Capturing the value of major rail investment: The example of High Speed Rail 2

Charles Landry & Margie Caust

Preface

John Worthington or Simon Linnett

Summary

The balance of probabilities is that the London global region will benefit disproportionately from any major investment in high speed rail, unless there is a bigger vision and investment for optimising the benefit of HS2 for cities on its routes and those that are not.

The London maelstrom effect is dramatic. The London global region is a major attractor for skills, expertise and talent at every level from Britain, Europe and the world. Its dense globally connected knowledge infrastructures are extremely difficult to replicate in British regions. It is a global brain hub drawing in, and connecting within its orbit, Oxford and Cambridge and even increasingly Bristol. Over time, as connection times decrease, Birmingham is likely to be drawn into the London region's functional zone.

London's global region is one of around 40 global mega regions in the world which, with only 17.7% of the world population, are responsible for 66% of economic activity and 85% of technological and scientific innovation. Major city

region corridors are being planned over the world and especially in the US and Asia. In this context too much thinking about Britain's cities is not at the right scale.

Any coherent movement and mobility plan for Britain as a whole needs to connect investment in high speed rail with integrated regional connectivity programmes especially around four city regions: Birmingham, Manchester, Leeds and Newcastle. These programmes must combine a linked economic, spatial, cultural and social perspective. Rail cannot be looked at in isolation.

In Europe there have been successes and failures in High Speed Rail schemes – particularly in relation to the benefit experienced by regional cities.

The central lesson of high speed rail is that it does not produce development by itself. It can act as a catalyst. Development will not happen in a vacuum without complementary investments and inspired leadership.

In this context the balancing Britain agenda is vital – the power of London needs to be balanced by other distinctive city regions which drive their own destiny within a global economy.

While hub cities, like Manchester or Birmingham, will tend to define regional identity, smaller cities and towns need to be able to balance their interests as part of a city region and as distinctive places – moving beyond unproductive intraregional competition.

How urban dynamics plays itself out is not linear. Within the London super region there are pockets of poverty amidst overall wealth and equally within the relatively poorer regions there are swathes of economic vibrancy. Improved connectivity within London is important for these areas. Improving regional connectivity helps poor places like Burnley or Sandwell benefit from the relative vitality of a Manchester or Birmingham.

This is why the Brtain needs a nation-wide vision for connectivity which is far more sophisticated in relation to the potential value for towns, cities and regions and how their destinies can be shaped in an ever increasing global network. The wider potential of HS2 or of connectivity for Britain needs a champion.

Some catchwords help focus any vision: integrated thinking, seamless connectivity, a city region perspective, capturing greatest value from transport investment, generating enriched experiences and linking transport issues to larger national agendas like health or sustainability. To maximize potential, as evidence from Lyons and Bordeaux shows, cities on the route need to act now with the kind of ambition for economic growth, connectivity and cross-boundary working as if the HS2 were already there. Cities not directly on the route have to plan and act with the kind of ambition as if they were connected. The mantra here is 'you have to create your own potential'. Our cities need the

2

'organisational capacity' to collaborate at the wider city region level, to create their vision and be able to influence their destiny.

For long term and potentially transformative projects like HS2, it is important not to start with suboptimal solutions. Despite the major HS2 project not being delivered for 15+ years we may have already locked in decisions about station location and configuration and are already creating problems which future generations will be obliged to solve. It may be that we are reducing our expectations of what a station can do – or trying to reduce costs at the margins – when investment in the points of connectivity need to be capitalised in a deliberate and multi-layered way.

The risk will be that HS2 instead quarantines prime locations from development, such as at Old Oak Common, or arguments will be made that HS2 investment in itself is enough to catalyse transformation.

Experience in Britain demonstrates too that once a project has funding and is 'locked in' – the dynamics of project delivery mean the aim is always to avoid obstacles and simplify delivery. Consequently complex issues which will come together in a station and its immediate surrounds, like Old Oak Commons, will seem to be too difficult to resolve. Then a less than optimal solution will be adopted.

The location, design and context of the station is very important if the city is to benefit. Other cities have demonstrated that the value of investment is increased if stations are located in the centre, benefit from high quality architecture, increase multimodal connectivity, are surrounded by a mix of other uses, and station area improvements build up the quality of the broader public realm. The station can play a significant cultural role, beyond retail. It makes sense to leverage this investment for the benefit of the city.

