

# The Importance of the Express Delivery Industry for the East Midlands Economy

**A report for *emda***

Oxford Economic Forecasting

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## The Importance of the Express Delivery Industry for the East Midlands Economy

### Key Findings

- The express industry directly employs over 4,700 people in the East Midlands. It supports over 10,200 jobs in the region and generates almost £300 million of Gross Value Added (GVA) taking into account indirect and induced multiplier effects. Its contribution to regional employment is expected to rise to almost 16,000 by 2014.
- A broad range of industries in the UK use express services. But the largest users include 'high-tech' sectors such as manufacturers of electronic components, the telecoms industry, and business and financial services.
- The express industry is used particularly for business-to-business transportation of high value/low weight products (eg electronic components, pharmaceutical test materials).
- While direct and indirect employment is important, the greatest contribution made by the express industry is in enabling East Midlands companies to compete effectively in an increasingly global market.
- Given the sectors and the type of companies which use express delivery services, the express industry relates directly to the East Midlands' Regional Economic Strategy's (RES) aspirations and objectives around continued economic restructuring, and growth in high-value sectors.
- Access to air services through Nottingham East Midlands Airport is vital or very important for about 10% of companies in determining the decision to locate in the East Midlands region. In addition, there is likely to be an impact on firms located in the wider Midlands region who employ people who live in the East Midlands.
- The express industry is dependent upon flying at night to deliver the significant economic benefits it generates for the East Midlands and UK economies. If next-day international delivery services were no longer available, our survey has shown that some East Midlands firms might relocate to another UK region and others might relocate to another country.
- Given the emphasis of the RES on the development of high value added and high-growth sectors, it is likely that the region will over time rely increasingly on the express industry, and the success of economic restructuring could be more seriously affected by restrictions on night-flights.

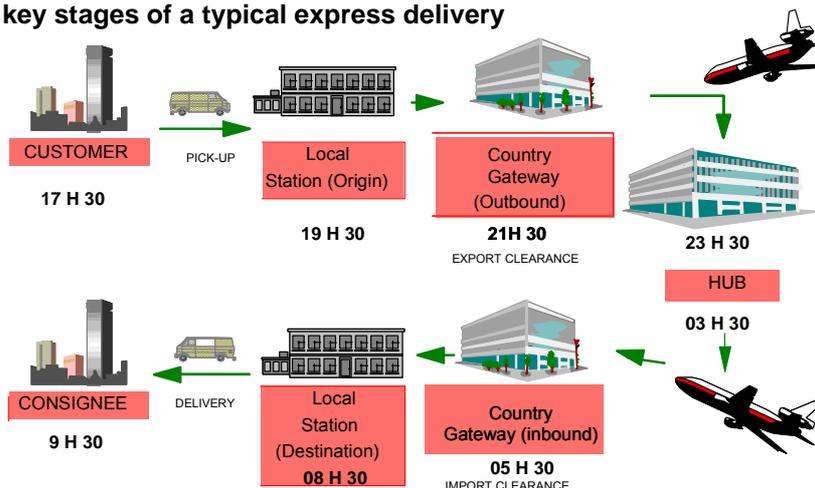
## Introduction

1. This report assesses the importance of the express delivery industry for the economy of the East Midlands. It complements a similar report looking at the economic importance of the express industry for the UK as a whole. As well as quantifying the direct economic contribution made by companies in the express industry to employment and Gross Value Added (GVA) in the East Midlands, it also considers the importance of express services to businesses in other sectors in the region based on a detailed survey of 75 companies (a sample that we consider is appropriate to a study of this type and robust enough to help highlight key trends). This survey illustrates the contribution that the express industry makes to the capabilities and competitiveness of other sectors of the East Midlands economy.
2. This report has an economic focus but it is understood that there are a range of wider issues related to the aviation industry and, in particular, to night-flights that policy-makers also need to consider. This report does not seek to cover all of these issues but it is hoped that it will be considered a useful contribution to assist understanding of the economic elements of the wider debate, and to help inform strategic and local decisions and discussions relating to this agenda.
3. The report is organised as follows:
  - We begin by explaining what the express industry is and how it has developed in the UK since the mid-1980s.
  - We then present estimates of the size of the express industry itself both in the UK as a whole and in the East Midlands, in terms of its contribution to GVA and employment.
  - We then consider its importance in facilitating trade by East Midlands companies, and in improving their productivity and competitiveness.
  - Finally, we consider the impact of restrictions on the availability of international express delivery services - for example, as a result of restrictions on night-flights.

## What is the express industry?

4. The core business of the express industry is the provision of value-added, door-to-door transport and deliveries of next-day or time-definite shipments, including documents, parcels and merchandise goods. (Time-definite shipments normally incur a transit time of between 2 and 3 days.)
5. Four companies – DHL, FedEx, TNT and UPS, also referred to as ‘integrators’ – are the leaders of the global express industry, but there are many others in this highly competitive sector. The term ‘integrator’ refers to the ability of these companies to offer door-to-door, time-definite integrated services, where the company maintains control over all aspects of the distribution process – for instance, by offering the possibility of changing the destination and addressee in transit – and with each item being tracked at every step throughout its journey.

Figure 1.1: The key stages of a typical express delivery



### Characteristics of the express industry

6. The express industry simplifies and speeds the process of transporting goods. It organises collection, usually at the end of the business day, allows the sender access to information on the progress of shipments from pick-up to delivery, and provides proof of delivery. Where shipments cross international borders, the express industry handles customs clearance as well as the payment of duties and taxes as required. Figure 1.1 illustrates the key stages involved in a typical express delivery.
7. Other transport operators on their own cannot respond to the needs of UK business as effectively as the express industry. In particular, they are not able to offer the same level of rapid, guaranteed delivery to as wide a range of destinations.
8. To meet the requirements of business, the express industry relies on overnight transport to use the 'dead time' from when a company hands over its shipment late in the working day to delivery to the recipient early the following day. Express transportation is achieved by using a variety of different transport modes; lorries, vans, trains, passenger aircraft and freight aircraft as well as on-foot delivery. Where possible, though, the express industry uses surface transport modes. Air express services are only used where there are no other options available to meet same day and next-day delivery requirements. Nottingham East Midlands Airport is one of the two most important express hub airports in the UK, the other being London-Stansted.
9. For some companies, all aspects of their distribution process are organised by members of the express industry.

