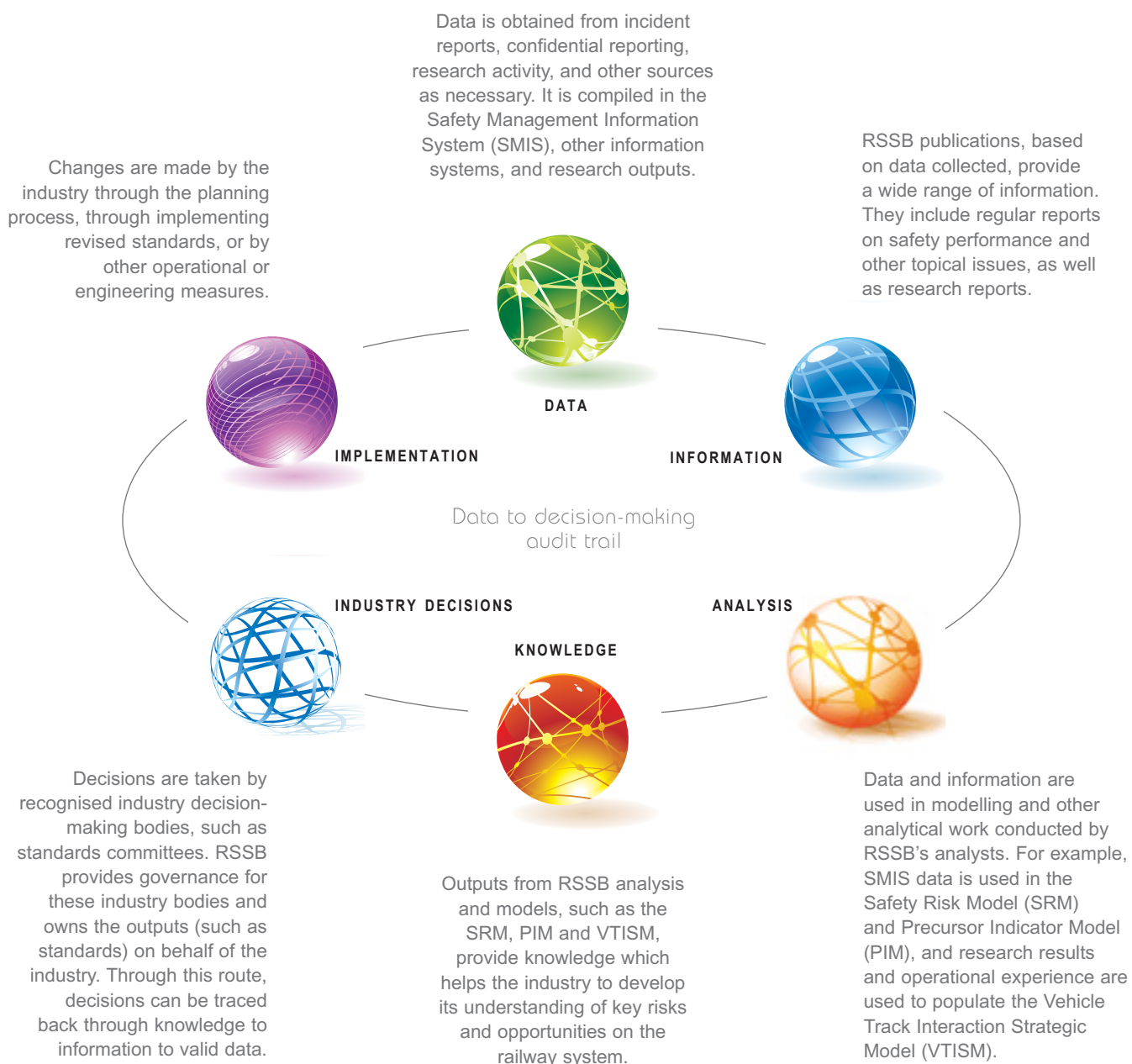




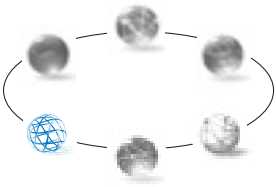
A guide to RSSB

Supporting continuous improvement in the GB railway industry

RSSB underpinning knowledge based decision-making



RSSB functions have safety at their core, but they are increasingly holistic in their scope