In addition, other economic factors are important, such as complementary public investment and an active real estate market. The aim should be to catalyse local vitality prior to high speed rail being delivered. The aim should also be to capture greater value from, say the uplift in land value, for public investment – with investment or development models that allow for this.

Old Oak Common, the NEC station and the workings of HS2 as it enters Birmingham as well as the links between HS1 and HS2 as they enter London will either demonstrate or symbolise the potential realised within a country confident of its future, or by contrast the compromises made in a country which lacks ambition.

The time is right to think about cities and city regions. At last there is a minster for cities in Greg Clark appointed in July 2011 and various programmes such as City Deals and TIF have been put in place. In addition the role of organizations like Core Cities is seen more positively at the national level. A climate and

understanding is emerging that cities need to work with each other and with the private sector to take advantage of the emerging landscape. One conclusion most urban observers agree on is that cities need more encouragement and authority to control their own destiny and to be inspired by their own capacity for visioning.

Britain & its future: Vision & ambition

The prospect of High Speed Rail2 brings the vision for Britain sharply into relief. It goes to the heart of what sort of country we want to be.

Britain had bold urban visions in the past such as the 'garden city' movement, its more modern outlier self-contained 'new towns' as well as for social housing. There seems less courage now to paint a picture of the Britain we want and create the physical infrastructure to match it.

In the context of increasing competition – for talent, investment, attention and reputation – however, cities worldwide are setting out visions and articulating their values. For some cities this is simply marketing and spin, for others it informs their choices and investments. .

Visions are shaped by cultural proclivities, for instance favouring 'fairness' or 'equity' or by contrast 'individualism' or 'market freedom'. Where countries stand on this spectrum tends to shape perspectives, approaches and priorities.

If the goal of rail and major transport investment is to help Britain become more prosperous then 'capturing maximum value' for British cities and city regions means grasping economic opportunities - while enhancing the experience of travellers. High speed rail is a part of building a connected Britain.

The European Union plans to triple the size of its existing high speed rail network by 2030 and hopes that by 2050 the majority of medium distance travel will be by rail.[1] Some countries like Germany, the Netherlands or France are further along the way than Britain.

The effectiveness of high speed rail depends on the size of the country, the distances between major conurbations, population densities and the economic vigour of the places where the train stops. Britain is relatively small, densely populated with many cities close to each other. This either means many stops, reducing the effectiveness of speed or missing out major conurbations in the proposed Y formation that is planned. As an island it only has one funnel outwards, through the Channel tunnel, from where many high speed options splay out throughout mainland Europe. Whilst the Netherlands is even smaller it connects at several points outwards.

---

[1] White Paper- Road Map to a Single European Transport Area – Toward a Competitive and resource Efficient Transport System (2011)

The 'brand' of high speed rail confers importance, centrality and quality. High speed rail can reinforce the primacy of a city or increase its visibility. Cities have used high speed rail development to spark urban development around the station, to anchor strategic 'mega projects', to create transport nodes, to draw in more retail development or to create an 'iconic' building.

Yet a rail renaissance can be highly selective, boosting services along the most profitable high speed routes while thinning or cutting services to many smaller, more remote places and areas. Negative impacts can include tearing down historic buildings for expanded railway tracks, noise, toxicity and creating 'seas of parking' and congestion around station areas. Lesser stops down the line can be downgraded into 'non places'. Development and decline can happen simultaneously – two sides of the same coin.

If HS2 takes 15-20 years to deliver, it will encompass a number of political and economic cycles and great shifts in technology and development.

Delivering rail infrastructure, including stations, may take time but is not difficult. Britain has been doing it successfully for more than 150 years. However, 'capturing the maximum value' for places and for the country overall will need holistic thinking and imagination, potentially at odds with the arrangements for project management and delivery.

The central lesson of high speed rail is that it does not produce development by itself. 'Capturing maximum value' will rely on complementary strategies and investments to improve overall connectivity in Britain as well as the quality of British cities. Unless this happens London will benefit more than the regions from the HS2 investment.

The global dynamics of cities

The world of cities has changed dramatically over the last 25 years. With astonishing speed globalization has shifted both the world division of labour and terms of trade. It has created the knowledge intensive economy and new technology has led to the 'anytime, anywhere' phenomenon.

