



ANNUAL REPORT 2008

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MESSAGE FROM THE CHAIRMAN

2008 was a challenging year for the European Union and one marked by the decision of voters in Ireland to reject the Lisbon Treaty. On the global front, the year also highlighted the challenges facing the global economy as the economic climate deteriorated substantially across many sectors, especially in the second half of 2008. The rail industry is not immune from these economic cycles but one thing for certain is that due to the nature of the transport sector in which we are involved, we are less exposed than others, and we expect this to be the case over the longer term as well. So despite the rather negative news of late, let me be clear in saying that it is still a good time to be in the rail industry! One only had to pick up a copy of our latest Worldwide Rail Market Study or to attend Innotrans in Berlin in September to realise this. The message is, demand is high!

2008 also marked the beginning of my chairmanship of UNIFE, an association of 60 plus direct members and almost 20 associate members. It is an organisation which I am obviously proud to preside over. UNIFE too has come on leaps and bounds in recent years, and as an association we are now at the very forefront in shaping the European political environment – not just where transport issues are concerned, but in many other spheres as well, notably environment. Just look at where we went, who we met,

what we said and how we communicated in 2008... With the new-look UNIFE now in place, I believe that this association has indeed made a difference in getting across our main messages, concerns and very often – well received solutions. UNIFE members need UNIFE, so too do the other stakeholders in this transport debate, and most notably the European Commission, national governments and other European and international transport bodies.

Transport issues of course continue to dominate UNIFE's work programme and 2008 proved to be no different. The year saw huge discussions around the issue on how to sustainably tackle climate change. The European Union's revised Lisbon Agenda and parallel initiatives aimed at fostering economic growth were also high on the EU's political radar screen, especially for much of the second half of the year. At UNIFE, we believe that no other industry has the capacity to provide the necessary solutions for fostering this economic growth while at the same time sustainably tackling climate change, than rail.

The entire Presiding Board also recognises the Unique Selling Points which our industry has, vis-à-vis what the other competing transport modes offer. We see our USPs as windows of opportunity for this association to shine and to contribute

Dr. Hans-Jörg Grundmann

Chairman



concretely to the debate on European transport issues. This needs to be done in such a way which positively contributes to shaping the business environment of our industry and also, in a way which levels the playing field between the transport modes.

Looking back to what we achieved during 2008 and when assessing where we are today, UNIFE today is better positioned than at any time before to leverage the current European Agenda in favour of our industry. One only has to look at the set of priorities which I set out at the beginning of my mandate as UNIFE Chairman to partly witness this. Firstly, at EU level we're actively involved in raising the issue of rail's competitiveness vis-à-vis the other transport modes, no where more so than in the Eurovignette discussions. Secondly, on the innovation front, we have been quite successful in getting EU-funding for a number of vital rail research

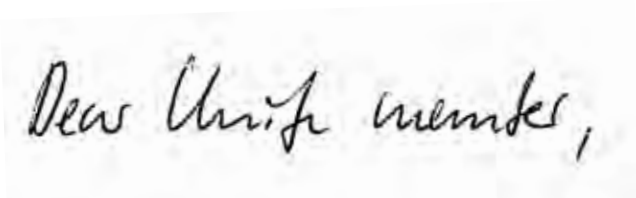
projects. Thirdly, costs and quality are also fundamental areas on which we've poured a lot of time and energy in recent times and the success of IRIS is a prime example of our seriousness and indeed success. Finally, UNIFE further evolving into becoming the true European leader in rail standardisation is another priority on which we will work tirelessly in the coming years.

In short, UNIFE today is focussed on strategic business priorities, better profiled and stronger organisationally – the evidence is there.

UNIFE's ambition in the year ahead will be to provide even better services to its members, making sure that their joint concerns and that of our industry are heard at all appropriate levels in Brussels and beyond. And we will make sure it happens.

A handwritten signature in black ink that reads "Hans-Jörg Grundmann". The signature is written in a cursive style and is placed on a light-colored, slightly textured background.

INTRODUCTION BY THE DIRECTOR-GENERAL



Looking back, 2008 has been a busy year for the rail sector. Freight transport continues to grow and the ever-increasing demand from passengers for rail transport looks set to keep the order books of UNIFE members healthy for the foreseeable future. The publication of UNIFE's Worldwide Rail Market Study was a case in point and detailed the projected growth patterns across a range of rail supply manufacturing sectors, the main message being; growth of between 2.5% and 3% per annum until 2016. Of course the recent global credit crunch crisis may have an overall impact on these expected results, but to a certain extent, the railway market is well known for its relatively short and long-term stability.

The European Union's Lisbon Agenda of creating jobs, fostering economic growth and at the same time tackling climate change continues to mirror what UNIFE also believes in. As in previous years, one of UNIFE's central strategies has been to promote rail as the most environmentally friendly and the most sustainable mode of transport out there. This too carries over into the work which we have been doing since 2006 in the revision of the Eurovignette directive. We believe that such a revision should result in the inclusion of external costs in the calculation of road tolls. Unfortunately, with the European Council having failed in 2008 in reaching a decision on this, the Eurovignette directive has now

gone further out of sight: however, UNIFE still holds the belief that an effective road tolling scheme constitutes the most adequate tool towards achieving sustainable transport and levelling the playing field between the transport modes. We as an important stakeholder in this debate will hence continue to promote the idea until an agreement is reached.

On a different note, following several years of close cooperation with all rail stakeholders, in 2008 the Council adopted a new Interoperability Package which should facilitate the cross acceptance of rolling stock between Member States. This combined with the signature in July of the new cross-sector ERTMS Memorandum of Understanding with new Transport Commissioner Tajani and the various rail associations, should copper fasten the speedy deployment of ERTMS along ERTMS corridors. It also marks an important step towards achieving a truly interoperable European railway area.

Another 2008 highlight was the publication in August of the Polish master plan for rail investments. While still to be fully agreed by the Polish government, the plan is nonetheless ambitious. It includes the building of a new high-speed line, as well as the upgrading and modernising the Polish railway network.

Michael Clausecker

Director-General



UNIFE put a great deal of effort into promoting rail investments in the EU's newer Member States and indeed strongly welcomes the latest Polish initiative. With the help of EU Structural and Cohesion funding, great opportunities exist in developing a true European high-speed rail network, and one which stimulates economic growth, increases mobility and reduces CO2 emissions.

With the support of the newly created Technical Committee and thanks to the effort made by UNIFE and its members in the preparation of the 2nd call of the 7th EU Framework Programme for research, 6 projects out of our 8 proposals were accepted for funding. We have now entered the negotiation phase and we are looking forward to working on the catenaries of the future in TRIOTRAIN or diesel locomotives CleanER-D projects.

As you can see, 2008 was quite an eventful year, and we predict 2009 to be equally busy. In particular, the European Commission's proposals on freight and on the review of the TEN-T policy will necessitate a good deal of our attention. At the same time, UNIFE will become active on new topics such as trade policy, where we will need to convince policy-makers to put an end to a situation where certain foreign markets remain inaccessible to our members.

As in previous years, the year ahead will continue to see us there at the very forefront – at the political, economic, technical, social and environmental levels – by leading the debate, generating business and serving you well.

A handwritten signature in black ink that reads "Michael Clausecker". The signature is written in a cursive, flowing style.

1. UNIFE IN 2008

UNIFE Mission & Objectives

UNIFE Structure

Committees

UNIFE Presiding Board in 2008

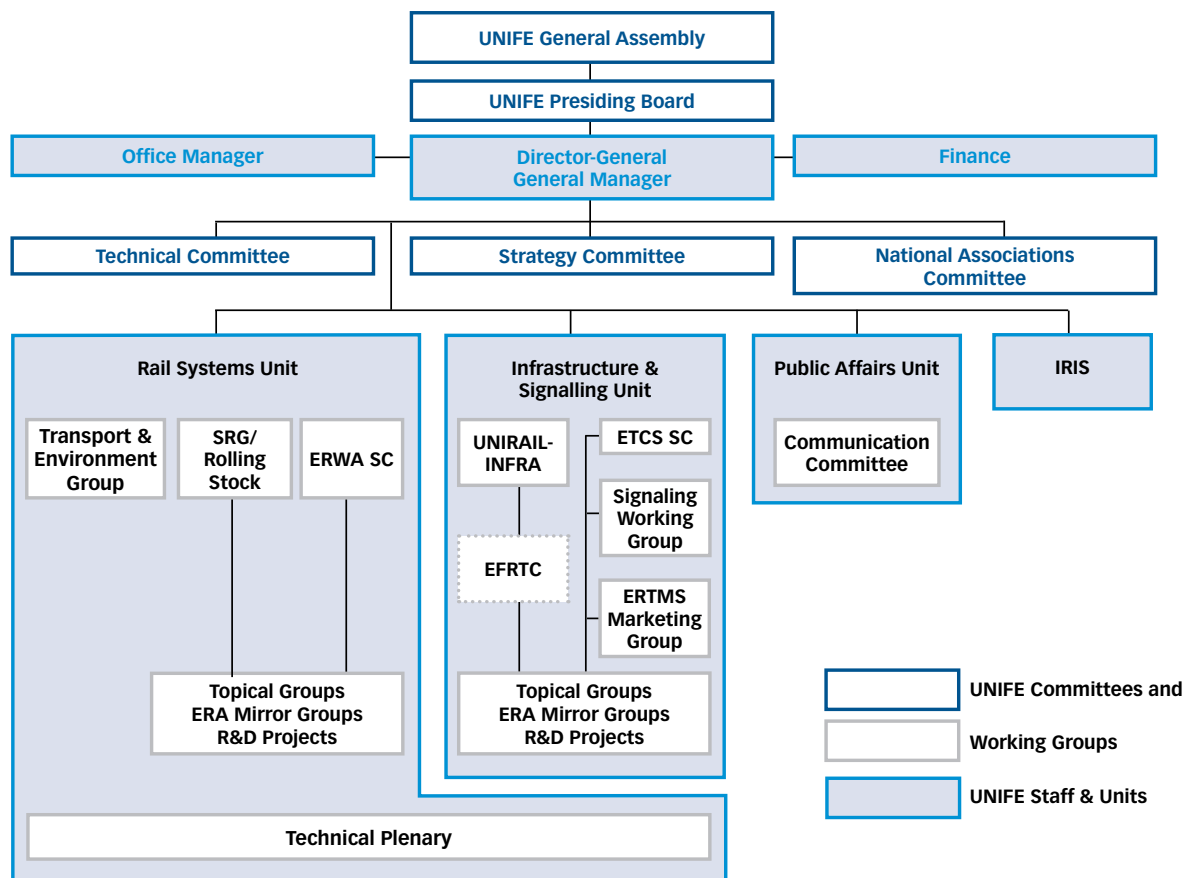
UNIFE Mission & Objectives

Mission: Providing competitive railway systems for increased rail traffic.

5 objectives to achieve the mission:

1. Promote rail transport through dialogue with EU institutions and all important stakeholders
2. Lobby for rail issues by leading initiatives with National Rail Supply Industry Associations
3. Deliver railway interoperability & standardisation for improved LCC & RAMS
4. Ensure European rail supply industry leadership through joint research & innovation
5. Convince the public that rail transport is the favourable solution for the 21st century challenges of increased mobility, economic growth and environmental protection

UNIFE Structure



SRG: Standards and Regulations Group
 ERWA: European Railway Wheels Association
 ERA: European Railway Agency

EFRTC: European Federation of Railway Trackworks Contractors
 ETCS SC: European Train Control System Steering Committee
 IRIS: International Railway Industry Standard

Committees

The UNIFE General Assembly is composed of all members of the association and has the full power to carry out the purposes of the association. It usually meets once a year.

The **UNIFE Presiding Board** is elected by the General Assembly for a period of 3 years. It takes any measures and actions required for the achievement of the objectives and general policy of the association. It submits for ratification by the General Assembly the admission of new Full and Associated Members. The Presiding Board is composed of 9 members elected by the General Assembly for three years on the proposal of the retiring Board. For the administration and daily management of the association, the Presiding Board designates a Director-General.

The **UNIFE Strategy Committee** and the **UNIFE Technical Committee** are two out of three UNIFE high-level committees. They provide guidance and expertise to the association in their respective field of competence: political issues, market strategy, and internal issues for the Strategy Committee, standardisation, regulation and research for the Technical Committee. The members of these committees are high-level managers from the biggest UNIFE members.

The **UNIFE National Associations Committee** is made up of the associations representing the rail supply industry at national level. These associations are associated members of UNIFE. National Associations are key partners for UNIFE in communicating with the national governments. They provide information about recent developments in their respective countries, develop joint initiatives with UNIFE and help disseminate industry positions towards their own members and public authorities. The committee is composed of the Secretaries-General of 17 National Associations from different Member States.

