



# Annex C – Assessment framework

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**December 2016**

1. This annex explains the framework we have used in our impact assessments to assess the options considered in this consultation.
2. This annex is structured as follows:
  - Approach for impact assessments;
  - Outcomes, objectives and criteria; and
  - States of the world.

## Approach to impact assessments

3. We have produced proportionate impact assessments to assess the options discussed in this consultation, which have all followed the same high level approach to arrive at a recommendation. Some are presented in long-form, others in summary form, reflecting the complexity of the issues being assessed.
4. The first step was to establish the counterfactual for the particular aspect of the charge or incentive that is being considered. This is defined as the 'do nothing' option.
5. We identified areas for improvement through consultation and by assessing the 'do nothing' option against the benchmark of meeting the objectives of the charging or incentive regime. In each case, the assessment of each aspect of the regime was considered against the outcomes, objectives and criteria that are most relevant. We assessed the 'do nothing' option against a situation where the objectives were fully met, so as to highlight the potential for and nature of any improvements.
6. Next, the options proposed to address the issues identified were assessed compared to the 'do nothing'; with a view to determining whether the options improve or worsen

how well the charge or incentive delivers against its intended objectives, relative to the status quo.

7. Then the assessments of each option relative to the 'do nothing' were compared to inform the recommendations we have set out in this consultation.

## Outcomes, objectives and criteria

8. This section explains the structure of our assessment of each option compared to the 'do nothing' option. The structure of our assessment can be broken into: outcomes (and their descriptors), objectives and criteria.

### Outcomes

9. For PR18 we have identified five outcomes that explain outcomes from the network that support improved outcomes to passengers and freight customers.
10. The PR18 outcomes and their descriptors are:
  - The network is **efficient** – The network is being operated, maintained and renewed at the lowest cost, given the level of use and performance.
  - The network is **safer** – The network is maintained, managed and operated safely.
  - The network is **better used** – Network Rail and operators find ways to improve network use and accommodate new services.
  - The network is **reliable**:
    - Network Rail delivers the optimal level of reliability for every service.
    - Operators minimise the delay they cause to the efficient level.
    - The impact of delay on operators, passengers and freight customers is minimised.
  - The network is **available**:
    - Taking effective decisions around possessions, mitigating the overall impact on end users.
    - The impact of delay on operators, passengers and freight customers is minimised.

## Objectives and criteria

11. The objectives are statements of what ORR can do to promote the delivery of each of the above outcomes. Each of which has criteria that provide ways of measuring whether or not the charge or incentive is delivering on the selected objectives.
12. Options have been scored against the relevant objectives based on the balance of the assessment against the criteria.
13. In addition to objectives and criteria for each outcome, which are each only used to assess options for specific charges and incentives, we also used general objectives and criteria. Options for all charges and incentives were assessed against these 'general objectives'.
14. The tables below set out the objectives and criteria related to each outcome and the general objectives and criteria. As noted above, this is the complete set of objectives and criteria; each assessment only considers those that are relevant to each charge or incentive, plus all of the general objectives and criteria.

<b>Outcome:</b> The network is efficient <b>Outcome description:</b> The network is being operated, maintained and renewed at the lowest cost, given the level of use and performance	
Objective	Criteria
Set efficient cost targets for Network Rail	<ul style="list-style-type: none"> <li>Cost targets are based on the efficient cost of delivering the regulated outputs.</li> </ul>
Provide Network Rail with accurate incentives to lower cost <i>'Accurate' incentives are set at the right level</i>	<ul style="list-style-type: none"> <li>Financial gains to Network Rail from (above target) efficiency savings that they make are equal to the savings made.</li> </ul>
Provide Network Rail with effective incentives to lower cost <i>'Effective' incentives change behaviour</i>	<ul style="list-style-type: none"> <li>Network Rail gains (financially or non-financially) from technological/efficiency improvements.</li> <li>Network Rail has incentives to improve knowledge of efficient costs.</li> <li>People who can make efficiency improvements care about efficiency.</li> </ul>
Ensure that Network Rail can recover its total costs	<ul style="list-style-type: none"> <li>Network Rail's funding is robust to uncertainty incl. changes in requirements from funders.</li> <li>Network Rail is able to recover efficient costs through its sources of funding.</li> </ul>