Increasingly, cities rather than nations compete. They compete for knowledge workers and investment through their quality of life, their buzz, their allure and attractiveness. The city is powerful as it can accelerate opportunities and offer a dense communications system that is not easy to replicate.

Cultural facilities can be part of a city's competitive advantage, but so crucially are infrastructures like transport and stations, which have both practical and symbolic roles. Even if they don't travel – people want to feel connected. The knowledge economy is powered by seamless connectivity and face to face meetings

In the hierarchy of cities, there are a small number like London with a special role. These global cities are strategic places and hubs which have a direct effect and influence on world affairs economically, culturally and politically, where global agendas are created, facilitated and enacted. Of perhaps 25 such cities only around five, including London, have a special importance.

London's importance as a global hub continues to grow even though Britain's political and economic role is weakening as cities in Asia, South America and Africa develop. The role of English as the world's 'lingua franca' is important to this. Without English London would be much less influential.

London's position is further sustained by its world-renowned universities and research institutes stretching across the sciences, engineering, art and design. Great national and international institutions from business to science and the arts reinforce London's resonance and centrality as does its energetic cultural life whose impacts are shaping world trends, fashions and opinions.

London's power as a global magnet can either overwhelm other British cities or offer opportunities for them to leverage London's power to complement their offer – this is the key strategic issue.

The city region phenomenon

A crucial planning issue emerging in this urban change process needs to shape thinking about any major rail investment – the development of city regions.

City regions exist everywhere and grow at different scales. More and more economic activity is concentrated in mega regions, often with more than 20 million people. The largest 40 mega regions with only 17.7% of the world population are responsible for 66% of economic activity and 85% of technological and scientific innovation.[2] In Britain, London and the Greater South East mega region continues to grow outward beyond Newbury to the West, to the South and East Coast and increasingly towards Birmingham. Its global presence is reinforced by its intense relations with other global regions from the Randstad to the Pearl River Delta, the Tokyo-Osaka axis or the Boston-Washington nexus.

Birmingham, Manchester and Leeds too have become city regions on a European scale - with extended hubs and populations of around 4million+. People living outside Manchester or Birmingham travel around half the distance to work in each city than those living outside London. In Scotland, Glasgow and Edinburgh are growing across the central belt. Their city region functions and specialisms are distributed across a wider spatial area.

---

[2] Florida, Gulden, Mellander, (2007) 'The Rise of the Mega Region', The Martin ProsperityInstitute,http://www2.rotman.utoronto.ca/userfiles/prosperity/File/Rise.of.%20the.Mega-Regions.w.cover.pdf

The development of HS2 highlights three important issues. The first is the risk that London's region will benefit at the cost of other British cities and city regions, as it continues to extend its reach. The second is that HS2 could reinforce the centrality of London, Birmingham and Manchester because all kinds of strategic or headquarters functions have a tendency to migrate to connected hubs, at the expense of regional cities like Nottingham, Derby and Leicester. The third is that governance has failed to keep pace with changes– and city regions lack the 'organisational capacity' to influence their economic destiny.

The gaps between London and regional cities like Hull, Newport and Doncaster are highlighted by the Centre for Cities Outlook 2012[3]. Innovation and high growth is consistently associated with cities in the south and low growth, lack of qualifications and low business start up rates are associated with northern cities. Cities that thrive outside the Greater South East have either high urban quality, high performing universities or benefit from factors such as a capital city role (Edinburgh), or specific factors such as North Sea Oil (Aberdeen). Some cities have benefitted from previous investment in transport (Warrington and Preston) and cities such as Milton Keynes, within half an hour from London, benefit from its proximity to London.

Without strong counter-measures British cities, outside the Greater South East, may get weaker. They may not be attractive enough in all senses. Those cities with a good fabric to work with, especially heritage, will find it easier. Affordability, cost of living and quality of life issues will come into play if matched by investment in education, infrastructure and the overall quality of place.

Crucially city strategy making needs to precede infrastructure. As evidence from Lyons and Bordeaux shows, for cities like Birmingham to maximise their potential they need to act now with the kind of ambition for economic growth, connectivity and cross-boundary working as if the HS2 were already there. Exactly the same point is true for the 'disconnected' regional cities, which have to plan and act with the kind of ambition as if they were connected. The mantra here is 'you have to create your own potential'. The 'Britain brand' can be strengthened by understanding and exploiting the synergies between these city regions if they can create the arrangements that allow their strengths to be developed.

