



Making Business Sense



The social benefits of infrastructure investment: summary

A report for the Civil Engineering Contractors Association

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The Civil Engineering Contractors Association is the representative body for companies who work day-to-day to deliver, upgrade, and maintain the country's infrastructure.

With more than 300 members based across Scotland, Wales, and six English regions, CECA represent firms who together carry out an estimated 70-80 per cent of all civil engineering activity in the UK, in the key sectors of transport, energy, communications, waste, and water.

Guest Foreword



Mark Thurston, CEO, High Speed 2 Ltd

For too long as a sector, in making the case for individual infrastructure projects, we have tended to focus on the economics. This is not a surprise, infrastructure is expensive, and when it involves taxpayers' money, the returns to the country must be greater than the cost.

As the Government's largest infrastructure project HS2 is no different.

HS2 is an investment in Britain's future. But with a budget of £55.7 billion over the next 15 years, and a completion date of 2033, we receive our fair share of attention.

For every £1 invested in HS2 the UK will receive £2.30 in benefits - £92 billion of benefits overall.

But when we spend taxpayers' money, we have a responsibility to do more than an economic cost-benefit analysis. We have to make sure the benefit to society – to quality of life – is as strong as the benefit to the economy.

It is difficult to model and value this important effect using traditional techniques. This can skew debate about investment priorities. The unintended consequence can be that short-term decisions do not address future challenges and needs.

That is why this new report from CECA comes at an important time for the industry, setting out the case for the social good that housing, transport and energy infrastructure can bring to the country.

The report is clear about the opportunity this offers the industry and why we must continue being bold in our vision for infrastructure. Why we must talk about social outcomes, not engineering outputs. And why we must help the public make the intuitive leap about what infrastructure might mean for them.

That is what we are doing at HS2. People are starting to understand that HS2 offers an amazing opportunity to completely reshape the way we travel across the UK and the future of our economy, our regions, our local places and our communities. Put simply, HS2 will join up Britain and put opportunity within the reach of many.

It is clear for the whole of the sector that the debate on infrastructure investment priorities has to shift from cold, hard-nosed calculations alone. I therefore encourage the industry to support the efforts underway to address the measurement of social benefit from infrastructure investment.

I am proud to have worked in the construction and infrastructure sector since my apprenticeship over 30 years ago. Throughout my career I have seen the power of infrastructure to transform lives. This report is an important step forward in ensuring that we make sure others see that power too.

Introduction

This piece of research brings a fresh perspective to the debate about the UK's infrastructure needs, focusing especially on the social benefits infrastructure brings.

Its aim is to contribute to a better understanding of the different ways in which various forms of infrastructure investment affect people's lives. Much of the debate to date has focused on how infrastructure investment can lead to wealth creation, but little work has been done on how infrastructure benefits the people who use it.

The social and economic benefits of infrastructure are closely related. While quality of life, health and social inclusion have become increasingly important factors in long term economic prosperity, the mechanisms by which infrastructure influences

these factors are considered less measurable than simple economic benefit. It is therefore easy to overlook the social benefits infrastructure can bring because they are less easily valued using traditional techniques.

To this end, CECA commissioned CEBR to undertake a thorough analysis of the social benefits the right infrastructure investment can bring and has made a series of recommendations to Government based on these findings.

Scope & purpose of report

Understanding how infrastructure affects people in different ways is vital to good investment decisions. The purpose of this report is to explore the social impacts of infrastructure. Our aim is to go beyond

the usual approach of estimating the 'first order' economic impacts and instead to consider how the benefits transmit through society to affect people's lives in different ways.

The full report explores various social benefits through examples and case studies, organised around the following three themes:

-  **Delivering homes** – improving opportunities for people to live in locations offering healthy and sustainable lifestyles with access to good employment opportunities and supporting Britain's growth.
-  **Health and social inclusion** – mitigating negative externalities from personal transport, facilitating active and inclusive transport, using digital infrastructure to create economic and social opportunity, ensuring rapid technological progress benefits all places and people.
-  **Regional rebalancing** – using transport infrastructure and investments in clean energy or construction to accelerate growth in isolated or underperforming areas of the country.

1. Unlocking homes to support competitive cities

Solving Britain's housing crisis is not simply a question of building a certain number of new homes, but of ensuring that there are opportunities for people to have access to the housing they need where they want to live.