The **Standards and Regulations Group** or **SRG** is in charge of co-ordinating UNIFE's technical activities in the fields of the **European regulatory framework** (Interoperability directive, Safety directive, and all other directives when they are applicable to the European Railway system as well as the related TSIs). The SRG also deals with the standardisation initiatives in railways (JPC RAIL/CEN/CLC/ETSI/IEC and with the management of UNIFE research programmes). The SRG is composed of technical Directors from the main UNIFE system integrators and main subsystem suppliers.

The **Communication Committee** steers the UNIFE Communication Strategy. It is composed of the Communications Directors of UNIFE members.

The **UNIRAILINFRA Committee** provides a platform for consensus building at a pre-competitive stage, aimed at promoting investment and innovation in the railway infrastructure sector. It plays an advisory role for UNIFE technical and political activities having an impact on infrastructure. The committee is composed of representatives from the UNIFE members active in track work, track-related components and electrification.

The **Signalling Working Group** provides UNIFE with expertise in the field of rail signalling. It is a platform for discussion and consensus building on signalling at a pre-competitive stage, aimed at promoting investment and innovation in the railway signalling sector. It plays an advisory role for UNIFE technical and political activities having an impact on rail signalling. The committee is composed of representatives from the UNIFE members active in the rail signalling business.

The **ERWA Steering Committee** aims at promoting usage benefits, life cycle cost improvements and standardisation of railway wheels and wheelsets. The committee is composed of the CEOs of the five European wheel and

wheelset manufacturers. Two additional committees support this committee: the ERWA Development Committee dealing with political issues, market strategy and communication; and the ERWA Technical Committee dealing with standardisation, regulation and research.

The **ETCS Steering Committee** is in charge of coordinating UNIFE activities in the field of ERTMS. It is composed of high-level representatives from the ERTMS manufacturers.

The **ERTMS Marketing Group** is in charge of coordinating marketing activities for ERTMS. It is composed of marketing experts from the ERTMS manufacturers.

The **Technical Plenary** Committee provides each UNIFE member regular information on all technical related matters such as Standardisation, regulation and Research & Development and provides an opportunity to the technical management of the member companies to exchange views on these topics and to bring their input and support to the activity of the Technical Committee and of the SRG.

The **Transport & Environment Group** provides UNIFE with expertise in the field of environmental issues.

UNIFE **Topical Groups (TG)** and **Mirror Groups (MG)** aim at steering UNIFE work in specific areas. Composed of UNIFE members' experts in each field, the Topical Groups focus on standardisation and research activities whereas Mirror Groups are temporary groups set up to follow specific activities from European Railway Agency.

The list of current groups is as follows:

TG Aerodynamics
TG Brakes
TG Cab
TG Crash safety
TG Chemical Risk
TG Cross Acceptance and Certification
TG Diesel
TG EMC
TG Energy Efficiency
TG Fire safety
TG Noise
TG PRM
TG Product Category Rules
TG Railway Dynamics
TG TCMS

MG Certification of maintenance workshops
MG Energy
MG Infrastructure
MG Rolling Stock
MG Safety Assurance
MG TAP (telematic applications for passengers)
MG Wagon

UNIFE Presiding Board in 2008

UNIFE Members gathered on 19 June 2008 to hold the annual General Assembly of the association. On this occasion, they elected a new Presiding Board for three years (2008-2011) and the new Chairman of the association: Dr. Hans-Jörg Grundmann, CEO of Siemens Mobility.

Members of UNIFE Presiding Board 2008-2011 (elected on 19 June 2008 by the UNIFE General Assembly)



Hans-Jörg Grundmann
Chairman of the Presiding Board
CEO,
Siemens Mobility



James Drummond
Member of the Presiding Board
President,
Invensys Rail Group



Jean-Pierre Forestier
Member of the Presiding Board
Vice-President and Managing Director,
Thales Rail Signalling Solution



Robert Joyeux
Member of the Presiding Board
Chairman and CEO,
Faiveley Transport



Manfred Leger
Member of the Presiding Board
Group Managing Director,
Balfour Beatty Rail



Philippe Mellier
Member of the Presiding Board
President,
Alstom Transport



André Navarri
Member of the Presiding Board
President,
Bombardier Transportation



Alberto Giovanni Rosania
Member of the Presiding Board
Chairman of the Board, AnsaldoBreda, Ansaldo
Segnalamento Ferroviario, Ansaldo Signal, Sogepa



Dieter Wilhelm
Member of the Presiding Board
Member of the Executive Board, Knorr-Bremse
AG, Chairman of the Supervisory Board, Knorr-
Bremse Systeme für Schienenfahrzeuge GmbH

2. 2008 POLITICAL HIGHLIGHTS

Eurovignette

The Recast of the First Railway Package

Freight-Oriented Corridors

Review of the TEN-T policy

Urban Mobility and Urban Rail Harmonisation

Rail investment in Central and Eastern Europe

State aids

Budget Reform

UNIFE cooperation with the EU Presidencies

European Commission Consultation on progress in developing an integrated safe and interoperable European railway area

The revised interoperability and safety Directives and the ERA mandate

The Directive on Emissions from Non-Road Mobile Machinery (NRMM)

European Commission consultation on integrated ticketing for air and rail transport

European Commission Communication on rail noise abatement measures addressing the existing fleet

Eurovignette

The 2006 directive on the charging of heavy duty vehicle, widely known as the Eurovignette directive, introduces the possibility for Member States to integrate environmental and health-related road external costs into toll prices. However, because of the opposition of European transport ministers, the final version of the Directive delays the internalisation of external costs until an agreement is reached on a common calculation methodology.

On 8 July 2008, the European Commission (EC) presented to the Council and Parliament a general model for the assessment of all external costs of transport. The aim of the revision of the Eurovignette directive is to unlock current restrictions, allowing Member States to internalise the various elements of external costs into prices for the use of road infrastructure. In this context, there are a number of areas in which the Commission proposal falls short of expectations.

For example, the exclusion of CO₂ emissions is contradictory to the recently approved EU objectives and targets such as the effort-sharing decision of the Climate Change Package of January 2008, which sets binding targets for reducing CO₂ emissions in sectors such as transport. According to the subsidiarity principle Member States should be allowed to meet these targets however they wish – including road charging for CO₂. This has not been taken into account in the Commission's proposal for the revision of the Eurovignette Directive. Transport is currently responsible for 27% of all CO₂ emissions within the EU-27 and road transport is producing a massive 72% of these emissions – a fact that makes firm actions on reducing CO₂ emissions of road transport particularly urgent. Transport is also the only sector where greenhouse gas emissions continue to rise (by 26% in the EU-15 between 1990 and 2005), while in all non-transport sectors they fell. The suggestion from the Commission – to raise fuel taxes to control CO₂ emissions – remains a purely theoretical alternative especially in times of rising oil prices, completely lacking credibility and realism.

Furthermore, the exclusion of accident costs from the proposal does not make sense from a scientific perspective. The Commission itself has shown in a recent study (IMPACT Handbook, 2008) that a substantial part of accident costs is not covered by insurance premiums and need to be internalised.

The EC proposal is currently debated at the Parliament under the lead of the Belgian Socialist Rapporteur Saïd El Khadraoui. His arguments are in line with the rail sector's position. UNIFE has entered into a close cooperation with the Rapporteur by submitting amendments, providing additional information on certain points (congestion, calculation of road tolls with EC methodology). The vote at the European Parliament TRAN Committee will take place in early 2009.

As regards the Council, a number of outstanding issues, including internalisation of the external costs of road congestion, still have to be resolved before an update of Eurovignette Directive can be agreed upon by the European Transport ministers. This was the outcome of the latest Council's meeting on 9 December in Brussels.

UNIFE expects that the Czech presidency of the EU, during the first semester of 2009, will place Eurovignette and an agreement on the Greening of Transport high on its agenda.



The Recast of the First Railway Package

The First Railway Package agreed on in 2001 marked a very important step in the liberalisation of the European railway system. One of its main purposes was to regulate access to infrastructure and charging. During 2008, this package has moved to the centre of attention at the European stage for a number of reasons.

On the one hand, the European Commission opened infringement procedures against 24 of 27 Member States for failure to implement the legislation sufficiently. Only the Netherlands, Cyprus and Malta were spared. Incidentally, neither Cyprus nor Malta possesses railways. The infringement procedures were mainly launched on the grounds of insufficient separation between the Railway Undertakings and the Infrastructure Manager or the State, essential functions being performed by the railway undertaking, insufficient cost and charging schemes, absence of performance schemes, and a host of difficulties related to the respective national regulatory bodies. These procedures are still ongoing and the European Commission is currently working with the Member States to resolve these issues.

Furthermore, the European Commission had also announced a Recast of the existing legal texts, and to merge them into one single railway access code by October 2008. This proposal has been postponed to autumn 2009, after the next European elections. For now, the European Commission is conducting an impact assessment on the different environmental, social and economic effects that a revision of the existing legislation may have.

UNIFE has participated in the Impact Assessment and, in consultation with its members, conveyed its position on the Recast to the European Commission. UNIFE will continue to support a further market opening and is convinced that more transparent and stronger regulatory structures can only serve to increase of rail transport in Europe.

The European directives concerned are:

91/440/EC Development of the Community's Railways

95/18/EC Licensing of Railway Undertakings

2001/14/EC Allocation of railway infrastructure capacity and the levying of charges



Freight-Oriented Corridors

In December 2008, the European Commission presented its long-awaited legislative proposals on rail freight. By promoting “freight-oriented corridors” across Europe, the Commission intends to give a boost to international rail freight (which represents about 50% of rail freight’s revenue) so that it increases its market shares as compared to more polluting modes of transports such as roads.

The Commission proposals would force Member States to define at least one “freight-oriented corridor” per country – such corridors would need to have an international dimension and be part of the TEN-T network. Specific rules would apply on the corridors – in particular a specific management structure, involving infrastructure managers and other stakeholders, would be set up to coordinate investments and operations. Operators wishing to run train on the corridors would benefit from a “one stop shop” where path allocations could be purchased for the entire corridor.

UNIFE welcomed the Commission’s proposals as a step in the right direction, even though additional efforts – in terms of liberalisation, investments in infrastructure and interoperability-enabling technologies – will also be needed. Several actions – a UNIFE reply to a Commission consultation last summer, and common communications activities in cooperation with CER and EIM – were conducted in 2008 to urge the Commission to take action on rail freight.

Following the publication of the proposals, UNIFE intends to cooperate with the European Council and Parliament next year to possibly improve the Commission’s proposals.

Review of the TEN-T policy

The year 2008 was marked by important debates on the future of the TEN-T policy, which paved the way for a broader review of the global TEN-T programme in 2009. Indeed, the European Commission will launch early next year a “Green Paper” on the future of the TEN-T policy.

During the TEN-T days in October 2008, to which UNIFE participated as an official stakeholder, several workshops were organised by the European Commission, on various topics such as freight logistics, TEN-T priority corridors, the role of the private sector in implementing TEN-T projects, or the relation between transport and the environment.

In its upcoming Green Paper, the European Commission is foreseen to suggest a broad review of the TEN-T policy, to take the lessons from the implementation of the existing projects but also to take into account the emergence of new factors, such as their impact on the environment or the limited amount of public money available to fund infrastructure projects. UNIFE will provide a dedicated Position Paper once the Commission’s Green Paper is released, and intends to play an active role in the review.

Urban Mobility and Urban Rail Harmonisation

The European Commission adopted the new Green paper for Urban Mobility on 25 September 2007 and opened a consultation in view of the preparation of an Action Plan on Urban Mobility.

In the framework of this consultation, UNIFE issued a position paper in March 2008: it advocates for a modal shift to rail-bound public transport modes in order to make urban mobility in European cities safer, cleaner and quicker. Supply- as well as demand-side measures should be taken to achieve this aim as it is now clear that tightening car emissions is not sufficient to tackle the problem of air pollution in cities and climate change.

In its position paper, UNIFE calls for key actions to be taken at the EU level, including:

- the creation of a common legal framework for urban charging,
- a better allocation of EU funding to clean and energy-efficient urban transport,
- the development of common operational standards and of common recognition of sub-system certifications and technical standardisation,
- the creation of a platform for the exchange of best practices,
- the development of a legal framework for green infrastructure procurement.

The Commission's Action Plan on Urban Mobility, initially foreseen to be released in October 2008, has been postponed several times by the European Commission since then. However it should be hopefully published in 2009. UNIFE continues to carry on discussions with European Commission for the preparation of the action plan.



In parallel, UNIFE, together with UITP, undertook an initiative to foster harmonisation in the urban rail sector. Both associations drafted a common position paper, which was then presented to the European Commission and to the Member States through the Interoperability Committee. The plan foresees an action in four steps:

1. Identification of categories of infrastructure: UNIFE and UITP call upon all EU Member States to exclude urban rail

from the scope of their national implementation law of the Interoperability Directive and to identify explicitly the extent of the interoperable railway infrastructure.

