

# HST Impact Study

## Final Report

### Executive Summary



# HIGHSPEEDTRAINS

## **Table of Contents**

|            |   |            |
|------------|---|------------|
| <b>0</b>   | <b>EXECUTIVE SUMMARY .....</b>  | <b>I</b>   |
| <b>0.1</b> | <b>CONTEXT OF THE HST IMPACT STUDY .....</b>                          | <b>i</b>   |
| <b>0.2</b> | <b>PURPOSE OF THE HST IMPACT STUDY .....</b>                          | <b>i</b>   |
| <b>0.3</b> | <b>THE SCALE AND SCOPE OF HST INVESTMENT.....</b>                     | <b>ii</b>  |
| <b>0.4</b> | <b>HST AND URBAN DEVELOPMENT .....</b>                                | <b>iii</b> |
| <b>0.5</b> | <b>TRANSPORT &amp; MOBILITY.....</b>                                  | <b>v</b>   |
| <b>0.6</b> | <b>ECONOMIC DEVELOPMENT .....</b>                                     | <b>v</b>   |
| <b>0.7</b> | <b>SOCIAL DEVELOPMENT – THE WIDER IMPACTS OF HST INVESTMENT .....</b> | <b>vi</b>  |
| <b>0.8</b> | <b>CONCLUDING COMMENTS.....</b>                                       | <b>vii</b> |

## **0 EXECUTIVE SUMMARY**

### **0.1 CONTEXT OF THE HST IMPACT STUDY**

This is the final report from a study conducted to establish and present the outcomes and impacts of the HSTintegration and HSTconnect projects that have been implemented by a consortium of partners under the leadership of the South East England Development Agency (SEEDA) within the framework of the INTERREG IIIB programme for NW Europe.

The focus of HSTintegration and HSTconnect has been to enhance the high speed train (HST) network throughout North West Europe (UK, France, Germany, Belgium, Netherlands), specifically through targeted infrastructure investment, upgrading of stations to improve their environment and accessibility, and the creation of multi-modal transport hubs linked to the HST network.

The HSTintegration and HSTconnect projects are co-funded by the European Regional Development Fund (ERDF) under INTERREG IIIB for NW Europe. The projects have a total value of €48 million, which represents some of the most significant individual INTERREG project funding to date.

The project objectives included attempts to lever further public and private sector investment, ensuring that development of the HST network added significant value in terms of social and economic regeneration and sustainability. Strong and highly accessible HST hubs in return pave the way for higher rail passenger numbers, for further enlargement of the HST network and better services on it.

### **0.2 PURPOSE OF THE HST IMPACT STUDY**

The purpose of the HST Impact Study has been to demonstrate the ‘Added Value’ of the investments within the HSTintegration and HSTconnect projects. In this context, ‘Added Value’ is defined as the positive socio-economic and environmental effects of the HSTintegration and HSTconnect project investments. This includes the wider investment packages that they have helped trigger.

It is expected that the information presented here will provide decision makers with evidence, information and confidence that:

- The right decision was taken by investing in HST;
- The decision can be justified to stakeholders; and
- The evidence base will make it easier for them, and others, to invest in HST related projects in the future.

Given this broad context the HST Impact Study has developed and implemented a flexible methodology that draws together all the available information by which to present and judge the outcomes of the HST investments at each site.

In particular the HST Impact Study is not intended to be a detailed econometric appraisal of the HST investments because the qualitative elements provide essential substance to the research findings, showing the true meaning of the chosen indicators.

In this study investment in and around railways and stations – all with some kind of connection to the High Speed Train network - are investigated with respect to their consequences in terms of urban, economic and social development.

Generally speaking this study focuses on the relationship between investments in infrastructure on the one hand and social, economic and/or demographic change on the other. This relationship is, of course, very interesting for policy makers.

### 0.3 THE SCALE AND SCOPE OF HST INVESTMENT

The map in Figure 0.1 gives an indication of the situation of the 13 investment sites and their relative location to the primary HST network. Six of them are part of the primary network, whereas seven are part of the secondary network. The level, timescale and type of HST-related investments vary substantially from site to site.

**Figure 0.1: Case study sites and the Paris, Brussels, Cologne, Amsterdam and London HST network**



It is important to remember that the scale and scope of HST investments differ between case studies.

