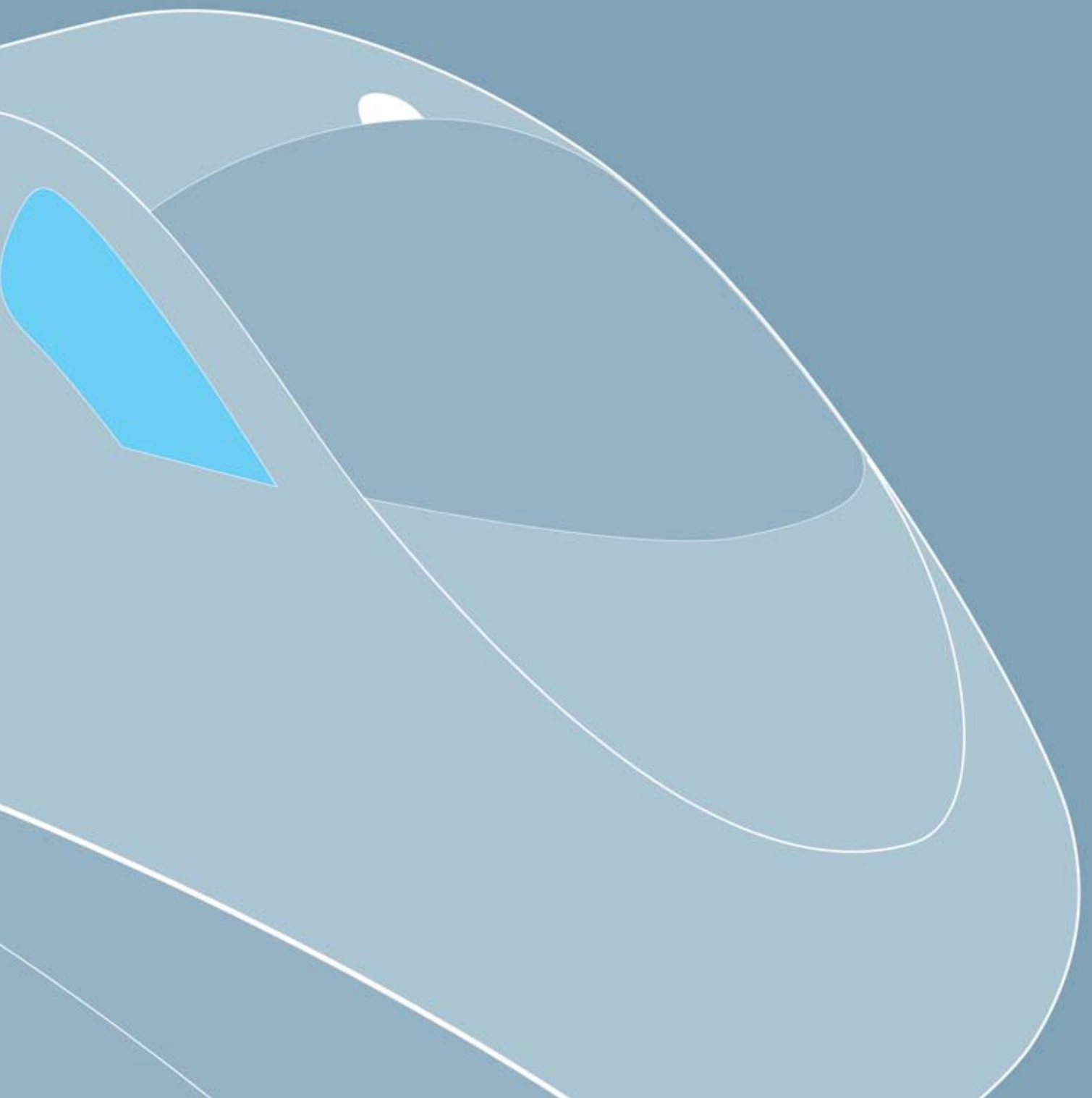


The Rail Industry Sustainable Development Principles



Contents

The Rail Industry Sustainable Development Principles	1
Introduction	2
The Principles in detail	
<i>Customer-driven</i>	3
<i>Putting rail in reach of people</i>	4
<i>Providing an end to end journey</i>	5
<i>Being an employer of choice</i>	6
<i>Reducing our environmental impact</i>	7
<i>Carbon smart</i>	8
<i>Energy wise</i>	9
<i>Supporting the economy</i>	10
<i>Optimising the railway</i>	11
<i>Being transparent</i>	12
The Sustainable Rail Programme	13