2. Development of common recommendations on operational requirements and product acceptance.
3. Development of a European system of cross-acceptance of urban rail products
4. Development a minimum European voluntary standardisation framework, in order to practically help mutual recognition/cross acceptance

The UNIFE/UITP proposal was favourably welcomed by the European Commission and by some Member States. UNIFE will continue its actions in 2009 in order to achieve the abovementioned strategy.

Rail investment in Central and Eastern Europe

In 2008, UNIFE reinforced its position as a facilitator, linking the industry, the infrastructure managers, the governments and the European Commission, in order to foster rail investments in Central and Eastern Europe.

Michael Clausecker met the Transport State Secretaries of Poland, Slovakia, the Czech Republic and Lithuania and the Infrastructure Managers of Slovakia and Lithuania. These meetings were opportunities for UNIFE to carry some key messages in order for the Central and Eastern European Member States to accelerate their investments. In particular, UNIFE insisted on the need to improve their absorption capacity and gave some solutions for this purpose, such as increasing the size of tenders or using turnkey approaches. Also, UNIFE tried to spark off debates about very high speed rail in these Member States.

In 2008, UNIFE also created a database on major rail projects in the new Member States for the 2007-2013 period. The highlight of UNIFE activities in this field for the beginning of 2009 will be a new workshop on rail investments in Central and Eastern Europe, organised in

Bucharest on 27 & 28 January (see below). UNIFE will also continue to meet the public authorities and infrastructure managers in the new Member States and to improve its dialogue with the European Commission.

UNIFE/AIF Workshop “Rail Investments in Central and Eastern Europe: Towards a Competitive Railway System”, 27 & 28 January 2009, Bucharest

On 27 & 28 January 2009, UNIFE and AIF, the Romanian Railway Association, organise a workshop dedicated to rail investments in Central and Eastern Europe, under the patronage of the Ministry of Transport of Romania and with the support of the European Commission (TAIEX).

This workshop will gather officials from the European institutions, from the national Transport and Infrastructure Ministries, representatives from railway undertakings and infrastructure managers from the Central and Eastern European Member States and the European rail industry. The workshop aims at providing advice and best practices for the modernisation and development of rail transport in Romania and in the other countries of Central and Eastern Europe. It will address the issues of network planning, project development, tendering, contracting, financing and implementation of rail projects.

State aids

In December 2007, the European Commission issued draft Community Guidelines on State Aids for Railway Undertakings and launched a consultation. UNIFE submitted a position paper on the draft guidelines in January 2008 and participated in a stakeholders’ meeting, in which we were able to voice our position. After their adoption by the European Commission on 30 April 2008, the new guidelines were finally published on 22 July 2008 in the Official Journal of the European and thus entered into force.

The outcome is in line with UNIFE’s demands and expectations, in particular the new provision that allows for using regional aid (structural and cohesion funds) to finance passenger rolling stock. In order to do so, some requirements have to be met:

- The rolling stock has to be assigned to urban, suburban or regional passenger transport services in a specific region or for a specific line serving several different regions, in one or more Member States, at least for 10 years;
- The replacement of rolling stock must meet the latest interoperability, safety and environmental standards applicable to the network concerned;
- The Member State must prove that the project contributes to a coherent regional development strategy.

In accordance with UNIFE demands, refurbishment and purchase of non interoperable rolling stock have been rejected by the Commission, and the scope of the provision has been extended to inter-regional services.

Budget Reform

When the current Financial Perspectives were agreed after long and fierce discussions in 2006, heads of state and government also agreed on a review, to take place in 2008-2009, in order to evaluate the political priorities in the budget guidelines. In this framework, the Commission launched in September 2007 a consultation on the review of the EU budget. According to President Barroso’s wording, this unique opportunity is “about much more than money. This is about a vision for Europe”.

UNIFE submitted its position to the Commission in April 2008 underlining that if the EU wants to achieve the objectives it has set in terms of growth, competitiveness and jobs, and fight against climate change, it needs to increase its financial support to rail transport.

In its position paper, UNIFE makes some concrete proposals to improve the efficiency, the effectiveness and the consistency of the budget with EU priorities. In particular, UNIFE advocates for:

- making EU funding conditional to an added value of the projects in terms of environmental impact, growth, competitiveness and employment;

- primarily allocating TEN-T budget to railway projects, with a special emphasis on ERTMS, and increasing the TEN-T budget;
- a better management of the Regional Policy budget;
- allocating a certain share of the revenue generated by the ETS (European Trading Scheme) to the cleanest and most energy-efficient modes of transport, in particular rail transport.

UNIFE participated in the closing conference of the consultation phase in November 2008. The Commission should present its review in 2009. UNIFE will follow up this process.

UNIFE cooperation with the EU Presidencies

In 2008, UNIFE continued its intense cooperation with the countries holding the Presidency of the European Union (rotating every 6 months). Before the beginning of each EU Presidency, UNIFE monitors its priorities, prepares a briefing outlining 4 or 5 priority areas for the rail industry and presents it to the national authorities of the country to hold the Presidency. The briefing is also circulated to the other Member States. Contacts are taken with the Permanent Representation in Brussels of the country to hold the Presidency. Thanks to these contacts developed ahead of the beginning of the Presidency, UNIFE can then address the authorities of the country holding the Presidency on specific issues.

- For the Slovenian EU Presidency (1 January – 30 June 2008), the following five UNIFE priorities were identified: creating a level-playing field between the different modes of transport; ensuring that there are sufficient financial resources allocated to rail; investing in rail transport by implementing Regional Policy, TEN-T priority projects, rail freight corridors, and developing rail-bound urban transport; enhancing the competitiveness of the railway sector through cross-acceptance of railway equipment; and implementing the railway packages.

On 17 December 2007, UNIFE presented its priorities to the Slovenian EU Presidency (1 January – 30 June 2008) during a meeting in Ljubljana with Mr. Peter Verlic, the Slovenian Transport State Secretary. A special emphasis was put on rail investments in the new EU Member States.

- UNIFE prepared an updated version of the Briefing for the French EU Presidency (1 July – 31 December 2008). On 29 January 2008, a delegation from the UNIFE Presiding Board led by André Navarri presented the UNIFE briefing to the French Transport Minister, Dominique Bussereau.
- On 5 September 2008, UNIFE met Emmanuel Šip, the Czech Deputy-Minister for Transport Policy and Environment and presented its priorities for the Czech EU Presidency (1 January – 30 June 2009).
- UNIFE is currently preparing a new briefing for the forthcoming Swedish EU Presidency (1 July – 31 December 2009) and will organise, with the support of Swedtrain, a meeting between the UNIFE Presiding Board and the Minister for Communications, Ms. Åsa Torstensson, in early 2009.



European Commission Consultation on progress in developing an integrated safe and interoperable European railway area

In the period July-September 2008, the European Commission conducted a public consultation on the progress of achieving interoperability in the European railway area. It was the Commission's aim to gauge stakeholders' satisfaction with the current state of the interoperability directives and their implementation.

UNIFE, in close cooperation with its members contributed to the consultation stating that it entirely agreed with the European Commission's aims of developing a single interoperable and safe European railway area, but that important shortcomings in terms of national implementation of the texts, administrative procedures persisted. In the long run ERA's role should rather be strengthened.

In the long run, ERA should progressively become a safety authority, able to play a policing role, especially with regards to the National Safety Authorities. ERA should become the EU authority for EU matters once a sufficient harmonisation of the system is reached.

On the basis of the replies, the European Commission is planning to publish a report on the state of interoperability in Europe. UNIFE will continue to work towards interoperability through its different working groups and its involvement with the European Commission and the European railway agency.

The revised interoperability and safety Directives and the ERA mandate

During 2008, the EU adopted the Interoperability Package that included the following texts:

A new Interoperability Directive, directive 2008/57/EC the interoperability of the rail system within the Community. The text introduces the principle of cross-acceptance of railway vehicle certification and clarifies the procedures for placing in service TSI compliant vehicles.

The package also included amendments of the Railway Safety Directive (2004/49/EC), where a maintenance certification system for railway vehicles is to be established. This will cover cross-border movements of trains and apply to all types of vehicles; for freight wagons no later than two years and all other vehicles ten years after the directive enters into force. In addition, for each vehicle, an entity in charge of maintenance should be designated and be responsible for maintenance. This entity may be a railway undertaking, an infrastructure manager or a keeper. The overall operating safety of trains will remain with operators and infrastructure managers.

Finally, the Regulation on the ERA Mandate Regulation (EC/881/2004) was amended so as to mandate ERA to develop a reference document with information on all the national rules on the placing into service of rolling stock. It should also play a coordinating role in efforts to streamline the number of national safety rules. The ERA becomes the system authority for ERTMS, and will also play a role in the backward compatibility of any future ERTMS version and of the migration of previous versions to the current one.

The Interoperability package is a major step in achieving a single European rail market, since it is going to reduce the administrative burden falling on industries and operators when homologating existing railway equipment in more than one EU Member State.

UNIFE therefore very much welcomes this piece of legislation which is the result of several years of close cooperation between the railway community and the institutions.

The Directive on Emissions from Non-Road Mobile Machinery (NRMM)

The European Directive on Emissions from Non-Road Mobile Machinery (NRMM) foresees strict emission levels for diesel locomotives and railcars as of 2012. This poses a number of challenges to the European rail industry.

While the industry has been able to adapt emission solutions from heavy road vehicles for railcars, this has not been the case for locomotives. Weight and space constraints mean that it is highly likely that there will be no compliant engines available once the so-called stage IIIB enters into force in 2012.

Currently, the European Commission is planning to revise the NRMM Directive. An impact assessment has been conducted in order to look at the possible economic, social and environmental effects of different policy options. UNIFE supports a policy option that allows for a postponement to 2016 of stage IIIB emission limits for locomotives.

UNIFE in close cooperation with its diesel expert's topical group has provided technical input to the study and has informed the European Commission of the detrimental effect that the directive may have for European diesel rail transport. UNIFE will continue to work on this matter throughout 2009.

European Commission consultation on integrated ticketing for air and rail transport

In the period July – September 2008 the European Commission conducted a public consultation on the possibility of developing integrated ticketing systems for air and rail passenger transport. The focus on this consultation lay particularly in the possibility of decreasing the need for short haul flights and in offering attractive inter-modal and environmentally friendly transport solutions, particularly in accessing airports via rail. This should primarily be achieved through voluntary commitments by the concerned sectors.

UNIFE, in close cooperation with its members, took part in this consultation stressing the need for an opening up of rail ticketing sales and welcoming any measures that may increase the attractiveness of rail travel to passengers.



European Commission Communication on rail noise abatement measures addressing the existing fleet

In July 2008, as part of the Greening of Transport Package, the European Commission published a Communication on rail noise. This Communication foresees the retrofitting of freight wagons with composite K- or LL-brake blocks. As a second step the introduction of noise differentiated track access charges in the framework of the recast of the first railway package is foreseen. Finally, noise emission ceilings at hotspots should be revised.

UNIFE has welcomed the European Commission's intention of tackling the problem of rail noise without prejudicing rail transport in comparison to other modes of transport. UNIFE would have, nevertheless, preferred a broader approach that had taken the entire railway system into account, rather than concentrating almost exclusively on retrofitting. In this respect, if external costs are also internalised in other modes of transport, noise differentiated track access charges have the potential to provide good economic incentives towards technological innovation.

In 2009 the European Commission will set up an expert working group on the technical and practical aspects of noise differentiated track access charges that UNIFE looks forward to participating in.

