic development, served by reliable and effective multi-modal surface access
- parity in transport investment with leading international competitor regions
- greater direct and wider economic benefits realised from an increase in public and private investment in transport priorities
- a leading region for embedding technology in the transport system to increase efficiency and reduce environmental impact
- stabilising and then progressively reducing the carbon emissions resulting from transport by increasing the use of public transport.



For information on sources of data used within the Transport goal, please see evidence base, part 2 section 9 and statistical annex

#### **Priority 1:**

## Creating a resilient transport system that is used effectively and efficiently

It is possible to greatly increase the effectiveness of the existing transport system by concentrating on measures, on both the demand and supply side, that can lead to significant benefits at relatively low cost in short timescales. These will reduce congestion and increase network resilience, providing shorter and more reliable journey times.

On the demand side, it is critically important to introduce interventions that aim to bring about behavioural change in travelling habits in the region. In particular, we must reduce the need to travel where we can and reduce reliance on road-based private transport. The region needs to make best use of the wide range of hard and soft demand management techniques available, including digital technology and employer travel planning, to encourage behavioural change in business and personal travel. Furthermore, land-use planning decisions should be more ambitious in achieving sustainable travel objectives, and ensure that they contribute to effective operation of the local and strategic regional transport networks.

On the supply side, the region needs to deliver local solutions to small-scale bottlenecks or constraints on the existing transport network, in both rural and urban areas. Such solutions can offer a cost-effective means of reducing congestion at key pinchpoints.

#### **Priority 2:**

#### Investing in transport to maximise economic growth

In addition to making the best use of the existing network and encouraging sustainable travel behaviour, new investment is required to enable the region's transport system to support the planned increase in population, housing, employment and economic growth over the period to 2031. A significant funding deficit is restricting development of the region's transport infrastructure to the standard required to compete with other comparator international regions.

A number of major transport schemes are expected to be completed in the lifetime of this strategy. These include Crossrail, Thameslink, the first stage of rail improvements to the Felixstowe-Nuneaton line and several regional transport schemes. However, the region needs long-term, sustained investment in the key strategic economic corridors.

#### These include:

- Felixstowe-Ipswich-Cambridge-Huntingdon-Kettering/Nuneaton (the A14 and Felixstowe-Nuneaton rail corridor)
- London-Basildon-Southend (A127, A13, London Tilbury and Southend rail route)
- London-Stansted-Cambridge (M11, West Anglia main line)
- London-Chelmsford-Colchester-Ipswich-Norwich (A12, Great Eastern main line)
- Cambridge-Norwich (A11, parallel rail route)
- London-Luton-Milton Keynes (M1, A5, rail corridor)
- Luton-Bedford (A5, Midland main line, Thameslink)
- Stansted-Colchester-Harwich (A120)
- London orbital (M25, A414, London Arc links)
- Cambridge-Bedford/Milton Keynes (A428/A421 corridor)
- London-Peterborough (A1, East Coast main line corridor)
- Peterborough-Norwich-Great Yarmouth/Lowestoft corridor (A47 and rail).

In taking forward specific scheme proposals to address the development needs of these corridors, regional partners will need to rigorously test the economic impacts of schemes using a consistent evidence base and appraisal methodology. This will be necessary to establish priorities and strong business cases for regional, national and EU investment.

The East of England Implementation Plan will publish specific transport priorities for economic growth, based on the results of the Transport Economic Evidence Study and sub-regional work including Integrated Development Programmes. This evidence will quantify the cost of existing constraints on the transport network to the economy, and identify those parts of the network where constraints are holding back economic growth. The subsequent identification of evidence-based solutions to the most severe constraints will form the small set of economic transport priorities most critical to the development of prosperity.

The region must find and agree new and innovative methods of funding, to ensure that the East of England can develop the transport infrastructure that it needs to support a world-class economy. This should include different models for public/private funding and rolling infrastructure funds, such as a Regional Infrastructure Fund, which should be fully developed and implemented within the early years of the RES.

#### **Priority 3:**

## Increasing economic benefit to the East of England from major international gateways

The East of England has a distinctive role as the UK's gateway to global markets. Our ports currently account for 53 per cent of UK container capacity and more than 20 per cent of the UK port employment. With the planned expansions at Felixstowe South, Bathside Bay and London Gateway, this will rise to over 70 per cent of the UK's container capacity. Forecast growth in demand for aviation remains strong. International gateways provide significant employment, are hubs of wider economic activity and are vital to international trade and collaboration – the primary driver of global economic growth. The Channel Tunnel Rail Link to St Pancras gives the region easy access to Europe's high-speed rail network.

Our major international airports and ports are of national economic importance, and decisions to increase capacity will be taken nationally. The principal roles of regional decision makers are to realise the economic benefits for local areas and the region from expansion, whilst addressing and mitigating global and local environmental impacts.

Proposals to develop gateways in the East of England will have significant benefits for the regional and national economy. GVA per employee is higher for the transport gateway sectors than the regional average. Work for the RES evidence base has predicted that, by 2030, between 115,000 and 131,000 direct, indirect and induced jobs would result from gateway-related activity if national government policy on gateway development is implemented. This would mean that transport gateways could account for between 4 and 5 per cent of total GVA, an increasing proportion of the regional economy. If a second runway is not developed at Stansted,

overall gateway jobs would range between 96,000 and 108,000 by 2030. Under all possible scenarios, the region must ensure that it acts to optimise the economic benefits of gateway development.

The local, regional and national economic benefits arising from the expansion of our gateways will need to be balanced against the global and local environmental impacts of such development. At international level, this strategy strongly supports the proposed inclusion of aviation into the EU emissions trading scheme. In national policy terms, the RES advocates an element of tax revenues from gateway expansion being hypothecated to local and regional level to manage impacts and help finance regional strategic infrastructure.

The mitigation of local environmental impacts from gateway expansion should be addressed by the implementation of sustainable surface access plans and low-carbon development packages, incorporating significant use of rail and other public transport. In order to achieve this, international gateways in the East of England must be national exemplars of sustainable development – characterised by flourishing and internationally focused businesses, high and growing employment, increased productivity, with low-carbon footprints.

#### **Priority 4:**

#### Reducing the environmental impact of moving goods and people

Transport is the fastest-growing contributor to carbon emissions, and the East of England has one of the highest household car ownership rates and percentage of workforce travelling to work by car of all English regions. Given our vulnerability to the impacts of climate change, it is in our own interests to be an exemplar region and to act to reduce the environmental footprint of the transport system and increase network resilience to future climate change impacts.

The region faces an enormous challenge in reducing the impact from transport on climate change. The East of England is a unique polycentric region. With its mix of rapidly growing urban areas, expanding transport gateways, sparsely populated rural areas and proximity to London, it is a challenging environment for the development of a sustainable transport system that meets both economic growth and carbon reduction targets. Solutions will need to reflect this context.

The region's academic and private research institutes provide the expertise to put the region at the forefront of innovation to reduce the environmental impacts of travel, including the use of technology enhancements and alternative fuels. Some of the most promising technologies to bring about greener modes of transport are in early stages of development or are untested, and will need investment to ensure they can be successfully adopted.

Using our existing transport network more sustainably requires reducing the need to travel. Enabling greater use of alternatives to private car and lorry use will require major improvements to public transport and encouraging the modal shift of freight from road to rail. Other actions, such as employer travel planning and innovative accessibility planning need to be enhanced in urban and rural areas where locally supported. Demand management schemes could make a significant contribution. More work needs to be done to incorporate the environmental costs of transport into the pricing mechanisms for transport usage, to influence behaviour change through fiscal measures.

#### Implementation priorities

- an agreed set of regional strategic transport priorities to inform the East of England's Regional Funding Advice submission
- progress in developing a Regional Infrastructure Fund to better leverage market investment
- increasing investment in the region's transport system through the full range of national, EU and private sector funding streams
- increased national infrastructure investment and pricing incentives to enable a greater share of freight to be transported by rail and short sea shipping from our international gateways
- developing integrated transport planning and investment across all modes, and increased use of technology to improve the use of the system and reduce the environmental impact of the need to move people and goods.





For information on sources of data used within the Spatial Economy goal, please see evidence base, part 2 section 10 and statistical annex

#### 3.8 Spatial Economy

Sustainable places that attract and retain the people and investment necessary for a world-class economy

Place matters! In an increasingly competitive international economy, the nature and quality of places are becoming ever more significant. Sustainable built and natural environments are key factors in attracting investment, a well-skilled labour force, businesses and visitors. Cities and towns play a particularly critical role in the development of knowledge economies, in part due to agglomeration effects, which mean that businesses can benefit from large labour pools, local supply chains and informal networks. Our towns and cities are the building blocks of prosperity.

Agglomeration effects such as skilled labour pools, specialist suppliers, business networks, knowledge flows, supportive institutions and finance and innovation are important issues in creating competitive sub-regions. If the scale and effectiveness of urban areas can be increased, then the economic performance of the town or city and wider rural areas can be improved. The principles of agglomeration lie at the heart of the approach to successful place-making in the East of England and have informed the identification of the 'engines of growth'.

The East of England is facing a number of opportunities and challenges over the next decades. The scale of growth faced at local and regional level, and the major challenges we must embrace such as climate change, resource-use, an aging population and migration, mean that the region needs to plan and deliver growth in a holistic manner.

There is an external perception that the East of England is performing very strongly; however, there are some significant issues of under-performance and disadvantage across the region that require a targeted approach in order to maximise the impacts of the growth agenda. It is vital to identify and foster the specialist economic roles that our towns, cities and rural areas play in the global economy. There is also recognition of the convergence and linkage between urban and rural economies. We must ensure that our settlements and rural areas are vibrant and that the region's special and vulnerable landscapes and environments are conserved and improved.

Sustainable communities in both urban and rural areas also need access to a wide range of services, transport, education, community and social facilities, ICT, quality environments, health and culture. The importance of these assets and infrastructure in promoting economic success and well-being cannot be overstated.

#### What will success look like?

- a better balance between housing and employment opportunities contributing to effective and affordable places
- increased business investment in the identified engines of growth
- enhanced profile for the region through its places, natural, heritage and cultural assets
- reinforced roles for our market towns as sub-regional centres
- sustainability of the vitality of rural areas
- renaissance of our coastal towns.

In meeting our goal of delivering sustainable places as the drivers of the regional economy, the priorities identified for the regional economic strategy encompass the ambitions of quality, distinctiveness and sustainability.

#### **Priority 1:**

#### Ensuring physical development meets the needs of a changing economy

The approach that is taken to the delivery of new physical development will define our success in planning for growth and change and will leave a legacy for generations to come. The quality, adaptability and appropriate delivery and phasing of development must be the keystones in ensuring that the East of England's investment in the growth and regeneration agendas adds value to the regional offer rather than compromising the quality of lives for our residents.

Design quality is well established, both in terms of contributing significantly to sustainable communities, ensuring sensitivity to vulnerable landscapes and habitats, but also in making sound commercial sense and adding value to the development process. The creation of successful places in the East of England will rely heavily on our combined ability to achieve high levels of design quality and environmental standards through new development. Development of any scale that does not contribute positively to making places better, is inappropriate in its context; any that does not reflect the character or distinctiveness of an area is not acceptable and should be resisted. Aspirations for design quality across the region can in part be met by agencies such as the Regional Centre for Sustainable Communities, which provides further guidance, skills development and information sharing and encourages the provision of appropriate design guidance at the local level.

In a rapidly changing economy, an adaptable approach to physical development is essential in creating long-term sustainable communities. In planning for new developments in the East of England, there should be a view as to their longevity, robustness and adaptability. The Local Government White Paper placed an emphasis on giving communities a greater say and enabling partners to respond flexibly to local needs. Local inputs to place-making is key to success, with local authorities and other partners at the forefront of actively and meaningfully engaging with communities, businesses and stakeholders in planning for new physical development.

#### **Priority 2:**

#### Increasing economic gain from the region's distinctiveness and vitality

It is becoming increasingly recognised nationally and internationally that culture makes a dynamic contribution to communities, revealing its distinctive heritage and attitudes, and that culture-led regeneration helps underpin the success of small and medium-sized cities. In the East of England we have a rich cultural heritage to draw upon. To further our prosperity and attractiveness as a region, we need to safeguard, develop and promote our cultural strengths, as well as our diverse natural and built environments. This will enhance the quality of life for those who live in and visit the region, and be an integral part of economic development and meeting the needs of growing communities.

There is an increasing number of compelling examples in the region where culture is playing a leading role in regeneration and economic development. International centres of excellence are being developed in many of our key regional cities and towns, which are already beginning to make this region one of the best places in Europe to live and work. One example is firstsite:newsite in Colchester, which is in one of the fastest growing communities in the UK. firstsite:newsite will become an international contemporary art space, vital to the communities, catalysing creativity and entrepreneurship, increasing profile and tourism and forming an integral part of town centre renewal plans. As populations are more mobile and people can individually choose where they live and work, the East of England needs to show internationally the distinctiveness of our region. The region could take a more integrated approach in developing culture as part of place-shaping and developing the value proposition for places, thereby securing vital opportunities for economic development and regeneration and ensuring the region is vital and sustainable.

The region has good proximity to London and good transport connections to the London 2012 Olympic and Paralympic Games venues. There is the potential for the region to capitalise on the 2012 Games using them as a catalyst to drive forward economic development and to realise positive benefits for the region's cultural life, communities and tourism industry. The region will host two venues and the potential value of the Games to the East of England economy could exceed £600 million. The East of England Charter − Benefiting from the 2012 Games − defines success for the East of England across tourism, business, skills, sport, health, culture, infrastructure and volunteering with delivery structures in place to ensure the region can capitalise fully on legacy benefits.

In rural areas there is a need to enable people and businesses to thrive as the managers of many of our natural and cultural assets. This priority also recognises and supports the importance of the region's landscapes, wildlife and open spaces. These include such unique and vulnerable environments as the Fens and the Broads, Thetford Forest, our extensive and varied coastline and areas of tranquil countryside. These locations have direct impacts on the economic performance of the region both through positive impacts on people's well-being and productivity, but also through the range of specific economic opportunities that arise from the natural environment.

Protecting and enhancing our green infrastructure is central to securing sustainable communities. Accessible networks of high-quality parks and other green spaces that link urban and rural areas provide diverse benefits to communities. The region should seek to create distinctive areas within and between cities and towns, enhance biodiversity, provide opportunities for leisure activities and deliver a sense of place and community.

#### Priority 3:

#### Creating sustainable places for people and business

This priority focuses on the need for the region to have a balanced approach to the provision of homes and jobs to support economic growth and regeneration. Sufficient high-quality, affordable and accessible homes are required in the right locations to support the region's labour force. Equally, it is essential that the region secures the provision of high-quality business infrastructure and premises to support the needs of current and future businesses.

It is critical that the region's key centres of development and change can provide the amount and quality of housing, and create the economic activity, business opportunities and wealth needed to benefit the whole region. The refresh of the East of England Plan will consider how housing provision can be reviewed beyond 2021 to address demographic, affordability and economic demands, including the further potential of existing key centres for development and change and small or major eco-towns and new settlements.

A key element in achieving a balance of housing and jobs is protecting, promoting and developing employment sites that support business growth and ensure the economic viability of local communities. These allocations need to consider the requirements of different business sectors and their aspiration for locations that promote partnership, collaboration, innovation and competitiveness. Urban brownfield sites are increasingly under pressure to be developed for housing. While it is acknowledged that the long-term vacancy of derelict employment sites can harm a town's image, it is important to retain existing employment sites where possible and appropriate. Only sites that no longer meet regeneration and growth objectives, informed by an up-to-date Employment Land Review, should be made available for alternative uses.

#### **Priority 4:**

## Adapting the region's places to meet the challenges and opportunities of climate change

The impacts of climate change on the region have been well documented, and include: the increased risk of flooding, whether tidal, fluvial or 'flash' flooding, reducing availability of water resources and higher temperatures. Whilst successful businesses, communities and individuals across the region are working to mitigate the impacts of climate change, in creating sustainable places for the future, adaptive changes will inevitably be necessary to meet a potential increase in global average temperatures of at least 2°C by the end of the century. This priority therefore focuses on the adaptive climate change measures that need to be embedded in the long-term planning and decision-making for the region's places.

The planning system has a key role in ensuring that current and future risks are taken into account in development and growth decisions across the region. Such plans must be prepared with the full range of sustainable development objectives in mind. New building design and construction and appropriate retrofit techniques are also important, for example, the use of pollution filtering, as well as enhancing the use of quality green space and promoting the connectivity of natural landscapes. The public, private and voluntary sectors will need to work together increasingly to improve emergency and contingency planning, risk management, skills development and adaptive techniques.