<b>Outcome:</b> The network is better used <b>Outcome description:</b> Network Rail and operators find ways to improve network use and accommodate new services	
Objective	Criteria
Provide accurate incentives for Network Rail to add traffic to the network <i>'Accurate' incentives are set at the right level</i>	<ul style="list-style-type: none"> <li>The revenue (from all sources) that Network Rail gets when it adds traffic equals the short run marginal cost of the service added.</li> <li>Network Rail has a good understanding of the cost of adding traffic (at different levels of performance).</li> </ul>
Provide effective incentives for Network Rail to add traffic to the network <i>'Effective' incentives change behaviour</i>	<ul style="list-style-type: none"> <li>Network Rail cares about the financial incentives it is given.</li> <li>Network Rail has non-financial incentives to add traffic to network (that it cares about).</li> </ul>
Ensure operators take costs of service into account when using the network	<ul style="list-style-type: none"> <li>The price paid by operators for access is no less than the short run marginal cost of providing them with access.</li> <li>Operators have good knowledge of all the costs they are causing (in the short and long run).</li> <li>Operators understand the basis on which the charge is set and how they can affect it.</li> <li>Operators are likely to respond to the incentives created by the charge.</li> </ul>
Ensure all parties are incentivised to maximise value of capacity in use	<ul style="list-style-type: none"> <li>The revenue that Network Rail gets when it adds traffic equals the marginal social benefit of the traffic.</li> <li>Operators who can cover their short-run marginal costs are not priced off the network (i.e. <math>\text{Allocated costs} \leq \text{WTP} - \text{SRMC}</math>) – (unless in favour of higher value services).</li> <li>Priority of allocation of capacity given to services with higher net value (where <math>\text{net value} = \text{Social Benefit} - \text{costs}</math>).</li> </ul>
Ensure capacity is allocated on the basis of the cost of provision and value of use	<ul style="list-style-type: none"> <li>Better information available to bodies that allocate capacity.</li> <li>Decision makers and funders have good knowledge of costs caused by services in the short and long run.</li> <li>Allocation of access rights is not discriminatory.</li> </ul>

<b>Outcome:</b> The network is reliable	
<b>Outcome description:</b> Network Rail delivers the optimal level of reliability for every service	
Objective	Criteria
Set appropriate targets for Network Rail	<ul style="list-style-type: none"> <li>• Targets are set at the level where value and cost differ (e.g. service level).</li> <li>• Targets reflect cost of delivery to Network Rail.</li> <li>• Targets reflect value to operators.</li> <li>• Targets are set at the highest reliability for which cost is less than or equal to value.</li> <li>• Targets change with changes in cost or value within control period.</li> </ul>
Provide Network Rail with accurate incentives to deliver the optimal level of reliability  <i>'Accurate' incentives are set at the right level</i>	<ul style="list-style-type: none"> <li>• Incentives reflect the impacts of delay to other operators.</li> <li>• Incentives reflect the impacts of delay to end users.</li> <li>• Incentives reflect the impacts of delay to the environment.</li> <li>• Incentives are calculated using the best available evidence.</li> <li>• Network Rail is incentivised to prioritise reliability where it matters most.</li> </ul>
Provide Network Rail with effective incentives to deliver the optimal level of reliability  <i>'Effective' incentives change behaviour</i>	<ul style="list-style-type: none"> <li>• Network Rail is responsible for the measure used.</li> <li>• The measure can be translated into reliable rules for operational staff.</li> <li>• The incentive tools used affect Network Rail's behaviour.</li> </ul>

<b>Outcome:</b> The network is reliable	
<b>Outcome description:</b> Operators minimise the delay they cause to the efficient level	
Objective	Criteria
Provide operators with accurate incentives to limit the delay they cause	<ul style="list-style-type: none"> <li>• Incentives reflect the impacts of delay to other operators.</li> <li>• Incentives reflect the impacts of delay to end users.</li> <li>• Incentives reflect the impacts of delay to the environment.</li> <li>• Incentives are calculated using the best available evidence.</li> </ul>
Provide operators with effective incentives to limit the delay they cause	<ul style="list-style-type: none"> <li>• Operators are wholly responsible for the measure used.</li> <li>• Operational staff understand and respond to the measure used.</li> <li>• The incentive tools used affect operator's behaviour.</li> <li>• Operators do not face conflicting targets or incentives.</li> <li>• Operators are incentivised to limit disruptions to services where reliability is most valued.</li> <li>• Operators are incentivised to cancel services if it reduces disruption.</li> </ul>