At all scales, governance is increasingly reliant on institutional and sector collaboration and interdisciplinary working, combining public, private and community interests. Infrastructure and technology is needed to contain, connect and synergize dispersed and costly urban systems. The catchphrase here is 'smart city'.

---

[3] http://www.centreforcities.org/outlook12.html

At the city region scale - given their economic interdependence should Liverpool or Blackburn think with Manchester or Wolverhampton and Leicester think with Birmingham? Or should Birmingham think with London? Lead cities and their partners need to find arrangements that foster joined up and integrated strategy making. Part of this thinking has to encompass transport connectivity to and beyond the central city. City region thinking needs to allow for more 'eccentric' travel. If connectivity between major cities improves, while the quality of intra regional travel declines it will reinforce nodes of deprivation – two and three speed city regions.

Many cities are still too fragmented even at the normal city scale to be able to do this. Some are wracked with internal divisions or locked in historical competition with their neighbouring city. Consequently too much thinking, planning and implementation is still locked into self-focused city thinking and the zero sum game logic rather than seeing the benefits of complementarity or clustering.

It's easy to track the history of a city through its buildings but there is no equivalent way of tracking the progress of a city through its governance history. Yet bad or good city governance makes and breaks cities, perhaps more profoundly than transport.

From a nation-wide perspective a reconceived London region opens many new possibilities which could be embraced by other city regions and regional cities. For instance, is Birmingham's airport London's third? From a more narrow city perspective Birmingham or a Nottingham needs investment and solid visioning to drive forward their economic vigour. Evidence suggests this relies on more holistic approach to the city and its regions with investment in regional connectivity to complement the investment in HS2.

Deep trends & seamless connectivity

Deep shifts are shaping the future including greater citizen engagement, open source innovation and co-creation. All have implications for how our cities work, the experience of travel and most importantly governance and management.

Sustainability is the main shift favouring denser living and more compact settlement. As it continues to develop changes will be profound – it will reinforce the importance of rail connectivity relative to road and air.

The knowledge economy will continue to rely on cities which are vibrant, educated, clever and creative. Intense competition between cities for investment, resources, strategic positioning, power, recognition, and reputation occurs at every level from physical infrastructure to holding events to attracting key expertise and talent. In this context high speed rail is becoming a 'must have' feature for many cities whatever the costs and arguments about benefits,

since those cities on the key nodes ultimately become part of the central integration corridors in regions and countries.

Working adroitly in the knowledge intensive economy relies, these days, on **seamless connectivity** physically, virtually and socially. Walking, cycling, cars, buses, taxis, the metro, regional trains, broadband strength, wifi and social possibilities for connectivity all play a part.

Seamless connectivity in our virtual world will alter our expectations of physical space and lead to greater blending of physical and virtual worlds. Changes are happening at immense speed and the implications are only beginning to be felt physically and on our perceptual landscape. Any organization with strategic nous will be looking at what this means for them.

As Carol Coune head of the International Transport Forum at the OECD has stated: "The vision is the idea of Seamless Transport. Seamless Transport is nothing less than the physical expression of today's dominant mega-trend, connectivity. In the 21st century, ever more people connect seamlessly in cyberspace; it is for transport to strive for seamless connectivity on the ground, in the air, across oceans. Seamless Transport is not least about the convergence of traditional infrastructure and the new digital universe. Electronic information pushes the envelope for connectivity into a new dimension. For policymakers, operators and transport users this creates exciting new options".[4]

What could seamless connectivity mean in practice? Much is still to be created or invented. Paul Priestman, of Priestman Goode, imagines a high speed rail system where trains connect seamlessly and stations and terminals are less relevant, called 'moving platforms'[5]. Should you expect stations to help you get to where you want to go, rather than offer only limited options for going to the places they are connected to?

One place to start is to explore the opposite of seamless connectivity. 'Crunch points' are where the smooth travel experience is halted by one or many factors – visa checking, different ticket arrangements, unclear information, physical distances between modes, poor design of station areas, basics like a lack of escalators, complex transfer requirements, unexpected disruptions, language issues, and special rules which are only understood by very local users. 'Crunch points' typically emerge for travellers when transferring from one type of transport mode to another, from one country to another, or from one 'system' to another. Britain needs to minimise its own connection 'crunch points' to enhance its competitiveness.

