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2016 – 2019

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Appendix A - Advice to infrastructure projects about standards

Strategy for Standards in Control Period 5 - Diagram
An industry strategy for standards
2016 - 2019

Author: Jon Taylor; Standards Policy Advisor.

Realising benefits beyond Railway Group Standards

1. Purpose

1.1 The RSSB Board, at its meeting on 08 January 2015, considered the need for a new strategy for standards (agenda item A3, Standards Strategy). It requested Industry Standards Coordination Committee (ISCC) to develop an industry endorsed strategy.

1.2 The Board’s request was discussed by ISCC at its meeting on 21 January 2015 (under agenda item 2.7, ISCC’s strategic plan - review of progress for FY2014/15 and key activities for FY2015/16). ISCC asked RSSB to consider and present thinking on a strategy for standards to the next ISCC meeting.

1.3 This paper summarises the conclusions of the work undertaken by RSSB, and guided by a Standards Strategy Industry Steering Group, to develop a strategy for standards. The details of the developed strategy are set out in a series of seven papers, each dealing with a ‘strategy module’, that accompany this paper. The strategy modules are listed in section 4.1 below.

1.4 The strategy is illustrated by a diagram which will be presented with this paper.

1.5 The paper asks ISCC to recommend the strategy for standards to the RSSB Board for approval.

2. Background

2.1 Workshop at RSSB on 20 March 2015

2.1.1 To facilitate the development of the thinking around a strategy for standards, ISCC members and Standards Committee Chairmen were invited to take part in a one day workshop at RSSB on 20 March 2015.
2.1.2 A paper was presented to the workshop, setting out some notes towards the definition of a strategy for standards. The paper included a number of questions for the Workshop, essentially seeking its agreement to an approach to developing a strategy.

2.1.3 This paper is informed by the workshop’s responses to the questions asked in the paper presented to the workshop.

2.2 Basic assumptions

2.2.1 The workshop agreed:

- The strategy for standards should address railway-specific standards over which the railway industry has some control, either directly or indirectly.
- The ‘standards landscape’ (the types of standards we have, and their applicability) should be taken as a given (see 2.3 below).
- The strategy should cover the period up to the end of Control Period 5 in 2019, aligning it with the industry’s wider planning cycle. The period is sufficiently long to implement real change where it is needed.
- Given the diversity of standards within the scope of the strategy, a ‘strategy module’ should be developed for each type of standard, together with an overarching document that sets the modules in context, and establishes the links between them. [This paper is the overarching document.]
- The strategy should be in place, with ISCC and RSSB Board approval, before October 2015. [In practice, ISCC and RSSB Board meeting dates have dictated that this date be revised to November 2015.]
- RSSB Board approval should constitute a mandate on RSSB and Standards Committees to deliver the strategy, so far as it lies within their power to do so.

2.3 The standards landscape

2.3.1 The ‘standards landscape’ (the types of standards we have, and their applicability) is now well established. This landscape is described in RSSB’s briefing leaflet on ‘Standards and the rail industry’. The leaflet contains a useful schematic showing the relationship between the scope and force of standards.

2.3.2 The standards landscape has largely been created by a framework of European law. The workshop agreed there was no realistic scope for fundamentally changing the standards landscape within the current control period; nor was there any need to do so. It should therefore be taken as a given.
2.3.3 Given the standards landscape, the principle types of standards that need to be considered in a strategy for standards for the GB mainline railway are:

- RGSs (as national technical rules)
- RGSs (as national safety rules)
- National operations publications (NOPs) (for example, the Rule Book) – currently classed as RGSs
- Rail Industry Standards (RISs)
- Rail Industry Guidance Notes (GNs)
- Technical Specifications for Interoperability (TSIs)
- European and international standards (including ENs)
- Company standards
- Project standards

2.3.4 There are other standards used within the industry, produced by various bodies (for example, the International Electrotechnical Commission). However, these are not railway-specific, and therefore should fall outside the scope of an industry strategy for standards.

2.4 What is the strategy trying to achieve?

2.4.1 Given ISCC has a Strategic Plan for Control Period 5, 2014 – 2019, approved by ISCC on 21 January 2015, it is reasonable to ask what a wider industry strategy for standards should seek to achieve. The following objectives have been used to guide the development of the strategy:

- Consider all standards used by the industry, not just those managed by RSSB.
- Provide greater transparency about the work industry and RSSB undertakes to maintain and develop standards – for example, RSSB puts at least as much effort into the development of European Standards (ENs) as it does Railway Group Standards.
- Take the opportunity to look at where RSSB and industry should focus their resources – we do not have unlimited resources to spend on the development of standards.
- Take the opportunity to adapt RSSB managed Standards to fit current regulations and anticipate the fourth railway package of European regulation – in particular, the status of national operations publications (NOPs), including the Rule Book, and RGSs currently identified as national safety rules (NSRs), requires re-examination.
• Provide a ‘common direction of travel’ for the future development of all railway standards – recognising that the ultimate role of standards is to open the market for railway products and services, so reducing costs and making the railway more competitive and therefore sustainable (see section 4 below).

2.4.2 Given the nature of the types of standards it deals with, each module places greater or less emphasis on each of these objectives. For example, the module dealing with European and international standards emphasises objective c), whereas the module on national operations publications (NOPs) emphasises objective d).

3. A common direction of travel for the future development of railway standards

3.1 The ultimate role of railway standards

3.1.1 The ultimate role of railway standards is to open the market for railway products and services, so reducing costs and making the railway more competitive and therefore sustainable.

3.2 Moving from domestic standards to European and international standards

3.2.1 As a consequence of the desire to open markets, there is a natural economic pressure to move from domestic standards, to European standards (a move that is given additional impetus by regulation), and ultimately international standards (although the railway industry is only in the very early stages of this move). The wider the geographical scope of standards, the larger the markets they open.

3.2.2 The standards strategy has been developed on the basis that this move away from domestic standards should be encouraged and not resisted.

3.2.3 The biggest implication of this move away from domestic standards is that the industry must learn to let go of RGSs as the default go-to suite of standards. A role for RGSs as National Technical Rules (and possibly, in rare cases, as national safety rules) remains – but it is a limited role. The strategy can therefore be summarised in the strapline:

Realising benefits beyond Railway Group Standards
3.2.4 Letting go of RGSs will prove difficult for some to accept, partly because they are familiar, partly because of a subliminal feeling that the mere existence of RGSs somehow makes the railway safe, and partly because of a concern that the industry won’t understand those things that will replace RGSs. It will require a concerted communications and educational effort to develop an understanding about the things that replace RGSs.

3.3 Removing virtuous barriers

3.3.1 One of the major ways that standards open markets is to remove ‘virtuous barriers’, rules put in place with good intentions but which can then be misused to prevent new entrants to markets. ‘Safety’ is the most significant of these virtuous barriers, and Europe has moved to dismantle these barriers by:

- Agreeing how safe things need to be through common safety targets (CSTs) and risk acceptance criteria (RACs) (the RACs are still rather basic, but they are being developed)
- Agreeing how safety is demonstrated through common safety methods (CSMs)
- Agreeing common operating rules and procedures through the Operation and Traffic Management Technical Specification for Interoperability (OPE TSI)

3.3.2 Given this, the status of national operations publications (NOPs), including the Rule Book, and RGSs currently identified as national safety rules (NSRs) needs to be revised to reflect the common rules established by Europe. This is discussed further in the relevant strategy modules. Again, this will require letting go of RGSs as the industry’s default suite of standards.

4. Proposed standards strategy

4.1 Standards strategy modules

4.1.1 Seven standards strategy modules have been developed, dealing with:

- Strategy Module 1: Railway Group Standards as national technical rules
- Strategy Module 2: Railway Group Standards as national safety rules
- Strategy Module 3: National operational publications
- Strategy Module 4: Rail Industry Standards and Guidance Notes
- Strategy Module 5: Technical specifications for interoperability
4.1.2 The strategy proposed in each module is summarised below. Details can be found in the individual modules.

4.2 Strategy Module 1: Railway Group Standards as national technical rules

4.2.1 The suggested strategy for RGSs as NTRs is to:

- Work according to the direction for RGSs already established by ISCC: future RGSs will only set out necessary national technical rules to address specific cases, open points and technical compatibility with legacy assets; and they will mandate the use of TSIs to supply other requirements, regardless of whether or not a project requires an authorisation for placing in service.
- Adopt a systematic approach to revising RGSs (rather than relying on ‘business as usual’), working thorough all RGSs and withdrawing requirements which are known to duplicate or conflict with the TSIs.
- Develop an approach to deviations against TSI requirements mandated in RGSs for ‘below-the-bar’ projects (that is, projects not requiring an authorisation for placing in service); and communicate it to industry
- Improve the quality of RGS drafting and compliance with the RGS Code and Standards Manual.
- Develop flexible approaches to standards change projects.
- Include Guidance in RGSs, rather than in separate GNs.

4.2.2 Additionally, the possibility of transferring the management of HS1’s NTRs to RSSB, on the same basis as RSSB manages the NTRs for the GB mainline network, should be explored with HS1, together with DfT and ORR, with a view to eliminating one set of NTRs and so working in the direction of the harmonisation expected by the European Commission.

4.3 Strategy Module 2: Railway Group Standards as National Safety Rules

4.3.1 The suggested strategy for RGSs (as NSRs) is to:

- Systematically review all RGSs identified as containing NSRs using the Rule Management Tool (an annex to the final report of the European Commission’s Task Force on National Safety Rules), in order to identify
‘redundant NSRs’ (that is, rules that deal with matters already covered by a European requirement).

- Identify the requirement in European legislation, or domestic legislation transposing European legislation, that makes the RGS requirement redundant.
- In the case where a RGS requirement is identified as being redundant, consider it for inclusion in a RIS, provided:
  - It provides necessary additional detail.
  - It sets the other requirement that makes the RGS requirement redundant into the GB mainline context.
  - Where a RIS is not appropriate, consider the need for a GN explaining the European legislation, or domestic legislation transposing European legislation, that makes the RGS requirement redundant.
- Withdraw the redundant RGS requirement.
- Check RGS requirements that are not redundant for compliance with existing European legislation, or domestic legislation transposing European legislation, revising the requirements as necessary.

4.3.2 As explained in the Strategy Module 2, there are significant advantages in transforming ‘redundant’ RGSs into RISs, and there are good reasons to suppose that the industry would adopt the replacement RISs.

4.4 Strategy Module 3: National operational publications

4.4.1 Given the arguments developed in Strategy Module 3, the suggested standards strategy for NOPs, including the Rule Book, is to:

- Remove the status of RGSs from all NOPs, and recognise their new status as ‘rules required by the OPE TSI’. As such, they are not National Safety Rules, and they do not require notification.
- Continue to use the existing processes for making and modifying rules set out in the Standards Manual, but noting that the content of NOPs will no longer be constrained by the scope of RGSs. (NOPs will however have to respect the rules about rules set out in the OPE TSI, and in particular, the ‘common rules and procedures’ set out in Appendices A, B and C to the OPE TSI.)
- Continue to issue deviations from the rules using the process set out in the Standards Manual, but noting that using the process would in effect become voluntary.
- Communicate the change of status to the industry, emphasising that RUs and IMs are required to have rules in accordance with the OPE TSI, and...
that the NOPs currently provide these rules. Whilst in principle they could
develop their own rules, it is not expected that there would be any
benefits from doing so.

4.4.2 Once NOPs cease to have the status of an RGS, the Operational
Concept should be revised to reflect the revised purpose for it set out
in the Strategy Module 3.

4.4.3 Longer term, there will be benefits in revising the Standards Manual to
explicitly recognise the new status of NOPs. In particular, it would be
useful to:

- Explicitly list NOPs as a type of document, not being an RGS, falling within
  the scope of the Standards Manual
- Clarify the scope of NOPs in their role as OPE TSI rules
- Review the details of the standards change and deviations processes as
  they might apply to NOPs

4.4.4 Changes to the Standards Manual are approved by ISCC, and, unlike
changes to the RGS Code, they do not require the approval of ORR or
the RSSB Board. No change to the RGS Code is required to implement
the proposed standards strategy in relation to NOPs.

4.5 Strategy Module 4: Rail Industry Standards and
Guidance Notes

4.5.1 The suggested strategy for RISs and GNs is to:

- Engage in a systematic campaign to educate the community of standards
  users, to increase industry’s understanding of the benefits to them of RISs
  over RGSs, and to support industry’s use of RISs.
- Transfer requirements withdrawn from RGSs to RISs, provided the
  requirements are considered to be useful or necessary.
- Improve the style of drafting RISs, and ensuring Standards Committees
  recognise RISs are intended to be adopted by individual companies within
  the industry as their own standards, and that therefore they should not be
drafted as pseudo-RGSs.
- Establish a process for Standards Committees to provide observations and
  comments on ‘deviations’ from the requirements of a RIS.
- Establish an objective, with a defined delivery date, for RSSB to develop
  proposals for determining the appropriate content of GNs, and the style in
  which they are drafted.
4.6 Strategy Module 5: Technical specifications for interoperability

4.6.1 All TSI's have now been revised to extend their scope to cover the whole mainline rail system; they are now mature documents, and future work will only be to close ‘open points’ and to generally refine their requirements in the light of experience.

4.6.2 Much of the work on the current generation of TSI's was completed by late 2014. A ‘TSI lessons learnt’ workshop was therefore held on 10 December 2014 at RSSB offices, to consider if there were any improvements that could be made to the process for developing TSI's, and GB industry’s input into that process.

4.6.3 The workshop identified a number of areas where there were opportunities to improve the effectiveness of the GB industry’s input into the development of TSI's; however, no strategic issues were identified by the workshop.

4.6.4 There are outstanding issues relating to interoperability constituents; these were the subject of an earlier ISCC paper that received general support, but no action. A further attempt to address these issues would be useful.

4.6.5 There are also outstanding issues relating to ‘TSI implementation plans’; not least being the question of what use an implementation plan for a structural subsystem might have. Work has started on developing an implementation plan for the OPE TSI, facilitated by RSSB. The OPE TSI implementation plan has a clear purpose and its development is critical to understanding and achieving compliance with the OPE TSI.

4.6.6 [At the time of writing, the TSI standards strategy module has yet to be finalised.]
4.7 **Strategy Module 6: European and international standards**

4.7.1 The proposed strategy for European and international standards is to continue broadly as now, with RSSB seeking an extension to its agreement with BSI to provide project management and secretarial services for the BSI National Railway Committees (the committees responsible for developing the national position on a particular standard and presenting this position to the relevant IEC/ISO/CEN/CENELEC technical committee). The current agreement with BSI ends on 30 June 2016; in accordance with that agreement, discussions about its extension should start before 30 September 2015.

4.7.2 However, RSSB will review, and if necessary adjust or refocus, the support it provides for the development of European and international standards, as outlined in the Strategy Module 6.

4.7.3 Increasing the industry’s awareness of the work done to develop European and international standards, the support for that work provided by RSSB, and the value of such standards, should form part of a wider communications strategy for standards.

