

## New Railways for London

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In the last few years, four major rail schemes have been completed in London. The Jubilee Extension, Heathrow Express, Docklands (Lewisham Extension) and Croydon Tramlink are each the sort of scheme that smaller cities only dream about. Together with the Channel Tunnel Rail Link (CTRL) now under construction, and all-but-committed Thameslink 2000, they will have a major impact on the growth and form of the metropolis. What next? Floating to the surface in the Mayor's Transport Strategy are those old friends CrossRail, the Chelsea – Hackney tube (now re-branded as Hackney – SouthWest), and the East London Line extensions (also re-branded, as "Orbirail"). What should be the next rail schemes for London? What should we be trying achieve? Who decides, and how should they be built?

Transport planners and economists like to use complex simulation models to estimate which scheme will give the greatest time savings to passengers. While it all seems very scientific, Cost Benefit analysis often only serves to hide the underlying assumptions about which type of city we are trying to build; where people will live, where they will work, and what sort of development will be encouraged or discouraged. Since nobody really understands the models, they can be used to justify almost any scheme.

Engineers have more basic requirements. They like to pour concrete and dig tunnels. Architects like to build spectacular stations which get photographed in the Sunday papers. Railway operators like things to be simple and uncomplicated – the best railway has no passengers to make things go wrong or complain if they do! Alas, railways are very, very expensive. Merely being technically "feasible" and showing a good cost-benefit ratio is not enough. Big schemes only get built if they have strong and determined promoters. The Docklands Light Railway and Jubilee Extension were backed by the LDDC and in particular the Canary Wharf developers. BAA needed Heathrow Express as a preliminary step to gaining approval for Terminal 5, and put up its own money to get it built. Tramlink was driven through by Croydon Council, who formed an alliance with London Transport's planners who were keen to demonstrate the potential of light rail technology.

CTRL is the scheme that would not die. It has no particularly strong backer, but as long as Eurostars run 300 km/h in France, there will be political pressure to spend whatever is necessary to get them running just as fast over here. The scheme acquired a life of its own, although nobody is waiting impatiently for it to be completed. Perhaps the main beneficiaries will be residents along the route and around the St Pancras terminus who will at last see the end of planning blight.

Who is behind CrossRail, Hackney – Southwest, and Orbirail? Why have these schemes been put forward yet again? Will they simply create lots of work for architects, engineers, and contractors, massive disruption for residents, and a few ribbons to cut for future politicians (and a massive hangover for the taxpayer). Or will they make London and the southeast a better place, with increased accessibility, supporting sustainable development while keeping the economic engine running smoothly? Are they the best schemes, or are there better schemes out there, and how do we find them?

I will focus in this paper on CrossRail, currently the front runner to be London's next big project.

## CrossRail

CrossRail is an “operator’s” scheme. It is not intended to achieve any particular strategic objective but has long been seen as a way to sort out the trains and relieve congestion at London’s busy terminals. It originated in the 1944 County of London Plan, was revived in the 1979 London Rail Study, and again in the 1989 Central London Rail Study. After more than £100 million spent on design and property acquisition, a private bill for CrossRail was rejected by a House of Commons Committee in 1994. CrossRail is safeguarded, which means new structures cannot be built which would block its route.

