unife
THE EUROPEAN RAIL INDUSTRY

Annual Report
2013

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Dear UNIFE Members, Partners and Supporters,

2013 has been quite an exciting and eventful year for UNIFE and the European Rail Industry, and we are pleased at the increased attention rail transport is receiving from the European institutions in the transport arena. The EU is heavily investing in rail in an effort to realise the goals for transport it set in the Commission's 2011 White Paper and in the Horizon2020 Framework Programme for Research and Innovation. In addition to being in the position to help resolve some of the current and expected transport challenges, the world rail industry is led by Europe—with European companies supplying over half of the global demand for rail supplies and services. The activities of UNIFE and its members that you will read about in this report highlight the growing importance of public transport as a means to meet EU transport goals and boost the competitiveness of European industry both within and outside of Europe.

The most notable example of this increased support of rail transport is the European Commission's adoption at the end of 2013 of the proposal for a Council regulation establishing the SHIFT²RAIL Joint Undertaking. In fact, when announcing the initiative in December 2013, European Commission Vice-President Siim Kallas declared that the EU is "tripling the funding for research and innovation in rail." UNIFE and many of its members have been hard at work building support for SHIFT²RAIL—a massive, rail focused EU public-private partnership for rail R&D. The proposed regulation proposes nearly half a billion euros in EU funding for rail research to be matched by the private sector (for a total investment of just under €1 billion) in a structured, sector-wide, comprehensive research initiative that seeks to double the capacity, significantly boost the reliability, and halve the life cycle cost of the European rail system. This programme, which will involve operators, infrastructure managers, research centres, and academia as well, once approved by the EU Council of Ministers and the European Parliament, will enable the European rail industry to maintain its leadership of the global market for rail products and services, boost European innovation, and deliver on the EU's ambitious transport goals. This level of public-private investment in rail is unprecedented, and we are very optimistic on the outcomes for European rail industry growth and competitiveness as well as the positive impact this research will have on the EU's societal challenges.

The negotiations around the Fourth Railway Package continued across 2013 and UNIFE has been strongly advocating for a simplified authorisation regime to be run by the European Railway Agency. Such legislation, once passed, would allow for newer rolling stock to be safely and efficiently placed into service more quickly—significantly reducing the cost and time of authorisation which, at the moment, must occur in every EU country where the rolling stock will operate. In 2013, UNIFE was pleased with significant strides that have been made on this "technical pillar" of the package, such as: the two general approaches on interoperability and safety directives that were reached by the Member States over the course of the year and the December 2013 adoption of reports on the package by the TRAN Committee of the European Parliament. UNIFE will continue to monitor this important piece of legislation and push for its speedy adoption in 2014.

ERTMS continues to grow its implementation across Europe, and UNIFE applauded Germany's announcement at the beginning of 2013 that it would equip its rail freight corridors with ERTMS. Such an announcement will add to the momentum of the system due to the increased interoperability between Germany and its many bordering countries. Globally, ERTMS has experienced huge growth and is now positioned to be the global signaling system—in fact, more than 29000 km of tracks and almost 30000 vehicles are ERTMS equipped outside of Europe. The continuing and upcoming European level initiatives such as the Connecting Europe Facility (up to €1.1 Billion for 2014-2020 ERTMS deployment) and SHIFT²RAIL will continue to develop and encourage implementation of the system globally.

Speaking of Connecting Europe Facility, both this policy and the Trans-European Transport Network (TEN-T) have advanced in the EU with important regulations adopted across 2013, thanks in a large part to the support of Vice-President Kallas and DG-MOVE. These important policies will benefit the industry by providing funds for cross border rail projects.

UNIFE has also had a strong focus on the EU's trade activities, two of the most prominent are the ongoing negotiations for an EU-Japan Free Trade Agreement and the Transatlantic Trade and Investment Partnership (TTIP) with the United States. The trade negotiations with Japan are of particular importance for UNIFE members as an FTA could open the Japanese rail market which is de facto closed to foreign bidders.

At the request of its members, UNIFE has further broadened its relationships with rail associations abroad. Most notably, UNIFE signed a Memorandum of Understanding (MoU) with the American Public Transportation Association and the Non-Commercial Partnership of the Russian Rail Industry (NP-UIRE) in 2013. These MoU's provide a framework for cooperation between UNIFE and these associations and further the access to information on these important markets.

UNIFE continues to play an active role in the coordination of many different European Research and Development Projects under the EU's FP7 Framework. In 2013, UNIFE and many of our members and other rail stakeholders participated in the launch of REFRESCO, NGTC, FOSTER RAIL, and the CAPACITY 4 RAIL, which will serve as lighthouse projects to the SHIFT²RAIL initiative. Please read more in Chapter 6 about the new and ongoing projects, as well those that were concluded in 2013.

Last but not least, IRIS continues to grow its site certifications across the globe with now nearly 940 certifications issued. The UNIFE Presiding Board once again committed to the standard and to the development of quality in the rail supply chain by pledging to ensure all of their suppliers are IRIS certified in the near future.

We would like to extend our appreciation to General Manager, Massimo Marianeschi who left UNIFE at the end of 2013, for all of his hard work and involvement in a broad range of UNIFE activities.

This Annual Report provides a very comprehensive overview of the many projects, activities, issues, and events where UNIFE is active. We would like to thank our members and also the National Associations for all of their hard work and assistance across the year. We are pleased with what was accomplished in 2013 and we look forward to working with our members for an equally productive 2014.

Sincerely,

Henri Poupart-Lafarge,
UNIFE
Chairman

Philippe Citroën,
UNIFE
Director-General

01

UNIFE IN 2013

UNIFE IN 2013

A. UNIFE Mission

MISSION

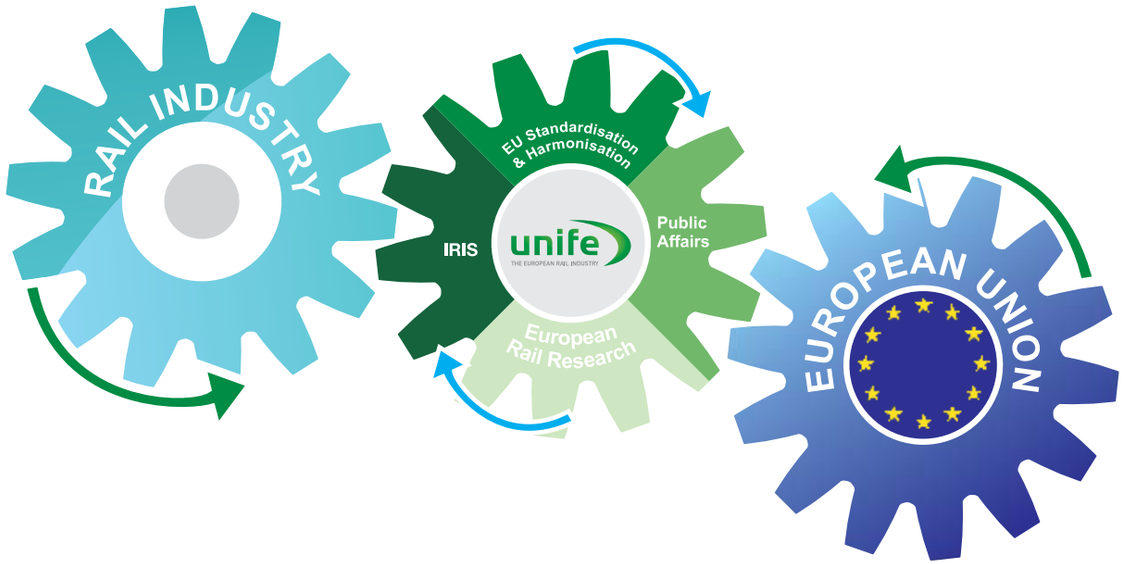
unife
THE EUROPEAN RAIL INDUSTRY

Promote Rail Market Growth For Sustainable Mobility

FOUR PRIORITIES TO ACHIEVE THE MISSION:

1. Promote European policies favourable to rail
2. Shape a European interoperable and efficient railway system
3. Ensure European rail supply industry leadership through advanced research, innovation and quality
4. Provide UNIFE members with strategic and operational knowledge

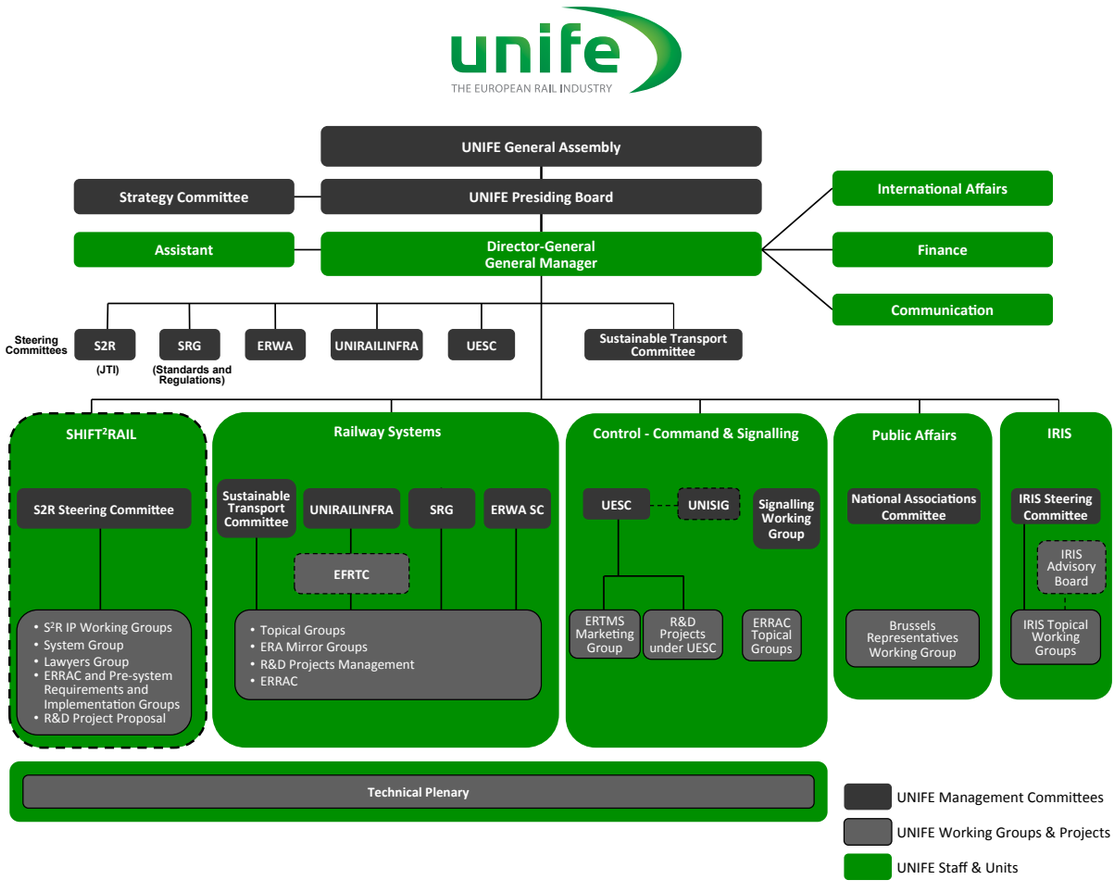
THE FOUR KEY ACTIVITIES OF UNIFE



1. EU Standardisation & Harmonisation
   - Liaison & Collaboration with the European Railway Agency in defining rail regulations (including TSIs)
   - Provide expertise for European and International Standardisation Bodies
   - Promote a Single European Rail Area, interoperable and environmentally friendly
2. Public Affairs
   - Promote modal shift at EU-level
   - Support transport policies that increase the competitiveness of rail
   - Advocating rail transport as best solution to meet social challenges of the future
3. European Rail Research
   - Coordinate EU-funded research projects
   - Active role in ERRAC - the European Rail Research Advisory Council
   - Shaping the future of rail research & innovation in Europe
4. IRIS
   - The **globally recognised standard** for evaluation of business management systems unique to the railway sector
   - Facilitates **efficient and effective business processes** and leads to **substantial cost reduction** throughout the entire supply-chain
   - Currently over **900 IRIS certificates issued worldwide**
   - **www.iris-rail.org**

UNIFE IN 2013

B. UNIFE Structure



C. UNIFE Committees and Groups

The **UNIFE Presiding Board** is the highest UNIFE committee and is accountable for the management of the association. It takes any measure and action required to achieve the objectives and general policies of the association. It submits the admission of new Full and Associated Members to the General Assembly for ratification. The Presiding Board is currently composed of 8 members elected by the General Assembly for three years on the proposal of the retiring Board.