The Rail Industry Sustainable Development Principles

The Sustainable Development Principles represent core values of the rail industry and are fundamental in delivering a sustainable railway at the centre of the transport system that meets the travel needs of society without compromising future quality of life.

Their **purpose** is to inform and become an integral part of the industry's culture and decision making processes taking account of whole system and whole life cycle approaches. It is recognised that the Principles will need to be balanced to achieve a sustainable transport system that contributes to prosperity, the wellbeing of people and the health of the planet. It is the responsibility of rail industry companies to adopt and implement these principles within their own organisations.

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.*

Introduction

The Rail Industry Sustainable Development Principles have been developed within the Sustainable Rail Programme with significant input from its stakeholders and evaluated and endorsed by the Sustainable Development Steering Group.

The Sustainable Development Steering Group

Len Porter, RSSB (Chair)	Tim Gilbert, Porterbrook
Dominic Booth/Anton Valk, Ned Railways	Colin Greenslade, ORR
Clive Burrows, First Group	Keith Heller, DB Schenker
Jeremy Candfield, RIA	Bob Linnard, DfT
David Clarke, DfT	Paul Martin, Railway Forum
Tony Collins, Virgin Trains	Tony Mercado, DfT
Peter Field, TfL	Paul Plummer, Network Rail
David Franks, National Express	Malcolm Reed, Transport Scotland
	Michael Roberts, ATOC

The ten Principles reflect the knowledge and understanding of the challenges and opportunities of sustainable development for the rail industry, developed through the Sustainable Rail Programme. They cover social, economic and environmental issues and will be fundamental in helping the industry to develop sustainably in the long term.

Going forward, the Principles will form a key platform for the work of the Sustainable Rail Programme, in helping the industry to embed sustainable practices in culture, policy, process and decision-making. Adoption and implementation of the Principles by individual organisations will be critical to delivering meaningful change over time.

Each of the Principles is explained in detail in the following pages.

The Rail Industry Sustainable Development Principles Explained



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.

The rail industry recognises the importance of understanding and responding to the requirements and expectations of our customers. To do this we need to further develop our capacity to listen and, in listening, the industry needs to think of itself as part of a whole journey. This will involve gaining a deeper understanding of perceptions of how rail fits into the overall need to travel and move goods. The industry will need to continue to talk to customers to understand the trade-offs between different customer expectations, for example price and comfort, to draw the balance that they expect.

We need to understand and reward existing customers and also keep in mind the views of non-rail users, the potential customers of the future. Improving our response to all customers' requirements will enable rail to appeal to those who currently do not use our services.

All customers, whether freight or passenger, have two basic preconditions to using rail - reliability and safety. Beyond this, key passenger requirements are:

- Service frequency and speed
- Punctuality
- Journey quality and comfort
- Value for money and simplified fare structure
- Dealing with service disruption well
- Security
- Connectivity with other modes

Freight users' requirements centre around:

- Cost and connectivity
- Speed
- Distance
- Flexibility around volume, weight and aggregation

Information on services, costs and carbon should be made available for journey planning and information on service disruption should be available throughout the journey.



Putting rail in reach of people

Position rail as an inclusive, affordable and accessible transport system through the provision of information and accessible facilities.

The railway forms a key means of accessing employment, health services and leisure activities for many people and should be accessible to all. This refers to the accessibility of the network for everyone and in particular in terms of:

- Physical accessibility for the less able, elderly and those with children and luggage.
- The availability of information on services and connections before and during travel.
- The affordability of travel by rail.

These issues should be understood from the differing perspective of each of the four broad groups of rail users; commuters, business travellers, leisure travellers and freight customers. This is particularly critical in terms of affordability and the complexity of the fares system.