Table 0.1 summarises the information on the level and timescale of the investments in the various case study sites. It shows the great variety in levels of investment. Altogether, in the HSTintegration and HSTconnect projects, some €767.2 million has been invested in

improving HST connectivity and accessibility. Almost half of these investments are funded by the European Union, in the form of INTERREG grants.

**Table 0.1 General Information on Case Studies**

| Country  | Belgium               | France  | Germany               | The Netherlands |              |              | United Kingdom |         |              |         |              |         |                  |
|--|-----------------------|---------|-----------------------|-----------------|--------------|--------------|----------------|---------|--------------|---------|--------------|---------|------------------|
| Case   | Leiedal               | Arment. | Aachen                | Maastr.         | Heerl.       | Hague        | Ashf.          | Dover   | Ebbs.        | Hast.   | Pancr.       | Read.   | Stratf.          |
| Part of Interreg HST-project...                                | Integration & Connect | Connect | Integration & Connect | Connect         | Integ-ration | Integ-ration | Integ-ration   | Connect | Integ-ration | Connect | Integ-ration | Connect | Integ-ration     |
| Total 4i / Connect project investments (mln)                   | € 7,0                 | € 3,3   | € 2,6                 | € 1,8           | € 6,0        | € 0,17       | € 2,4          | € 0,43  | € 45,3       | € 3,2   | € 690        | € 5,0   | N/K <sup>1</sup> |
| Funding by EU (Interreg IIIb grant in mln)                     | € 3,3                 | € 3,1   | € 0,9                 | € 0,9           | € 3,0        | € 0,09       | € 0,9          | € 0,2   | € 3,0        | € 0,8   | € 2,0        | € 2,0   | € 1,5            |
| Physical investments in (HST) station areas are finished in... | 2008                  | 2008    | 2006                  | 2006            | 2008         | 2011         | 1996           | 2007    | 2007         | 2008    | 2007         | 2005    | 2010             |
| Investments in HST connectivity are finished in...             | 2008                  | 2008    |                       | 2007            | 2007         | 2009         | 2011           | 2007    | 2020         | 2008    | 2016         | 2008    | 2010             |

In the overall picture, the European HSTintegration and HSTconnect project budgets are still relatively modest. Whilst HST is a vital part of the solution it does not stand alone. For example: the €170,000 HSTintegration project budget allocated to The Hague is largely overshadowed by the €800 million that will be invested in upgrading The Hague's Central Station over the next few years. The same conclusion can be drawn for Ebbsfleet (€45 million will be invested in infrastructure (Fastrack), of which €3 million is funded by the EU) and other cases.

The table shows that a lot of HST-related investments have only just been finished, or still have to be finished in the near future. Because this Impact Study was undertaken in 2006/2007, it is very difficult to measure the 'impact' of these investments on a local/regional level at this time. The added value of many of the measures could take several years to become apparent.

## 0.4 HST AND URBAN DEVELOPMENT

In almost all the examples in the study, a clear relation between HST-related investments and associated investments in station areas can be seen. Very often these investments are embedded in broader urban development strategies, which predominantly are focused on (HST) station areas.

Investments in the vicinity of (HST) stations are often aimed at creating an attractive working, living, shopping and recreational environment. Many investment projects in station areas therefore contain property development, both commercial (retail/leisure- and office space) and residential (houses/apartments). This type of investment has mainly been made at the case study sites on the primary HST network (The Hague, London St. Pancras, Ebbsfleet and Stratford): these are substantially larger than investments on the secondary network.

<sup>1</sup> The total HST Integration / Connect project investment figure for Stratford is not known (NK). However the Stratford City project involves a total investment of £4 billion. Furthermore work commenced in 2007 on a new £104 million entrance and extension will be built for the regional station in addition to a new westbound platform for the Central Line underground link.

#### 0.4.1 Upgrading connections between the station and city centre – improving accessibility

In many cities the area between the train station and city centre is uninviting and the route is regarded as unsafe or not well signposted. Through spatial and functional adjustments stations and city centres can be made more accessible and attractive.

An important objective of the HST-related investments, in relation to urban development, is improving accessibility between the railway station and the city centre. This includes upgrading public spaces, making station areas and city centres more accessible and ‘welcoming’. This creation of a ‘gateway’ to a city is a positive reaction to improving local connectivity to the station.