3. WORLDWIDE RAIL MARKET STUDY 2008

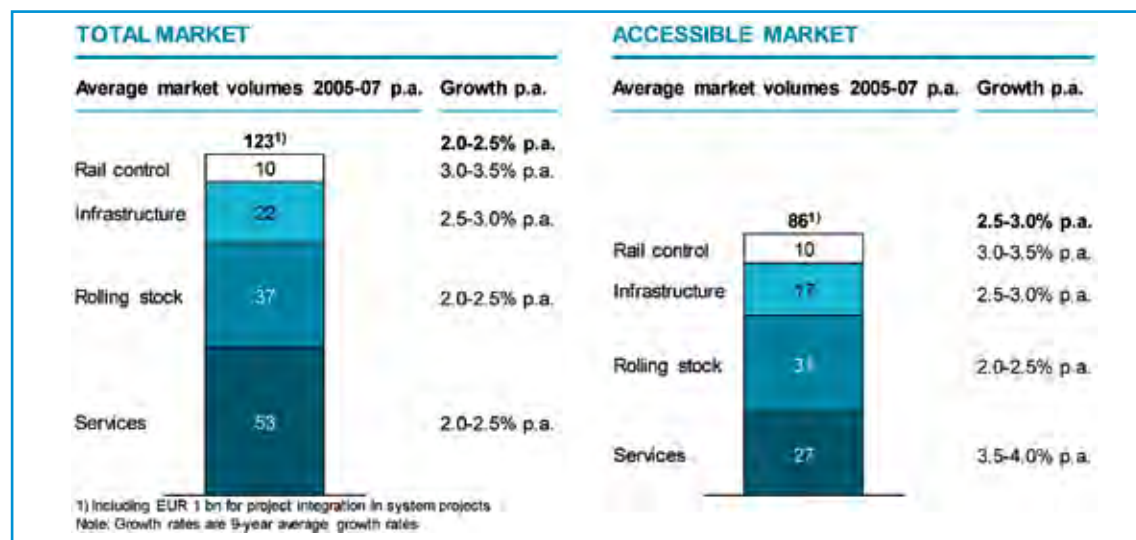
On 1 September 2008, UNIFE published its second Worldwide Rail Market Study. Thanks to the cooperation and the high commitment of UNIFE members, this study was one of the highlights during INNOTRANS in September 2008 in Berlin.

The goal of the Rail Market Study was to establish a commonly accepted market view of the rail industry in order to deliver a nine-year forecast for the sector. UNIFE charged Roland Berger Strategy Consultants with surveying market experts in rolling stock, railway infrastructure and services in 50 countries, representing 95% of the total installed base and traffic volume. Among other outstanding performances, we noted that from 2005 to 2007, the industry witnessed a nominal growth rate of the orders placed in the market of 9% per annum. And the study predicts that this will grow by between 2.5% and 3% per annum until 2016, when the accessible market will top out at around EUR 111 billion.

Growth rates within this period will of course vary, taking into account waves of orders placed followed by subsequent orders awarded to the suppliers – which the study in turn reveals in more detail.

Compared to the first edition of the UNIFE Worldwide Rail Market Study, this time a chapter has been dedicated to the analysis of current key market trends. Urbanisation, liberalisation and deregulation of state-owned railways, increases in intermodal competition, and of course environmental commitments are evidenced in the study's findings. In terms of geographic distribution, Europe remains the number one accessible market. Next up are the NAFTA countries, however, it is the emergence of megacities, especially in the Far East and Asia-Pacific region, which will see this growing region surpassing the NAFTA market with ease by 2016. The main countries in question which will drive this dynamic growth will be China, Japan and South Korea.

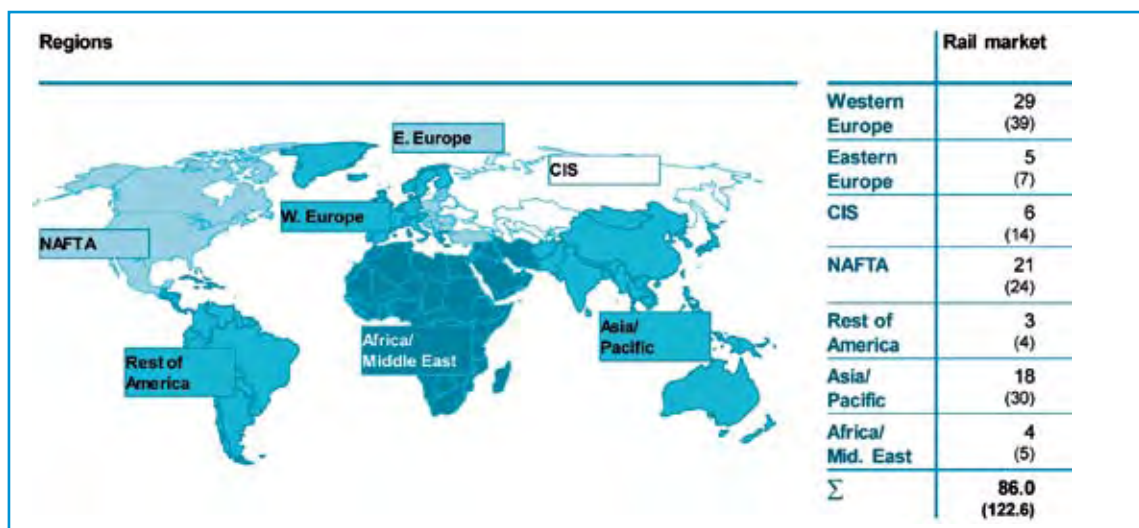
Average annual market volume and growth, overall rail market (EUR billion)



Overview of the major trends and their impact on the rail industry

	Comment	Assessment
Climate change & ecological awareness	The impact of climate change and a growing ecological awareness favour rail as an environmentally friendly mode of transport	➔
Resource scarcity & rising raw material costs	Resource scarcity and increasing demand from large, growing economies have led to a price rally, threatening producers	➡
Deregulation and liberalisation	The liberalisation of railways leads to better performance, higher customer satisfaction and increasing intermodal market share	➔
Urbanisation	Emerging of metropolitan areas and mega-cities in particular in China and India	➔
Shortage of engineering capacity	Not only the rail industry suffers from the shortage of engineering capacity – it may become the bottleneck for growth	➡
Standardisation	Standardisation is one of the market openers within and outside of Europe and goes along with increasing cost consciousness	➔
Intermodal competition & cooperation and passenger comfort	By offering a complete & competitive package while accommodating integration of different modes of transport, railways can improve their position – product differentiation along customer segments important	➔
Leasing	Leasing companies serve as facilitators for operators' demand and generate additional demand as they become more international	➔
Total life cycle costs	Operators increasingly focus on total life cycle costs. Industry has helped to reduce life cycle cost and will continue to do so	➔

Accessible annual market volume – overall rail market (EUR billion)



Overall, the study shows that the industry will find an attractive market place flourishing in the years to come, and indeed, one only had to visit the recent Innotrans trade fair in Berlin to gauge the buoyant industry optimism. What's clear is that the validated findings of our study will prove to politicians, investors, business leaders and the public that investing in rail is not only a sensible option in the current economic and ecological climate, but also one which creates jobs, will grow the global economy, sustainably play a role in tackling climate change, facilitate greater mobility and ultimately, lead to a better transport experience for society as a whole.

However, "how will the credit crunch impact on the European rail supply industry?" and, "are you sticking with the growth expectations of 2.5 to 3 percent per annum as expressed in the recent UNIFE Worldwide Rail Market Study?" are the two recurring questions which UNIFE has been asked repeatedly recently. Obviously, there are no simple answers, but suffice to say that one has to attempt to answer these questions in the overall global context. This requires examining several specific factors influencing the business of manufacturers and also service providers for rolling stock, rail infrastructure and signalling equipment.

In the rail supply industry, most of the orders we receive for systems and products are financed from public sources – directly as in the case of rail infrastructure and signalling equipment or indirectly as in the case of acquisition of rolling stock as part of a franchise deal to operate a certain railway line. These sources of orders for the industry may be subject to short-term government considerations to adapt budgets in the light of budgetary challenges and the need for public spending in other areas. However, at the same time, a large part of these contracts are of rather a long-term nature and so as a result there is only a certain portion of these budgets where reductions could be made. It's true that some governments might consider such budget cuts, but the expected direct impact of such measures on a country's economy would, we believe, rather limit the room for such decisions being made in the first place.

Turning to private operators and leasing companies, internationally we're seeing more and more orders for rolling stock being placed by them and a large number serve the already mentioned railway franchises. Leasing companies also often invest on speculation, when their market assessments show that a market is growing and the demand for mobile assets such as locomotives and freight wagons grows with it. In the United States, leasing companies in the past usually stopped all investments at the beginning of an economic downturn only to restart investing once the outlook seemed less gloomy.

In Europe, however, historically this has seemed not to be the case so far, but for us as for everyone else, the coming 18 months will be difficult to predict. However, the availability of private funds and bank loans have become a subject of recent concern for all kinds of investments. And this new scarcity may have certain consequences not only for the rail leasing businesses but also for plans to finance new infrastructure through Public Private Partnerships.

Looking at the demand side of rail operations, we believe any slowing of economic growth will ultimately impact on the logistics markets and with less overall growth in total, rail freight's renaissance too could potentially slow down. Passenger transport might also find a certain slowing down in ridership, countered however in the longer-term by ever more people switching to rail as fuel becomes more expensive. Both developments have rather small impacts in the short-term but where passenger demand drives investment, e.g. metros or high-speed trains, the business case for fleet renewals or extensions may become more difficult in some cases.

As a result, one has to consider that the present storm on the financial markets will impact on the rail supply industry to certain extent: some orders may be postponed and some may not be awarded because of a lack of available financing – in particular where private financing has been mooted. However, with strong order books already in their back pockets, large parts of our industry are well equipped

to sit out the storm. Even if order intake slowed down in the one or other quarter, a significant drop in turnover would unlikely follow suit. The rail supply industry is well known for its rather low volatility and its rather steady growth expectations. In the long run, the overall trend towards more sustainable transport systems will support this expectation, even if in the short-term the general economic outlook may look less exciting.

As part of the promotion of the study's findings, UNIFE entered into an exclusive news deal with the Financial Times which ran a series of articles in the main section of the newspaper on 1 September 2008. The Financial Times also ran an additional series of articles on the study in their special rail supplement issued on 23 September to coincide with the opening of Innotrans 2008. Over the course of the subsequent autumn, UNIFE received many additional enquiries on the study's findings from various media outlets, consultancies, banks, private investors.

For distributing and commercialising the study, UNIFE entered into a partnership with DVV Media (the parent company of Railway Gazette International (RGI) and publishers of many of the world's leading quality rail industry magazines), to sell the study. Since the launch of the study in September 2008, DVV's international rail media titles have heavily advertised the study and their various publications have run a string of articles aimed at promoting and highlighting the study's findings, the most notable being the editorial in the Innotrans edition of RGI.

More information on the study can be obtained at **www.unife.org**



4. STANDARDISATION AND REGULATION, RESEARCH AND DEVELOPMENT

Technical Committee

SRG

TSI Work and ERA support

Technical Committee

The UNIFE Technical Committee met four times in 2008, mainly focusing its activities on the definition of a UNIFE R&D framework and achieving the following results:

- Finalisation of the Terms of Reference
- Agreement on the strategic R&D proposals for the FP7 2nd call to be endorsed and led by UNIFE
- Settlement of a clear UNIFE strategy for the definition of the FP7 R&D priorities through the direct involvement of UNIFE Members in the ERRAC Working Groups
- Involvement of UNIFE in the project proposal Protectrail, under the FP7 2nd call on Security
- Definition of the requirements a R&D proposal must fulfil in order to be endorsed by UNIFE
- Positioning of the rail supply industry's priorities for the FP7 3rd and 4th call, sent to the European Commission through ERRAC.

The Technical Committee includes in its membership the member companies of the largest System Integrators, the largest subsystem suppliers and companies active in control command and infrastructure sectors.

SRG

The Standards and Regulation Group (SRG) is in charge of co-ordinating UNIFE's technical activities in the fields of the European regulatory, standardisation and research framework. It is composed of the technical Directors from the main UNIFE system integrators and main subsystem suppliers. In 2008 the SRG was active in the revision of the Interoperability directive, as well as in the drafting of the TSIs related to this directive.

The Conventional Rail Rolling Stock TSI was one of the most important items. In close cooperation with the European Railway Agency and the relevant UNIFE Mirror Groups its first draft was finalised end of 2008.

Furthermore the SRG followed the preparation of the TSI TAP, Energy, Infrastructure and Wagon. As the group is also dealing with other directives applicable to the European Railway system, it followed in 2008 actively the revision of the so called "diesel directive" (NRMM directive). The SRG also gave support to the ongoing elaboration of Common Safety Methods and Common Safety Targets as foreseen in the safety directive.

The SRG also dealt with standardisation initiatives in the railways interacting with the international standardisation bodies (JPC RAIL/CEN/CLC/ETSI and IEC). Research projects were steered by the preparation of the 2nd call of the 7th Framework Programme and the coordination of ongoing European research projects. To interface with the sector the SRG supervises the UNIFE Topical & Mirror groups, where all UNIFE members are represented. This large network has grown in 2008 to 220 experts; 20 of them are officially registered as experts by ERA.

TSI Work and ERA support

Conventional Rolling Stock TSI

The experts nominated by UNIFE actively helped in the drafting of the TSI. They participated in all ERA Working Party meetings during the year. The UNIFE staff coordinated the input from other UNIFE expert Topical Groups when necessary.

In August 2008, a series of joint workshops between UNIFE TSI experts, UNIFE SRG members and CER experts were organised. The goal was to consolidate common viewpoints in order to present a stronger position to ERA before the first official draft was sent to the European Commission. In December 2008 UNIFE TSI experts and UNIFE staff from the Railway Systems Unit met with ERA to present a quasi-final view on the main critical issues still open for the TSI. The work for this TSI will finish in the first semester of 2009 and the final document will be submitted to the European Commission.

