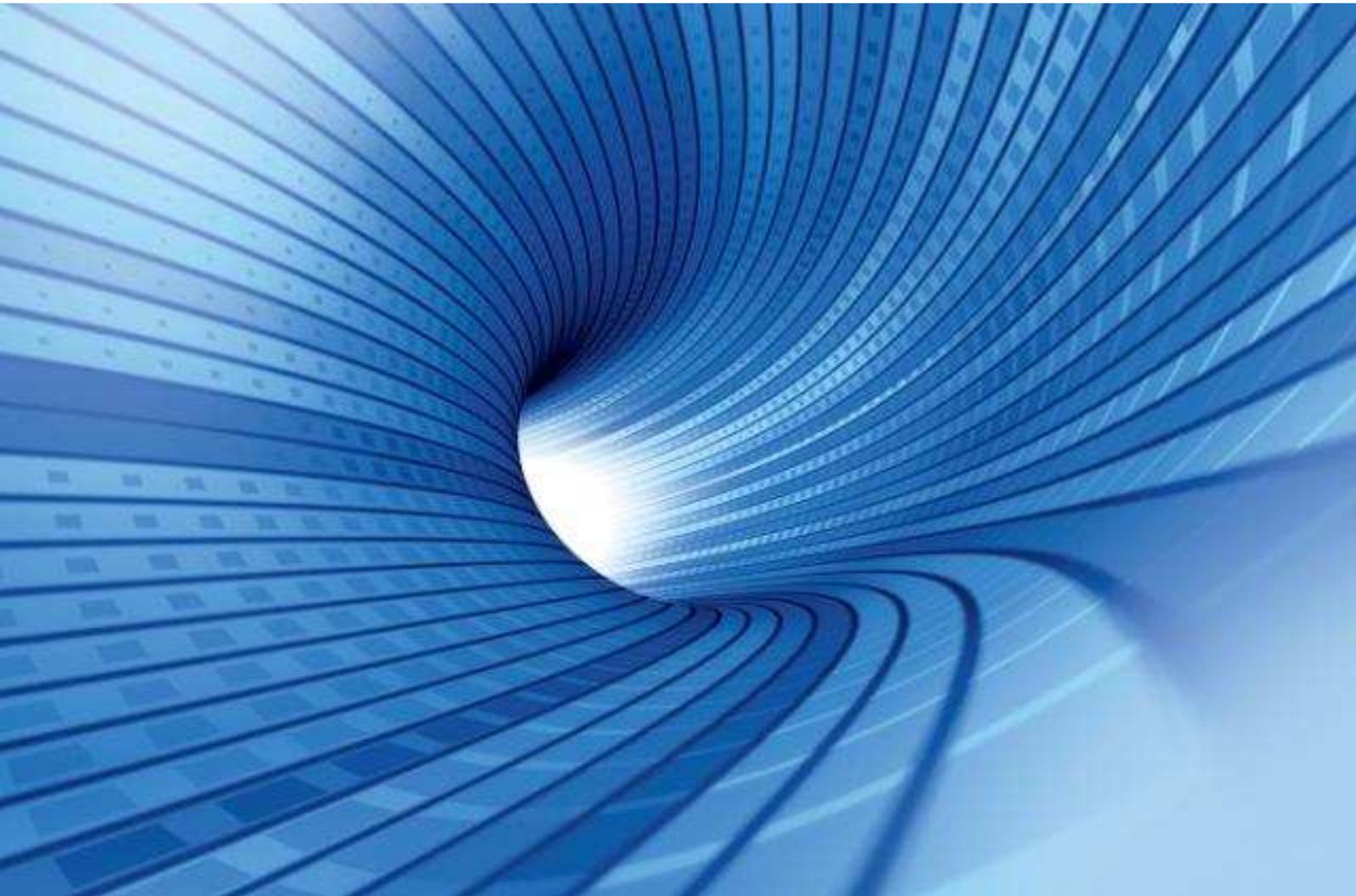


Assembling the evidence base for the Devon Local Economic Assessment

An analysis of the Social, Technological,
Environmental, Economic and Political
(STEEP) trends and drivers facing Devon