The **UNIFE Strategy Committee** and the UNIFE Technical Committee are the highest UNIFE bodies after the Presiding Board. They steer UNIFE activities, provide expertise and advise UNIFE management in their respective fields of competence: strategic and political issues and preparation of the Presiding Board decisions for the Strategy Committee; standardisation, regulation and research for the Technical Committee. The members of these committees are high-level managers from the most important UNIFE members.

The **UNIFE National Associations Committee** is made up of 15 national associations representing more than 1,000 large and medium-sized rail supply companies from all over Europe. As associated members of UNIFE, they engage in an important exchange, addressing UNIFE positions nationally while bringing national issues to European level. The committee is composed of the directors of 15 national associations from 14 different countries.

The **Brussels Representatives** working group aims at providing a platform to exchange ideas on EU policy dossiers, reflecting on lobbying strategies and identifying potential synergies between UNIFE and EU representatives of the member companies. The group is composed of some EU representatives of UNIFE members in Brussels.

The **Standards and Regulation Group** (SRG) steers UNIFE's technical activities in the fields of the European regulatory framework (the Interoperability Directive, Safety Directive, and all other directives when they are applicable to the European Railway system, as well as the related regulations and Technical Specifications for Interoperability (TSIs)). The SRG also deals with the rail standardisation initiatives (Joint Programming Committee Rail/CEN/CENELEC/ETSI/IEC) and with the management of the UNIFE research projects. The SRG oversees the work of the Topical and Mirror Groups composed by EU experts coming from the UNIFE members and coordinates the interface with all the other technical steering committees. 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** brings together the EFRTC (European Federation of Railways Trackworks Contractors) with suppliers, contractors, and integrators active in the fields of engineering, production, installation,... The Committee provides a platform for consensus building on infrastructure topics at a pre-competitive stage, aiming at promoting investment and innovation in the railway infrastructure sector. Within this context, the purpose of the UNIRAILINFRA Committee is to discuss and promote the development of the rail infrastructure sector. It also plays an advisory role for UNIFE technical and political activities that have an impact on infrastructure. In 2013, the discussions within the UNIRAILINFRA Committee were focused on technical topics such as standardisation and regulation activities (e.g. TSIs Infrastructure and Energy subsystems), and research activities (e.g. European research projects and SHIFT²RAIL). Moreover, INFRABEL (Belgian Infrastructure Manager) and the European Commission, attended UNIRAILINFRA Committee meetings and presented their activities.

Since 1999, the **UNIFE Sustainable Transport Committee** has been a forum for exchanging experiences on sustainability and environmental matters in collaboration with the Public Affairs unit. Considering the increased complexity of environmental and sustainability issues, the competencies of the UNIFE Sustainable Transport Committee have grown. The railway manufacturing industry vision for 2020 is a sustainable intermodal transport system, with railways as the backbone. This Committee acts as coordinator for all environmental matters and provides a platform for consensus-building to formulate common positions. It is supported by several Topical Groups, which provide the technical content on the main dossiers and regularly report to the STC. The Sustainable Transport Committee and its Topical Groups can rely and build upon a long-established cooperation among the rail sector in EU-funded collaborative research projects.

The **ERWA Steering Committee** aims at promoting

usage benefits, life cycle cost improvement and standardisation of railway wheels and wheelsets. The committee is composed of the CEOs of the five European wheels and wheelsets 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 **UNIFE ETCS Steering Committee (UESC)** is in charge of coordinating UNIFE activities in the field of ERTMS, from a strategic and political perspective. It is composed of high-level representatives from the ERTMS suppliers.

The **ERTMS Marketing Group** is in charge of coordinating marketing activities related to ERTMS, in particular deployment statistics, events, common publications and the ERTMS website.

The **Signalling Working Group** provides expertise in the field of signalling to UNIFE. It is a platform for consensus building on signalling-related issues, aiming to promote investment and innovation in the railway signalling sector. It plays an advisory role for UNIFE technical and political activities having an impact on signalling. The committee is composed of representatives from the UNIFE members active in signalling.

The **SHIFT²RAIL Steering Committee** manages the preparation of the proposed Joint Undertaking under Horizon2020 for a step change in European rail technology. It is composed of R&D managers from the 15 companies that founded and invested in the initiative. The SHIFT²RAIL Steering Committee also deals with other R&D project proposals (light house projects to SHIFT²RAIL).

The **IRIS Steering Committee** steers the activities relevant to the promotion and development of the IRIS standard, the globally recognised business management system of the rail sector.

LIST OF UNIFE GROUPS IN 2013

UNIFE Mirror & Topical Groups	UNIFE Network of Technical Experts
Authorisation and Cross Acceptance Mirror Group	Aerodynamics Topical Group
Safety Assurance Mirror Group	Running Dynamics Topical Group
Noise Mirror Group	Brakes Topical Group
PRM (Persons with Reduced Mobility) Mirror Group	Cab Topical Group
Energy Mirror Group	TCMS (Train Control Management System) Topical Group
Infrastructure Mirror Group	SRT (Fire Safety) Mirror Group
Rolling Stock Mirror Group	TAP & TAF (Telematic Application for Passengers Freight) Mirror Group
Crash Safety Topical Group	Wagon Mirror Group
EMC (Electromagnetic Compatibility) Mirror Group	ECM (Entity in Charge of Maintenance) Mirror Group
Diesel Topical Group	LCC (Life Cycle Cost)

You may read more about the activities of the UNIFE Groups in Chapter 6: Standards and Regulation, Section B. Topical and Mirror Groups.

D. UNIFE Presiding Board in 2013

Henri Poupart-Lafarge
Chairman of the Presiding Board
President,
Alstom Transport

The present UNIFE Presiding Board was elected at the UNIFE General Assembly 2011 for a three-year term (2011-2014). The incumbent chairman is Henri Poupart-Lafarge, President of Alstom Transport.

Thierry Barel
Member of the Presiding Board
Chairman and CEO,
Faively Transport

Lutz Bertling
Member of the Presiding Board
President and Chief Operating Officer,
Bombardier Transportation

Sergio De Luca
Member of the Presiding Board
CEO,
Ansaldo STS (also representing AnsaldoBreda)

Jochen Eickholt
Member of the Presiding Board
CEO,
Siemens Rail Systems Division

Jean-Pierre Forestier
Member of the Presiding Board
Senior Vice-President in charge of Transportation Systems,
Thales Group

John Moore
Member of the Presiding Board
CEO,
Balfour Beatty Rail

Dieter Wilhelm
Member of the Presiding Board
Member of the Executive Board,
Knorr-Bremse AG

SHIFT²RAIL

INCREASED CAPACITY, CONSOLIDATED RELIABILITY FOR EFFICIENT AND SUSTAINABLE RAIL TRANSPORT AND A COMPETITIVE EUROPEAN RAIL INDUSTRY

A Flagship Joint Technology Initiative in Horizon 2020

02

A. SHIFT²RAIL: the Joint Undertaking to Build the Railway System of Tomorrow

> **"This investment [SHIFT²RAIL] will allow for a major industrial effort, combining public and private funding from throughout the whole rail sector, to develop strategic technologies and solutions that will help to strengthen the competitiveness of European businesses and retain Europe's leadership in the global rail market."**
>
> Máire Geoghegan-Quinn, Commissioner for Research, 16 December 2013

SHIFT²RAIL is the first European initiative to deliver focused Research & Innovation (R&I) and market-driven solutions by accelerating the integration of new and advanced technologies into innovative rail product solutions, meeting key objectives of the **EU 2020 Strategy** and the EU Transport policy.

SHIFT²RAIL IS AN UNPRECEDENTED JOINT EFFORT OF ALL THE STAKEHOLDERS OF THE EUROPEAN RAIL SECTOR TO INVEST TOGETHER IN RESEARCH AND INNOVATION IN ORDER TO:

1. Reinforce the **attractiveness of rail transport** toward passengers and business; and therefore achieve the ambitious objectives set:
   - by the European Commission in the 2011 White Paper on Transport
   - by the whole rail sector in the ERRAC RailRoute2050
2. Increase the **competitiveness of the European rail industry** in a world of ever fiercer competition with Asian companies
3. Create and preserve **high-quality jobs in Europe**.

FOR THIS PURPOSE, SHIFT²RAIL WILL FOCUS ON THREE MAJOR CHALLENGES:

1. **CAPACITY**
   Enhancing the capacity of the European rail system in order to cope with increased passenger and freight demand
2. **RELIABILITY/QUALITY OF SERVICES**
   Increasing reliability of next generation products and solutions to attract passengers and businesses to use rail transport
3. **LIFE CYCLE COSTS REDUCTION**
   Reflecting the need to reduce rail ticket/shipment costs for users and public subsidies for the tax payer)

AND ON ALL SEGMENTS OF THE RAIL MARKET!

High speed / Mainline

Regional

Urban / Suburban

Freight

The multiannual budget of SHIFT²RAIL will be jointly funded by the private sector and the European Union. At the time of writing this report, the EU financial contribution is still a matter of discussion within the European Institutions.

B. Why launching such a large-scale EU research initiative?

The companies supporting SHIFT²RAIL consider that maintaining the status quo for rail research in Europe is not an option. Global leadership can only be maintained if a critical mass of committed EU industry joins forces to develop innovative, high-capacity, and high-quality products. **Capitalising on the previous success of the rail sector in EU-funded collaborative research projects** since the mid-1990s, **the ambitious goals of EU transport policy and climate change will be met.** SHIFT²RAIL is the natural evolution of **EU industrial research cooperation in Horizon 2020.**

C. What will SHIFT²RAIL concretely deliver?

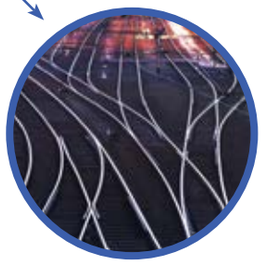
Clear research priorities have been established in a four-year investigation period by the European rail industry and the wider rail community. The result is a long-term strategic programme built around key research clusters segmented in **five Innovation Programmes** (IPs).

IP1: Energy & Mass Efficient Technologies for High Capacity Trains

IP2: Advanced Traffic Management & Control Systems

IP5: Technologies for Sustainable & Attractive European Freight

IP4: IT Solutions for a Seamless Attractive Railway

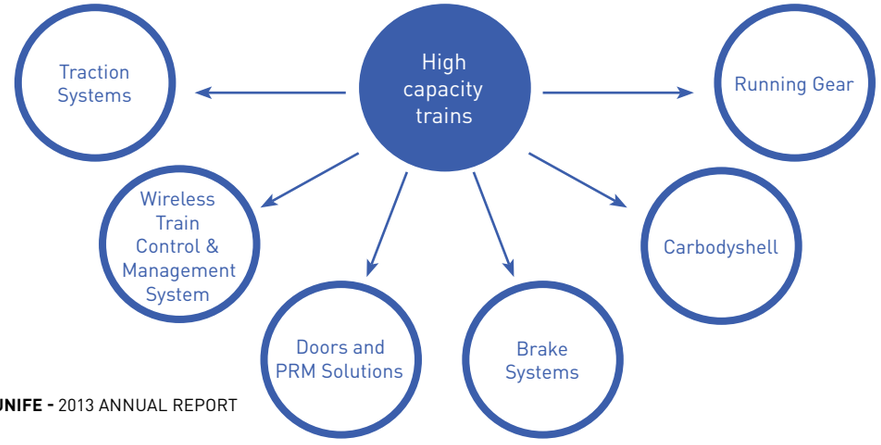


IP3: Cost Efficient High Capacity Infrastructure

For each Innovation Programme, so-called **Technology Demonstrators**, each addressing specific topics, have been defined. They will integrate innovative technologies and develop lab-tested prototypes to generate future competitive sub-systems. This research activity will take into account functional and operational specifications as well as the interfaces among the various subsystems.

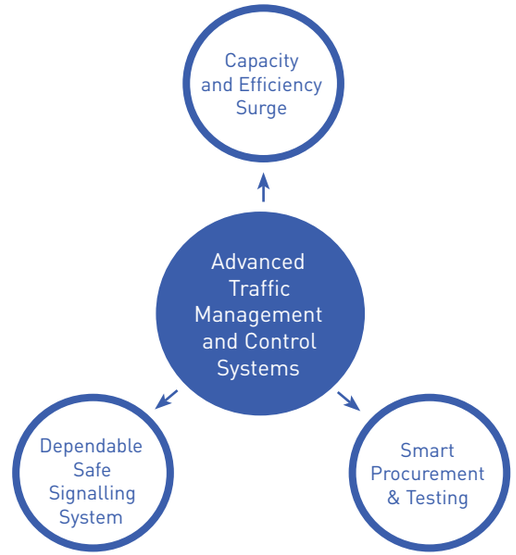
IP1 – ENERGY AND MASS EFFICIENT TECHNOLOGIES FOR HIGH CAPACITY TRAINS

Comprehensive and systematic re-evaluation of the structure and on-board systems in order to boost capacity, efficiency, and sustainability of all types of passenger rolling stock.