Apart from a limited number of pending issues at the interface between the rolling stock and the track, UNIFE is generally satisfied with the content of this document. Particular attention will now be paid to the implementation chapter (Chapter 7) so as to avoid detrimental effect on the business.

Cross Acceptance

Following the adoption of the revised Interoperability Directive in July, the European Railway Agency (ERA) set up a Cross-Acceptance unit. UNIFE is a full supporter of the goals and objectives of this newly created unit and is therefore actively participating in these activities.

The overall objective is to clarify the conditions for vehicles to be put into service, by building a technical framework to foster the development of cross-acceptance agreements. UNIFE members are involved in this activity with ERA providing experts to the ERA Unit.

ERA has created an Interim Working Party to oversee the work of the Cross-Acceptance Unit and a Core Group to develop strategies and prepare documents to be submitted to the Working Party. To achieve that, a dedicated subgroup has been set up in order to:

- produce the Agency recommendations on Section 1 of Annex VII of the interoperability directive, the parameters to be checked in conjunction with placing into service of non TSI conforming vehicles and the classification of the national rules
- produce a document cross referencing all the national rules applied by the Member States for placing vehicles into service
- facilitate the harmonisation of the NSAs decision making criteria in respect of vehicle authorisation.

The checklist sub-group is currently preparing the recommendation for Section 1 of Annex VII, which will be presented to the RISC committee in March 2009 to be voted in July 2009.

Taking in to account the experience from the IRL list (an existing database), the sub-group has elaborated a new

list of headings with the objective to be complete and unambiguous, and also to be coherent with the current TSI structure in order to prepare the way forward to the put in to service of TSI compliant rolling stocks.

Safety

UNIFE experts are actively working to support the tasks requested by the Safety Directive. The objective is to propose to the commission the Common Safety Methods (CSM) and the Common Safety Targets (CST) for the European Railway Network and harmonise the decision-making criteria regarding the procedures for safety certification of railway undertakings and safety authorisation of infrastructure managers (SafeCert).

This year, the first set of ERA Recommendation on Common Safety Method (CSM) has been voted by RISC (Members States committee) on 25 November with a timeline of gradual implementation from 2010 to 2012. The key advantage of this new EC regulation is that Member States have agreed on a common acceptance criteria.

It is a victory resulting from the huge effort and work of the UNIFE Safety Assurance Mirror group in helping ERA in the release. The work will now focus on the second set of recommendations of the CSM, which will develop the "how" from the above regulatory principles and its interface with the standards.

UNIFE also actively participated in the "*Railway safety in Europe: towards sustainable harmonised regulation*" conference organised by the ERA. UNIFE led the workshop "*Safety and Interoperability*" with experts involved in the CSM working group. The objective was to underline how railway safety is already achieving excellent results, and how system integration is the key point to assure safety for the interoperable European market.

In order to achieve that, the publication of the first set of CSMs provides the basis to develop a standardised approach to a good safety management system.

Infrastructure TSI

The end of 2008 saw the delivery of the final draft of the TSI CR INF (revision 3.0), which was accompanied by a final report. A number of open points that could not be closed out before the publication of the final draft include: distance between track centres, requirements for controlling equivalent conicity in service, track stiffness, noise and vibration limits and mitigation measures, effect of crosswinds, and specific cases for various European networks.

A joint draft letter for resolving open points was sent by EIM, CER and UNIFE to ERA. A future revision may introduce text that permits existing lines (not subject to a renewal or upgrade) to be declared as interoperable, resulting in a quicker development of an interoperable network. UNIFE representatives regularly attended ERA WP meetings. Supported by the Infrastructure MG, they contributed to a final draft TSI which is favourable to the industry.



Energy TSI

UNIFE maintained a strong presence in the drafting and revising of the TSI CR ENE, which as of the end of 2008 had reached revision 2.11 towards the delivery of a finalised draft.

Earlier revisions 2.1 to 2.4 integrated the conclusions of interface meetings with Rolling Stock, while revisions 2.6 to 2.8 integrated the following items: new pantograph spacing in AC,DC 3kV & DC1.5kV, revised mean contact force for DC 1.5kV, energy measurement on Locomotive and passenger rolling stock, procedure of assessment of Interoperability Constituent not holding EC declaration, and revised Annex G: Kinematic pantograph gauge.

In the latest revision, remaining points included specific cases (particular features of countries' networks) and material for contact strip for mixed 1.5/25kV network.

The drafting of the TSI was supported by the UNIFE Energy Mirror Group, whose experts convened periodically to ensure a TSI favourable to industry.

Future ERA WP meetings are scheduled for 2009 and are expected to cover open points of the ENE CR TSI, extensions of scope in certain areas, workshop for RISC committee, implementation guide and cooperation with CENELEC WG's. A proposal to merge the HS and CR Energy TSIs will also be explored.

Telematic applications for passengers TSI

ERA has received from the EC the mandate to draft the TSI related to telematic applications for passengers, called TSI TAP. This TSI shall enable the provision of information to the passenger before and during the journey, reservation systems and the issuing of tickets. The TSI shall be the basis for future evolution of the CRST (Computerised Information and Reservation System for Rail Transport).

The UNIFE Mirror Group for TSI TAP is supporting ERA in the drafting of the TSI to be submitted in a preliminary draft in February 2009.

UNIFE contributed actively to the work by attending the regular ERA WP meetings and advising ERA on the technical content, analysing relevant existing UIC leaflets and standards, distributing the results of the WP meetings among UNIFE members, obtaining their input, incorporate feedback into the ERA documents and submitting them back to ERA for further handling.

Besides the purely technical work, the MG gave significant input to the consultation launched by the European commission in September 2009 on the "Integrated ticketing air & rail industry".

Wagon TSI

The MG Wagon TSI assists ERA in the revision of the TSI Wagon. The TSI Wagon is a very complex document containing unclear explanations and open points. As open points in a TSI require authorisation in each member state, the TSI is hindering the process of wagon authorisation at national level.

Thus in the first part of the revision ERA concentrated on correcting the most obvious mistakes and worked out a cross-authorisation scheme to recover the former level of interoperability provided by the former RIV agreements for standard wagons ("Go anywhere/Passe-partout").

The cross-authorisation document was submitted in November 2008. It solves the most urgent problems and will be immediately applicable. The real technical revision of the specifications started recently and will be finished in 2009.

The MG Wagon TSI – composed of component suppliers (wheelsets and brake systems) and wagon manufacturers – will continue to actively contribute to the further revision.

The composition of this group has been recently extended to manufacturers which are not UNIFE members, for UNIFE to be better able to play its role of representative body and also to show to this companies their interest in becoming members of UNIFE.

5. JOINT RESEARCH AT EU LEVEL

Success of the 2nd call: Newly accepted projects

Ongoing UNIFE Research Projects

ERRAC

Projects which ended in 2008

Following the excellent and hard work by the UNIFE staff in 2008, we were successful in securing funding for a number of R&D projects under the FP7 2nd call for proposal.

Success of the 2nd call: Newly accepted projects

Triotrain

The European Commission's Directorate General for Research (DG RTD) approved with very high marks (top ten of a total of over 200 project evaluated) the TrioTRAIN projects. These projects aim at enhancing the interoperability of the railway system by performing work to:

- Reduce Certification Costs
- Introduce Homologation via Simulation
- Close existing TSI open points

The projects deal with Aerodynamics (AeroTRAIN), Railway Dynamics (DynoTRAIN) and Pantograph and Catenary Interaction (PantoTRAIN). UNIFE will coordinate these projects which are currently in the negotiation phase and will start in the second quarter of 2009.

PM 'n' IDEA

PM 'n' IDEA – Predictive Maintenance employing Non-Intrusive Inspection & Data Analysis is a project focussed on Urban Transport. The project has two key drivers:

- to contribute towards the realisation of a 24 x 7 railway by minimising the disruption caused by activities such as inspection, remedial and reactive maintenance, and track renewal;
- the introduction of novel sensor and inspection technologies will focus more on the monitoring of degradation through the measurement of deviation from identified benchmark data known as a "signature tune".

The project proposal submitted at the beginning of May was evaluated favourably by the European Commission and, as of the end of 2008, UNIFE had entered into negotiations for an expected start in early-mid 2009. UNIFE will coordinate the project and manage dissemination activities.

CleanER-D

Coordinated by UNIFE, the Clean European Rail Diesel (CleanER-D) research project proposal was submitted to the European Commission under the 7th Framework Programme 2nd call. At the beginning of December 2008 UNIFE received the green light from the European Commission to start the negotiations on the project.

The CleanER-D project focuses on diesel emission mitigation. A large part of the project will deal with demonstration cases which will develop stage IIIB (emission limit) compliant vehicles for railcar and locomotives. The innovative part of the project will focus on future technologies to improve the emission mitigation of rail vehicles. The sustainability sub-project will be in charge of evaluating the environmental, socio-economical aspects of the developments.

In the CleanER-D project, railway operators and diesel vehicle manufacturers look forward to cooperating with main engine manufacturers. The research activities are also supported by universities and research institutes.

ERRAC-Roadmaps

ERRAC-Roadmaps is the project supported and already started by the European Rail research Advisory Council that will contribute to translate, monitor and disseminate to the whole European industry the strategic recommendations and guidelines of the ERRAC Strategic Rail Research Agenda 2020. Through a wide direct involvement from sector companies and association representatives ERRAC-Roadmaps intends to deliver yearly detailed roadmaps addressing the future technological and political challenges. It is also important to mention that the ERRAC-Roadmaps proposal scored extremely well in the FP7 2nd call evaluation.

UNIFE participation in this project is vital, co-coordinating the project together with UIC and it ensuring an active participation of its Members in the different Working groups.

Skill Rail

Skillrail is the project coordinated by the Technical University of Lisbon and supported by EURNEX, the European rail Research Network of Excellence (Universities), that will contribute to the enhancement of the transport sector by fostering a better match between the human resources needs to make railways a more competitive and innovative sector and the offer of skills coming out of the different research based education and training institutions across Europe.

UNIFE will contribute by establishing a close link between demand (rail industry) and providers (Universities) of academic education and training therefore ensuring the future availability of well trained rail focused engineers.

Transfeu

The Transfeu project responds to the urgent need to have a confident toxicity measurement methodology that contributes to the existing level of surface transport fire safety. This is the most difficult issue to assess in case of fire. The lack of confidence in the robustness of the existing product toxicity classification forbids its acceptance as a standard and prevents the European industry from common safety rules and consequently competitiveness. TRANSFEU undertakes to deliver both a reliable toxicity measurement methodology and a holistic fire safety approach for all kind of surface transport (trains, vessels, etc.).

UNIFE will undertake in this project large efforts in dissemination of TRANSFEU results with a significant contribution to European standardisation process. The UNIFE Members of the UNIFE Fire Topical group will have a major role in ensuring that the solutions provided will be more flexible and economic than the current approach.

Tiger

The Tiger project is a new project which will demonstrate the NewOpera (see page 39) findings and principles in real life. This will be shown in four demonstrators which have as a common denominator: the decongestion of ports. For example the demonstrator "Genova fast corridor" will show how to overcome the lack of space

behind the yards of the port of Genova (Italy) by applying optimised technologies and new management tools for an industrial shuttle train container service to an inland dry-port in the hinterland of Genova.

The project applied for the 2nd call of the 7th Framework Programme. It will start in 2009.

Ongoing UNIFE Research Projects

InteGRail – Sharing of information for increased performance

2008 was the most important year as the technical developments for the information sharing platform were successfully tested and demonstrated in real life applications in different demonstration sites in Europe. The data that was used for the demonstrations was connected via a set of distributed servers. The applications demonstrated how the IGRIS (InteGRail Information System) allows integrating existing and new information system coming from different sources and owners. The demos were also shown at Innotrans 2008. These are:

- ICOM: (Intelligent Communication): is one of the key elements for the information sharing technology including onboard and board to ground communication. ICOM was successfully tested in Germany in October 2008. The framework will be used as a proposal for standardisation to IEC and CENELEC for Train to Ground communication systems.
- Demo 1: How to set up and plan a new freight service between different countries (this demo includes the network statement checker).
- Demo 2: How to integrate data coming from rolling stock and infrastructure subsystems in order to have more complete information on their condition.
- Demo 3: How to monitor and supervise passenger trains during operation, efficiently handle unexpected events and improve the maintenance processes.

More information at www.integrail.info and specific information on the demonstrators and the applications at www.integrail.eu



MODURBAN project successfully concludes with Madrid real-time demonstrations

After almost 4 years of work, MODURBAN, the €20 million research project has now reached its final conclusions. Some of the key MODURBAN results were presented and showcased on the Metro de Madrid network on 16 December 2008.

