



Response by The Chartered Institute of Transport to the Network Rail consultation 'Improving Connectivity'

1. The Chartered Institute of Logistics and Transport (CILT) is a professional institution embracing all transport modes whose members are engaged in the provision of transport services for both passengers and freight, the management of logistics and the supply chain, transport planning, government and administration. We have no political affiliations and do not support any particular vested interests. Our principal concerns are that transport policies and procedures should be effective and efficient and based, as far as possible, on objective analysis of the issues and practical experience and that good practice should be widely disseminated and adopted.
2. The Institute has a specialist Strategic Rail Policy Group, a Rail Freight Forum, a nationwide structure of locally based groups and a Public Policies Committee which considers the broad canvass of transport policy. This submission draws on contributions from all these sources.

General observations

3. This consultation proposes a completely new approach to train service planning, with the potential of applying it to the next Anglia franchise. It is based on the Swiss *Taktfahrplan* principles and will have significant implications.
4. The basis is to structure a train plan around maximising connectional opportunities, with repeating patterns of service, all inter-connecting. A consequence is that journey times for individual trains may sometimes be extended, but with the benefit of improving end-to-end journey times for those involving a change.
5. The present means of evaluating service plans using software tools such as MOIRA may need to be reviewed and revised. The concept of standard hour services with reliable interchange arrangements at key stations represents a considerable departure from present practice, albeit that some of its attributes were pioneered by the Southern Railway as long ago as the inter-war years.

6. To what extent might this result in a substantial change in passenger perceptions of what is, or is not, acceptable?
7. Significant new infrastructure would be needed to facilitate connections at some locations. This approach therefore represents medium to long term aspirations, as has been the experience in Switzerland.

Strategic issues

8. The rail network is there to serve current and future passenger and freight requirements, and the Institute's view is that development should focus on markets where rail can deliver benefits to users, non-users and funders alike. There is no automatic presumption that rail is a universal solution; it needs to be seen in a wider context.
9. The economic geography and transport requirements of Britain need to be reflected, including the provision of adequate capacity on major corridors. Additional connectivity is only of use if capacity to meet the demand can be provided.
10. Extended journey times for large flows would have a negative impact, only partially offset by reductions elsewhere. A clear and transparent approach is needed to assess the benefits and disbenefits, bearing in mind those passengers who might lose will always be more vocal than those who stand to gain.
11. The proposals as currently drafted would require significant investment in infrastructure to provide the off-peak connectivity, potentially with additional requirements for the peak. Even if technically feasible this implies a greater provision cost, to be funded from either access charges or grants. A business case would need to be made.
12. The operational cost implications will be significant and will need to be evaluated. Slower trains with longer dwell times at stations imply more rolling stock, more train crew, possibly more platforms and more depot/stabling accommodation. These are significant costs. Robust operational performance and service recovery would need to be delivered. A theoretical maximum use of the network will not deliver this without additional infrastructure.

Consultation questions and responses

Q1 Do you think there is potential in this approach and agree that future development work should be undertaken to understand costs (operational staff and infrastructure) and benefits?

13. The Institute believes that the three principles on which the proposals are based are fundamentally sound.

14. The document is a valuable first stage investigation in which the authors acknowledge throughout that further work is required. The issues addressed such as slow journey times, poor connections, and the consequences of failed connections, are amongst those of greatest public concern. This includes both present rail users and those who are deterred from using trains for just these types of reason.
15. In the CILT's view, timetable planning should start from a limited number of itineraries, stopping patterns and frequencies. Then determine which are the most important connections and plan round them in a symmetrical fashion so that connections work in both directions. Following that, determine the supplementation needed in terms of additional peak services and occasional through trains on routes otherwise served by connections only.
16. A further benefit is that passengers and staff alike can remember a simple clock-face basic service and key connections; this is also a marketing benefit for the operator.

Q2 What is your opinion on the trade-offs described in this document?

17. The aim of trade-offs should be that the overall benefits substantially outweigh the disbenefits. The authors clearly recognise this and to a great extent the objective is met, with frequencies maintained or enhanced, journey times maintained or improved and connection times cut.
18. While disadvantages may only be experienced at the smaller stations and affect modest numbers of people, they may or may not be tolerated, but they will hardly be welcomed. Such a result may be unavoidable.
19. The report suggests several cases where quite major flows might suffer, such as London-Ipswich-Norwich transits. This route is already slower than other main inter-city links and is presently the subject of serious planning and campaigns for improvements.
20. How practicable might it be to divide Norwich services into alternate 'slow' and 'fast' services within this general approach, or would this effectively nullify the connectional arrangements?
21. While connections between trains can be made, their utility also depends on the available capacity of each of them. A splendid connection is of little use if passengers are trying to join a train which is already well filled. This has implications for the rolling stock requirement for each train, varying by time of day, day of week and season of the year.

Q3 What is your opinion on having to change trains on a journey?