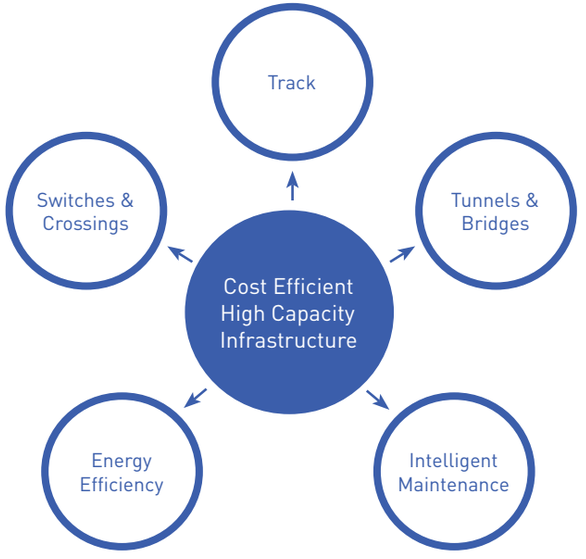
IP2 – ADVANCED TRAFFIC MANAGEMENT AND CONTROL SYSTEMS

Building on existing ERTMS/ETCS specifications, interoperability across the EU network – including urban rail networks (CBTC) – is increased and research is dedicated to keeping ERTMS technology ahead of the competition.



IP3 – COST EFFICIENT, HIGH CAPACITY INFRASTRUCTURE

Offers a comprehensive and systematic approach to improving the durability, capacity and efficiency of track and energy systems to cope with increased train traffic and speeds.

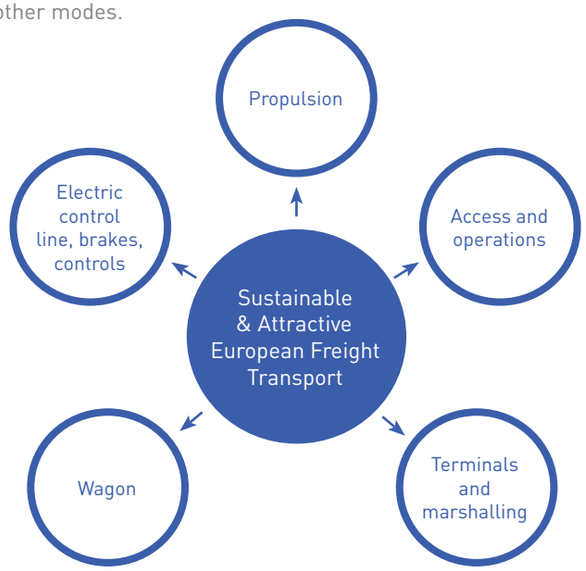


IP4 – IT SOLUTIONS FOR SEAMLESS ATTRACTIVE RAIL

Fosters inter-modal passenger transit across Europe with an attractive and efficient conventional as well as urban rail network, and smart connections to road and aviation networks.

IP5 – TECHNOLOGIES FOR SUSTAINABLE AND ATTRACTIVE EUROPEAN FREIGHT

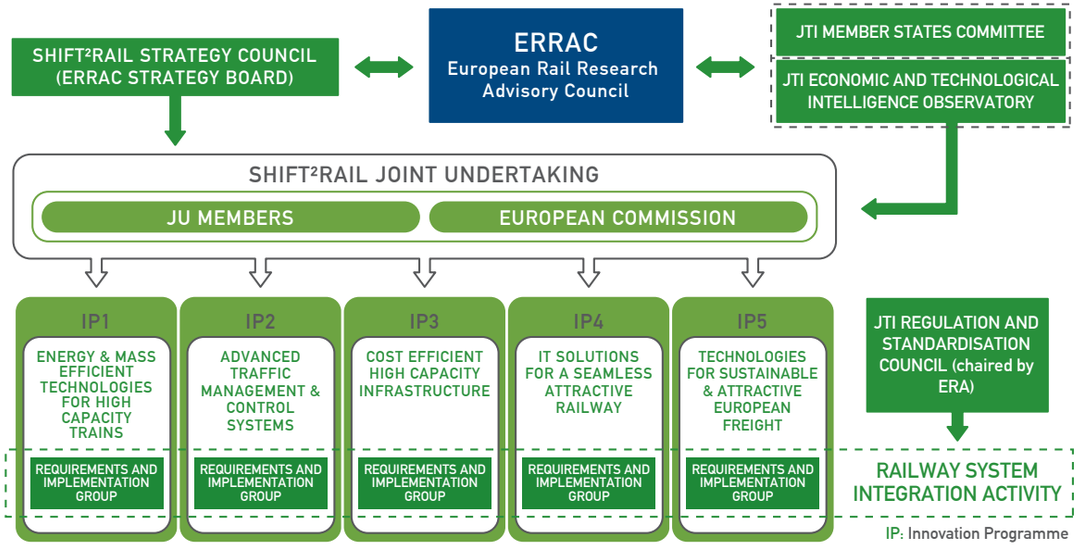
Improves door-to-door transport time, security, and traceability, thereby demonstrating a real business case for smart interoperable rail freight that offers reliable, competitive, sustainable, flexible transport services that are efficiently interfaced with other modes.



All innovations from the Innovation Programmes will be validated, tested, and integrated in a **real rail environment** to demonstrate the expected benefits at system level. Four of these 'System Platform Demonstrations' will be developed on **high speed/mainline, urban/suburban, regional, and freight train** platforms.

D. Structure of SHIFT²RAIL

SHIFT²RAIL is a single coherent and flexible research instrument which will be **managed jointly by the European Commission and the Industry in a Joint Undertaking under Horizon 2020** to address the societal challenge of transport and reinforce the global competitiveness of European rail industries.



The European Rail Research Advisory Council (**ERRAC**) – which brings together all major European rail stakeholders – will play a key role in the SHIFT²RAIL governance. Future ERRAC Strategy Board Members – including key players such as UIC, UITP and UIP – are notably intended to form the SHIFT²RAIL Strategy Council. The **European Railway Agency** (ERA) will also have a particular role in the Joint Undertaking and will chair the JTI Regulisation and Standardisation Council.

E. Who has already been participating in the initiative?

As of the end of November 2013, **22 major rail stakeholders** are currently signatories of the SHIFT²RAIL Memorandum of Understanding (MoU) – with UNIFE as coordinator – thereby committing themselves to a long-term investment in the future of European rail research.

More than **50 additional companies** – be they **industrial partners**[1] or **railway undertakings, infrastructure managers** or **urban operators**[2] – have also joined the initiative and have been bringing their expertise in the framework of the technical preparatory phase.

Last but not least, **17 Research organisations**[3] have already been actively participating in the preparatory phase. Their participation is extremely important since a significant part of the SHIFT²RAIL budget will be managed through open calls for proposal, encouraging indeed the participation of SMEs, clusters, Research Institutes and Academic Institutions that will collaborate with those signatory companies that are best placed to facilitate the take-up of results.

[1] Aernnova, BAM Rail, CEMOSA, Comsa-Emte, Consorzio IBI, D'Appolonia, ELH, Enotrac, ETF, Evoleo, FCC, Ferrovial, Indra, Ineco, Interporto Bologna, OHL, Rhomberg Sersa, Robosoft, Saft, Skoda, Strabag rail, Systra, TataSteel, Technosite, Unicontrols, VibraTec, VUKV, Wascosa and Wiebe

[2] ADIF, DB, FSI, Network Rail, SNCF and Trafikverket as well as the urban operator Wiener Linien

[3] CEFRIEL, DLR, Fraunhofer-Institute, Huddersfield University, IK4, IK Railway Institute, KTH Royal Institute of Technology, La Sapienza (Università di Roma), Lulea University of Technology, Newrail/Newcastle University, Nottingham university, Polimi, Fondazione Politecnico di Milano, Politecnico di Torino, RSSB, University of Genova and Virtual Vehicle Competence Centre

F. 2013: Overview of a year of intense work for the benefit of SHIFT²RAIL

The year 2013 was characterised by the important work carried out by UNIFE – the project coordinator – and the SHIFT²RAIL promoters regarding both the continuous refinement of the content of the technical proposal and the need to inform stakeholders throughout Europe and convince decision-makers about this strategic initiative.

This intense work has been rewarded in June 2013 by the decision of both Vice-President Kallas and EU Commissioner Geoghegan-Quinn to officially endorse the SHIFT²RAIL initiative both politically and financially – hence the high involvement of the Commission during the 2nd semester 2013 to prepare the EC legislative proposal.

On 16 December 2013, SHIFT²RAIL was formally adopted by the European Commission with the publication of the Proposal for a Council Regulation establishing the SHIFT²RAIL Joint Undertaking. The Commission proposes €450 Million of funding to be matched by the private sector, bringing the total budget to just under €1 Billion.

RAISING RAIL STAKEHOLDERS' AWARENESS THROUGHOUT EUROPE

IN 2013 UNIFE AND SHIFT²RAIL PROMOTERS HAVE TAKEN PART IN NUMEROUS NATIONAL INFORMATION EVENTS ON SHIFT²RAIL THROUGHOUT EUROPE IN ORDER TO:

1. Present the initiative;
2. Encourage stakeholders to participate in the preparation phase (by signing a MoU which allows participation in the technical working groups);
3. Help stakeholders to anticipate and get ready for the future R&I activities.

UNIFE General Manager Massimo Marianeschi presenting SHIFT²RAIL to the network of European Railway Clusters (ERCI) in Dresden on 28 May

UNIFE Director-General Philippe Citroën presenting SHIFT²RAIL at a national information event in Warsaw on 9 April

With the active and appreciated support of national rail industry associations, SHIFT²RAIL was officially presented this year to stakeholders in Austria, Bulgaria, the Czech Republic, Denmark, Estonia, France, Germany, Hungary, Ireland, Italy, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and the United Kingdom; and workshops are already due to take place early 2014 in Belgium, Latvia and Greece (in the framework of the upcoming Greek Presidency of the EU).

These national information events have systematically demonstrated the high interest of the whole rail community for the initiative (with an important

attendance from all players: SMEs, railway undertakings, infrastructure managers, urban operators, universities, research institutes, etc.)

Aside from the numerous national workshops, information on SHIFT²RAIL has also been even more widely circulated thanks to the launching this year of a new dedicated website: **www.shift2rail.org**. The website provides comprehensive information on the rationale and the research priorities of the initiative. It also shows an animated video presenting what the European rail system will look like in the future thanks to SHIFT²RAIL.

CONSIDERABLY ENLARGING THE CONSORTIUM OF PROMOTERS

As a consequence of this extensive information campaign, numerous new partners from all over Europe have signed a Memorandum of Understanding to join the initiative and actively participate in the preparatory phase (see previous paragraph: "Who has already been participating in the initiative?").

Moreover, since SMEs will definitely play a key role of in the future programme, UNIFE has also established a fruitful cooperation with numerous European railway clusters, both on an individual basis and through the European Railway Clusters Initiative (ERCI) which brings together 9 major railway clusters and hundreds of SMEs from various parts of the continent. UNIFE signed a specific Memorandum of Understanding with ERCI and has committed to regularly inform these clusters and their members (SMEs, research centres, universities, etc.) about the state of play of the initiative.

Furthermore UNIFE has also informed and worked closely with the European scientific community. In addition to the large number of Research organisations addressed during national information events on SHIFT²RAIL, UNIFE has also launched discussions with the European Rail Research Network of Excellence, EURNEX; an association which brings together 47 European institutes with particular expertise in rail research.

IMPROVING THE TECHNICAL PROPOSAL

Also in 2013, UNIFE and the enlarged consortium of SHIFT²RAIL promoters continued to refine the content of the proposal – originally submitted to the Commission in July 2012. A first comprehensive Addendum – providing answers to the questions raised by the Commission in October 2012 – was handed out to the Commission in January 2013. During the 2nd semester of 2013, UNIFE coordinated the in-depth input of hundreds of engineers resulting in detailed Technical Annexes that were submitted in December this year to the European Commission.

CONTRIBUTING TO THE PREPARATION BY THE EUROPEAN COMMISSION OF ITS LEGISLATIVE PROPOSAL

Following the decision of both Vice-President Kallas and EU Commissioner Geoghegan-Quinn to officially endorse the SHIFT²RAIL initiative both politically and financially, the European Commission spent the 2nd semester of 2013 preparing its legislative proposal. The Commission therefore launched between June and September an online public consultation on a "proposal for an EU coordinated approach to R&I in the rail sector under Horizon 2020

Stakeholder hearing on SHIFT²RAIL organised by the European Commission on 12 September in Brussels

in support of the completion of the Single European Railway Area". This consultation was open to all public and private stakeholders and proved to be very successful regarding the high mobilisation of stakeholders and citizens throughout the EU. The European Commission received more than 370 responses from all over Europe, a broad majority of which voiced strong support for the launch of such an EU-wide initiative. Also, a large majority of the responses clearly described the Joint Undertaking as the most efficient instrument for delivering ambitious R&D results in the rail sector. For their part, UNIFE and the SHIFT²RAIL promoters actively took part in this online public consultation as well as they participated in large numbers in the stakeholder hearing organised by the Commission on 12 September.