Managing the long-term process of change, however, will also bring economic challenges and opportunities. Where possible, adaptation strategies should work with the natural processes on the coast, and with close community engagement, as this is the best chance of delivering long-term solutions that make economic and environmental sense. The development and commercialisation of innovative and applied technologies and their knowledge transfer, whether to support building design and construction, to explore the potential for new or alternative crops and products for sustainable land use or for species for habitat creation and enhancement, are also important.

#### Implementation priorities

- improving the design quality and sustainability of places in the East of England through access to advice, services, exemplars and capacity building in key locations
- developing a network of internationally important cultural centres of excellence and creative quarters in our leading cities
- protecting and conserving the region's key cultural and historic landscapes
- ensuring the deliverability of existing housing and jobs targets through a range of measures such as: positive local development documents, strengthening investment planning and delivery partnerships, strategic employment land reviews and raising the region's share of infrastructure funding to support delivery of affordable housing
- supporting the regional coastal initiative to develop a long-term strategy for the East coast to progress an integrated approach to coastal zone management
- developing the evidence base for responding to climate change in the region and supporting the use of innovative and applied technologies through positive planning for adaptation
- reviewing the spatial options for long-term growth to maximise competitiveness and sustainable development.

### 3.9 The spatial response

In addressing the unique economic geography of the region, the regional economic strategy examines three key contextual issues, all of which have direct impacts on the spatial response to future economic development. The three distinct but related aspects, all crucial to the prosperity and well-being of the region, are as follows:

- the relationship to London and the role of the East of England in the Greater South East, the powerhouse of the UK economy
- a network of small and medium-sized cities and market towns
- geographical differences in performance.



London as a leading global city has major effects on the East of England. This is most visible through the high levels of commuting from areas in the South of the region.







For information on sources of data used within the spatial response, please see the evidence base, part 3 section 11

What do we need to change? The spatial response

However, there is also evidence of an increasing functional relationship between cities within the East of England and London. Examples include the role of Norwich, Ipswich, Peterborough and Southend-on-Sea as centres for wholesale financial and insurance services that complement London's global head office function in financial and business services. The relationships between London, the East of England and the South East of England are deepening, with growing integration of labour and housing markets, economic and leisure functions.

The challenge for the region is to capture the value of its proximity to London as a leading global city, and increasingly Milton Keynes as a centre of core city scale in the future. London itself will benefit from improved performance and growth in the network of surrounding towns and medium-sized cities, given their assets, economic functions and collective market scale. However, to realise these benefits, coordinated investment is needed to improve infrastructure to the level of other world-city regions, and foster greater knowledge and technology transfer.

#### A network of cities and towns

It is immediately apparent that the East of England is quite distinctive in terms of the scale and distribution of its towns and cities. In most other parts of the UK, individual core cities such as Birmingham or Manchester dominate where people live and work, where businesses locate and how transport systems operate. In recognising the benefits of agglomeration, the government has increasingly sought to invest in and plan for the future of these places as major regional and national economic drivers.

The East of England is heavily influenced by its close relationship with London as a world city. It does not contain any core city scale conurbations within its geography. Given this position, the key is to understand the role that the East of England's urban areas can play both in relation to London and each other in accommodating the levels of growth required in the region, and in responding to the benefits of agglomeration.

The Sustainable Communities Plan (2003) identified four national growth areas. Substantial parts of three growth areas fall within the East of England, including:

- London-Stansted-Cambridge-Peterborough, which now includes Chelmsford and Bury St Edmunds
- Milton Keynes-South Midlands, including Luton and Bedford
- Thames Gateway South Essex.

Consultation is under way on the inclusion of Dacorum, St Albans and Welwyn Hatfield within the growth areas. In addition, Haven Gateway, Norwich, King's Lynn and Thetford have been identified as new growth points. The region's growth areas and growth points are important in improving the balance of housing supply, affordability and economic growth.

The East of England Plan sets out 21 key centres for development and change. Whilst all are a focus for growth, they vary greatly in their economic scale, role and drivers. The urban framework identifies distinct typologies within the key centres within the East of England:

- centres that act as independent centres of regional-scale cities, such as Norwich, Peterborough, Cambridge and Ipswich
- regional cities and larger settlements that have greater integration with London in terms of the labour market, such as Luton, Southend-on-Sea, Colchester, Chelmsford and Watford

What do we need to change? The spatial response

- smaller settlements that act as sub-regional centres largely independent of the London effect, such as Bury St Edmunds, King's Lynn, Great Yarmouth and Lowestoft
- sub-regional urban centres in Essex and Hertfordshire with high levels of commuting and connection to London, such as Hemel Hempstead, Harlow, Stevenage and Thurrock.

These typologies are important in planning for the economic future of places, and have influenced the identification of 'engines of growth' set out in Figure 14 on page 91. So too is a recognition that collaboration between places, both within the East of England and the wider Greater South East, can be effective in sharing best practice, advocacy and presenting a critical mass in international markets.

#### Geographical differences in economic performance

The East of England is not one economy, but instead is made up of a number of overlapping economies. The complex economic geography of the region changes through time and is not confined to administrative boundaries at regional or local level. Growth has played out differently in different cities and across sub-regions and the region is characterised by an increasing gap in productivity and employment rates.

Raising productivity and employment rates in under-performing parts of the region is critical to our future prosperity. To do so requires concerted effort to address economic drivers and enable the transition to a strong and adaptive economy, able to compete in global markets. Different places will require a different mix of interventions, appropriate to their economic history, structure and location. Performance is a product of 'supply-side' drivers such as skills and innovation, and their interaction with demand. The prosperity of places is therefore dependent on the size of local markets, and crucially, connectivity to wider national and international markets.

In particular, local and regional partners must take action to improve poor skills performance. The region also needs to engage with the government on the infrastructure investment required to improve connectivity between major economic drivers in the region.

Clearly, this is a complex question that will require interventions to support employment rates, skills, innovation, business registrations, economic structure and quality of life factors. However, there are different levels of performance relating to the geography of the East of England. There is a need to develop responses that are specific and allow each place to meet an identified role in a successful economic future.

#### Spatial economic planning in the East of England

In responding to these issues, the regional economic strategy identifies the following as requiring distinct economic and planning approaches:

- **engines of growth** the cities and urban sub-regions where success will increasingly drive regional economic growth
- coastal renaissance maximising the performance of the region's coastal settlements and assets and addressing Great Yarmouth and Lowestoft as particular regeneration priorities
- market towns and rural areas recognising the essential contribution
  of the rural economy and the role of market towns as key sub-regional
  centres.

What do we need to change? The spatial response Engines of growth

### **Engines of growth**

For the regional economy to grow in a way that is sustainable, it is important that agglomeration processes, and the economic benefits that derive from them, are recognised and supported in a manner that reflects the current situation but also anticipates likely changes in the region's functional geographies. In terms of regional economic performance, a subset of the East of England Plan key centres for development and change – the larger urban sub-regions, cities and their hinterlands – will disproportionately drive growth, given the importance of agglomeration and the concentration of assets (businesses, higher education institutions and labour pools). There is also sound evidence to suggest that strongly performing functional urban areas have major benefits to the economic and social well-being of their rural hinterlands and market towns.

These 'engines of growth' are:

- Thames Gateway South Essex
- Greater Cambridge
- Greater Peterborough
- the Milton Keynes South Midlands growth area focusing on Luton as a regional city
- London Arc
- Greater Norwich
- Haven Gateway.

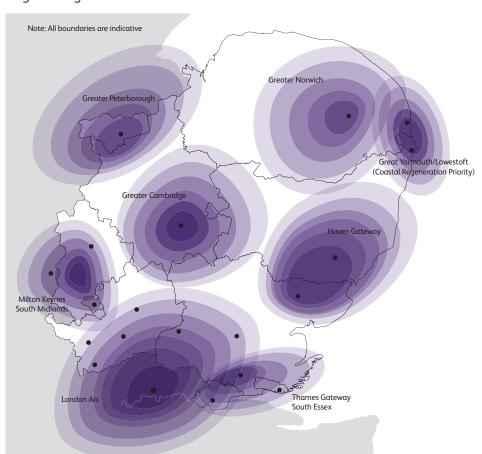
The engines of growth are identified either in relation to the functional urban areas associated with the region's larger cities, or with the networks of interdependent urban areas that characterise much of the area closer to London. Additionally, we have taken a dynamic, forward-looking perspective, taking into account both the geography of planned growth and the potential impacts associated with major international gateways. The engines of growth are impossible to demarcate precisely through boundaries on maps. Physically, many of the cities around which they are defined are under-bounded as the built-up area already extends beyond the local authority district and much future growth is in adjacent districts. However, the functional influence of the engines of growth has a broader geography, again particularly in relation to labour and housing markets. It is also vital to recognise that many of the engines of growth have a strong relationship with London, in both directions. The geography of economic influence is therefore multi-layered and complex.

In this context, cross-boundary working will be vital within the engines of growth. Collaborative approaches will be needed in planning for future change and prioritising investment. In doing so, these urban areas and their functional hinterlands will maximise the benefits of agglomeration, ensure that the geographical concentration of assets is available to the widest population and engender stronger sub-regional governance and joint working.

What do we need to change? The spatial response Engines of growth To deliver significant growth and change, each of these seven areas requires:

- a bold and visionary strategy for the economic development of the area led by the local authorities, identifying and supporting a limited number of sectors and clusters of international and national significance, alongside outlining improvements in the general environment for businesses that serve local and regional markets
- effective partnerships that span administrative boundaries, tiers of government and the public and private sectors to deliver regional economic and regional spatial strategy ambitions
- recognition as major economic centres and labour markets, and therefore targeting of appropriate services and investment through Local Area Agreements or Multi Area Agreements
- Integrated Development Programmes and strong investment planning approaches that identify the phasing and financing of major physical infrastructure and growth
- a planning framework and system that provides clarity and confidence to the market, including masterplans or area action plans for areas of transformation.

Figure 14
Engines of growth



What do we need to change? The spatial response

#### Thames Gateway South Essex

### Thames Gateway South Essex National regeneration priority, powerhouse and playground for London



Queen Elizabeth II bridge

#### Overview

Thames Gateway South Essex (TGSE) incorporates the regional city of Southend-on-Sea, Basildon, Castle Point, Thurrock and part of Rochford district. Thames Gateway is the largest regeneration opportunity in Europe, and straddles London, the East of England and the South East of England.

The South Essex economy is greatly influenced and shaped by London. Of approximately 300,000 workers resident in the sub-region, some 88,000 out-commute (compensated partly by some 31,000 in-commuters) – often those with higher-level skills and professional employment – leaving just over 240,000 jobs within the gateway.

The Thames Gateway Economic Statement sets out priorities for action that should deliver an additional £12 billion of GVA to the UK economy by 2021. EEDA, the South East England Development Agency (SEEDA) and London Development Agency (LDA), working with the government and sub-regional partners, have prepared an Economic Development Investment Plan setting out spatial and economic drivers across the gateway and priority regional interventions. The three RDAs have agreed a joint investment fund of £200 million with The Department for Communities and Local Government (CLG) to deliver the priorities. The plan has been developed in parallel with the South Essex Economic Strategy.

- Thurrock is a major port location, with the Port of Tilbury (currently accounting for 80 per cent of Port of London container traffic) and approved plans for London Gateway port development, a £1.5 billion investment by DP World, creating up to 14,000 jobs
- together with Dartford, Thurrock, with the existing Port of Tilbury, provides the greatest concentration of logistics operations supporting London as a world city
- the retail cluster in the Lakeside Basin is a destination and employment location of regional importance. It has potential to draw significant further commercial investment into South Essex
- Basildon is a major employment centre with a net inflow of commuters to the urban area (despite strong out-commuting to London)
- it has a significant advanced engineering presence along the A127 'Enterprise Corridor', with Ford's research and development facility at Dunton and New Holland
- Southend-on-Sea is the largest urban area in the region and an important service and growing cultural centre. Major opportunities exist to strengthen Southend as a centre for knowledge-based employment, building on the creation of the university campus and leading companies such as Olympus Keymed and RBS
- Southend-on-Sea receives approximately six million visitors per annum, and is home to London Southend Airport, which has potential for passenger growth and enhancement of its engineering and maintenance activities

What do we need to change? The spatial response

#### Thames Gateway South Essex

- business creation rates in TGSE are high with 10.76 new businesses created per 1,000 population, against a national average of 10.08.
   Job growth over the 1991–2001 period has been strong, with 18,400 jobs created, an increase of 7.7 per cent
- proximity of TGSE to the London Olympic and Paralympic site provides the opportunity to capture business contracts and tourism investment, as well as a cultural and sporting legacy
- over 400 hectares of brownfield land that can be brought forward for new employment developments of a transformational scale
- a distinctive estuarial waterfront and rich cultural heritage with the potential to form part of a package to attract and retain a skilled workforce and strong business base.

#### **Constraints**

- TGSE underperforms in terms of GVA, growth and has low levels of skills attainment
- 42 per cent of TGSE residents do not have entry level 2 qualifications to underpin longer-term learning and employability
- The proportion of the working population with NVQ level 4+ is 16 per cent, significantly lower than the regional average (25 per cent) and there is a low proportion of economic activity in 'knowledge-intensive' sectors
- its competitiveness, measured by productivity, is below the national average (90 against GB=100). Basildon is an exception to this
- TGSE has existing pressures on transport infrastructure, which are likely to be exacerbated by further growth. Key blockages include the A130/A13 junction and the A127 in Southend
- TGSE has a relatively poor perception as a place to do business, which has resulted in a poor track record of inward investment.

- achieve levels of productivity and earnings of at least the regional average
- radically improve the skills base through employer-led learning opportunities and the creation of 21st century education facilities, including schools, new university campuses and industry-led skills academies
- London Gateway as a national logistics and ports enterprise hub a centre for research and technical support as part of an associated cluster, including the Port of Tilbury
- reinvent and revitalise the city and town centres in Southend-on-Sea,
   Basildon, Thurrock and Castle Point with thriving residential, retail and
   leisure offers
- major reinvention of the Lakeside Basin and West Thurrock to include increased leisure and industrial zones, interactive and ecological corridors and a new residential offer
- become renowned for high-quality public and green spaces and attractive waterfront development
- develop as a centre for investment in environmental technologies and services, including potential leadership in automotive energy efficiency in Basildon and a new bioenergy park in Thurrock
- become a niche centre in the creative industries, including the Production Campus and Creative National Skills Academy in Thurrock and a focused offer in Southend-on-Sea built around the university, METAL and thriving arts and new media businesses
- realise and harness the potential of London Southend Airport as a key transport gateway for the Thames Gateway, by improving operational capacity, surface access and supporting business development in engineering and maintenance.

What do we need to change? The spatial response Greater Cambridge sub-region

### Greater Cambridge sub-region Global centre for learning, technology and life sciences



Napp Pharmaceuticals, Cambridge Science Park

#### **Overview**

The Greater Cambridge economic footprint covers parts of no fewer than nine districts including Cambridge City, South Cambridgeshire, East Cambridgeshire, Huntingdonshire, Fenland, St Edmundsbury, Forest Heath, Uttlesford and East Hertfordshire. The sub-region provides 365,000 jobs with an employment rate of 81 per cent. Over 43,000 people are employed in an estimated 1,400 high-technology companies, and Greater Cambridge attracted over 18 per cent of all UK venture investment in 2007. The resident population has grown by 6 per cent since 2000, considerably above the national rate of 2.5 per cent for the same period. Success has brought with it the pressures of growth, notably deteriorating housing affordability and congestion. There are also warning signs that the constraints in Greater Cambridge are beginning to erode competitiveness, with minor contraction of the cluster and increased competition to the world-leading status of the University of Cambridge. Despite this, Greater Cambridge remains a learning and innovation centre of global repute.

- the University of Cambridge, currently ranked fourth in the Shanghai Jiao Tong ranking of global universities, and the leading research university in the UK and Europe. University of Cambridge spin-outs have attracted more venture capital investment than any other UK university
- world-class research institutes and science base including the University of Cambridge, the Genome Campus at Hinxton, the Laboratory of Molecular Biology adjacent to Addenbrooke's Hospital, the Babraham Institute and the Cambridge Nanoscience Centre
- globally significant information and communications technologies and biotechnology clusters
- corporate and/or R&D functions of multi-national corporations such as Schlumberger, Microsoft, Hitachi, Toshiba, Monsanto, with others relocating to Cambridge such as Philips
- an EU top-four locality for total institutional investment into innovative start-ups, number one in terms of investment per capita
- a strong presence of professional service, legal and consultancy companies and networks (eg the Cambridge Network) enabling business growth and knowledge exchange in the technopole
- specialist accommodation for knowledge-intensive and early-stage ventures, including at least seven science parks or incubators
- a cohort of serial entrepreneurs, pools of management expertise, a supply of high skills, with an ability to attract international mobile talent
- significant heritage, leisure and cultural assets that provide drivers for the tourism sector
- a bloodstock cluster of international renown at Newmarket
- strong links to global markets and a history of international collaborative programmes (eg Cambridge-MIT Institute, Cambridge-Munich network links).