4.8 **Strategy Module 7: Company and Project Standards**

4.8.1 It is not possible to set an industry strategy for company and project standards, but the Strategy Module 7 makes a number of suggestions that may be worth pursuing to assist companies in their development and application of standards:

- Encouraging the development of RISs where there is a common need for a standard, to reduce the need for company-specific standards.
- Providing small-scale advice by RSSB to its members on developing the standards they need, and identifying publicly available standards that might obviate the need for a company standard.
- Generating a common set of discrete requirements from key publicly available standards (in particular, TSIs) for inclusion in the Requirements Management Tool being developed by RSSB.
- Supporting the development of ‘documented reference systems’ as company standards, to be used as codes of practice in the context of the CSM RA.
• Providing formalised and expanded guidance to infrastructure projects
  about standards, based on advice previously provided to the HS2 project
  by RSSB.

4.8.2 These suggestions require further development to assess their
  usefulness and feasibility, and to identify the resources needed to
  deliver them, before they could be adopted.

5. Delivery of the strategy

5.1 Delivery of the strategy, once it has been developed, will be
  dependent on the cooperation of the industry. Having a strategy
  approved by ISCC and the RSSB Board, acting on behalf of the industry,
  is one thing. Getting industry representatives and decision makers at
  lower organisation levels (including Standards Committee members) to
  wholeheartedly support and implement the strategy is another.

5.2 The risk of an unsuccessful or partial implementation of the strategy
  can be mitigated to an extent by ensuring the strategy is
  communicated effectively; and by framing it in a way that goes with
  the grain of industry sentiment (whilst actually delivering its intended
  changes and benefits); but it will require a commitment by ISCC and
  RSSB Board members to actively support delivery of the strategy.

5.3 RSSB will develop a delivery plan and a communications plan for each
  of the strategy modules.
Module 1: Railway Group Standards as National Technical Rules

Author: Jon Taylor; Standards Policy Advisor.

1. Purpose

1.1 This paper considers the future development of Railway Group Standards (RGSs) as National Technical Rules (NTRs).

1.2 The direction for the future development of RGSs as NTRs has recently been established by ISCC, as discussed below. It was agreed at the Standards Strategy Workshop on 20 March 2015 (attended by Standards Committee Chairmen and members of ISCC) that there was no reason to revisit these principles.

1.3 Nevertheless, there are a number of issues that should be tackled as part of the Strategy for Standards. This paper identifies and discusses these issues.

1.4 As NTRs, RGSs are only applicable to the GB mainline railway network (essentially, Network Rail managed infrastructure). They do not apply to other networks, which have their own suites of NTRs: High Speed 1, Northern Ireland Railways, and the Channel Tunnel. This paper considers the scope for integrating suites of NTRs.

1.5 This paper does not address RGSs as National Safety Rules (NSRs), or as National Operations Publications (NOPs) (a NOP is a document such as the Rule Book or the Working Manual for Rail Staff). These are the subject of other papers in this series.

1.6 There are a number of regulatory issues relating to NTRs that remain outstanding. These will also be the subject of a supplementary paper in this series.

2. Background

2.1 ISCC have agreed a basic direction for RGSs. The ISCC Strategic Plan for Control Period 5 states:
The scope extension of TSIs should lead to a reduction in the number of requirements in RGSs to only those that address specific cases, open points or requirements for compatibility of new, upgraded and renewed TSI-conform subsystems with existing, non-TSI conform subsystems. The requirements in RGSs will need to be examined and adjusted in a timely manner to address this issue. Requirements in RGSs that do not fill the above criteria could be transferred to RISs.

2.2 At its meeting on 19 September 2014, ISCC considered a paper on ‘Content of Railway Group Standards post-January 2015’ (agenda item 2.1). This noted that ISCC had confirmed (at its meeting on 16 May 2014) the following general approach for the role and content of RGSs that contain NTRs:

Mandatory standards, in the form of RGSs, will be retained for those projects that are out of the scope of interoperability [that is, projects that do not require an authorisation for placing in service], commonly referred to as ‘below-the-bar’ projects. Instead of replicating the existing full set of requirements, these RGSs can generally include a single requirement that mandates compliance with the relevant TSI requirements plus all the relevant NTRs that apply to the same TSI.

2.3 The paper went on to suggest:

3.2.1 It is proposed that RGSs that contain NTRs will include a requirement(s) that “The requirements of the XXX TSI applicable to [subject of RGS] shall apply as if they were requirements mandated by this document”. This would normally be the first requirement applicable to each topic area of the RGS.

3.2.2 The RGS would then set out the other requirements, which would be NTRs for the purposes described in 3.1.2 a) to c) [that is, the permitted purposes of NTRs].

2.4 ISCC endorsed the proposed approach.

2.5 This direction for RGSs provides an essential basis for a strategy for standards. It has the potential to lead to the withdrawal of a significant number of requirements in RGSs.

3. Timescales and priorities

3.1 As noted in section 2 above, the ISCC Strategic Plan for Control Period 5 states:
The scope extension of TSIs should lead to a reduction in the number of requirements in RGSs to only those that address specific cases, open points or requirements for compatibility of new, upgraded and renewed TSI-conform subsystems with existing, non-TSI conform subsystems. The requirements in RGSs will need to be examined and adjusted in a timely manner to address this issue.

3.2 However, a paper to ISCC on ‘Priorities for aligning RGSs with the scope extended TSIs’, presented on 12 November 2014 (agenda item 2.4) suggested that:

Provided the consultation on this ['not notifying' requirements which are known to duplicate or conflict with the TSIs] is supportive, and provided there are no regulatory issues arising from the pragmatic approach described above, it is proposed that the timescales for implementing the revised RGS structures are driven by the Standards Committees themselves as part of business as usual. We do not see any particular benefit from seeking to re-prioritise or add resources to do this sooner. In theory it could take up to five years to complete the process.

3.3 ISCC agreed ‘that it is not appropriate to apply a different priority to the consequent changes for all RGSs ahead of 01 January 2015’.

3.4 The ‘business as usual’ approach implies waiting for proposals for standards change to arise naturally, or waiting for the results of regular five-year reviews of RGSs. This approach is not without risks. It may:

a Result in an unsystematic approach to the withdrawal of requirements which are known to duplicate or conflict with the TSIs.

b Put off necessary decisions about the withdrawal of requirements.

c Defer potential efficiency savings until later than they might otherwise be achievable.

d Lead to ‘regulatory issues’, noted in passing in the paper to ISCC, actually arising.

3.5 To mitigate these risks, a systematic approach should be adopted, working through all RGSs and withdrawing requirements which are known to duplicate or conflict with the TSIs. This can be done without using any more resources than are available today, given sufficient time.

3.6 The order in which RGSs are tackled should be agreed with Standards Committees, prioritised according to impact and business benefit. For example, an RGS from which a large number of requirements could be withdrawn with little effort should probably have a higher priority than an RGS from which relatively few requirements can be withdrawn, or where the withdrawals would require considerable re-drafting.
4. **Deviations for ‘below-the-bar’ projects against TSI requirements mandated in RGSs**

4.1 A ‘below-the-bar’ project is one that does not require an authorisation for placing in service in accordance with the Railway (interoperability) Regulations 2011. Most projects undertaken on the railway fall into this category.

4.2 As noted above, future RGSs will contain a requirement to the effect that “The requirements of the XXX TSI applicable to [subject of RGS] shall apply as if they were requirements mandated by this document”.

4.3 An approach to deviations for ‘below-the-bar’ projects against TSI requirements mandated in RGSs therefore needs to be formulated and communicated to industry.

4.4 If ‘the requirements of the XXX TSI applicable to [subject of RGS] shall apply as if they were requirements mandated by this document’, then the TSI requirement becomes a requirement of the RGS. The process for obtaining a deviation against the TSI requirement should therefore be no different from that for obtaining a deviation against any other RGS requirement. All that is required is a modification to the deviation application form to make this clear, and to require the TSI requirement to be cited on the form where normally it would cite an RGS requirement.

4.5 Deviations against TSI requirements for projects requiring an authorisation for placing in service will continue to be managed in accordance with Regulation 14 of the Railway (interoperability) Regulations 2011.

4.6 Deviations against NTR requirements for projects requiring an authorisation for placing in service will continue to be managed in accordance with either Regulation 46 of the Railway (interoperability) Regulations 2011, or (more appropriately) the ‘established industry process ... for deviating from the NNTR’ (that is, the current process for obtaining a deviation from RGSs set out in the RGS Code (the Code) and the Standards Manual (the Manual)). See the DfT’s ‘Dispensations from NNTRs Interoperability Helpnote’.

5. **Improving the quality of drafting and compliance with the Code and the Manual**

5.1 It is recognised that RSSB needs to improve the quality of RGSs and associated documents (RISs, GNs, NOPs), both in terms of drafting and compliance with the Code and the Manual, before a draft document is presented to a Standards Committee for approval to go to industry consultation.
5.2 RSSB therefore propose to introduce a more rigorous, formal quality check before a document is sent to Standards Committees for pre-consultation review.

5.3 RSSB propose to appoint two independent internal reviewers for each document produced. The reviewers would have a good understanding of the purpose of RGSs, and the requirements of the Code and the Manual, and would be independent of the project team producing the document.

6. Developing flexible approaches to standards change projects

6.1 RSSB believes there are opportunities to develop more flexible approaches to managing standards change projects, avoiding tick-boxing, and delivering efficiently, meeting governance requirements with minimum use of time and resources (for example, by completing several formal stages of a project at one Standards Committee meeting, rather dealing with each stage at separate meetings).

6.2 An internal RSSB Project Review Board has therefore been set up. It will monitor and review key standards projects on a regular basis, to see how they are performing against Standards Committees’ agreed delivery timescales.

6.3 Project managers will be encouraged to develop a critical understanding of what a particular standard is intended to achieve, taking their involvement beyond that of simple process management.

7. Including Guidance in RGSs

7.1 There is sometimes reluctance on the part of Standards Committees and the industry to support the withdrawal of requirements from RGSs, even when the requirements in question are outside the scope of RGSs.

7.2 This is often the result of a concern that if something is withdrawn from an RGS it is somehow ‘lost’, and ceases to be visible.

7.3 To address concerns about withdrawals from RGSs, RSSB introduced non-mandatory Rail Industry Standards (RISs) that can be used to document out-of-scope requirements that the industry wishes to retain; and it has published an explanatory leaflet on ‘Withdrawing requirements from Railway Group Standards’. However, these only partially address the issue.
7.4 Frequently in these cases, what is being proposed for withdrawal from an RGS is effectively guidance that has been 'disguised' as a requirement by introducing the word 'shall', so as to meet the conventions of RGS drafting.

7.5 Conventionally, guidance in RGSs has been confined to appendices known as 'non-mandatory appendices'. This reduces the visibility of the guidance, and dissociates it from the requirement to which it relates.

7.6 At its meeting on 19 September 2014, ISCC 'endorsed in principle, the production of one document where guidance is appropriate to support mandatory requirements in RGSs — subject to ensuring that the document remains easily readable’ and ‘advised that Standards Committees should have the discretion to decide where it is appropriate to keep guidance separate. The default position would be to include guidance within the RGS’.

7.7 It is therefore suggested that in future RGSs are structured along the lines of RISs, incorporating guidance below the requirements to which it relates. This will go some way to alleviating concerns about valuable material being 'lost' from RGSs.

7.8 There will be a need to develop criteria for those drafting RGSs about what constitutes good guidance, and how it should be drafted. For example, GNs should not ‘guide’ in the sense of containing non-mandatory requirements expressed as ‘It is recommended that …’ or ‘X should …’. Guidance should be limited to factual statements. This will be the subject of a later paper in this series.

8. Integrating suites of NTRS

8.1 Scope for integrating suites of NTRs in the UK

8.1.1 As noted in section 1 above, NTRs, RGSs are only applicable on the GB mainline railway network (essentially, Network Rail managed infrastructure). They do not apply to other networks, which have their own suites of NTRs: High Speed 1 (HS1), Northern Ireland Railways, and the Channel Tunnel.

8.1.2 One of the objectives of European regulation relating to railways is to minimise diversity within the railway industry, to facilitate the creation of an open market in railway products and services, and thus reduce costs and make railways more competitive relative to other transport modes.

8.1.3 Clearly, having many different suites of national rules, and particularly NTRs, is an obstacle to achieving this objective. Any reduction in the number of different suites of NTRs would help remove this obstacle.

8.1.4 As Northern Ireland Railways does not use standard track gauge (1435 mm), there is a case for retaining a separate suite of NTRs for this network, albeit using common rules for parameters that are not gauge-dependent where possible.
8.1.5 Given the particular safety issues relating to the Channel Tunnel, the nature of its regulation, and the fact it directly interfaces with French railways, there is also a case for retaining a separate suite of NTRs for the Channel Tunnel.

8.1.6 However, there is probably scope for integrating the NTRs used by (HS1) with RGSs, as the NTRs for the GB mainline network.

8.2 **Integrating the NTRs used by HS1 with RGSs**

8.2.1 Some of NTRs applying to HS1 are based on RGSs, but some are particular to HS1. This is partly because HS1 is not required to comply with RGSs through its licence, partly because HS1 was built as a ‘French’ railway and is largely TSI-conform, and partly because RGSs are only formally validated up to 225 km/h, but HS1 operates at up to 300 km/h.

8.2.2 It is understood that HS1 is currently considering membership of RSSB. This may provide an opportunity to transfer the management of HS1’s NTRs to RSSB, on the same basis as RSSB manages the NTRs for the GB mainline network.

8.2.3 If RSSB were to take over the management of HS1’s NTRs, it could gradually converge GB mainline and HS1 rules, eliminating one set of NTRs and so working in the direction of the harmonisation expected by the European Commission.

8.2.4 It might also prove possible to adapt the NTRs to make them useable by HS2, preventing the creation of yet another network with its own national rules.

8.2.5 Managing HS1’s NTRs using the RGS Code would provide a better legal basis for the rules, as the Code is designed to deliver the member state’s obligations in respect of rules. It is not entirely evident how the member state’s obligations are delivered in the management of HS1’s rules today.

8.2.6 Should RSSB take over the management of HS1’s NTRs, HS1 would need to be prepared to commit to representation on ISCC and, probably, most standards committees, to provide expertise in high speed operation. It would also require RSSB to commit additional resources, and perhaps acquire new expertise.

8.2.7 It must be stressed that if HS1 were to become a member of RSSB, it does not mean that they must delegate the management of their NTRs to RSSB, or even that they might wish to do so.

8.2.8 However, it is suggested that this possibility is explored with HS1, together with DfT and ORR.
9. Suggested strategy for NTRs

9.1 RGSs as NTRs

9.1.1 The suggested strategy for RGSs as NTRs is to work according to the direction for RGSs already established by ISCC and described in section 2 above; and to implement the proposals identified in this paper relating to:

a) Timescales and priorities (section 3 above).

b) Deviations for ‘below-the-bar’ projects against TSI requirements mandated in RGSs (section 4 above).

c) Improving the quality of drafting and compliance with the Code and the Manual (section 5 above).

d) Developing flexible approaches to standards change projects (section 6 above).

e) Including Guidance in RGSs (section 7 above).