<b>Outcome:</b> The network is reliable	
<b>Outcome description:</b> The impact of delay on operators, passengers and freight customers is minimised	
Objective	Criteria
Ensure that operators are held appropriately neutral to the financial impacts of delay or cancellation	<ul style="list-style-type: none"> <li>• Operators are not exposed to financial risks arising from changes in reliability caused by Network Rail or other operators.</li> </ul>

<b>Outcome:</b> The network is available	
<b>Outcome description:</b> Taking effective decisions around possessions, mitigating the overall impact on end users	
Objective	Criteria
Set efficient targets for Network Rail	<ul style="list-style-type: none"> <li>• Targets reflect the cost of delivery.</li> <li>• Targets reflect impacts on operators.</li> <li>• Targets reflect impacts on end-users.</li> <li>• Targets reflect impacts on environment.</li> </ul>
Provide Network Rail with effective incentives	<ul style="list-style-type: none"> <li>• Network Rail is incentivised to limit the level of service disruption as a result of possessions.</li> <li>• Network Rail is responsible for the measure used.</li> <li>• Operational staff understand and respond to the impacts of possessions.</li> <li>• The incentive tools used affect Network Rail's behaviour.</li> <li>• The measure used does not conflict with targets by other tools.</li> </ul>
Provide Network Rail with accurate incentives	<ul style="list-style-type: none"> <li>• Incentives reflect the impacts of possessions to operators.</li> <li>• Incentives reflect the impacts of possessions to end users.</li> <li>• Incentives reflect the impacts of delay to the environment.</li> <li>• The impacts of possessions are calculated accurately.</li> </ul>

<b>Outcome:</b> The network is available	
<b>Outcome description:</b> The impact of delay on operators, passengers and freight customers is minimised	
Objective	Criteria
Reduce operators' exposure to financial risks associated with possessions	<ul style="list-style-type: none"> <li>• Operators' exposure to risks they cannot control is minimised.</li> </ul>
Ensure operators and end users are given appropriate notification	<ul style="list-style-type: none"> <li>• Degree of notification reflects impacts on end-users.</li> <li>• Degree of notification reflects the impact on operators.</li> </ul>
<p>Provide operators and Network Rail with accurate and effective incentives to minimise the impact of possessions on end-users on the day</p> <p><i>'Accurate' incentives are set at the right level</i></p> <p><i>'Effective' incentives change behaviour</i></p>	<ul style="list-style-type: none"> <li>• Network Rail is incentivised to limit the impact of possessions on end-users on the day.</li> <li>• Operators are incentivised to limit the impact of possessions on the day.</li> </ul>

General objectives and criteria	
Objective	Criteria
Promote positive impacts on funders/customers	<ul style="list-style-type: none"> <li>• Positive impact on the funds of Secretary of State and other funders.</li> <li>• Passenger benefits.</li> <li>• Freight customer benefits.</li> </ul>
Promote competition on the railway	<ul style="list-style-type: none"> <li>• Likely to increase the number of suppliers in passenger services rail market.</li> <li>• Likely to increase the number of suppliers in freight rail market.</li> <li>• Unlikely to threaten the sustainability of a sector.</li> </ul>
Promote positive wider external impacts	<ul style="list-style-type: none"> <li>• Benefits for the environment.</li> <li>• Benefits for rural proofing.</li> <li>• Beneficial distributional impacts.</li> <li>• Improvements in safety.</li> </ul>
Limit transitional impacts (i.e. impact of change from “do nothing” to new option)	<ul style="list-style-type: none"> <li>• Low information requirements.</li> <li>• Low transitional costs on operators (e.g. related to administrative change).</li> <li>• Low volatility for operators (i.e. avoid large step changes in level of charges).</li> <li>• Low transitional costs for Network Rail.</li> <li>• Low implementation difficulties for Network Rail.</li> <li>• Low transitional costs on franchise authorities and funders (including billing system costs).</li> </ul>
Limit transaction costs (i.e. cost of operating the new option)	<ul style="list-style-type: none"> <li>• Low transaction costs for operators of administration/participation in the charge or incentive.</li> <li>• Low transaction costs for Network Rail of administration/participation in the charge or incentive.</li> <li>• Low transaction costs for funders of administration/participation in the charge or incentive.</li> </ul>
Ensure that the regulatory framework complies with the law	<ul style="list-style-type: none"> <li>• The option can be implemented under existing legislation.</li> <li>• The option is consistent with any expected changes to legislation.</li> </ul>

15. We realise that the criteria listed under each objective are not exhaustive. If any other factors were identified as ways of measuring the extent to which the charge or incentive delivers on the objective these would also have been considered.