Examples of these type of investments are: improved pedestrian crossing facilities (e.g. Reading, Hastings), clear and well sighted signposts (e.g. Hastings), re-paving and pedestrianisation (e.g. Ashford), new or upgraded bicycle (parking) facilities and the realisation of bicycle tracks and walkways (e.g. Reading, Leiedal, Armentieres) and car parking areas (e.g. Heerlen, Maastricht, Ebbsfleet, Ashford, Leiedal, Armentieres). Dover is also investing in improving the connectivity between the railway station and the city centre, which has been laid out in the project ‘Station Approaches’.

HST investments have all had (and will have) clear physical impacts on station environments. Thanks to the HST-related investments these areas now look revitalised and ‘fresh’, and are safer and nicer places to stay or travel to and through.

#### 0.4.2 Improving (public) transport and road infrastructure

Further to improvements and upgrading access to the station, in particular for pedestrians and cyclists, is the added issue of infrastructure to enable access by other modes including (bus) public transport and car.

In the HST investment project this has included bus stop facilities (e.g. Reading, Heerlen, Leiedal, Aachen). Changes in the physical position of old bus stations (e.g. Heerlen), taxi stops and kiss and ride spots (e.g. Leiedal) or extending the tube/underground system to the railway station (Stratford). This creates better links between different modes of transport and thus improves the accessibility of (HST) stations. Passengers can more easily interchange between trains, buses, the tube etc. and walking distances are shortened.

In Heerlen the road infrastructure around the railway station has been improved by investments in a new roundabout. In Ashford a section of the Ring Road has been improved, while in Leiedal-Menen the focus was on the management of traffic flows. In Leiedal-Wevelgem congestion in the Stationsstraat was improved, and in Armentieres there has been investment in road construction and an improved traffic plan.

Furthermore, HST-related investments are made in new feeder stations to strengthen the link with main (HST) stations. Heerlen for example invested in three new light rail stops, of which two are already realised. In the case of Ebbsfleet, a rapid bus transit system (Fastrack) has been introduced, creating fast connections with the International station. In Leiedal-Waregem a shuttle service improved the accessibility for bicycle and car travel.

Accessibility of stations is also improved by creating new or improved feeder services to the primary HST network. These improvements not only make the facility itself stronger but also increase the catchment area for travellers and commuters alike.

## **0.5 TRANSPORT & MOBILITY**

There are clear improvements for transport and mobility in relation to the strategic HST network linking Paris, Brussels, Cologne, Amsterdam and London. Nearly all the case study sites do benefit in terms of increased HST services and feeder services and a resulting reduction of travel times. The consequence is a growing number of train and public transport passengers almost everywhere.

However, two qualifying remarks have to be made:

1. The investment in HST infrastructure and services is an ongoing process. In many of the sites, investments have only just finished or are still underway, new services have just started or are expected to be in operation soon. Consequently, part of the assessment for transport and mobility can only report expectations which, seen in the light of the other cases, do not seem to be unrealistic.
2. Most of the investments of the INTERREG projects HSTconnect and HSTintegration do not directly and in particular not solely generate the transport and mobility effects reported in the study. However, as most of these investments are integrated in the overall development of the HST network and more locally, in broader strategies to improve stations, station areas and feeder services, the impacts of the investments on HST supply and demand should not be underestimated. But at the same time, the integrated strategies prevent us from isolating effects of the investments that are the specific focus in this study.

More generally, the most important impacts of the investments of the HSTintegration and HSTconnect projects on transport and mobility can be seen in the removal of barriers to using HST trains by making the HST stations and their surroundings more attractive, i.e. removing psychological barriers, and making stations more accessible through improved walking and cycling connections, improved bus and rail feeder services and improved interchange facilities.

## **0.6 ECONOMIC DEVELOPMENT**

Transport infrastructure and service provision are often regarded as an important driver behind economic growth. People's desire to travel is ever increasing: we want to travel more, faster and further, whether for business, leisure or commuting purposes. In most European countries these growing mobility needs are accommodated by a highly developed highway network and modern airport(s).

Because of the trend for rising personal mobility associated with increasing car use and a consequent increase in traffic jams, in some parts of the continent the accessibility of locations near (HST) railway stations is getting better than locations near highways. Therefore, over the last two decades, (HST) train connections and multi-modal transportation hubs have started to increase in importance. It is expected that the European HST network will expand substantially across the continent over the next few decades, connecting cities and regions even better and faster than before.