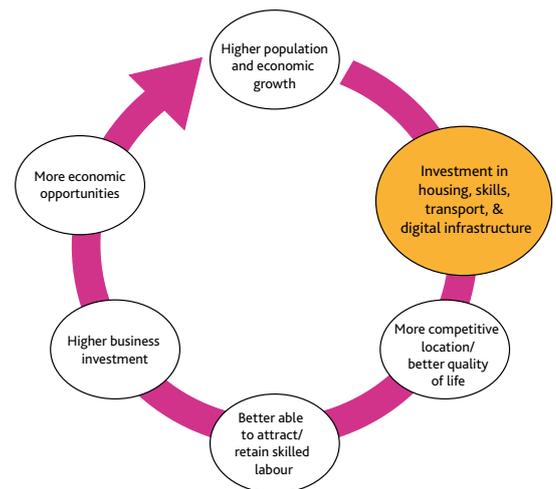
Cities are home to rapid economic growth. Large cities house almost 40 per cent of the world's population but generate nearly three quarters of its economic output, and their success is expected to continue.

Cities support interaction between people through a high density of employment. This generates productivity-enhancing agglomeration economies, which can be broadly categorised as follows:

- **'Learning'** through knowledge spillovers, as the proximity of firms in the same or similar industries facilitates the exchange of best practice and the transfer of skills as employees move between companies;
- **'Matching'** of jobs to workers, suppliers to firms and firms to customers. A high density of related firms means that, for example, workers can easily move to employers whose requirements best fit their skills;
- **'Sharing'** of risk, opportunities for specialization, and access to required goods, parts and services. For example as suppliers of goods, parts and services locate close to clusters of firms, they will enjoy lower average transport costs and increasing returns to scale.

Agglomeration effects are critical in how places develop. Infrastructure investment plays a vital role here, driving the following key outcomes for people:

- More productive and interesting work that enables people to develop their skills and knowledge in ways that would not otherwise be possible and gives them higher incomes;
- Higher quality housing for city workers in locations that offer a higher quality of life, such as suburbs or rural areas, whilst still allowing for a reasonable commute into work;
- Better services for local communities where skilled commuters live. As they spend their earnings and generate economic multipliers a positive cycle of development can result.
- Enjoyment of specialised cultural and leisure opportunities that are only available in big cities – quality of life factors such as these are becoming more important in employment decisions.



Above: interactions between location, investment, and economic growth

2. Healthy, sustainable places & inclusive growth

Infrastructure investment can influence not only which journeys are taken but the means by which they are made, with important social consequences:

- Personal travel modes all have their own social impacts – both positive and negative – so the choice of transport used determines the extent to which these impacts manifest themselves, with implications for managing congestion, global climate change, local air quality, and individual health and wellbeing.
- These decisions have implications for our living and working environments, affecting place-based competitiveness. For instance railway stations used to be associated with negative social impacts on the areas around them, and busy, polluted roads still are. As trains have become cleaner, areas in the vicinity of busy stations have been opened up for high-quality, high-density residential and commercial developments.
- Some modes of transport are more socially inclusive than others in terms of who can access and afford them – all groups within society need to be considered in infrastructure provision. If transport provision is not inclusive, it risks excluding those who cannot access conventional private transport – the poor, disabled, young, and elderly – from employment, educational, and leisure opportunities.

The future of the car

While car use provides valuable benefits, it imposes costs on others. However, there are three broad approaches to addressing the negative social costs which can arise from car use:

1. Upgrading road infrastructure to improve capacity or reduce congestion.
2. Supporting the use of alternative types of car associated with lower pollution (electric vehicles) or fewer accidents (autonomous vehicles).
3. Providing high quality alternatives to car use, either public transport or active transport. For instance investing in railways for long-distance journeys and dedicated infrastructure for buses at the urban or regional levels. For shorter journeys within cities, infrastructure to support active transport can be provided, removing both private and public motor vehicles from the roads, reducing air pollution, and improving people's health.

The future of public transport

While there will always be a role for private personal travel, there is a strong case for investment to enable attractive alternatives, particularly in and around urban centres.

High quality public transport and provision for active travel to improve intra-urban connectivity promote:

- Greater participation in employment or leisure as access to a range of opportunities is improved, including for those with no access to a car such as the elderly, disabled, or deprived;
- Reduced personal cost of travel as it is made less costly and stressful;
- Healthcare savings as regularly walking or cycling improves fitness;

- More compact forms of residential development, which promote viable local services, social inclusion, preservation of open space, healthier lifestyles, greater social interaction and better security in the public realm, and more vibrant local businesses.