---

[4] http://www.publicservice.co.uk/pub_contents.asp?id=533&publication=Transport accessed 5 September, 2012
[5] http://www.wired.co.uk/news/archive/2011-11/28/moving-platforms accessed 5 September, 2012

If the goal was seamless connectivity would different choices be made for HS2, for example, as it arrives in Birmingham, the NEC, Old Oak Common or even Euston? With HS1 arriving in St. Pancras and HS2 in Euston can the two be linked so at least perceptually they feel like one? An underground moving walkway or travelator between the two could be a solution.

What experiences can be offered on trains to make them feel like places of connection for travellers? People already hold meetings and conferences on trains. There is a special quality to train travel that can make them conducive to working – especially if there is space and quiet. What needs to be considered for people transferring to another journey or arriving in a place to make transitions easy? Is reliability or predictability of transport services more important than speed? Will people choose rail when they know it will arrive on time and they will have space to sit and work?

How does the mental map people have of places, proximity and connectivity influence their choices? How can you make places feel connected or feel closer? For example even though it is closer many people think Brussels is further from London than Paris. There seems to be a lack of appreciation of the importance of lateral and cross grid connectivity – the more you create links across a grid you improve the potential for connectivity hugely.

How do you make stations feel easy to navigate for anyone – from any culture or of any age? The Dutch have a design Tsar with this responsibility.

While the concept of 'seamless connectivity' encompasses many aspects there are other deep trends including:

The shift from 'top down' to more 'bottom-up' user control: seen in every sphere from movements of patient power in health, to the co-creation of services in the public sphere or in product and service development in the private sector. Open source innovation which promulgates the sharing of proprietary knowledge in order to draw greater expertise from the outside world.

A desire for immersive experiences: The convergence of print, moving image, sound and animation moves apace. Driven initially by video games and theatrics this has now embedded itself everywhere from shopping to what a station or the experience of travel may feel like.

Increasing commuting distances: whilst the domestic travel time budget has remarkably stayed the same for over 50 years at roughly one hour per day, the distances have increased. This has been enabled by speed and importantly by connectivity and interchanges. This creates many operational challenges to keep flows moving. It also mean that where hih speed connectivity is offered, and importantly where it is reliable, people will choose to use it and base themselves roughly one hour away from their employment or business.

An ageing population: making the system work for those who fall between being physically adept and frail enough to need a mobility scooter. Simple things like lighting and so on can make a significant difference, but it relies on thoughtful approaches to detail. As the disability movement has taught us, creating places that are easy to navigate for people who are older makes them better for everyone.

The big strategic choices

If connectivity at every level is now critical for success for people and cities – and if success relies on greater and yet a subtle appreciation of how to maximise value – from the value of investment to the value of people's time, to arrival experiences and creating valuable places – then it presents a number of policy dilemmas. If the government wants to capture the value of high speed rail – for the economic benefit of cities and city regions, it may need to:

Sell a broader and longer term vision for Britain which can withstand the limited time frames of governments and within which seamless connectivity is a key element. Seamless connectivity implies integrated and flexible systems. – Expectations will continue to rise in relation to the possibilities travel can offer and how efficient, accessible and easy the experience can be.

Government may need to think more broadly about governance arrangements, not just city region governance, but governance for the 10-15 years it will take to deliver HS2. There is a strong tendency, which inevitably accompanies major projects, to lock down solutions early on in a project to simplify delivery and to manage costs. This makes sense for some types of projects, but the risk is that for long term projects, a suboptimal solution will become apparent within a few years of its delivery, incurring more costs to remedy. For example, it seems difficult to imagine that there will not be an ambition to develop the potential of Old Oak Common given its location and that this will mean a plan for greater street access and connectivity. Even if it is achieved incrementally it would make sense to design it in from the start.

Additional investment may be needed to build inter and intra regional connectivity, to improve the urban quality of the cities and to support governance at the right scale. Financing models need to be developed which avoid all the cost falling on public sector and profit being delivered to the private sector. Places such as Kowloon have created models for investment which return the value of land value increases to government to allow for this complementary investment.

The timescale for delivery will encompass major shifts in technology, movements in global investment, further economic cycles and social and cultural shifts. How can cities and city regions within a context of austerity and retrenchment signal tangible progress so that much more has been achieved by the time the HS2 is delivered? What can be done quickly since the pace of

changes at a global level are quickening? What will drive motivation and confidence over the 15-20+ years it will take to develop and complete HS2?