### Development of express services in the UK

10. Express services were introduced to the UK in the mid-1980s, having initially developed in the USA. The requirement of UK companies for time-definite, guaranteed delivery could not be met by either postal services or freight forwarders, which led to the growth of the express services sector.
11. The express industry has developed from the delivery of documents and parcels to specialist items such as high-tech products, semiconductors and general airfreight commodities.

Typically, express services are used for business-to-business transportation of high-value / low-weight items such as electronic components, designer fashions and pharmaceutical products. Documents account for only about 25% of express shipments in the UK.

12. Next-day delivery is by far the most important type of express delivery, representing around 75-85% of both the total revenues of the express industry and the number of shipments.

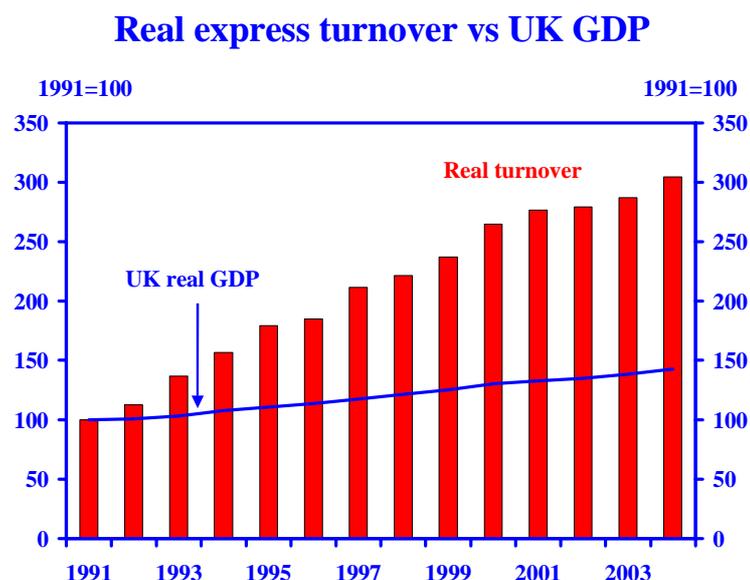
### The size of the express industry in the UK and East Midlands

13. The express industry is not separately identified in the National Accounts produced by the UK Office for National Statistics. As a result, the scale of the industry and its direct contribution to UK GVA (or GDP) and employment are not well understood. We have therefore undertaken a detailed survey of the four integrators to quantify the size and reach of the express industry. Together they represent around 88% of the express delivery market. We have grossed up the results of our survey accordingly to estimate the size of the overall express industry both in the UK and in the East Midlands.
14. It should be emphasised that these estimates are of the size of the express industry itself: they make no allowance for the output, jobs etc that the express industry encourages in other sectors of the economy. Those impacts are discussed later in this report.

#### (i) The contribution of the express industry to sales and output

15. Total sales income (ie turnover) of the express industry in the UK is estimated to have been about £2.1 billion in 2004. While the express industry itself is a small part of the economy, it has grown very rapidly over the last two decades, although it faltered somewhat during 2001-03 when world trade, particularly in electronics, slowed sharply. Stripping out the effects of inflation, the express industry's turnover has increased by 70% since 1995 and by over 200% since 1991. As a result, the share of the express industry in UK gross output has doubled since 1991, as the express industry has grown much faster than the whole economy.

Chart 1.1



16. The direct contribution of the express industry to GDP is measured by its so-called 'gross value-added' (GVA) – ie the value of the industry's sales less the value of the intermediate purchases it buys from supplier industries (eg fuel, packaging materials etc).
17. For the UK as a whole, we estimate that the value-added of the express industry – its direct contribution to GDP – was around £910 million in 2004. This means that the express industry makes a similar direct contribution to GDP as the motor vehicle engine and the office equipment (eg photocopiers, fax machines) manufacturing sectors.
18. On the assumption that GVA per worker in the express industry in each of the UK regions is equal to the national average, we estimate that the direct contribution of the industry to GVA in the East Midlands was £135 million in 2004.

***(ii) The contribution of the express industry to employment***

19. The express industry now directly employs about 32,000 people in the UK. This means it is a considerably larger employer than, for example, the UK machine tools industry. Around 77% of workers in the express industry are employed on a full-time basis, which is slightly higher than the national average.
20. The express industry's employees are widely spread across the UK. Of these, we estimate that 4,740 are in the East Midlands, accounting for 0.25% of total employment in the region. And about 1,500 of those jobs are located at integrator facilities at Nottingham East Midlands Airport. However, this does not represent the overall number of jobs supported by the express industry. In addition, there are:

- The jobs in companies supplying goods and services to the express industry – so-called '**indirect employment**' – including those working in: commercial and cargo airlines employed by express operators; the aerospace industry building engines for the aircraft operated by express companies; the automotive industry building delivery vehicles; in companies supplying IT equipment and support services; in oil companies; accountants and lawyers; etc.

On the basis of information provided by the integrators on their purchases from suppliers, and the input-output tables prepared by the Office for National Statistics, we estimate that the 32,000 or so direct jobs in the express industry generate an additional 26,000 indirect jobs in the UK through the supply-chain.

Of these, we estimate that 3,900 are located in the East Midlands. The 4,740 direct jobs in the express industry in the East Midlands account for 2,560 of these indirect jobs.

- Employees in the express industry (whether directly or indirectly) use their income to purchase goods and services for their own consumption, and this spending then helps to support the jobs in the industries that supply these purchases.

Estimates based on simulations conducted on the Oxford Economic Forecasting Macroeconomic Model of the UK economy suggest that this so-called '**induced employment**' may be around 14,500 (ie about 25% of direct and indirect employment in the express industry). This does not mean that these additional jobs would not exist without the express sector, but they are likely to do so only at somewhat lower real wages and living standards for those workers.

Of these, we estimate that 1,550 are located in the East Midlands. The direct and indirect employment associated with the express industry in the East Midlands account for about 950 of these induced jobs.

21. Putting these different elements together implies that the express industry now helps to support at least 72,000 jobs in UK, an increase of over 6% since 2001 and 63% since 1995. And it helps to support a total of 10,200 jobs in the East Midlands, contributing almost £300 million to the region's GVA in 2004.