These will in turn have further positive social benefits – lower healthcare and policing costs and reduced pressure on welfare spending.

The future of digital

People can be connected to one another digitally as well as physically. The advent of the internet has already transformed society and the economy in positive and surprising ways far beyond those initially anticipated, in much the same way that the connectivity provided by canals and railways once brought about changes that could not have been imagined. These have reshaped the competitive structure of the economy, breaking down information barriers and massively shifting power from producers to consumers.

For example:

- A revolution in retail including e-commerce, more bespoke products, shorter lag times, and in some cases reshoring of production in order to be closer to consumers;
- Opportunities for remote or home working and the resulting rise of 'digital nomads', i.e. footloose digital workers;
- Real-time, face-to-face communication across the globe.

These examples suggest that there is a strong case for being visionary and ambitious in future digital infrastructure investment to ensure that dynamic, unanticipated benefits like these are fully realised in the future.

3. Ensuring balanced growth beyond the cities

An important aspect of regional rebalancing across the UK is the agglomeration in big regional cities. But this is not the whole story – there are also many more sparsely populated areas where a shortage of housing or constraints on its development are not issues, but a shortage of quality employment or a lack of connectivity to the rest of the country is.

Certain kinds of infrastructure investment can deliver significant benefits to these areas and to the whole country. Geographically isolated areas, typically rural and/or coastal locations, are characterised by low population densities and challenges in accessing centres of economic activity and employment. Infrastructure investment can help to address some of the social and economic challenges faced by these areas.

In much of Scotland, Wales and northern England in particular, there is an abundance of land protected from development through national park and AONB designation. Some communities surrounding these areas suffer from being comparatively isolated although there are valuable tourism opportunities. Transport infrastructure which connects these locations to centres of activity can have a transformative impact, for example in allowing local products to access wider markets and attracting tourists to scenic parts of the country, where their spending supports isolated settlements.

Investment in clean energy provision, building on natural assets, is another way of developing economic opportunity in the most isolated areas. It brings wider national benefits, for example by generating energy in a way that avoids the negative environmental impacts and potential high costs associated with fossil fuels and helps to meet the UK's renewable energy targets.

Another way in which infrastructure investment can help such areas is through supply chain effects. Investment can benefit places well beyond their user catchment area, creating opportunities in diverse locations across the country and helping to spur the development of new and innovative industries.

Appropriate infrastructure investment can both deliver national objectives and ensure that there are high quality economic opportunities for residents living away from major population centres – it would be neither desirable nor appropriate for everyone to move to big cities.

Conclusions & Recommendations

The benefits of long-term infrastructure investment are clear. Not only is there a strong economic outcome – previous CECA / CEBR research has found that every £1 billion of infrastructure construction increases overall economic activity by £2.842 billion – but this publication demonstrates that there is also significant social benefit.

The wider benefits infrastructure investment can bring are only starting to be recognised by governments and local authorities. CECA welcomes this wider approach, and has worked with its members to produce a series of recommendations to ensure the delivery of world class infrastructure for all.

Well planned infrastructure investment can not only transform how we all live and work, but it has a notable benefit for those areas which have been left behind over the years.

Based on this report, the Civil Engineering Contractors Association makes the following recommendations:

-  A cross-sector working group should be established to create and champion a new national framework for the measurement of social benefits. This group would advise Government departments on how to consistently appraise and evaluate the contribution of different types of infrastructure investment to social outcomes, with data resulting from this work supporting business cases for future investment.
-  The planning of future infrastructure projects and programmes should consider opportunities to spread the social benefits across the UK. In particular, consideration should be given to establishing infrastructure logistics and manufacturing hubs in former industrial towns and cities, creating new industrial heartlands that support multiple projects, create jobs, and rebalance the UK economy.
-  There is a need to move discussion away from an either/or approach to delivering much needed investment in London and across the rest of the UK. Instead there should be a recognition that investment outside the capital supports growth in London and vice versa.
-  Northern English cities should move towards a 'Randstad'- style model of collaboration between interconnected cities, supporting increased global competitiveness.
-  To support the UK's future infrastructure needs, the Government should maintain a commitment to gross public funding support for infrastructure that meets the 1.2 per cent of GDP fiscal remit set for the National Infrastructure Commission, while examining the case for higher social and economic outcomes if this ceiling was to be raised.