What do we need to change? The spatial response Greater Cambridge sub-region

#### **Constraints**

- the lack of 'keystone' technology companies of large scale
- the declining availability of seed funding to support business start-up and early-stage growth
- a limited supply of creative, computing and technician skills in the local economy
- whilst a global leader, the University of Cambridge is small by international standards and unlikely to grow significantly
- housing affordability is a major barrier to attracting and retaining talented people
- high levels of congestion, both within Cambridge and on national and regional strategic routes
- considerable variation in economic and educational performance across the sub-region and pockets of significant deprivation
- a need to improve the cultural, creative and environmental offer to match efforts of other leading centres in the knowledge economy.

- maintain the University of Cambridge as a top-five global university and deepen the local and regional impact of the university
- increase the interaction between local SMEs and the applied research capability of the University of Cambridge and Anglia Ruskin University through increased access to academics, departmental facilities and libraries
- increase collaboration between the University of Cambridge and Anglia Ruskin University to ensure the complementarily of the research and skills offer for the local and regional economy
- support the expansion and growth of Anglia Ruskin University to be a recognised international force in specialist research, creative and technical areas
- deliver major new applied research and innovation facilities at East Forum and Addenbrooke's, and ensure a long-term supply of high-quality sites for R&D and commercial activity
- develop a comprehensive suite of financial products to support start-up, early-stage and mature company growth
- develop comprehensive support packages to enable renewal through emerging clusters such as plastronics, display technologies, bio-informatics, semi-conductor design and environmental technologies
- develop a stronger creative quarter in Cambridge and harness the potential of the area to be a leader in the interface between the arts, media and new technologies
- diversify and improve performance of the economy of market towns within the sub-region
- overcome shortages of affordable housing and other infrastructure by establishing high-quality, sustainable new communities, including Northstowe
- address the major infrastructure deficit and, in particular, key strategic routes connecting Cambridge to regional and national markets, such as the A14 and rail routes to London, Stansted and other regional cities
- to continually upgrade the skills of local communities and ensure an increased supply of soft and technical skills into the local labour market
- deliver major environmental enhancement of Cambridge, surrounding settlements and create new habitats of international importance through a coherent programme and marketing of the Great Fen, Wicken Fen, the Ouse Washes, Needingworth and Fen Drayton initiatives
- preserve the unique character of the historic core of Cambridge and the distinctiveness of the sub-region's market towns.

What do we need to change? The spatial response Greater Peterborough sub-region

### Greater Peterborough sub-region Environment city, inland port and northern gateway



Peterborough cathedral

#### **Overview**

Peterborough is a major regional centre and gateway with an influence that extends into the East Midlands region. The sub-region enjoys a strategic location on the national road and rail network, allowing easy access to national and international markets. More than 6,000 companies are currently based within Peterborough, including some with their regional and international headquarters based in the city. Peterborough has demonstrated the strongest performance of the East of England cities in the State of the English Cities report. However, recent population growth appears to have slowed and the GVA growth is also reflective of the 19,000 people who commute into the city.

163,000 people live in the unitary authority area of Peterborough and the sub-region has experienced high levels of in-migration in recent years. The regional spacial strategy is now targeting 25,000 additional houses and 20,000 jobs for the sub-region building on a series of target sectors and current strengths, in particular environmental technologies. This is to be balanced with a concentration on improvements in the urban fabric and renewal of the city centre, new housing and investment in new educational and training opportunities, including the development of a university presence.

- a strong and continuing tradition of high-value manufacturing and a current concentration of employment in banking, finance and insurance services
- Environment City status and emerging and well-supported clusters in environmental technologies and media, printing and publishing
- strong public sector employment presence with the continuing ability to attract national agencies and organisations
- a key gateway to and from the region towards the Midlands and the North, with good access to London and the Greater South East, with key investments infrastructure, which has enabled an emerging proposal for an 'inland port'
- continuing strong growth, which will attract investment (eg to the city centre)
- a strong commitment to new development and regeneration to tackle some of the causes of economic underperformance, including affordable housing provision and the quality of all developments
- presence of major companies including Thomas Cook Group, Hotpoint, Pearl Assurance, Perkins Engines Co, Peter Brotherhood, Amp, EMAP, British Sugar plc and Fairline Boats plc.

What do we need to change? The spatial response

#### Greater Peterborough sub-region

#### **Constraints**

- limited higher education offer and a concentration within some wards of low skills and education base
- perception of a poor external image and a limited cultural leisure offer for the city
- the challenges of delivering affordable housing
- notwithstanding a positive strategic location, an identified need for specific and significant transport investment
- an inadequate supply of suitable business premises in particular start-up and incubator units, in comparison to other major centres a weaker track record of high-value job creation.

- continue to diversify and improve economic performance through high-quality business support, helping businesses to grow and attracting new entrants into the local economy
- develop attractive and distinctive public spaces throughout the city, particularly through a programme of international-quality public art
- renew the city centre and increase Peterborough's pull as a major retail centre in the North of the region
- provide a university presence in the city, with longer-term development of an higher education campus to increase supply of demand-led higher-level skills
- expand the environmental technology cluster through targeted business support, finance and business space creation
- strengthen the Environment City status by the creation of UK-leading zero-carbon housing developments
- promote the locational advantages of Peterborough to secure increased inward investment in logistics and advanced services
- improve opportunities for excluded people and communities to access education, training and jobs
- harness the diversity of the city to promote community cohesion and build links for international trade and collaboration.

What do we need to change? The spatial response Milton Keynes South Midlands growth area

## Milton Keynes South Midlands growth area focusing on Luton as a regional city

Inter-regional regeneration and growth focus



London Luton Airport

#### **Overview**

Milton Keynes South Midlands (MKSM) is a national growth area spanning parts of the East of England, South East and East Midlands. The economy of the East of England part of the MKSM growth area is centred on the two conurbations of Bedford/Kempston and Luton/Dunstable/Houghton Regis. The sub-region has a population of 590,000 people, with Luton being one of the most ethnically diverse places in the region. The area has seen steady population growth and significant immigration over the recent years.

The main economic ambition for the area is to continue the transition to a higher value economy and raise GVA growth rates. This will enable the sub-region to play a complementary role to the strong growth forecast in neighbouring Milton Keynes, Northampton and Cambridge, and realise the benefits of proximity to London. The sub-region has committed to delivering 50,000 jobs by 2021, and housing targets of over 26,000 for Luton/Dunstable/Houghton Regis and nearly 20,000 for Bedford/Kempston. Important to the area's success will be developing a stronger sub-regional employment land offer and marketing proposition to attract and retain companies and entrepreneurs.

- Luton and South Bedfordshire have undertaken significant economic restructuring and are continuing the move into higher-value industries.
   A higher proportion of the workforce is now employed in financial and business services
- London Luton Airport is a major gateway for London and the Greater South East, and provides the base for major airline operations including EasyJet Airlines, Monarch Airlines, Monarch Engineering Ltd and Britannia Airways
- strong higher and further education infrastructure, including the unique applied research and postgraduate offer of Cranfield University and the business and skills-focused University of Bedfordshire
- leading companies and facilities such as Unilever, BAE Systems, Nissan, Lockheed Martin Insys, Astra Zeneca, Siemens, Trafficmaster and the Millbrook Proving Ground
- the Bedford growth area has also been successful in attracting logistics inward investors such as Amazon, ASDA, Argos and Healthcare Logistics, given proximity to key UK markets and location on the strategic transport network
- good North-South strategic transport routes such as the A1, M1 and the West coast and Midland main line rail routes, albeit suffering increased congestion
- proposed new developments including the National Institute of Research into Aquatic Habitats (NIRAH) and a new Center Parcs village, which enable the development of further new housing and leisure facilities

What do we need to change? The spatial response

## Milton Keynes South Midlands growth area

- a young and diverse population profile, and a vibrant cultural offer including Luton Carnival and the UK Centre for Carnival Arts
- proximity to Milton Keynes, as a major employment centre and growth locality that will grow to near core city scale by the end of the regional economic strategy period
- location at the heart of the Oxford2Cambridge Arc increasing opportunities for inward investment, innovation and technology transfer.

#### **Constraints**

- compared to the rest of the region, there are lower rates of business start-up
- meeting the demand in supply of affordable housing completions
- poor East/West transport links, eg rail links with the Midland and East Coast main lines
- traffic congestion, particularly on the main routes between and within urban centres, and the need for improved connection between the local and national network
- in Luton and South Bedfordshire just under 23 per cent of the working-age population have level 4 qualifications, well below regional and national levels. In line with this, more of our people have no qualifications, 17 per cent compared to 14 per cent in the region and England
- persistent pockets of deprivation, particularly concentrated in the urban areas of Luton and Bedford.

- significantly raise entrepreneurship, employment and skills rates and, in particular, to narrow the gaps between disadvantaged communities and the average
- enable continued growth of Luton as a regional city and reinvent town centres in Bedford and Dunstable
- promote business growth and innovation through high-quality physical developments combined with a complimentary business support offer, such as Butterfield Park and Capability Green in Luton, Priory Business Park and the i-lab in Bedford
- develop a next-generation science park at Colworth, anchored by Unilever, with a thriving business community collaborating with both private sector and university R&D expertise
- realise the role of Cranfield University as a major driver of the local and regional economy, through a sustained programme of investment in applied research, ensuring access of local and regional entrepreneurs to leading management expertise and further developing the Technology and Air Parks as preferred locations for local and multi-national businesses seeking academic partnerships
- continue to grow the University of Bedfordshire's contribution to higher-level skills in the local economy and extend the knowledge hub offer, supporting business start-up and growth and applied research
- ensure delivery of high-quality and mixed housing supply, with a major focus on sustainable urban extensions
- ensure enhanced environmental assets to provide a network of green infrastructure of national importance (eg Forest of Marston Vale, the Chilterns Area of Outstanding Natural Beauty)
- improve rail and public transport in the sub-region and connections to the national road network (eq M1).

## London Arc sub-region Maximising the benefits of a world city



GlaxoSmithKline's pharmaceuticals research and development facility, Stevenage

#### **Overview**

London's economic footprint extends well into the East of England, its influence being most intense within the arc stretching from Watford and Hemel Hempstead in the West to Chelmsford in the East. The London Arc has a population of approximately 1.35 million. 290,000 people commute from their homes in the East of England to London, the vast majority of these from within the London Arc. It has features of a competitive location on the doorstep of a world city contributing significantly to GVA growth and within the influence of a global agglomeration economy.

The arc is not dominated by any one regional city although it does contain six key centres for development and change. Chelmsford and Watford have populations of above 100,000 across their urban areas and some of the others are proposed to grow to significantly more than 100,000 by 2021 under the East of England Plan. Some of these key centres of development and change, such as Harlow, also have a sub-regional economic and social role. Whilst all the centres share common issues in terms of their relationship to London, there are distinct relationships within the London Arc, effectively split East and West in terms of mid Essex, the M11 corridor and mid/West Hertfordshire, and how these locations manage the increasing pressures of growth and competition.

- a world-class knowledge-based economy with pharmaceutical businesses such as GlaxoSmithKline in Harlow/Stevenage/Ware; multi-national headquarters such as Tesco in Cheshunt; major employment concentrations such as Maylands in Hemel Hempstead and other global businesses, such as Astrium in Stevenage, Raytheon Systems in Harlow and BAE Systems in Chelmsford
- each of the six key centres in the arc is connected by the mainline rail and motorway (except Chelmsford (A12)) to London
- access to major international airports at Stansted and Luton and, in particular for the western end of the arc, Heathrow
- the University of Hertfordshire as a leading business-facing university and Anglia Ruskin University with major strengths in applied research and skills development
- a national and international centre for the media/TV/film sector with studios at Borehamwood and Leavesden, linked to the London creative cluster
- the strongest skills base and highest average earnings in the region, strongly influenced by the London economy
- a number of the region's largest business parks including Maylands in Hemel Hempstead and Gunnels Wood in Stevenage, and the proposed Chelmsford Business and Technology Park Incubator
- the potential to relocate businesses out of London
- the potential of the 2012 Games to raise the profile and improve the image of the area.

What do we need to change? The spatial response London Arc sub-region

#### Constraints

- the arc is home to a number of individual new towns, which offer a range of employment land and premises and are home to major, often foreign-owned businesses. However, these places also demonstrate common challenges of urban environmental quality, uncompetitive town centres, traditional and protected townscapes, pockets of deprivation and poor image
- particularly high levels of resource-use, domestic emissions and emissions from road transport with a significant transport infrastructure deficit for East-West travel
- significant existing pressures on infrastructure and future growth rates that will place additional demands on transport and other supporting community and cultural infrastructure. This is particularly critical in terms of orbital transport constraints, as well as on key corridors such as the A12
- low employment rates and low wage rates in some areas with particular barriers to employability due to a lack of basic skills and participation in deprived wards
- shortages of affordable and key worker housing and other community infrastructure, along with an inadequate supply of private sector housing in some areas
- with the exception of some key locations such as Chelmsford and Gunnels Wood in Stevenage, a constrained supply of quality employment land.

- support improvements in sustainable transport connections between key centres across the arc and between key centres and the international airports
- retain and enhance the quality and frequency of train services to London, maximise the economic benefits to the region from planned investment in the form of Crossrail and Thameslink and promote a refreshed case for an East-West orbital public transport system linked to future development
- support the development of other basic business infrastructure (eg power and water supply and treatment) to support housing and economic growth
- support measures to raise employment rates and the profile of higher-value employment across the arc by overcoming barriers to employability and raising basic and higher-level skills and participation in deprived wards
- support further expansion of the higher and further education offer across the arc, focused upon the key centres, including Harlow, to strengthen skills at NVQ3 and 4 in sectors to facilitate progression to higher education that supports the arc's globally competitive position
- support the sub-regional roles of key centres of development and change by recognising the reality of sub-regional economies and the need to support the roles that they play within the region and sub-region
- deliver a high-quality and sustainable urban environment across the arc, that supports historic assets, brings forward brownfield sites for development and delivers new town regeneration

What do we need to change? The spatial response London Arc sub-region

- establish a positive strategy for green space across the arc that
  consolidates a robust greenbelt review and positively manages a
  'green grid' strategy to embrace natural assets such as Epping Forest,
  Lee Valley Regional Park, the Stort Valley, Weald Country Park and
  Aldenham Country Park
- overcome shortages of affordable and key-worker housing and other community infrastructure by supporting the delivery of high-quality and sustainable development as part of an integrated package for growth. Broaden the housing offer more generally to deliver greater diversity and choice
- enhance the important economic link between Harlow and Stansted in terms of skills and employment and improved transport connections
- ensure a supply and mix of employment land and premises in sustainable locations that meet the needs of business, support the requirements of key sectors, growing businesses, innovators and start-ups
- enable and facilitate cluster expansion, business innovation and radical performance enhancements around the arc's globally leading companies and research institutes, supporting and enabling supply chains and business network
- use the Olympic and Paralympic opportunity to consolidate and stimulate global business investment and networks across the arc and the arc's Olympic and Paralympic venues to trigger wider economic opportunity
- promote the key transport corridors including the A12 and M11 corridor as economic drivers and consider improvements to support economic growth and competitiveness
- continue to grow the University of Hertfordshire as the UK's leading business-facing university and Anglia Ruskin University's applied science offer.

What do we need to change? The spatial response Greater Norwich sub-region

## Greater Norwich sub-region A science city and regional financial centre



Norwich Research Park

#### Overview

368,000 people live in Greater Norwich and the Norwich policy area has a population of 230,000, which is predicted to grow to 280,000 by 2025 comparable to the present size of Nottingham. About 123,000 people work in the Norwich area, which makes it the largest labour market in the East of England and it is the fifth most popular retail centre in England. Greater Norwich has a challenging growth agenda; the regional spatial strategy proposes growth of 33,000 dwellings and 35,000 additional jobs by 2021.

- Norwich Research Park (NRP), one of Europe's largest sites of biotechnology research, already generates a number of high-value spin-out companies (eg in drug development, DNA profiling, genomics and software development). NRP supports 6,500 jobs and 900 postgraduate research sciences students and includes the John Innes Centre, the Institute of Food Research, the Sainsbury Laboratory and the Norfolk and Norwich University Hospital Trust
- the University of East Anglia is an international leader in areas such as climate change, health and life sciences
- highest graduate retention rates in the East of England
- an advanced automotive engineering cluster and enterprise hub based at Hethel, with Lotus as an internationally renowned innovative company as its anchor
- existing and emerging sectoral strengths in finance and business services, biggest cluster of creative industries in the region, food processing, environment and bioscience and automotive engineering. Norwich supports more than 50 regional or national headquarters, with companies including Norwich Union, Marsh, Virgin, Bayer Crop Science, Colmans, and Adobe Systems
- Norwich City has the highest job density of any local authority area in the UK outside London
- a vibrant city centre with extensive cultural, leisure, sports and heritage offer, with the largest collection of heritage assets in any UK provincial city and access to the Broads and the Norfolk coast
- a strong quality of life with attractive urban and rural living environments
- one of the UK's largest open access free wireless broadband networks
- Norwich city centre is by far the highest-ranking retail centre in the region and fifth in the UK
- Norwich International Airport as a direct economic driver and connecting the sub-region to international markets and Amsterdam Schipol as an international hub.