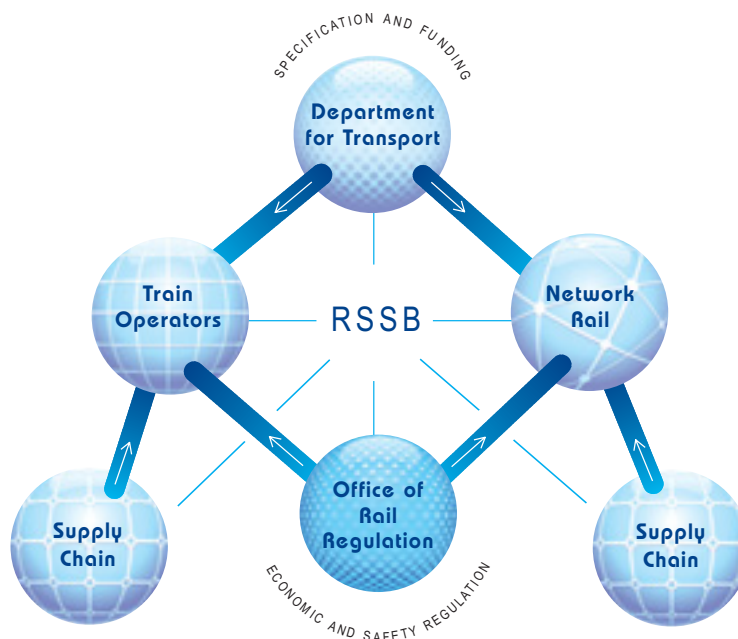
RSSB and co-operation in the railway industry

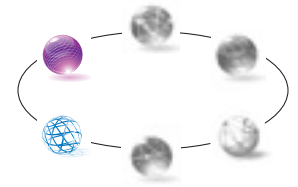
The GB railway is a complex system and all of the companies that are part of it share a common purpose. They seek to deliver a safe, reliable and environmentally friendly railway while offering value for money.

RSSB provides support and facilitation for a wide range of cross-industry activities. This is usually achieved through RSSB's support to cross-industry working groups and committees.

RSSB is a not-for-profit company owned and funded by major stakeholders in the railway industry, but is independent of any one party. RSSB has around 250 staff, including experts in a wide range of technical disciplines and other professionals such as project managers, meeting facilitators and support staff.

RSSB is funded by levies on its members and grants for research from the Department for Transport.





Our members

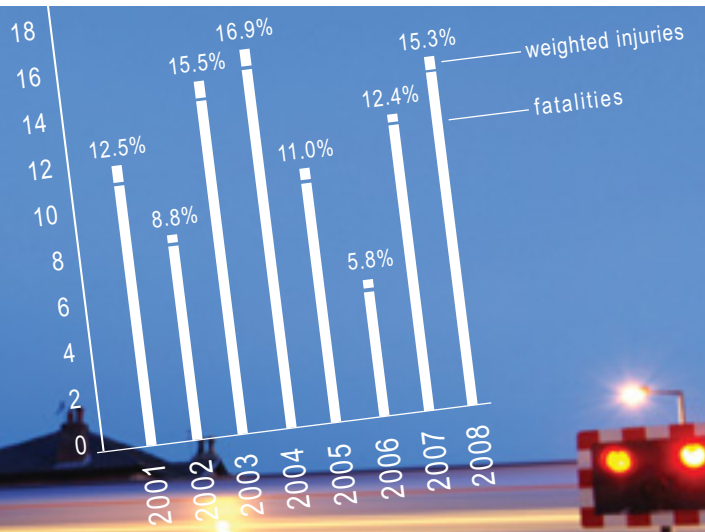
There are six categories of membership as shown.

Each member category is represented on the RSSB Board.

