



# RIS-2773-RST issue 2

## Format and Methods for Defining Vehicle Gauging Data

### Briefing note

#### Background

To ensure compatibility between rail vehicles and fixed infrastructure there needs to be a common way of determining a vehicle's swept envelope.

#### What is it about?

RIS-2773-RST sets out the requirements and good practice for generating a vehicle's swept envelope using multibody simulations (MBS).

It provides a step by step explanation of what is required when populating the accompanying Excel workbook referred to as the Vehicle Gauging Data (VGD) workbook.

For the 'Standard' vehicle gauges defined in GERT8073 issue 4 *Application of Standard Vehicle Gauges*, there are pre-populated workbooks known as SVGD workbooks and these contain all the vehicle profiles and dynamic movement data required to define the gauge.

#### What has changed?

The key change to the document is how it is structured. Each requirement topic is now followed by the rationale to explain 'why' the requirement exists. Guidance associated with the topic is also included within the topic heading.

GMGN8573 issue 4 *Guidance on Gauging and Platform distances* has now been superseded and any relevant sections that described a gauging methodology or other useful information have been incorporated within RIS-2773-RST. The newly added sections are:

- Pantograph Gauging
- Guidance on Determining the Effects of Cross-Wind Loading when Determining Swept Envelopes

#### What are the benefits?

The total benefit for this change is estimated at approx. £1.5M over 5 years and this document forms part of the process. The restructuring of the document and the amalgamation of other guidance notes should bring improved clarity and understanding to the user.

#### Who is it for?

This document is aimed at gauging engineers and gauging practitioners as it sets out detailed methodologies for generating the appropriate vehicle gauging data required by the National Technical Rules in GMRT2173.

The completed VGD workbooks can be used by Infrastructure Managers and Railway Undertakings to assess gauge clearance to Infrastructure and passing clearance to other vehicles respectively.