What do we need to change? The spatial response Greater Norwich sub-region

#### **Constraints**

- a perceived lack of a clear and positive external identity is impeding the sub-region to capture its full share of inward investment as evidenced by the low numbers of enquiries
- the city has high levels of multiple deprivation concentrated at ward level. Over 30 per cent of Norwich children are affected by income deprivation
- the structure of the labour market is out of balance with a lack of intermediate-level jobs
- there is inadequate or constrained employment land availability, particularly in the quality of office accommodation within the city centre
- dwellings targets for Greater Norwich sub-region represent a 30 per cent increase in the required rate of delivery and are largely dependent on a number of major sites that will require intervention and infrastructure to bring them forward
- the current rate of affordable housing delivery is currently 20 per cent, falling short of the government's target of 35 per cent of all new housing development stock
- national and regional connectivity is poor.

- strengthen Norwich as a leading medium-sized science city in the UK
- further transition to a knowledge-based economy through major improvements to the skills and employment base
- improve the position of University of East Anglia in global university rankings and significantly increase spin-out technology transfer and R&D collaboration, with close ties to the local economy
- enable the development of clusters at Norwich Research Park and Hethel around globally renowned anchor companies and research institutes in areas of automotive engineering, environment and life sciences
- develop Norwich as a nationally important centre in financial and business services and creative industries, and maintain Norwich as a top ten retail centre with matching city centre office accommodation
- develop Norwich as an international exemplar of a low-carbon city, with the promotion of renewable energy, combined heat and power, wind, solar and biomass
- improve the connectivity of Norwich to key national, regional and local markets through infrastructure improvements to key roads and enhanced rail services to London and other regional cities
- greater coordination and intervention to bring forward large brownfield sites for redevelopment
- increase linkages between Norwich International Airport, Amsterdam Schipol as a European hub and other key international markets
- diversify and strengthen the economy of market towns within the sub-region
- a nationally recognised heritage and arts offer and regionally important retail and leisure functions as part of a stronger inward investment strategy that demonstrates the distinctiveness of the sub-region.

What do we need to change? The spatial response Haven Gateway sub-region

# Haven Gateway sub-region International port gateway and eastern regional cities



Ipswich waterfront

#### **Overview**

The sub-region is one of the key international gateways to the UK. Its growth and infrastructure are therefore of national significance to the well-being of the UK economy. 740,000 people live in the Haven Gateway sub-region, which contains the regional cities of Ipswich, which has 20 per cent of the population and is Haven Gateway's largest functional urban economy, and Colchester, which contains 15 per cent of population but is functionally quite separate from Ipswich. The increasing links with London are a feature of the economic flows within and across the gateway.

The sub-region is also defined in relation to the internationally significant Haven Ports (principally Felixstowe, Harwich and Ipswich), its market and coastal towns and its high-quality rural hinterland. The Haven Gateway is gearing up for substantial economic and housing growth over the next two decades, with regional spatial strategy targets of 49,700 jobs focusing on key economic specialisms of hi-tech and knowledge-based employment growth and 50,840 new homes by 2021.

- there is a high concentration of employment in post and telecommunications and in some aspects of financial services; the former accounts for over 7,000 jobs and it is likely that many of these are located on or near Adastral Park, home of BT's research activity with a visible presence of higher and further education institutions and the largest telecommunications park in Europe
- the ports of Felixstowe, Harwich, Ipswich and Mistley. Felixstowe is the largest container port in the UK, part of the Hutchison Port Holdings Group, and is set to expand from 3 million 20-foot equivalent unit to 5.2 million 20-foot equivalent unit
- the University of Essex in Colchester is a UK top-ten research university. International strengths include industry-linked departments such as electrical systems engineering (including photonics, RF engineering and multimedia architectures), computer science (including the largest robotics research group in the UK) and the Essex Biomedical Sciences Institute
- national strengths in sectors such as transport-related hi-tech engineering (Colchester), insurance and telecommunications (Ipswich)
- the presence of companies such as Hutchison Ports, Flakt Woods, Man B & W Paxman Diesels, Brackett Geiger and Axa Insurance, Willis Ltd, Textron Inc, Crane Fluid Systems and BT, who are active players in national and global markets.

What do we need to change? The spatial response Haven Gateway sub-region

#### **Constraints**

- modelling work highlights a potential challenge in delivering quality jobs and growth targets particularly across the Suffolk part of the gateway
- there is a need to create a more enterprising local economy. Current rates of new business formation are relatively low within the Ipswich area compared both to the East of England and elsewhere in the Haven Gateway
- as the population grows, the issues relating to the economic vibrancy of town centres will need to be addressed
- housing completions are currently projected to exceed annual targets but in later years may slow down and fall behind
- there is a potential lack of high-quality employment land availability particularly in and around Colchester
- a number of coastal towns are in need of regeneration with pockets of severe deprivation including in relation to labour market participation
- water resources are predicted to become increasingly stretched whilst, at the same time, the risk of coastal flooding will threaten parts of the area.

- development of a next-generation 30-acre science-based business park at Martlesham, with the real potential both to create over 1,100 high-value jobs and provide future stability in the sector
- expand the international port functions of Haven Gateway, including expansions at Felixstowe South and Bathside Bay
- carry out major reinvention of city and town centres, including Ipswich waterfront, East Colchester, Harwich and regeneration priorities such as Jaywick
- develop cultural infrastructure of national and regional significance, such as an International Centre of Excellence for Classical Music at Aldeburgh, firstsite:newsite visual arts facility in Colchester and DanceEast as part of the Cranfield Mill development in Ipswich
- strengthen the research excellence and resultant commercialisation at the University of Essex through the development of Colchester Research Park and increased knowledge transfer activity
- improve capacity and address constraints on strategic road and rail routes connecting the Haven Gateway to national markets, including the Felixstowe-Nuneaton rail route, Great Eastern main line, A12, A120 and A14
- preserve and enhance the sub-region's landscape and biodiversity
- continue to develop University Campus Suffolk as a driver of a highly skilled workforce and applied research in the sub-region.

What do we need to change? The spatial response Coastal renaissance

#### Coastal renaissance

## An environmentally rich, scenic and economically diverse landscape



EastPort, Great Yarmouth

The coast of the East of England is among the most environmentally rich, scenic and economically diverse landscapes in the country. This covers areas of outstanding natural diversity, major tourism spots as well as some of the UK's busiest ports. It is one of the region's most valuable assets.

The coast is also home to some of the East of England's most deprived and economically under-performing communities. Our coastal communities and economies face changes and pressures that, although different in character, are as challenging and far reaching as those facing communities directly affected by growth. In addition, coastal and estuarine environments cannot be taken for granted as fixed regional assets, and there is a pressing need to address some significant challenges associated with climate change.

The region's coastal towns are under-performing against a range of economic performance indicators. They are failing to act as strong employment magnets or to exert a significant influence on their wider hinterlands. The towns of Clacton-on-Sea, Great Yarmouth, Lowestoft and Southend-on-Sea all share these challenges. Importantly, however, whilst Clacton and Southend receive growth point funding, the Great Yarmouth and Lowestoft urban areas do not, and are therefore identified as the principal regeneration priority area for the region. The settlements of Great Yarmouth and Lowestoft share a number of challenges. Economic restructuring has left a legacy of low employment, low population growth and low-skilled jobs. 1st East, the urban regeneration company (URC) for Great Yarmouth and Lowestoft was formed in 2005 and the regional economic strategy supports the aspirations of this body to address the high levels of unemployment and social deprivation through the regeneration of large areas of physical dereliction, creating new employment and social opportunities in the two towns.

Regeneration to improve the social and economic well-being of our coastal towns is essential, but it is important to avoid inappropriate development within areas which are at potential risk from flooding or erosion. The government's strategy for flood and coastal erosion risk management, Making Space for Water, has a central theme for the coast of learning to work with, and adapt to, the natural processes which affect our shoreline. The planning system has a key role to play here by ensuring that current and future risks are taken into account in development and growth plans for the coastal zone. Such plans must be prepared with the full range of sustainable development objectives in mind. However, this has to be viewed in the context of the ability of the government via its agencies to fund mitigation and defence.

# Great Yarmouth and Lowestoft A leading centre for offshore energy



OrbisEnergy, Lowestoft

### Assets and opportunities

- attractive biodiversity, landscape and coastline providing major tourism opportunities
- unique built heritage and history
- emerging economic catalysts in Great Yarmouth, with EastPort and offshore renewable energy in Lowestoft supported by OrbisEnergy
- a critical mass of regeneration opportunities with over 300 hectares of land available for redevelopment within the next ten years, including 26 kilometres of water frontage.

### **Constraints**

- road and rail connectivity to major markets and a perceived poor image reduce the attractiveness of both towns for new business investment
- below average percentages of the population with NVQ4 or above qualifications and significant numbers with no formal qualifications at all
- high levels of deprivation, with average earnings below both county and regional averages
- inadequate supply of quality affordable housing
- a need to manage issues of coastal and fluvial flooding effectively.

### Strategic ambitions

- expansion of the higher and further education offer through the existing colleges, with support from the University of East Anglia and University Campus Suffolk
- development of the EastPort outer harbour to provide modern port facilities and major employment opportunities
- improving the tourism offer and including development of a large casino and associated investment in high-quality hotel, entertainment and leisure facilities
- delivery of major physical restructuring as set out in the 1st East area action plan.

What do we need to change? The spatial response Market towns and the economy of rural areas

# Market towns and the economy of rural areas Contributing to the prosperity of regional centres



Rural Norfolk

The future of the economy in rural areas is dependent on many of the same factors that drive the wider economy and demands innovation, new skills and a supportive business environment. Indeed, structural convergence between rural and urban areas, and in particular the dominance of the service sector means at regional level it no longer makes sense to talk of a single, distinct rural economy.

The relationships between the major urban areas, market towns and their rural hinterlands are now recognised as a highly interdependent economic system. Rural areas in the hinterland of high-performing cities, both contribute to, and benefit from, the prosperity of regional centres. However, sparse or more remote areas are often characterised by low growth and low-wage economies. There is evidence that focusing on the economic gains from building stronger complementary relationships between the region's urban and rural areas will deliver significant and sustainable economic gain for these remoter areas, as well as for those closer to their urban neighbours.

These relationships should recognise the opportunities for:

- appropriate development to support and enhance the value of these areas
- addressing the economic challenges that prevent these areas from reaching their full contribution to the growth
- enhancing the quality of life of the region as a whole, for example, via the relevant scale of service provision.

Approximately 31 per cent of the population of the East of England live in a rural area. Rural areas will play an active role in the development of a dynamic and sustainable knowledge-based economy. The region's important rural assets include the premier agriculture, food processing and biofuel locations in the UK, leading agriculture and food processing companies and entrepreneurs who are among the most productive in Europe. The rural areas also help to create an attractive environment for the region, increasing quality of life for the whole population. While many of the issues are similar in urban and rural areas, the solutions will often need to be tailored so that delivery is appropriate to local needs.

The provision of affordable rural housing, business support and space for rural enterprise, and access to other services whether health, transportation or ICT infrastructure, need to be balanced with the issues of flood risk and landscape impact in creating successful responses to rural economic development. The region's rural areas, and in particular, the more remote settlements, should accommodate appropriate scales of new development in achieving our aspirations of a living and working countryside.

What do we need to change? The spatial response Market towns and the economy of rural areas The East of England contains around a fifth of the UK's market towns. These fulfil a vital role as sub-regional centres. Important relationships exist between individual market towns and the region's larger urban areas. Notwithstanding the restructuring of the rural economy in recent years, the region's market towns continue to play an important role relative to their defined rural hinterland. Towns such as Bury St Edmunds, King's Lynn and Thetford have grown their economic catchments and provide significant retail, cultural, tourism and other service and social provisions. Importantly, a number of the region's market towns have achieved growth point status and as such will be expecting to accommodate significant levels of housing development.

### Strategic ambitions

- a positive planning framework, that enables:
  - increased provision of affordable housing within broader plans that help sustain the scale and vitality of villages and market towns
  - provision of employment space that allows rural businesses to start up and grow
  - greater certainty to the market on the deployment of renewable energy.
- effective delivery of skills and workforce development to rural and coastal communities
- maintaining the East of England as the UK's leader in agriculture and food sector, supported by leading research centres of excellence and knowledge exchange in fields such as biofuels, non-food crops and agricultural engineering
- improved connectivity and transport services between rural areas and regional cities to increase connections to the knowledge base centres of excellence, hubs and markets
- timely provision and take-up of next-generation broadband services, to enable rural businesses to reach new customers and suppliers
- successful development, management and conservation of environmental assets to deliver tourism, biodiversity and healthy living objectives
- improved pathways to employment and access to high-quality services for those experiencing deprivation in rural and coastal areas.

# How dowe get there?

4.1 Leadership, governance and delivery

4.2 Monitoring

112

126



For further information, see the evidence base



For further information, see the integrated sustainability appraisal documents



For further information, see the RES-RSS joint modelling project report



For further information, see the resource-use and CO<sub>2</sub> emissions modelling report



# 4.1 Leadership, governance and delivery

Delivering the regional economic strategy in the region

The East of England Development Agency (EEDA) prepares the regional economic strategy (RES) with and on behalf of the region. Implementation, however, is the region's shared responsibility. The test of the strategy will be its success in changing behaviour and investment, to bring about sustainable prosperity and an economy that can adapt to global issues and competition.

To this end the RES will be used to:

- direct the activities and investment of key regional and national agencies, particularly in areas such as transport and skills that are key drivers of regional productivity growth
- inform the economic outcomes agreed with local authorities through Local Area Agreements, and enable local government to contribute effectively to the region's sustainable economic growth
- provide the basis for our discussions with the government and the EU
  in areas that will influence the achievement of sustainable economic
  growth in the East of England.

The key components of RES delivery and performance management will be:

- clear and effective governance arrangements, owning and managing delivery of improved economic outcomes at regional and sub-regional level
- an East of England Implementation Plan
- Local Area Agreements
- Multi Area Agreements
- Integrated Development Programmes or equivalents
- robust sustainable community strategies and local development frameworks.

Delivery arrangements for the RES will need to be adaptable to take account of:

- the implications of an early review of the regional spatial strategy (RSS)
- institutional changes affecting major delivery partners, such as local government reform and the creation of the Homes and Communities Agency
- progress in implementing the Sub-national Review of Economic Development and Regeneration (SNR), including the move towards a single regional strategy.

Throughout these changes it is important that economic development strategy and delivery arrangements are based upon:

- a concerted focus on improved economic performance
- the political leadership and democratic mandate of local authority members
- a strong partnership ethos, harnessing the different ideas, skills and resources of a wide range of public, private and third-sector players
- the opportunities and challenges of globalisation and supporting the region's comparative advantages in international markets
- greater opportunities for the business community to shape local and regional economic policy and action
- a recognition of real economic geographies and the need to address the significant differences in economic, social and environmental circumstances across the region
- robust evidence, with a clear understanding of market opportunities, failures and the potential impacts of different investment choices
- effectiveness and efficiency in using public sector expenditure and leveraging private sector finance
- the premise that predictability and certainty are vital for business competitiveness – to this end implementation of the RES must be based on a clear framework that avoids proliferation of initiatives – for instance, through an agreed Business Support Simplification Programme framework in the East of England and avoiding significant variations in local business rates or tariffs
- greater local and regional freedoms and flexibilities, to address the specific economic drivers and issues in the East of England – with delegation of resources to the most appropriate level for delivery.

# East of England Implementation Plan

The draft RES sought partners' views on an initial delivery framework and proposed actions. Subsequently, the Regional Partnership Group, the East of England Regional Assembly (EERA), EEDA Board and Strategy Committee have approved a proposal to take forward a joint implementation plan for the regional economic and spatial strategies. The RSS and RES have now been adopted and set the spatial and economic context for sustainable development over the next 15 to 20 years. Given that the spatial strategy and the economic strategy are interdependent, there are clear benefits in preparing a joint RES-RSS implementation plan.

The East of England Implementation Plan will be developed with partners and stakeholders. It will define a prioritised, phased and resourced programme to deliver the two leading regional strategies and aligned local objectives.