9.2 Integrating suites of NTRs

9.2.1 The possibility of transferring the management of HS1’s NTRs to RSSB, on the same basis as RSSB manages the NTRs for the GB mainline network, should be explored with HS1, together with DfT and ORR, with a view to eliminating one set of NTRs and so working in the direction of the harmonisation expected by the European Commission.
Strategy Module 2: Railway Group Standards as National Safety Rules

Author: Jon Taylor; Standards Policy Advisor.

1. Purpose of the paper

1.1 National Safety Rules (NSRs) are a product of the Railway Safety Directive 2004/49/EC. Article 3(h) of the Directive defines NSRs:

   …‘national safety rules’ means all rules containing railway safety requirements imposed at Member State level and applicable to more than one railway undertaking, irrespective of the body issuing them…

1.2 The rules set out in the Railway Safety Directive for managing NSRs are clearer than those set out in the Railway Interoperability Directive 2008/57/EC for managing National Technical Rules (NTRs). Despite this, there are considerable uncertainties surrounding the purpose and legitimacy of NSRs.

1.3 In an attempt to resolve these uncertainties, the European Commission set up a ‘Task Force on National Safety Rules’. The Task Force’s final report is dated 13/12/2012.

1.4 This paper considers the future development of Railway Group Standards (RGSs) as NSRs in the light of the Task Force’s final report.

2. The final report of the Task Force on National Safety Rules

2.1 The executive summary of Task Force’s final report explains:
Since the European Union took efforts to revitalize the railway market they have been working towards a single European railway market. National Safety Rules (NSR) were seen as one of the major obstacles to achieve this goal. The Railway Safety Directive (RSD) introduced in 2004 measures for the gradual harmonisation and reduction of NSR, and to help improving transparency of NSR in Member States. Nevertheless, even after several years, limited progress has been made in Member States. Therefore in December 2010 RISC decided to set up a Task Force (TF) on NSR with the purpose to clarify uncertainties about NSR and develop proposals for best practice.

This is the Final Report on activities and results of the TF in 2011-2012. It covers four major topics: the definition of NSR and overlaps with other rules, the procedures for improving transparency of the rule systems, proposals for the future legal framework and procedures to clean-up the rule systems.

3. Legal basis for RGSs being NSRs

3.1 The Task Force’s final report concludes that:

*Rules of other parties (so-called indirect rules) can become NSRs if, in line with the first condition, a Member State establishes the necessary legal base which will depend on internal organisation of that Member State.*

3.2 RGSs are ‘rules of other parties’ (in this case, the industry’s own rules, managed by RSSB). The necessary legal base is established through a long chain, and could perhaps be challenged. It is, however, believed to be firmer than the legal base for NSRs notified by some other member states. It is understood that the European Railway Agency (ERA) has accepted the legal basis for making NSRs binding in GB.

The legal chain was completed by the publication of Issue 4 of the Railway Group Standards Code (the Code), which explains:

> 1.1.3 Railway Group Standards (RGSs) are National Safety Rules and National Technical Rules applicable to the mainline railway system. However, the UK Member State has delegated the authority for making decisions about creating, changing, deviating from and publishing these particular national rules to the rail industry. In doing this, the UK Member State must ensure that the responsibilities for national rules placed on it in Directive 2008/57/EC and Directive 2004/49/EC are discharged.
1.1.4 The Railway Group Standards Code (the Code) therefore sets out the conditions on which that delegated authority is granted, in the form of a statement of the principles on which the industry will base its decisions about RGSs. It also sets out how RGSs are to be published. These conditions are necessary in order to ensure the responsibilities placed on member states in Directive 2008/57/EC and Directive 2004/49/EC are discharged.

3.3 This paper will therefore assume that the legal basis for RGSs being NSRs is sufficiently firmly established.

4. ‘Cleaning up’ NSRs

4.1 Section 3.3 of the final report says:

**3.3 Transition process**

Findings in this report concerning the current legal framework for NSRs and desirable changes do not lead to any new task for the Member States and their authorities. On the contrary, they help their work following the principles of Better Regulation.

The Member States should concentrate their efforts on the following two main issues in order to promote transition towards the target system of NSRs:

- **Member States should clean their systems of NSRs in order to bring them in compliance with existing EU requirements:** revise NSRs as necessary and remove redundant NSRs from their national legal systems, national sources of NSRs and Notif-IT. The Member States should follow the process in Section 3.1.2.2 and use the Rule Management Tool in Annex 3. This should be a recurrent process taking into account the development of EU legislation.

- **Those documents which are not considered to be NSRs anymore may remain valid. However it is necessary to revise and change their status accordingly in the national legal systems, national sources of NSRs and Notif-IT.**

4.2 Section 3.1.2.2 explains:

As follows from the RSD, at the final stage, outside of European harmonised requirements and company rules covered by SMS, there will be no space left for national rules (see Figure 2). During an interim phase common rules will include open points and specific cases (in TSIs) and other kind of exceptions (in other EU legislation). This will be the frame where national rules may be notified as NSR. **Outside of these rules, IM information, as well as company rules and coordinated interfaces of IM and RU will be covered by their respective SMS ...**
4.3 Annex 3 explains the Rule Management Tool:

The Rule Management Tool provides an overview about the existing European railway legislation replacing NSRs – focusing on safety. As far as possible this tool lists all areas where NSRs may remain, as well as key areas where the notified NSRs should be withdrawn in line with EU legislation. Additionally, other examples are taken into account such as worker protection and railway security; this is to reply to FAQ regarding rules which are not NSR. The aim of the Rule Management Tool is to give Member States guidance about the existing legislative framework in order to allow them to adjust their legislation to the European law.

4.4 Following the conclusions of the Task Force’s final report, it is clearly necessary to systematically review all RGSs identified as containing NSRs using the Rule Management Tool, in order to identify ‘redundant NSRs’ – that is, RGSs that may no longer qualify as NSRs.

4.5 Currently, there are about 50 RGSs that have been identified as containing NSRs (excluding National Operational Publications (NOPs), which have been addressed in another paper in this series). It is likely that many will prove to be ‘redundant’ when reviewed using the Rule Management Tool. To illustrate this, the Rule Management Tool has been applied to ‘Type 7 NSRs’ (Rules concerning the investigation of accidents and incidents), and the results reported in section 7 below.

5. Revising the status of ‘redundant’ RGSs

5.1 Transforming RGSs into a Rail Industry Standard (RIS) or a Guidance Note (GN)

5.1.1 It should be noted that even if a RGS no longer qualifies as a NSR, and is therefore ‘redundant’, the Task Force’s final report notes that ‘Those documents which are not considered to be NSRs anymore may remain valid. However it is necessary to revise and change their status accordingly’.

5.1.2 Therefore, in the case of a RGS that no longer qualifies as a NSR, the option of transforming it into a RIS or a GN remains.

5.1.3 Very often, the European rule that makes the RGS redundant will lack detail, and so a RIS or GN that supplements that rule by adding the necessary detail and relating the European rule to the GB mainline context will be useful.

5.1.4 Transforming ‘redundant’ RGSs into RISs also has the advantage that the resulting standards will not be subject to review by ERA (because they are not NSRs). They will therefore remain fully within the control of the industry. The resulting RISs must not, however, contradict the European rules they supplement.
5.1.5 It would be helpful if a simple, straightforward process for transforming ‘redundant’ RGSs into RISs could be developed, minimising the resources necessary to implement the change, and minimising its impact on industry. This is discussed further below.

5.2 Process for transforming ‘redundant’ RGSs into RISs

5.2.1 In this context, it is worth noting a paper presented to ISCC on 04 November 2011 (Agenda Item 2.7) on ‘Maintaining access to requirements in withdrawn RGSs’. This proposed a simple, quick, method of converting a document from an RGS to a RIS:

   This could be done by formally withdrawing the RGS and then publishing a new RIS (with a new number). This would be a document consisting of a RIS cover with an introductory page, and the withdrawn document (unchanged, in its entirety) as an annex. The introduction would explain the status of the document in the annex (‘no longer mandatory, but retained as a RIS for use by industry’).

5.2.2 ISCC ‘endorsed conducting a trial of the proposal to rebadge an RGS as a RIS’. The trial was conducted on BR 13422 (an old BR standard still having the status of a RGS). However, the document was eventually issued as a GN (GK/GN0622 Guidance on Immunisation of Signalling and Telecommunications Systems against Electrical Interference from 50Hz Single Phase A.C Electrification), not a RIS (as the paper had proposed), because it was only wanted by industry as a source of guidance, and not as a standard.

5.2.3 Although the trial was successful, there proved to be little appetite with RSSB for repeating the experiment. It is however worth revisiting this approach within the context of transforming ‘redundant’ RGSs into RISs.

5.2.4 It can be argued that once a RGS has been identified as being ‘redundant’, the decision to change its status is a formality; and that the only questions that need be considered by a Standards Committee are:

   a  Is the analysis identifying the RGS as ‘redundant’ correct?

   b  Is there a case for retaining the content as a RIS?

5.2.5 The Standards Committee does not need to approve the change in status as such, as it is a legal obligation (if not now, then certainly once the recast Railway Safety Directive is in force - see section 6 below).

5.2.6 The adoption of a simple process for transforming ‘redundant’ RGSs into RISs will be subject to ISCC approval, once it has been developed.

5.2.7 The Standards Strategy Industry Steering Group has recommended that RISs created from redundant RGSs should, if possible, retain the numerical part of their reference number to aid those searching for the document concerned.
5.3 Compliance with RISs (and RGSs)

5.3.1 Concern is sometimes expressed that, because RISs are ‘not mandatory’, they will be ‘ignored’ by the industry.

5.3.2 Describing RISs as ‘not mandatory’ and RGSs as ‘mandatory’ is actually misleading.

   mandatory
   adjective

   Something that is mandatory must be done, or is demanded by law:

   - The minister is calling for mandatory prison sentences for people who assault police officers.
   - Athletes must undergo a mandatory drugs test before competing in the championship.
   - In 1991, the British government made it mandatory to wear rear seat belts in cars.

   (Definition of mandatory from the Cambridge Advanced Learners Dictionary & Thesaurus © Cambridge University Press)

5.3.3 An RU’s ‘Statement of National Regulatory Provisions’ (SNRP) will require that:

   Condition 9: Railway Group Standards

   1. The SNRP holder shall comply with the Railway Group Standards applicable to its licensed activities.

5.3.4 (There is a similar licence condition imposed on Network Rail.)

5.3.5 This is something that ‘must be done’. So it is mandatory to comply with the Railway Group Standards applicable to an RU’s (or IM’s) licensed activities.

5.3.6 There will be RGSs that are not applicable to a particular RU’s (or IM’s) licensed activities. There is no requirement for the RU concerned to comply with these. However, even when an RGS is applicable to its licenced operations, an RU (or IM) need only comply with the RGS in the circumstances described in the RGS’s compliance clauses – usually when they decide to change something.

5.3.7 It is therefore not appropriate to talk about an RGS being ‘mandatory’. In itself, it is not ‘something that must be done’. It’s a document setting out things that must be done in specific circumstances. It’s these ‘things’ that can be described as being ‘mandatory’, not the RGS.

5.3.8 A RIS also sets out things that must be done. But in this case, there is no SNRP or licence that makes an RU or IM comply with the RIS. Compliance is not ‘mandatory’ – it’s a choice. But once the choice is made to comply with a RIS, the things it specifies must be done – so these things are in a sense ‘mandatory’.
5.3.9 If a RIS, containing ‘redundant’ requirements transferred from a RGS, provides an effective and practical method of meeting a European rule in the context of the GB mainline Railway, there is real incentive for the industry to adopt it.

5.3.10 If IMs and RUs chose not to adopt a RIS (that is, they chose to ignore it), it would suggest that the RIS was not actually useful: it was not an effective and practical method of meeting a European Rule in the context of the GB mainline Railway, and should be withdrawn or revised.

5.3.11 However, the likelihood of IMs and RUs choosing not to adopt a RIS should be small, as it is necessary to demonstrate industry support before a RIS is produced. And if an RU or IM chooses not to comply with the RIS, they will need to find an equivalent way of managing their activity or asset.

6. The recast Railway Safety Directive

6.1 The recast Railway Safety Directive (part of the technical pillar of the Fourth Railway Package) will introduce a new obligation on Member States to review all NSRs (or ‘national rules’ as they will become) within two years of its entry into force and repeal any national rule made redundant by Union legislation.

6.2 The recast Railway Safety Directive will include a reference to the Rule Management Tool and its development to assist Member States in undertaking the task of reviewing NSRs; it will also include a reference to ERA assistance in determining whether a rule remains appropriate.

6.3 The DfT have advised that this is therefore an area in which it will be taking an increased interest in future.

6.4 It is suggested that it would be better to review all RGSs that are NSRs ahead of the deadline in the recast Railway Safety Directive (01 January 2018, based on an anticipated entry into force of 01 January 2016). This would avoid being encumbered by ERA’s ‘assistance’; and would provide adequate time to put in place appropriate RISs and GNs.

7. Example of applying the Rule Management Tool to RGSs identified as Type 7 NSRs (Rules concerning the investigation of accidents and incidents)

7.1 The final report concluded:

3.1.1.2 NSR according to RSD Annex II
“Rules concerning the investigation of accidents and incidents” (Type 7 rules)
These rules describe who is responsible for the investigation, which events are subject to investigation and how the investigation of accidents and incidents in the railway system shall be carried out and reported in the Member State.

According to the analysis made by the TF, there is no more room for NSR in this area and – as a consequence – type 7-rules will no longer exist in future. Some elements are covered by the CSM CA and RID. Other elements belong to transposition measures of the RSD Chapter V (including the choice of some options left open to the Member States), general rules on reporting and investigation of the accidents in the country, further information by the NIB and other investigating bodies and the company’s own procedures as part of their SMS (see Section 3.1.1.1, Question 5).

Even though these documents are not NSRs, they shall be applied as part of the RU SMS in order to ensure retrieving the root causes of each incident or accident, and continuous improvement with the view of prevention of new undesirable events. As for any aspect of RU activity, the application of the CSM on Monitoring /13/ by RUs (and other parties where relevant) and the CSM on Supervision /14/ by the NSA will support the achievement of this objective.

7.2 RSSB have identified three RGSs containing Type 7 NSRs:
   a. **GM/RT2273** Post Incident and Post Accident Testing of Rail Vehicles, Issue 4, Jun 2014
   b. **GO/RT3118** Incident Response Planning & Management, Issue 1, Oct 2008
   c. **GO/RT3119** Accident and Incident Investigation, Issue 3, Dec 2012

7.3 The Rule Management Tool lists ‘the existing European railway legislation replacing NSR’ for Type 7 rules. Of most direct relevance are the Common Safety Methods for assessing conformity (CSM CA). These CSMs provide a procedure and criteria for National Safety Authorities (NSAs) assessing applications by infrastructure managers (IMs) for safety authorisations, and applications by railway undertakings (RUs) for safety certificates.