<b>Table 1.1: The size of the express industry in the UK and East Midlands</b>		
	<b>2004</b>	<b>2014</b>
UK value-added (2004 prices)	£910 million	£1,740million
<b>East Midlands value-added (2004 prices)</b>	<b>£135 million</b>	<b>£260 million</b>
UK direct employment	32,000	50,000
UK indirect employment	26,000	40,000
UK induced employment	14,500	22,500
<b>Total UK employment supported by the express industry</b>	<b>72,500</b>	<b>112,500</b>
<b>East Midlands direct employment</b>	<b>4,740</b>	<b>7,400</b>
<b>East Midlands indirect employment</b>	<b>3,920</b>	<b>6,130</b>
<i>Of which:</i>		
As a result of express activities in the region	2,560	4,000
As a result of express activities in the rest of the UK	1,360	2,130
<b>East Midlands induced employment</b>	<b>1,550</b>	<b>2,380</b>
<i>Of which:</i>		
As a result of express activities in the region	950	1,480
As a result of express activities in the rest of the UK	600	900
<b>Total East Midlands employment supported by the express industry</b>	<b>10,210</b>	<b>15,910</b>
Employment at Hub Airports		
<b>Nottingham East Midlands</b>	<b>1,500</b>	
London-Stansted	500	

**(iii) The size of the express industry in 2014**

22. Looking forward, we expect the UK express industry to grow by an average of 6.7% a year in real terms between 2004 and 2014. This estimate – which is also consistent with the expectations of the leading express companies in AICES - is in line with the growth we expect in the international trade (exports and imports) in the sectors that use express services most intensively. It is almost three times faster than our forecast of 2.5% a year real growth for the UK economy as a whole over the next decade.

23. On this basis, we expect the value-added of the express industry to almost double by 2014 to about £1,740 billion in today's prices. Assuming that productivity growth in the express industry will rise at the whole economy average rate of 2% per annum, we expect that employment in the express industry will reach 50,000 by 2014. If the express industry in the East Midlands expands at the same rate as the industry nationally, it will directly contribute £260 million to the region's GVA by 2014 in today's prices, and directly employ about 7,400 people. In addition, the express industry is likely to support almost 16,000 jobs in total in the East Midlands by 2014, taking into account indirect and induced multiplier effects.

### Which industries use express services?

24. The services provided by the express industry are used by companies across the spectrum of UK plc. We have analysed the top 50 customers of the integrators (who together account for around 25% of their total sales income) to identify which sectors are the heaviest users of express delivery services.

25. The breakdown of these customers by industrial sector is shown below. The most important client sector is consumer goods at 22% of "top 50" sales income, followed by the electronics/telecoms at 20% of sales. A number of other leading "growth sectors", such as financial, business and IT services, are also among the leading clients of the express industry.

26. These results help to illustrate how the express industry plays a role in supporting key sectors and high-value added activities targeted through the Regional Economic Strategy, and regional business support activities. As the later sections of this report demonstrate, direct and indirect employment generated by the express industry is just one element of the contribution it makes to the regional economy and regional economic competitiveness. Over the longer-term, the so-called 'catalytic' impacts of easy access to express delivery services are considered a key element of helping achieve regional economic aspirations, as they facilitate the adoption of best international business practice, improve their customer service and compete effectively in the global economy.

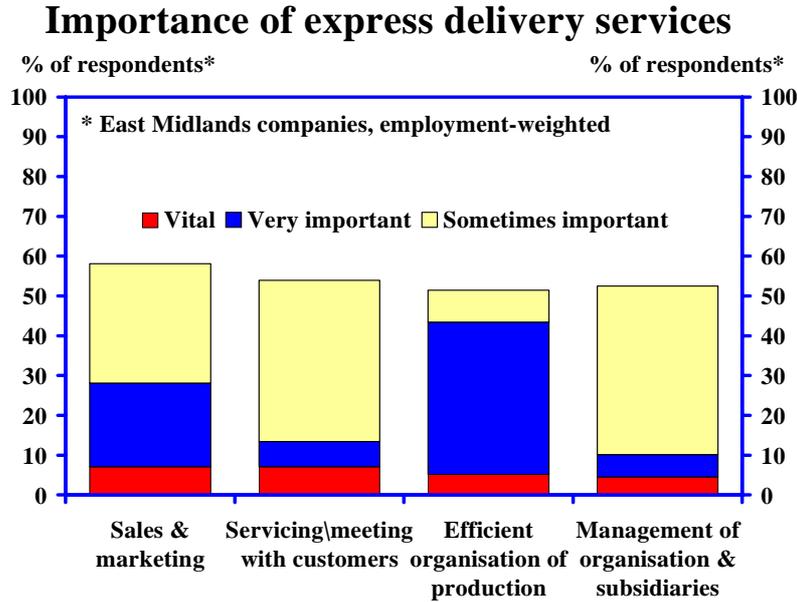
Chart 1.2: Breakdown of main client sectors of express industry