For passengers, if the measures put in place to ensure accessibility are to be trusted by users they must work during normal operation and during times of disruption to ensure passengers reach their destination.

For freight services the location and connectivity of distribution centres and ports is critical. The closer a hub is to the ultimate customer and the fewer the interfaces, the better.

Addressing these issues will help to remove barriers to travel by rail, encouraging all sections of the travelling public and freight transporters to see rail as a potential part of their journey.

The Rail Industry Sustainable Development Principles Explained



Providing an end to end journey

Work together with all transport modes to provide an integrated, accessible transport system.

Rail can provide the core part of many journeys. However, people travel from door to door and freight travels from producer to customer, and by its nature rail can deliver only part of many of these journeys. The creation of an integrated transport system - linking modes and enabling each mode to use its strengths to deliver the most sustainable journey is key in achieving modal shift.

In order to achieve this, the rail industry envisages working with operators of other modes and with transport and local authorities to improve the quality of the 'whole journey' in response to customer needs. This requires both a continuing focus on customer experience, and also greater understanding of sustainable and acceptable ways of completing the non-rail legs of the journey.

Whilst integrated thinking for the physical journey is the prime consideration, the provision of information for planning a journey and signage and service information throughout a journey is of great importance. As well as improved inter-modal information, this is likely to require a greater range of partnerships or collaborations on issues, some outside of the rail and public transport sector, such as information management.

'Hard' issues such as better station and depot facilities, parking and access need to be combined with 'soft' issues such as good journey information about interconnection, integrated timetables and through-ticketing, to improve the overall travel experience. The industry needs to gain a better understanding of the experience of 'the last mile' after the station or depot. These issues are beginning to be addressed through initiatives such as Station Travel Plans and smart cards. Beyond that, it is likely to require partnership and collaboration with complementary providers (whether these relate to walking facilities, buses, metros, trams, bikes and bike schemes or 'pay as you go' car services).

The Rail Industry Sustainable Development Principles Explained



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.

The rail industry recognises that it can only succeed with a skilled and motivated workforce and must therefore be a place where competent, skilled people choose to work.

Recruiting and retaining the right people is a challenge and to respond to this the industry needs to be seen as a place in which people can thrive. Driven, talented and imaginative people are needed to implement the sustainability vision and principles and meet the challenges the industry faces in becoming truly sustainable and successful. However, in common with many industries in Great Britain, the rail industry can see falls in head count in the short term if there are adverse economic conditions, and it is important that this is handled appropriately and support given to staff impacted.

The industry is committed to ensuring that it is a fair, safe and supportive place to work. It needs to build the competence necessary to ensure that rail industry staff can address sustainability issues which are within their span of control and develop the management controls and information flows to monitor and understand them.

The need for this is further underlined by changes in the global labour market which is forecast to become smaller as the world population ages and other currently less developed nations become more attractive locations to live.

To ensure the industry has the right people and skills in the long term it needs to develop and implement a recruitment strategy and build strategic relationships with key stakeholders and partners such as universities.



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.

Whilst the railway can claim to be the most sustainable form of motorised transport in Great Britain for many journeys, the industry recognises that there are still many ways in which it can reduce its impact. Environmental impacts have been reviewed and priority areas identified for action at an industry level and by individual companies including:

- Climate change (including energy use)
- Noise and vibration
- Waste and pollution
- Sustainable consumption and production
- Air pollutant emissions
- Biodiversity and the natural environment
- Land take

These improvements will be achieved through the application of whole life and whole system assessment to decision making. The principles of the waste hierarchy will be applied in relation to resource management and life-cycle assessment in relation to design and materials selection, considering both cost and environmental impacts. This process will recognise the inter-relationships between the three pillars of sustainable development and aim for continual improvement.

The Rail Industry Sustainable Development Principles Explained



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

The rail industry is committed to the pursuit of a lower carbon service and we believe reductions can be made in the short term to the carbon intensity of rail. Furthermore the total carbon footprint of the industry can be reduced in the medium term and we can move towards being zero carbon in the longer term. The industry also believes it can make a significant contribution to reducing the carbon footprint of travel and logistics in Great Britain by encouraging a shift of passengers and freight from more carbon intense modes to rail and accommodating increased demand for rail.