- 1 Infrastructure manager
- 25 Passenger operating companies
- 8 Freight operating companies
- 3 Rolling stock leasing companies
- 8 Infrastructure contractors
- 15 Suppliers



Alstom Transport Amey LG Ltd Amey Rail Angel Trains Ltd Arriva Trains Wales Atkins Rail Limited Babcock Rail Ltd Balfour Beatty Rail Plant Ltd Bombardier Transportation UK Ltd C2C Rail Limited Carillion Rail Colas Rail Collinson Dutton Limited Corus Rail DeltaRail Group Ltd DB Schenker Rail (UK) Limited Direct Rail Services Limited East Midlands Trains Limited English, Welsh & Scottish Railway International Limited Enotrac UK Ltd Fastline Ltd Faiveley Transport Birkenhead Ltd First Capital Connect Limited First GB Railfreight Ltd First Greater Western Limited First Hull Trains Limited First ScotRail Company Limited First Transpennine Express Freight Europe (UK) Limited Freightliner Heavy Haul Ltd Freightliner Ltd Grand Central Railway Company Limited Heathrow Express Operating Company Limited HSBC Rail (UK) Ltd Independent Glass Co Limited Interfleet Technology Ltd Knorr-Bremse Rail Systems (UK) Limited London & South Eastern Railway Limited London Eastern Railways Limited London Midland London Overground Rail Operations Limited (LOROL) LPA Industries Limited Lloyds Register Rail Mersey Rail Electrics (2002) Limited Network Rail Infrastructure Limited Northern Rail NXEC TRAINS Limited Porterbrook Leasing Company Ltd Rail Express Systems Limited Siemens PLC Signal House Group Limited Serco Rail Operations Ltd Southern Railway Limited Stagecoach South Western Trains Limited The Chiltern Railway Company Limited Tyne and Wear Passenger Transport Executive Volker Rail Group Limited West Coast Trains Limited Wrexham, Shropshire & Marylebone Railway Company Limited XC Trains Limited

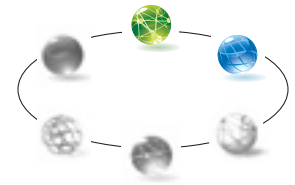


[DATA COLLECTION]

ATOC

19 collisions between trains and road vehicles at level crossings in 2008 (mainly as a result of road users' behaviour), the highest level since 2003

THERE ARE APPROXIMATELY 7,000 LEVEL CROSSINGS ON THE GB MAINLINE RAILWAY



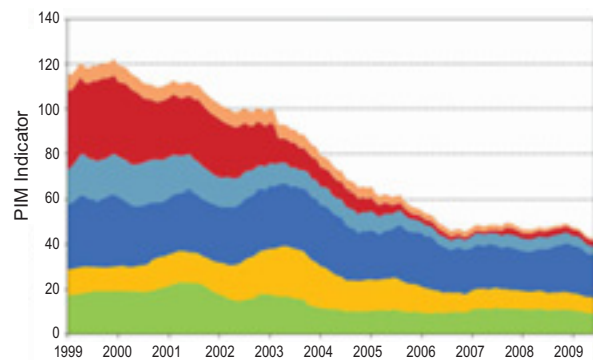
Safety data & intelligence

While individual organisations are accountable for safety within their own undertakings, RSSB plays a key role in the management of system safety. RSSB's core functions include measuring safety performance and analysing risk.

RSSB operates the industry Safety Management Information System (SMIS) that collects safety records for the GB railway network. In making this information accessible to the railway industry, RSSB provides support and guidance on using the data to analyse risk, expose trends and focus decision-making on priority areas.

As a world leader in the field of railway risk modelling, RSSB seeks to maximise the benefit its members can derive from data through its Safety Risk Model (SRM) and the Precursor Indicator Model (PIM). The SRM models hazardous events that could directly lead to injury or fatality during the operation and maintenance of the mainline railway. The PIM focuses specifically on train accident risk and is a key measure of system safety for the industry.

These models provide members with an understanding of the risks to passengers, workforce and the general public and contribute significantly to improved performance across the industry.