A Final Report to Devon County Council

May 2011



SQW

1: Introduction

- 1.1 This report presents a *headline* analysis of the social, technological, economic, environmental and political (STEEP) trends and drivers that are likely to shape Devon’s economy over the next 10 to 20 years. As such, it is written as a qualitative companion piece to the ‘*future economic scenario for Devon*’, which offers an econometrically modelled future for Devon and its districts.
- 1.2 In assembling the material in this summary, we have drawn on the following sources:
- SQW’s technology and market futures work for Swansea, Crewe and Greater Manchester.
 - The work of the North West Regional Economic Forecasting Panel, and the observatories of the English regions.
 - SQW’s forecasts and future scenarios work for the Milton Keynes South Midlands Growth Area and the Surrey Economic Partnership
- 1.3 The remainder of this report is structured as follows
- Section 2 – Parameterising the STEEP Analysis – explains how we have compiled the STEEP assessment
 - Section 3 – The STEEP Analysis – identifies the key trends and drivers under the five STEEP headings (social, technological, economic, environmental and finally political)
 - Section 4 – Key messages – summarises the key messages emerging from the analysis.

2: Parameterising the STEEP Analysis

- 2.1 The STEEP analysis that follows has been compiled by SQW drawing on a wide range of different sources. These include:
- UK Foresight
 - wider futures work
 - regional and local strategy documentation
 - regional and local planning documentation
 - the evidence base SQW has generated in providing the analytical underpinnings to the Local Economic Assessment (LEA)
 - SQW's wider work in the South West and the UK.
- 2.2 The purpose of the analysis is not to be definitive or predictive, but to help to raise eyes towards the horizon as partners think about Devon's future. As such, the analysis is not a short term snapshot, rather, it is a forward look out 10 to 20 years as to what the opportunities and challenges are, and what they might mean. In a real sense, the purpose of the report is more to raise questions than to provide answers. In so doing, its core purpose is to encourage a longer-term view and to build awareness of the complexities and discontinuities that Devon and its constituent parts is going to face.
- 2.3 To achieve this purpose, the analysis is clearly structured around the five STEEP dimensions: social, technological, economic, environmental and political. For each dimension, we have identified a small number of the – in our view – most pertinent drivers and trends for Devon. Some of these will be important opportunities for the County, while others can be best described as 'threats'. Having identified the drivers and trends within each dimension we then conclude the discussion on each dimension with a brief assessment of the extent to which Devon can act to influence or mitigate them.

3: The STEEP Analysis

- 3.1 This section identifies the key social, technological, economic, environmental and political trends and drivers that are likely to shape Devon's economy over the next 10 to 20 years. The analysis of each STEEP dimension ends with a broad assessment of the extent to which the trends and drivers can be influenced and affected by Devon County Council.

Social

Ageing population

- Devon's ageing population – which is likely to continue to grow through both the continued in-migration of people of retirement age and the fact that people are living longer – has a number of positive and negative implications, including:
 - increasing demand for personal services (sectors that tend to be less productive) can place increased pressure on public service provision and infrastructure¹
 - increasing demand for additional housing of specific types (including assisted living)
 - under-occupancy of larger family homes, which may exacerbate labour market shortages and lead to out-migration/dampen in-migration of families. Affordability will worsen if supply does not respond appropriately to the nuances of demand and population growth
 - upskilling and motivating the marginalized will present a challenge to re-engaging older people in the workforce, this will become an even more pertinent challenge as the increasing retirement age results in an expansion of the working age population
 - caring responsibility – including pressure on unpaid carers and the voluntary sector
 - significant contributions to society (non paid) – including caring for grandchildren and partners and volunteering in local communities
 - the 'Silver Economy' opportunity – demand for services and products, leisure and financial services.

¹ This has been the experience in the United States of America where high net worth retirees in particular 'gray communities' (such as Las Vegas) look increasingly to be waited on.