## Rail Delivery Group (RDG) assessment criteria

16. We used the assessment criteria developed by Rail Delivery Group (RDG) in their 2015 assessment of the structure of charges and incentives to inform our thinking in developing our own outcomes, objectives and criteria. Although they do not exactly match, they do both broadly cover the same areas.
17. The tables below show where in our structure of assessment each of the RDG assessment criteria is covered.

Axioms: The charges and incentives regime should be based on the following pre-requisites			
RDG assessment criteria	Description of RDG assessment criteria	Where they are covered in ORR outcomes, objectives and criteria	Comments
System safety	Charges must fund, and should not create incentives to compromise the safety of the railway system.	<ul style="list-style-type: none"> <li>• <b>Outcome:</b> The network is safer</li> <li>• <b>Outcome description:</b> The network is maintained, managed and operated safely</li> </ul>	One of our PR18 outcomes is a safer network.
Consistency with law	The charges and incentives regime should comply with the relevant regulations and laws. This includes consistency with the non-discrimination principle.	<ul style="list-style-type: none"> <li>• <b>General objectives and criteria</b></li> <li>• <b>Objective:</b> Ensure that the regulatory framework complies with the law</li> </ul>	All options will be assessed to ensure they are consistent with existing legislation and any expected changes to legislation.
Funding of Network Rail efficient costs	Total revenues (access charges plus government support) should allow Network Rail to recover the total efficient costs of providing and improving all services.	<ul style="list-style-type: none"> <li>• <b>Outcome:</b> The network is efficient</li> <li>• <b>Outcome description:</b> The network is being operated, maintained and renewed at the lowest cost, given the level of use and performance</li> <li>• <b>Objective:</b> Ensure that Network Rail can recover its total costs</li> </ul>	
Allowance for market conditions	Where the charges for a service exceed the costs directly incurred for the provision of that service, any mark-up should recognise pressures from competitive external markets and may only be applied if the market segment concerned can bear the cost.	<ul style="list-style-type: none"> <li>• <b>Outcome:</b> The network is better used</li> <li>• <b>Outcome description:</b> Network Rail and operators find ways to improve network use and accommodate new services</li> <li>• <b>Objective:</b> Ensure all parties are incentivised to maximise value of capacity in use</li> </ul>	<p>'Allowance for market conditions' is a sub-set of the considerations that feed into whether the network is better used.</p> <p>One of the criteria we consider under this objective is that operators who can cover their short-run marginal costs are not priced off the network. In addition a market can bear test would be required to ensure that mark-ups are only levied on market segments that can bear them.</p>
A single approach to the network as a whole	The charges and incentives approach and methodology should apply to the whole network, but may be different for different customers with different characteristics. Different methodological decisions regarding the calculations of charges should not be allowed: methodology and policy decisions should be the same for the whole network. This does not mean that actual charges will be the same.	<ul style="list-style-type: none"> <li>• <b>Outcome:</b> The network is better used</li> <li>• <b>Outcome description:</b> Network Rail and operators find ways to improve network use and accommodate new services</li> <li>• <b>Objective:</b> Ensure capacity is allocated on the basis of the cost of provision and value of use</li> </ul>	Under this objective one of the criteria is to ensure the allocation of access is not discriminatory. To the extent that this criterion is meant to preclude discrimination between competing operators, this is captured within our current objectives framework. To the extent that it goes beyond that – we will always seek to set charges and incentives based on the principles and methodology governing them, and to apply those methodologies across the whole network, at least to the extent that it is appropriate to do so.