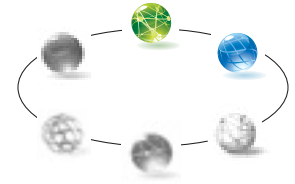
Recent European legislation has placed obligations on Member States relating to maintaining or improving levels of safety in each country, and to develop and achieve 'Common Safety Targets'. RSSB has deployed its expertise and data collection capabilities to help the industry and government influence European legislation and targets, and supports the industry through the collection of the relevant data to report against these targets.



ATOC

5 passenger fatalities in 2008, the lowest number ever recorded

YEARLY PASSENGER JOURNEYS CONTINUE TO RISE, LATEST FIGURE: 1.2 BILLION JOURNEYS



Research & development

RSSB manages two industry-wide research and development programmes, both of which are DfT funded – a programme that supports long-term strategy and a core programme that supports many aspects of operations. RSSB undertakes research projects that cross industry boundaries or interfaces.

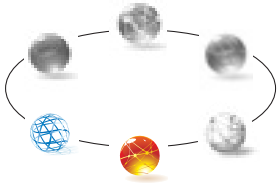
The core programme has a broad capability and expertise in areas such as engineering, operations, human factors, risk, workforce development, occupational health, sustainable development and public behaviour. It works with client groups from across the industry to deliver solutions to current and future challenges and the evidence base to support complex or controversial industry decisions.

With government support the core programme has been supplemented with a new strategic programme, to support the development and implementation of the Rail Technical Strategy. The strategy, which includes a vision of the railways in 30 years' time, has the primary objective of helping the industry achieve challenging long-term goals associated with customers, carbon, capacity and cost (the 4 Cs). The programme has a single client,

the technical strategy advisory group, which consists of senior industry, academic, government and regulatory representatives, facilitated by RSSB. It has delivered a 'road map' which shows the contribution that different applications can make to the 30-year vision.

The research that RSSB undertakes for the industry is a part of the overall RSSB support to operations and the delivery of industry objectives. Research outputs add value to the industry through providing answers to questions, evidence to support decisions, tools that support ongoing operations etc. In all cases the research is not an end in itself, and it is only through engagement with the wider industry at both inception and completion that the fruits of research can be embedded and add value. The effectiveness of the research depends on considerable input from across industry through involvement in client groups and research projects themselves.

The RSSB website received 500,000 requests for research reports in 2008.



Co-operative programmes

RSSB's functions are interdependent and combine to deliver a package of services to the industry. For example, both research and risk modelling inform the development of interface standards; and safety data and intelligence are used to support the industry's efforts on community safety. These synergies add to the economic efficiency of RSSB's delivery of each of them, and provide the company with the necessary critical mass to deliver coherent solutions.

As a result, RSSB has become the natural home for a range of cross-industry activities. RSSB facilitates five System Interface Committees (SICs), which help the industry to manage all aspects of system interfaces in the most effective way. The interfaces covered by the five SICs are:

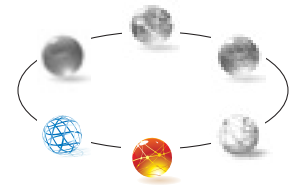
- Vehicle / Structures
- Vehicle / Track
- Vehicle / Train energy
- Vehicle / Train control and communications
- Vehicle / Vehicle.



Each SIC involves senior people from all parts of the industry and both sides of the interface. The SIC looks for opportunities to improve efficiency at the interface, considers how the industry can best respond to those opportunities, and promotes agreement on how solutions can be implemented.

The Sustainable Rail Programme (SRP) is helping the industry to respond to the opportunities and challenges presented by sustainable development.

RSSB's engineering and operations knowledge, together with its experience of managing standards, has resulted in the company providing substantial input to the cross-industry programme, led by Network Rail, to deliver the European Rail Traffic Management System (ERTMS).



Through its Safety Management System (SMS) initiative, RSSB supports and facilitates the efficient implementation of British and European legislation in the field of safety management. RSSB also supports the industry's efforts to modernise its supplier assurance regimes through the provision and promotion of the Railway Industry Supplier Approval Scheme (RISAS).