A changing mode of working

- Through advances in technology, some workers are increasingly likely to work from home, travelling into work only one or two days a week – if at all. High speed ICT connectivity is, however, patchy and this type of working is only really practicable in those places where connections are fast. Many rural parts of Devon, for example, are yet to experience fast connections, although several organisations, including Devon County Council and Broadband Delivery UK (BDUK) are working with telecoms providers to push forward solutions. For Devon, with its natural beauty, lifestyle benefits and generally good transport connections (enabling easy if infrequent access to a number of large economic hubs such as London and Birmingham in the south of the County at least) changing modes of working are likely to be a particularly strong driver in the future in shaping Devon’s economy, not least in its implications for:
 - increasing self-containment and reducing out-commuting
 - increasing local participation in the labour market
 - contributing to social and environmental sustainability
 - reducing required levels of allocated employment land.

Sustainable lifestyles

- Sustainable ways of living are growing in popularity. The Transition Town movement is a good example of this, and in the UK began in Totnes. It now encompasses many other towns across Devon and the rest of the UK. Economic activity focused around the local community, renewable energy generation, sustainable transport solutions and food self-sufficiency all form elements of this. These activities often favour locations such as market towns with rural hinterlands – found in abundance in Devon (although major cities are often the most sustainable locations in terms of transportation and access to services). It is likely that this trend – particularly when combined with improved ICT connectivity and a high quality of life – will favour population growth in Devon’s more rural areas and market towns. In fact, population levels in rural parts of Devon have already increased significantly in recent years, mainly due to people relocating to these areas from elsewhere.

Social isolation

- The intrinsic physical peripherality of much of Devon, particular in the north and west, means that it can feel cut-off from sub-regional, regional and national economic hubs. This matters in terms of access to urbanised and globalised services and economies. It is a peripherality that is exacerbated in the County’s rural areas, where there are dispersed and isolated communities that suffer from a high incidence of poor access to housing and services. It is a problem that is likely to continue in the foreseeable future, in particular with an aging population and potential cuts in some public services due to the need for fiscal tightening. Whereas, improvements in broadband and increases in remote working could prove to be a double-edged sword.

The implementation of high speed broadband reduces the amount of human interaction required to access services and products, but a lack of it (as in some parts of Devon currently) increases the sense of isolation felt by rural communities if there is inequality of access.

Advances in transportation

- Improvements in both the cost-effectiveness and speed of travel by road, rail and air may enable many of Devon's residents to work (and indeed shop) further away with the result that Bristol, London and the wider South-East may become increasingly important growth poles for Devon's residents. In the last two decades there have been many improvements to the road, rail and air networks within and to destinations out of the County, including significant passenger growth and increased destinations from both Exeter and Plymouth airports and from a number of railway stations within the County. Improvements have also taken place to the County's road and rail networks. More recently, some air services have been curtailed from Plymouth Airport but Exeter Airport is planning – in the near future – for a new terminal building and for significantly increased passenger numbers, and a range of measures are planned to improve the ease of use of the strategic road network within Devon. A major caveat to these advances is however that any major oil price rise could seriously affect the viability of air and road transport in particular. This could have a disproportionate effect upon the more car dependent (generally) rural parts of Devon and upon air travel – unless viable alternatives, or serious technological efficiency gains can be found.

Second home ownership

- With improved transport and connectivity (including ICT) advances Devon becomes more accessible for weekly commuting and the levels of second-home ownership may increase. Positively this may become an increasingly important wealth generator supporting a range of local services. Negatively, this adversely impacts on housing affordability.

The retention of the brightest and best young people

- With limits on the availability of affordable housing and suitable employment opportunities, there is a risk of a continuing 'talent drain' out of the local economy, with young people migrating out of Devon to find affordable housing and suitable employment elsewhere. Once lost to an area, re-securing talented individuals is a big issue. This is likely to be of least concern in those parts of the County with the greatest employment opportunities, such as in some southern and eastern parts, although house prices are often highest in these areas (such as the South Hams). It is also a driver that is in part counteracted by the high quality of life Devon offers which can serve as an attraction for people of middle to older working age, as is shown by current migration patterns into Devon.