The plan will set out an important framework for how the region can best use investment and strategic programmes to support the changes facing localities and communities in the region, and to ensure they continue to thrive, are vibrant and sustainable. Existing prioritisation processes will provide inputs to the plan, as will the strategies and evidence of local authorities and sub-regional partners. Preparation of the plan will require engagement with the private sector and local communities to reflect local and stakeholder needs.

The implementation plan will set a longer term context for investment across areas such as housing, transport and wider infrastructure and economic development. Early work will inform the East of England Regional Funding Advice (RFA) submission in spring 2009. This process of developing the implementation plan will strengthen regional partnership working and provide important learning in moving towards an integrated single regional strategy after 2010.

The implementation plan will draw on:

- work led by EERA to develop a regional investment strategy to deliver the growth aspirations of the emerging East of England Plan and related priorities from other regional strategies
- consultation feedback on the draft RES delivery framework, including the roles and responsibilities of partners in delivering actions
- new functions and responsibilities set out in the Sub-national Review of Economic Development and Regeneration and Local Government White Paper
- the work of local strategic partnerships in developing Local Area Agreements and sustainable community strategies
- Integrated Development Programmes and equivalent growth and infrastructure plans in the engines of growth and key centres for development and change
- current transport prioritisation work and Regional Funding Advice scheme testing.

EEDA, EERA and the Government Office for the East of England (Go-East) have worked together on early scoping work for taking forward an East of England Implementation Plan. The implementation plan will have a strong spatial focus and demonstrate how investment priorities are linked to wider regional outcomes. The implementation plan will also outline expenditure against identified funding sources, specific project outputs and proposed time frames. A third function of the implementation plan will be to identify critical investment shortfall where more difficult choices may have to be made. In doing so, sub-regional involvement and ownership will be key to developing the plan successfully.

The implementation plan will be subject to a sustainability appraisal (SA)/strategic environmental assessment (SEA). The SA and SEA will be an iterative process informing the draft and final joint implementation plan. A successful implementation plan will provide:

- a clear programme to deliver the shared objectives and targets of the RES and RSS
- a compelling business case to investors (across public and private sectors)
- regional consensus on investment priorities with clear partner responsibility and timetables for delivery
- be a 'live' document that is updated regularly
- a clear framework for monitoring performance and managing risk
- the basis for an East of England RFA submission in spring 2009.





In order to achieve these results, the process of developing the investment plan must:

- engage a wide range of stakeholders and generate shared ownership of targets and investment priorities
- build on a robust, shared evidence base and modelling work that supports the priority actions proposed, and the strong work on investment planning at sub-regional level
- have clear and consistent criteria for adopting priorities into the regional implementation plan
- be representative of the full range of regional stakeholders and interests
- be dynamic and identify a critical path for the delivery of RES and RSS objectives over the medium and longer terms (ie to 2031)
- clearly identify the appropriate spatial level of delivery, with coherent and robust packages for sub-regions that are consistent with Local Area Agreements and are based on robust investment planning mechanisms (eg well-founded Integrated Development Programmes).

# What is the timetable for producing the implementation plan?

RSS adopted	spring 08
RES submitted to BERR	spring 08
RFA guidance	summer 08
East of England Implementation Plan development	autumn 08
RFA submission	spring 09
Draft plan for consultation	spring 09
East of England Implementation Plan finalised	spring 09

RES and RSS delivery, performance and risk management will benefit from:

- a new Council of Economic Advisors, bringing leading expertise to strategy and implementation and a better understanding of the effects of the macro-economy on regional performance
- a stronger economic intelligence network and joint commissioning of economic intelligence – involving the regional intelligence centre, local authorities, business representative organisations, the Eastern Region Public Health Observatory and universities – to better understand economic performance and its determinants and wider sustainable development issues
- integrating RES and Local Area Agreement performance management and information systems and extending this in future to cover Multi Area Agreements
- work to develop local, sub-regional and regional economic development capacity and capability through EERA and Improvement East, the regional improvement partnership
- agreed protocols for managing strategic risks such as economic shocks and recession, globalisation and market uncertainties, changing national and international policy and regulation, tightening public and private sector investment, institutional reform, demographic change, climate change, pressures on land, energy and water supply
- progress in developing a Regional Infrastructure Fund, leveraging major investment from the market.

# Regional governance arrangements

The East of England Implementation Plan will be approved, owned and its performance overseen by:

- EERA and, in future, East of England Councils, the post-SNR regional grouping of local authorities
- the Regional Partnership Group
- the EEDA Board in conjunction with the Strategy Committee and future regional stakeholder groupings.

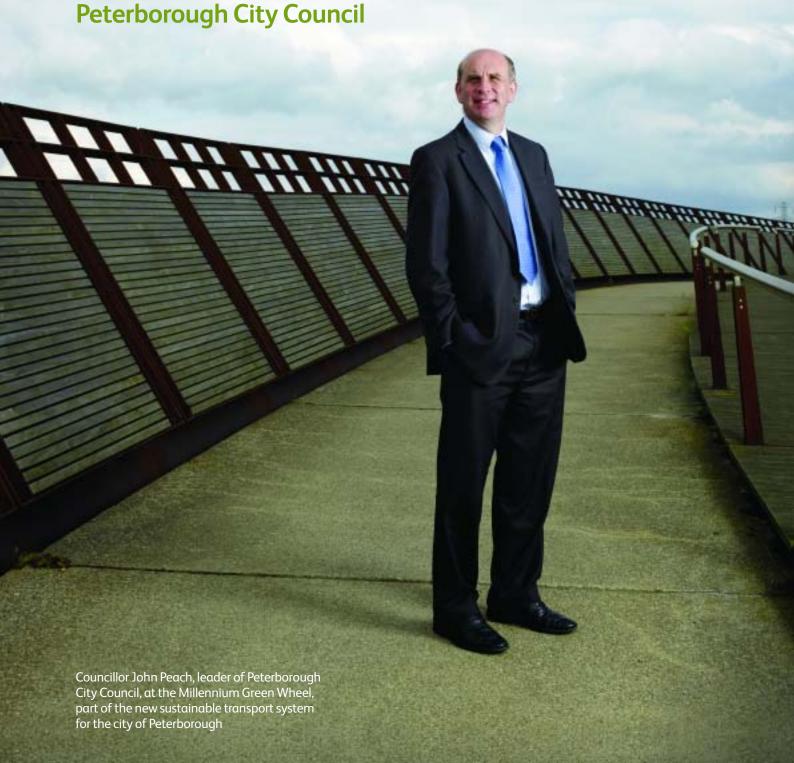
RES goal programme development and implementation will be overseen by:

RES goal	Principal regional governance mechanism	
Enterprise	East of England Skills and Competitiveness Partnership	
Skills for Productivity		
Innovation	Science and Industry Council	
Digital Economy	Digital Partnership	
Resource Efficiency	Resource Efficiency Partnership	
Economic Participation	EERA Social Inclusion Panel	
Transport	Regional Transport Forum	
Spatial Economy	Sustainable Communities Delivery Group	

This framework will need to evolve in light of the implementation of the Sub-national Review of Economic Development and Regeneration and Local Government Reform.

Peterborough plays a significant role in delivering the East of England's regional economic strategy. The city council is working with partners to drive the city's ambitious growth programme and create 20,000 new jobs. Two-thirds need to be in high-technology companies, particularly in environmental goods and services, to build on our status as a leading Environment City.

Councillor John Peach,



# Delivering the regional economic strategy at sub-regional level

Local Area Agreements (LAAs) will make a major contribution to delivery of regional economic strategy (RES) targets, goals and priorities. In particular, they can address many determinants of economic participation and performance – including employment and entrepreneurship rates, skills and health. LAAs can be particularly effective in contributing to RES delivery by:

- setting ambitious targets, aligned with those of the regional economic and spatial strategies (and in future the single regional strategy)
- having a clear model for delivering economic change
- shaping services and aligning investment resources of local, regional and national partners to deliver shared objectives
- having a strong understanding of economic geography, the particular needs of deprived communities, urban and rural communities, local business needs and labour markets – expressed in future through local economic assessments
- developing effective multi-agency approaches to delivery of local outcomes
- greater involvement of the private and third sectors in local prioritisation, delivery and governance
- ongoing commitment to capacity development, improving sub-regional intelligence, learning and evaluation.

The RES identifies the engines of growth as critically important to the long-term competitiveness of the region and a focus for major housing and population growth. In these localities, local authorities and partners may decide to take forward Multi Area Agreements (MAAs).

### These would be based upon:

- a bold and visionary strategy for the economic development of the area led by the local authorities, identifying and supporting a limited number of sectors and clusters of international and national significance, alongside outlining improvements in the general environment for businesses that serve local and regional markets
- effective partnerships that span administrative boundaries (both local and regional), tiers of government and the public and private sectors, urban centres and rural hinterlands, to deliver local and regional strategy ambitions
- Integrated Development Programmes (IDPs) that identify the phasing and financing of major physical infrastructure and growth necessary to underpin major economic centres and labour markets
- a clear planning framework that provides clarity and confidence to the market, including masterplans or area action plans.

Significant progress has been made in preparing IDPs across a number of regional cities and their hinterlands. During 2008, it will be important to roll-out such an approach across other RSS key centres for development and change, and for the government and key partners to recognise their importance in planning investment. To respond to the particular economic and environmental challenges of our coastal areas, partners are committed to establishing a regional coastal forum and action plan.

Given the new prioritisation mechanisms such as LAAs and MAAs, alongside the growing role of local authorities and local strategic partnerships in economic development, sub-regions will want to review existing partnership structures to ensure they remain fit for purpose and efficient.

Local and regional partners will want to ensure that appropriate, effective and well-resourced delivery arrangements are in place at the sub-regional and local level. This may build on successful sub-regional economic partnerships and local delivery vehicles or seize the opportunities and potential efficiency savings provided by new models such as economic development companies or greater commercial involvement in the delivery of economic development. Importantly, arrangements will vary across the region and the focus must be on improving economic outcomes and greater involvement of the private sector as the primary source of growth in jobs and prosperity.

# Leadership and delivery in the international arena

Looking forward, the world economy is likely to undergo radical transformation within the timescale of the regional economic strategy, with growth being driven by the improved performance of emerging economies, such as China, India, Russia and Brazil. The East of England and Greater South East can benefit from the growth of such economies, as mass markets for goods and services, as partners in science in innovation and as sources of highly skilled labour. However, it also means that the region has to strive to increase our international activity and deepen our relationships abroad.

The regional economy strategy therefore looks to achieve the following key results:

- increased GVA resulting from international trade
- increased numbers of businesses exporting and collaborating internationally and greater share of growing global markets
- increased foreign direct investment, built upon the East of England as a global partner of choice for high value R&D and commercialisation.

# Increasing the regional presence in global value chains and markets

Competitive advantage increasingly depends on the ability of firms and institutions to exploit networks and alliances across regions and nations. This includes the ability to capture and absorb external knowledge, information and innovation; attract key labour, mobile capital and external finance and engage in inter-firm and inter-region strategic alliances, collaborations and ventures.

There is a very strong correlation between the proportion and nature of companies trading in national and international markets and the overall performance of the regional economy. At the level of the firm, action is needed to:

- increase the number of business leaders who recognise the benefits of trading internationally
- equip firms with the knowledge and tools to operate in international markets and value chains
- support businesses and universities in the developing international alliances for R&D and open innovation
- attract foreign direct investment, which brings new employment and also contributes a new stock of innovative processes, skills and management practices that can help stimulate local economies and supply chains
- provide intensive aftercare for incoming companies and embedding them in local and regional communities and economies
- tailor skills programmes to meet the needs of firms trading in international markets
- provide a supportive environment for companies seeking to expand in the East of England, in particular, reducing risk through an effective planning system.

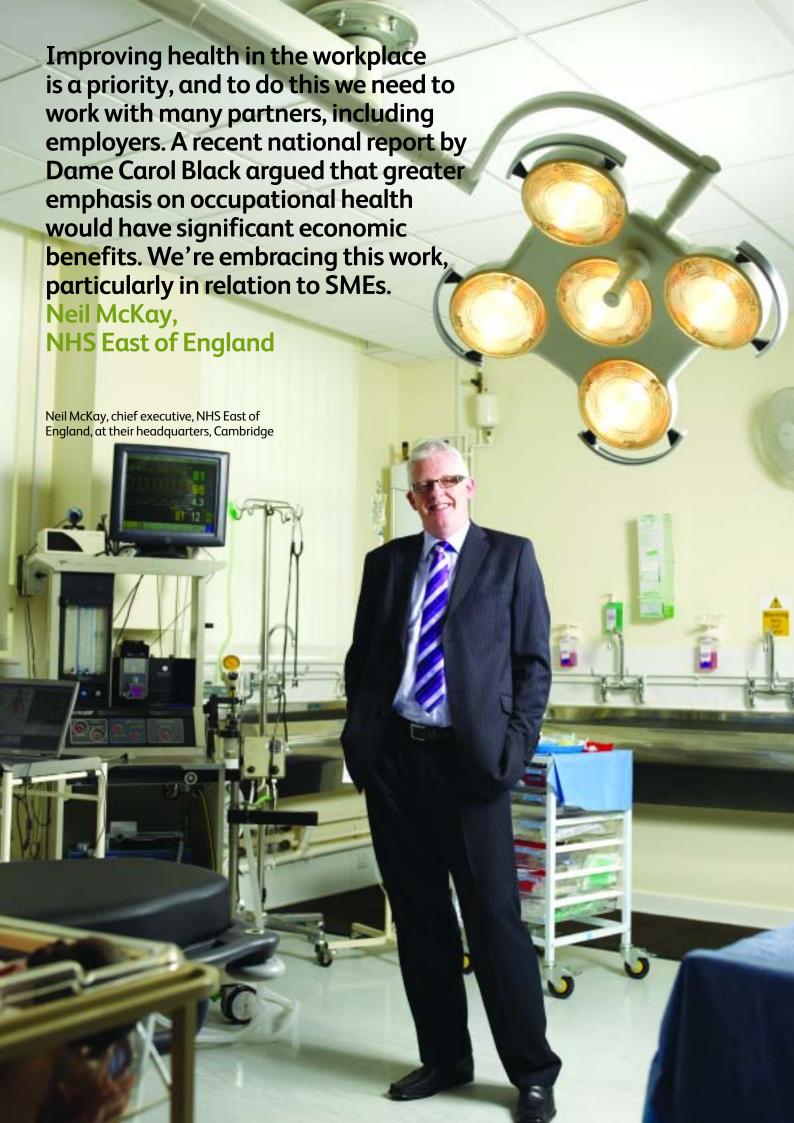
Regional stakeholders, local authorities and the business community will need to ensure effective arrangements are in place for coordinated international activity. The region needs a coherent programme of activity to:

- increase influence on European policy and realise greater access to European funding streams
- further strengthen the international trade and investment offer, led at regional level by East of England International, in close conjunction with UK Trade & Investment – and integrated with sub-regional international promotion activities
- develop targeted trade and cultural partnerships with leading regions and emerging markets
- utilise the critical mass provided through promoting the Greater South East and our position within the London city region
- deliver a global festival of innovation and use new technologies to promote the region, including virtual presence for the region
- actively promote regional assets and investment opportunities through our expanding international gateways
- leverage the 2012 Games for international business and tourism opportunities.

We aim to make the East of England the best environment for social enterprises to grow and flourish, and to maximise their social and economic impact on the region. An important part of our job is helping policy-makers understand the needs of social enterprises, so that this can happen.







In exercising their economic and place-shaping leadership, local authorities will make a major contribution through:

- local economic strategies and Local Area Agreements to help create the conditions for regional businesses and places to compete in global markets
- ensuring there is concerted support for key clusters and businesses who operate internationally
- major efforts made to create a skills base fit for the global economy
- the local planning framework and system makes provision for growth of high-value economic activity
- appropriate resources and actions targeted to measures that attract mobile talent investment and build community cohesion including cultural provision, education and civic spaces.

### Investment

Delivery of the strategy is dependent on aligning a wide range of funding sources, both public and private to best effect. Ultimately, the primary source of investment will be private capital. Investment in the East of England needs to be:

- increased, given that the East of England has the lowest levels of identifiable public expenditure of the English regions
- aligned and focused to leverage private sector investment and reflect real economic geographies
- guided by a medium and long-term perspective necessary to create the conditions for an adaptive and competitive economy
- flexible, with greater local and regional ability to tailor national funding streams through Local Area Agreements, Multi Area Agreements and the Regional Funding Advice process, to meet specific needs at the local level and address key drivers of regional economic performance in the East of England
- sourced creatively, maximising opportunities through private capital, EU non-territorial programmes, lottery funding, foundations and other sources
- accessible and appropriate to the needs of businesses, communities and the voluntary sector.

To this end, the regional economic strategy proposes a number of innovative funding solutions, including a major Regional Infrastructure Fund and a greater share in the proceeds of growth for local and regional stakeholders.

