Why is transport investment required? It may be difficult to assign precise values to such qualitative factors. However, they are given equal prominence in the economic case and when the effects are being weighed up. This approach is necessary and transparent.

How do we measure the impacts? Direct economic and social impacts are measured by calculating the change in real and perceived costs of a journey (in time and money) as a result of an intervention across the population. If journey times are cut by ten minutes, we can value this. Such interventions can boost firms’ productivity and can facilitate interactions between different firms in a way that boosts productivity. We value these as _wider impacts_, including the effects of agglomeration, labour market participation and enabling the move to more productive jobs.

Environmental impacts are valued in different ways – e.g. air quality and noise impacts are monetised using information about how much people are willing to pay to avoid illnesses associated with poor air quality or annoyance from noise generated by transport. Carbon values are determined so they are consistent with Government’s carbon reduction targets. Landscape impacts are considered using a set of qualitative indicators to describe what contributes to landscape character. It may be difficult to assign precise values to such qualitative factors. However, they are given equal prominence in the economic case and when scheme impacts are reported to decision-makers.

How do we decide on the best investments? Decisions are based on assessing the case for the intervention for each of the five perspectives: the economic case, the environmental case, the social case, the wider impacts case and the reliability case. We use a _5 Case Model_. This means that the assessment is not just about money and savings.

So what have appraisals told us? These initiatives were found to provide very high value for money, with the majority of benefits attributable to the _health_ benefits of walking and cycling.

Sustainable Travel Town evaluation These initiatives were found to provide very high value for money, with the majority of benefits attributable to the _health_ benefits of walking and cycling.

Smart Cities Smart initiatives such as in Bristol have seen increased use of technology in the transport and energy sectors. The environmental impacts on carbon and air quality, among others, are included in the appraisal.

Crowding relief Public transport schemes aimed at reducing crowding provide a benefit to users who may travel in a more comfortable ambience and more likely to be seated. These are _journey quality_ benefits.

Managed motorways and hard-shoulder running These interventions effectively increase road capacity and generate resulting _time savings_ to users. They also decrease the number of incidents and hence realise _reliability_ benefits.

The impacts appraisal process is used for all aspects of the transport appraisal process at each stage in the decision-making process, identifying potential opportunities and problems and encouraging sustainable mobility. It is of greater value to them and we can measure these benefits too. We also value attributes of the journey experience, such as travelling in less crowded conditions or increasing safety through improved cycling infrastructure.

Transport Appraisal in Investment Decisions Our transport networks and services are vital to our way of life, delivering goods and services, ensuring that people can live, work, travel and enjoy, with the people we care about, in a better quality of life. Transport systems and infrastructure are focused on meeting the needs of the present without compromising the ability of future generations to meet their own needs. Transport improvements will deliver many benefits including an improved quality of life, a reduction in congestion, and improved safety for all road users. The transport appraisal process is used for all aspects of the transport appraisal process at each stage in the decision-making process, identifying potential opportunities and problems and encouraging sustainable mobility.
Valuing the impacts of transport investment

**Objectives**

- Increase productivity, jobs and growth
- Improve and preserve the environment
- Improve happiness, health and wellbeing

**Scheme options**

- Relieving congestion
- Increased capacity
- Smarter choices
- Improve connectivity
- Improve town centres

**Impacts**

- Change in journey quality
- Quicker, more reliable journeys
- Changes in travel patterns
- Changes in crowding
- Changes in mode of travel
- Change in walking and cycling use
- Changes in accidents
- Change in accessibility
- Change in the urban environment

**Outcomes**

- Time spent on more productive tasks
- Improved access to customers and suppliers
- Wider impacts on the economy through business agglomeration
- Allows regeneration of area
- Reduced local air pollution from more optimal car use
- Reduced carbon emissions
- Less noise pollution
- Potential detrimental impact on local landscape that requires mitigation
- More comfortable journeys
- Improved health from physical activity
- Improved accessibility for vulnerable transport users
- Increased accidents may require mitigation through scheme design

**Why might we need to invest in transport?**

- What problems or opportunities are faced?
- What do we want to achieve?

**Using analysis to appraise options and facilitate investment decisions**

In considering the options, it is essential that decision-makers have the fullest possible information about the impacts each option could deliver and how those impacts would align with their objectives. This is necessary to ensure both the best value for money in the spending of taxpayers’ money, and that all the pros and cons for different people are given full consideration.

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