Physical versus virtual places

- With increased globalisation and inter-connectedness (particularly with the advance of next-generation broadband), a sense of physical place will matter much less. This has potentially significant implications for how Devon citizens view themselves and their sense of belonging in the County, as in elsewhere across the world. It also has implications for communication, with social-media becoming an ever important and effective tool. Nonetheless, this is likely to favour locations with a strong sense of identity and local distinctiveness, as with parts of Devon, as these factors become more important.

A decreasing local identity

- As Devon's residents increasingly become 'global citizens', as the distance to key markets become shorter (either virtually or through improved transport) and as the power of retail chains grows, there are real implications for the character and viability of local service provision – with some of the mid-sized centres most likely to feel the squeeze. However, in those parts of Devon that have an existing distinctive culture – and in some ways a strong counter culture – an element of resistance and provision of alternative services is possible, for example through the Transition Towns movement.

The importance of brands and lifestyle factors

- Brands – and what they say about people and their values – are becoming increasingly important, and relate directly to the aspirations of particular market segments. For example a Devon resident may wish to see themselves as a non-conformist individual, a city dweller, a surfer or as a country oriented outdoor types and this will influence many of their choices and decisions. These life-style factors are particularly important in markets such as clothes and fashion and food and drink.

Smaller family units

- There is a trend – apparent across much of the UK – towards smaller 'family units'. This change has particular implications for the scale and type of housing demand and may further exacerbate the issue of housing affordability.

3.2 For many of these drivers and trends, Devon County Council's ability to influence and shape them is limited – for instance there is little the County Council can do to stop the ageing population or to prevent the emergence of alternative lifestyles. Many of these social trends will be driven by factors that are outwith the control of the County Council. That is not to say, however, that the Council should stand back – it should seek to work with and adapt to, and take advantage of many of these trends. Perhaps, the one aspect where Devon County Council can exert some influence is in relation to affordable housing and ensuring that enough is delivered and the parts of the county where people – particularly the brightest and best young people – want to live.

Technological

3.3 Our analysis identified the following technological drivers and trends:

The growth of the knowledge economy

- Employment in a range of different industries related to the ‘knowledge economy’ is becoming increasingly important in ensuring that local economies are high productive and delivering high value goods and services. It is a sector that is set to grow – potentially significantly – in Devon through the development of Exeter Science Park and the range of facilities that are planned with the explicit aim of encouraging enterprise, science and research development. The knowledge economy is however a sector that is set to grow in a number of areas across the UK, the challenge for Devon therefore is to ensure that over the longer-term it is able to compete on content and not price.

Increasing importance of innovation

- Nationally – and indeed globally – there is an increasing focus on, and the resourcing of, the provision and support for innovation. Support that enables and facilitates companies to develop new ideas whatever their technology or market requirement. This requires flexibility and entrepreneurship – the extent to which Devon’s residents exhibit these traits will therefore become increasingly important.

Roll-out of next generation broadband

- The continued roll-out of next generation broadband with speeds up to 24 Mb/second – more than double the maximum speeds previously available to the majority of UK homes and businesses² – has big implications for:
 - enabling more home working
 - continued virtualisation of business activity
 - reducing isolation, but also increasing isolation if the barriers to accessing broadband are not properly addressed
 - increasing globalisation and inter-connectedness for businesses, communities and individuals
 - the use and effectiveness of social media.
- The market is likely to deliver this to a significant proportion of the UK, but with a focus on urban areas. In some, mainly rural, areas market failure in the delivery of high speed broadband access means that the public sector and local groups may need to step in to assist with delivery, and in some areas a lack of access will remain an issue in the short to medium term. This is likely to further exacerbate the accessibility

² <http://www.btplc.com/News/Articles/Showarticle.cfm?ArticleID=71925C5C-19B9-45CB-90BE-85DB3941ED02>

divide between urban and rural areas. Due to its high levels of rurality, Devon County Council is one of a number of bodies across the UK bidding to the multi-million pound Broadband Delivery UK fund to help with rural broadband delivery in parts of the County.