MODURBAN stands for Modular Urban Guided Rail System and is a joint R&D project funded to 50% by the urban rail market stakeholders and 50% by the European Commission under the EU's 6th Framework Programme for Research and Development.

The aim of MODURBAN is twofold; to provide common functional specifications for urban rail operators (called Functional Requirement Specifications (FRS)), and to provide a common technical architecture for urban rail manufacturers. The MODURBAN FRS has been fully endorsed by all the operators and the entire project consortium and constitutes the cornerstone of the project. It is a complete set of 'ready-to-use' requirements, suitable for all urban rail operators, covering systems ranging from manually driven trains to fully driverless operations. The benefits therefore are crystal clear: the assurance of a comprehensive set of requirements and a real performance specification clarify the roles and responsibilities between the operators and the suppliers – and that today is REAL progress.

Among the developments during the MODURBAN project have been the success in defining a commonly agreed Fault tolerant Data Communications System where one network supports all applications (train control, video, passenger information, etc), and where this Data Communications System is interoperable/interchangeable between the different suppliers.

A selection of four items was demonstrated on the Metro de Madrid network 16 December 2008, namely:

- The Intelligent Driving concept
- Interchangeable Data Communication System operation
- Passenger Information System and Video onboard and wayside operation
- Light Weight Materials (prototype development of light weight grab rail)

All publicly available results, promotional video and presentations can be downloaded via www.modurban.org and www.unife.org

SAFEINTERIORS review of work carried out to date

A European Standard (EN 15227) is now published and accepted providing a framework for railway vehicle bodies' crash conditions design. It is based on the most frequent accidents and associated risks. It also indicates suitable passive safety features to meet the structural requirements.

With the reduction of risks stemming mainly from active safety and structural crashworthiness, the industry is now addressing the remaining areas of risk to define further survivability measures in the SAFEINTERIORS FP6 project.

The SAFEINTERIORS project has now achieved the following results:

- An appraisal of state-of-art design practices with respect to rail vehicle interiors and an identification of gaps in the design practices, including a clear definition of ergonomic measures and requirements for People with Reduced Mobility (PRM, from now onwards).
- An analysis of accident statistics collected with the aim

to select representative accident risks and identify the relevant injured

- Identification of relevant crash pulses; different crash pulses will be considered. They correspond to increasing and cost effective levels of passive to be engineered in the overall vehicle design.
- New and relevant injury criteria for rail vehicle occupants based on biomechanical data obtained in more recent research work.

Ultimately the project will make recommendations for TSIs and EN norms. Relevant technical data will be identified in order to propose the passive safety requirements for interior layouts and relevant furniture as applied to the defined classes of railway vehicles.

www.eurailsafe.net

INNOTRACK

Commenced in September 2006, INNOTRACK is a three-year jointly funded research project aimed at developing cost-effective high performance track infrastructure with the objective to reduce LCC by 30% while improving RAMS characteristics.

The project made a number of achievements in 2008: SP1 – Duty / Requirements delivered a methodology for developing a “virtual test track” for any selected route to assess the impact of a given traffic pattern or the introduction of new vehicles. In addition, a methodology was developed for segmentation of entire routes according to key track design characteristics which, when combined with track degradation algorithms, permits optimum selection of rail grades.

SP2 – Support undertook an evaluation of techniques to measure and correct support conditions and developed an FE model to investigate the influence of possible configurations of sub-base including reinforcing. In terms of track superstructure, two new track forms were developed which underwent laboratory assessment to demonstrate the benefits of consistently supported track.

SP3 – Switches & Crossings undertook a comparison of simulation models with measured data at various sites for

the optimisation of switches and crossings. Separately, an open standard for hollow sleepers was developed including definition of spacing required for tamping.

SP4 – Rails & Welding undertook the development of rail degradation algorithms based on data from long term monitoring of trial sites. The algorithms will be further improved through controlled laboratory simulation of rail wheel contact. Rail grade selection guidelines were also issued to counter observed degradation. A novel and objective technique for the assessment of the depth of micro-structural damage as a function of rail grades and track characteristics was also developed.

SP5 – Logistics conducted a comprehensive review of existing methods for track maintenance and renewal via IM and contractor workshops and the identification of success-critical areas for an improved track-works supply chain.

SP6 – Life cycle cost assessment achieved agreement on a methodology and the necessary software to undertake life cycle cost assessment of the innovative products, processes, and methodologies developed from the project.

SP7 – Dissemination & Training continued its dissemination activities, including presentation at various technical forums, regular progress updates at UNIFE committees and printed publications. In addition, the industry review commenced while training activities were focussed on LCC. A General Assembly / Dissemination seminar took place in late November of 2008.

Reflecting the even balance between Railways and Industry in the project, UNIFE assumed the position of vice-chairman of the Steering Committee where it has used its increased profile to promote industry efforts to ensure implementation of innovative products and methods after the project.

www.innotrack.eu

Urban Track

Commenced in September 2006, Urban Track is a jointly funded research project aimed at developing, testing and validating innovative products and methods for urban rail infrastructure. The project made a number of achievements in 2008 which spanned from the final developing of technologies to their implementation and LCC assessment.

SP1 – Low cost modular new track systems & fast installation methods completed. Developments included a removable embedded metro system (REMS), green tram track, optimisation of the road/rail interface, super elastic fixations, a Re-Modulix prefab slab, direct fixation fastener and an alternative to floating slab system, each of which have predicted significant LCC reductions. The work of SP1 moves to SP3 where they will be installed and tested.

SP2 – Cost effective track maintenance, renewal & refurbishment methods investigated into efficient low cost renewal and refurbishment methods for embedded and segregated tracks via tests on a test circuit and hydro-pulse-facility. Other activities included the development of a “European Standard for Track Inspection and Maintenance” for urban tracks, a preventative maintenance methodology for metro tracks (including optimisation of lubrication) and a study into advanced maintenance strategies.

SP3 – Design & implementation of solutions at test sites commenced with construction, testing and evaluation ongoing.

SP4 – Life cycle cost calculation finalised the beta version of the LCC tool and several calculations were made on the pre-implemented innovations with significant reductions predicted. The socio-economic assessment progressed considerably in establishing a methodology to assess the impact of installation and maintenance of Urban Track technologies.

SP5 – Functional requirements were defined through the collection of track and vehicle data and modelling and simulation work (including an implemented vehicle and track models). Functional specifications began to be developed based on the findings from the functional requirements and included test conditions for repeated load testing on new track forms.

A Network of Industries was established by UNIFE to strengthen Industry support for the project and increase take-up of technologies developed. After some delays, it eventually commenced with a kick-off meeting in mid-November which drew partners from the sister INNOTRACK project and outside. Urban Track held its second year General Assembly in September 2008, which was a useful exchange on the project’s progress over the last year and planning for its second half.

www.urbantrack.eu

Railenergy

The Railenergy project has completed its MidTerm and it is at a crucial point for both the development of the technologies and the implementation of a global holistic approach to energy efficiency management.

At this point in time all the different technologies which have been developed and evaluated at a component level and ready to be tested at the system level.

On the integration side, work is undergoing in order to launch standardisation activities (standard duty cycles and modeling methodology for energy efficiency) as well as to explore the implementation of energy efficient driving and timetabling. Work has also started in order to develop a support advisory tool to aid the operators and administrations to include energy efficiency as an important parameter in their future decision making process when commissioning new rolling stock and/or new infrastructure investments.

In September 2008 the Railenergy Coordination and Management team hosted a Midterm meeting for all project participants in Lecce, Italy. Everybody was able to share their knowledge and experiences of the first two years. Also, thanks to specific workshops and exercises, all the experts were made more aware of the necessary efforts that will be needed in the coming 2 years in order to make Railenergy a success.

It is finally important to mention that 2008 saw the first 2 Workshops organized by Railenergy targeted to stakeholders from all Europe who are not participating in the project. This initiative will continue in the winter and spring of 2009 with specific workshops for all the technologies developed. The goal is to raise awareness on the project results and to import into the project important experience and knowledge from experts across Europe.

www.railenergy.org

A GLOBAL VIEW

The European Commission's project Global View "Strengthen Rail Research Cooperation between Europe and Emerging International Markets for an Integrated International Research Area".

In 2008, UNIFE has actively participated in the preparation of the Global View 2nd workshop meeting held in Lucknow, India, on 26 March 2008. UNIFE as an association and the results of the Modtrain project were presented. RSDO (Indian Railways) expressed their interest in future cooperation under the framework of EU funding. Real online network testing in India has been offered to UNIFE members for demonstration of any research projects. RSDO highlighted the fact that due to the Indian railways centralistic approach, this sort of testing is easily available.

The Globalview consortium made an arrangement with Transnet, a large South African rail, port and pipeline company, to host the 3rd Globalview workshop in Johannesburg on 30 June and 1 July 2008. UNIFE directly participated to this workshop presenting UNIFE and the project InteGRail.

In order to facilitate the access to the Global View partners and stakeholders to the Innotrans event and the UNIFE/UIC Research stand, the final Global View conference was held on 22 September 2008 during Innotrans fair in Berlin. The result of this project will be available on the website and transmitted to the UNIFE Members.

www.globalview.uic.asso.fr

MODBRAKE

Modbrake has been set up as an extension of the Modtrain project in order to carry out specific research on the brake system. The project will deliver concepts for modularisation and standardisation of brake modules in high speed trains and universal locomotives with a speed higher than 190 km/h.

The project started in 2006 by defining the functional requirements specification (FRS) and operational requirements specification (ORS) for the Modbrake-relevant modules and subsystems. In 2007 the project reviewed the ORS 612 series by intensive discussions among the Modbrake industry partners, and contributed to the EN Modtrain Functional Breakdown Structure (FBS). By mid 2008 the partners presented an analysis of possible modules of the brake system for potential starting documents for CEN standardisation activities:

- Compressor and air treatment for air supply
- Functional, installation and test requirements for the brake control
- Compact calipers and actuators bogie brake equipment for axle mounted brake discs and for wheel mounted brake discs
- Operational requirements for the Eddy current brake equipment

In 2009, the project will focus on a detailed elaboration of these standards. The construction of prototypes will validate the results.

www.modbrake.com

Quiet City

The Quiet City (QCITY) four years research project organises its final conference in January 2009 in Rome. The event will focus on presenting the final results of the successful research project. Community noise is one of today's most severe environmental pollutants, which makes noise induced annoyance an essential problem in our modern and complex society. QCITY has developed new technical solutions for reducing noise and a decision support system for evaluating noise mitigating measures.

The technical solutions for railway applications are:

- A new embedded hybrid track with a sound absorbing surface has been developed displaying multi-functions, making it suitable both for rail and road applications. Tests were successfully performed at the city of Nieuwpoort, Belgium.

- A special low noise rail profile prototype has been designed. The new solution was tested in Malmö, Sweden.
- A tram track prototype for low squeal-noise generation has been designed. This embedded track concept will significantly lower squeal noise in curves. The testing took place in Athens, Greece.
- A new type of “platform” screen for trams has been developed. Being only 300-400 mm high and mounted close to the tram, noise reduction as high as 6-8 dB(A) was achieved. Tests were carried out in Göteborg, Sweden and Athens, Greece.

The QCITY brochure containing a short description of each technical solution can be downloaded from www.qcity.eu or purchased from the UNIFE office.

ERRAC

The European Rail Research Advisory Council (ERRAC) is an advisory body to the European Commission representing Member States and all stakeholders in the sector. Its mission to develop a ‘Strategic Rail Research Agenda’ to inform on the planning of research programmes across the EU was achieved in 2007 with the publication of the updated Strategic Rail Research Agenda 2020 (SRRA).

ERRAC encountered important changes in 2008. On 6 March 2008, during the 17th ERRAC Plenary held at DG RTD, European Commission, Mr. Andrew Mc Naughton (Network Rail) took over the excellent Chairmanship of Mr. Ake Wennberg (Bombardier).

Future activities of ERRAC will focus on concrete and detailed roadmaps or common European Research activities. For this purpose ERRAC submitted to the European Commission on 7 May a FP7 2nd call project proposal called ERRAC-Roadmaps. Its main purpose is the development of yearly roadmaps enabling a step by step tool to reach the goals developed in the Strategic Rail Research Agenda 2020.

ERRAC Stakeholders agreed to begin to undertake the work planned for the project ERRAC-Roadmaps in 2008, without any funding by the European Commission. The general framework of the activities for the next years is organised under the following working groups and for the first time with a defined involvement by the rail stakeholders:

- WP01 The greening of surface transport
- WP02 Encouraging modal shift (long distance) and decongesting transport corridors
- WP03 Ensuring sustainable urban transport (including modal shift, light rail vehicles and metros)
- WP04 Improving safety and security
- WP05 Strengthening competitiveness
- WP06 Past projects evaluation and Evaluation Database
- WP07 Communication

ERRAC also decided to develop a closer and better focused relationship with the DG TREN. On 7 July, an ERRAC delegation met Maurizio Castelletti, the Head of Unit for Rail transport and interoperability at DG TREN.