7.4 The CSMs require the NSA (ORR in the case of the GB mainline railway) to scrutinise applications against the assessment criteria for safety management systems set out in annexes to the CSM. These annexes therefore become a statement of what a safety management system (SMS) must contain. These include:
   a. Procedures to ensure that accidents, incidents, near misses and other dangerous occurrences are reported, investigated and analysed and that necessary preventive measures are taken
b  Provision of plans for action and alerts and information in case of emergency, agreed upon with the appropriate public authorities

7.5 The annexes provide additional details to describe the required procedures and plans. For example, an IM’s SMS is required to have ‘... procedures in place to coordinate emergency plans with RUs which operate on the organisation’s infrastructure and any other infrastructure with which it has an interface’.

7.6 Therefore because IMs and RUs are already required to have ‘Procedures to ensure that accidents, incidents, near misses and other dangerous occurrences are reported, investigated and analysed and that necessary preventive measures are taken’ (albeit through an indirect mechanism), there is no requirement for a NSR requiring the same thing. Such an NSR is ‘redundant’ and should be withdrawn.

7.7 On this basis, the three RGSs identified as containing Type 7 NSRs should be withdrawn.

7.8 However, as noted in section 5, there may be a case for transforming them into RISs, adding necessary detail and relating the European rule to the GB mainline context. IMs and RUs could then adopt these RISs as, or as part of, the procedures that their SMSs are required to contain.

8. Suggested strategy for RGSs (as NSRs)

8.1 The suggested strategy for RGSs (as NSRs) is:

a  Systematically review all RGSs identified as containing NSRs using the Rule Management Tool, in order to identify ‘redundant NSRs’.

b  Identify the requirement in European legislation, or domestic legislation transposing European legislation, that makes the RGS requirement redundant.

c  In the case where a RGS requirement is identified as being redundant, consider it for inclusion in a RIS, provided:

i  It provides necessary additional detail.

ii  It sets the other requirement that makes the RGS requirement redundant into the GB mainline context.

d  If a RIS is not appropriate, consider the need for a GN explaining the European legislation, or domestic legislation transposing European legislation, that makes the RGS requirement redundant.

e  Withdraw the redundant RGS requirement.
Check RGS requirements that are not redundant for compliance with existing European legislation, or domestic legislation transposing European legislation, revising the requirements as necessary.

8.2 As noted in section 5, there are advantages in transforming ‘redundant’ RGSs into RISs, and there are good reasons to suppose that the industry would adopt the replacement RISs.

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1. Purpose of the paper

1.1 This paper considers the future development of National Operations Publications (NOPs) (specifically, the Rule Book and the Working Manual for Rail Staff). NOPs are defined by the Standards Manual as ‘RGSs which define instructions for direct application by staff employed by transport operators’.

1.2 Although NOPs are currently classed as Railway Group Standards (RGSs), they are instructions, not standards, and (unlike other RGSs) they are directed at individuals, not legal entities such as infrastructure managers (IMs) and railway undertakings (RUs).

1.3 The revised Operation and Traffic Management Technical Specification for Interoperability (OPE TSI), published on 30 June 2015, contains requirements relating to ‘operational rules’, and requires RUs to produce a ‘Driver’s Rule Book’ and a ‘Route Book’ describing the characteristics of the route over which a driver will work.

1.4 In considering the future development of NOPs, this paper seeks to identify the proper relationship between the operational rules and the Driver’s Rule Book required by the OPE TSI, and current NOPs.

2. Current NOPs: the Rule Book

2.1 The best known NOP is the Rule Book (GE/RT8000). In practice, the Rule Book, as a single document, no longer exists. It is rather a generic name for a collection of loosely related documents containing direct instructions for railway staff. There are, broadly speaking, three types of Rule Book documents:

a Rule Book modules containing instructions for front line operating personnel such as drivers, signallers and shunters which apply across the main line network and manage safety across the interface between RUs and the IM. Modules are relevant to both RU and IM staff. Rule Book modules have the status of RGSs.

b Signalling Regulations (TS1 to TS11) setting out the duties of signallers. These rules are of interest to RUs, but are only applicable to the IM’s staff.
c. **Rule Book handbooks** containing instructions that are carried out by personnel holding a particular competency in relation to staff protection, engineering activity or operation of equipment. They are only of relevance to Network Rail staff. Despite this, Rule Book handbooks have the status of RGSs.

2.2 Additionally, there are information handbooks that do not contain rules to directly manage safety of operations, but instead contain background information on the topic covered in modules and handbooks, including instructions on the general operation of equipment. These documents are not strictly part of the Rule Book, but in practice they are treated as if they were. They are classed as ‘RS’ documents (that is, handbooks that are formally outside the governance arrangements set out in the Standards Manual). An example is the **AWS and TPWS Handbook (RS/522)**.

2.3 In principle, the signalling regulations and Rule Book handbooks could be managed by Network Rail. However, in practice it has been found convenient for these documents to continue to be managed by RSSB on behalf of Network Rail, partly for reasons of resource availability; partly because of the benefits offered by using the collaborative and transparent processes set out in the RGS Code and the Standards Manual; and partly because it ensures any changes to these documents are effectively coordinated with changes to the other Rule Book modules.

3. **Current NOPs: The Working Manual for Rail Staff**

3.1 The Working Manual was, and is, a collection of instructions and information relating to freight train operation. There are currently two remaining parts to the Working Manual:

a. **GO/RT3053 Working Manual for Rail Staff: Handling and Carriage of Dangerous Goods** (commonly referred to as ‘the pink pages’)

b. **GO/RT3056 Working Manual for Rail Staff: Freight Train Operations** (commonly referred to as ‘the white pages’)

3.2 Neither document contains anything that falls within the scope of a RGS. Much of GO/RT3053 restates regulatory requirements in a form that is directly useable by rail staff.

4. **The status of NOPs**
4.1 The status of NOPs as RGSs is a peculiar anomaly, presumably arising from a perceived need to make them in some sense ‘mandatory’. Unlike other RGSs, they ‘define instructions for direct application by staff employed by transport operators’. RGSs would usually define ‘rules’ (standards) to be observed by companies as legal entities (RU, IM, project entity), and not by individual people.

4.2 Whilst the RGS Code is silent on the subject of NOPs, the Standards Manual does make provision for a NOP to be an RGS:

11.1.2 A requirement included in a NOP shall be within the scope of RGSs if it meets the criteria set out in the operational concept for the mainline railway approved by the Board.

4.3 The current Operational Concept for the GB Mainline Railway was published in February 2012, and revised in March 2014. It states:

The purpose of this document is to provide the methodology for testing whether a proposal for rules change is within scope of rules (GE/RT8000 and other National Operations Publications). It achieves this by providing a link between the nine Fundamental Operating Principles (listed in Appendix A of this document) and:

a) Railway Group Standards containing requirements for transport operators
b) operating rules and procedures for transport operators employees
c) processes required by transport operators within their safety management system.

4.4 The Fundamental Operating Principles are:

1. The method of signalling must maintain a space interval between trains that is safe.
2. Before a train is allowed to start or continue moving, it must have an authority to move that clearly indicates the limit of that authority.
3. Trains proceeding over any portion of line must not be obstructed in a way that threatens their safety.
4. Trains must be prevented from proceeding onto a portion of line if it is known or suspected that it would not be safe for them to pass.
5. Trains must not be allowed to begin or continue their journeys until it is clear that it is safe for them to do so.
6. Trains must only be allowed to operate over any portion of line as long as the rolling stock is compatible with the infrastructure on that portion of line.
7. Trains must not continue to operate after they have been found to be unsafe in any respect, until measures have been taken to allow them to continue safely.

8. People must be kept at a safe distance from moving trains.

9. The workforce must be protected from the particular hazards associated with electrified railways.

4.5 On this basis, many NOPs, particularly the rules set out in the Working Manual, do not relate directly to a Fundamental Operating Principle and are therefore out of scope of RGSs. However, because the industry finds the NOPs useful, they continue to be retained as RGSs.

4.6 There would be many advantages from removing the status of RGS from NOPs, not least being that their content would not be constrained by the scope of RGSs; and they would not be the subject of future review by the European Commission (as they would cease to be National Safety Rules). Logically, if the industry finds NOPs useful, they should continue to find them useful, whether or not they have the status of a RGS.

4.7 The OPE TSI offers (indeed, requires) a different approach to the status of NOPs. This is discussed further in the next section.

5. Operation and Traffic Management TSI

5.1 The Driver’s Rule Book

5.1.1 The OPE TSI requires the existence of a ‘Driver’s Rule Book’:

4.2.1.2.1 Driver’s Rule Book

All the necessary procedures for the driver must be included in a document or a computer medium called the “Driver’s Rule Book”.

The Driver’s Rule Book must state the requirements for all the routes worked and the rolling stock used on those routes according to the situations of normal operation, degraded operation and in emergency situations which the driver may encounter.

The Driver’s Rule Book must cover two distinct aspects:

— one which describes the set of common rules and procedures (taking into account the contents of Appendices A, B and C),
— another which sets out any necessary rules and procedures specific to each infrastructure manager.

It must include procedures covering, as a minimum, the following aspects:

— staff safety and security,
— signalling and control command,
— train operation including degraded mode,
— traction and rolling stock,
— incidents and accidents.

5.1.2 ‘The set of common rules and procedures (taking into account the contents of Appendices A, B and C)’ refers to rules that must be harmonised across Europe. The Appendices are:

a  **Appendix A:** ERTMS/ETCS operating rules.
b  **Appendix B:** Common operational principles and rules.
c  **Appendix C:** Safety related communications methodology.

5.1.3 Section 4.4 of the OPE TSI explains:

4.4. Operating rules

The rules and procedures enabling coherent operation of new and different structural subsystems intended to be used in the European Union rail system, and in particular those that are linked directly to the operation of a new control and signalling system, must be identical where identical situations exist.

The operational principles and rules specific to the European Rail Traffic Management System (ERTMS/ETCS) and for ERTMS/GSM-R radio system are specified in Appendix A.

Operational principles and rules, which are common across the European Union rail system, are specified in Appendix B.

5.1.4 Appendix C states:

This Appendix sets out the rules for safety-related communications, between train crew, mainly the train driver, and signaller, in particular to define its structure and methodology. Safety-related communication has priority over all other communication.

5.1.5 The OPE TSI further requires:

4.2.1.2.1. Driver’s Rule Book

... The railway undertaking is responsible for compiling the Driver’s Rule Book.

The railway undertaking must present the Driver’s Rule Book in a clear format for the entire infrastructure over which their drivers will work.

The railway undertaking must compile the Driver’s Rule Book in such a way that the driver’s application of all operational rules is enabled.
The process for preparing and updating the Driver’s Rule Book must include the following steps:

— the infrastructure manager (or the organisation responsible for the preparation of the operating rules) must provide the railway undertaking with the appropriate information in the infrastructure manager’s operating language,

— the railway undertaking must draw up the initial or updated document,

The infrastructure manager must ensure that the content of the documentation provided to the railway undertaking(s) is complete and accurate.

The railway undertaking must ensure that the content of the Driver’s Rule Book is complete and accurate.

5.1.6 Currently on the GB mainline network, RUs do not produce individual Driver’s Rule Books, but use a common Driver’s Rule Book in the form of the appropriate Rule Book modules published as part of GE/RT8000.

5.1.7 RUs and IMs can be thought of as discharging their responsibilities for the production of Driver’s Rule Books by working collaboratively through the processes set out in the Standards Manual, facilitated by RSSB. Producing Driver’s Rule Books in this way is efficient: for example, Network Rail, as the IM, need only provide information once, and not to every individual RU; the s have an assurance that the content of the Driver’s Rule Book is ‘complete and accurate’ (see section 6 below).

5.1.8 However, as each RU is responsible for compiling their Driver’s Rule Book, there is no legal basis for insisting that they must use the Rule Book modules published as part of GE/RT8000 for this purpose – they are free to produce their own rule book should they wish to do so, based on information supplied by the IM.

5.1.9 On this basis, use of the Rule Book modules cannot be made mandatory by the state, and therefore they cannot continue to have the status of an RGS.

5.1.10 As noted in section 4 above, there would be many advantages from removing the status of RGS from NOPs, including the Rule Book. Therefore there is a happy coincidence between the requirements of the OPE TSI and the benefits of removing RGS status from the Rule Book.

5.2 The Route Book

5.2.1 The OPE TSI also requires the existence of a ‘Route Book’:
4.2.1.2.2 Description of the line and the relevant line-side equipment associated with the lines worked over

Drivers must be provided with a description of the lines and the associated line-side equipment for the lines over which they will operate and relevant to the driving task. Such information must be set out in a single document called the “Route Book” (which can either be a traditional document or computer-based).

... 

4.2.1.2.2.1 Preparation of the Route Book

... 

The railway undertaking is responsible for the complete and correct compilation of the Route Book, using the information supplied by the infrastructure manager(s).

5.2.2 In practice Network Rail, as the IM, produces the Sectional Appendix, which provides elements of the Route Book for the GB mainline network. The Sectional Appendix is not an RGS, although its production is subject to the requirements of GO/RT3215 Requirements for the Weekly Operating Notice, Periodical Operating Notice and Sectional Appendix.

5.2.3 There is a need to review GO/RT3215 in the light of the OPE TSI requirements. Further consideration of GO/RT3215 is outside the scope of this paper, but as it is currently identified as a National Safety Rule, it falls within the scope of a separate paper in this series, dealing with ‘Railway Group Standards as National Safety Rules’. This paper proposes a review of all RGSs identified as National Safety Rules.

5.3 Documentation for railway undertaking staff other than drivers

5.3.1 The OPE TSI requires:

4.2.1.3. Documentation for railway undertaking staff other than drivers

The railway undertaking must provide all members of his staff (whether on train or otherwise) who undertake safety-critical tasks involving a direct interface with the staff, equipment or systems of the infrastructure manager with the rules, procedures, rolling stock and route specific information it deems appropriate to such tasks. Such information shall be applicable in both normal and degraded operation.

5.3.2 The rules and procedures required by this clause of the OPE TSI can be found in some Rule Book modules, including many that also make up the Driver’s Rule Book.

5.3.3 As in the case of those modules forming the Driver’s Rule Book, there is no basis for continuing to give these rules the status of RGSs.
5.4 **Documentation for infrastructure manager’s staff authorising train movements**

5.4.1 The OPE TSI refers to ‘Documentation for infrastructure manager’s staff authorising train movements’ in rather narrow terms:

4.2.1.4. **Documentation for infrastructure manager’s staff authorising train movements**

All the information necessary to ensure safety-related communication between staff authorising the movement of trains and train crews must be set out in:

— documents describing the Communications Principles (Appendix C);

— the document entitled Book of Forms.

The infrastructure manager must draw up these documents in his operating language.

5.4.2 Documentation for IM’s staff authorising train movements would include some Rule Book modules and the Signalling Regulations (Modules TS1 to TS11).

5.4.3 Again, there is no basis for continuing to give these rules the status of RGSs.

5.5 **Procedures to supervise the transport of dangerous goods**

5.5.1 The OPE TSI requires:

4.2.3.4.3 **Dangerous goods**

The railway undertaking must define the procedures to supervise the transport of dangerous goods.

