

Response to UK Government Consultation

# **System operation – a consultation on making better use of the railway network**

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*We would be delighted to receive your feedback at the above email address regarding our response to this consultation. We would especially like to know if there were any insights which you found useful and areas that might need further clarification.*

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# Consultation Question 1

**As discussed in section 2, to deliver good system operation, we think system operation involves these functions:**

- **Developing proposals for changes to the network;**
- **Choosing projects for changes to the network;**
- **Determining capacity from the physical network;**
- **Allocating capacity (including to possessions) and performance; and**
- **Operating the system (including at the route level) enabling services to run.**

**What are your views on the functions we have mapped out, and their ability to facilitate delivery of the system operation outcomes? Do you think we have missed any key functions of system operation?**

Comprehensive planning should be used to determine the actors within the functions. The ability of the system operation outcomes is determined by the clarity of job sharing among the related parties involved in such a mechanism. First, the Network Rail (NR) owns and operates the railway track and infrastructure. Second, the Department for Transport (DfT) oversees competitions for the award of passenger rail franchises, and, once awarded, monitors and enforces the contracts with the private sector franchisees. Third, the Office of Rail Regulation (ORR) assumes a combined duty as economic and safety regulator.

Moreover, a funding scheme is critical to the success of such an infrastructure map, especially for the railway, given the possibility of further delays in project realization due to a limited budget. There is also a frequently found relationship between the length of a project plan and its budgetary framework. Dyrhauge (2013) states that sometimes governments determine budgets for infrastructure projects on an annual basis rather than multi-annual. As a consequence, shortsightedness in developing long-term planning for infrastructure maintenance or investment in existing infrastructure is inevitable owing to the uncertainty of funding sustainability in the future.

The primary step of rethinking system operation of railway in the UK should follow the dynamics and findings of the periodic review managed by ORR to communicate the interests of the authorities, rail users, operators, trade unions and the infrastructure needed to create a better system. Furthermore, public consultation creates openness and dialogue which should lead to more transparency in the decision-making process.

The next point concerns the function of determining capacity from the physical network. Increasing utilization of existing capacity should be considered prior to increasing the capacity of the system. Tzanakakis (2013) specifies three related aspects to think about when increasing utilization. First, increasing passenger capacity or freight payload per unit length of train. Second, increasing the length of trains. Third, increasing the number of trains on the network.

From a broader perspective on transport management, there should be strong coordination. The UK governance structure has not focused on coordinating transport policy, regional planning and environmental policies (Knill, 2001). This lack of coordination has resulted in fragmented and short-sighted transport policy and infrastructure planning. However, recently there does appear to be more emphasis on coordination between spatial planning and transport developments.

## Consultation Question 2

**As discussed in section 3, through our work on system operation we want to improve how the railway meets the current and future needs of passengers, freight customers and funders. We think a greater focus on system operation can improve outcomes in six areas:**

- **Continued safe operation;**
- **Choosing the right investment;**
- **Making the right trade-offs;**
- **The right services using the network;**
- **Helping train operators to deliver;**
- **and Choosing the right investment.**

**What are your views on the outcomes of good system operation that we have set out in this consultation?**

The outcomes defined above cover important features integral to effective system operation for railway.

However, to strengthen system operation further, a Performance Based Contract (PBC) could be introduced to endorse the optimum delivery of services provided by operators/contractors. PBC is a contract that defines performance expectations in terms of outcomes or results (Tzanakakis, 2013). The framework includes incentives for and penalties to the contractor to achieve specified targets for measurable outcomes and outputs. The performance measures are related to the condition of the different types of assets and also to the outcomes of maintenance on operation, safety and economy. Such an approach may help authorities to deal with failures in the service provided by operators.

In terms of choosing the right investment, Topham and Pid (2015) highlight a distinctive case of government's shelved promise of making vital upgrades to major rail lines in the Midlands and the north of England. Officials argue that NR's spiralling costs and missed targets were the reasons behind this decision that previously estimated about £38.5bn for the five-year plan. In addition, ORR found that Network Rail had missed more than a third of its targets in the first year of its control period, or five-year plan for 2014 to 2019. This instance shows that the right trade-offs have to be made in parallel with choosing the right investment.

## Consultation Question 3

**Can you give us any examples, based on your experience, where these functions improve outcomes? This could include examples of when system operation has helped you in running your business and delivering for your customers. Please also feel free to highlight any areas where you think system operation could help you in the future.**

The functions of system operation can improve outcomes in the following ways:

**Function 1:** Developing proposals for changes to the network improves outcomes in the areas of continued safe operation and getting more from the network. Changes to the network should prioritize performance and safety instead of considering costs alone. If the infrastructure manager can achieve a new track of high quality whilst using the optimum maintenance strategies, managing this track becomes low cost and more efficient.