## The role of the express industry in international trade

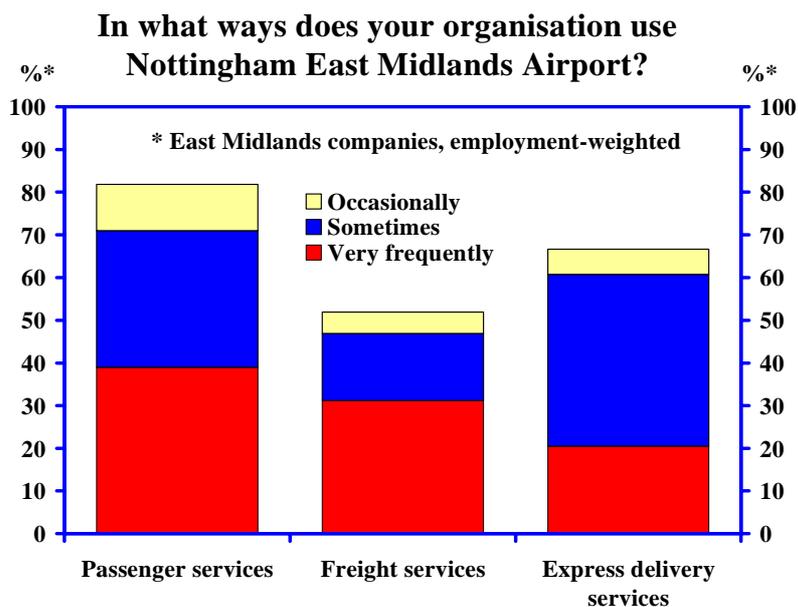
27. Globalisation means that the UK economy is increasingly reliant on international trade. As a result, the UK is also increasingly dependent on efficient and competitive means of both delivering its exports to their destinations and bringing in imports from other countries. There are a number of aspects to such services that are important:
- **Speed:** For some organisations speed to market is even more important than cost in determining their competitiveness. This is obviously vital for perishable goods, such as pharmaceutical test materials. But it is also important, for example, for firms meeting orders to strict delivery dates or having to respond immediately to customer demand (ie the so-called 'Day+1 economy').
  - **Reliability:** The reputation of UK exporters can be undermined if their deliveries fail to arrive with customers on time or are lost in transit.
  - **Destinations served:** With trade growing most rapidly in the so-called emerging economies, particularly in Asia, the ability to ship products to and from an increasing number of countries cost-effectively and quickly – ie 'connectivity' - is also important.
28. UK companies use a variety of means to transport imports and exports, including road/rail and ferry, sea-freight and airfreight. But express delivery services – which represent the 'business class' of the freight transport market, focused on providing fast, highly reliable delivery – are becoming increasingly important. The express industry is able to offer delivery from UK to countries representing 90% of the world's GDP in 24-48 hours.
29. Express services are typically used for delivering relatively high-value/low-weight products (eg electronic components, pharmaceutical test materials). Data from Eurostat suggest that air transport is used to carry just 0.4% of UK exports by weight but over a quarter of exports by value. On the basis of the information provided by the leading express companies in AICES, we estimate that the express industry accounts for around 5% of overall UK exports of goods by value, equivalent to about £10 billion of goods in 2004.
30. The importance of the express industry to the trade undertaken by companies in the East Midlands is highlighted by the results of our survey of companies in the region. We conducted a detailed survey of 70 companies across all sectors of the East Midlands economy on their use of express delivery services. As Chart 1.3 shows, almost 30% of respondents consider that express delivery services are vital or very important to their organisation for marketing and sales, with a further 30% reporting that they are sometimes important. Similarly, over half report that express services are at least sometimes important for servicing customers. East Midlands companies report that on average 18% of their sales are dependent on air services of one form or another (passenger, freight or express).
31. Of the express packages handled at Nottingham East Midlands Airport, about a third are being transported either to or from companies based in the Midlands region (both East and West Midlands). Our survey suggests that over a fifth of East Midlands companies use Nottingham East Midlands Airport very frequently for express delivery services and 40% do so sometimes (Chart 1.4). The range and frequency of international express delivery services available through Nottingham East Midlands Airport is considered to meet the requirements of 18% of East Midlands companies very well and 45% quite well.

Chart 1.3



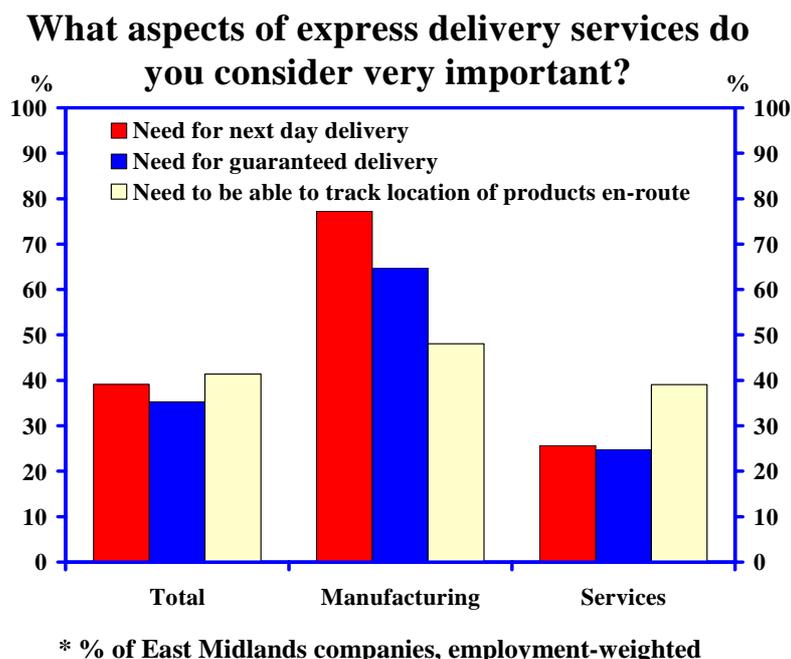
32. Our survey provides insight into the sorts of packages East Midlands companies are sending by express delivery. About 40% of respondents frequently use express delivery for sending products to customers, while three-quarters of them do so at least occasionally. And half of companies either frequently or occasionally use express delivery for sending spare parts to customers or sub-components to other production facilities. 30% of companies also use express delivery frequently or occasionally for legal documents and distributing reports within the company. But, as noted earlier, general shipments now account for 75% of total express shipments. Documents account for only 25% of shipments.

Chart 1.4



33. Our survey also sheds light on the reasons why companies use express services rather than alternative means of delivery. As Chart 1.5 shows, around 40% of East Midlands firms consider both the need for next-day delivery and for guaranteed delivery to be very important. And a similar proportion report that the need to be able to track the location of products en-route – a particular specialisation of express operators – is very important. It is striking that manufacturing companies particularly value the speed and security provided by express delivery services.

Chart 1.5



34. Delivery to overseas destinations represents around half of the express industry's UK revenues from next-day delivery services. Of these, around a quarter are accounted for by deliveries to the rest of the European Union compared with just under 10% for deliveries to both the US and Asia. These shares are broadly similar to the share of each region in the UK's exports.
35. This pattern of destinations to which express shipments are sent is mirrored in the results of our survey of East Midlands companies. As Chart 1.7 shows, over half of respondents report that the rest of the UK is vital as a destination to which they use express delivery services and it is very important for the vast majority of firms. However, European destinations are vital or very important for around a third of companies. Destinations outside Europe are typically at least very important for around 20% of companies. But, rather surprisingly, a number of firms in our survey consider Latin America to be a slightly more important destination for which they use express delivery services than the US/Canada. That may reflect differences in the quality of other delivery services to Latin America vis-à-vis the US.