5.5.2 Many of the procedure required by this clause of the OPE TSI are set out in GO/RT3053 Working Manual for Rail Staff: Handling and Carriage of Dangerous Goods (commonly referred to as ‘the pink pages’).

5.5.3 The procedures in the pink pages essentially express the requirements of the regulations concerning the international carriage of dangerous goods by rail (RID) in a form usable by front line staff. The regulations appear as Annex I to Appendix B to the Convention concerning international carriage by rail (COTIF).

5.5.4 As each railway undertaking is responsible for defining the ‘procedures to supervise the transport of dangerous goods’, there is no legal basis for insisting that they must use the pink pages for this purpose – they are free to produce their own procedures should they wish to do so, provided they meet the requirements of the applicable regulations.

5.5.5 On this basis, use of the pink pages is by the state, and therefore they cannot continue to have the status of an RGS.
However, as in the case of the other rules discussed above, RUs can be thought of as discharging their responsibilities for the definition of the procedures required by the OPE TSI by working collaboratively through the processes set out in the Standards Manual, facilitated by RSSB, to produce a common set of industry instructions (in this case, the pink pages), which are supplemented as necessary by company instructions.

**5.6 Rules and procedures relating to train composition, train braking and ensuring the train is in running order**

5.6.1 The OPE TSI requires the RU to define rules and procedures relating to train composition, train braking and ensuring the train is in running order:

### 4.2.2.5. Train composition

The railway undertaking must define the rules and procedures to be followed by his staff so as to ensure that the train is in compliance with the allocated path.

### 4.2.2.6.2 Braking performance and maximum speed allowed

... the railway undertaking shall ensure that during operation each train achieves at least the necessary braking performance. The railway undertaking shall set up and implement corresponding rules and shall manage them within its safety management system.

In particular the railway undertaking has to set up rules to be used if a train does not reach the necessary braking performance during operation.

### 4.2.2.7. Ensuring that the train is in running order

The railway undertaking must define the process to ensure that all safety-related on-train equipment is in a fully functional state and that the train is safe to run.

5.6.2 Where necessary, the IM is required to provide the RU with relevant information.

5.6.3 Some of the rules and procedure required by these clauses of the OPE TSI are set out in GO/RT3056 Working Manual for Rail Staff: Freight Train Operations (commonly referred to as ‘the white pages’) and appropriate Rule Book modules published as part of GE/RT8000.

5.6.4 The same arguments apply to these rules and procedures as apply to the ‘procedures to supervise the transport of dangerous goods’ discussed in section 5.5 above.

**5.7 Implementation of the OPE TSI**

5.7.1 The OPE TSI requires:

### 7.1. Principles
Implementation of this TSI and conformity with the relevant points of this TSI must be determined in accordance with an implementation plan that must be drawn up by each Member State for the lines for which they are responsible.

7.2. Implementation guidelines

There are three distinct elements to implementation:

(a) confirmation that any existing systems and processes comply with the requirements of this TSI;

(b) adaptation of any existing systems and processes to comply with the requirements of this TSI;

(c) new systems and processes arising from implementation of other subsystems

— new/upgraded conventional lines (infrastructure/energy),

— new or upgraded ETCS signalling installations, GSM-R radio installations, hot axle box detectors, etc. (control-command and signalling),

— new rolling stock (rolling stock).

5.7.2 Removing the RGS status from NOPs, and particularly from the Rule Book, recognising that responsibility for rules lies with RUs and IMs, would be a step towards implementation of the OPE TSI by ‘Adaptation of ... existing systems and processes to comply with the requirements of this TSI’.

5.7.3 However, the existing processes for making and modifying rules set out in the Standards Manual can (and should) remain, as they provide an efficient mechanism by which RUs and IMs discharge their responsibilities for making and modifying rules in accordance with the OPE TSI.

6. Future of the Operational Concept for the GB Mainline Railway

6.1 Currently the stated purpose of the Operational Concept is ‘to provide the methodology for testing whether a proposal for rules change is within scope of the rules (GE/RT8000 and other National Operations Publications)’ – that is, the Operational concept is a filter, intended to exclude proposed rules that do not fall within the scope of an RGS. If the status of RGSs is removed from all NOPs, this purpose ceases to be relevant.

6.2 As noted in section 5.1, the OPE TSI requires that ‘The railway undertaking must ensure that the content of the Driver’s Rule Book is complete and accurate’.
6.3 It is therefore suggested that the Operational Concept, and the Fundamental Operating Principles it sets out, should be regarded as a statement of what we understand by ‘complete and accurate’: the rules can be considered ‘complete and accurate’ if they deliver the Fundamental Operating Principles.

6.4 The Operational Concept would therefore become a statement of what must be included in the rules, and not a statement of what must be excluded.

6.5 In this context, it is worth noting that the ‘essential requirements’ specific to the operation and traffic management subsystem set out in Annex III to the Railway Interoperability Directive 2008/57/EC are inadequate. The Fundamental Operating Principles are a far better statement of the requirements that are really essential for the operation and traffic management subsystem to meet.

7. **Deviations from NOPs**

7.1 There will be occasions when, in particular circumstances, an RU or IM wishes to adopt an alternative rule to that set out in the NOP.

7.2 Currently, as NOPs have the status of RGSs, the IM or RU seeking to adopt an alternative rule would apply for a deviation using the process set out in the Standards Manual. A deviation is defined by the RGS Code as:

   ... a permission to comply with a specified alternative to a requirement or requirements in a RGS. A deviation has a specified scope and, where relevant, duration.

7.3 If RGS status is removed from NOPs, the RU or IM could, in principle, adopt an alternative rule without seeking a deviation – they would not need ‘permission’ to adopt it.

7.4 However, in the case of rules forming the Driver’s Rule Book, ‘the infrastructure manager (or the organisation responsible for the preparation of the operating rules) must provide the RU with the appropriate information’ to allow the RU to develop rules. It is suggested that the deviations process should be retained as a mechanism for doing this in cases where an RU wished to adopt an alternative rule.

7.5 Furthermore, retaining the deviations process would provide a mechanism for gaining assurance that the proposed alternative rule was fit for purpose, by subjecting it to formal cross-industry peer review.

7.6 The benefits of subjecting proposed alternative rules to formal cross-industry peer review, using the deviations process, is likely to be of benefit in the case of all NOPs, and not just rules forming the Driver’s Rule Book.
7.7 Note that deviations (proposed alternative rules) will need to respect the ‘common rules and procedures’ set out in Appendices A, B and C to the OPE TSI (see section 5.1 above) if they are to be supported by the Standards Committees considering the deviation application.

7.8 Retaining the deviations process would allow an immediate seamless transition from NOPs as RGSs to NOPs as ‘rules required by the OPE TSI’. However, it should be regarded as a first step, adapting what we have and what is familiar. In time, the need for the process, and its functioning, can be reviewed and adapted to suit industry’s needs.

7.9 [In this context, it is worth noting that Standards Committee Chairmen have suggested that there is a case for providing the opportunity for those wishing to deviate from a Rail Industry Standard (RIS) to come to a Standards Committee for an opinion (or even ‘support’ for the deviation). This is discussed further in the paper in this series dealing with Rail Industry Standards and Guidance Notes.]

8. Proposals for digital publication of the Rule Book

8.1 Standards Committees are currently considering a proposal for a digital product that:

... enables the user to access current content [of GE/RT8000] in a variety of ways [internet based and mobile applications], providing them with the flexibility to tailor the product(s) to suit their personal learning styles and preferences. A space that provides access to relevant information, but where text is contextualised through the integration of diagrams, images, audio and video. A platform that enables information to be communicated accurately in a concise and consistent manner.

8.2 The removal of RGS status from NOPs would facilitate this mode of publication, as the formal constraints on the scope and content of RGSs will not apply.

9. Proposed standards strategy for NOPs

9.1 Given the arguments developed in this paper, it is proposed that the standards strategy for NOPs, including the Rule Book, should be to:

a Remove the status of RGSs from all NOPs, and recognise their new status as ‘rules required by the OPE TSI’. As such, they are not National Safety Rules, and they do not require notification.
b Continue to use the existing processes for making and modifying rules set out in the Standards Manual, but noting that the content of NOPs will no longer be constrained by the scope of RGSs. NOPs will however have to respect the rules about rules set out in the OPE TSI, and in particular, the ‘common rules and procedures’ set out in Appendices A, B and C to the OPE TSI (see section 5.1 above).

c Continue to issue deviations from the rules using the process set out in the Standards Manual, but noting that using the process would in effect become voluntary (see section 7 above).

d Communicate the change of status to the industry, emphasising that RUs and IMs are required to have rules in accordance with the OPE TSI, and that the NOPs currently provide these rules. Whilst in principle they could develop their own rules, it is not expected that there would be any benefits from them doing so.

9.2 There are no practical obstacles to implementing this change immediately, subject to ISCC and TOM Standards Committee endorsement.

9.3 It will be objected that the documents’ numbers and other features will suggest that they are Railway Group Standards and they should therefore be revised ‘to avoid confusion’. In practice, no confusion will arise – if people behave as if the documents are RGSs, they will be behaving no differently than they would, given the documents’ new status as rules required by the OPE TSI. The cost of implementing purely cosmetic changes, such as changes to document numbers, is unlikely to be justified.

9.4 Once NOPs cease to have the status of an RGS, the Operational Concept should be revised to reflect the new purpose set out in section 6 above.

9.5 Longer term, there will be benefits in revising the Standards Manual to explicitly recognise the new status of NOPs. In particular, it would be useful to:

a Explicitly list NOPs as a type of document, not being an RGS, falling within the scope of the Standards Manual

b Clarify the scope of NOPs in their role as OPE TSI rules

c Review the details of the standards change and deviations processes as they might apply to NOPs

9.6 Changes to the Standards Manual are approved by ISCC, and, unlike changes to the RGS Code, they do not require the approval of ORR or the RSSB Board. No change to the RGS Code is required to implement the proposed standards strategy in relation to NOPs.
Strategy Module 4: Rail Industry Standards and Guidance Notes

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1. Purpose of the paper

1.1 This paper considers the future development of Rail Industry Standards (RISs) and Guidance Notes (GNs).

2. Background

2.1 The Standards Manual defines RISs and GNs as follows:

**Rail Industry Standard (RIS)**
A RIS is a document produced under the procedures set out in the Manual (or equivalent predecessor documents, including previous versions of the Manual) that defines functional or technical requirements that may be adopted in circumstances where management of a railway subsystem does not necessitate the use of a RGS.

**Rail Industry Guidance Note (GN)**
A GN is a document produced under the procedures set out in the Manual (or equivalent predecessor documents, including previous versions of the Manual) that provides potentially helpful information relating to the management and/or operation of the railway system or its subsystems.

2.2 The first RIS was issued in April 2006 (RIS-1530-PLT Rail Industry Standard for Engineering Acceptance of On-Track Plant and Associated Equipment). To date, 24 RISs have been published. Whilst RISs are now an established type of standard, understanding about their role and use is variable.

2.3 Further information about RISs is set out in an RSSB Standards Guide Item, SGI141 The purpose and content of Rail Industry Standards. A copy will be made available to the Standards Strategy Industry Steering Group.

**Note:** SGIs are a series of papers that have been developed to assist RSSB staff in applying the Railway Group Standards Code (the Code) and Standards Manual (the Manual), including related European issues, and RSSB’s associated internal procedures and processes. Standards Committee Chairmen may bring relevant SGIs to the attention of Standards Committee members to assist them in understanding and applying the Code and the Manual, including related European issues.
GNs have a significantly longer history than RISs. There are 85 GNs currently listed on RGS Online. Broadly, GNs are of two types: those that support understanding of a specific Railway Group Standard (RGS); and ‘free-standing’ Guidance Notes (GNs) that are not linked to a specific RGS.

Publication of guidance is not confined to GNs as separate documents. It may also be included in RGSs and RISs, as described in SGI321 *Inclusion of guidance in Railway Group Standards and associated documents*. A copy will be made available to the Standards Strategy Industry Steering Group.

### Rail Industry Standards

#### Industry perception of RISs

The Chairmen of Standards Committees were asked for their impression of the industry’s understanding of RISs. In summary, their perception was:

a. The industry is very familiar with RGSs, as they have existed for more than 20 years. There is a good understanding of the force of RGSs, although there is less understanding of what is legitimately in scope of an RGS.

b. In contrast, there is comparatively little understanding of the scope and force of RISs, mainly due to unfamiliarity – many potential users of future RISs will not have come across one yet. The understanding of RISs is probably greatest in railway plant sector, where RISs (such as RIS-1530-PLT) have become well established.

c. There is a general lack of understanding about the different roles of the various types of standards; the distinctions between types of standards can appear to be an academic issue. In particular there is a lack of understanding about the formal role of National Technical Rules (NTRs) and National Safety Rules (NSRs).

d. There is a natural aversion to change, and a view that ‘if RGSs work, why do we need RISs – can’t everything be in an RGS?’: ‘just tell us what to do’ is a frequent response to proposals to withdraw requirements from RGSs; the form in which industry is familiar with for being ‘told what to do’ is a RGS.

e. A few people in industry are starting to see the benefits of RISs, recognising the implications of having inessential requirements in RGSs (as NTRs) for the authorisation process for placing in service.

f. A frequent concern raised by those who appreciate the role of RISs is the absence of an industry-wide deviations process. The formality associated with the RGS deviations process is perceived to be a control mechanism that helps filter out some ‘less credible’ alternative measures to those set out in the standards.
3.1.2 Standards Committee Chairmen suggested that:

a) RISs provide an appropriate and necessary level of standardisation for
   requirements not within scope of NTRs or NSRs. However, more education of
   the community of standards users is probably required, to support industry in
   its use of RISs.

b) Formally, the process for deviating from a RIS is a matter for the company
   adopting the RIS. However, there may be case for providing the opportunity
   for those wishing to deviate from a RIS to come to a standards committee for
   an opinion (or even ‘support’ for the deviation).

3.2 Anticipated withdrawal of requirements from RGSs

3.2.1 A NTR or NSR is a rule which, in some manner or other, has been made
   mandatory by the state (hence it is ‘national’). The state mandates RGSs on IMs
   and RU through their licence or Statement of National Regulatory Provision
   (SNRP) – so the requirements in RGSs are, by definition, NTRs or NSRs.

3.2.2 For the foreseeable future there will continue to be a need for a small core of
   necessary RGSs, filling the role of NTRs and, to a lesser extent, NSRs (see the
   relevant papers in this series for details).

3.2.3 The process of reducing RGSs to just those necessary to act as NTRs and NSRs will
   result in the withdrawal of a (probably significant) number of requirements (for
   details, see the papers in this series dealing with NTRs and NSRs). If a requirement
   is withdrawn from an RGS, the state no longer mandates its use and therefore it
   cease to be a national rule.

3.2.4 However, that does not mean that the withdrawn requirement is not useful, or
   perhaps even necessary – it simply means that there is no basis for the state to
   mandate compliance with it. If a withdrawn requirement is considered useful or
   necessary, it can be transferred to a RIS.