Besides these important highlights, UNIFE staff took part in numerous productive meetings with the European Commission – be it with DG Mobility and Transport, DG Research and Innovation or DG Enterprise and Industry – as well as with the European Railway Agency (ERA) which will certainly have a key role to play in the initiative's future organisation. An important meeting with all interested DGs of the Commission and the ERA notably took place on 27 September and was the occasion for SHIFT²RAIL promoters to demonstrate how SHIFT²RAIL will contribute to the policy goals of the Commission in various fields: Transport, Industrial policy, R&I policy, Environment and Climate action, Digital agenda, etc.

CONTINUING EFFORTS TO CONVINCE DECISION-MAKERS THROUGHOUT EUROPE

UNIFE has continued to lead an important information campaign in order to raise the awareness of EU decision-makers about SHIFT²RAIL. A large number of meetings was organised throughout the year – in Brussels and in a lot of Member States – with Cabinets of Commissioners, Members of the European Parliament and national Ministers (e.g. Bulgaria, Estonia, France, Ireland, Lithuania, Poland, Romania and Slovenia).

ITRE Chair MEP Amalia Sartori speaking at the diner on SHIFT²RAIL at the European Parliament on 24 September

SHIFT²RAIL was also presented to the Members of the European Parliament by UNIFE Chairman Henri Poupart-Lafarge during a Rail Forum Europe event on 18 February and during a dinner organised at the Parliament on 24 September by ITRE Chair Amalia Sartori and ITRE Vice-Chair Patrizia Toia.

G. 2014: last steps towards fulfilment

The European Commission published the proposal for a Council Regulation establishing the SHIFT²RAIL Joint Undertaking in December 2013. The SHIFT²RAIL promoters are therefore placing great hope in the European Parliament and the Council – chaired by the Greek Presidency – so that a final political agreement on SHIFT²RAIL will be reached before the end of the Greek Presidency in June 2014.

For more information and updates on SHIFT²RAIL, visit the website **www.shift2rail.org.**

03

EUROPEAN AFFAIRS

A. Fourth Railway Package – towards a more efficient railway sector

B. TEN-T and Connecting Europe Facility – Europe's transport backbone

C. Cohesion Policy and Rail Investments in Central and Eastern Europe

D. Level playing field on the global rail market - the Public Procurement Instrument

E. The rail industry is committed in the fight against climate change

F. Non-Road Mobile Machinery (NRMM) Directive

G. UNIFE contributes to the success of Rail Forum Europe

A. Fourth Railway Package – towards a more efficient railway sector

At the beginning of the year, on 30 January 2013, the European Commission published its long-awaited proposal on the Fourth Railway Package. The Fourth Railway Package is a set of six legislative documents which aim to create the Single European Railway Area in order to increase the efficiency of rail transport in Europe by introducing and facilitating competition in the railway sector and by lowering administrative, technical, and operational barriers to efficiency.

The so-called Technical Pillar of the Fourth Railway Package is of great importance for the European rail industry. It addresses the crucial issue of authorisation procedures in Europe. Currently, cumbersome authorisation procedures cost our industry millions of Euros. The Technical Pillar of the Fourth Railway Package offers the opportunity to change this by creating a European authorisation process with the European Railway Agency as a one-stop-shop for authorisations, making multi-country authorisations simpler and more predictable.

Brian Simpson, MEP

"There is no reason to be scared of giving increased powers to ERA. We must work together to highlight the needs of the European rail industry"

During the course of 2013, UNIFE actively contributed to the heated debates around this fundamental piece of legislation to support the Commission's proposal. In close cooperation with its members and its national associations UNIFE started a restless campaign in Brussels and in the member states to promote the Technical Pillar and make the sector more efficient. UNIFE met members of the European Parliament, the European Commission and the Commissioner for Transport, ministries and representatives of member states, it reached out to the press and cooperated with other associations active in the field of transport, most notably the association of the railway operators, CER.

Thanks to our lobbying campaign, the Technical Pillar overcame a number of hurdles. After a disillusioning and discouraging debate in the Transport Council on 11 March 2013, UNIFE, along with other rail associations, managed to turn the tide by supporting the process of finding a compromise on the Interoperability Directive in June 2013. Our lobbying campaign also helped overcome the obstacles that were in the way of a general approach on the Safety Directive in October so that an agreement could be found at the Council. At the time of writing we are doing everything possible to support the Council in their work on the ERA Regulation, but there is little hope to reach a general approach during the Lithuanian Presidency.

Gesine Meissner, MEP

"ERA should act as a supervisor for NSAs and free movement of people and freight should be a priority"

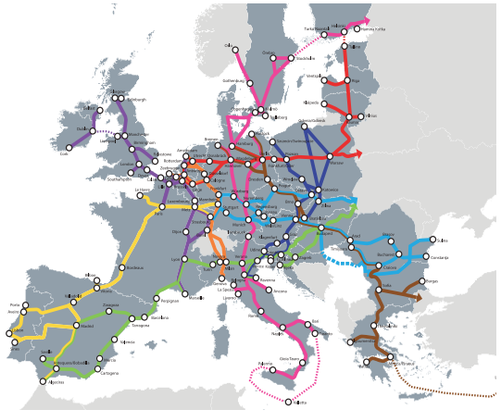
In parallel we are actively engaging with the European Parliament to obtain a favourable position of this institution, with the objective of having the Technical Pillar adopted as early as possible, preferably still in the first half of 2014.

B. TEN-T and Connecting Europe Facility – Europe's transport backbone

In June 2013, the Council and the European Parliament reached an agreement on the new guidelines for the Trans-European Transport Network (TEN-T). The new regulation, which will replace the current guidelines last updated in 2010, introduces in particular a new double-layer structure distinguishing between a core network to be put into place as a priority and a comprehensive network to be completed later on.

The compromise covers issues such as the establishment of a binding deadline of 2030 for the completion of the core network and an aspirational deadline of 2050 for the comprehensive network, the concept of corridors as an instrument for the implementation of the core network and exemptions from the core network infrastructure requirements for railways in regard to the ERTMS and line electrification.

The agreement on TEN-T was complemented by a compromise on the text for the Connecting Europe Facility (CEF) also reached in June 2013. The CEF is part of the package proposed in the context of the next MFF (Multiannual Financial Framework). It lays down the general rules for granting the Union financial aid in the field of the trans-European transport, energy and telecommunication networks, replacing the existing legal basis.



Both agreements on TEN-T and CEF were endorsed by the European Parliament in November 2013. The CEF makes €26 billion available for transport infrastructure, which triples the financing currently available to support the new TEN-T core network development.

This financing will stimulate further investment by Member States to complete difficult cross-border connections and links which might not otherwise be built. The cost for implementing the first financing phase for the TEN-T core network, for the period 2014–2020, is estimated at € 250 billion. The core network is set to be completed by 2030.

80 TO 85% OF CEF FINANCING WILL BE USED TO SUPPORT:

1. Core network projects: priority projects along the 9 implementing corridors on the TEN-T core network. Funding will also be available for a limited number of other section projects of high European added value on the core network.

2. Horizontal projects: mostly IT related, such as SESAR (the technological dimension of the Single European Sky Air Traffic Management System), or ERTMS (the European Rail Traffic Management System), both essential elements of all transport corridors in the EU.

C. Cohesion Policy and Rail Investments in Central and Eastern Europe

The low absorption of European funds in some of the new EU member states remains a strong concern for UNIFE. Several new member states are not investing the available funds efficiently into railway projects, leaving the rail infrastructure and rail transport in a deplorable state of underinvestment in many countries. This is often due to either administrative incapacity or a lack of political will. The latter is also reflected in the fact that many member states prefer to invest funds in new roads rather than in rail infrastructure. Of course, UNIFE cannot make the necessary broad-scope changes in administration of the countries in question; however, in 2013 UNIFE continued its campaign to improve EU investments into rail in the new member states. To that end, UNIFE along with CER, organised a seminar in Zagreb in June 2013 which brought together the Croatian railway undertaking and the infrastructure manager with experts and other practitioners in the field of rail investments, such as the Polish infrastructure manager PLK. The objective of the meeting was best-practice exchange between decision-makers on this issue and it also presented a good opportunity for our members to get access to high-level representatives of their clients in the region. Furthermore, UNIFE met decision-makers of DG REGIO on the issue of funds absorption, to discuss possible ways to reform but also to discuss more concretely the operational programmes.

UNIFE was very active in supporting the developments of legislation for the Cohesion Policy Package that will govern the European funds in the period of 2014 to 2020. The legislation will enter into force in early 2014.

D. Level playing field on the global rail market - the Public Procurement Instrument

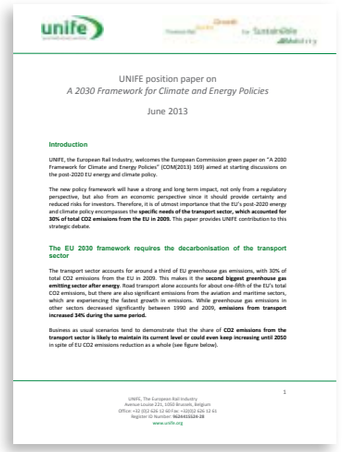
In March 2012, the European Commission published its long-awaited proposal to promote a level playing field on the global rail market, which is of particular importance when it comes to the railway sector. While UNIFE member companies supply an estimated 50% of the worldwide production of railway equipment and services, European rail suppliers experience different levels of openness when trying to establish themselves in non-European markets and sometimes face significant barriers to public procurement in their daily operations. These barriers, which result in missed business opportunities for the European industry, strongly contrast with the situation in Europe, where public procurement rules are fully transparent and open as per the EU public procurement legislation.

Under the proposal made by the European Commission, foreign bidders could be excluded from European tender procedures under certain conditions, should no reciprocal access be granted to European suppliers. Through its position paper released in October 2012, UNIFE supported the European Commission's proposal to increase incentives for EU's trading partners to open up their procurement markets to European bidders. In 2013, negotiations progressed in spite of strong divisions within Council. On the European Parliament side, encouraging signals were sent by the INTA (International Trade) and IMCO (Internal Market and Consumer Protection) Committees during their respective votes on the regulation. UNIFE has advocated for the swift enforcement of the public procurement instrument in order to achieve a level playing field on the global rail market.

E. The rail industry is committed in the fight against climate change

2030 FRAMEWORK FOR CLIMATE AND ENERGY POLICIES

While the EU is making progress towards meeting its climate and energy targets for 2020, the European Commission has launched a reflection on an integrated policy framework for the period up to 2030. In March 2013, a Green Paper entitled "A 2030 framework for Climate and Energy Policies" was released in order to consult stakeholders on lessons learnt and relevance of current targets in the perspective of the 2030 framework.
In June, UNIFE participated in the public consultation and raised attention to the critical importance and characteristics of the transport sector, where greenhouse gas emission have continued to increase over the last two decades and accounted for 30% of total EU emissions in 2009. Considering strategic commitments for 2050 taken at EU level such as the 2011 Transport White Paper, UNIFE recommended that the focus for the future 2030 framework should be set on CO2 emissions reduction. Furthermore, UNIFE called for legally binding emissions reduction targets for individual industrial sectors, according to their specific characteristics and mitigation potential.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UNIFE position paper on
A 2030 Framework for Climate and Energy Policies

June 2013

Introduction

UNIFE, the European Rail Industry, welcomes the European Commission green paper on "A 2030 Framework for Climate and Energy Policies" (COM(2013) 169) aimed at starting discussions on the post-2020 EU energy and climate policy.

The new policy framework will have a strong and long term impact, not only from a regulatory perspective, but also from an economic perspective since it should provide certainty and reduced risks for investors. Therefore, it is of utmost importance that the EU's post-2020 energy and climate policy encompasses the **specific needs of the transport sector, which accounted for 30% of total CO2 emissions from the EU in 2009.** This paper provides UNIFE contribution to this strategic debate.

The EU 2030 framework requires the decarbonisation of the transport sector

The transport sector accounts for around a third of EU greenhouse gas emissions, with 30% of total CO2 emissions from the EU in 2009. This makes it the **second biggest greenhouse gas emitting sector after energy**. Road transport alone accounts for about one-fifth of the EU's total CO2 emissions, but there are also significant emissions from the aviation and maritime sectors, which are experiencing the fastest growth in emissions. While greenhouse gas emissions in other sectors decreased significantly between 1990 and 2005, **emissions from transport increased 34% during the same period.**

Business as usual scenarios tend to demonstrate that the share of **CO2 emissions from the transport sector is likely to maintain its current level or could even keep increasing until 2050** in spite of EU CO2 emissions reduction as a whole (see figure below).