Finally, ERRAC enhanced the collaboration within the other existing European and National Technological Platforms. Cooperation with ERTRAC, the European Road Transport Research Advisory Council, was established under the ERRAC-Roadmaps WP02 and WP03 and cooperation over all ERRAC activities was set with the Spanish (PTFE) and Czech Technology Platforms for Rail.

Remembering ERRAC’s goal to build consensus in defining future rail research needs, each ERRAC WP contributed to the new Framework Programme (FP7) with the definition of eleven R&D topics priorities, submitted to the European Commission in December and to be taken into account for the drafting of the FP7 3rd call.

Projects which ended in 2008

GREEN heavy duty Engine

The FP6 project on intelligent flexible heavy duty engine systems ended in May 2008. Within the project, the railway sector has developed a set of rail specifications in order to apply the diesel engine technologies to diesel locomotives and diesel multiple units. MTU, one of the major diesel engine suppliers took part of the research project in order to develop a new combustion concept for diesel rail engines which allows fulfilling the upcoming emissions legislations. Based on these results, an EU-stage-IIIB compliant diesel engine is currently under prototype development at MTU.

The CleanER-D research project will continue the investigation through the development of stage IIIB compliant diesel engines which will be installed in a mainline locomotive. Therefore, it can be concluded that the results of the GREEN project provide important input to the CleanER-D project.

The final GREEN results on railway application can be obtained from UNIFE.



Widem

The WIDEM project had as its main objective to push the boundaries of wheelset component design through the application of advanced design concepts and extension of maintenance intervals.

WIDEM delivered its final results at the workshop on "Damage Tolerance of Railway Axles" on 13 October. The potential impact of WIDEM results were summarised as follows:

- Reduction of unsprung masses by 10 to 20%:
 - 20 to 40 kg due to endurance design method
 - 110 kg due to the application of high strength alloy steels
- Reduction of: dynamic loads, energy cost, brake wear and infrastructure LCC
- Extension of wheelset life and optimisation of inspection intervals
 - from 150,000 to 250,000 km
 - 40% reduction in the number of train stops for NDT inspections
 - 25% reduction of maintenance cost
- Increase in Safety due to better knowledge safety margins used in the design

The final results will be available on www.widem.org.

New Opera

The NewOpera project (100% funded by the European Commission under the 6th Framework Programme for Research and Technological Development) ended with its 5th stakeholder conference on 30 September 2008.



During the conference the project partners presented the researched solutions for boosting freight by introducing dedicated networks and by applying new market oriented business strategies in the rail freight business. The results were discussed with the audience in panel discussions between the academia world and market players. The final results of NewOpera are summarised in a book available from UNIFE.

www.newopera.org

Silence – Quieter Surface Transport in Urban Areas

The Silence project is a good example for a successful cooperation between the rail and road sector. It finished in the 1st quarter of 2008.

The project has delivered solutions on road transport as well as on rail transport. On rail vehicle noise research was carried out to reduce the main noise sources, i.e. rolling noise, diesel engine, exhaust, cooling, traction motors. Optimised cooling fans and heat exchangers, new design of skirts, exhausts with resonators, wheel dampers etc. were proposed and their efficiency computed. The implementation of some of the most efficient solutions on the rolling stock has been tested. Optimised rail dampers were also tested and a noise reduction of 3 to 4 dB(A) was obtained. The combination of both dampers leads to a total noise reduction of 5 dB(A).



At the infrastructure level, scenarios including tracks for trams and heavy rail and also depots were investigated. The critical components were identified and mitigation technologies were developed. An innovative rail fastening system for trams based on a pre-load sleeper was developed combining low resonance frequency and low vertical deflection of the rail during train passage, which means that low noise emissions are combined with good vibration isolation. Meanwhile, an effective technique for noise abatement is reducing the rail vibration by adding damping elements (“mass-spring systems”) to the rail.

The overall effect of a combination of damping both rail and wheel was demonstrated and noise reductions up to 6 dB were recorded.

All public deliverables and a final summary report, called “SILENCE Handbook Local noise action plans” can be downloaded from the website www.silence-ip.org

6. SIGNALLING & ERTMS

ERTMS Memorandum of Understanding
ERTMS Dinner at the European Parliament
ERTMS deployment plan
ERTMS communications revamped
Signalling WG

ERTMS Memorandum of Understanding

On 4 July, UNIFE signed the new ERTMS Memorandum of Understanding, together with the European Commission, and other railway stakeholders, including UIC, CER, EIM, ERFA and the GSM-R industry.



The new Memorandum of Understanding, which complements the 2005 one, sets common commitments to ensure the deployment of ERTMS along the six European dedicated corridors. In particular, it paves the way for the harmonisation of operational rules, the development of future ERTMS versions (including baseline 3), the removal of bottlenecks and a set of other measures to facilitate the roll-out of ERTMS. In particular, the European Commission will present an ERTMS deployment plan to push the Member States to seriously invest in ERTMS, whilst the importance of funding was also recognised.

UNIFE, through the UNIFE ETCS Steering Committee, was actively involved and influential in the drafting of the MoU. The latter was officially signed in Rome in the presence of new Transport Commissioner Tajani. The final text features a high level of ambition whilst being technically feasible for the UNIFE members involved in ERTMS development.

ERTMS Dinner at the European Parliament

On 14 July, UNIFE organised a dinner event at the European Parliament, entitled “*ERTMS, a European success story: next steps towards a seamless European railway system*”. More than thirty top decision makers and stakeholders attended the event, including Members of the European Parliament, officials from the European Commission, Member States’ representatives, railway associations and UNIFE members.

The dinner was the occasion to discuss the next steps to deploy ERTMS in Europe, and involved guest speakers such as Karel Vinck (ERTMS Coordinator, European Commission), Michael Cramer MEP, Jorge Iglesias (ADIF), in addition to Michael Clausecker and Friedrich Hagemeyer on behalf of UNIFE. The presentations were followed by a dynamic Q&A session.



ERTMS deployment plan

In September, the European Commission issued its proposal for a European Deployment plan. This proposal, for which UNIFE had been actively lobbying in the past months, aims at making ERTMS investments gradually mandatory along the six ERTMS corridors. Specific provisions would also apply for rolling stock, for which ETCS would be mandatory in models ordered after 2012.

This plan would be a significant step forward as it would push the 27 Member States to make the necessary ERTMS investments and improve the competitiveness of the railway sector as a whole. UNIFE has been actively supporting the deployment plan, issuing a dedicated position paper in cooperation with the UNIFE ETCS Steering Committee. Specific actions at a Member State level were conducted with the support of the national associations' members of UNIFE. An uphill battle is expected to have the plan approved by the 27 Member States in March 2009.

ERTMS communications revamped

UNIFE issued a new version of its ERTMS brochure "ERTMS – Opening Europe's borders" in September, which was widely distributed during Innotrans. The content of the brochure was updated in order to include new elements, such as the recent "success stories" of ERTMS in European countries like Spain, the latest political developments and statistics on ERTMS deployment. In addition, the design was significantly reviewed. This new brochure was developed by the UNIFE ERTMS Marketing Group.

In parallel, the group also reviewed the website **www.ertms.com**. The text content was fully redesigned, in particular to include a new section on ERTMS benefits. The maps featuring the drawings of ERTMS lines worldwide – a key feature of the website – was also updated.

Additional ERTMS activities

In addition, both the UNIFE ETCS Steering Committee and the ERTMS Marketing Group have been involved in the following activities throughout the years:

- Several political actions were launched to promote the version 2.3.0d of ERTMS, further define the baseline 3 planning, and harmonise operational rules;
- A new ERTMS Marketing plan was developed, to launch coordinated activities such as the above-mentioned ERTMS brochure and websites; in 2009, discussions are foreseen to tackle new issues, such as the creation of an ERTMS brand identity;

UNIFE is actively cooperating with UIC in view of the ERTMS Conference which will take place in Malaga at the end of March 2009.

Signalling WG

The newly-created Signalling Working Group met three times in 2008. Its core objective is to exchange information and issue common positions on non-ETCS aspects of signalling. The group also acts as a platform to coordinate signalling-related projects where UNIFE members are partners.

More information on the signalling working group may be found on **www.unife.org**

7. ERWA

ERWA, the UNIFE Railway Wheels Committee, comprises today 11 companies from 9 different countries, all of them European producers of railway wheels and wheelsets – Bochumer Verein Verkehrstechnik, Bonatrans, CAF, Gutehoffnungshütte Radsatz, Lucchini RS, Lucchini Sweden, Lucchini UK, Lucchini Poland, Radsatzfabrik Ilsenburg, Valdunes SAS, and Valdunes Belux.

The 11 Wheel-Wheelset Companies are today grouped in 5 European groups, each of them is now vertically integrated from forge to finish product: Bonatrans Group, CAF, GHH – Valdunes, GMH Railway Systems and Lucchini RS Group.

The ERWA General Assembly hosted by Lucchini Poland was held on 13 May 2008 in Krakow (Poland). About 25 representatives of the rail supply industry participated to the annual meeting. The President, Mr. Erder Mingoli of Lucchini RS as well as Mr. Christian Pignerol of Valdunes and Mr. Jörg Villmann of Radsatzfabrik, presented the activity and progress of their Committees which are involved in the main objectives of ERWA. Mr. Jean-Pierre Auger, Senior Vice-President of GHH-Valdunes, accepted with pleasure the nomination to become the new ERWA Chairman and expressed appreciation to the ERWA members for the valuable Chairmanship of Mr. Erder Mingoli.

Two additional new chairmanships were assigned. Mr. Roberto Forcella of Lucchini RS for the ERWA Development Committee and Mr. Radim Zima of Bonatrans for the ERWA Technical Committee.

In 2008 numerous activities were carried out by the various Committees. They can be summarised as follows:

The Steering Committee has:

- Decided to contribute to the update of the UNIFE Rail Market Study modelled by the consultancy company Roland Berger, both financially and with their own statistics;
- Nominated the Members of the Steering Committee for the next International Wheelset Congress to be held in Cape Town 14–19 March 2010, as well as the Chairmen of the Organising and Technical Committees;

The Development Committee has:

- updated the market statistics 2007 and forecast 2008, monitored and analysed the development of global market trend;
- initiated a wider Extra-European competitors database;
- given recommendations for the 16th International Wheelset Congress;
- finalised the 3rd ERWA Newsletter;
- updated the ERWA brochure taking into account the entrance of Lucchini Poland;

The Technical Committee has:

- contributed to the revision of existing standards EN 13103/13104; EN 13260/13261 and the projected standards on Cast Wheels;
- submitted the ProWEEL R&D project under the FP7 1st call and EUREKA framework;
- contributed to the ERRAC priorities for the FP7 3rd call;
- produced a common position on the TSI Freight Wagon and conducted a preliminary work on the TSI Rolling Stock;
- produced a common position contributing to the definition of the TSI on conventional rail Rolling Stock
- identified and substantiated common issues for the IRIS certification.

The ERWA activities in UNIFE were also further enhanced in 2008 through a better integration of its Committees into the UNIFE activities.



8. SUPPORT TO THE EFRTC

UNIFE continued its cooperation with the EFRTC – European Federation of Railway Trackworks Contractors – in 2008, through its involvement in the association’s general meetings, committees and publications and involving EFRTC in UNIFE’s activities. The EFRTC, which represents the majority of specialist trackwork contractors in Europe through its national federations membership, covers an important segment of the railway supply industry.

UNIFE attended and participated in EFRTC’s two bi-annual general meetings with presentations from Director-General Michael Clausecker on the funding of European rail infrastructure mid-year in Munich and on the future world-wide market for railway infrastructure end-of-year in Brussels. UNIFE also assisted in the production and distribution of the two bi-annual newsletters which, as of the second half of 2008, took on an electronic form. With the establishment of three new working committees – Policy and Research, Technical and Logistics, and Safety and Security, UNIFE has extended its involvement in and support of EFRTC’s activities as an observer in all three.

EFRTC’s participation at UNIRAILINFRA (UNIFE’s infrastructure committee) meetings enabled an improved understanding of the situation faced by contractors in the sector and served as a useful forum for information exchange between the supply sector and the contractors. UNIRAILINFRA now reserves a fixed item for discussion on project development implementation and has included EFRTC in a consultation on OTM (machinery for track construction and maintenance).

EFRTC continued its participation in INNOTRACK and pledged to support the newly created Network of Industries within the Urban Track project. On policy related issues, EFRTC continued to push for the opening up of markets in member states and supported policies aimed at increasing the competitiveness of the railway sector.