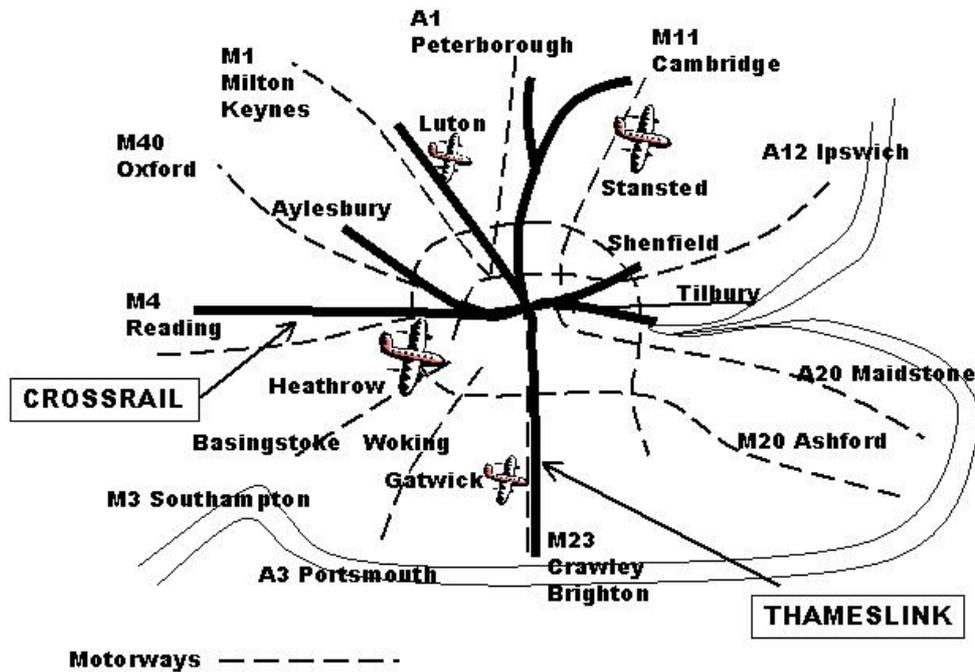
CrossRail would involve construction of new rail tunnels between Paddington and Bethnal Green, with new stations at Paddington, Bond Street, Farringdon, and Liverpool Street. Two lines from each side of London would be joined into one, with trains running through from Tilbury and Shenfield to Amersham and Reading. Cost is currently estimated at about £3 billion, the same as the Jubilee Extension or CTRL.

CrossRail would serve primarily commuting trips from within the M25 into Central London. From the east, it would be used by “stopping” services from Shenfield and Tilbury. In the west, it would be used by “stopping” services from Reading via Slough, and Metropolitan line services from Amersham into Baker Street. These “suburban” markets grew rapidly in the period between the wars (1918 – 1939), and were foremost in the minds of the planners in 1944. But it is not where growth has happened since 1944. London’s commuter belt has spilled far beyond the greenbelt. There are now almost half a million commuters travelling by rail from outside the M25 into central London. This traffic has grown four-fold since 1944, but the CrossRail scheme has not been substantially modified. Although CrossRail provides new capacity *between* Paddington and Liverpool Street, it does not add significant capacity *into* London and none at all from beyond the greenbelt.

The M25 was completed in the mid 1980s. It is still changing the shape of southeast England. The fastest growing travel market is now “orbital” trips, for example between homes in St Albans and offices in Slough. These trips are almost all made by road. With 900,000 new homes to be built in the counties around London over the next decade, this traffic will continue to grow. Unless rail can find a way to serve these sorts of trips, south east England will become more and more like a sprawling American “edge city”.

The phenomenal success of Thameslink can be attributed to the growth of major attractors, such as Gatwick, Luton Airport, and office centres like Croydon and Crawley. Apart from Reading, there is nothing of the scale of Croydon on the CrossRail route. Shenfield and Amersham, two of the proposed terminals of CrossRail, are hardly strategic centres. Unlike Thameslink, which is used by fast as well as slow trains, CrossRail trains will only run over the slow lines. Passengers to Reading will still find it faster to change at Paddington, and CrossRail will not serve Heathrow, Stansted, or Docklands. These are the fastest growing traffic generators in the London region, but they did not exist at the time of the 1944 plan. CrossRail is a scheme from the first half of the last century.

Although CrossRail attracts support from London’s business community, this seems more to reflect a desire for rail investment than any specific support for the scheme. Apart from satisfying a general view that “more railways are a good thing”, it achieves no explicit planning or policy objectives. As an example, the Mayor has said it is “critical” that CrossRail serve Heathrow, yet the current scheme does not and cannot easily be adapted to do so.