Development of new materials

- The development of new materials and ability to model and predict material properties provides opportunities to generate major advances in technology. This could include biomedical materials; materials tailored to particular applications with specific properties; and new superconducting materials.

The pace of technological change and the identification of new market opportunities

- Globally, the pace of technological change is accelerating and huge advances are being made in a wide range of technologies. These advances have the potential to dislocate markets and revolutionise products, businesses and markets. A key element in future innovation will be therefore be the ability of Devon's businesses to:
 - identify important new market opportunities and needs
 - fuse a range of technologies to develop a new product or service to meet that need.

Market developments

- There are a number of important new developments that are likely to have impacts on a wide range of markets. These include:
 - micro and nano technologies, and the ability to manipulate materials at a smaller and smaller scales
 - mobility and portability, and the increasing ability to carry and access virtually all forms of data while travelling or away from base
 - new systems and platforms that facilitate the sharing of data, enhance the access to and quality of all forms multi-media, and enable a wide range of devices to interact with each other (for example being able to use your iPhone to schedule a recording on your Sky Plus Television box).

3.4 Again, Devon County's Council ability to influence many of these technological trends is severely limited. In most cases, they are the result of advances in the global market. Where the County Council has perhaps the greatest opportunity to affect and enhance these drivers locally is through the provision of the necessary 'supporting infrastructure', for instance ensuring that next generation broadband is rolled out across the County, or helping to drive forward and facilitate the development of Exeter Science Park.

Economic

Urbanisation and the role and importance of cities

- Cities are increasingly becoming more important places where people want to work and live. The planned growth of Plymouth and Exeter will support this whilst also impacting on the economic functionality of the two areas as it increases their spheres of influence and enables them to provide services and employment to a larger proportion of Devon's residents.

The growth of key sectors

- Nationally, a number of key sectors are expected to grow over the next 10 to 20 years and many local economies will be looking to harness this growth to their own advantage. In Devon, there are four sectors in which it is well placed to compete nationally and to capture a significant share of the national growth:
 - Renewable energy/low carbon – with a wide range of potential sources of renewable energy, Devon is well placed to lead the way in the development of new technologies and the creation of employment in this sector.
 - Knowledge economy – with a strong research university, a range of different businesses already operating in the sector, an innovation centre and plans to develop a science park this could potentially become an interesting 'package' for Devon.
 - Agriculture and food sector (particularly organic) – as consumers increasingly look for and choose 'locally' produced, sustainable sourced food this sector has real growth potential. This sector will also benefit from the nationally driven Food 2030 strategy which aims to deliver a 'sustainable and secure food system for 2030', and there is also a potentially prominent role for the County to play nationally and internationally in food security through the development of international trade links with EU and global partners which support developing economies. The County also has the potential – linked to the wider opportunities around renewables (see above and below) – to lead the way in the development of a low carbon food system which is resource efficient, reusing and recycling any waste generated. Currently, however, much of the agriculture and food sector is relatively low paid.
 - Tourism – particularly with the increase in popularity of the 'staycation' and the competitive advantage Devon has through many of its natural assets. Although, as with the agricultural industry, much of the employment in the tourism sector is currently relatively low paid.

The importance of service

- There is a growing emphasis on service and 'customerisation' in business and products, particularly as many markets are becoming increasingly fragmented which

requires the development a wider range of products that can be customised to individual markets. It is important these changes are understood locally. They include:

- finance packages in which industrial customers may no longer buy a product but, instead may pay for a lease that provides a defined service capability – so you buy a solution rather than the full asset – such as a defined number of megawatt/hours rather than buying a power station, or a defined level of operational capability for an aircraft or a machine tool rather than actually buying the equipment
- a continued move from mass market production with the manufacture and sale of large volumes of nearly identical products to increased customisation in which the customer requires the product to be made to their exact requirements
- delivery, with customers requiring products and services to be delivered to much shorter time frames, or just in time

Global cost competition in commodity and mass markets

- The emergence of low cost competition from the BRICs (Brazil, Russia, India and China) is leading to fierce cost competition in mass market products and has significantly increased the importance of being able to develop products that are less prone to low cost competition. Increasingly, this is driving the importance of:
 - niche markets including those where design sophistication can lead to a premium price
 - innovative new areas where Devon companies can introduce new products before foreign competition has time to react or where technologies can be protected through Intellectual Property Rights (IPR)
 - products and services specifically tailored for the local markets
 - competing on the basis of content rather than price (although there is an important question around what Devon's content is).