Objectives: The objectives of the charges and incentives regime should be.....			
RDG assessment criteria	Description of RDG assessment criteria	Where they are covered in ORR outcomes, objectives and criteria	Comments
Service cost recovery	Charges for any service provided by Network Rail should recover at least the efficient costs directly incurred to provide that service. The level at which services are defined will need to be considered.	<ul style="list-style-type: none"> <li><b>Outcome:</b> The network is better used</li> <li><b>Outcome description:</b> Network Rail and operators find ways to improve network use and accommodate new services</li> <li><b>Objective:</b> Ensure operators take costs of service into account when using the network</li> </ul>	Under this objective one of the criterion considered is that the price paid by operators for access is no less than the short run marginal cost of providing them with access.
Efficient whole system whole life industry net costs	The charges and incentives regime should incentivise or enable changes in the pattern of service (including in respect of journey times) where the resulting benefits exceed the change in efficient costs directly incurred.	<ul style="list-style-type: none"> <li><b>Outcome:</b> The network is better used</li> <li><b>Outcome description:</b> Network Rail and operators find ways to improve network use and accommodate new services</li> <li><b>Objective:</b> Ensure operators take costs of service into account when using the network</li> </ul>	'Efficient whole system whole life industry net cost' is a sub-set of the considerations that feed into whether the network is better used.
Efficient long run investment decisions	The charges and incentives regime should incentivise or enable Network Rail to invest where the long run benefits of the investment exceed its efficient costs.	<i>All outcomes</i>	<p>To the extent that Network Rail is accurately and effectively incentivised to reduce cost and improve safety, performance and availability, they should be well incentivised to make the right trade-offs between long run benefits and investment costs.</p> <p>More generally, under the current framework enhancement projects are mainly specified by governments, charges &amp; incentives play a limited role.</p>
Efficient performance management	The charges and incentives regime should incentivise or enable the efficient management of both planned and unplanned disruptive work.	<ul style="list-style-type: none"> <li><b>Outcome:</b> The network is reliable</li> <li><b>Outcome description:</b> Network Rail delivers the optimal level of reliability for every service</li> <li><b>Outcome:</b> The network is available</li> <li><b>Outcome description :</b> Taking effective decisions around possessions, mitigating the overall impact on end users</li> </ul>	ORR's assessment framework includes outcomes and objectives that assess whether options for charges and incentives improve the management of both planned and unplanned disruptions on the network.
Efficient use of network capacity	The charges and incentives regime should not result in distortionary incentives for the allocation, and should encourage the best use of, available network capacity.	<ul style="list-style-type: none"> <li><b>Outcome:</b> The network is better used</li> <li><b>Outcome description:</b> Network Rail and operators find ways to improve network use and accommodate new services</li> </ul>	Our assessment framework includes outcomes, objectives and criteria that assess how options impact Network Rail's incentives around the allocation of capacity, decisions made on the allocation of capacity and operator's use of capacity.

Judgement criteria: Alternative implementation mechanisms for the achievement of the objectives should be judged according to the following criteria			
RDG assessment criteria	Description of RDG assessment criteria	Where they are covered in ORR outcomes, objectives and criteria	Comments
Predictability	The regime should avoid undue volatility in the structure and level of charges across multiple control periods, so that operators can predict the future level of charges for a given pattern of operations with a reasonable degree of confidence.	<ul style="list-style-type: none"> <li><b>General objectives and criteria</b></li> <li><b>Objective:</b> Limit transitional impacts (i.e. impact of change from “do nothing” to new option)</li> </ul>	One of the criteria under the transitional impacts objective is low volatility for operators’ charges.
Simplicity	All charges to all operators should be easily understood.	<i>Covered by several outcomes and objectives.</i>	<p>We do not see simplicity as something that is to be desired in and of itself. However, simplicity may have an impact on the effectiveness of an incentive, or the costliness of administering it. To the extent that it impacts on those simplicity is captured under the relevant headings for the relevant outcomes.</p> <p>For instance, if the complexity of Schedule 8 is taken to inhibit the extent to which operators would respond to it, that would be recognised in the assessment under the objective of “Provide operators with accurate incentives to limit the delay they cause”.</p>
Transparency	All charges to all operators should be derived from a clear set of principles. Any deviations from these principles should be clearly identified, and their impact clearly shown.	<i>Covered by several outcomes and objectives.</i>	As with simplicity, we take transparency to be desirable only to the extent that it delivers other ends that we care about, such as effectiveness of incentives and costliness of administering the regime.
Low transaction costs	The charges and incentives regime should impose low transaction costs.	<ul style="list-style-type: none"> <li><b>General objectives and criteria</b></li> <li><b>Objective:</b> Limit transaction costs (i.e. cost of operating the new option)</li> </ul>	