How do we get there?

Monitoring

# 4.2 Monitoring

The strategy is underpinned by a robust framework that integrates performance monitoring and management.

# Performance monitoring

The monitoring framework comprises four tiers of indicators to assess progress towards the regional economic strategy (RES) vision:

Figure 15
Monitoring framework



**Headline ambitions:** these are long-term targets that set the overall scale of ambition for the RES and quantify the strategy's vision (see Where do we want to be? Headline regional ambitions section on page 31 and the table opposite).

There are six headline ambitions based around:

- economic output
- skills
- greenhouse gas emissions
- employment
- inequality
- resource efficiency.

What success will look like: these are visions for what success will look like for the successful delivery of each goal. They can be quantitative or qualitative (see table opposite).

**Core indicators:** these form a set of quantitative monitoring indicators linked to the priorities of each RES goal.

**Delivery milestones:** this tier comprises the milestones and key performance measures of activities that are directly related to the inputs of partners delivering the strategy. They will be attached to actions set out in the East of England Implementation Plan.

How do we get there? Monitoring

# Local and sub-regional contributions to RES outcomes

Key elements of the RES will be delivered at the sub-regional and local levels through Local Area Agreements (LAAs) and, in future, Multi Area Agreements.

The tables that follow provide the spatial dimension of the RES monitoring and performance framework. In doing so, they link regional outcomes to regional core indicators, which will also be monitored at the sub-regional level where data allow. These are linked to local outcomes by mapping onto the national set of indicators for LAAs. This framework is intended to support the selection of national indicators and the development of local indicators and targets to measure progress against LAA economic priorities.

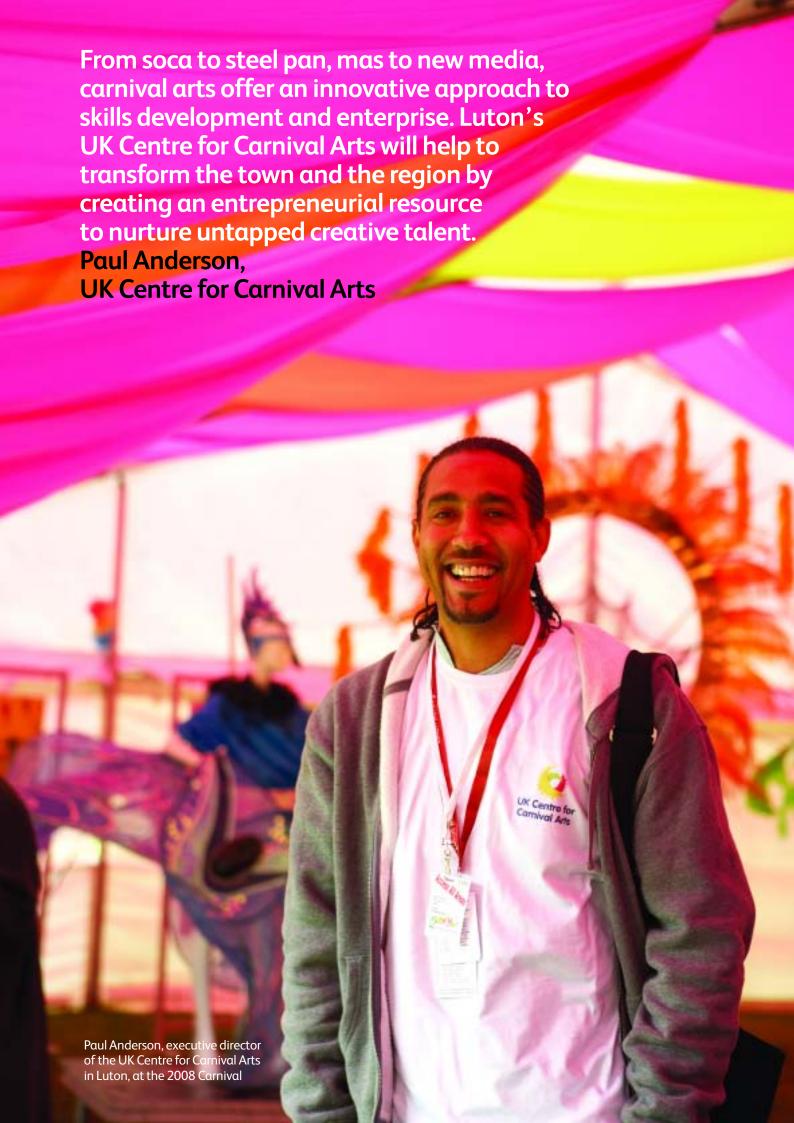
# Headline regional ambitions

Headline ambition	Regional/sub-regional core indicators	National indicators for local area outcomes
Annual growth in real workplace- based GVA per capita of 2.3 per cent and GVA per worker of 2.1 per cent between 2008 and 2031	GVA per capita and GVA per worker	NI 166 Average earnings of employees in the area
Employment rate for the working population of 80 per cent and for the 16-74 population of 70 per cent by 2031	Employment rates:  • 16-74 year olds  • working-age population.	NI 151 Overall employment rate
Over 40 per cent of adults qualified to at least level 4, 68 per cent of adults	Percentage of adults qualified to at least level 4, at least level 3 and at least level 2	NI 163 Working-age population qualified to at least level 2
qualified to at least level 3 and over 90 per cent of adults qualified to at least level 2 by 2020 and maintained to 2031		NI 164 Working-age population qualified to at least level 3
		NI 165 Working-age population qualified to at least level 4
A rise in lower-quartile earnings to 60 per cent of average earnings by 2031	Residence-based average earnings and lower quartile earnings	
End-user CO <sub>2</sub> emissions in 2031 that are 60 per cent below 1990 levels	End-user CO <sub>2</sub> emissions (disaggregated by sector)	NI 185 CO <sub>2</sub> reduction from local authority operations
		NI 186 Per capita CO <sub>2</sub> emissions in the LA area
		NI 194 Level of air quality – reduction in NO <sub>X</sub> and primary PM10 emissions through local authority's estate and operations
Per capita consumption of water by households in 2030 that is 20 per cent below 2008 levels, or 120 litres/head/day (I/h/d)	Per capita consumption of water within:  • metered and unmetered households  • existing and new build housing.	



Enterprise			
What will success look like?	Regional/sub-regional core indicators	National indicators for local area outcomes	
Start-up rates increased to 60 per 10,000 resident adults by 2031 (around 12,000 more new businesses created each year than in 2004)	VAT-registered start-ups per 10,000 resident adults **xxiii*  Net change in number of VAT registered businesses (mid-year estimates)	NI 171 New business registration rate	
Total entrepreneurship activity rates to 2031 that are:  • higher than in 2008  • above the UK average  • female entrepreneurship rates closer to male rates than in 2008.	Total/female entrepreneurship activity People considering going into business (expecting to start a business in the next three years)		
An increase in the share of SMEs using external advice	Business Link penetration rates Share of businesses receiving external advice		
An increase in the proportion of the region's SMEs that operate internationally	Exports (levels, year-on-year growth rates, per employee job) Value of foreign direct investment to the regional economy Percentage of businesses with co-operation agreements, of which the percentage of businesses that have co-operation agreements within Europe and the rest of the world		
Innovation			
An increased share of businesses that are innovation active	Percentage of businesses that are 'innovation active'		
An increased share of businesses that translate new ideas and research into new products, services and processes	Patent applications to the UK Intellectual Property Office per million inhabitants Design applications filed and registered with the UK Intellectual Property Office per million inhabitants		
An internationally renowned science base and hi-tech clusters, reflected in European-leading levels of private sector R&D and venture capital investment	Business Enterprise Research and Development (BERD)  BERD as a percentage of workplace-based GVA  Amount of venture capital investment in the East of England and as a percentage of the UK total		
Becoming the UK exemplar region for open innovation and absorption of existing technologies	Percentage of businesses investing in machinery, equipment and software, linked to innovation activities  Percentage of businesses investing in external knowledge, linked to innovation activities		
Digital Economy			
Widespread access to the latest digital infrastructure for businesses and households	Availability of next-generation broadband services to premises in the region Proportion of premises connected to a LLU-enabled exchange Households able to receive cable modem broadband Average download speed achieved by broadband users in the region		

What will success look like?	Regional/sub-regional core indicators	National indicators for local area outcomes
A more efficient and innovative economy through maximum exploitation of ICT by businesses and households	Proportion of businesses implementing ICT-enabled improvements to their processes or procedures Proportion of businesses viewing ICT as important in accessing new markets, improving innovation, increasing turnover, increasing profitability and improving competitiveness	
Businesses and individuals able to use ICT proficiently, with a reduction in IT skills gaps among the region's workforce	Percentage of staff with skills gaps that lack IT user skills and IT professional skills Percentage of businesses stating that ICT skills of staff meet current needs	
Transformation in working methods, with an increased share of enterprises adopting smarter/flexible working practices	Percentage of businesses with flexible working options available to employees  Percentage of businesses stating that ICT has enabled flexible working options	
Reduction in overall travel resulting from use of ICT	Percentage of businesses stating that use of ICT has resulted in:  • a reduction in business travel  • changes in commuting times for employees (avoiding peak-time travel)  • greater use of online conferencing for business meetings.	
A digital infrastructure that ranks highly among leading international regions	Indicators above compared to leading comparator regions	
Resource Efficiency		
End-user CO <sub>2</sub> emissions in 2031 that are 60 per cent below 1990 levels and reduced emissions of other greenhouse gases	End-user CO <sub>2</sub> emissions (disaggregated by sector)	NI 185 CO <sub>2</sub> reduction from local authority operations NI 186 Per capita CO <sub>2</sub> emissions in the LA area NI 194 Level of air quality – reduction in NO <sub>X</sub> and primary PM10 Emissions through local authority's estate and operations
Waste arisings per £ million GVA in 2031 that are 37 per cent (143 tonnes) below 2005 levels	Waste arisings by sector:  commercial and industrial  household  other municipal  construction and demolition  agriculture  other.	NI 191 Residual household waste per head
	Percentage of municipal and household waste	NI 192 Household waste recycled
	<ul><li>per head</li><li>recycled and composted.</li></ul>	and composted NI 193 Municipal waste landfilled
Increased recycling rates for household and municipal waste  Per capita consumption of water by households in 2030 that is 20 per cent below 2008 levels, or 120 l/h/d	• per head	and composted NI 193 Municipal waste landfilled



Our location is an amazing natural asset and the East of England's ports are the UK's trade gateway to the world. Felixstowe South and Bathside Bay will double our deepwater port capacity and bring many new jobs, but we need sustained investment in infrastructure and skills.

Chris Lewis, Hutchison Ports



Resource Efficiency		
What will success look like?	Regional/sub-regional core indicators	National indicators for local area outcomes
Growth in the region's sustainable energy sector, with 20 per cent of electricity demand being generated from renewable sources by 2020 and the region's lead position being maintained through to 2031	Renewable energy generation Renewable energy generation capacity Total final energy consumption by type of fuel	-
Increased use of ecosystems services techniques in deriving comparative advantage in resource efficiency and climate change adaptation	Indicator to be agreed	
Skills for Productivity		
An increased percentage of graduates who view the region as a place to exploit their higher-level skills, with graduate retention rates above the UK average	Percentage of graduates staying in the region for employment after graduation	
An increased share of people gaining higher-level skills, through increased participation in academic and vocational education and training at level 4 and above	Enrolment rates at higher education institutions	
A culture of learning embedded from an early age, with an increased number of young people participating in post-compulsory education and training	19 year-olds with NVQ3 or equivalent qualifications	NI 80 Achievement of a level 3 qualification by the age of 19 NI 81 Inequality gap in the achievement of a level 3 qualification by the age of 19
Increase in qualification attainment, with:  • over 40 per cent of adults qualified to at least level 4  • 68 per cent of adults qualified to at least level 3  • over 90 per cent of adults qualified to at least level 2 consistent with Leitch targets	Percentage of adults qualified to at least level 4, at least level 3 and at least level 2	NI 163 Working-age population qualified to at least level 2 NI 164 Working-age population qualified to at least level 3 NI 165 Working-age population qualified to at least level 4
Development and use of economically valuable skills, leading to a reduction in skills gaps and shortages	Percentage of employers with skills shortage related vacancies Percentage of staff reported as having skills gaps	NI 174 Skills gaps in the current workforce reported by employers
Improved productivity resulting from an increase in work-related learning	Percentage of adults participating in job-related training Percentage of employers funding/arranging training for staff	-

NA/L	Desired to the second	National indicators for
What will success look like?	Regional/sub-regional core indicators	local area outcomes
Economic activity rates for disadvantaged communities that are higher than in 2008 and closer to the regional average	Key benefit claimants (Jobseeker's Allowance, Incapacity Benefit, Severe Disablement Allowance, Disability Living Allowance and Income Support)  Percentage of 16 and 17 year-olds not in employment, education or training (NEET)  Economic inactivity rates (breakdown by gender, ethnic group, reason for inactivity)	NI 117 16 to 18 year-olds who ar not in education, employment or training  NI 152 Working-age people on out-of-work benefits  NI 153 Working-age people claiming out of work benefits in the worst performing neighbourhoods  NI 173 People falling out of work and on to incapacity benefits
A regional employment rate of 70 per cent for residents aged 16–74 and 80 per cent for working-age residents by 2031	Employment rates:  • 16-74 year olds  • working-age population. (breakdown by gender)	NI 151 Overall employment rate
A reduction in income inequality for those in work, with a rise in lower quartile earnings to 60 per cent of average earnings by 2031	Residence-based average earnings and lower-quartile earnings	
95 per cent of adults with functional iteracy and numeracy (basic skills) by 2020 and maintained to 2031	Learners achieving level 1 literacy and entry level 3 numeracy qualifications	NI 161 Learners achieving a level 1 qualification in literacy 162 Learners achieving an entry level 3 qualification in numeracy
Fewer inequalities in skills attainment and health between disadvantaged communities and the regional average	Percentage of adults qualified to at least level 2 within the most deprived local authority areas Inequalities in life expectancy between the most deprived and least deprived fifth of areas	NI 163 working-age population qualified to at least level 2
Business start-up rates in disadvantaged communities that are nigher than in 2008 and closer to the regional average	Business start-up rates within the most deprived local authority areas Social entrepreneurial rate	NI 171 VAT registration rate
Transport		
A reduction in the cost of congestion n the region (baseline to be established by the TEES Study)	Journey time delay/average speed on strategic network	NI 167 Congestion – average journey time per mile during the morning peak
A free-flowing transport system with mproved journey times and ncreasing journey time reliability	Increased reliability on the major highways network Increased reliability on the rail network – percentage of trains delayed in the region	NI 178 Bus services running on time
Flourishing transport gateways that are exemplars of sustainable economic development, served by reliable and effective multi-modal surface access	Number and percentage of journeys by mode of travel, including percentage of journeys under two miles shifting from car to other modes Modal shift of surface access to airports from unsustainable to sustainable modes Increase in sustainable freight movements (freight carried by rail)  Public transport (bus and light rail journeys per annum)	NI 175 Access to services and facilities by public transport, walking and cycling NI 176 working-age people with access to employment by public transport (and other specified modes) NI 177 Local bus passenger journeys originating in the authority area

What will success look like?	Regional/sub-regional core indicators	National indicators for local area outcomes
Parity in transport investment with leading international competitor regions	Public and private investment in transport	
Greater direct and wider economic benefits realised from an increase in public and private investment in transport priorities	Average cost benefit ratio of transport investment approved over the RES period Average time taken to travel to work	
A leading region for embedding technology in the transport system to increase efficiency and reduce environmental impact	Increase in number of routes covered by ITS/UTMC, etc	
Stabilising and then progressively reducing the carbon emissions resulting from transport by increasing the use of public transport	Transport carbon emissions	
Spatial Economy		
A better balance between housing and employment opportunities contributing to effective and affordable places	Housing affordability (ratio of lower-quartile house prices to lower-quartile household earnings)  Net affordable housing completions  Net housing completions and projected completions compared to regional housing targets  Change in housing stock  Jobs to housing growth ratio  Net change in jobs, workplace population and employed residents	NI 154 Net additional homes provided NI 155 Number of affordable homes delivered (gross) NI 159 Supply of ready to develop housing sites
Increased business investment in the identified engines of growth	Indicator to be agreed	
Enhanced profile for the region through its places, natural heritage and cultural assets	Biodiversity/heritage/landscape indicators to be agreed xxxiii  Visitor numbers to regional attractions  Rate of change in regional tourism spend	NI 5 Overall/general satisfaction with local area NI 188 Adapting to climate change NI 197 Improved local biodiversit – active management of local site
Reinforced roles for our market towns as sub-regional centres	RES indicators will be provided at local level where possible to monitor progress against this priority  Amount of completed retail, office and leisure development in town centres  Use of public libraries, galleries and museums	NI 9 Use of public libraries NI 10 Visits to museums and galleries
Sustain the vitality of rural areas	RES indicators will be provided at local level where possible to monitor progress against this priority	
Renaissance of our coastal towns	RES indicators will be provided at local level where possible to monitor progress against this priority	



How do we get there? Monitoring

### **Contextual indicators**

As well as these core indicators, a set of contextual indicators will be monitored to provide a full picture of broad trends in the economy, labour market, society and environment and to evaluate progress towards the underlying principles.

