Network Rail has now published its Strategic Business Case for New Lines. The product of a study by transport consultants Steer Davies Gleave, it concludes that a new core line from London to Birmingham, Manchester, Liverpool, Edinburgh and Glasgow would cost £34 billion to build and, over a 60 year period, generate £23 billion of additional revenue and a further £34 billion in additional benefits. So should it happen, and if so, how and when?

Based on previous experience of such projects, the £34 billion can be taken as a gross under-estimate, and the final figure is likely to be at least £50 billion. The "additional benefits", such as the value of time saved, will mostly go into land values, and in the absence of an effective system of land value capture, will end up in private hands. On that basis, how can this be good value for money?

**Capacity limits**

It is said that existing routes are approaching their capacity limits and that new lines are needed in any event, but that is hard to believe. It is necessary only to stand on any busy station in the country to see that Britain's railway system has been filled up with short trains. There are technical reasons for this. A modern train is packed with very expensive high-technology equipment; there are cabinets full of the stuff under the floor. At the same time, there has been a desire to cut down on the time spent in making up trains of different lengths for different situations. These factors have driven the trend for getting rid of trains of variable length hauled by locomotives, and replacing them by expensive unit trains with a fixed number of carriages. Useful extra capacity could be obtained simply by ordering additional carriages, at around £800,000 each, and locomotives, which are available off-the-peg from companies like Bombardier at around £2.5 million. This has the advantage that most of the expensive kit goes on the one locomotive. Longer trains will need longer station platforms, but that is a different proposition from building an entire new railway system. What Britain's railways most certainly do not need is the fleet of 140mph trains which have been procured by the Department of Transport at £5 million per carriage, which is about four times what they ought to cost.

There is also extra capacity to be won by upgrading secondary routes such as the Settle and Carlisle, and by re-using defunct infrastructure which is largely intact, such as the former Great Central line, a core route which went up the centre of the country, the peripheral route between Oxford and Cambridge, and other lines shut in the 1960s.

A further question concerns the place of high speed rail in the overall transport system. The problem is obvious when using the Eurostar terminal at St Pancras. Anyone trying to leave by taxi will face a long wait, the streets around are approaching gridlock and there is a long walk to the underground, which itself is congested. Shouldn't transport investment focus on making local journeys easier? Most travel consists of local journeys and most long-distance journeys start and end with a local journey. £34 billion will buy a lot of tramway and light rail systems, and almost certainly create more additional land value than a high speed railway.

**Technical questions**

There are also difficult technical questions to be answered, not touched on in the Network Rail report. Trains in Europe are about 20 cm wider and 60 cm higher than British ones, and although they run on the same track, they cannot run in Britain due to the closer spacing of tracks and the smaller tunnels. Trains in Britain are therefore more cramped and double-deck
carriages are impossible. If the line generated significant additional traffic has hoped, double-deck trains are likely to be needed eventually between London and Birmingham, and possibly to Manchester too. In this connection, the European standard itself is sub-standard compared with the USA, where the vehicles are a full 3.2 metres wide and double-deck trains can have full-height ceilings on both levels.

This implies either that the new lines and the trains that run on them will continue to be sub-standard, or that an entire new system has to be built. This will involve very expensive tunneling into city centres, which seems to be the intention.

**When?**

All of the above considerations lead one to ask when all this can possibly happen? Unless firm centralised decisions are taken and followed through, fitting such a system into a densely populated country is a planning nightmare. Disputes over compensation terms alone will go on for years.

In fact, without an effective system of land value capture, this is unlikely ever to happen, and it is difficult not to conclude that this is a huge diversion of effort which could be better spent. On the whole, a better strategy would be, sooner rather than later, to make the best of what we have, improve wherever it makes sense and shift the focus on to short and medium-distance transport which are the journeys that most people make most of the time.