Welcoming different perspectives: An HS2 authority needs the right incentives and structure to create places (and also experiences) of real quality - not just shopping centres with a rail line attached. They need to offer great connections to other modes of transport, while not being surrounded by untidy bus stations and car parks. Crucially, the vision for stations should not be too limited, or too focussed on saving money at the margins at great loss to the potential benefits. Here looking at Germany and the Netherlands is useful because they have been able to use stations to transform places.

Experiences & lessons

In some cities rail has catalysed development and in other places it has failed to deliver hoped for benefits. The snap shots are useful in assessing successes and failures, particularly in the European context, for lessons for the HS2 development:

Lille Europe has spurred development and revitalised its immediate vicinity and is joined onto Euralille which leads easily in walking distance to old Lille and its historic station Gare Flanders. High speed has transformed Lille's centrality from being at the edge in Northern France to being a hub between Paris, Brussels and London. Crucially it was part of a bold strategic plan instigated by Pierre Mauroy long term mayor of the city and former prime minister of France. Other steps in the process included becoming European City of Culture in 2004, bidding for the Olympics and operating tenaciously as a city region - Lille Metropole which includes Roubaix and Tourcoing. It has focused on developing an entrepreneurial culture and hosts France's largest entrepreneur fair 'LIKE'. The consensus is that whilst Lille has not overcome its industrial textile and coal mining past it is far better positioned than it would otherwise be.

The **Lisbon Oriente** station built for the Expo in 1998 has helped create a new urban district with mixed commercial and residential anchored around the 'Park of the Nations'. It encompasses a metro station, a high-speed, commuter and regional train hub, a local, national and international bus station and a well-integrated shopping centre not solely based on fashion and knick knacks, but also food and necessities like laundries or shoe repairs. Its success again depended on large scale public investment in the Expo and a clear strategy to pre-sell all the Expo buildings so that they were not left empty after the event. Contrast this with the relative failure of the Zaragoza 2008 Expo station, attractive as it is, which suffered from the financial crisis and where most buildings remain underused. The station floats somewhat in empty space.

Madrid Atocha is the largest railway station in the city. It is the primary station serving commuter trains, intercity and regional trains, and the AVE high speed trains from Barcelona, Zaragoza, Seville and Valencia. Its success is partly

because it is webbed into the city in walking distance of the city major museums as well as quite densely populated Arganzuela neighbourhood. After the 2004 bombing atrocity the station was refurbished including with a botanical garden style interior, which has become a destination in its own right. This reminds us that we should not be narrow minded about what a station might be.

The new **Berlin Hauptbahnhof** has been criticized for being insufficiently connected into all the other local and regional networks and particularly because it was in 'Niemandsland' – in the middle of nowhere. It is not connected to any functioning residential or commercial district. A withering cartoon went the rounds at its opening: „So weit das Auge reicht, nirgends ein Gebäude, dessen Insassen diese Haltestelle benutzen könnten"(as far as the eye can see, nowhere a building whose residents would be able to use this station).

Amsterdam Zuidas, is a different example showing the power of location linked to rail. The area has become the city's global business hub. It was its position between Schiphol and the city centre and developable land unavailable in the city centre that made it compelling. Retrospectively high speed rail has arrived. Significantly though it is felt the area lacks urbanity and a number of cultural projects are underway to give the area identity. One project, for instance, was called 'What is the Zuidas? An interesting question when already 2.8billion euros have been spent on the initiative.

The vast, futuristic black **Kyoto Station** combines shinkansen and many other train lines. After Nagoya it is the second-largest train station building in Japan and one of Japan's largest buildings. It incorporates a shopping mall, hotel, cinemas, an Isetan department store, and several local government facilities under one 15-story roof. It caused shock when built in this heritage city. Once completed it began a wave of new high-rise developments in the city causing criticism of the station's design as being the catalyst in breaking down the traditional cityscape. Similar arguments are currently raging at Ghent St. Pieters where the station redevelopment is leading to the first cluster of high rises in the city. In general new shinkansen stations have triggered the building of new city cores and commercial centres such as in Shin-Osaka and Shin Yokohama.