Changing business models

- Changing business models within an existing market to improve competitiveness – building on the example of internet booking of flights and direct selling of services via call centres – will become increasingly important in maintaining the productivity and competitiveness of the County's economy.

The power of retail chains

- The power of the retail chains over suppliers locally, nationally, and internationally is increasing and often manifests itself in very detailed specifications and requirements

to which suppliers must conform. This has a particularly negative impact on local identity.

Economic growth of London and the wider South East

- The continued growth of this part of England – at a faster and higher rate – will cause the gap in performance with the rest of the country to widen. This has particular implications for Devon and how it responds, especially with other more productive and competitive economies likely to be pursuing similar responses (e.g. growth of the knowledge economy, development of the low carbon economy).

3.5 Like the technology dimension, many of these trends are being driven from outwith Devon and as such the key question for the County Council is about how it responds to them rather than how it can shape them. Where it perhaps has more opportunity to affect and influence the economy is in the growth of Exeter and the growth of key sectors.

Environment

Adverse impacts of climate change

- The adverse impacts of climate change are becoming increasingly apparent within the UK, this includes higher temperatures, more frequent extreme weather events (such as storms and heatwaves), more frequent flooding (from rivers, the sea, and following storms) and rising sea levels. These pose the following threats for Devon:
 - the ‘loss’ of land as a result of coastal erosion and rising sea levels
 - fluvial and tidal flood risks, particularly in Exeter (with the large floodplains of the Rivers Exe and Clyst), West Devon (which is at risk of sea level rises) and the wider south Devon coast line (especially parts of Teignbridge)
 - adverse impacts on agriculture and wider eco-systems from adverse and extreme weather.

The importance of managing and mitigating climate change

- Nationally there are a large number of policy measures in force to reduce carbon emissions, which in turn has generated a range of opportunities and activities related to the generation of renewable energy, the development of carbon capture and storage and improvements to the efficiencies of cars and other machinery and appliances.

Sustainable resource use

- Managing energy, and water consumption, carbon emissions and waste generation is of central importance in seeking to manage and mitigate climate change. Progress in this area is becoming and increasingly important performance measure in both the public and private sectors.

- 3.6 Given many of its natural assets Devon is well placed to play an important role – perhaps even on the national scale – in taking forward and responding to these emerging trends. This is particularly the case in terms of managing and mitigating the impacts of climate change where Devon has many of the natural resources (such as exposed hilly and coastal areas for wind-generated energy, a coastline and open seas where wind and tidal power can be harnessed, rivers that can provide hydro-electric power, biomass potential from the burning of wood/plant matter, anaerobic digestion of farm animal waste, and solar thermal and photovoltaic energy conversion from sunlight) to realise and facilitate progress in the creation of renewable energy.

Political

Public sector austerity

- The public sector no longer has the resources available to intervene in the ways and to the scale that has been apparent over the last 10 to 15 years. As a result, the old models of delivery – particularly the significant investment in physical regeneration – are unlikely to return. Alongside rebalancing the national economy away from financial services (which whilst not a significant sector in Devon does have implications for the property market) and the public sector (which is significant in Devon), the tighter fiscal climate also requires increasingly difficult choices to be made between investing in success and addressing under-performance.