In the short term the first step, which is well under way, is to identify the areas where the industry can improve efficiency. From the perspective of transport carbon emissions, the industry has already accommodated a very significant rise in demand, avoiding carbon emissions which would have resulted had those journeys been made by another mode.

However, it is more complex than that. By creating modal shift, the industry must invest in capacity which, using current technology, will increase carbon emissions, albeit at a lower level than would have resulted from other modes.

In the medium to long term there are opportunities to achieve step changes in carbon intensity. These will arise through new trains and alternative power sources, further electrification, more efficient diesel engines and technology to capture braking energy, as explained in 'Energy wise'. It is therefore possible to counteract the short term increase in total carbon emissions but there will be a time lag between the actions taken to accommodate increased demand and adoption of lower carbon technologies, with the net result of a transitory rise in total carbon emissions from rail. It must also be emphasised that any increase in total rail emissions due to modal shift will have achieved a reduction in overall transport carbon emissions.

In the much longer term the industry anticipates that a combination of zero carbon electricity generation and a replacement for diesel traction which has no carbon emissions will enable us to become a zero carbon railway.

The industry has huge challenges over the coming 20-30 years, especially as road and aviation are promising significant reductions in their own carbon intensity. The first step is the development of a credible power strategy which reduces overall power demand and consumption where possible and migrates the industry to cleaner and greener power supplies. This is a complex issue which requires careful evaluation of the transition from the medium to long term and which cuts across transport and energy policy.

The Rail Industry Sustainable Development Principles Explained



Energy wise

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

Energy is a significant element of the cost of rail services, added to which the price of energy is both increasingly volatile and largely outside of rail companies' control. This is the case particularly for traction power (used to power trains) but also for non-traction (used mainly in buildings). Trains are currently either powered by electricity or diesel and these power sources present different challenges. Currently the national grid electricity generation mix is relatively carbon intense, and this is likely to be the case for at least the medium term, although there is scope over the longer term to decarbonise. The picture for diesel is more complicated as it is not clear if, and when, a low carbon alternative portable fuel will become feasible.

The amount of energy that we use is therefore closely linked to our carbon emissions. To respond to the twin challenges of cost and carbon the industry aims to maximise its energy efficiency for both traction and non-traction power. The industry also recognises that a very significant factor in determining the generating requirements of Great Britain is the peak load and aims to examine what can be done to smooth the peaks in demand for electricity to help address this. This aligns well with the aspiration to smooth the peaks in demand for rail services to optimise the use of the network and encourage the use of services in the 'shoulders' – the times before and after the peak.

Energy savings have already been made through the use of regenerative braking on electric trains and this can be enabled more widely. Further electrification of the network would enable reductions in energy consumption and carbon emissions, with the additional advantage of ongoing reductions as more carbon-free generation capacity comes on stream. More efficient diesel engines, technology to capture energy from braking (such as hybrids) or alternatives to the current diesel technology could address energy consumption and emissions from those parts of the network not suitable for electrification.

Addressing this principle will involve many of the same actions as described in the principle 'Carbon smart', in particular the development of a power strategy. However the industry recognises the need to reduce energy consumption whether its generation has resulted in carbon emissions or not, in order to control costs and reduce pressure on the generating capacity of the UK.

The Rail Industry Sustainable Development Principles Explained



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.

Rail is a key economic enabler and is determined to further improve its support for the economy. The Eddington Study¹ identified three key transport markets that are crucial to the productivity and competitiveness of the economy:

- Urban areas and their catchments
- Inter-urban corridors showing signs of congestion and unreliability
- International links via ports and airports showing signs of congestion and unreliability

Rail has a role in each of these markets. It can provide reliable, high levels of accessibility along the main transport corridors in the country and to the locations that drive economic growth. Rail supports the economies of London and the wider South East region, other towns and cities of Britain, our industries and their markets, our tourist and leisure destinations, and our ports and airports. Rail freight makes a significant contribution to the economy by supporting key industrial sectors and is also penetrating other markets where it can serve the trunk-haul function for distribution of other products.