9. IRIS – INTERNATIONAL RAILWAY INDUSTRY STANDARD

Only two years after the “go live” during the General Assembly 2006 in Geneva, IRIS (International Railway Industry Standard) has become a well known reference for business management systems in the railway industry.

Starting with IRIS Rev00 focused first on Rolling Stock requirements, IRIS Certification further developed with Rev01 which extended the applicability to Signalling products and to design focused companies.

In 2008, IRIS Rev01 was enriched with a set of new requirements tailor made for Maintenance services. Thanks to the addendum released in June 2008, the scheme was improved by several features such as:

- Defining more precise rules for withdrawal of an IRIS Certificate;
- Improving control on product’s documentation and on records;
- Assessing of competency of people;
- Managing of engineering change activities;
- Requiring also a procedure for change management;
- Requiring a process for reviewing requirements related to the product;
- Introducing the awareness of the criticality of the product;
- Assessing and managing the risks of supplying critical products;
- Increasing information required during the purchasing phase;
- Improving communication channels between project stakeholders;
- Requiring a process for customer satisfaction;
- Controlling and reacting on changes impacting the product realisation;
- Controlling of deferred and abnormal work;
- Monitoring external incident reports and taking actions when necessary;
- Introducing new terms and definitions for railway industry tasks.

The Audit-tool is more then ever recognised and appreciated as a very well performing tool and a great help for the Certification Bodies and the auditors. It can still be bought by companies willing to start the certification process to help them put in place the IRIS scheme and assessing it properly before being officially audited. The questionnaire integrated in the Audit-tool is available in 4 languages (English, German, French and Italian).

Update of the Audit-tool:

- Implementing of 11 new questions related to maintenance;
- Updating of 9 existing questions related to maintenance;
- Merging of 12 existing questions;
- Adjusting of maturity level content;
- Aligning of translations.

According to the license agreement signed, the IRIS booklet was translated and published in Russian, Spanish and Czech languages by the respective National Associations and more languages are expected in 2009 with the Rev. 02.



The IRIS Management Centre organised in May 2008 a very successful two day conference in Brussels which gathered more then 200 participants after limitation of the registration because of too high demand. This was the sign

of a worldwide interest toward the high level speakers' messages and the growing success of the IRIS certification scheme.

Furthermore the IRIS Management Centre has been highly involved in the Innotrans event where IRIS had a dedicated corner to distribute material and information and organized an IRIS seminar during the fair.

The IRIS Group throughout its IRIS Advisory Board (IAB) established an IRIS Joint Working Group (IJWG) where Industry and Operators are regularly discussing the evolution and common goals of the IRIS Standard.

Today Operators such as SNCF, RATP, SBB/CFF are part of this working group and are actively participating in the development of the next IRIS Rev02.

During 2008, IRIS Group members attended numerous seminars in Europe and outside (Moscow, Beijing, Shanghai, Tokyo). In Russia, where there is great need for improvement in the rail sector, IRIS-UNIFE signed several cooperation agreements which will lead to the organisation of IRIS awareness sessions in 2009 delivered directly by IRIS Management Centre representatives.

The working group activities were mostly concentrated on the Technical Forum for Improvement and on the IRIS Joint Working Group with the mandate to achieve the IRIS Rev02 by mid 2009.

The IRIS Management Centre organised in 2008 several auditors training sessions in Brussels and abroad. A total of 266 IRIS auditors were approved by the end of the year.

By the end of 2008 the IRIS Portal listed 151 IRIS Certified Companies all over the world and the trend is expected to increase quickly in 2009.



10. 2008 COMMUNICATIONS

UNIFE launches new corporate identity and website

Annual Reception in Brussels

UNIFE takes part in UIC High-Speed

General Assembly

Innotrans

UNIFE takes part at the International Transport Forum

UNIFE launches new corporate identity and website

In July, UNIFE launched its new corporate identity and website. The change in corporate look and feel of the association was in line with the wishes of UNIFE members and has been well received both internally and externally. For the remainder of 2008, UNIFE worked hard at promoting its updated image at events – namely Innotrans, and through advertising and via contacts.



On the new-look UNIFE website homepage, in a partnership with DVV media, visitors can now get live up to the minute rail industry news courtesy of a live feed from Railway Gazette International.

As part of the rollout of the new look and feel UNIFE, in December the association launched a new online e-newsletter. Its publication has already been largely deemed a success as it has resulted in a doubling of traffic to the UNIFE website, which was the objective of the endeavour.

These are just some of the new features www.unife.org and more developments are planned in 2009.

Annual Reception in Brussels

UNIFE hosted its 2008 Annual Reception Cocktail event in Brussels on 22 January 2008. Held in the beautiful Concert Noble venue, in the heart of the European quarter, attendees numbered around 250 and came from industry, academia, the EU institutions and other rail transport stakeholders.

In his address Mr. Pedro Ortun, Director at DG Enterprise at the European Commission stated that the Commission was always in favour of sustainable transport solutions. The Chairman of the European Parliament's Transport Committee Paolo Costa also addressed delegates.



UNIFE takes part in UIC High-Speed

Between 17 and 19 March, UNIFE took part in the UIC high-speed in Amsterdam. UNIFE had been involved in the scientific committee for the organisation of the event to ensure a fair representation of the industry in the conference.

Mr André Navarri, as chairman of UNIFE, took part in the opening session. While recalling the great success of European High Speed he urged the commission to decide on a legal framework where the train is no longer punished with energy taxes and VAT on tickets while the plane receives full tax exemptions on fuel and VAT.

UNIFE presented on the stand a special brochure '*UNIFE at high-speed*' for the event.



General Assembly

UNIFE Members gathered on 19 June 2008 to hold the annual General Assembly of the association. André Navarri delivered his final speech as UNIFE Chairman, recalling the major developments of UNIFE during his Chairmanship. He was then thanked by Heinz-Hermann Thiele for the work he accomplished as UNIFE Chairman.



The major decisions taken by the General Assembly during its meeting were the following:

- The General Assembly adopted UNIFE Annual Report for 2007 and the General Policy Declaration for 2009
- It approved the accounts for 2008 and the budget for 2009. The membership fees for 2009 that are maintained at the level of 2008 were also approved
- Five new members were admitted at UNIFE by the General Assembly: EKE-Electronics, Elta, Funkwerk Information Technologies, Greenbrier Europe, and Scheidt & Bachmann

- UNIFE Statutes were revised by the General Assembly. The main modifications concern the criteria for membership: they specify the conditions of admission by bringing clarifications about the location of the applicant companies and by excluding from admission affiliated companies and country subsidiaries, while also allowing for some flexibility when an applicant does not fulfil all conditions



- Robert Joyeux, Chairman of the Board and CEO of Faiveley Transport
- Manfred Leger, Group Managing Director of Balfour Beatty Rail
- Philippe Mellier, President of Alstom Transport
- André Navarri, President of Bombardier Transportation
- Alberto Rosania, Chairman of the Board of AnsaldoBreda and Ansaldo STS, replaces Roberto Assereto
- Dieter Wilhelm, Member of the Executive Board of Knorr-Bremse AG and Chairman of the Supervisory Board of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, replaces Heinz-Hermann Thiele
- Hans-Jörg Grundmann, CEO of Siemens Mobility was elected as the new UNIFE Chairman for the next three years.

The next UNIFE General Assembly meeting will be held in Warsaw, Poland, on 18 June 2009.

- The new Presiding Board for the next three years was elected. Its members are:
 - James Drummond, President of Invensys Rail Group
 - Jean-Pierre Forestier, Vice-President of Thales Security Services and Solutions and Managing Director of Thales Rail Signaling Solutions
 - Hans-Jörg Grundmann, CEO of Siemens Mobility





Innotrans

In late September, UNIFE took part at the Innotrans convention in Berlin. At this occasion, UNIFE officially presented the new UNIFE corporate identity and branding. UNIFE also partnered with UIC in co-hosting an exhibition stand dedicated to presenting the work of joint EU-funded R&D projects. In addition a special InteGRail project exhibition stand was on display.

As part of UNIFE's Innotrans programme, the association held a special News Conference on 24 September in the Innotrans Press Center. The News Conference was on the findings of the recently published Worldwide Rail Market Study. Andreas Schwillig of Roland Berger Strategy Consultants (the author of the study) and UNIFE Director-General Michael Clausecker presented the study's key findings.

UNIFE and the Association of the German Rail Industry (VDB) co organised the morning session of the Innotrans Convention. These two-hour seminars began on 24 September and concluded on 26 September. All seminars featured eminent speakers from industry and were well attended.



The topics of the seminars were:

1. Technologies Drive Markets – Railway Rolling Stock
2. Technologies Drive Markets – Railway Infrastructure
3. International Rail Industry Standard (IRIS) – A success story.

All presentations are available for download on www.unife.org/innotrans

UNIFE takes part at the International Transport Forum

From 28–30 May, UNIFE took part at the high-level International Transport Forum (ITF) held in the German city of Leipzig. The main theme of the forum was 'the challenge of climate change.' This, the very first ITF seeks to be a worldwide platform for Transport Ministers and Civil Society.

UNIFE in conjunction with fellow associations CER and UIC presented a joint exhibition stand over the 3-day period which was well frequented by delegates. The theme of the stand was:

'One planet, one problem, one solution. Rail Transport.'

Former UNIFE Chairman André Navarri and new UNIFE Chairman Hans-Jörg Grundmann took part in the Ministerial-Industry roundtable panel discussions:

11 UNIFE MEMBERS 2008

List of Full Members

Aceralia/ArcelorMittal
Alcan Extruded Products
Alstom Transport
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Thales Rail Signalling Solutions
Unicontrols
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Voith Turbo
Vossloh
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List of Associated Members

ACRI	Asociace podniků českého železničního průmyslu vyhláší	Czech Republic
Agoria	Federation for the technology industry	Belgium
AIF	Asociația Industriei Feroviare din România	Romania
ASSIFER (ANIE)	Associazione Industrie Ferroviarie, member of Federazione Nazionale Imprese Elettrotecniche ed Elettroniche	Italy
CEMAFE	Asociación Nacional de Constructores Españoles de Material Ferroviario	Spain
Danish Railway Group		Denmark
EFRTC	European Federation of Railways Trackworks Contractors	European Union
FIF	Fédération des Industries Ferroviaires	France
Freight Cars Producers Union		Community of Independent States
Holland Rail Industry		the Netherlands
MAFEX	Asociación Española de Fabricantes Exportadores de Material, Equipos y Servicios Ferroviarios	Spain
RIA	Railway Industry Association	United Kingdom
SIRTS	Stowarzyszenie na rzecz Interoperacyjności i Rozwoju Transportu Szynowego w Polsce	Poland
Swedtrain	Föreningen Svenska Järnvägsindustrier	Sweden
Swissrail	Swiss Rail Industry Association	Switzerland
UCRIFER	Unione Costruttori e Riparatori Ferrotramvia	Italy
VDB	Verband der Bahnindustrie in Deutschland	Germany
Verband der Bahnindustrie		Austria
ZVEI	Zentralverband Elektrotechnik- und Elektronikindustrie	Germany

12. UNIFE STAFF

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13. GLOSSARY

AEIF	European Association for Railway Interoperability
CEN	European Committee for Standardisation
CENELEC	European Committee for Electro-technical Standardisation
CER	Community of European Railways
DMU	Diesel Multiple Unit
EC	European Commission
EIM	European Rail Infrastructure Managers
EMC	Electro-Magnetic Compatibility
EP	European Parliament
ERA	European Railway Agency for Interoperability and Safety
ERRAC	European Rail Research Advisory Council
ERTMS	European Rail Traffic Management System
ERWA	European Railway Wheels Association
ETS	European Trading Scheme
ETSI	European Telecommunications Standards Institute
EU	European Union
FRS	Functional Requirement Specification
GHG	Greenhouse Gas
IEC	International Electro-technical Commission
IRIS	International Railway Industry Standard
JPCR	Joint Programming Committee Rail
JRC	Joint Research Centre
LCC	Life Cycle Costs
MEP	Member of European Parliament
NRMM	Non Road Mobile Machinery
ORS	Operational Requirement Specification
PPPs	Public Private Partnerships
RAM	Reliability, Availability, Maintainability
R&D	Research and Development
S&R	Standard and Regulation
SRG	Standard and Regulation Group
SRRA	Strategic Rail Research Agenda
UIP	International Union of Private Wagons
UIRR	International Union of Combined Road – Rail Transport Companies
TEN	Trans European Networks
TEN-T	Trans-European Networks for Transport
TMP	Technical Management Platform
TSI	Technical Specification for Interoperability
UIC	Union Internationale des Chemins de fer
UITP	International Association of Public Transport

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