22. Having to change trains is accepted if connection times are reasonable, the waiting environment acceptable, walking times, distances and the need to change levels are minimised and, above all, connections are all but guaranteed. It is least acceptable when any of these criteria are absent, as well as for particular categories of passenger (e.g. elderly, disabled, those encumbered with luggage or with children). Changing trains is most expected by passengers where local trains connect with long distance services.
23. Where a through service has traditionally been available, resistance can be expected if a change of trains is imposed unless, and probably even if, other benefits such as improved frequency or journey times are offered. The significant campaigning by towns such as Blackpool, Shrewsbury and Wrexham for the reinstatement of through services to London, and similarly for the improvement of links from Harrogate, Lincoln and Sunderland illustrate the importance placed on through services.

Q4 Would your opinion on changing trains alter if the principles in the study were adopted, such as cross-platform interchange, better passenger information, shortened waiting times and holding connections in the event of minor delays?

24. Each of these factors would be of reduced importance, but it would not remove them entirely. In principle, the more frequent the services, the less inconvenience changing trains causes, although exchanging a seat for the possibility of having to stand results in greater disbenefits being perceived. In principle, changing from an infrequent into a more frequent train service is more acceptable than the other way round.
25. It will also be necessary to determine precisely what happens when a train is delayed in reaching the interchange point. 'Guaranteed connections' cannot be held indefinitely, because of the knock-on effects on punctuality across the whole network. Decisions in such cases also need to take account of the numbers of people likely to be involved.

Q5 Do you have any ideas of further improvements which could be implemented which would improve your opinion of changing trains on a journey?

26. The most fundamental improvement would be in operational reliability, so that the fear of a missed connection, and often its realisation, is minimised. Achievement of this will not just relate to improvements in infrastructure; much might be done through greater operational discipline and a zero tolerance policy for the myriad of small things that

delay trains. These include variable driving styles, slow door opening and closing, tardy station work and so on.

27. This might, for instance, include more informative on-train information; not only 'change at X for Y', but giving also departure times and platform numbers. Could station signage be made more specific? Will there be an increased need for platform staff at interchange stations to help hurry everyone and everything along? Might this imply an increased requirement for lifts and escalators?
28. The report makes several references to portion working and to joining/splitting trains en route. It is unclear how acceptable the extension of such procedures might be, on safety grounds and for reasons of operating reliability. Whilst once prevalent and still often found on the lines of the (former) Southern Region of BR, it has been suggested that while the splitting of loaded trains is acceptable, joining them up is much less so. Running one train into another to connect them up can be likened to a controlled collision.
29. If permitted, such manoeuvres will never take place quickly. And what happens if one 'portion' is late? Are both delayed, or does the other portion depart on time?

Q6 What parts of the British rail network do you believe would benefit from this approach?

30. Many British train services already run at regular clock-face intervals, notably most urban services and many regional and intercity ones. For the whole country to benefit, the remaining services need to be brought into line. If the approach includes increasing train frequencies, the need for connections between individual trains will become less important, and the consequences of a missed connection equally so. Thus it is very rare for timetables on London Underground to be made available to the public, and nor is there a demand for this to be done, as virtually the entire network operates at turn-up-and-go frequencies.
31. The Institute supports the principle of starting in a largely separate part of the network such as East Anglia, though it might be more prudent to start with a rather smaller physical area.
32. The Institute suggests that Network Rail work with the Integrated Transport Authorities in the Midlands and north of England and Transport Scotland, and with local authorities that have significant local passenger networks in other parts of Britain, to identify opportunities.
33. Where clock-face timetables already exist, infrastructure investment may not be huge. An issue in several provincial conurbations is the use of long distance intercity train services for local travel.

Q7 Do you have any concerns about the approach and principles described in the study?

34. There is an overarching concern as to how the ultimate aim of a national *Taktfahrplan* relates to the current structure of the passenger railway. How does what amounts to centralised planning relate to numerous franchises and how can franchisees influence what they deliver? How might it affect concessions, open access operators and freight?
35. The principle of core services which can be enhanced as required by additional services has benefits, but it may give rise to inflexibility in timetable planning. Thus the planner will build up gradually from the off-peak to peak service, not just suddenly double the number of trains. While it is possible to double a 30 minute service to one every 15 minutes, it is less simple to have an intermediate stage of a train every 20 minutes.
36. There are some services in rural areas which are of low frequency and are perhaps likely to remain so. These are often very closely tuned to meeting specific local requirements, such as getting children to school on time or providing a reasonable arrival time for those going to work in the town at the end of the line. For both, the subsequent journey home is of equal importance. Similarly, some services may aim to connect with a daily ferry sailing, for instance.
37. In all of such cases, the *Taktfahrplan* approach is unlikely to work well. The whole operation is likely to be constrained by the use of (say) a single route-dedicated train and what it and its crews can reasonably accomplish in the course of a day.

Q8 Do you have any ideas for how the approach described in this study can be improved or developed?