This principle underlines the importance of these functions and the rail industry's aim to reinforce and increase rail's role in enabling economic recovery and success. In particular this relates to commuter travel, high speed inter-city travel and freight distribution. It also relates to the efficiency of our own operations and therefore the cost to the economy of running the railway.

¹ The Eddington Transport Study The case for action: Sir Rod Eddington's advice to Government. DfT & HM Treasury Dec 2006

The Rail Industry Sustainable Development Principles Explained



Departures 1				Departures 2	
Due	Destination	Platform	Expected	Due	Destination
12:27	Newcastle	15B	On time	13:02	16th
12:29	Poppleton	1C	On time	13:04	Knot
12:32	Thirby	3B	On time	13:05	London
12:34	Sheffield	17B	On time	13:05	Edin
12:37	Manchester Vlc.	12B	On time	13:08	Manch
12:38	Hull	15B	On time	13:08	Liver
12:40	Bradford F. St.	2C	On time	13:10	Brad
12:40	London ICC	6	On time	13:10	Plam
12:40	Manchester Pic.	16B	On time	13:12	Scarl
12:41	York	9B	On time	13:15	Selby
12:43	Huddersfield	13B	On time	13:16	Sheff
12:48	Sheffield	10B	On time	13:19	Dand
12:49	Carlisle	5C	On time	13:22	Bright
12:51	Blackpool North	12C	On time	13:25	Hand
12:55	Middlesbrough	15B	On time	13:26	Skief
12:55	Manchester Air.	16B	On time	13:27	New
12:56	Skipton	4B	On time		
12:59	Knaresborough	1C	On time		

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.

Rail demand has been forecast to grow whilst at the same time public scrutiny of the allocation of public funds intensifies. In adverse economic conditions, this growth may be slower than anticipated and there will be additional pressure on Government spending and potentially reduced availability of private investment. The industry must therefore maximise the capacity and capability of the existing rail network to ensure as many services as possible can be run with existing assets. In addition, where greater capacity is needed, the aim is to deliver high value on investments.

It is also recognised that the industry needs to provide a value for money rail service, offering the optimal balance between customer requirements and investment. This will form a key part of ensuring rail remains affordable to GB plc in terms of Government funding, and to rail customers in terms of price, and that it can cope with forecast increases in demand.

If the fundamental challenge is to reduce the carbon and resource impacts of travel then rail needs to, at a minimum, maintain its modal share but preferably to increase it. However, a relatively small modal shift from cars could overload parts of the network as currently configured. The extent to which there is modal shift to rail will therefore, to a significant extent, depend on rail's ability to increase capacity. Capacity is therefore a critical issue for the industry.

The industry is determined to address the challenge of increasing capacity to play as full a role as possible in reducing carbon from the transport sector and relieving congestion. In the short and medium term this will involve investment to enable more and longer services on the existing infrastructure. In the medium and longer term this will require investment in expanding the network (including new lines) and dealing with the more complex pinch points. Other challenges include the aspiration for a seven day railway (where maintenance down time is minimised), smoothing the peaks in demand, increasing use outside of the peaks and addressing the freight – passenger balance, all of which will contribute to optimising the use of the network.

Many of rail's challenges can only be addressed through the development of novel technology, practices and processes which must ensure that the industry can deliver its vision. These solutions must both deliver what is needed today and be viable over the longer term when social, economic and climatic conditions may be quite different.

The Rail Industry Sustainable Development Principles Explained



Being transparent

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

The rail industry recognises the need to involve stakeholders in the development of future strategy. It aims to improve this by embedding a culture where dialogue with Government, customers and those who have an involvement in rail, puts their needs at the centre of decision making and follow this up by being open about decisions, performance and progress.

Many rail companies report publicly on their corporate responsibility and environmental performance. The industry's Sustainable Rail Programme (SRP) involves rail companies, Government and regulators through membership of key fora facilitated by RSSB. Wider involvement is achieved through stakeholder participation in research and development activities sponsored by industry as part of the SRP, and all findings and final positions are published on the RSSB website – www.rssb.co.uk. Recognising the importance of reporting, the industry working under the umbrella of the SRP, published the first sustainable development review of the mainline railways in Great Britain – The case for rail 2007².