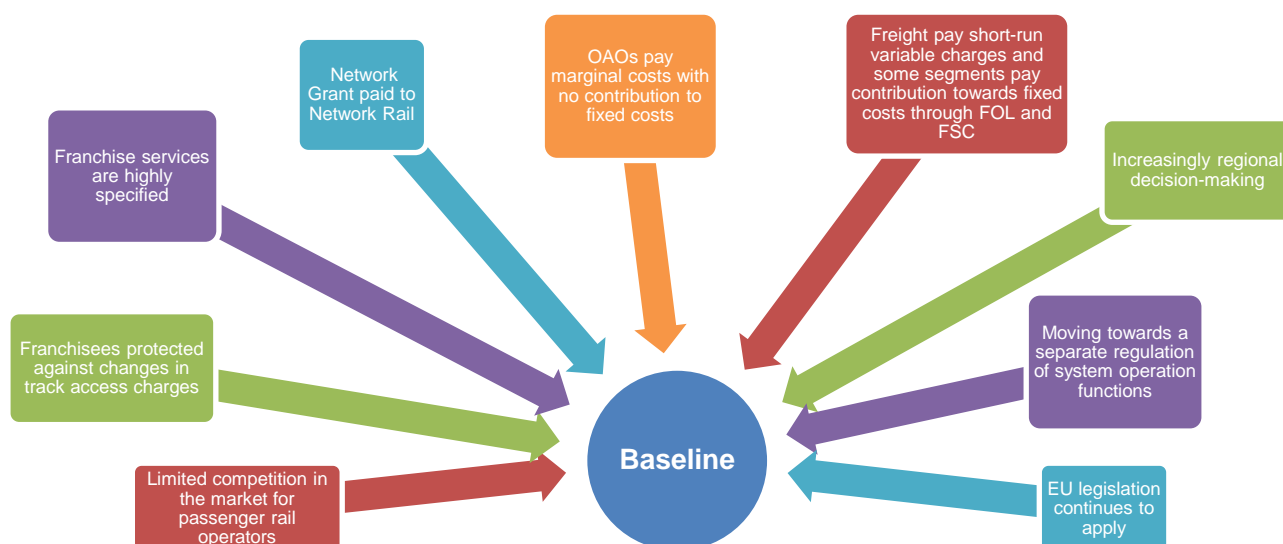
Outputs   A charges and incentives regime based on the specified axioms, objectives and judgement criteria would have different outputs in terms of charges and incentives design in different states of the world, but it would result in:			
RDG assessment criteria	Description of RDG assessment criteria	Where they are covered in ORR outcomes, objectives and criteria	Comments
Network Rail accountability	A transparent regime will result in Network Rail being accountable to its customers, funders and users in relation to charges and incentives. However, full accountability depends on non-charging structure issues such as institutional and contractual mechanisms, which cannot be reflected in a set of objectives that relates to the structure of charges.		As reflected in RDG's comments, this criterion is primarily outside of the scope of work on charges and incentives.
Non-arbitrary allocation of costs	If a clear distinction can be made between the base services bought by operators, and the incremental enhancements to those services bought by the DfT, Transport Scotland and other funders, then a charges regime which recovers at least the efficient costs directly incurred to provide any service can generate a non-arbitrary charge for those incremental enhancements. This can result in a non-arbitrary allocation of costs between operators and funders.	<ul style="list-style-type: none"> <li>• <b>Outcome:</b> The network is better used</li> <li>• <b>Outcome description :</b> Network Rail and operators find ways to improve network use and accommodate new services</li> <li>• <b>Objective :</b> Ensure all parties are incentivised to maximise value of capacity in use</li> <li>• <b>Objective:</b> Ensure capacity is allocated on the basis of the cost of provision and value of use</li> </ul>	
Optimal traffic growth	A regime that provides efficient industry costs, efficient long run investment decisions and efficient use of network capacity will incentivise the growth of traffic volumes where the net benefits of doing so are positive. It will also provide value for money for funders, taxpayers and users.	<ul style="list-style-type: none"> <li>• <b>Outcome:</b> The network is better used</li> <li>• <b>Outcome description :</b> Network Rail and operators find ways to improve network use and accommodate new services</li> <li>• <b>Objective:</b> Provide Network Rail with accurate incentives to add traffic to the network</li> <li>• <b>Objective:</b> Provide Network Rail with effective incentives to add traffic to the network</li> <li>• <b>Objective:</b> Ensure all parties are incentivised to maximise value of capacity in use</li> </ul>	
Aligning industry incentives	Improved efficiency from and greater co-operation (e.g. through alliances) between Network Rail, train operating companies and freight operating companies.	<i>All outcomes</i>	We do not see this as an end in itself, but as a means to delivering a network that is efficient, safe, better used, reliable and available. To the extent that accurate and effective incentives are in place across those areas then that will deliver greater efficiency from industry co-operation.