3.3 Effect of transferring requirements from RGSs to RISs

3.3.1 What changes as a result of the transfer of a requirement from a RGS to a RIS is
   the responsibility for deciding whether or not to comply with the requirement,
   from (formally) the state to individual companies within the industry, and not
   (necessarily) the requirement itself.

3.3.2 As the state has already delegated responsibility for making rules to the industry,
   working collectively through RSSB, this formal change of responsibility should
   present no difficulties.
3.3.3 It is sometimes objected that, if requirements are not contained within a RGS, industry will not comply with them. If that proved to be the case, it would suggest that the requirements were in reality neither useful nor necessary, and a RIS containing such requirements should either be withdrawn or revised.

3.3.4 However, it is recognised that, as suggested by Standards Committee Chairmen (see section 3.1 above), more education of the community of standards users is required, to support industry in its use of RISs. In particular, users need to understand that whether a requirement is held in a RGS or a RIS determines where responsibility for deciding whether or not to comply with the requirement lies – it does not alter the requirement itself.

3.4 Advantages of RISs

3.4.1 RISs are developed collectively by the industry, facilitated by RSSB, and therefore an efficient way of producing standards that companies can adopt as their own standards (noting that RISs are produced for particular industry sectors, not individual companies).

3.4.2 RISs have an authority that comes from the demonstration of cross-industry support inherent in the governance arrangements for their development set out in the Manual.

3.4.3 RISs have many advantages for the industry over retaining requirements within a RGS (even if that were legitimate):

a Their content is not restricted to the limited scope of NTRs and NSRs (as RGs); the content is determined by the industry (within the scope it has decided for itself and set out in the Manual).

b RISs are not subject to review (and possible rejection) by the European Commission.

c RISs can be developed to act as Codes of Practice (or as a way of documenting reference systems) that can be used for risk acceptance purposes within the context of the Common Safety Method for Risk Evaluation and Assessment (CSM RA).

d RISs can be developed setting out recognised ways of complying with TSIs (in the absence of appropriate harmonised European Standards), NTRS and NSRs.

3.5 RISs for adoption by the (network) infrastructure manager (IM)

3.5.1 In section 3.4 it was noted that ‘RISs are produced for particular industry sectors, not individual companies’. This statement requires some qualification.
3.5.2 There is only one company in the category of RSSB members covering the (network) IM sector: Network Rail. Despite this, it is perfectly legitimate for a RIS that (currently) could only be adopted by Network Rail to be produced (see SGI141 for details).

3.5.3 SGI141 notes ‘However, Network Rail would still need to persuade the Lead SC that the RIS is in scope and that producing the RIS would be beneficial to the rail industry as a whole and a worthwhile use of RSSB’s resources.’ (It would not be appropriate for anyone other than Network Rail to propose a RIS that could only be adopted by Network Rail.)

3.5.4 Network Rail have occasionally found it useful to adopt a RIS (rather than produce their own company standard), to give the standard the additional authority that comes from the demonstration of cross-industry support inherent in the governance arrangements set out in the Manual, noted in section 3.4. Examples include RIS-0386-CCS Rail Industry Standard on Signal Overrun Risk Evaluation and Assessment and RIS-1701-PLT Rail Industry Standard for Portable and Transportable Plant Used for Infrastructure Work.

3.6 Style of drafting

3.6.1 RISs are standards, and therefore they should contain requirements that are clear, and with which compliance can be determined unambiguously.

3.6.2 RISs may contain associated guidance – but this must be clearly distinct from the requirements with which the guidance is associated.

3.6.3 RISs are intended to be adopted by individual companies within the industry as their own standards. They should therefore be drafted with this in mind. They should not be drafted as pseudo-RGSs, using the form ‘The RU shall …’ or ‘The IM shall …’... A number of existing RISs fail to respect this approach, and should be redrafted appropriately when next revised.

3.6.4 For example, RIS-3703-TOM Rail Industry Standard for Passenger Train Dispatch and Platform Safety Measures, Issue 2 states:

2.1 Development of the train dispatch process based on risk assessment

2.1.1 Infrastructure managers shall, in liaison with railway undertakings, carry out a risk assessment to determine the appropriate system of train dispatch for passenger trains and identify additional measures needed to manage the behaviour of people on the platform.

(The IM here is the IM for the station, not the network.)

3.6.5 This could be rewritten to read:

2.1.1 For each platform there shall be a current risk assessment to support:

a The selection of the system of train dispatch from that platform.
b The identification of additional measures needed to manage the
behaviour of people on the platform.

The involvement of all RU’s whose trains regularly use the platform shall be
sought when preparing or reviewing the risk assessment.

3.7 Deviations from RISs

3.7.1 Formally, the process for deviating from a RIS is a matter for the company
adopting the RIS. However, Standards Committee Chairmen have suggested there
is a case for providing the opportunity for those wishing to deviate from a RIS to
come to a Standards Committee for an opinion (see 3.1 above).

3.7.2 There is a precedent for such a system within the Manual. Section 13.3 of the
Manual deals with ‘Proposals for the closing out of open points not addressed by
RGSs – Standards Committee observations and comment to project entities’. This
provides for:

The Lead Standards Committee and the relevant Support Standards
Committees may provide observations and comments relating to:

a) The technical aspects of the proposed project specific technical rules

b) Where identified, areas where the project entity’s proposed
approach may bring it into conflict with existing industry standards,
and

c) Whether the proposed technical rules may be appropriate as the
basis for new requirements in a RGS.

3.7.3 A similar provision could be made for ‘deviations’ from the requirements of a RIS,
with the Standards Committees perhaps providing observations and comments
on:

a The technical aspects of the proposed alternative to the requirement in a RIS,

b Where identified, areas where the proposed alternative requirement may
bring it into conflict with existing industry standards (particularly TSIs, NTRs
and NSRs), and

c Whether the proposed alternative requirement may be appropriate as the
basis for a new or revised requirement in the RIS.

3.7.4 The exact scope of Standards Committees observations and comments would
need to be carefully considered, taking account of any liabilities that might arise.

3.7.5 Use of the process would not be (and could not be) mandatory. It would simply be
available to companies wanting to have their proposed alternative requirements
peer reviewed.
3.8 Long term future for RISs

3.8.1 In many cases, at least in the engineering field, RISs should be regarded as an expedient, making up for the absence of a suitable and sufficient European Standard. An example of this is RIS-1702-PLT Rail Industry Standard for the Design of On-track Machines in Working and Travelling Modes. In time, the relevant European Standard EN 14033 Railway applications - Track - Railbound construction and maintenance machines should eventually be developed to the point where RIS-1702-PLT ceases to be necessary and can be withdrawn.

3.8.2 As a general principle, RISs should not be created where a suitable European standard exists that covers the relevant topic area; and RISs should be withdrawn once suitable new or revised European standards are published.

3.8.3 This approach is in line with the Standards Strategy’s support of the movement from reliance on domestic standards to reliance on European standards and, eventually, international standards.

4. GNs

4.1 Purpose and content of GNs

4.1.1 As noted in section 2 above, ‘A GN is a document produced under the procedures set out in the Manual ... that provides potentially helpful information relating to the management and/or operation of the railway system or its subsystems.

4.1.2 A review of current GNs suggests that greater clarity is needed on the appropriate content of GNs and the style in which they are drafted.

4.1.3 In particular, there needs to be a clear understanding of why guidance might be published as a formal GN, using the governance arrangements set out in the Manual, rather than as ‘guidance’ in some other format and under other governance arrangements (as, for example, the guidance documents produced as an output from some RSSB managed research).

4.1.4 The term ‘Guidance Note’ can be misleading—it is sometimes thought that a GN should contain statements of the form ‘IMs (or RUs) should ...’. Such ‘should’ statements are actually requirements, and are more appropriately contained in a RIS. The ‘guidance’ in GNs should be confined to factual statements that aid understanding and support decision making – they should not ‘guide’, in the sense of making a recommendation.

4.1.5 The need to develop proposals for determining the appropriate content of GNs, and the style in which they are drafted, has been recognised within RSSB for some time, but has been given a low priority. Whilst this task is not urgent, it should be established as an objective, with a defined delivery date.
5. **Suggested strategy for RISs and GNs**

5.1 The suggested strategy for RISs and GNs is:

a. Engage in a systematic campaign to educate the community of standards users, to increase industry’s understanding of the benefits to them of RISs over RGSs, and to support industry’s use of RISs.

b. Transfer requirements withdrawn from RGSs to RISs, provided the requirements are considered to be useful or necessary.

c. Improve the style of drafting RISs, and ensuring Standards Committees recognise RISs are intended to be adopted by individual companies within the industry as their own standards, and that therefore they should not be drafted as pseudo-RGSs.

d. Establish a process for Standards Committees to provide observations and comments on ‘deviations’ from the requirements of a RIS.

e. Establish an objective, with a defined delivery date, for RSSB to develop proposals for determining the appropriate content of GNs, and the style in which they are drafted.
Strategy Module 5: Technical Specifications for Interoperability

Author: Jon Taylor; Standards Policy Advisor.

1. Purpose of the paper

1.1 Technical Specifications for Interoperability (TSIs) are common European standards, produced in accordance with the Railway Interoperability Directive 2008/57/EC (as amended) and its predecessors. Article 2(i) of the directive defines TSIs as follows:

‘technical specification for interoperability’ (TSI) means a specification adopted in accordance with this Directive [that is, Directive 2008/57/EC] by which each subsystem or part subsystem is covered in order to meet the essential requirements and ensure the interoperability of the rail system;

1.2 Further information about TSIs can be found on the Technical Specifications for Interoperability page of RSSB’s website.

1.3 This paper considers the next stages for the development of TSIs, and provides some advice as how this could be approached.

1.4 However, given the relative maturity of TSIs (discussed in section 2), the outputs from a recent ‘TSI lessons learnt’ workshop (discussed in section 3), and the nature of the available channels for influencing the development of TSIs (discussed in section 4), this paper does not propose any specific, strategic actions.

2. Current position on development of TSIs

2.1 The first TSIs were published in 2002, covering a limited number of subsystems. Their scope was confined to high speed railway lines on the Trans-European Transport Networks (TEN-T). Gradually TSIs were developed to cover all subsystems and their scope was extended, first to cover all railway lines on the TEN-T (both high speed and ‘conventional’), and then the whole of the European mainline rail system. The process was completed with the publication of the operation and traffic management TSI (OPE TSI) in June 2015, the last of the TSIs to be revised to extend its scope to cover the whole mainline rail system.
2.2 TSIs are now mature documents, and future work will only be to close ‘open points’ and to generally refine their requirements in the light of experience.

3. ‘TSI’s lessons learnt’ workshop

3.1 Much of the work on the current generation of TSIs was completed by late 2014. A ‘TSI lessons learnt’ workshop was therefore held on 10 December 2014 at RSSB offices, to consider if there were any improvements that could be made to the process for developing TSIs, and GB industry’s input into that process.

3.2 The workshop identified a number of areas where there were opportunities to improve the effectiveness of the GB industry’s input into the development of TSIs. This paper takes account of the outputs from the workshop; however, no strategic issues were identified by the workshop.

4. Influencing the development of TSIs

4.1 Channels for influencing the development of TSIs

4.1.1 The channels available to the industry to influence the development of TSIs are set out on the ‘Developing and amending TSIs’ page of RSSB’s website. For reasons of space, this content is not reproduced in this paper.

4.1.2 The principle opportunities for influencing the development of TSIs are through:

a. Attendance at the support group meetings organised by the representative bodies (sector organisations, such as CER, EIM and UNIFE) recognised by the European Commission and the European Railway Agency (ERA) as having a legitimate voice in the development of TSIs. Attendees at a representative body’s support group meetings are appointed by the members of the representative body: so ATOC appoints a member to CER support groups and Network Rail appoints a member to EIM support groups.

b. Attendance at ERA Working Party meetings as the speaker for a representative body. Speakers are appointed by the representative body, and take direction from their organisation’s support group.

c. Attendance at ERA Working Party meetings as a representative of a National Safety Authority (NSA). ORR is the NSA for the GB railway, and will appoint representatives to attend ERA Working Party meetings.

4.1.3 It should be noted that there is no formal role for RSSB within the process for developing TSIs (that is, a role recognised by the European Railway Agency).
4.2 Representation

4.2.1 The organisation responsible for selecting representatives to attend the meetings noted in 4.1 above needs to give careful consideration to the choice of candidate, ensuring they have not only appropriate technical knowledge, but also the necessary ‘soft skill’ that will allow them to influence the meetings effectively. Where necessary, training could be provided to enhance the soft skills of selected representatives.

4.2.2 The selected representative should be prepared to seek support from others within the GB industry to supplement the representative’s technical knowledge, and to establish the views of the GB industry as a whole.

4.2.3 Organisations responsible for selecting representatives should give some consideration to who might succeed a representative should that person retire or switch jobs. If possible, potential successors should be given the opportunity to gain some recognition within the European standards community, giving them a greater chance of early effectiveness in meetings. Influencing European meetings often depends on establishing a personal reputation.

4.2.4 RSSB, at the request of the GB organisation concerned (for example, ORR, ATOC or Network Rail) can provide (and has provided) an expert to attend meetings on their behalf.

4.2.5 An RSSB expert attending support group meetings or working party meetings will seek to establish (through Standards Committees or GB TSI Mirror Groups) the views of the GB industry as a whole, and represent those views together with the views of the GB sponsoring organisation. The RSSB expert will also be able to call on the resources of RSSB to develop and make the case for an agreed GB position.

4.2.6 The GB industry should therefore perhaps give consideration to using an RSSB representative to attend TSI-related meetings as a default, unless there are particular reasons for the organisation having the right to be represented at the meeting to send its own representative.

4.3 Information about who is representing the GB rail industry

4.3.1 The TSI lessons learnt workshop suggested that ‘There needs to be clear communication as to who is representing the GB rail industry at all levels of the TSI process’. It further suggested this could be done by creating a RACI model (a responsibility assignment matrix), published on RSSB’s website.

4.3.2 To be effective, such an approach requires GB organisations to take a collaborative approach (as generally happens anyway); proactively supply RSSB with information about representation on various groups; and to share working drafts and intelligence about the progress of TSI revisions.
4.3.3 Subject to the point made above, RSSB will review the way it makes information available through standards committees and its website and take any opportunities to make improvements.

5. Timing

5.1.1 The TSI lessons learnt workshop suggested that ‘To get the most from RISC meetings, mirror group chairs, DfT and ORR should hold regular meetings prior to any key milestones or decision points, to ensure actions are completed and a coordinated GB approach is agreed’.

5.1.2 [‘RISC’ is the Railway Interoperability and Safety Committee, made up of the representatives of member states. It was established to ‘assist the Commission’ on matters relating to the Railway Interoperability Directive 2008/57/EC and the Railway Safety Directive 2004/49/EC. It was formerly known as the ‘Article 21 Committee’ as it was established under article 21 Directive 96/48/EC, the earliest of the Interoperability Directives. One of the tasks of the committee is to provide the Commission an opinion on draft TSIs; effectively recommending TSIs to the commission for adoption.]