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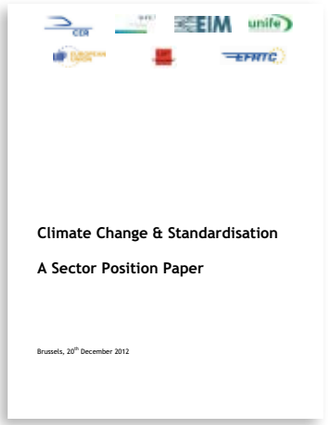
UNIFE will keep monitoring the discussions taking place following the European Commission's legislative proposal to ensure that the 2030 Framework for Climate and Energy Policies is ambitious enough with respect to CO2 emissions reduction, especially in the transport sector.

CLIMATE CHANGE ADAPTATION

Climate change will have an impact on the European transport system affecting all modes of transport as a significant change in weather conditions (i.e. more extreme weather events) is foreseen in the future.

Measures have to be taken to reduce climate change by decreasing emissions in order to reduce the effects of global warming; however, initial steps still need to be made to adapt to climate change by preparing measures and methods for a robust European transport system.



In 2009 the European Commission proposed the White Paper "Adapting to climate change: Towards a European framework for action" (COM (2009) 147 final) in order to mitigate the damage arising from climate change and establish guidelines to prepare Europe for the impact of climate change.

UNIFE and other like-minded rail associations (CER, UIC, EIM, UIP, UITP, EFRTC) believe that no changes in the present regulatory framework are needed to effectively address the challenge in the foreseeable future. Any adaptation of the European rail Standardisation landscape including defining a target system with design parameters and limit values shall be based upon well-focused research and development activities agreed by the rail sector, such as the ERRAC Roadmap and SHIFT²RAIL. Only the existing rail standardisation framework should be revised to take climate change resilience into account.

The overall process should begin as soon as possible and be carried out by 2020, as estimated in the ERRAC Roadmap. The implementation will follow immediately afterward and needs to be encouraged and supported by the EU member states.

REGULATION ON ALTERNATIVE FUELS

Alternative fuels for sustainable mobility in Europe are urgently needed to break the dependence of European transport on oil and reduce the greenhouse gas emissions of the transport sector, which still account for at least 30% of total EU emissions. In January 2013, the European Commission proposed a Directive on the Deployment of Alternative Fuels Infrastructure related to electricity, hydrogen, biofuels and natural gas. The Directive requires Member States to adopt national policy frameworks and suggests setting binding targets for the build-up of alternative fuel infrastructure, including common technical specifications.

Following this proposal, UNIFE joined the Platform for the Electrification of Surface Transport with CER, Alstom and other stakeholders involved in sustainable mobility. Within the Platform, a position paper was released in June, advocating inter alia the promotion of multimodality with respect to public transport and rail. Based on a suitable integration of electric vehicle recharging points with public transport and railway stations, positive incentives for multimodality should indeed be given in order to promote a new and more sustainable transport system. However, this integration needs to respect both the operational needs and the financial balance of public transport and railway actors.

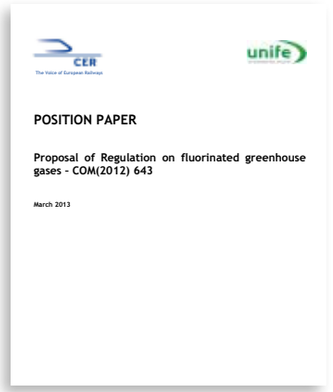
During the negotiations, a number of outreach actions were launched towards co-legislators to promote alternative fuels, bearing in mind that further electrification outside urban transport is also necessary to ensure a reliable, affordable and sustainable energy supply.

Gesine Meissner, MEP

"The vision of the Platform is to aim for fully electrified door-to-door multimodal transport solutions. This is an exciting prospect for European citizens and businesses, with significant growth and employment prospects"

REGULATION ON FLUORINATED GASES

While they account for 2% of the EU's overall greenhouse gas emissions, Fluorinated gases (F-gases) emissions have risen by 60% since 1990 and have a global warming effect up to 23 000 times greater than CO2. Hydrofluorocarbons (HFCs) are the most common group of F-gases and are widely used, including in the rail sector (refrigerants in refrigeration, air-conditioning equipment, etc.). As part of its policy to combat climate change, the European Union has taken action to control F-gases through a regulation passed in 2006. In November 2012, the European Commission, however, made a proposal to replace the existing regulation on certain fluorinated greenhouse gases in order to discourage the use of F-gases with a high impact on the climate and further improve the containment and end-of-life treatment of equipment that contain F-gases. The proposed regulation aims to reduce F-gas emissions by two-thirds of today's levels by 2030.



Following the European Commission's proposal, UNIFE and CER released a common position paper in March 2013. The proposal intends to reduce the overall use of certain fluorinated gases as of 2016 in order to reach 21% of the levels sold in the period between 2008-2011 by 2030. The position paper explains that this would lead to a likely reduction in the availability of the use of gases used in Heating and Ventilating Air Conditioning (HVAC) systems of rail vehicles, without having provided a safe, technically and economically feasible drop-in alternative to the ones currently in use. Despite the numerous attempts by the industry to produce a genuine drop-in alternative to HydroFluoroCarbon HFC-134a, such a solution is still not available on the market. The only alternative available to this day is the HydroFluoroOlefin HFO-1234yf, and the compound is not safe for operation due to its flammable nature. It is therefore impossible to use it in trains as it is contrary to essential safety requirements of the Interoperability Directive.

Since railway vehicles are built for long-term use, the railway sector will have to face massive problems if supplies of HFC-134a are reduced (train operation, retrofitting costs of existing systems and installation of new equipment, increased costs for the equipment maintenance etc.). UNIFE and CER have therefore repeatedly advocated that the phase-down process should be secured by a corresponding migration strategy to safe alternatives.

SUSTAINABLE FREIGHT TRANSPORT

In April 2013 the European Commission published a new proposal to formalise the cross-border use of megatrucks between neighbouring countries. The legislative proposal will allow vehicles which exceed the current European truck limits of 40 tonnes and 18.75m in length to cross borders between countries if both countries agree.

UNIFE is part of a broad coalition of stakeholders advocating sustainable policies, such as modal shift, and therefore opposing cross-border circulation of megatrucks in order to achieve the targets set in the European Commission's 2011 White Paper on Transport.

The rail sector believes that their use in this way will start a process that will inevitably lead to a "domino effect"

and, in time, their general use across Europe. Furthermore, this approach is contrary to the Commission's own agenda for modal shift from road to rail transport, most recently set out in the 2011 Transport White Paper which stated a goal of shifting 30% of road freight to rail and inland waterways by 2030 as part of the long-term move to significantly reduce greenhouse gas emissions from transport.

UNIFE suggests that EU policies on sustainable freight transport should give a central role to rail. In this respect, the work being carried out in the Innovation Programme 5 of SHIFT²RAIL is a concrete step in the right direction by the European rail industry.

UNIFE is very much supportive of the approach taken by the European Parliament's rapporteur Joerg Leichtfried (S&D, AT) whose amendment on the revision of Directive 96/53 proposes to ban international traffic of 25 metre mega trucks. Indeed the rapporteur's amendment respects subsidiarity and accommodates member states which already have megatrucks.

According to the provisional schedule of the European Parliament, the vote in plenary will take place on this file in April 2014, just before the end of the current European Parliament's mandate. However, as the issue is very sensitive and there is no broad consensus among politicians and Member States, the process is likely to be delayed, therefore the next European Parliament will have to deal with it.

F. Non-Road Mobile Machinery (NRMM) Directive

In 2013 the European Commission restarted its work on the Non-Road Mobile Machinery Directive. After the insertion of a flexibility scheme into the 2011 Directive, a full revision of Non-Road Mobile Machinery Directive began in 2013. UNIFE and its diesel experts accompanied this process very closely. In several meetings UNIFE had to explain the specificities of the rail sector in the context of the NRMM Directive to the relevant decision-makers at the European Commission. It was especially important for UNIFE to engage with the European Commission and other stakeholders during the phase of the impact assessment and during the drafting phase of the proposal. According to the current planning, the Commission will publish its proposal in early 2014. The file will then be taken up by the new Parliament in the second half of 2014.

Despite vast improvements over the past decades, air quality remains a challenge for Europe. A recent study of the World Health Organisation links air pollution to a high number of premature deaths. Furthermore, black carbon has been identified to have a strong climate change impact. The European rail industry contributes very little to the problem: in 2008 diesel rail was responsible for less than 2.5% of NOx and 4.5% of PM emissions of the overall emissions from transport.

Nevertheless, the European rail industry supports the efforts to improve air quality. The latest emissions stage IIIB represents a huge improvement compared to fifteen years ago. The simplest and most efficient way to improve air quality is to increase the market share of stage IIIB vehicles which were developed recently through a major effort by our industry.

G. UNIFE contributes to the success of Rail Forum Europe

Rail Forum Europe, the MEPs' platform dedicated to rail transport, was officially established in February 2011. Key Members of the European Parliament joined forces to create a cross-committee forum where constructive dialogue can improve the understanding of rail-related issues and facilitate the development of joint strategies and initiatives between MEPs and the rail sector.

The Forum is governed by a Managing Board of MEPs, President Mr Brian Simpson (Chairman TRAN Committee) and Vice-Presidents Mr Michael Cramer and Ms Gesine Meissner. In addition, the following MEPs also work to oversee the association: Ms Ayala-Sender, Mr Georges Bach, Mr Jan Brezina, Mr Antonio Cancian, Mr Philippe De Backer, Mr Saïd El Khadraoui, Mr Ismail Ertug, Mr Malcolm Harbour, Ms Edit Herczog, Ms Danuta Hübner, Mr Jo Leinen, Mr Boguslaw Liberadzki, Mr Dominique Riquet, Mr Andreas Schwab, Mr Evzen Tosenovsky and Mr Karim Zeribi. An Advisory Committee composed of rail stakeholders assists MEPs in the definition of the activity programme and the preparation of the organisation's budget.

Leonardo Dongiovanni is the Executive Secretary of the Association.

RAIL FORUM EUROPE ORGANISES EVENTS AND TECHNICAL VISITS SPONSORED BY COMPANIES OR ASSOCIATIONS. FOLLOWING EVENTS WERE ORGANISED IN 2013:

1. 18 February: SHIFT2RAIL, the rail JTI – progress and next steps (sponsored by Alstom, Ansaldo STS, Ansaldo Breda, Bombardier and Talgo)
2. 10 April: 4th Railway Package - Towards a Single European railway market (sponsored by Ferrovie dello Stato Italiane and CER)
3. 29 May: Wagon noise: on the way to remove the last rail environmental burden (sponsored by CER, ERFA, UIP and UNIFE)
4. 9 July: Japan and US Free Trade Agreements with the EU: what is at stake for the European rail industry? (sponsored by Alstom)
5. 17 September: European modal shift policy - political will and reality (sponsored by BLS)
6. 26 November: Seamless end to end travel experience: how rail travellers can benefit from IT systems (sponsored by Thales)

For more information, please visit the website of Rail Forum Europe at **www.rail-forum.eu** or contact Leonardo Dongiovanni at leonardo.dongiovanni@unife.org.

04

INTERNATIONAL AFFAIRS

A. Free Trade Agreement (FTA) negotiations with Japan: major expectations on rail

While the end of 2012 was marked by the official launch of the Free Trade Agreement negotiations between the EU and Japan, 2013 was undoubtedly a crucial year for the negotiations and for business opportunities on the Japanese rail market. Rail indeed plays an important role in the Commission's mandate for the FTA negotiations, as a result of UNIFE's pressure to level the playing field between both trading partners. The lack of accessibility to the Japanese market remains a constant source of concern for the European industry as the European market is open to Japanese suppliers.

Brian Simpson, MEP

The lack of a global level playing field is indeed a major issue for the European rail industry. "In order to address this issue we need the EU to play hard in negotiations with Japan and the US"

In 2013, three rounds of negotiations took place (April, July and October) in Brussels or in Tokyo, and negotiators have been working on a dedicated work programme for the rail sector. However, despite the efforts made by the European Commission and the rail industry, it appears that no significant steps have been taken so far by the Japanese government to improve access to public procurement in the railway sector. With the review clause set in April 2014, pressure is expected to mount on Japan to deliver concrete measures to facilitate market access for foreign suppliers. UNIFE considers that, as far as railway is concerned, immediate steps should be taken by Japanese authorities, in line with the EU-Japan exchange of a letter on railway procurement signed in December 2011.