## States of the world

18. In our impact assessments we have also considered how our assessment of options against objectives would change under different states of the world.
19. The alternative states of the world we have considered have been informed by the states of the world RDG used in their review of charges.

## Baseline scenario

20. The primary assessments of options are in respect of the current state of the world, the 'baseline scenario'.
21. Below is a summary of features of the current baseline scenario, taking into account recent developments.



- The majority of passenger services are provided by franchised train operators. Currently only less than 1% of passenger miles are being provided by open access passenger operators.
- Many franchise services are highly specified. Franchise specifications include minimum service levels and performance targets. When combined with the relative lack of spare capacity, this means that franchises are restricted in the extent to which they can respond to price signals, because they have limited scope to increase, decrease or otherwise change the services that they run.

- Franchised passenger operators are currently given protection from changes in most track access charges over the duration of the franchise (except in the case of in-franchise changes to services, which will be subject to the current structure of charges). This limits the incentives on franchised operators to work with Network Rail and challenge Network Rail to reduce its costs. A 2014 report by Credo for ORR found evidence that franchise protections weaken the incentive properties of many of the charges, leaving them only able to affect decisions at the margin.
- Freight and open access operators are fully exposed to any changes in variable charges (albeit variable charges are a relatively small component of Network Rail's total revenue). Typically network charges are significant relative to train operators' operating costs, which means that changes in charges can have significant impacts on freight growth and/or profitability, depending on competitive conditions and cost pass-through.
- The Network Grant is currently paid directly to Network Rail. Government announced as part of the summer 2015 Budget that there could be a change to the flow of funding in the industry.
- Track access rights are determined through an administrative process of negotiation with Network Rail, but subject to ORR administrative approval (or determination where parties cannot agree terms). In effect, ORR sets the framework for contracts, consistent with European rules. The level of specificity in contracted access rights affects the choices Network Rail has and the ease with which it can develop an optimal timetable to run. Historically, passenger train access rights have often included specification of journey times and service intervals closely reflecting franchise commitments. This can limit Network Rail's timetabling options, especially on busy routes, and makes significant changes to the timetable harder to manage. These inflexibilities could also limit the overall capacity available. With ORR's encouragement, Network Rail is moving to less specified rights which should reduce these problems.
- EU legislation continues to apply. EU implementing regulation sets out for costs directly incurred (which includes the variable usage charge) the types of costs that should be included in those charges as well as provisions about the phasing in of charges. This includes restrictions on the extent to which changes to costs directly incurred can be phased into changes in charges.
- An increased level of industry decisions around funding, operation and rail policy are made at a regional/ country or route level, in governments and in Network Rail respectively.

## Alternative states of the world

22. To devise alternative scenarios it is important to identify which factors of the baseline scenario are most likely to change. We have also refreshed the approach taken by RDG in its work on charges and incentives, in part to reflect that in some areas the ‘status quo’ has evolved somewhat.
23. We have summarised the states of the world in the table below, and provided more detail in the following sections.

Baseline scenario	Scenario 1: Greater on-rail competition	Scenario 2: Reduction in franchise protection	Scenario 3: Increased freight support
Limited competition in the market for passenger rail operators	Increased competition in the market for passenger rail operators		
Franchisees protected against changes in track access charges		Franchisees partially exposed to changes in track access charges	
Vast majority of passenger services are highly specified through franchise agreements	Increased flexibility to make changes to services within a franchise		
Network Grant paid to Network Rail			
OAOs pay marginal costs with no contribution to fixed costs	Increasing on-rail competition with OAOs paying a PSO levy		
Freight pay short-run variable charges and some segments pay contribution towards fixed costs through FOL and FSC			Freight receive increased government support through the Network Grant, direct subsidy or an alternative mechanism
Increasingly regional decision-making			
Moving towards a separate regulation of system operation functions			
EU legislation continues to apply			