38. The starting point of comparing rail patronage with the demand for travel by road (Figs 2.1 and 2.2) is wholeheartedly supported. Apart from the general awareness of the role of passenger volumes, demand forecasting has played a minimal part of this study. This needs to form a far greater part as the new planning process is developed.
39. It is suggested that long distance travel between principal towns on a route and purely local travel should be assessed separately. Different passenger priorities are likely to be found.
40. The Institute recommends that the study be taken forward incrementally. This should concentrate first on 'quick wins' that can be achieved cheaply and independently of other schemes. A future version of the study might usefully rank its own aspirations in the order of achievability, potential benefits and cost. A complex hierarchy might

be expected to result, but this would be a good basis from which to begin planning for implementation.

41. For infrastructure developments, ranking would need to balance the size of benefits against the cost and feasibility of their achievement. Where major investment might achieve significant area wide or even national benefits, such as the construction of a station at Ely North, this might be afforded a high priority. Aspirations based on reopening lines that are already in the pipeline, such as east-west rail, would have a greater priority than those for long-closed or built-over routes.
42. There is no reference to timescales and this needs to be rectified.

Freight

43. The study mentions the need for freight paths. Further work should be undertaken to populate this aspect of the plans, with more precise data, and to establish dialogue with the relevant parties. How can freight and passenger demands for paths be reconciled?
44. The railway is faced with the situation where demand exceeds, or may soon exceed, the carrying capacity on many key routes. The Institute notes that the Network Rail Route Studies imply that simply accommodating core market volumes will be challenging in itself, and what might amount to speculative additions to passenger services is not necessarily to be welcomed.
45. There are some interesting proposals, notably converting the Felixstowe passenger service to tram-train operation to improve journey times and free up capacity on the branch for rapidly growing freight demand.
46. The consultation document makes the bland statement 'freight capacity available' about many routes, without supporting data. The inference that 'all will be well' needs to be tested and proven, to satisfy the legitimate concerns of freight train operators, terminal operators and their customers.
47. Almost all freight flows in East Anglia have origins or destinations outside the region; not only do they need to fit into an Anglia passenger train plan, but also those elsewhere. Even if the required quantum of freight paths can be achieved within Anglia, it is crucial that they relate satisfactorily to those for onward transit. For rail freight operators, this is essential for cost and productivity reasons, as well as to meet customer expectations on transit times.
48. In short, Network Rail will need to demonstrate that, in crossing the theory/reality interface, this imaginative initiative will deliver capacity and performance benefits too. It will need to provide a viable solution for the future.

Discussion

49. The Institute is generally supportive of the proposals, though there are some caveats. One of these is how to cope with changes in demand as time progresses. A timetable plan which appears to be near perfect when introduced is bound to need changing over time. Too tight a specification, of infrastructure as well as service plans, may cause major reliability problems. This difficulty is currently being experienced on many parts of the national network. Routes on which signal spacing/block lengths were increased, double junctions reduced to single leads and the number of tracks and crossovers reduced a generation ago are in the process of being returned to higher capacities.
50. Another issue is asset utilisation. The concept of all trains arriving sequentially at a nodal point over (say) ten minutes and then departing again, in a similar sequence, can make for very long station times for those which are 'first in and last out'. Passengers who stay on board would suffer, as would train crew and stock utilisation.
51. Such flighting of movement activity produces a result where the key stations are very busy for a short period, followed by a longer period when nothing happens. That suggests poor platform/track utilisation; furthermore, the location has to be able to cope simultaneously with the maximum number of trains that need access at the busy times.
52. Again, much emphasis has been placed with the *Taktfahrplan* in Switzerland on more or less equal running times (or multiples of them) between the key points. Otherwise, the time trains spend standing idle at interchange stations grows disproportionately large.
53. The Institute is aware of the national shortage of rolling stock and the study will need to pay particular attention to this issue.

Conclusions

54. It is refreshing to see such novel proposals put forward formally. The railways of Norfolk, Suffolk and Cambridgeshire serve areas of relatively low population density, and this less than buoyant market led to the widespread introduction of the so-called 'pay trains' as early as 1967. Only a handful of staffed stations remained.
55. This is perhaps the first real attempt since then to see what more could be done. As a proposal it stands as an area for development, but only a thorough trial is going to evaluate this as a proposition. The Institute would support such an approach, using the current infrastructure. This would require the design of suitable before and after studies to capture the demand/revenue lessons and enable the values to be put on connections between trains to be established.

56. To what extent can such arrangements meet the capacity, journey times, performance and costs targets, which government, freight shippers and others have set for the industry? What, too, is likely to be the net financial effect, and in what timescale?
57. Only by having franchisees carry out a full and fully resourced service plan can the consequences be understood and the overall demand/revenue changes be assessed. Opportunities will also be identified and incorporated, such as the re-use of any assets which might become surplus. This sort of information is unlikely to be ascertained by modelling.
58. Finally, it needs to be recognised that this is, or has all the potential to turn into, a highly political topic. In the Institute's view, the eventual outcome will depend as much on how *Improving Connectivity* is handled in a public/political sense, as on its value to the community, the technical appraisals of its functionality, and its impact on the railway businesses.

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