5.1.3 In practice, the papers for RISC meetings are seldom available in time to make holding regular meetings a practical proposition. Generally a written exchange of views, initiated by DfT’s requests through its Interoperability News Flash service, proves sufficient. When necessary, ad hoc meetings to address specific issues of importance can be, and have been, arranged.

5.2 Improving the drafting of TSIs

5.2.1 The quality of TSI drafting is variable, and often poor. There are several reasons for this, including:

a Drafting is the responsibility of ERA project officers, who are not necessarily skilled authors.

b ERA is not consistent in the way Working Parties operate, which varies from them acting as drafting groups, actually producing text, to acting as review groups, providing the project officer with suggestions.

c ERA is not consistent in establishing and enforcing drafting rules for TSIs.

d TSIs do not use defined terms, and different terms for the same concept are used in different TSIs (and sometimes in the same TSI).

e Check on the consistency and compatibility between the different TSIs is often inadequate.

5.2.2 These issues have been drawn to ERA’s attention, and the quality of drafting is improving, but there is much scope for improvement.
5.2.3 Generally, the most effective way of obtaining a good quality draft is to provide a ‘good’ text for ERA, written by a native English speaker who is nonetheless fluent in European English. However, the drafting skills of GB representatives attending meetings cannot be taken for granted; and nor can the willingness of ERA to accept help with drafting. Producing ‘good’ text requires a large resource commitment that may ultimately prove abortive.

5.2.4 GB representatives attending meetings should be encouraged to seek the support of RSSB to generate ‘good’ text, for proposing to support group and Working Party meetings.

6. Informing industry about TSIs

6.1 There is an evident need to improve the industry’s understanding of all types of standards, and not just TSIs. There is no easy way to address this need, as it is difficult to find channels for proactively telling people about standards – it is not a topic that excites interest until something goes wrong late in a project. Suggestions include:

a RSSB should continue to maintain and keep current its website and briefing leaflets; and it should seek opportunities to speak to companies and projects about standards.

b DfT should continue to use, and further develop, their Interoperability News Flash service.

c ISCC, Standards Committee and TSI mirror group members should make it part of their role to communicate to their constituents about TSIs, and in particular forthcoming changes to TSIs. They should encourage their constituents to sign up to the DfT’s News Flash service.

6.1.1 RSSB maintains TSI application issues logs for recording information about the problems that have been encountered when applying TSIs in GB. The issues logs are used to support discussions when TSIs are being amended. Greater publicity should be given to the existence and use of the issues log as part of the effort to improve the industry’s understanding of standards.

6.1.2 RSSB have developed guidance on interpreting the requirements of TSIs, published in a series of Guidance Notes (GNs). These GNs are being (or should be) revised to take account of the publication of revised TSIs having an extended scope. They should also take into account the TSI Application Guides produced by ERA and other supporting information such as Notified Body Coordination Group (NB Rail) Recommendations for Use that can contain useful guidance on interpretation and background to TSI requirements.
6.1.3 Industry should be encouraged to seek advice for standards committees in the event that they have difficulty in interpreting a TSI.

7. Interoperable constituents

7.1 Interoperability constituents (ICs) are defined as:

... any elementary component, group of components, subassembly or complete assembly of equipment incorporated or intended to be incorporated into a subsystem, upon which the interoperability of the rail system depends directly or indirectly. The concept of a ‘constituent’ covers both tangible objects and intangible objects such as software;

7.2 In practice, the requirements in TSIs do not address any component upon which the interoperability of the rail system depends – they only address some components, and then in ways that are problematic. ISCC considered a paper on ICs on 22 July 2011 (Agenda Item 2.10, A possible approach to interoperability constituents) setting out some of the more general issues relating to ICs and proposing how they might be addressed.

7.3 Despite the paper receiving ISCC support, no real attempt has been made to address the issues, which remain outstanding.

7.4 ISCC should revisit the issues, and consider how they might be presented to the European Railway Agency and the European Commission in a way that would cause them to recognise the need for action.

8. TSIs for Telematics applications

8.1 There are two TSIs for telematics applications:

a. applications for passenger services, including systems which provide passengers with information before and during the journey, reservation and payment systems, baggage management and management of connections between trains and with other modes of transport;

b. applications for freight services, including information systems (realtime monitoring of freight and trains), marshalling and allocation systems, reservation, payment and invoicing systems, management of connections with other modes of transport and production of electronic accompanying documents.

8.2 GB input into the development of the TSI for telematics applications for passenger services (TAP TSI) is led by ATOC; GB input into the development of the TSI for freight services (TAF TSI) is led by Network Rail.

8.3 RSSB has very limited technical capability in these areas, but offers some advice on regulatory issues (for example, on the role of national technical rules).
8.4 There appears to be no reason to alter these arrangements; however, ISCC and the Board are invited to confirm that this is the case.

9. Implementation plans

9.1 Member States are required to prepare a national implementation plan for each TSI, describing their actions to comply with the TSI.

9.2 In the case of structural subsystems (infrastructure, energy, trackside control-command and signalling, on-board control-command and signalling, rolling stock) the implementation plan has little or no impact on the management of standards.

9.3 [The purpose of the implementation plans is unclear, given projects are undertaken to deliver new or altered assets to meet specific business needs, and not to implement TSIs. TSI requirements are simply constraints that projects must respect – they do not determine the need for a project in the first place.]

9.4 However, because it is a functional subsystem, the implementation plan for the operation and traffic management TSI (OPE TSI) is potentially very significant for the development of operational rules and procedures.

9.5 The operational rules and procedures for the GB mainline railway are set out in National Operations Publications (see Strategy Module 3) and, to a lesser extent, Railway Group Standards used as National Safety Rules (see Strategy Module 2). These rules and procedures must be harmonised with the common rules and procedures set out in the OPE TSI; but the speed at which this must be done will be defined by the implementation plan.

9.6 RSSB is currently facilitating a working group that has been tasked with developing an implementation plan for the OPE TSI, for consideration by DfT. The work of the group should be supported and encouraged by the GB industry, to ensure implementation of the OPE TSI does not disrupt GB operating practice, and does not impose undue costs on the industry.

10. Suggested strategy for TSIs

10.1 For the reasons set out in Section 1 of this paper, no specific, strategic actions are proposed in relation to TSIs.

10.2 However, this paper provides some advice as to how the next stages for the development of TSIs could be approached and how industry awareness of TSIs could be raised to facilitate their application.
Strategy Module 6: European and International Standards

Author: Jon Taylor; Standards Policy Advisor.

1. Purpose of the paper

1.1 This paper sets out the work undertaken by the GB mainline railway, facilitated by RSSB, directed at the development of European and international railway standards.

1.2 The paper notes the resources employed, and identifies the scope for, and consequences of, changes to the work undertaken.

1.3 In this context European and international railway standards refers to the railway-specific standards produced by:

- The European Committee for Standardization (CEN)
- The European Committee for Electrotechnical Standardization (CENELEC)
- The International Organization for Standardization (ISO)
- The International Electrotechnical Commission (IEC)

1.4 The great majority of standardisation work for railway applications is undertaken by CEN and CENELEC. ISO has only recently entered the field of railway applications.

1.5 Standards produced by the European Telecommunications Standards Institute (ETSI) and the International Telecommunication Union (ITU), whilst being of relevance to the railway, are not railway-specific, and are therefore not included within the scope of this paper.

2. Purpose and development of European and international standards

2.1 CEN publish a leaflet, Compass - The world of European Standards, that provides a useful introduction to European standards, setting out their purpose and outlining the way they are developed.

2.2 The leaflet lists the benefits of having European (and, by extension, international standards) as:
Standards enhance the safety of products
Standards encourage economies of scale
Standards enable manufacturers to comply with European legislation
Standards promote the interoperability of products and services
Standards facilitate the uptake of innovation in the marketplace
Standards encourage greater competition
Standards facilitate trade by diminishing trade barriers
Standards support environmental sustainability
Standards reflect the outcome of research and development
Standards promote common understanding

2.3 In essence, European standards are a key mechanism for opening markets and removing trade barriers, with a consequential reduction in costs. The ‘Compass’ leaflet explains that:

*With one common standard for 31 European countries, a product can reach a far wider market with much lower development and testing costs. Manufacturers benefit from being able to use a broader basis of external suppliers, from greater quality assurance, and increased efficiency. Customers are more likely to accept a product or service which they can trust.*

2.4 This view is supported by the Department for Business, Innovation and Skills (BIS). In their Guidance on ‘Innovation standardisation’, they declared:

*Effective standardisation encourages innovation and forceful competition and improves profitability.*

2.5 The first benefit of having European standards listed in the ‘Compass’ leaflet is that ‘Standards enhance the safety of products’. Perhaps more importantly, standards prevent safety becoming a ‘virtuous barrier’, by establishing a common basis for deciding something is sufficiently safe.

2.6 The leaflet also notes:

*... many standards are developed to support European legislation. ‘Reference to standards’ within a legislative text is viewed as a more effective means of ensuring that products meet the essential health and safety requirements of legislation than the writing of detailed laws. This allows both processes to support each other, without causing a slowdown.*

2.7 This use of standards within a legislative context is particularly important within the railway sector. The use of particular European standards may be mandated through legislation; typically in the railway context by being referenced in Technical Specifications for Interoperability (TSIs).
2.8 Many other European standards are ‘harmonised’ with legislation, without being directly referenced in the legislation. In these cases, compliance with the standard is a recognised method (but not the only method) of meeting the requirements of the legislation - compliance provides a ‘presumption of conformity’ with the legislation.

2.9 The European approach to the use of standards in the legislative context is referred to as the ‘New Legislative Framework’. The ‘Blue Guide’ on the implementation of EU product rules contains further information about this.

3. Participating in the development of European and international standards

3.1 The CEN ‘Compass’ leaflet makes the case for participating in the development of European standards:

*Participation in the process allows a stakeholder to anticipate changes to standards in their sector as well as have a say in the content.*

3.2 It goes on to outline the method of participation available to stakeholders:

*A manufacturer [more broadly, a stakeholder] wishing to participate in the CEN process contacts his National Standards Body, either directly or through a trade association. Through the National Standards Body, the manufacturer can become involved in a national ‘mirror committee’, which is responsible for developing the national position on a particular standard and presenting this position to the relevant CEN Technical Committee. It may also be possible to become a member of the national delegation to the CEN Technical Committee or to be nominated to serve as an expert in one of the Working Groups.*

3.3 The UK National Standards Body is BSI.

4. Support for BSI National Railway Committees provided by RSSB

4.1 BSI has an agreement with RSSB, under which RSSB provides ‘project management and secretarial services for the BSI National Railway Committees’ (that is, the national ‘mirror committees’ dealing with European and international railway standards).

4.2 An initial three year agreement was signed in July 2008. A subsequent five year agreement from July 2011 enables the arrangement to continue until June 2016, when it will be next reviewed by BSI.

4.3 BSI’s reasons for seeking this agreement are described in the BSI Committee Member Bulletin for August 2014:
In early 2008 it became apparent that railway standardisation in Europe (both CEN and CENELEC) was assuming increasing significance for the UK rail industry. The work programme was split between two BSI PMs at that time ... but the industry was now calling for a more co-ordinated UK approach. With existing resource levels at BSI already hard pressed to accommodate the foreseen increase in workload, investigations began into sourcing an external organisation to provide the secretariat services to all BSI railway committees.

4.4 RSSB entered into the agreement with BSI ‘in order to gain the benefit of formal participation in BSI and IEC/ISO/CEN/CENELEC activities so the views of UK trade and industry are represented in railway applications standardizations’ (Agreement for the running of BSI National Railway Committees, Recital, paragraph D).

4.5 RSSB also recognised that there is an unstoppable (and welcome) European-wide move from reliance on domestic standards to reliance on European standards, and, in time, international standards. The focus of its work on behalf of the GB railway industry has therefore also moved in line with this direction of travel.

4.6 The article in the BSI Committee Member Bulletin for August 2014 goes on to note:

*There is little doubt that the BSI railway committees benefit tremendously from the enhanced service that RSSB is able to provide on our behalf, including the provision of many “added value” services that would not otherwise be available to the committees. In particular, their high level of support to working groups is a significant enhancement of service that BSI would simply not be in a position to offer. As a result, our presence in both Europe and Internationally has increased and we have been able to ensure that the UK remains at the forefront of standardisation in the railway field.*

4.7 Under Clause 18 of the current agreement between BSI and RSSB, ‘The parties undertake to discuss the possibility of a subsequent agreement in similar terms to this Agreement and such discussion shall begin no later than nine months before the end date of this agreement’. The current agreement ends on 30 June 2016, so discussions should start before 30 September 2015.

4.8 Subject to the satisfactory outcome of its discussions with BSI, RSSB proposes to enter into an agreement with BSI for a further period beyond 30 June 2016, in similar terms to the current agreement.

4.9 This deadline for the start of discussions with BSI is consistent with the timescales for the approval of the strategy for standards requested by the RSSB Board in January 2015.

5. **Other support to the development of European and international standards provided by RSSB**
5.1 RSSB’s formal agreement with BSI is limited to the provision of project management and secretarial services for the BSI National Railway Committees (the committees responsible for developing the national position on a particular standard and presenting this position to the relevant IEC/ISO/CEN/CENELEC Technical Committee).

5.2 However, RSSB’s support to the development of European and international standards extends beyond that provided for in its agreement with BSI. As the CEN ‘Compass’ leaflet notes, ‘It may … be possible to become a member of the national delegation to the CEN Technical Committee or to be nominated to serve as an expert in one of the Working Groups’.

5.3 RSSB is able to encourage and support experts from UK to take part in working groups (the groups that draft European and international standards). In order of preference, RSSB seeks self-funded experts from industry, provides a member of staff or employs a contractor to take part in selected working groups. RSSB employs a few staff on zero-hours contracts solely for the purpose of providing experts on working groups, as this proves to be less costly than engaging a contractor.

5.4 All RSSB support for experts is agreed by the relevant Standards Committee; but is subject to the constraints of RSSB’s available resources (both financial and human) and the industry’s wider priorities for deploying those resources.

5.5 As an extension to its support to experts attending working groups, RSSB also provides the convener (chairman) and a secretariat for a number of European and international working groups and technical committees. Notably, RSSB provides the Chairman for CEN TC256, Railway Applications. This is the highest level of technical committee dealing with railway standards within CEN.

5.6 Some funding for experts is available through the BIS Assisted International Travel Scheme, which provides a contribution towards the travel costs of the leaders of committee delegations to overseas standards meetings. RSSB facilitates the use of this scheme by the experts it supports.

5.7 The European standards page of RSSB’s website gives access to documents setting out the structure of CEN and CENELEC technical committees and working groups dealing with railway applications, and identifying UK representatives, BSI UK mirror committees, and the standards in each subject area.

6. Review of RSSB’s secretarial support for European and international standards
6.1 RSSB employs 5 full-time staff (Stakeholder Support Managers) to provide project management and secretarial services for the BSI National Railway Committees; and the secretariat for a number of European and international working groups and technical committees.