Many cities regard a location on the primary HST network as crucial for their future economic development.

#### 0.6.1 Market forces and HST

The relationship between the property markets and HST investments is not a direct and straightforward one. We have looked in this study at developments related to the housing, retail and office market, through both prices and vacancy levels (as far as relevant data are available).

For the **retail market** we do see rather positive development in a number of cases. For example, around St. Pancras, The Hague and Maastricht prices are rising and vacancy rates are relatively low. Stratford is expected to pick up, while developments in Reading and Aachen (a modest drop in vacancies) are less convincing but positive. The smaller and/or more peripheral sites do not show a better performance than the regional average.

For **office developments** the picture is generally positive. Price levels have risen in Ashford, Maastricht and The Hague, while other market developments are neutral or expected to become positive in the near future (e.g. Stratford, St. Pancras). In some cases, e.g. Leiedal, Armentieres, Ebbsfleet it will be some time before any effects can be identified because works are in progress.

In the **housing market** there are several sites where prices have increased at more than the general market rate. Stratford and Ashford are the positive examples in the UK, while the property markets in The Hague (specifically apartments) and Maastricht (to a lesser extent) show a good performance in the Netherlands. In most of the other cases there are no visible results on this market.

## **0.7 SOCIAL DEVELOPMENT – THE WIDER IMPACTS OF HST INVESTMENT**

Social benefits, including the indicators that have been used in the HST project, can be interpreted as the wider impacts of any investment. They are also the benefits that are more difficult to correlate directly with an investment programme such as HST, particularly when the investment is part of a much wider package of measures such as the regeneration of deprived neighbourhoods and local communities.

An example of this, from the United Kingdom, is Ebbsfleet where area-wide development plans include approximately 27,000 new houses, 63,000 people moving into the area and the creation of 45,000 new jobs.

The impact here is a direct result of investment and new opportunities but it is difficult, if not impossible, to identify how much of this is as a direct result of the HST investment in Ebbsfleet. HST undoubtedly will have contributed to the sum but not acted alone in creating these new opportunities.

It is perceived that HST investments have had or will continue to have long-term social benefits.

### 0.7.1 Liveability

In terms of liveability the HST investment can and probably should be viewed as a catalyst for broader improvements through creating confidence in an area.

In such cases, investments can and do change the feeling of an area, which in turn may in itself attract inward investment. However it is often difficult to quantify this 'new found' stability and more difficult still to measure its success.

#### *Quantifying change*

The availability of suitable detailed data restricts the ability of the evaluator to quantify change and measure the impact of change at the local level. In most cases statistics are only available for the city and it is not possible to derive or extract data at a detailed enough level that applies to the HST investment or its locality.

There is also the constraint of time and the impact that this will have on the availability of social data. For example, we are unlikely to see the direct immediate impact of a long-term investment such as Ebbsfleet that opened in November 2007 for some time to come. It is possible to talk of the potential of such investment but not what has been realised to date. This applies to most of the case studies in this report. Comments made in this regard will generally be from a more strategic standpoint.

## **0.8 CONCLUDING COMMENTS**

The HST projects and the targeted interventions they contain are strategic investments. The HST investments are often a catalyst for the other elements of a much larger regeneration strategy and have brought forward improvements in the transport infrastructure that would otherwise have taken much longer to deliver, if at all, through routine funding channels. They form part of a package to create the conditions for further economic development by improving social and environmental conditions.

The theoretical analysis identified clearly that although many of the impacts of HST investments relate to improving the links between relatively distant locations, there are also significant local and regional impacts which have the potential to justify investment by local and regional authorities in their own right.

The key findings from the project have already been described but it is useful to summarise them once more in the following statements:

- HST contributes to the economical importance of cities and/or regions;
- HST investments draw in other investments;
- INTERREG / ERDF funding does have strategic impacts;
- HST tends to contribute to regional economic growth;
- Connection to HST plays a major role in the urban development of cities;
- HST investments help exploit reduced journey times;
- HST investments regenerate deprived areas with long term social benefits;
- and
- Real estate price levels have increased in the areas surrounding HST investment sites.

HST is and has been a driver for change. Its legacy should prove that the benefits go beyond the monetary investment alone and will continue to maintain a positive influence over time.