*CrossRail needs to link regional centres and airports, to meet the challenge of the motorway network. Thameslink does on a narrow north-south axis. But under current plans, CrossRail will only run between Shenfield/Tilbury and Reading/Aylesbury, even missing Heathrow. "*

## What New Railways for London

London and Southeast England does need rail investment, if we are to turn the tide of the automobile and meet the challenge of the M25. The existing network is largely what was inherited from the Victorian era. Most the lines were laid out to serve coal and cattle trains, not to carry commuters. It is more luck than design that Thameslink serves Gatwick, Croydon, Luton, Crawley and St Albans. Thameslink 2000 will also serve Cambridge and Peterborough. A complementary east-west network could serve Heathrow, Stansted, and Reading, with fast inter-regional services, not the stopping commuter trains envisaged for CrossRail. It might also serve regional centres like Colchester, Cambridge, Oxford, and Swindon, Canary Wharf, and development areas like Park Royal, Stratford, and the "Thames Gateway" extending from Barking to Southend.

New track capacity could relieve lines within London to serve local trips. However the environmental impacts of surface lines could be substantial. CTRL is mostly in tunnel from Dartford to London. Operational and financial implications would also be complex. (There is a precedent in Tokyo, where the "Teito" underground lines are shared by half a dozen private and public train companies, incredibly with two different track gauges and electrification system. Fragmentation is no barrier to integration!)

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How should new rail schemes be planned and implemented? The Jubilee Line extension is not a good model. It cost the taxpayer far too much but did at least deliver a worthwhile benefit. CTRL and Thameslink 2000 may be better models, but they lacked strong backers and have progressed very slowly. TfL's planners have had their chance but have as yet failed to offer an inspiring solution.

Sir Alastair Morton has said that the new Strategic Rail Authority is not a "command and control" organisation. Learning from his experience with Eurotunnel, he is keen to see "Operators as Promoters", conceiving and implementing schemes with guidance (and presumably a bit of financial support) from the SRA. Transport for London, a new body descended from London Transport, it supposed to represent a new, more open and democratic approach to London government.

Why not follow the model now commonly used for urban regeneration schemes? In the sixties and seventies, faceless planners designed sterile town centres and tower blocks. Now private developers are invited to make proposals in a limited competition, offering innovative solutions to complex and often conflicting requirements. Rail is only bigger and more complex, and even more beyond the capability of a "command and control" approach.

Before again reviving the CrossRail scheme of 1944, SRA and TfL should invite proposals for new rail schemes to address the needs of London and the southeast, focusing on the east-west corridor across London. Selected schemes would be published in the newspapers, publicly debated, and reviewed by a broad and independent jury. The SRA should also carry out a technical review, focussing on technical feasibility, and publish its results to inform the public debate.

To attract detailed worked-up proposals, SRA/TfL should offer a prize – or rather three prizes. First, there should be a substantial cash prize for the scheme selected by the jury, and another for the scheme receiving the widest public support. Third, all published schemes should be recognised as "intellectual property", with key and unique ideas "owned" by the designers who would have exclusive rights for a limited time to set up special purpose companies to promote and hopefully build them. Of course, schemes could only be implemented after approval by the SRA and obtaining of necessary planning powers, so there is no risk of London being crisscrossed by an uncoordinated network of new railways. Subsidy would likely be required for major schemes, and this would be negotiated with the SRA and subject to its planning criteria as it does for franchise replacement proposals.

What might emerge from such a more dynamic, open process? I have my own ideas, but will save them for the competition. Here are some clues.

The Jubilee Line extension emerged from a dynamic and ultimately constructive debate between London Underground and the Canary Wharf developers. Cost overruns and delays are history, but the Jubilee line is now one of London's busiest railways and will serve the metropolis for centuries to come. CTRL only won support when it was modified to support regeneration in the East Thames Corridor. BAA, a private sector company, built the Heathrow Express, after 30 years of inaction by the old British Rail. It immediately won international acclaim. Croydon Tramlink attracted broad local support, because it competed for funding with light rail schemes around the country. Indeed, Morton's own Channel Tunnel emerged from just such a competition, back in the mid 1980s. Although costs did overrun, shareholders and banks carried the burden, not taxpayers, and Eurotunnel is now a great success.

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Whatever emerges from an open, competitive and democratic planning process is likely to be more imaginative than CrossRail, and better address London's needs in the third millennium. The promoters will need to involve local communities, property developers, and regeneration agencies. It will serve strategic centres, while offering a real increase in capacity for both long distance commuters and local passengers. It will need to do all of these, and more, if it is to attract informed public support and stand a chance of actually getting built. And, in the end, that is what it is all about!

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