UNIFE has collaborated closely with DG TRADE, MARKT and MOVE to provide expertise and relevant information on the on-going talks with the Japanese government and continues to receive full political support at the highest level within the European Commission. Furthermore, UNIFE has organised several workshops with its members on trade in the second half of 2013 to discuss FTA negotiations along with other trade related topics.

B. Launch of the negotiations for a Transatlantic Trade and Investment Partnership (TTIP) with the US

UNIFE welcomed the green light from the Trade Council to the European Commission in June 2013 to negotiate a Transatlantic Trade and Investment Partnership (TTIP) with the US, as well as the three rounds of negotiations that took place in 2013 (July, November and December). This is an unprecedented opportunity to boost EU competitiveness and generate much needed jobs and growth.

Although many European rail manufacturers are global and have established themselves on the US market, they face a number of trade barriers in the fields of public procurement and regulatory cooperation.

UNIFE THEREFORE MONITORS THE FOLLOWING KEY COMPONENTS OF THE AGREEMENT:

1. Market access, in particular the chapter on public procurement;
2. Regulatory issues and Non-Tariff Barriers (NTBs), in particular the chapter on technical regulations, standards and conformity assessment procedures.

UNIFE strives for the creation of a level playing field on the rail market between the EU and the US through a constant dialogue with DG TRADE and other relevant institutions. In November 2013, UNIFE finalised a position paper on TTIP and addressed it with letters to European Commissioners De Gucht (Commissioner for Trade), Kallas (Vice-President in charge of Transport) and Barnier (Commissioner for Internal Market and Services). The position paper focuses on barriers having a negative impact on access to public procurement markets, including localisation requirements. Indeed, 'Buy America' provisions can act as a major deterrent against foreign companies when the local content requirement level is set at an unreasonably high level (e.g. under the American Recovery and Reinvestment Act). Furthermore, procurement commitments under the Agreement on Government Procurement (GPA) remain insufficient since mass transit authorities or key federal States are not covered by its scope. Within the framework of TTIP negotiations, UNIFE therefore advocates for an extended coverage for key entities, while guaranteeing transparent and open procedural requirements.

Furthermore, UNIFE is working with the European Commission, the European Railway Agency and its US counterparts to achieve greater regulatory convergence between the two blocks. As the European Commission plans to come to an agreement by the end of 2014, UNIFE will see to it that the regulatory chapter can facilitate mutually beneficial exchanges in the rail sector.

C. Launch of the negotiations on an Investment Agreement with China

In September 2012, the EU and China agreed to launch negotiations on a bilateral investment agreement as soon as possible. After the Council gave its green light to the European Commission, talks were officially launched on 21 November 2013 during the 16th EU-China summit. The EU-China investment agreement will improve access to the Chinese market and provide EU investors in China a high level of investment protection in a single, coherent text.

UNIFE supports the launch of the negotiations and welcomes them as a positive step forward to facilitate European business in China. In particular, access to market should be a cornerstone of future negotiations, addressing important issues like mandatory joint ventures for manufacturing and services industries.

D. OECD Arrangement on Export Credits

In 2013, UNIFE continued its lobbying campaign to influence the EU position on the OECD Arrangement on Export Credits. Governments provide these "officially supported export credits" through Export Credit Agencies (ECAs) in support of national exporters competing for overseas sales. The OECD Arrangement aims at placing limitations on the terms and conditions of these officially supported export credits in order to eliminate trade distortions.

No less than 14 representatives of the UNIFE Export Credit Task-Force took part in the informal technical seminar on Export Credits for rail transportation organised by the OECD in Paris on 26 February. Invited by the European Commission to be part of the EU Delegation, UNIFE was given the opportunity to take the floor at length and to officially present the views of the European Rail Industry on the OECD Arrangement on Officially Supported Export Credit.

This OECD seminar was the opportunity for the European Rail Industry to call for a review of the arrangement in order to better take into account the specific market and financing needs of the railway sector, as well as the social, economic and environmental benefits of rail investments. UNIFE has particularly insisted on reviewing the current OECD Arrangement to allow Export Credit Agencies to cover loans with longer maturities (up to 18 years), covering not only rolling stock but also infrastructure related investments and allowing more flexible repayment terms.

Following the adoption by the EU Council of Ministers in April 2013 of the position that the European Commission would be allowed to represent the whole EU at the OECD level, UNIFE released a comprehensive Feedback Paper recognising some positive developments but expressing some real concerns on several points (the limited extension of the maximum repayment term for ECA loan cover or the introduction of a syndication clause limiting to 35% the overall transaction volume coverable by ECAs for category 1 countries).

The UNIFE Export Credit Task-Force has remained in close and constant contact with DG TRADE, be it through direct meetings or telephone conferences. Following the last telephone conference in October, UNIFE took the initiative to update its position and convey its key messages to DG TRADE on the day before the November OECD Export Credit meeting. At the time of writing, UNIFE welcomes the agreement in principle reached at the November OECD Export Credit meeting, which, most notably, foresees a longer than initially expected extension of the ECA loan cover. This agreement will be formally adopted if there is no objection from OECD member states during the silent procedure ending mid-December 2013, and would then come into effect on 1 January, 2014.

E. A Memorandum of Understanding between UNIFE and APTA

On 5 November 2013, UNIFE Director General Philippe Citroën signed a Memorandum of Understanding with American Public Transportation Association (APTA) President and CEO Michael Melaniphy to reinforce ties between the European and American rail sectors. The MoU was signed at a reception hosted by the European Union Delegation to the United States in Washington D.C. featuring high-level officials such as João Vale de Almeida, EU Ambassador to the United States; Joseph Szabo, Federal Railroad Administrator; Keir Fitch, Deputy Head of Cabinet to European Commission Vice-President Siim Kallas and Marcel Verslype, Executive Director of the European Railway Agency.

The agreement between APTA and UNIFE outlines a framework for cooperation and information exchange between the two associations on different topics such as rail standards. It takes place within the broader context of the Transatlantic Trade and Investment Partnership (TTIP), showing commitment on both sides to move forward with regulatory cooperation. The signature of the MoU complements the existing cooperation at administrative level between the Federal Railroad Administration and the European Railway Agency in July 2012. At this occasion, UNIFE welcomed the MoU as an important strategic document towards further transatlantic cooperation.

Philippe Citroën and Michael Melaniphy (President and CEO of APTA) after signing the UNIFE-APTA MoU, pictured with Marcel Verslype (ERA), Joseph Szabo (Federal Railroad Administration) and Keir Fitch (European Commission).

The signing of this MoU was followed by various exchanges and meetings with APTA, the Federal Railroad Administration, US rail associations and US-based UNIFE members on a number of topics such as research and high-speed rail developments.

F. An Enhanced Relationship with Russia

Valentin Gapanovich (Senior Vice-President Russian Railways) and Henri Poupart-Lafarge (UNIFE Chairman, President Alstom Transport) signing the memorandum of understanding at the 4th International Rail Salon EXPO 1520 in Moscow

In 2013, Russia continued to be an important and attractive market for the European rail industry, with significant investments foreseen especially in the rolling stock (replacement and extensions of trams, light rail and electric locomotives).

As more and more UNIFE members are investing in Russia and forming joint ventures with Russian companies, UNIFE too cooperates with its Russian counterpart, the Non-Commercial Partnership of the Russian Rail Industry (NP-UIRE) in order to strengthen ties between the European and Russian railway sectors. The association displays an active interest in working with UNIFE and in September 2013 the presidents of both associations, Henri Poupart-Lafarge and Valentin Gapanovich, signed a memorandum of understanding at the 4th International Rail Salon EXPO 1520 in Moscow. The agreement aims to improve cooperation between the two organisations to foster the development of new technology in the European and Russian markets, promote the International Railway Industry Standard (IRIS), and harmonise technical legislation in the field of rail transport. It builds upon the work undertaken to

achieve approximation of railway standards between Russia and the European Union, which lead to the dissemination of a White Paper of the joint European-Russia working group on railway standards in 2012. The agreement also reflects the strong interest in IRIS in Russia where a growing number of companies are being IRIS-certified.

In 2014, UNIFE will intensify its collaboration with its Russian counterpart to promote further progress in harmonisation of technical regulation, innovation, quality management and other issues of other common interest. The next workshop is foreseen before June 2014.

G. The European Rail Industry strengthens cooperation with Brazil

Brazil is the EU's largest trading partner in Latin America, and is a key market for European railway business with significant investments foreseen in the coming years by Brazilian authorities (infrastructure, signaling etc.).

The European Union set up a dedicated working group aimed at further underpinning economic bonds between Brazil and the EU. Antonio Tajani, Vice-President of the European Commission responsible for Industry and Entrepreneurship and chair of the working group, travelled to Brasilia on 10 October to hold discussions and explore opportunities for further industrial cooperation. Several UNIFE members' representatives in Brazil participated in the meetings with the European Commission.

UNIFE also expressed its intention to cooperate with the European Commission in promoting European rail standards such as ERTMS and increasing business opportunities on the Brazilian market.

H. UNIFE Participation in UN Activities: Transport Day 2013

Since 1992, the United Nations Framework Convention on Climate Change (UNFCCC) has met annually to assess the progress made on climate change. In 2012, during the 18th Conference of Parties (COP18) in Doha (Qatar), UNIFE participated in the talks and the organisation of a side event on "Transport and our low carbon future" with the cooperation of UIC and UITP.

On 17 November 2013, the Bridging the Gap Initiative and the SLoCaT Partnership organised a "Transport Day" during the 19th Conference of Parties (COP19) which took place in Warsaw. The conference was supported by seventeen organisations including UNIFE, UIC and UITP, and attended by over 150 participants from all over the world.

THE AIMS OF THE CONFERENCE WERE:

1. To demonstrate the contribution that transport can make to mitigation and adaptation, specifically in the context of sustainable development;
2. To promote the integration of transport in policy making on climate change mitigation and adaptation under the UNFCCC;
3. To ensure that modalities for financing, capacity building, and technology transfer under the UNFCCC are appropriate for the transport sector.

During the opening session, UNIFE Director General Philippe Citroën intervened along with high-level speakers such as Nikhil Seth, Director Sustainable Development Division in UN-DESA representing UN Secretary General Ban Ki-moon. Representing Transport Day 2013 Supporting Organisations, Philippe Citroën insisted on the necessity to integrate transport in the new global climate agreement and scale up and main stream low carbon transport policies and technologies. UNIFE was also represented in a stream on policy making on sustainable, low carbon transport in the developing world.

The Warsaw Statement on Low Carbon Transport and Sustainable Development, which UNIFE endorsed, was officially adopted at the end of the event. The Warsaw Statement contains recommendations on how to strengthen the integration of sustainable, low carbon transport in the UNFCCC process, especially the new global agreement on climate change.

The event represented a unique opportunity to follow up on the work undertaken in Doha and to reinforce UNIFE links with international decision-makers and stakeholders. Transport Day 2013 is the first of three annual events dedicated to the promotion of sustainable low-carbon transport in a global context, thereby bridging the 2015 Paris conference that should define the post-2020 international climate framework.

I. UNIFE joins the Partnership on Sustainable Low Carbon Transport (SLoCaT)

In October 2013, UNIFE joined the SLoCaT Partnership on Sustainable Transport (SLoCaT), a multi-stakeholder partnership of over 80 organisations representing United Nations organisations, multilateral and bilateral development organisations, NGOs, academia and the business sector.

The Partnership's overarching goal is to mobilise global support to reduce the growth of GHG emissions generated by land transport in developing countries by promoting more sustainable, low carbon transport. It promotes the integration on sustainable transport in global policies on sustainable development and climate change. The thematic scope of the Partnership is on land transport (both motorised and non-motorised) in developing countries and includes freight and passenger transport.

This goal is fully in line with UNIFE's vision for sustainable mobility and rail as the backbone of sustainable transport. Joining SLoCaT will provide further outreach and visibility for UNIFE environmental activities on the international stage and marks a new step in the commitment of the European rail industry to promoting low-carbon transport.

05

STANDARDS & REGULATION

A. European Railway Agency (ERA) –related activities

B. Topical and Mirror Groups

C. Other Activities

D. UNIFE and UIC Joint Technical

A. European Railway Agency (ERA) –related activities

OVERALL COORDINATION ACTIVITIES

UNIFE is investing a great deal of effort in coordinating the on-going regulatory activities at the European Railway Agency. This year the focus was on the finalisation of the Technical Specification for Interoperability and on the harmonisation and transparency of the process of authorisation for placing in service, particularly with regard to railway vehicles.