6.2 A meeting was held between RSSB and BSI on 30 January 2014 to review the RSSB workload involved in administering the secretariat for the BSI National Railway Committees.

6.3 BSI indicated that, without RSSB support they would not be able to provide any of the additional support services that RSSB currently offer, and could only cover their mandatory responsibilities as the National Standards Body. The national committee structure would need to be rationalised, with one committee having to mirror several working groups.

6.4 BSI noted that they had several projects underway which might assist in reducing the amount of time that secretaries spend on routine work; in particular there is a project underway to enable automatic document handling for ISO work; they were also rolling out web conferencing later in 2014 to complement the facilities offered by CEN and ISO, and this could reduce the need for physical meetings.

6.5 Notwithstanding these projects, there appears little scope for significantly reducing the resources that RSSB use to support BSI National Railway Committees without compromising the effectiveness of the industry’s input into the development of European and international standards. However, the opportunity to make incremental improvements in efficiency will be taken where these are available, either through the implementation of the BSI projects noted above; or through opportunities identified by RSSB and its stakeholders.

6.6 Separately, RSSB are proposing to review the secretarial support it provides to European and international working groups and technical committees, using the similar criteria to that it will use when reviewing the technical support it provides for the development of European and international standards, outlined in section 7 below.

6.7 As part of the review, RSSB will explore the case for locating some secretarial support in Brussels, with a view to minimising travelling time and costs.

7. Review of RSSB’s technical support for European and international standards

7.1 RSSB currently commits somewhere between 10 and 13 full time equivalents per year of technical staff time to supporting the development of European and international standards, as experts attending working groups and technical committees or as the convener of working groups and technical committees.
7.2 Additionally, it spends around £250k on employing contractors or staff on zero-hours contracts to take part in selected working groups and technical committees.

7.3 RSSB are proposing to review the technical support it currently provides, to ensure its resources are focused on those European and international standards that are likely to have the biggest impact on the GB mainline railway.

7.4 Therefore, in order of priority, and subject to available resources, RSSB will support:

a. European or international standards that are, or foreseeably could, be referenced in a TSI, so making compliance mandatory.

b. European or international standards that are not, or are unlikely to be, referenced in a TSI, but which deal with matters that are in principle within the scope of a RGS.

c. European or international standards that, if suitably developed, would obviate the need for a Rail Industry Standard (RIS). An example of this is EN 14033 *Railway applications - Track - Railbound construction and maintenance machines*. This European Standard should eventually be developed to the point where RIS-1702-PLT *Rail Industry Standard for the Design of On-track Machines in Working and Travelling Modes* ceases to be necessary and can be withdrawn.

d. Exceptionally, other European or international standards where there is a particular reason to send experts to working groups, provided that this is supported by both the relevant Standards Committee and ISCC.

7.5 This approach is in line with the Standards Strategy’s support of the movement from reliance on domestic standards to reliance on European standards and, eventually, international standards.

7.6 Standards Committee Chairmen will be asked to identify European or international Standards that are currently supported by RSSB. These will then be checked against the criteria above, and support withdrawn from those failing to meet the criteria. The opportunity to support these standards will be offered to the industry before RSSB support is withdrawn, to provide continuity where possible.

7.7 Standards Committee Chairmen will also be asked to identify European or international standards that meet the criteria, but for which RSSB does not provide technical support (for example, because sufficient support is provided through other industry mechanisms); and to confirm that no additional RSSB support is necessary.

7.8 Standards Committees’ strategic plans will then be revised as necessary, to identify the European or international standards (within the scope of the committee) meeting the criteria.
8. Governance arrangements

8.1 The formal involvement of Standards Committees is limited to agreeing the commitment of RSSB resources, as noted in section 5 above. The governance arrangements for the development of European and international standards are those of the relevant standardisation bodies.

8.2 The national position on the development of European and international standards is established by the national mirror groups (in UK, the BSI National Railway Committees). Standards committees (as representative of the GB mainline railway industry) can provide advice and input to the mirror groups.

8.3 In some instances, a Standards Committee could also be the mirror group, but if so, they are not then acting as a Standards Committee when establishing a national position. RSSB will explore the possibility of combining Standards Committees and some BSI National Railway Committees, with a view to making meeting attendance more efficient.

8.4 Experts attending working groups and technical committees are members of the relevant BSI National Railway Committees, and are therefore aware of the national position on the development of European and international standards.

8.5 Experts attending working groups and technical committees are expected to provide a report following each meeting, setting out the principle developments and noting issues of particular relevance to the UK railway industry. Where the expert is employed or funded by RSSB, producing this report is a condition of RSSB’s continuing support.

8.6 These reports are made available to members of BSI National Railway Committees through the BSI extranet. They are then further disseminated to the industry by committee members. Reports produced by RSSB-supported experts are provided to the relevant Standards Committees.

8.7 Consideration will be given to ways of:
   a Encouraging and improving reporting by all experts attending working group and technical committee meetings (not just those experts supported by RSSB);
   b Making the experts’ reports more systematically available to the industry, perhaps with the involvement of national sector organisations such as ATOC and RIA.

9. Proposed strategy for European and international standards
9.1 As a result of RSSB’s involvement with European and international standards, the UK presence ‘in both Europe and Internationally has increased and we have been able to ensure that the UK remains at the forefront of standardisation in the railway field’ (to quote BSI).

9.2 Work on Railway Group Standards (RGSs) is generally well-coordinated with work on European and international standards, as the RSSB experts involved with European and international standards are also involved with the development of RGSs.

9.3 To support the development of TSIs, the European Railway Agency (ERA) can send a ‘Requirement for a Standard’ (RfS) to the relevant European standardisation body, providing some degree of coordination between TSIs and European standards.

9.4 The proposed strategy for European and international standards is therefore to continue broadly as now, with RSSB seeking an extension to its agreement with BSI. However, RSSB will review, and if necessary adjust or refocus, the support it provides for the development of European and international standards, as outlined in sections 6 and 7 above.

9.5 Increasing the industry’s awareness of the work done to develop European and international standards, the support for that work provided by RSSB, and the value of such standards, should form part of a wider communications strategy for standards.
Strategy Module 7: Company and Project Standards

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1. Purpose of the paper

1.1 Despite the existence of a large and diverse range of available standards, ranging from Technical Specifications for Interoperability (TSI) through National Technical Rules (NTR) and National Safety Rules (NSR) to Rail Industry Standards (RIS) and Guidance Notes (GN), there is still a role for company and project standards.

1.2 This paper considers the role of company and project standards, and the way they could be developed, in the context of other available standards (referred to collectively in this paper as ‘publicly available standards’).

2. Role of company and project standards

2.1 The purpose of company and project standards is to assist in delivering the business objectives of companies and projects. They supplement publicly available standards by:

   a Setting specific ways of implementing publicly available standards or meeting mandatory requirements.

   b Imposing additional constraints to meet business objectives (for example, when designing a track layout, setting a minimum radius greater than that set out in publicly available standards).

   c Defining the company’s (or project’s) methods for managing and mitigating risk. (Network Rail has ongoing work to develop its company standards, using bowtie modelling to assist in the identification and management of risk.)

   d Dealing with issues not covered by publicly available standards. For example, publicly available standards will set in-service limits that must be respected (for example, on wheel profiles), but will not set out methods for ensuring the limits are respected. A company standard could therefore specify inspection intervals and intervention limits to do this.

2.2 It is both necessary and legitimate to have company and project standards.
2.3 However, as a general principle it is more efficient to work directly with publicly available standards, at the highest practical level of generality (so TSIs before European standards), than to create company and project standards. Company and project standards should not duplicate publicly available standards, if these are sufficient for the company’s purpose.

3. Reducing the cost of managing company standards

3.1 Creating and managing a suite of company standards draws on what are likely to be limited resources. Many of the issues for which a company requires a standard for the mainline railway will be common across the industry.

3.2 It is therefore sometimes cost-effective to develop standards collaboratively. The RIS was developed as a format to provide for this need. RISs are developed collaboratively, facilitated by RSSB, and may be adopted by RSSB members as their company standards, through their Safety Management Systems, or through contractual obligations on their suppliers. Further details are provided in the paper in this series dealing with RISs and GNs.

3.3 It should be noted that RSSB is not resourced to develop standards on behalf of individual companies, and cannot use funds from its core income (that is, income from the members’ levy) for this purpose.

3.4 It is possible that RSSB could take on development of company standards in special circumstances, provided this was agreed by the RSSB Board and additional funding was provided for this purpose.

3.5 However, RSSB is able to offer small-scale advice to its members on developing the standards they need, and identifying publicly available standards that might obviate the need for a company standard.

4. Requirements management

4.1 It is often useful for a project (or manufacturer) to implement a requirements management system where requirements deriving from different sources can be integrated. These may be requirements derived from client specifications, parent company standards, publicly available standards, and safety measures identified by risk processes such as the Common Safety Method for Risk Evaluation and Assessment (CSM RA).

4.2 RSSB is developing a requirements management database to capture the discrete requirements contained in RSSB-managed standards. The requirements contained within the database will adhere to an open standard (DITA XML), which promotes content reuse and a semantic approach to authoring.
4.3 It is surprisingly difficult to generate discrete requirements from an existing standard having a conventional narrative structure (such as a TSI).

4.4 These standards often rely on context, section headings and cross references to be meaningful. When asked to identify the requirements in a conventional narrative standard, different people will identify different sets of requirements.

4.5 To achieve consistency, there is a case for generating a common set of discrete requirements from key publicly available standards (in particular, TSIs), available for importing into company requirements management systems. Because RSSB’s content will adhere to open standards, RSSB’s requirements management database could be used to record the requirements derived from other publicly available standards, for use by its members.

4.6 As explained in the paper in this series dealing with NTRs, future Railway Group Standards (RGSs) are to contain a requirement to comply with the requirements of the relevant TSI, except where the RGS sets out a NTR which modifies or, if GB has a specific case, replaces the TSI requirement. This adds weight to the suggestion that a common set of discrete requirements should be generated from TSIs.

4.7 The feasibility of this suggestion, and the resources required to deliver it, should be explored.

4.8 In the long term, there are opportunities to extend the scope of RSSB’s requirements management database, making it available to RSSB’s members. They could then use it to document other requirements (for example, those in company standards), with the option of restricting access to those requirements, or making them openly accessible to the industry as a whole. However, opportunities to extend the scope of RSSB’s requirements management database lie beyond the timeframe of this strategy for standards.

5. Documented reference systems as Codes of Practice

5.1 The CSM RA permits comparison with a ‘reference system’ as a risk acceptance principle.

5.2 It also permits the use of ‘codes of practice’ (that is, standards) as risk acceptance principles. Originally, these had to be publicly available standards. However, following lobbying by manufacturers, this requirement was removed:

   2.3.2. The codes of practice shall satisfy at least the following requirements:

   (a) They must be widely recognised in the railway domain. If this is not the case, the codes of practice will have to be justified and be acceptable to the assessment body;
(b) They must be relevant for the control of the considered hazards in the system under assessment. Successful application of a code of practice for similar cases to manage changes and control effectively the identified hazards of a system in the sense of this Regulation is sufficient for it to be considered as relevant;

(c) Upon request, they must be available to assessment bodies for them to either assess or, where relevant, mutually recognise, in accordance with Article 15(5), the suitability of both the application of the risk management process and of its results.

5.3 This permits the use of company standards as codes of practice, provided they meet the conditions set out in the CSM RA and are made available to the assessment body.

5.4 An essential condition is that ‘Successful application of a code of practice for similar cases to manage changes and control effectively the identified hazards of a system in the sense of this Regulation is sufficient for it to be considered as relevant’. In effect, this type of standard can be thought of as a ‘documented reference system’.

5.5 These types of company standards are commonly used by vehicle manufactures. However, other companies may find the approach useful as a way of reusing experience gained on earlier projects to simplify risk management for future projects. If so, it may be useful to develop some guidance for companies to support the development and use of ‘documented reference systems’ as codes of practice.

6. Advice to large scale infrastructure projects

6.1 Large infrastructure projects will typically have project standards for the reasons set out in section 2. They will also need to use a wide range of other company and publicly available standards, which will have to be selected and integrated with their project standards.

6.2 The High Speed 2 project (HS2) initiated an ‘Efficiency Challenge Programme’ to seek ways of reducing cost. One segment of this program dealt with design standards (probably on the common, but mistaken, assumption that ‘standards are a problem and impose costs’).

6.3 RSSB was represented at a workshop addressing the design standards segment of the programme. Following the workshop the RSSB attendee drafted some outline advice to the project about standards. An edited version of this advice is set out in Appendix A.
6.4 ISCC should give consideration to the usefulness of expanding on, and formalising, this guidance for use by project teams.

7. Suggested strategy for company and project standards

7.1 It is not possible to set an industry strategy for company and project standards, but this paper has made a number of suggestions that may be worth pursuing to assist companies in their development and application of standards:

a Encouraging the development of RISs where there is a common need for a standard, to reduce the need for company-specific standards.

b Providing small-scale advice by RSSB to its members on developing the standards they need, and identifying publicly available standards that might obviate the need for a company standard.

c Generating a common set of discrete requirements from key publicly available standards (in particular, TSIs) for inclusion in the requirements management database being developed by RSSB.

d Supporting the development of ‘documented reference systems’ as company standards, to be used as codes of practice in the context of the CSM RA.

e Providing formalised and expanded guidance to infrastructure projects about standards, based on Appendix A to this paper.

7.2 These suggestions require further development to assess their usefulness and feasibility, and to identify the resources needed to deliver them, before they could be adopted.
Appendix A  Advice to infrastructure projects about standards

A.1 Educate those on the project to think correctly about standards: how they are used, deviated from and changed.

A.2 Don't assume compliance with standards is sufficient to deliver good engineering – it isn't, and can't be.

A.3 Identify all applicable standards containing mandatory requirements at the start of the project (TSIs, National Rules). Does the project know which National Technical Rules apply to it? And which National Safety Rules will apply to the eventual user of the infrastructure?

A.4 Be prepared to seek deviations from standards containing mandatory requirements – it's not a project risk, it's an opportunity.

A.5 Seek necessary deviations from standards early – consider seeking deviations speculatively to support options, even if they might not be adopted eventually.

A.6 Work with the Common Safety Method for Risk Evaluation and Assessment (CSM RA), using compliance with codes of practice (standards) as a preferred risk acceptance principle – it kills two birds with one stone.

A.7 Develop a plan for gaining authorisation or approval and undertaking associated verification, conformity assessment and assurance.

A.8 When required, have a single organisation act as the project’s NoBo (checks compliance with TSIs), DeBo (checks compliance with National Technical Rules) and AsBo (checks correct application of the CSM RA).

A.9 For very large projects, create an 'operational concept' (a description of how the railway is to be operated under normal and degraded modes) – this will guide the choice of technologies, required functionality and standards. RSSB publishes an overarching 'Operational Concept for the GB Mainline Railway'.

A.10 Chose to comply with standards at the highest possible level in the standards hierarchy (TSI; National Technical Rule; adopted standard such as a European standard; company standard, project standard). Don't create a project standard if, for example, a TSI is adequate to deliver the project's requirements.