### Scenario 1: Greater on-rail competition

24. This alternative scenario reflects the Competition and Market Authority’s (CMA) on-rail competition work.
25. In its March 2016 final report on ‘Competition in passenger rail services in Great Britain’<sup>1</sup> the CMA set out detailed options for increased competition in the passenger

<sup>1</sup>The CMA report on ‘Competition in passenger rail services in Great Britain’ is available [here](#)

rail market. This includes consideration of options based on increased use of competition through growth of open-access, parallel franchises and franchise overlaps (i.e. the CMA's options 1, 2 and 3 respectively) as well as an option that involves moving away from a system of franchises to one based on licenses (option 4).

26. ARUP's impact assessment<sup>2</sup> of options 1 to 3 indicates that in the majority of the scenarios there is potential for net positive benefits of introducing competition (with this assessment undertaken on the three largest main lines) compared to the status quo, with option 1 showing the greatest benefits.
27. In ORR's letter to the CMA in November 2015<sup>3</sup> we indicated our support for a combination of options 1, 2 and 3 as having the potential to provide Governments with a toolkit that could be used to introduce competition in the most suitable way, reflecting circumstances across the network. We noted that given the radical nature of changes required for option 4, it was better to focus reform on the other options.
28. For option 1, it is likely that there would need to be greater flexibility for franchised operators to alter their services once in the franchise to give more room for the open access operators to compete. The option is also likely to require primary legislation due to the proposal to impose a Public Service Obligation (PSO) levy.
29. Range of possible outcomes:
  - Lower bound – Marginal increase in open access competition; prevalence of highly specified franchises.
  - Upper bound – Significant increase in open access competition through the adoption of CMA's option 1; reduced level of franchise specification.
30. In our impact assessments this state of the world has been largely interpreted as CMA's option 1, i.e. open access operators have an increasing role within the UK railway market and in line with CMAs proposal on this option; OAOs are contributing towards fixed track access charges as well as a PSO levy.

## Scenario 2: Reduction in franchise protection

31. At present, the impact of the charging and incentives regime is limited by the current franchise protections. The issue of how to improve incentives on train operators and Network Rail to collaborate to improve performance and improve efficiency has

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<sup>2</sup> ARUP's 'Impact assessment of the CMA's options for increasing on-rail competition is available [here](#).

<sup>3</sup> ORR's response to the CMA consultation is available [here](#).

continued to be discussed over recent months, with DfT setting out a range of options for change to the RDG PR18 Route-level regulation working group meetings on 16 September and 10 October 2016<sup>4</sup>.

32. Range of possible outcomes:

- Lower bound – Franchised operators only partially exposed to changes in charges, e.g. only certain charges.
- Upper bound – Franchised operators fully exposed to changes in charges, similar to the current arrangements for freight and open access operators.

### Scenario 3: Increased freight support

33. This alternative scenario reflects discussions at the Freight Investment and Sustainability Group and DfT's Rail Freight Strategy<sup>5</sup>.

34. There is recognition that rail freight delivers a range of benefits that are not currently reflected in the relative (marginal) cost of transporting freight by road or rail, and also that the charging regime in rail affects the economics of rail versus road.

35. Under this scenario, 'increased support' could take the form of an externality credit mechanism that takes account of the positive externalities produced by freight travelling by rail as opposed to on road (i.e. lower CO2 emissions, lower congestion, reduced number of accidents). Any chosen approach would be subject to the state aid clearance as well as the compliance with the EU directive on the recovery of costs directly incurred.

36. Range of possible outcomes:

- Lower bound – Freight operators having access to a larger 'pot of money' (e.g. mode shift revenue support (MSRS) budget) in recognition of its positive externalities relative to road.
- Upper bound – Freight receiving subsidy from Government either through the network grant or an externality credit mechanism that more closely reflects the scale of the positive externalities.

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<sup>4</sup> A note on the RDG PR18 Route-level regulation working group meeting on 16 September 2016 is available [here](#). The note on the meeting on 10 October 2016 has not yet been published; it will be soon be available [here](#).

<sup>5</sup> DfT's Rail Freight Strategy is available [here](#).





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