**Function 2:** Choosing projects for changes to the network improves outcomes in the area of making the right trade-offs. As the main production factor in the railway system's value chain, infrastructure accounts for a significant part of full system costs. Therefore, it is very important for infrastructure managers to have good control of infrastructure management in general and especially with regard to costs in order to improve competitiveness. A Cost-Benefit-Analysis should be applied in calculating the most efficient project scheme. The challenge is to manage cost and revenue as a business and at the same time to take into account public service considerations.

**Function 3:** Determining capacity from the physical network improves the outcome in the area of the right services using the network. Tzanakakis (2013) defines capacity as "determined by experience-based 'Rules of the Plan', which set pragmatic headways and junction margins". To maximize the use of latent capacity in the network, a fully integrated approach is needed. The infrastructure managers have to develop a detailed data model of an infrastructure, which will support both engineering change management and operational planning, together with an approach to timetabling based on a bottom-up analysis of train and infrastructure capability. This model will reflect train and infrastructure reliability as well as operational capability.

**Function 4:** Allocating capacity (including to possessions) and performance improves outcomes in the area of helping train operators to deliver. The separation between operators and infrastructure, known as vertical separation, has been successful in other network industries and it therefore seems logical to use it in the railway sector. Especially successful experiences from the telephone and electricity sectors inspired the railway industry (Gomez-Ibanez 2006: p.1). It is expected that such design helps both infrastructure managers (Network Rail) and operators (28 operators, eg: C2C) focus on their given tasks; the former on providing infrastructure and the latter on providing the service.

**Function 5:** Operating the system (including at the route level) enabling services to run improves outcomes in the area of choosing the right investment. The main challenge of railway investment in the present time is ensuring investments in new assets enable the railway system to compete with the increasingly competitive road sector. In the past investments have often been unsuccessful in achieving this and the lack of real revenue has caused continued reliance on government funding.

## Consultation Question 4

**To regulate and incentivise Network Rail, we use a range of tools, such as regulating and monitoring Network Rail against certain outcomes and providing for a charging regime that should encourage economic and efficient behaviour by all users. Do you have any views on what the desired outcomes and functions associated with system operation might mean for the regulation and incentivisation of network system operation? Please highlight any particular areas where you think a different approach to regulation or incentivisation of system operation could help you better run your business in the future, and why.**

The lack of incentives for the infrastructure manager, in this case Network Rail, to reduce costs and charges is an important issue. In many countries, the incumbent state railway runs non-profit services which the state deems essential for the mobility of persons within its territory. In this case the state has a clear incentive to keep the railways running despite financial losses. Moreover, public service obligations remain central to domestic passenger services. In effect the state has had to pay for the railway regardless of the financial viability of the lines (Abbati 1987, p.114). Governments may act on this incentive in a number of ways, ranging from purchasing new rolling stock for the incumbent, restructuring aid, providing unlimited state guarantees and financing infrastructure. Moreover, many national railways continue to operate with heavy state subsidies. In the UK, the lack of this incentive for the government means that private rail operators do not have access to same safety net as the state incumbents in other countries.

Simultaneously, governments tried to reduce their involvement in the management of railways and some countries experimented with transforming their railways into publicly owned companies instead of government agencies (Gomez-Ibanez 2006, p.4). A similar strategy was used by the UK under the conservative government in the early 1990s after signing the Railways Act of 1993. However, a profound policy swing is seen in the following period when the government enabled the private form of Network Rail to depend financially on government guarantees to underwrite its bonds (Bowman 2015). Jupe (2009) states that Network Rail has also received significant additional state subsidies. In December 2013 the Office for National Statistics (ONS) formally classified Network Rail as a central government body. Consequently, over £30bn of additional debt became a partial component of the government balance sheet (Joloza 2013).



A different view on railway policy focuses the discussion on optimum regulation and incentives, especially the privatised railway's impact on fares. de Castella (2013) notes the sharp increase in the price changes of peak-time single tickets, as well as the fact that the season ticket price changes remain close to the inflation rate. Also, capped fare policy on season tickets and off-peak returns is no longer strictly adequate due to the higher variance of travel. Since operators were forced to introduce capping, they compensated by significantly raising unregulated fares. As a result, unregulated fares rise faster than regulated fares. Competition among operators should be maintained to keep unregulated fares from rising too fast in order to maintain consumer surplus as indicated by the optimum fare. Network Rail should focus on the development and provision of related rail infrastructure.

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