Chart 1.6

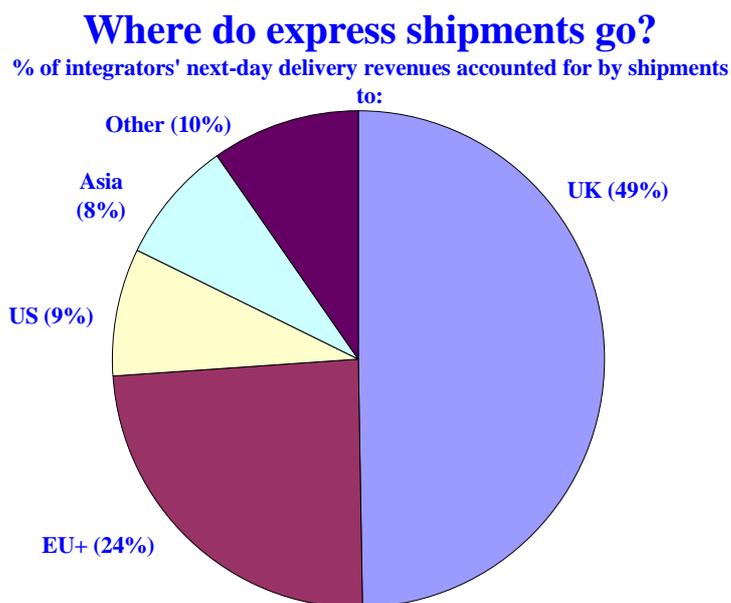
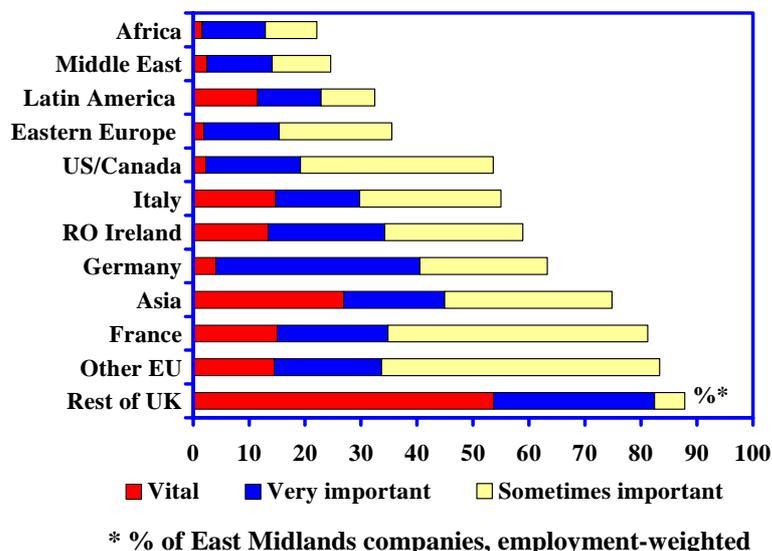


Chart 1.7

### Importance of destinations to which East Midlands firms send express deliveries



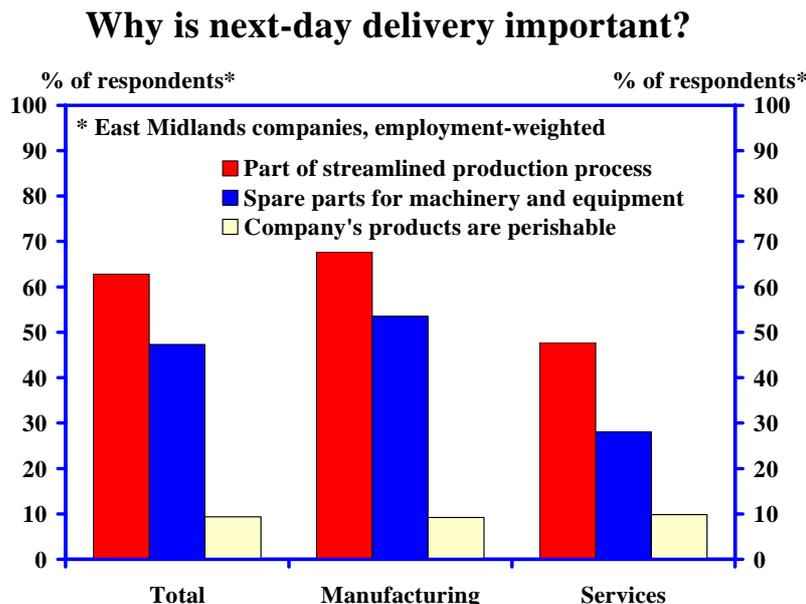
### The role of express services in trade in time-sensitive goods

36. As we have seen, companies using express services value the speed of delivery provided, and over three-quarters of the express industry's revenues are from next-day deliveries as opposed to deferred services. Moreover, over a quarter of respondents to our survey of East Midlands companies consider that there are aspects of their delivery commitments to clients for which next-day delivery services are very important. Next-day delivery is particularly

important for firms in the manufacturing sector. As shown elsewhere in this report, many of the goods moved are high-value/low weight, and are often associated with high-tech or other high-value sectors.

37. Of the companies for which next-day delivery is very important, only 9% report that this is because their company's products are perishable (Chart 1.8). Over 60% of firms consider next-day delivery to be sometimes very important because their customers are using streamlined production processes, while almost half have customers who need next-day delivery of spare parts for machinery and equipment.

**Chart 1.8**



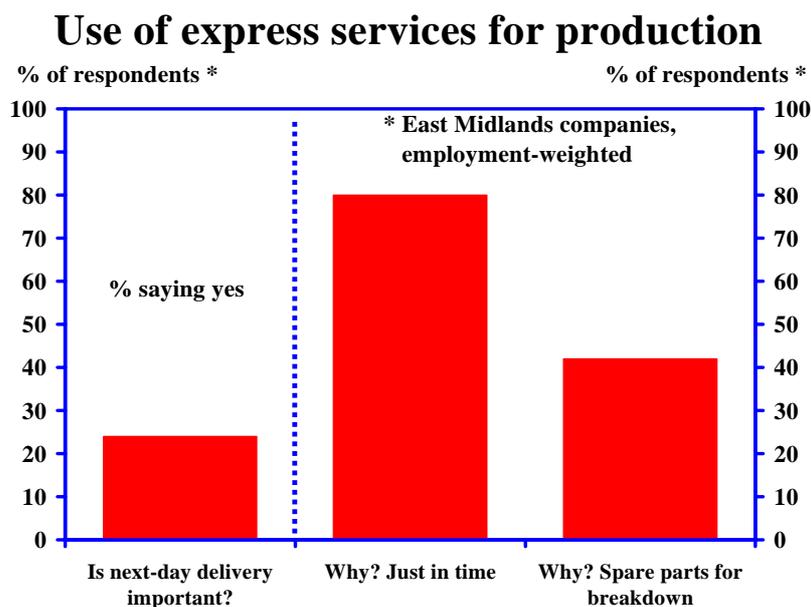
### The role of express services in enabling efficient production