# Performance reporting

The progress of implementation of the regional economic strategy (RES) will be reported at regular intervals:

- targets will be measured annually and core indicators will be measured twice a year and published on the East of England Observatory website
- progress against RES outcomes and latest regional development evidence and insight will be presented through an annual 'State of the Region' report
- an East of England Implementation Plan progress report on actions and milestones will be published annually, based on quarterly reporting
- economic and environment-economy modelling updates will be managed by the regional intelligence centre and published online.

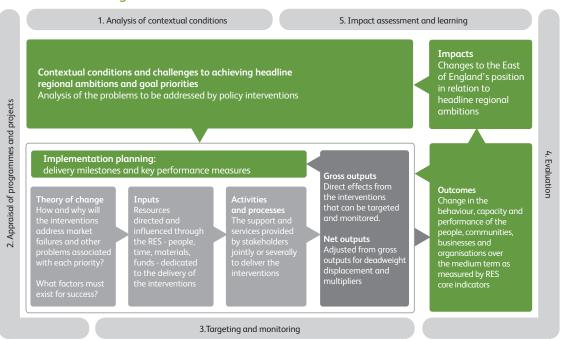
### **Evaluation**

The RES has been informed by extensive evidence work, drawing on regional, local and national research, policy and assessments. However, we need to refresh constantly the evidence base for the RES and evaluate programmes and actions agreed through the East of England Implementation Plan. Evaluation is important to:

- understand and demonstrate the impact of programmes and projects
- improve decision-making, effectiveness and value for money
- celebrate success.

The East of England Implementation Plan and supporting sub-regional delivery plans are intended to be 'living' documents, kept fresh through a cycle of monitoring, reporting, evaluation and business planning. The diagram at Figure 16 outlines a 'logic chain' for ensuring activities are optimally positioned to deliver the RES vision. \*\*EXX.\*\*

Figure 16 Logic chain





# Appendices

5.1	Underlying principles	140
5.2	Key terms	145
5.3	Acronyms	151
5.4	List of stakeholders involved in the process	153



# 5.1 Underlying principles

	Enterprise – Underlying principles	
Sustainable development	Issues/actions	
Living within environmental limits	Business support services offer mainstream advice and direct businesses to appropriate environmental management support, enabling them to respond effectively to regulation and market expectations, to help reduce running costs and energy use, and to work towards reducing their carbon and ecological footprints. The priorities of this goal, as well as the Resource Efficiency goal, support environmental technology and science sector start-ups and growth.	
Ensuring a strong, healthy and just society	The Enterprise goal addresses shortfalls in access to, or lack of awareness of, business support services for marginalised groups. This goal also promotes the wider participation of all groups in enterprise and acknowledges the benefits that different cultures, ideas and experiences have for job creation and productivity growth. This goal, and the Economic Participation goal, recognise the responsibility of the region's businesses to tackle discrimination in the workplace on such grounds as gender, age, disability, ethnicity, faith or sexual orientation.	
	Innovation – Underlying principles	
Sustainable development	Issues/actions	
Living within environmental limits	Innovation in new technologies, products and processes can contribute to minimising the impact of economic growth on both the natural and historic environments. Innovation can improve our ability to detect and measure change in the environment, devise solutions to environmental problems and increase the efficiency with which we use scarce resources such as water. The goal of achieving sustainable development is an opportunity for businesses innovating in the diverse field of environmentally friendly technologies. This could include renewable energy, transport and transport management systems.	
Ensuring a strong, healthy and just society	Innovation, and particularly the emerging field of social innovation, is about developing new ideas to tackle social problems or meet social needs. This can include a new product, service, initiative, organisational model or approach to the delivery of public services. A number of the greatest challenges facing the region such as demographic change and the aging population, addressing the income and employment of disadvantaged groups, tackling poor health and developing sustainable communities are resistant to conventional approaches. The priorities of the regional economic strategy (RES) will contribute to developing innovative practice, creativity and skills, networking within and between sectors to solve problems, financing innovation for social purposes and developing world-leading expertise in areas such as healthcare. Building third-sector capacity will also allow innovations from the voluntary and community groups and social enterprises to be harnessed to improve and complement mainstream public service.	

	Digital Economy – Underlying principles
Sustainable development	Issues/actions
Living within environmental limits	ICT and digital technologies will increasingly be key elements in creating a resource-efficient and low-carbon economy. This can include reducing the need to travel, enabling better use of the transport system and relieving congestion, making more efficient use of physical spaces, and managing supply and value chains more effectively, understanding and managing changes in climate and habitats.
Ensuring a strong, healthy and just society	Teleworking can help overcome local labour shortages and enable disadvantaged groups, in particular disabled people, or those who, for other reasons, including caring responsibilities, would benefit from home working.
	The region must ensure, as far as possible, that no communities within the region are 'digitally excluded'. This may include disadvantaged people, such as those on low incomes, the unemployed, those in rural areas with limited access to amenities and migrant workers who may have more difficulty accessing new technologies. Improved ICT skills can help the unemployed get back into work, and ICT skills are also important for older workers who, increasingly, will need to remain in employment for longer.
	The region must ensure that all sectors can benefit from ICT developments. The use of ICT in the voluntary and community sector is low compared to other sectors, but it is a key enabler. Specifically, ICT can underpin the long-term sustainability of organisations in the sector through the efficient use of resources, improved management of, and access to, information and in supporting communication.
	Resource Efficiency – Underlying principles
Sustainable development	Issues/actions
Living within environmental limits	Creating a resource-efficient economy and growing the region's environmental goods and services sector will move the East of England economy towards a more resource-efficient model and help achieve headline climate change mitigation and resource-use targets.
	The priorities of this goal contribute to moving the region towards living within its own environmental limits; to reduce resource-use and promote the efficiency of their use. The RES includes ambitious targets to reduce carbon emissions and water usage, to promote recycling and cut down on waste. The strategy recognises that the biggest challenge to address is that of climate change and the economic cost of not taking action will be greater than that of immediate and significant investment now.
Ensuring a strong, healthy and just society	By supporting the diversification and renewal of industries such as energy, which are undergoing major transformation, it is likely to reduce the costs of economic downturn in some industries. The scale of growth in the sector will also increase demand for labour, often in places with weak labour markets. There are also some benefits from encouraging and enabling behaviour change, from the taxing of carbon to the designing of communities that encourage walking and cycling, thereby delivering health benefits.

	Skills for Productivity – Underlying principles	
Sustainable development	Issues/actions	
Living within environmental limits	The Skills for Productivity goal recognises that skills provision needs to respond and adapt to the needs of the economy. Skills development enables the region's businesses to respond to environmental regulations and gain a greater understanding of how their business practices impact on the environment. It is an enabler for promoting resource efficiency and reducing carbon emissions and energy use. As the region develops and supports the use of renewable energy sources, the region's businesses will need to respond to demands for different skill sets as consumers demand enhanced efficiency measures in new developments and communities, as well as adaptations to current offices and homes to save energy and water. To support the Resource Efficiency and Places goals, construction and planning skills will need to adapt to environmental legislation.	
Ensuring a strong, healthy and just society	Raising skills levels is strongly linked to improved employability, career progression and health, which contribute to ensuring a strong, healthy and just society. Particula disadvantaged groups are more likely to have low skills and are therefore more likely to be at risk from poverty. Demographic change in the East of England has led to an increasing supply of older workers who are more likely to need to update their skills but are least likely to participate in training. Those with higher levels of skills are more likely to be employed and develop social networks, which have a positive impact on health. The Skills and Economic Participation goals recognise the under-utilisation of skilled migrant workers. Migrant workers may be discriminated against or their qualifications not recognised in this country, which impacts on their pay.  The RES includes a headline target around reducing income inequalities. The structural change of the economy towards higher-skilled employment has been a major factor in the divergence of incomes in recent years and promoting a progression in skills levels will help to address this.	
	Economic Participation – Underlying principles	
Sustainable development	Issues/actions	
Living within environmental limits	Providing employment opportunities in areas suffering from deprivation, together with actions identified in the Skills, Transport and Places goals should improve accessibility for local communities and reduce their need to travel, reducing carbon emissions.	
Ensuring a strong, healthy and just society	The Economic Participation goal focuses on enabling wider sections of the community to access education, training and employment, as well as tackling unemployment and ensuring that those who are socially excluded have the support they need to become economically active. The Economic Participation goal includes as a priority employers valuing a flexible, diverse and healthy workforce. This priority recognises that, in the context of a tight labour market, it is important to promote the full economic participation of all sections of the potential workforce and to use the talents of all. This includes responding to developments such as the aging population, increasing participation rates among females and an increasing number of people who balance care and work responsibilities.  This goal also recognises that employers who invest in creating healthier jobs and working environments benefit from a more productive workforce.	

	Transport – Underlying principles
Sustainable development	Issues/actions
Living within environmental limits	Some of the larger transport infrastructure developments planned for the region, such as airport expansion, are likely to have negative environmental impacts. Decisions on such infrastructure plans are taken by national government; the regional economic strategy aims to ensure that, under all possible scenarios, the economic benefits from the transport system are maximised while mitigating actions to minimise environmental damage are put into place.
	The Transport goal addresses long-term sustainability issues by aiming to increase the share of journeys across all modes that pay the full environmental costs that they impose. This includes working to develop criteria that identify the environmental costs of new transport schemes and looking at how these costs can be incorporated into pricing.
	The priorities within this goal aim to encourage behavioural change in our travelling patterns and modal shift. Priorities under other goals, such as encouraging home-working and supporting mixed-use development to minimise the need to travel are important mitigating actions to minimise growth in carbon emissions by encouraging people to rely less on the car.
	The regional economic strategy recognises the need to increase the proportion of trips made by public transport, particularly rail, as well as increasing the proportion of freight carried by rail. The implementation priorities under this goal support these objectives.
Ensuring a strong, healthy and just society	Improving the effectiveness of the transport system contributes to reducing inequalities. There is a clear link between social exclusion, transport and the location of services, with many jobseekers citing the lack of transport as a barrier to work. Around half of 16-18 year-olds experience difficulties with transport costs in accessing learning, with some turning down educational opportunities because of transport problems. Transport is also important for accessing healthcare and supermarkets/food outlets. The negative effects of road traffic (accidents, pollution, noise) disproportionately affect socially excluded communities.

#### Spatial Economy – Underlying principles

#### Sustainable development

#### Issues/actions

Living within environmental limits

Climate change is likely to have a profound impact on the region's places. The Spatial Economy goal aims to address this through a range of actions that either mitigate against the effects or help us adapt to unavoidable climate change. For this goal, mitigating actions include the incorporation of energy generation into buildings and integrating energy efficiency measures into planning and business design. Adaptation measures include the incorporation of water efficiency measures in new employment and housing builds and attention to flood defences where appropriate. Addressing climate change through both adaptation and mitigation will help to ensure we develop communities that are within the environmental limits of this region and help to reduce the global footprint of the UK.

The Spatial Economy goal recognises the region's key environmental, historic and heritage assets in planning for growth. Key environmental assets and the services they provide include:

- our rivers that provide both water resources and for disposal of our waste water
- our wetland habitats that can act as flood protection areas and as a pollution control system
- our coastal systems that act as flood protection areas
- our land that accommodates housing and businesses, disposal of waste, extraction of minerals and crop and livestock production.

The assets of our natural and historic environment provide social and economic benefits in their own right. To live within our environmental limits, the implementation priorities of this goal therefore include maintaining and enhancing these assets through sustainable economic growth. Many small, local environmental sites are cumulatively important and allow the countryside and green spaces to be valued for their contribution to the well-being of the region.

The Spatial Economy goal also recognises the advantages of promoting mixed-use development in order to reduce the need for travel. While much of the development will be centred on urban centres, this goal calls for consideration to also be given to rural communities, which can also benefit from, and contribute to, the growth agenda.

## Ensuring a strong, healthy and just society

The Spatial Economy goal emphasises that a balanced approach to the provision of homes and jobs is needed to support economic growth and regeneration. Providing sufficient high-quality, affordable and accessible homes in the right locations will support the wider objectives of economic participation and reducing inequalities.

This goal highlights the need for future rounds of spatial planning to consider how housing provision can be reviewed beyond 2021 to address demographic, affordability and economic demands, including the further potential of existing key centres for development and change and small or major eco-towns and new settlements.

## 5.2 Key terms

#### agglomeration

the geographical concentration of economic activity. This can create competitive benefits from shared labour markets, specialist suppliers and the flow of new and innovative ideas

#### basic skills

defined by the Basic Skills Agency as 'the ability to read, write and speak in English, and to use mathematics at a level necessary to function at work and in society in general'

#### biofuel

biofuel defined broadly is solid, liquid, or gas fuel consisting of, or derived from, biomass. Biofuel is considered an important means of reducing greenhouse gas emissions and increasing energy security by providing a viable alternative to fossil fuels.

#### biomass

biomass is recently living organisms or their metabolic byproducts – such as cow dung. It is a renewable energy source based on the carbon cycle, unlike other natural resources such as petroleum, coal and nuclear fuels

#### brownfield land

land that has been previously developed

#### climate change adaptation

measures to adapt to the future impacts of changing weather associated with climate change, eg flood defences

#### climate change mitigation

measures to reduce the rate at which greenhouse gasses are emitted into the atmosphere, thereby reducing the effects of climate change

#### demand management

the management of the distribution of, and access to, goods and services on the basis of needs. In the Transport goal, demand management refers to the application of plans and policies to change or reduce the demand for car use by encouraging the behavioural change of household choices of travel. It is sometimes referred to as transportation demand management

#### economically active

those in employment or actively seeking employment and physically capable of taking up a job in the near future

#### economically inactive

those not in employment who are not actively seeking employment or are physically incapable of taking up a job in the near future

#### ecosystems services

the benefits people derive from ecosystems. Examples include protection from the sun's ultraviolet rays, waste absorption and breakdown, water filtration, flood and disease control, nutrient cycling and maintenance and regeneration of habitat

#### employment land review

reviews undertaken by planning authorities to assess the demand for, and supply of, land for employment

#### environmental goods and services

goods and services to manage and protect our natural resources. Examples include remediation and reclamation of land; renewable energy; waste management, recovery and recycling; and water supply and wastewater treatment

#### foreign direct investment

direct investments in productive assets by a company incorporated in a foreign country, as opposed to investments in shares of local companies by foreign entities. This is also termed inward investment. This could include new projects, expansions of existing projects, or mergers and acquisitions activity

#### functional urban area

an economic geography comprising an urban core and fringe areas that are connected through patterns of housing, work, education, supply chains and use of services. They are 'real' economic geographies in that they are not confined to, or defined by, administrative boundaries

#### further education

post-secondary education from basic training to higher national diploma or foundation degree. A small proportion of higher education is taught in further education colleges

#### global value chain

the globalisation of value chains – the process of producing goods, from raw materials to the finished product – with each stage of the 'chain' being undertaken in the most competitive locations

#### globalisation

the increasing economic integration of the world in terms of trade, investment and labour

#### green infrastructure

green spaces and landscapes within and around built developments considered as an integral part of the design and development process

#### gross value added

a measure of the economy's output based on the value of the goods and services produced by the economy minus the cost of the raw materials and other inputs used to produce them

#### higher education

education encompassing diplomas of higher education (DipHEs), bachelor degrees, master degrees, MBAs and PhDs

#### **Integrated Development Programme**

an investment planning tool that will enable partners (neighbouring and higher tier authorities, regional agencies and local stakeholders) to plan and manage social, economic and environmental growth holistically and sustainably based on a phased single investment delivery plan

#### international transport gateway

a pivotal point for the movement of people and merchandise into, from and within the region and UK, often connecting different modes of transport

#### inward investment

investment in this country by multinational enterprises, also termed foreign direct investment

#### key centres for development and change

21 urban areas – named within the East of England Plan – where new development will be concentrated to make the most of existing infrastructure and the potential for improvements or extensions to that infrastructure

#### knowledge economy

part of the economy which is driven more by knowledge and technology than by the traditional factors of capital and labour

#### labour force

refers to people who are offering themselves for work, that is those who are currently employed or self-employed, plus the (International Labour Office) unemployed

#### **Leitch Review**

the Leitch Review of Skills, Prosperity for all in the global economy — world-class skills — published in December 2006 — shows that the UK must urgently raise achievements at all levels of skills and recommends that the UK commits to becoming a world leader in skills by 2020, benchmarked against the upper quartile of the Organisation for Economic Co-operation and Development. This means doubling attainment at most levels of skill. Responsibility for achieving ambitions must be shared between central government, employers and individuals