Reduction in private sector investment

- The lack of availability of development finance and the downturn in housing and commercial property markets has tied the hand of the private sector and limited the extent to which they can support the public sector in the delivery of key economic development activities. This is likely to force the growth adoption of new funding regimes which include Tax Increment Financing, Revolving Regeneration loan Funds and Community Investment Levys

The loss of old ‘trading’ partners

- As a new world order develops (particularly with the growing dominance of China and the emergence of the other BRIC economies) there is a real risk that the UK’s old ‘trading partners’ are lost. These effects may be reduced in Devon as currently its exports are relatively low. They may also present an opportunity for Devon’s businesses – so long as they are adequately prepared – to develop new trading opportunities with these emerging economies.

Weakening role of Europe

- As the strength of the Euro falls and becomes less stable there is potential for Europe's role on a global stage to be significantly weakened – a shift that would have notable implications and ramifications for the UK.

Changing political processes

- With increasing levels of disengagement with the political process and its machinery, there is a need for politicians at both national and local levels to do more to engage with the electorate. This is likely to be increasingly driven by new technology and social networking platforms. However, at the same time these platforms are also likely to increase the level of opposition and facilitate activism around particular 'defining issues'.

3.7 As with many of the other dimensions explored within this analysis, for the majority of these political trends and drivers there is little that Devon County Council can do to influence them. As before, the need is rather to be aware of them and to have thought through how it can best respond to these trends as they emerge.

4: Key Messages

4.1 The previous section has provided a headline summary of a range of drivers and trends that will impact in varying ways upon Devon's economy over the next 10 to 20 years. Some of the drivers and trends identified cut across a number of the STEEP dimensions, while others are relatively independent; some present clear opportunities for Devon while others are much more challenging – posing a direct threat to Devon's economy; and some can be influenced and affected by Devon, with others are much more global in nature. In order to help cut through some of this complexity and to guide the longer-term thinking around the complexities which Devon and its places are going to need to work with, this section summarises the key messages that we think the STEEP analysis has identified. These are as follows:

- technologies increasingly connect us all, providing limitless access to information – changing the way we work and impacting dramatically on lifestyle decisions about where we live and shop and who we 'do' community with
- the pace of technological change is staggering – it is vital that Devon looks to enable and exploit this, rather than control and/or pre-determine it
- sustainability – in all its guises (social, economic and environmental) – is an increasingly important consideration for elected representatives, businesses and individuals, Devon is potentially very well placed to take advantage of this change, it must therefore seek to maximise this opportunity
- serious supply disruption, or even the fear of it, could send oil commodity prices soaring and increase production and processing costs, this in turn will significantly impact on the viability of air and road transport as well as living and consumption patterns all of which will result in a slowing of growth rates – although, the silver lining (albeit likely to be limited) could be that greater focus and urgency is given over to dealing with the world's vulnerability to oil prices through investing in the necessary infrastructure to deliver sustainable renewable energy
- climate change is both a huge threat to, and opportunity for, Devon's economic growth. Devon must therefore continue be pro-active in its activity to mitigate the effects of climate change, and seek to play a lead role –on the national scale – in taking forward new technologies and approaches in the creation and management of the UK's first low carbon economy
- markets, on the one hand, are increasingly fragmented but on the other increasingly commoditised, particularly as the standardisation of retail markets goes further and further as the power of retail chains grows
- local identity will, in many ways, diminish as people increasingly become 'global citizens', connected virtually and communicating through social media. But at the

same time, the importance of local provision and service that is specifically tailored for the local markets will be able to command a premium price

- rebalancing the economy will be necessary, Devon therefore needs to respond both to the national drivers and its local strengths
- the pace at which the new world order develops is only likely to quicken, with China, India, Brazil and ultimately Africa's dominance growing while the UK struggles to keep pace with old models of delivery and traditional trading partners no longer appropriate for the global stage – this may also present an opportunity for Devon's businesses, if adequately prepared, to develop new trading opportunities with these emerging economies
- a number of Devon's areas, particularly its rural ones, appear in some ways to counter many of these trends, a factor that is both a strength in terms of maintaining a distinctive culture (while the rest of the UK experiences a decreasing local identity) and ensuring that there is a strong sense of local distinctiveness; but also a weakness as these areas suffer from a lack of connectivity, particularly ICT, and therefore struggle to compete with other areas in terms of accessibility.