38. As well as using express services to deliver products to their customers, many companies in the East Midlands also rely on express services in order to organise their production operations as efficiently as possible. Indeed, over 40% of the respondents to our survey consider express services vital or very important to the efficient organisation of their production.
39. Two-thirds of East Midlands firms require their suppliers sometimes to deliver certain packages to them by express delivery. Of these, around three-quarters either frequently or occasionally require express delivery both of spare parts and of sub-components to their production facilities. And around two-thirds of companies report that they also either frequently or occasionally require legal documents to be delivered by their suppliers using express services, while 15% use express services to distribute reports within their company (eg accounts, confidential reports to directors).
40. Express services help companies to improve the efficiency of their production in a number of ways. For example:

- They help companies reduce the number of idle periods and production shutdowns, as express delivery companies are able to ensure rapid delivery of materials and spare parts.
- They facilitate the adoption of international best practice in production, which increase companies' flexibility and ability to adapt to changes in demand. For example, many companies use express services to permit 'build-to-order', since time savings on delivery can be used to allow customisation to match particular client requirements (eg for computers). According to PA Consulting, these strategies have been found to reduce total supply chain costs by between 3% and 5%.
- They enable companies to make cost-savings both by reducing the amount of inventory they have to hold and by allowing firms to take advantage of rapid delivery from suppliers in other countries, possibly under global-wide supply contracts.
- They allow the fast handling of returned goods, either saving on inventory time if they can be resold or protecting firms' reputations by allowing repairs to be made quickly to faulty products

41. It should be stressed that it is not only companies in the manufacturing sector that rely on express services to maximise their efficiency. It is also important to firms in the service sector too. The express industry plays an important role in helping maintain and improve the efficiency and competitiveness of regional businesses across all sectors.

**Chart 1.9**



### The role of express in reducing companies' inventory costs

42. Almost a quarter of firms replying to our survey of East Midlands companies report that there are aspects of their production process for which next-day delivery of sub-components from their suppliers or elsewhere in their companies is very important (Chart 1.9). Of these firms, 80% report that next-day delivery of sub-components is important because they operate a

just-in-time (JIT) inventory system, while about 40% require urgent delivery of spare parts for machinery in case of breakdown.

43. It is clear from our survey that JIT inventory controls are now increasingly important in industry in the East Midlands (and the UK generally), and that these have created strong demand for express delivery services. Under JIT, an increasing number of firms hold only very limited 'buffer' inventories in case they run short of critical sub-components or spare parts. Instead, they require their suppliers (which may be other parts of their business) to deliver to a strict timetable to fit in with the production runs. This system has contributed to a reduction of over 20% in the inventory-output ratio in the UK over the last 20 years, saving UK companies around £6 billion a year. Again, this illustrates the role of the express industry in facilitating the adoption of best international business practices, thereby supporting regional (and UK) competitiveness.

### **The importance of express services to SMEs**

44. The vast majority of UK firms are Small and Medium Size Enterprises (SMEs – ie firms with less than 250 employees). The majority of these are one-person organisations but, even so, SMEs account for half of the UK's annual gross output and employ over 12 million people (over 55% of private sector employment).
45. Many SMEs are local businesses, such as retailers, plumbers, hairdressers etc, serving customers only in their neighbourhood. Nevertheless, estimates from the European Commission suggest that SMEs probably account for over a quarter of UK exports.
46. Even though many SMEs are wholly focused on serving markets in their locality, our survey of East Midlands companies suggests that SMEs are substantial users of express delivery services. For example, almost a third of SMEs report that express services are vital or very important for their marketing and sales, while nearly a quarter report that they are vital/very important for the efficient organisation of production. Without next-day international express delivery, 16% of SMEs report that they may lose some orders. And a similar proportion report that they would possibly need to hold more product inventory to meet customer needs (Table 1.2).
47. Express delivery services are important to SMEs because they typically do not have the same transport delivery infrastructure that large companies have in place. While the scale of large manufacturers, such as the motor vehicle producers, makes it economic either for them to run their own transport fleet or buy-in dedicated services from a contractor, this would be uneconomic for most SMEs making relatively few and irregular deliveries. SMEs therefore frequently rely on transport services where a central provider delivers on behalf of a large number of customers.
48. The express industry enables SMEs to take advantage of the economies of scale its large-scale transport operations generate, while at the same time providing the same high quality of service – speed, reliability, tracking – provided to large companies.

<b>Table 1.2: The importance of express services to SMEs<sup>1</sup></b>		
<i>Unweighted % of firms ...</i>	SMEs Lar	ge Companies
Express services are vital or very important for marketing and sales	30 14	
Express services are vital or very important for efficient organisation of production	23 11	
Express services are frequently used to send products to customers	32 15	
Reporting loss of next-day international services would possibly/probably mean:		
Lost orders because of longer delivery times	16	4
Need to hold more product inventory to meet customer needs	16	6

<sup>1</sup>SMEs are firms with less than 250 employees

## The importance of express services to UK regional development

49. We noted earlier that the employees of the express industry are widely spread around UK, although there is some concentration in the East Midlands associated with the use of Nottingham East Midlands International Airport as a key hub for express services. But the express industry contributes to regional development in a number of other ways as well:
- It enables businesses dependent on fast delivery to customers to locate in regions that are not necessarily close to their market. The express industry therefore brings all regions of the UK within the boundaries of the 'Day+1 economy'. Moreover, businesses operating from lower-cost locations do not have their benefits dissipated by excessive transport costs and poor delivery times.
  - Companies who rely on next-day delivery to customers may have an incentive to locate near hubs for express services so as to make the last pick-up time for their deliveries as late as possible, providing them with maximum production flexibility. The text box (page 16) describes such clustering around the major express hubs in the US and continental Europe, and it also offers a potential stimulus to the region around Nottingham East Midlands Airport.
  - More generally, the catalytic benefits generated by the express industry help to support and develop businesses in high-growth and high value-added sectors in all regions, and to enable businesses in established sectors to adopt and benefit from modern business practices. Without access to these services, firms in a region would be put at a competitive disadvantage both nationally and internationally. Some may well choose to relocate or expand operations elsewhere rather than in a region where express delivery is either not available or limited. Similarly, as discussed earlier, express services are very important to many SMEs and hence to encouraging entrepreneurship. They therefore support the aspirations and objectives of the East Midlands RES around continued economic restructuring, and growth in high-value sectors.

50. While the East Midlands express industry's operations are not formally considered as a 'hub', they are very significant and of strategic importance in the national context. The headline details from the examples in the text box do help indicate the potential role express freight activity can have as a driver of regional economic growth. Clearly, it is also important that other aspects of regional economic policy also help to support development (eg availability of skilled and unskilled labour, accessible sites, the road and rail network etc).