Revision of all TSIs (Technical Specification for Interoperability) – **a Prime Objective for UNIFE**

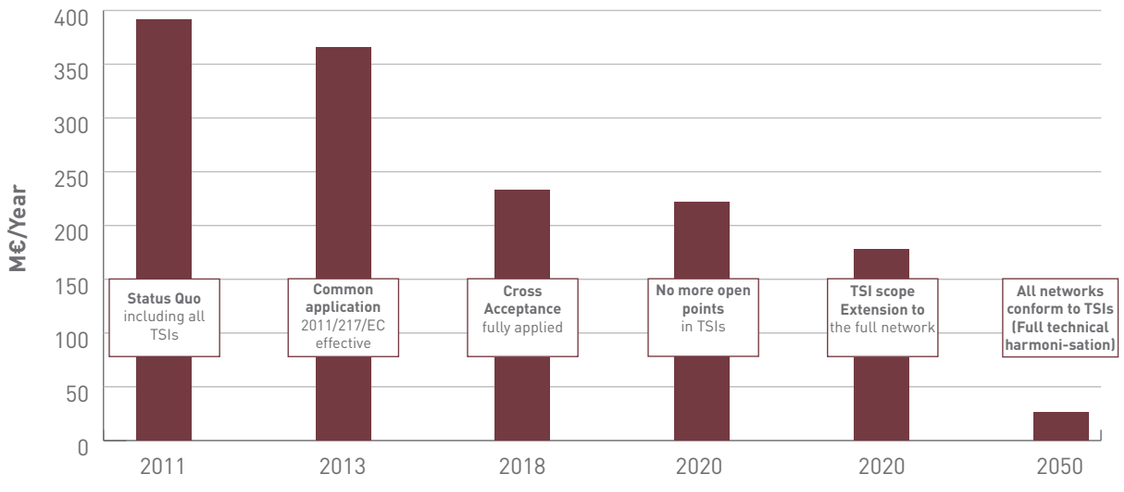
During 2013, Rolling Stock and Safety in Railway Tunnels have been voted positively and will enter into force mid-2014, Energy and Infrastructure are planned for January 2014 and Noise and Persons with Reduced Mobility for mid-2014.

THE REVISED VERSIONS HAVE FULFILLED THE FORESEEN SCOPE OF:

1. Extension of the geographical scope from TEN to the entire network
2. Merging High Speed and Conventional Rail
3. Closing the open points

Once the extension of scope of the TSIs enters into force, it will prevent a situation where two parallel sets of rules have to be applied to secure authorisation: TSIs and the national rules of the country in which the equipment is to be authorised.

Authorisation costs for locomotives in EU



Source: European Railway Agency, 2013

Once the TSI scope is extended, all national rules will have to be superseded by the corresponding European requirement of the TSI, and will only apply to duly identified specific cases or open points (if any are remaining). UNIFE is strongly pressuring the European Railway Agency and the European Commission to clarify the process of removing unnecessary national rules. Additionally, these revised TSIs will be published as European Regulation meaning that there will be no need for transposition into national law which ought to speed up implementation of these TSIs.

UNIFE was heavily involved in this activity during 2013, in particular in the revision of the TSIs Application Guides. These guides will provide a fundamental support to the TSIs, as they should provide references to the harmonised voluntary standards which provide presumption of conformity with several TSIs requirements in addition to guideline information.

More details on the different TSIs are available in the Mirror Group section below.

B. Topical and Mirror Groups

UNIFE Topical Groups (TG) and Mirror Groups (MG) aim to steer UNIFE work on standardisation, regulation and research. The overall coordination is done by the respective committees. Topical Groups follow specific topics, mainly related to standardisation and research activities. Mirror Groups are temporary groups active during the drafting and revision of regulations and Technical Specifications for Interoperability (TSIs), mirroring the groups active in ERA where delegates of UNIFE participate as official representatives of the European rail supply industry.

The Standards and Regulation Group (SRG) in its role as a supervisor of the UNIFE Topical and Mirror Groups periodically reviews the activities of these various groups and ensures that these groups operate in line with overall UNIFE objectives for standards and regulation. The most recent review was conducted in the third quarter of this year and confirmed that the main areas the groups are related to ERA-related activities such as TSIs and authorisation issues. The survey identified the groups which meet on a regular basis and those which are consulted on an ad-hoc basis; these groups are identified as part of UNIFE's network of experts which is valuable resource for formulating positions on strategic technical issues.

1. MIRROR GROUPS

MIRROR GROUPS ON TECHNICAL SPECIFICATIONS FOR INTEROPERABILITY

Rolling Stock Mirror Group (MG RST)

This Mirror Group has been following and contributing to the development of the new Rolling Stock Locomotive and Passenger Carriages (Loc & Pas) Technical Specification for Interoperability (TSI). UNIFE was very satisfied that this reviewed TSI was positively voted at the Railway Interoperability and Safety Committee by the Member States in October.

Significant success has been achieved in closing open points, refining and correcting errors, and ensuring consistency for a good merger between high speed and conventional speed requirements. This version of the TSI also incorporates the 1520mm system.

The Rolling Stock Mirror Group has also interfaced where necessary with other groups, including the

Infrastructure Mirror Group, particularly on important topics such as axle load limits and the Railway Dynamics, Aerodynamics, Cab, Crash and Fire Safety Groups, to ensure that specialist knowledge in these areas is taken into account. A prime example is that the new Loc & Pas TSI will also integrate the Rolling Stock fire safety requirements from the SRT TSI (Safety in Railway Tunnels).

Work has continued throughout 2013 on the application guide for the TSI, and following the positive vote the TSI will be translated into all the European Union languages ahead of its publication in mid-2014, with mandatory application expected from January 2015.

Safety in railway tunnels Mirror Group (MG SRT incorporating members of the Fire Safety TG)

This Mirror Group has continued to follow the revision of the TSI SRT and especially ensuring that the transfer of all fire safety requirement clauses relating to Rolling Stock from the SRT TSI to the LocPas TSI has been conducted consistently. The group has also followed the progressive implementation of EN45545 and will continue to monitor this issue including related activities such as the development of a standard for non-physical fire barriers, officially known as fire spreading preventative methods.

Persons with Reduced Mobility Mirror Group (MG PRM)

The PRM Mirror Group has continued to develop and contribute to the TSI PRM revision activities coordinated by the ERA. Significant steps have been taken to increase the accessibility of railway transport and the Mirror Group is proactive and supportive of continuing this trend, particularly where practical technological advances have been made.

The group is also ensuring that the requirements do not exceed what is necessary in order to ensure their appropriate implementation, and that any increase in requirements does not unnecessarily damage the competiveness of the rail sector compared to other modes, thus guaranteeing that this TSI revision has a positive impact on the sector as a whole. The draft TSI text has reached a stable point and the now the group must ensure that the relevant standards (which are also under revision in parallel) are consistent with the revised TSI text. In addition, work has also been undertaken in regard to the application guides. In general, UNIFE is largely satisfied with the outcomes of the revision process thus far.

Due to the sensitive and quite political nature of this topic area, the original time plan has been extended in order to ensure that the appropriate level of discussion and input can contribute to the revising of this TSI.

Noise Mirror Group

In 2013, the Noise Mirror Group has carefully followed the activities of the TSI Noise revision. Proposals on how to improve and simplify the TSI have been supplied to the ERA working party, including a project proposal in order to develop an assessment procedure that can separate track noise from vehicle noise, which was sent to the European Commission.

Regarding the reduction of the noise emission limits for vehicles, UNIFE suggested some values in order to define realistic noise limit. Thanks to that, in the latest version, the limit values for stationary noise, starting noise, pass-by noise and driver's cab interior noise have been agreed between all the working party members. Moreover ERA abandoned the two-step approach for noise limit value, which was based on the definition of "short term" limit values for noise reduction to be applied when the noise TSI comes into force and "long term" limit values for noise reduction targeting a period of 6–8 years after the implementation of the latest noise TSI revision.

Additionally, the noise Mirror Group proposed updates to the noise TSI Application Guide based upon the results of the European research project ACOUTRAIN, on the simplified evaluation method.

STANDARDS & REGULATION

Running Dynamics Mirror Group

The Running Dynamics group was involved in the preparation of the TSI Loc & Pas, providing input on running dynamic issues for UNIFE. The group also followed activities at CEN, notably the development of en14363:2012(e) which was being drafted by TC256 SG8 and WG10. Related to both CEN and ERA activities, the Running Dynamics Group worked on the Technical Document 17 (formerly known as 001), providing the necessary additional specifications to perform running dynamic behaviour testing of rolling stock. The aim of the document is to introduce relevant new requirements from the future revised EN 14363 into the TSI, helping to close open points, without waiting for the conclusion of the enquiry for this standard revision.

The group also followed developments in the EU R&D FP7 project DynoTRAIN, co-ordinated by UNIFE. This project ended on 30 September 2013, and work undertaken in the project was discussed and monitored by the group. For more information on DynoTRAIN, please see the description of the project in the chapter on UNIFE Research and Development Activities.

Aerodynamics Mirror Group

Work in the Aerodynamics Mirror Group focussed on contributions to the Rolling Stock Mirror Group aimed at closing open points on TSIs relating to aerodynamic effects. Input from the Aerodynamics Mirror Group was sought by the Rolling Stock Mirror Group as discussions took place towards the preparation of the TSI Loc & Pas.

STANDARDS & REGULATION

Infrastructure Mirror Group (MG INF)

This year, the infrastructure mirror group has been fully involved in the finalisation of the new infrastructure TSI and revision of its application guide. A long debate was held on the right values to be allocated to some performance parameters (e.g. Axle load) for high speed lines (traffic codes P1 and P2). A dedicated meeting took place in order to discuss traffic codes P1 and P2 and vertical loads on embankments and it was decided to add a detailed definition of the axle load parameter in the new infrastructure TSI (chapter 4.2.1.). Regarding the infrastructure application guide, its review started at the end of 2013.

The infrastructure mirror group has also interfaced, where necessary, with other groups, including the Rolling Stock Mirror Group, particularly on important topics such as axle load limits. This version of the TSI will integrate requirements not only relating to standard track gauges, but also incorporates the 1520mm system.

Energy Mirror Group (MG ENE)

In 2013, the energy mirror group continued providing its inputs for the ongoing revision of the energy TSIs. Important work was done on Chapter 7 "implementation" and on the definition of the migration strategy for overhead contact line geometry (clause 7.2.3). The objective of the migration strategy is to create a clear path to the creation of an extended electrified network in the coming years, which is capable of accommodating both pantographs as defined in the Loc&Pas TSI. Moreover, in order to ensure that the vehicles assessed under Loc&Pas TSI fulfil the requirements for trains (composition of units) set out in the energy TSI, a link with the operation TSI was created. This new version of the energy TSI also incorporates the 1520mm system.

The Energy Mirror Group has also interfaced with the Rolling Stock Mirror Group, particularly on important topics such as pantograph geometry.

Electromagnetic Compatibility Mirror Group (MG EMC)

During 2013, the Mirror Group worked on the preparation of ERA EMC working party, which feeds into the Control Command and Signalling - CCS TSI. It also worked on follow-up, preparation and participation for the **CENELEC TC9X WGA4-2 and WG18 and the EUREMCO project**, co-ordinated by UNIFE.

The UNIFE EMC Mirror Group was involved in discussions with colleagues from UNISIG on compatibility between rolling stock and Eurobalise on-board equipment. This work will continue into 2014 and possibly beyond. The group was also involved in discussions on **frequency management under 25Kv and DC systems**, as well as in proposals to modify frequency management in current standards and in the TSI.

MIRROR GROUPS ON REGULATIONS

Cross-acceptance and Certification Mirror Group

UNIFE strongly supports the goals and objectives of the Cross-Acceptance Unit at the ERA, in particular in clarifying the processes and conditions for vehicles to be placed in service in order to achieve a single and harmonised understanding of the authorisation process. To this end, a very important document, also known as DV29BIS, was developed during this year, aiming at supplementing recommendation 2011/217/EC and further clarifying the authorisation process, in particular regarding the use of the Common Safety Methods for Risk Assessment in the framework of authorisation. A first workshop took place in February 2013 and a second one in November, where UNIFE publicly expressed its strong views. UNIFE is very pleased to see a convergence of the sector towards a simplification of the authorisation process—this is a major achievement resulting from a great effort of UNIFE and its members. UNIFE is looking forward to the final recommendation and adoption by the European Commission.