Broadening perspectives & HS2

Stations and interchanges need to be located in city centres or the location needs to be purposeful. The station can only shift urbanity where there is a parallel programme to *make* the city, as with Lisbon's high speed rail station around the old Expo site or Lille Eurostar or where there is already substance to work with as in Shin-Yokohama.

From a rail perspective an edge of town location is easier and cheaper to deal with whereas an urban development perspective in an in city location creates more synergies – allowing for enhanced transactions, exchange and potential. Who pays for the extra costs to create the catalytic impact through a better

13

public realm, and generous civic spaces?. Is it the rail industry, the city or the government?

Locating a station in the middle of a as yet to be developed area (such as Ebbsfleet) is bold but then there needs to be certainty that the area will be developed – and that the vision for the area will be sufficiently ambitious to create a destination. Evidence from other developments tend to indicate that if an area around a station has not been developed within 5-10 years there is less likely to be significant development after 20 years.

Making connections between different spheres like mobility and health or mobility and learning. For example, obesity and lack of exercise is one of the greatest causes of ill health and death. Can endless and lengthy walkways in large stations or airports be conceived of as exercise routes? At the London Olympics 2012 there innumerable signs suggesting walking alternatives highlighting how many calories you might save. Can the time spent waiting for trains or on trains be used in health inducing ways, such as incorporating spas and well-being centres? Can station announcements also have a health focus? There is an education and skills deficit between the north and south of the country and the problem is getting starker. In some Korean trains learning modules are tailored into typical travel segments. Other places make learning institutions part of a station such as the Johann Cruyff College in Nijmegen. Stations are increasingly seen as destinations in their own right. If a station was seen as a cultural centre, a concert hall or civic centre how would the design and aspiration change? If maximising value is only seen as the value of real estate many opportunities will be lost.

Enriched experiences. What are the possibilities to enrich journeys from beginning to end, at the destination and moving on from there? A seamless experience can offer many possibilities along the way from how you get in and out of a train, what you can experience while travelling, to ever present wifi or convivial places on arrival.

The rail station has special significance for enriching experience. In the 19th century they used to be highly valued spaces with great urban design significance. But over time, rail stations were treated more and more as merely functional places; and increasingly neglected in the post-war period. Political interests and investment power targeted other kinds of mega projects, such as airports or road networks. Yet stations are both nodes, accommodating both transport and non-transport networks and places. An enriched experience is more than just reliability or arriving in a shopping centre. Diverse uses can include the obvious like retailing to settings for museums (Warsaw) and even gardens (see Madrid Atocha).

> '…*The railway system has to offer full connectivity in both the hard sense*
> *- the infrastructure – and the soft sense – the services…In the process*

the railway station turns into a 'place to be' not just a 'place to pass through'. [6]

The user can be a creator and co-creator of their travel experience. New technology, based on 'smart city' principles and the 'anytime, anywhere logic' where organizations like Cisco or IBM are active, can open up opportunities. This needs people with different skills to come together in an interdisciplinary way. The insights of people from infrastructure, finance, sociology, psychology, planning, culture and many other disciplines can spark innovation.

Capturing maximum value

Core decisions on HS2, the biggest one off investment since the war, may have already been made. There are proposed routes and stations. There is a danger of seeing things in terms of the art of the politically possible rather than the desirable and effective. Consultation on a draft Environmental Statement will start in Spring, 2013. In 2013 requirements may be etched into law. Even if the aim is to increase its catalytic effect and see the network as an integrated system, there may be little room for flexibility and adjustment.

While the choices are ultimately political, they determine settlement models, encourage certain behaviour patterns over others, can engender aspiration or reduce it, foster and stimulate certain styles of life. This is why places look, feel and behave completely differently. Policies that favour cars inevitably promote, indeed condone, suburbanization and dispersed development. A focus on public transport by contrast can and usually helps create denser communities. Policies developed in a silo fashion have consequences which were not originally desired or anticipated.

To realise the potential of high speed rail and all the elements around it requires much stronger interdisciplinary working on the part of rail interests and political leaders. It needs expertise on delivering the 'hardware' but also people able to explore the potential 'software' and even the 'orgware' – around how we can deliver on the potential. This may seem simple but often it's not – because managing conversations and decision making across these different modes of thinking – while potentially a richer experience in many ways – can also slow down processes and cause frustration on all sides. Even though the time scale is 10-15 years many critical decisions will be made over the next 12 months. This is not the point at which to close down the wider vision – otherwise compromises will continue to be made and a less than optimal solution delivered.Other cities have demonstrated, 'capturing maximum value' relies on a number of factors:

Rail investment needs to achieve a win-win scenario both for London and the regions so that London's success and strengthening helps Birmingham and

---

[6] Bertolini and Spit (1998), Cities on Rails: The Redevelopment of Railway Station Areas, London E&FN Spon.