### **Express hubs as a spur to regional economic development**

#### **(i) Liege**

Liege Airport has been TNT's European operating hub since 1998. As express and air cargo traffic has grown, so a number of distribution and logistics companies have established in the close vicinity of the airport. These companies are located within the Liege Logistics platform: Liege Logistics now employs over 500 people. Around 845 acres have been designated on and bordering the current airport site to enable Liege Airport's economic growth through to 2020.

#### **(ii) Brussels**

In 1985, DHL established the Brussels hub as a sorting facility in the corner of a hangar at Brussels National Airport. Within a few years it became DHL Brussels Hub, the largest express hub outside the USA. Through its Express Logistic Centre (ELC), the hub acts as a central distribution point for a number of major companies based in the surrounding areas of the Brussels National Airport. DHL is not only the biggest customer of Belgocontrol (providing about 25% of their income) but also contributes almost 50% of the profit before taxes of the airport owner BIAC. According to a report issued in September 2003 by the Vlerick Leuven Management School and KU Leuven Universite Libre de Brussels and ECORYS Transport Rotterdam, the presence of DHL's major hub at Brussels National Airport contributes €394 million of value-added to the Belgian economy. As from mid-2008, Leipzig will become the main hub in DHL's European network and the Brussels hub will downsize.

#### **(iii) Memphis**

Memphis International Airport - Federal Express' world headquarters and Superhub - is the world's largest cargo airport. In addition to the jobs and direct economic benefits it provides, FedEx is a magnet for attracting distribution centre development to Memphis. According to SRI International more than 130 foreign-owned firms from 22 countries employing 17,250 workers have been drawn to Memphis since the early 1980s, largely due to the presence of FedEx. Examples of customers that relocated to Memphis metro area include Williams-Sonoma (distribution & data centre); Submitorder.com (Internet fulfilment centre); Hewlett Packard (Distribution) and Ingram Micro (Distribution / assembly / repair).

#### **(iv) Louisville**

Louisville Airport is home to the international airfreight hub of UPS. Many companies have located in or near Louisville because of the extensive logistics and distribution opportunities there. According to Greater Louisville Inc. The Metro Chamber of Commerce, the estimated annual impact of UPS' Hub 2000 expansion was 13,965 new jobs (direct and indirect) and \$478 million new payroll (direct and indirect). Companies doing e-commerce fulfilment in Greater Louisville include Nike and Gateway Computers, while companies doing traditional transportation fulfilment include GE and Ford.

## **The role of express services in facilitating foreign direct investment**

51. UK has been very successful in attracting foreign direct investment (FDI) – it attracted an average of £35 billion of inward investment a year between 1995 and 2004, more than any other country apart from the US. Inward investment brings with it important benefits to the recipient, most obviously in terms of increased employment and output but also in the transfer of technology and new management techniques.
52. A wide range of factors influence firms' decisions about how much and where to invest. However, surveys of international investors suggest that ease of access to markets and transport links are particularly important. For example, a survey by Healey & Baker shows that 60% of companies consider easy access to markets, customers or clients, as "absolutely essential" when deciding where to locate their business, making it the most important influence on company location decisions.
53. Express services are an important element in ensuring that companies based in UK have the best possible access to markets. Our survey of East Midlands companies found that access to air services through Nottingham East Midlands Airport is vital or very important for about 10% of companies in determining the decision to locate in the region. In addition, there is likely to be an impact on firms located in the wider Midlands region who employ people who live in the East Midlands.
54. As regional efforts and investments continue to further economic restructuring and encourage the move towards higher-value/higher-skill activity, greater focus on key sectors and clusters for future growth and development, and the continued move towards business services, we anticipate that the proportion of East Midlands firms who consider Nottingham East Midlands Airport as a vital influence on their decision to locate in the region will increase.
55. Our survey also shows that foreign direct investment would be vulnerable if next-day delivery to or from the UK were no longer available: 10% of companies report that they would possibly have to relocate some operations from to another location. We return to this issue below.

## **The necessity of night flights for the express industry**

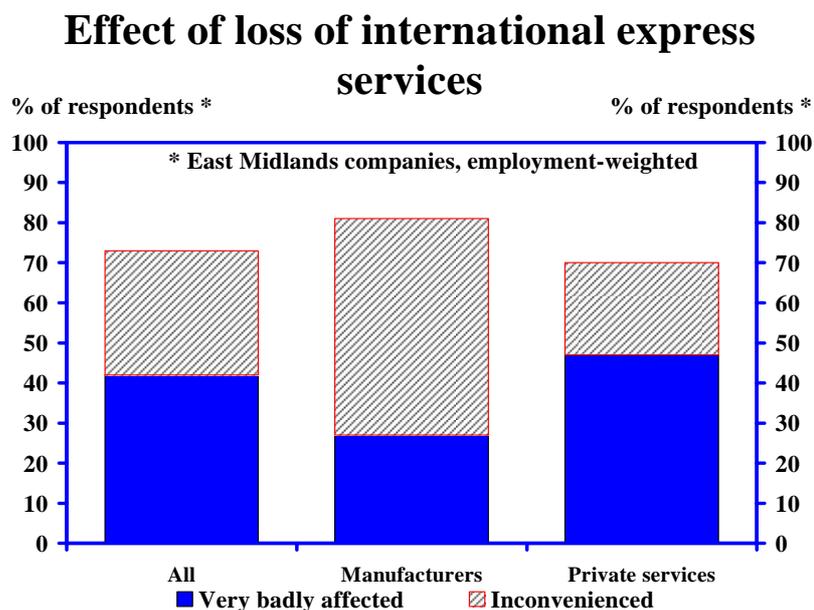
56. Express services are used primarily by business in the East Midlands to achieve the next-day delivery of goods and documents to customers throughout the UK, Europe and North America<sup>1</sup>. Increasingly, products are time-sensitive because they move according to thin and high velocity supply chains, enabling reduced obsolescence costs and inventory costs. This usually requires goods to be picked up at the end of the working day, for delivery early the following day. This reduction of 'daylight' in-transit time is how companies perceive delivery lead times in order to provide competitive advantage.
57. As referred at the outset, express transportation is multi-modal, with decisions made as to how to move goods based on the requirements and expectations of the customer. Air travel is an important part of what makes express movements possible and competitive in international markets. The only way to achieve such a delivery schedule is by the operation of aircraft outside of normal business hours, including those defined as night, between 11pm and 7am. Night flights are only used when no other alternatives are available.

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<sup>1</sup> Goods to areas other than Europe and North America can take between 2 and 3 days to deliver by express services.