The industry via the SRP is working closely with the Office of Rail Regulation to develop and report on sustainable metrics for rail.

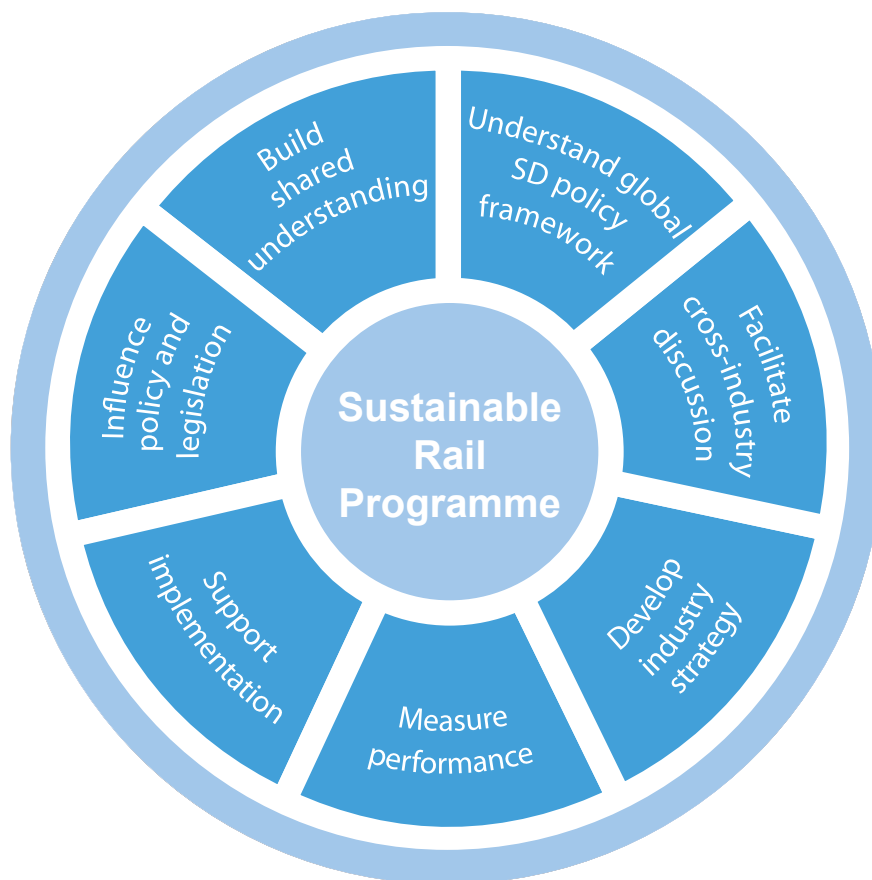
² http://www.rssb.co.uk/national_programmes/sustainable_rail/shared_understanding.asp#shared_understanding).

The Sustainable Rail Programme

The railway has a key role to play in contributing to an integrated national transport system, providing a sustainable transport solution that minimises environmental impacts and contributes to social inclusion and economic prosperity.

The Sustainable Rail Programme (SRP) has been established to support the industry in reaching its full potential. The SRP focuses on areas where collaboration across the industry or with government is required to address issues or take initiatives forward.

The SRP supports industry to:



If you would like to know more about the Rail Industry Sustainable Development Principles, or the Sustainable Rail Programme, please contact sustainableailprogramme@rssb.co.uk



Produced by Rail Safety and Standards Board on behalf of the industry

The images shown on pages 4,5,6,10 and 11 appear courtesy of ATOC/PAUL BIGLAND

The image shown on page 7 appears courtesy of Network Rail

www.rssb.co.uk

Rail Safety and Standards Board Ltd Registered Office: Evergreen House 160 Euston Road London NW1 2DX

Registered in England and Wales No. 04655675

Any feedback should be sent to **sustainablelailprogramme@rssb.co.uk**

February 2009