15

Manchester and vice versa. This is not isolated to rail, but involves aligning connectivity issues with economic, spatial, cultural and social questions.

Cities will need to make complementary investments ensuring that the location; design and architecture; connections; wider station area improvements increase the quality and urbanity of the city.

Cities need to create confidence and attract investment – by providing certainty around public funding and commitment specially since rail operators increasingly rely on commercial development within stations and around stations as part of their funding model.

City development relies on political leadership, pre planning and coordination between public and private sectors, the cooperation of local stakeholders and supportive regional or national policies.

British cities and city regions beyond London need to reinforce an integrated national system of points, nodes, and hubs connecting to intercity, regional and local trains, airports, roads or cars, buses, walking and taxis. The transport system should feel seamless, balanced and connected. This involves linking transport the wider economic growth programme. It is one element of city region competitiveness, helping cities attract private sector growth and investment to complement the London region.

Cities, working as city regions, need to take action to catalyse the benefits of HS2. They cannot assume growth and benefit will occur simply because of the investment.

Capturing the full value of HS2 involves looking at the effects of the investment not only in terms of rail economics, such as passenger or station revenues, but also on the way the station contributes to its immediate surrounding area and the wider region. The value of the station as a destination needs to be maximised as do the areas that adjoin the station or areas further beyond it as well as the value of regional and inter-regional connectivity.

Before decisions are locked in a number of important issues need to be revisited, such as

- how will Crossrail and HS2 relate at Old Oak Common - how will it become a <u>place</u> in its own right rather than an interchange with some shedland surrounding it?

- Will HS2 go on to Heathrow, since linking high speed rail and to airports is the normal practice elsewhere?

- Can Crossrail extend to Reading rather than only Maidenhead?

- How will the HS2 Birmingham station connect with New Street, when currently they feel too far apart?

- Can the HS2 Birmingham NEC station be brought nearer the airport to reduce the amount of changes?

People interviewed

Name	Organisation
Alan Baxter	Alan Baxter and Associates
John Worthington	Founder, DEGW
Dominique Larrousse	Head of Foresight and Innovation, SNCF
Adrian Penfold	Head of Planning, British Land
Joost Schrijnen	TU Delft and Director of Planning South Holland
James Angus	Head of Forecasting and Analysis , Network Rail
Neil Bennett	Partner, Terry Farrell and Partners
Professor Tim Stoner	Managing Director, Space Syntax
Paul Priestman	Director, Priestman Goode
Elizabeth Gilliard	Independent Public Policy Professional and member of the ITC
Professor Sir Peter Hall	Professor Emeritus, City and Regional Planning, UCL
Jim Steer	Director, Greenguage 21
Roger Madelin	Joint Chief Execuitve, Argent Group
Rob Holden	Chairman High Speed 1
Adrian Shooter, CBE	Former Chairman of Chiltern Railways
Richard Davies	Director of Policy, Association of Train Operating Companies

References

Bertolini and Spit (1998), Cities on Rails: The Redevelopment of Railway Station Areas

Centre for Cities Cities Outlook 2012

EU White Paper on Transport (2010)

Florida R, Gulden, T, Mellander, C (2007) 'The Rise of the Mega Region', The MartinProsperityInstitute

http://www-2.rotman.utoronto.ca/userfiles/prosperity/File/Rise.of.%20the.Mega-Regions.w.cover.pdf

Green, C and Hall, P (2009) Better Rail Stations http://assets.dft.gov.uk/publications/better-rail-stations/introduction.pdf

Greenguage 21, The Heathrow Opportunity (02/2010) High Speed Rail in Britain http://www.greengauge21.net/publications/the-heathrow-opportunity-2/

Railway Stations and Mega Projects – Built Environment Vol 38, No 1(2012)

Synaptic Study: Steer Davies Gleave; Value of Station Investment (November 2011)

Van Den Berg, L and Pol, P (1998) The European High Speed train and urban development