58. If night flights were banned at UK airports, many of the next-day consignments currently carried on those services would not in future travel, and the resultant trade would be lost to the UK economy. This is because the express industry would not be able to maintain the connectivity that is required with other major air express operating hubs in Europe within the much-reduced time-window available. To process everything for multiple express flights departing before 12am or arriving after 5am would require much larger facilities and manpower.
59. Not only is it imperative that shippers have access to the speed and efficiency of next-day deliveries, but there are also other operational advantages to be gained from air operations at night. It is difficult to operate express flights during the day because of increased congestion both in terms of surface access to airports and the availability of runway slots at the airports themselves. Express flights would have to compete with passenger aircraft for scarce resources.
60. Night flights also enable:
- Optimal use of both road and air infrastructure (ie on a 24 hour basis)
  - Spreading of airport, airspace and Air Traffic Control utilisation, keeping those capacities open for higher volume passenger traffic during daylight hours.
  - Better utilisation of existing airport resources since night flights have comparatively little add-on cost to their normal operations.

Chart 1.10



### Impact of no international next-day express delivery

61. Chart 1.10 shows the impact that a cessation of next-day international express deliveries would have on East Midlands business. Over 40% of respondents report that their business would be very badly affected, while a further 30% say that they would be inconvenienced.

62. Service sector firms report that they would generally be more badly affected than those in the manufacturing sector, with nearly half of all private services firms reporting that they would be very badly affected.

<b>Table 1.3: Effect on organisations if there were no international next-day delivery</b>			
		Probably	Possibly
Operations would have to relocate from the East Midlands to another part of the UK	All sectors	2	3
	Manufacturing 7		6
	Private Services	0	1
Operations would have to relocate from the East Midlands to another country	All sectors	3	2
	Manufacturing 11		4
	Private Services	0	1
Orders would be lost because of longer delivery times	All sectors	6	22
	Manufacturing 22		29
	Private Services	0	20
Production process would be interrupted on occasions because spare parts for equipment were not available quickly	All sectors	8	30
	Manufacturing 22		31
	Private Services	3	30
Increased inventories would have to be held at East Midlands site to meet production requirements	All sectors	4	10
	Manufacturing 16		35
	Private Services	0	1
Increased inventories of products would have to be held to meet customer demand	All sectors	8	8
	Manufacturing 25		25
	Private Services	2	1

63. Table 1.3 summarises the impact that the ending of next-day international delivery would have on organisations. It shows:
- 2% of firms would probably have to relocate from the East Midlands to another UK region and a further 3% possibly would have to do so.
  - 3% of firms would probably have to relocate from the East Midlands to another country and a further 2% possibly would have to do so.
  - Within manufacturing, 13% of firms might have to relocate elsewhere in the UK and 15% to another country.
  - Over a quarter of firms report that they would probably or possibly lose orders because of longer delivery times.

- Again, manufacturers would be particularly badly hit, with about half probably or possibly losing orders.
- Almost half of manufacturing firms might have to hold more inventories of products to meet customer demand. Similarly, nearly half of firms might have to hold more stock to meet the requirements of their production process, while half would experience occasional interruptions of their production process because spare parts for equipment would not be available quickly.

### **The economic cost of restricting night-flights**

64. The express industry is dependent upon flying at night to deliver the significant economic benefits it generates for the East Midlands and UK economies. If night flights were banned at UK airports, many of the next-day consignments currently carried on those services would not be transported, and the resultant trade would be lost to the UK economy. This is because the express industry would not be able to maintain the connectivity that is required with other major air express operating hubs in Europe within the much-reduced time-window available. To process everything for multiple express flights departing before 12 am or arriving after 5/6 am would not be possible. This would be damaging to the UK's role as a trading nation and its privileged position in the centre point of the world's time zones.
65. OEF's study of the importance of the express industry to the UK economy as a whole estimates a ban on night-flights that meant international next-day express delivery services could no longer be provided would lead to a loss of GDP of £1.4 billion a year, as UK competitiveness was undermined and some companies relocated.
66. Our survey suggests that, while firms in the East Midlands may be somewhat less severely affected than companies in some other regions, the economic implications would still be serious, with firms in the region facing increased costs, lost orders and some moving to other regions of the UK or to another country. It would remove the access to international markets and the opportunities for increasingly efficient business practices described elsewhere in this report.
67. The less severe impact of restrictions on express services on the East Midlands regional economy compared to the UK as a whole probably reflects the relatively low proportion of firms in the East Midlands currently engaged in those market sectors where express delivery services are of most value (ie high-value/low weight products with international markets – most notably, financial and business services). However, given the emphasis of the RES on the development of high value added and high-growth sectors, it is likely that the region will over time become increasingly dependent on the express industry, and so future economic success could be more seriously affected by any future decision to stop night-flights.

## Conclusions

68. This report has demonstrated that the express industry brings a range of benefits and opportunities to the East Midlands region. In summary, the key conclusions are:
- The express industry makes a substantial contribution to the East Midlands in its own right. Taking account of direct, indirect and induced impacts, it currently supports over 10,000 jobs and contributes almost £300 million to regional GVA. And the express industry is also one of the UK's fastest growing sectors, so the employment and GVA it generates is set to grow at a considerably faster rate than the rest of the UK economy over the next 10 years;
  - More important, however, is the 'catalytic' impact that the express industry has on the capabilities and competitiveness of other sectors of the economy - enabling companies in the East Midlands to implement best international business practice, improve their customer service and compete effectively in the global economy. Express services play an important role in facilitating the participation of the region's businesses in global markets; in enhancing their efficiency; and in retaining and attracting firms to locate in the region. But the express industry is only able to deliver these economic benefits if it can fly at night from a limited number of UK airports, including Nottingham East Midlands Airport.
  - The catalytic benefits of the express industry mean that it has a very important role to play in the achievement of the East Midlands Regional Economic Strategy. The ongoing restructuring and redefinition of the regional economy - emphasising sectors with higher value-added and high-growth potential, supporting SMEs, and developing greater resilience, efficiency and competitiveness – mean that more East Midlands businesses are likely to make increasing use of the rapid, cost-effective delivery services provided by the express industry in the future.
  - The East Midlands is well placed to capitalise on the catalytic benefits of the express industry as a result of the position of Nottingham East Midlands Airport as a national express freight hub. International examples illustrate the potential for activity that clusters around a hub to drive regional and sub-regional growth and investment. In the context of the East Midlands, in addition to operational growth at the NEMA site itself, there is considerable scope for growth of employment and investment associated with the express freight sector in accessible locations around the wider Three Cities sub-region.