RSSB also sponsors the online National Incident Reporting system that helps maintain the safety of the railway network, by providing a platform for rail companies to communicate important information concerning safety incidents in real time. Recognised as the leading such system in the country, it records details of remedial action taken by affected companies in response to the original incident and so builds a history of events and actions taken.

In 2008 RSSB took on responsibility for the industry's Confidential Incident Reporting and Analysis System (CIRAS), which reflects RSSB's existing knowledge and experience of managing programmes as well as its expertise in safety and human factors.



The aim of the industry's work on community safety is to maintain and build public confidence in personal safety and security while people travel on trains or use railway facilities, and to protect the interests of the industry and its workforce. Much of the industry's work on community safety is carried out at local level by individual companies and by collaborative effort through Community Safety Partnership Groups (CSPGs). RSSB works at the industry level to support these local initiatives with the resources they need.

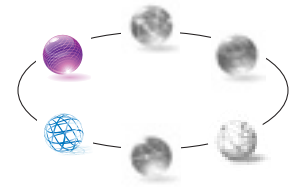
[PERFORMANCE MONITORING]



Network Rail

More than 80% reduction in risk from signals passed at danger in 2008 since 2001

BRITAIN'S RAILWAY NETWORK COMPRISES OVER 21,000 TRACK MILES



Interface standards

Railway Group Standards (RGSs) are documents that define mandatory engineering and operational requirements in respect of the mainline railway. The central purpose of RGSs is to enable the different participants in the industry to co-operate safely and efficiently where they need to do so, without having to reinvent the basis of that co-operation every time.

Compliance with RGSs is mandatory, through licence conditions, and the content of each RGS is developed and agreed by the GB railway industry, through Standards Committees facilitated by RSSB. RSSB's role includes drafting the content of standards and assessing their impact, as well as managing meetings, carrying out consultations, and publishing the standards themselves.

Since the enactment in UK legislation of the European directives on safety and interoperability, the European standards regime, based on Technical Specifications for Interoperability (TSIs), has become increasingly important for the GB mainline railway. RSSB's role in managing RGSs has led to it playing an important part in European standards – particularly in achieving clarity about how to work with TSIs and in co-ordinating input to the development of the TSIs themselves.



RSSB will continue to develop its services to meet the changing needs of its members

The future

RSSB will continue to support the industry's efforts to improve safety while significantly reducing costs and in its drive towards being the backbone of a modern and sustainable integrated transport system. In order to achieve this RSSB will seek to assist the industry in embedding, in everything it does, the recently

published 'Sustainable Development Principles' as listed below. The SD Principles represent core values that are fundamental to the delivery of a sustainable railway that meets the travel needs of society without compromising future quality of life.

Customer-driven *Embed a culture where dialogue with customers puts them at the very heart of the railway, and where they are able to make optimal travel and logistics choices.*

Putting rail in reach of people *Position rail as an inclusive, affordable and accessible transport system through the provision of information and accessible facilities.*

Providing an end-to-end journey *Work together with all transport modes to provide an integrated, accessible transport system.*

Being an employer of choice *Respect, encourage and develop a diverse workforce, support its wellbeing and actively consider and address the challenges of the future global labour market.*

Reducing our environmental impact *Operate and improve the business in a way that minimises the negative impacts and maximises the benefits of the railway to the environment.*

Carbon smart *Pursue initiatives to achieve long-term reductions in carbon emissions through improved energy efficiency, new technology and lower carbon power sources and facilitate modal shift, helping others make more carbon efficient journeys.*

Energy wise *Maximise rail's energy efficiency for traction and non-traction use.*

Supporting the economy *Boost the productivity and competitiveness of the UK, at a national and regional level, through the provision of efficient passenger and freight services and by facilitating agglomeration and catalysing economic regeneration.*

Optimising the railway *Maximise the rail system's capability and build on its strengths to deliver a transport system that is efficient and offers good value for money.*

Being transparent *Promote a culture of open and accountable decision-making and measure, monitor and report publicly on our progress toward sustainability.*



RSSB
Block 2
Angel Square
1 Torrens Street
London EC1V 1NY

Tel. +44 (0)20 3142 5300
enquirydesk@rssb.co.uk

www.rssb.co.uk