#### **Local Area Agreements**

Local Area Agreements (LAAs) are three-year agreements that set out the priorities for a local area as agreed between central government (represented by Government Office) and local areas (represented by local authorities, local strategic partnerships (LSPs) and other key partners at local level)

#### local development framework

a suite of documents prepared by local authorities, which includes the policies, proposals and other documents about land use and spatial planning in a local area

#### lower-quartile earnings

the level at which the bottom 25 per cent of all earnings are at, or below

#### market failure

market failure describes situations in which free-market outcomes lead to an inefficient allocation of resources, providing a rationale for government intervention. These include where buyers/sellers have imperfect information with which to make decisions; where the actions of individuals or firms affect others, but where these costs or benefits are not reflected in the price of the good or service; where public goods are required, which cannot be charged for; or where one or a few buyers or sellers have sufficient market power to influence prices

#### masterplan

a master plan is essentially a plan for a large area, such as a town centre, which establishes a development framework for infrastructure, buildings and public realm and presents how town centres might look in the future

#### microgeneration

microgeneration is the generation of zero or low-carbon heat and power by individuals, small businesses and communities to meet their own needs

#### Multi Area Agreements

designed to facilitate greater cross-boundary collaboration on key economic issues in towns, cities and other areas. Essentially cross-boundary Local Area Agreements, these are voluntary agreements between groups of local authorities on shared targets drawn from existing strategies and the national indicator set

#### next-generation broadband

broadband access which is at least ten times faster than the average download speed of broadband connections in the UK today and which offers more symmetric bandwidth – where the bandwidth for uploads is more equal to the bandwidth for downloads. Some forms of next generation access also offer a guaranteed bandwidth that is not shared with others, meaning a more stable service at peak times

#### onshore and offshore wind

wind power is the conversion of wind energy into more useful forms, usually electricity, using wind turbines. Onshore turbine installations in hilly or mountainous regions tend to be on ridgelines generally three kilometres or more inland from the nearest shoreline. Offshore wind development zones are generally considered to be ten kilometres or more from land

#### open innovation

sharing and use of new and existing ideas, research, processes and technologies

#### productivity

the measure of output per employee per period of time, either per year or per hour worked

#### qualifications

NVQ equivalents are used to classify qualifications. NVQ levels 4 and above are usually referred to as 'higher-level' qualifications and equate to first degree and higher degree/professional qualifications. NVQ level 3 qualifications are usually referred to as 'intermediate' qualifications and equate to two A-levels. NVQ levels 2 and below are referred to as 'lower-level' qualifications with NVQ level 2 equating to five GCSEs at grades A\* to C

#### regional development agencies

the nine government agencies set up in 1999 to coordinate regional economic development and regeneration, enable the nine English regions to improve their relative competitiveness and reduce imbalances existing between regions

#### Regional Funding Advice

public funding allocations based on advice from each English region on their spending priorities for transport, housing and economic development

#### regional spatial strategy

strategy of development plans, which focuses on the planning system at a regional and local level

#### renewable energy

renewable energy flows involve natural phenomena such as sunlight, wind, tides and geothermal heat, as the International Energy Agency explains: 'Renewable energy is derived from natural processes that are replenished constantly. In its various forms, it derives directly from the sun, or from heat generated deep within the earth. Included in the definition are electricity and heat generated from solar, wind, ocean, hydropower, biomass, geothermal resources, and biofuels and hydrogen derived from renewable resources'

#### resource productivity

a measure of the efficiency with which an economy uses energy and materials

#### retrofitting

improving the environmental efficiency of existing housing through the addition of new features and technologies

#### skills gap

where existing workers are not fully proficient at their job

#### skills shortage

where employers experience difficulties in recruiting to specific posts due to a lack of applicants with the necessary skills, work experience or qualifications

#### social enterprise

businesses with primarily social objectives whose surpluses are principally re-invested for that purpose in the business or in the community

#### social exclusion

the Social Exclusion Unit describes social exclusion as a 'shorthand term for what can happen when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime environments, bad health, and family breakdowns'

Sub-national Review of Economic Development and Regeneration the Sub-national Economic Review of Economic Development and Regeneration (SNR) published in July 2007 outlines the government's plans to refocus both powers and responsibilities below the national level to encourage economic growth in regions, cities and localities and tackle persistent pockets of deprivation

#### Sustainable Communities Plan

the plan sets out a long-term programme of action for delivering sustainable communities in both rural and urban areas. It aims to tackle housing supply issues in the South East, low demand in other parts of the country, to bring all social housing up to the Decent Homes standard by 2010, to protect the countryside and improve the quality of our public space. The plan was launched in 2003 by the Office of the Deputy Prime Minister

#### sustainable development

defined by the World Commission on Environment and Development as 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs'

#### venture capital investment

unsecured funding provided by specialist firms to start-up firms and small businesses with perceived, long-term growth potential, in return for a proportion of the company's shares

#### worklessness

those who are out of work. Worklessness goes further than those who are unemployed and includes those who are 'economically inactive'. Many are outside the labour market voluntarily because of family responsibilities or early retirement. But the evidence suggests that many others would want a job and would work if they had the right opportunity, incentive or path back into employment

### 5.3 Acronyms

**BERD** Business enterprise, research and development

**BERR** Department for Business, Enterprise and

Regulatory Reform

**BSSP** Business Support Simplification Programme

**CBI** Confederation of British Industry

**CLG** Department for Communities and Local Government

**CO**<sub>2</sub> carbon dioxide

**CRed** Carbon Reduction project

**DEFRA** Department for Environment, Food and Rural Affairs

**DTi** Department for Trade and Industry

(replaced by the new Department

for Business, Enterprise and Regulatory Reform)

EEDA East of England Development Agency
EERA East of England Regional Assembly

EU European Union

**FDI** foreign direct investment

**GCSE** general certificate of secondary education

**GDP** gross domestic product

GO-East Government Office for the East of England

GVA gross value added HFCs hydrofluorocarbons

**ICT** information and communications technologies

ISA integrated sustainability assessmentISF Integrated Sustainability Framework

IT information technology

LDA London Development Agency
LSC Learning and Skills Council

MAA Multi Area AgreementMP Member of Parliament

MIT Massachusetts Institute of Technology

MKSM Milton Keynes South Midlands

MW mega-watt

NHS National Health Service
NRP Norwich Research Park

N<sub>2</sub>0 nitrous oxide

Appendices
Acronyms

**NVQ** national vocational qualification

**O2C** Oxford2Cambridge Arc

**OECD** Organisation for Economic Co-operation and Development

ONS Office of National Statistics
PSA Public Service Agreement
R&D research and development
RDA Regional Development Agency

REEIO Regional Economy Environment Input Output model
REP PSA Regional Economic Performance Public Service Agreement

RES regional economic strategy
RFA Regional Funding Advice
RSS regional spatial strategy
RTS regional transport strategy
SA sustainability appraisal

SEA strategic environmental assessmentSEEDA South East England Development Agency

**SNR** Sub-national Review of Economic Development and Regeneration

**TGSE** Thames Gateway South Essex

**UKTI** UK Trade & Investment

Appendices List of stakeholders involved in the process

## 5.4 List of stakeholders involved in the process

Organisations and partnerships that participated in regional economic strategy review process.

1st East

Advice Alliance East

Advice For Life

Advisory Conciliation Arbitration

Service

Age Concern Eastern Region

Agricultural Development in the

Eastern Region

Aker Kvaerner Offshore Partner

Alphabetic Itd

Ambrook Associates

Amdeo

Anglia Care Trust

Anglia Ruskin University

Anglian Water Archant Ltd

Arts Council England, East Ashridge Business School

Associated British Ports

Associated Disabled Professionals

Association of Colleges in the Eastern

Region

Association of Universities in the East

of England Auriplex Itd Azura Group Ltd

**BAA Stansted Ltd** 

Babergh District Council

Barton Willmoore on behalf of

Ashfield Land

Basildon District Council Bedford Borough Council

**Bedford Commuters Association** 

(Rail User Group)

**Bedford Credit Union** 

Bedfordshire & Luton Economic Development Partnership Ltd

**Bedfordshire County Council** 

Bedfordshire Rural Affairs Forum

Bedfordshire Rural Communities

Charity

Bidwells

Big Lottery Fund Birketts LLP Solicitors Borough Council of King's Lynn & West

Norfolk

Borough of Broxbourne Braintree District Council

**Breckland Council** 

**British Marine Federation** 

**Broads Authority** 

BT

Business Link East

Business Links Small Business Service

Cambridge City Council
Cambridge Management

Development

Cambridge Network Ltd
Cambridge Regional College
Cambridge University Hospitals

(Addenbrooke's)

Cambridgeshire Chamber of

Commerce

Cambridgeshire Community

Foundation

Cambridgeshire County Council

Cambridgeshire Horizons

Campaign to Protect Rural England

Camping in Tuscany

Care Services Improvement

Partnership

Castle Point Borough Council

Centre for Sustainable Engineering Centre for Sustainable Technologies

Chamber of Commerce for Bedfordshire and Luton

Chelmsford Borough Council China-Britain Business Council City & Guilds Eastern Region

Colchester 2020

Colchester Borough Council

Climate Change Partnership

Colchester Institute

Commission for Architecture and the

**Built Environment** 

Community Action Decorum

Community and Voluntary Forum

Eastern Region

Confederation of British Industry

Appendices List of stakeholders involved in the process Consumer Council for Water

Core Education UK Cornelius Group Plc

Council for the Protection of Rural

England

Country Land & Business Association

Countryside Properties Plc Cranfield University Creative & Cultural Skills

**CRed** 

Cross Keys Homes Ltd Dacorum Borough Council David Ball Group PLC David Lock Associates

Department for Business, Enterprise and Regulatory Reform

Department for Communities and Local Government

Department for the Environment, Food and Rural Affairs

Department for Transport

Development Trusts Association

Deyton Bell Digital Partnership Disability Essex

East Anglia Air Ambulance

East Cambridgeshire District Council East Hertfordshire District Council East of England Association of Civil Trust Societies

East of England Association of Parish & Town Councils

East of England Business Group

East of England Development Agency

East of England Energy Group
East of England Environment Forum

East of England Faiths Council

East of England Innovation Relay Centre

East of England International Ltd

East of England Multimedia Alliance East of England Public Health Group

East of England Regional Assembly

East of England Rural Forum

East of England Skills and Competitiveness Partnership

East of England Strategic Health Authority

East of England Tourism

Easton College

Engineering Employers' Federation

English Heritage English Partnerships Environment Agency

Envirowise

**Epping Forest District Council** 

ERBI e-skills UK

Essex & Suffolk Water

Essex Association of Local Councils

Essex Business Consortium Essex Chamber of Commerce

**Essex County Council** 

Essex Development and Regeneration

Agency

Essex Rural Partnership

Ethnic Minority Business Group

Exemplas Ltd

Federation of Small Businesses

Felixstowe Radio CIC Fenland District Council Flourishing People Ltd Forest Heath District Council

Forestry Commission Fraser Offshore Itd

Freight Transport Association

Friends of the Earth

Future East

Gallagher Longstanton Ltd

GeoSuffolk

Government Office for the East of

England GradsEast

Great Yarmouth Borough Council Greater Cambridge Partnership Greater Essex Prosperity Forum

Greater Peterborough Partnership

Groundwork East of England Halcrow Group Limited Harlow District Council Harlow Local Delivery Vehicle

Harlow Renaissance

Haven Gateway Partnership

Heritage Economics & Regeneration Trust

Heritage Lottery Fund

Hertfordshire Business Incubation Centre

Hertfordshire Community Foundation

Hertfordshire Connexions Hertfordshire County Council Hertfordshire Prosperity Ltd Hertsmere Borough Council

Higher Education Funding Council for England

Highways Agency HM Treasury Home Office

Houghton Regis Development

Consortium

Appendices List of stakeholders involved in the process Huntingdonshire District Council Hutchison Ports (UK) Ltd

Imperial War Museum

Improve Ltd Sector Skills Council

incredit Ltd Indigo Foundation Inspire East

Institute of Chartered Accountants in

England and Wales Institute of Directors

Institution of Civil Engineers

Instrata

InterBusiness Group Ltd

Ipsenta

Ipswich Borough Council
ISL Planning Service Ltd
Ixion Holdings Ltd
Jobcentre Plus
John Doyle Group
Land Securities
Landamores

Lantra Sector Skills Council

Lean transport

Learning & Skills Council

Library House

Lifelong Learning UK

Link Ed Living East

London Development Agency London Luton Airport Operations Ltd

London Southend Airport Company Lowestoft & Waveney Chamber of

Commerce Lowestoft College Luton Borough Council

Luton Minority Business Forum

Malczyk Associates Ltd Market Towns East Maylands Partnership

Mentfor CIC

Mid Bedfordshire District Council Migrant Workers Steering Group

Mills & Reeve

Minority Ethnic Network Eastern Region

Mistley Quay & Forwarding

MOVE – Lifelong Learning Network

Museum of Power

Museums Libraries & Archives East

of England

Nathaniel Lichfield and Partners

National Audit Office National Farmers' Union National Housing Federation National Industrial Symbiosis Programme National Institute of Adult Continuing

Education

National Travelers Action Group

Natural England

Norfolk Chamber of Commerce Norfolk Coast Partnership

Norfolk Country Strategic Partnership

Norfolk County Council

Norfolk Investing in Communities

Partnership

Norfolk Learning Partnership

Norfolk, Suffolk & Cambridge Strategic

Health Authority

North Norfolk District Council Norwich & Norfolk Racial Equality

Council

Norwich City Council

Norwich International Airport

NRP Enterprise NSO Associates LLP

Nuclear Industry Association

Nuttall John Martin NW Brown Group Ltd

OCE (UK) Ltd

Office for National Statistics

One Railway

Opportunity Peterborough Oxford 2 Cambridge Arc

Papworth Trust Pera Innovation Ltd Perenco UK

Perkins and Associates Perkins Engines Co. Ltd

Peterborough City Council

Peterborough Environment City Trust Peterborough Regional Economic

Partnership PI Consulting Pilgrims Baddow Ltd Prettys Solicitors

proskills

Prudential Assurance Company Regional Biodiversity Forum

Regional Cities East

Regional Family Carers Organisation

Network

Regional Transport Forum Renaissance Southend

Renewables East Risk Frisk Ltd

Ropemaker Properties

Royal Society for the Protection of Birds

Rural Action East

**Appendices** 

List of stakeholders involved in the process

Rural Community Council of Essex (& ERP)

Savills Screen East

Shaping Norfolk's Future

Shelter

Shoebury Residents Association

Skillfast UK Skills for Care

Skills for Care and Development

Skills for Health Skills for Justice skills for logistics SkillsActive SLP Energy

Social Enterprise East of England SolXO Ltd. Excellence in Solar

Architecture

South Bedfordshire District Council
South Cambridgeshire District Council

South Essex Chamber of Commerce

South Norfolk Council

Southend-on-Sea Borough Council Southern and Eastern Region TUC

Sport England

SQW

St Edmundsbury Borough Council St John's Innovation Centre Stevenage Borough Council Stevenage Business Initiative

Stop Harlow North

Sub-regional Group for Great Yarmouth & Lowestoft

Suffolk ACRE

Suffolk Chamber of Commerce. Suffolk Coastal District Council

Suffolk County Council

Suffolk Development Agency Ltd

Suffolk New College

SummitSkills

SurgiCall Ltd

Sustainable Development Round Table

Sustrans

Taylor Vinters Solicitors Tendring District Council

Thames Gateway South Essex

Partnership The Chamber

The Crown Estates

The Fen Line Users Association

The Guild

The Housing Corporation

The MTL Instruments Group plc

The National Trust The Pension Service The Prince's Trust

The Social Enterprise People
The Technology Partnership plc

The Wildlife Trust The Woodland Trust

Three Rivers District Council Thurrock Borough Council

Thurrock Local Strategic Partnership Thurrock Thames Gateway Urban Development Corporation

Trades Union Congress Eastern Region

Network

UK Centre for Economic & Environment Development

UK Trade & Investment

Unionlearn UNITE

University for industry
University of Bedfordshire
University of Cambridge
University of East Anglia
University of Essex

University of Hertfordshire Uttlesford District Council Warren Services Ltd Waveney District Council

Waveney Economic Partnership

Waveney TUC

Welwyn Hatfield Borough Council

Wilson, Lee and Partners

Writtle College

XL Independent Financial Advisers Ltd Young Enterprise East of England If you know anyone who needs this document in another format or language, please contact the East of England Development Agency and we will do our best to help.

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The regional economic strategy was produced by EEDA in consultation with stakeholders in the region.