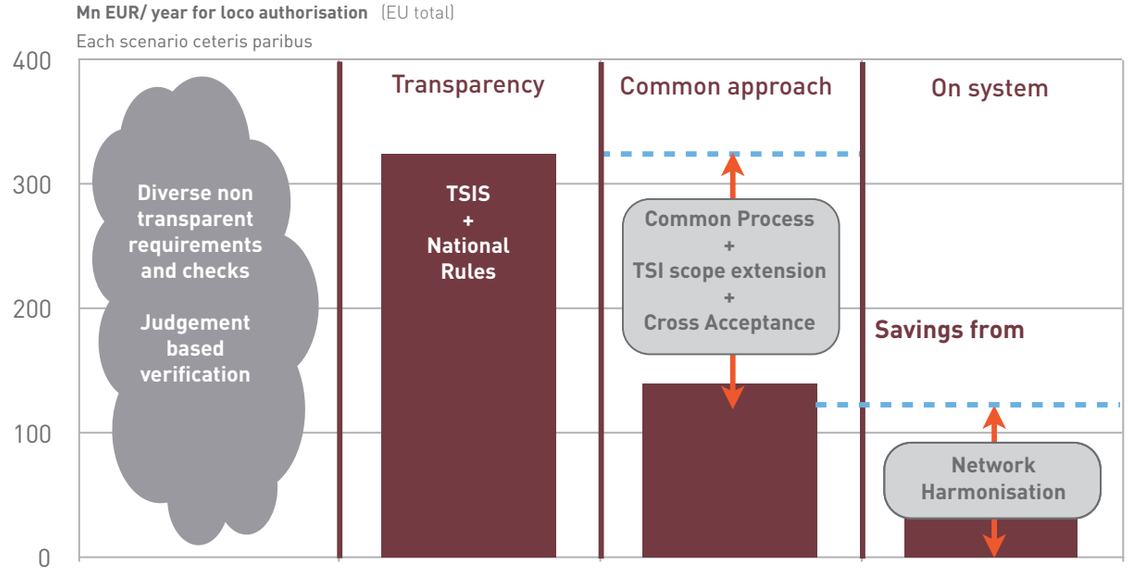
Another important step concerns the transparency of the National Rules. All the National Rules are now available in the reference document database, a web-based tool collecting and cross-referencing all National Rules. Not all information in the database are validated today (6 countries only), and UNIFE is strongly requesting a deadline for the completeness and reliability of the content of the database, to reach the goal of total transparency regarding the rules an applicant has to comply with in order to obtain an authorisation. In this respect, UNIFE is working closely with ERA to promote the elimination of all unnecessary national technical rules for the harmonisation and clarification of the authorisation process at the European level.

In addition, this group had a fundamental role in the technical support for the analysis of the technical pillar of the Fourth Railway Package and the future strategy of the authorisation process for railway vehicles.

Guideline for ERTMS authorisation on Corridor A

During 2013, UNIFE contributed also to the drafting of a specific guideline for authorisation of ERTMS, in particular for on-board ETCS on Corridor A. This task force, set-up by the transport ministries of those countries, seeks to achieve a common process for ERTMS authorisation on Corridor A, thus reducing burden to authorisation and ERTMS implementation.

Economic benefits of simplification for vehicles
and the potential of network harmonisation



Source: European Railway Agency, 2013

STANDARDS & REGULATION

Good progress has been made in 2013, and the guideline is expected to be finalised and implemented by the beginning of 2014.

Safety Assurance Mirror Group

UNIFE safety experts support the tasks performed by ERA, as requested by the Safety Directive. In 2013 the main focus was on the development of the **Risk Acceptance Criteria for the Common Safety Methods (CSM) on risk assessment regulation.**

The Group also followed the activities on the Common Safety Methods on Monitoring, the Safety Certification and the Safety Performance working parties. In addition, the Group's expertise is often requested for other UNIFE activities, for example for functions essential to safety when described in the TSIs.

UNIFE furthermore participates in CENELEC Working Group 14 for updating standards EN50126, EN50128 and EN50129; the final version of the 50126 standard, which will include former EN50128 and EN50129, is expected next year.

2. TOPICAL GROUPS

Brakes Topical Group

The main work of the TG brakes for 2013 has been to **support the activities of the Rolling Stock Mirror Group** with respect to the revision of the Rolling Stock TSIs. The Topical Group also acts as a **link with the brake standardisation world** in order to ensure consistency between standards and regulation. The group has also been involved in activities relating to the revision of **braking performance requirements in the Operation TSI**, again in close cooperation with other UNIFE expert groups.

Crash Safety Topical Group

UNIFE's Crash Safety TG has largely been working in collaboration with **UIC Crash experts on TecRec_100-006** concerned with **Interior Passive Safety**, and members of the group have been regularly participating in working group meetings which have taken place throughout 2013. Further information is detailed in the TecRec section.

In addition, the Topical Group has also provided specialist support and expertise as required for the TSI revision; particularly for the areas of discussion which relate to Rolling Stock **structural crash worthiness and passive safety requirements**. The group has helped provide information to ensure the TSI Rolling Stock is consistent with the standards, particularly **EN15227 (Crashworthiness standard).**

CAB Topical Group (TG CAB)

In 2013, the TG CAB was heavily involved in the preparation of the **prEN 16186 standard which deals with the driver's cab**, through the participation of UNIFE experts in the CEN Working Group, TC256 WG37. This EN Standard builds on some of the work undertaken to prepare TecRec 100-002 on driver-machine interfaces, for example the pictograms.

The second enquiry for Part 1 began in 2012, with the Comments Resolution Meeting taking place in October 2013; the group was also involved in work relating to Part 2. The Standard should be published at the end of 2013 or beginning of 2014.

Energy Efficiency Topical Group

The Energy Efficiency Topical Group has been involved mainly in the preparation of the SHIFT²RAIL initiative, setting up its own group.

THE ENERGY TRANSVERSE GROUP IN SHIFT²RAIL WILL BE IN CHARGE OF A NUMBER OF KEY ACTIVITIES SUCH AS:

1. Interfacing with other internal or external energy and sustainability groups for standardisation and regulation;
2. Bringing technical and scientific support across all detailed activities of SHIFT²RAIL (IPs and TDs work);
3. Integrating energy savings to evaluate the global KPI on Energy KPI.

Additionally, the Energy Efficiency Topical Group has taken part in a joint UNIFE-UIC workshop on the TecRec 100_001 which took place on 28 October in Paris. During the event, UNIFE presented their contribution and stressed the importance to promote the TecRec among major EU stakeholders, in particular operators and infrastructure managers. The aim is to make the TecRec 100_001 a useful tool for as many EU players as possible and make efforts improve it, if necessary.

Life Cycle Assessment Topical Group (LCA TG)

THE LIFE CYCLE ASSESSMENT TOPICAL GROUP LEADS DISCUSSIONS ON HOW TO IMPROVE ECO-PERFORMANCE OF THE RAIL SECTOR AND TO OPTIMISE PRODUCTION AND TENDERING COSTS TAKING INTO CONSIDERATION:

1. Increasing customer demands; and
2. Legislative and standardisation requirements, especially at the EU level.

Given the growing customer demand for information on the environmental performance of railway vehicles, the LCA Topical Group developed Product Category Rules for the Railway Rolling Stock (PCR) in 2009. The PCR are a standardised method to apply environmental life cycle assessments transparently and reliably and to communicate the results in a credible way, based on the rules laid out by the International Environmental Product Declaration® system. The PCR document was updated in 2012 to take into account new developments such as the Railway Industry Substance List.

In 2013, the LCA Topical Group finalised a Recyclability and Recoverability Calculation Method for Railway Rolling Stock. The document endeavours to define a common approach for the calculation of recyclability and recoverability rates within the railway industry. Furthermore, it presents a common rail industry method in order to make recyclability and recoverability figures comparable and transparent. The calculation method is based on the automotive standard ISO 22628, but it has been developed further in order to take into account the efficiency of recycling and recovery technologies of materials at different stages of the recycling process and to better include the particularities of the rolling stock. It is recommended to be used for new designs but can optionally be used for existing designs if data on materials is available.

The LCA TG now focuses its attention on possible ways forward, especially in communicating the environmental performance of railway products to the general public and to decision-makers.

Chemical Risk Topical Group (CR TG)

The Chemical Risk Topical Group follows up on chemical risk issues and aims to develop common understanding and harmonised rules for the Rail Industry as well as providing support for railway system integrators and their suppliers in understanding their legal obligations. **The Topical Group covers European legislation – including REACH, CLP, WEEE, and RoHS** – and presents the point of view of the railway industry during consultations.

In 2012, the UNIFE Chemical Risk Topical Group has developed and launched the **"UNIFE Material Declaration Template"**. The aim of the template is to harmonise the information requested by some of the

main system integrators and develop a common form which would be recognised by all. With this new document, the reporting on hazardous substances would be simplified for the suppliers and the same format could be delivered for each system integrator. The next step will be to develop a common data material portal for the industry to access information of materials within one place, gathering substance declarations from suppliers.

In 2013, the UNIFE CR Topical Group published a fact sheet which sets out to what extent products from its member companies come within the scope of the **European Directive "Restriction of the use of certain Hazardous Substances in electrical and electronic equipment" (2011/65/EC, "RoHS").**

These documents are part of the series of actions the **European Rail Industry has launched in order to best comply with EU regulation related to substances** and can be found under the Railway Industry Substance List website **www.unife-database.org** which was recently updated with a new menu and the latest list on prohibited substances under the REACH regulation.

C. Other Activities

UNIFE AND NB-RAIL

RELATIONS WITH OTHER SUPPORTING BODIES: NB-RAIL (ASSOCIATION OF NOTIFIED BODIES)

In 2013, UNIFE continued close cooperation with NB-Rail in order to find common solutions to problems related to the conformity assessment with TSIs and to improve, simplify and speed up the certification process to achieve faster authorisation and placement into service of subsystems and vehicles.

Two meetings were held in 2013, also involving the IRIS management, for the quality certification issue; this cooperation will continue in the coming years.

GRB

In 2013, UNIFE continued to operate the secretariat of GRB – the Group of Representative Bodies, which involves all the sector associations (UNIFE, CER, EIM, UIP, UITP, ERFA and EPPTOLA). In the GRB, all relevant topics regarding standardisation, regulation and research are discussed at sector level, thus allowing different bodies to find a common sector position which would have greater influence with legislators and standardisation bodies, when necessary. The GRB also officially met the ERA management during the NRB (Network of Representative Bodies) sessions and is actively involved in the JNS (Joint Network Secretariat) along with ERA, NSA (National Safety Authority) and NIB (National Investigation Bodies). During 2013, several communications were released by this group, in particular toward the ERA work programme and activities and on the Technical Pillar of the Fourth Railway Package.

UNIFE and EFRTC

In 2013 UNIFE continued its cooperation with EFRTC, the European Federation of Railway Track-works Contractors. EFRTC represents almost 150 companies that generate collectively approximately EUR 4 billion in turnover only for track-works (excluding materials), and employ over 25 000 people involved in specialised track-works. EFRTC members are involved in major European projects constructing new high-speed lines, including priority projects for the upgrading of the EC Trans-European Network.

This year, UNIFE presented the SHIFT²RAIL initiative to EFRTC and its members. Eight EFRTC members, who had the resources and competence, joined the initiative and participated in the definition of SHIFT²RAIL Innovation Programme 3 dealing with infrastructure and energy subsystems. Moreover, UNIFE participated in EFRTC's annual general meeting that took place in London in September 2013, giving an overview on the current European transport policies relevant to contractors and an update on progress of the SHIFT²RAIL initiative. UNIFE also attended EFRTC committee meetings and assisted in the production of the annual newsletter. EFRTC participated at several UNIRAILINFRA committee meetings, which enabled a useful exchange between the supply sector and contractors. EFRTC was also involved in UNIFE standardisation and regulation activities regarding the revision of the Loc&Pas and infrastructure TSIs. EFRTC reiterated its support for UNIFE policies promoting a more open and competitive rail market and the simplification of authorisation processes for track construction and maintenance machinery.

STANDARDS & REGULATION

D. UNIFE and UIC Joint Technical Recommendations

TECHNICAL RECCOMENDATIONS (TECRECS): A REMINDER

Pending the publication of a European standard (EN), a TecRec will serve as a common standard to improve the competitiveness of the European railway systems. Approved by both UNIFE and UIC, the TecRecs are recognised as a voluntary pre-standard by the rail sector as a whole.

TECRECS ARE DESIGNED TO:

1. Feed directly into the established European standardisation system, thereby speeding up the formulation of ENs
2. Facilitate the optimal publication of important UNIFE/UIC EU-funded R&D project results, improving their chances of market uptake
3. Set new product and interface standards, which are of high priorities for UNIFE and UIC

TecRecs will intensify the rail supply industry's contribution to the European rail standardisation system. The UNIFE/ UIC Memorandum of Understanding signed in 2009 signifies a new era of collaboration between the industry and rail operators in developing more competitive railway systems.

TWO TECRECS, MAINLY FOCUSED ON ROLLING STOCK, WERE SIGNED AND PUBLISHED BY UNIFE AND UIC:

1. TecRec 100_001: "Specification and verification of Energy consumption for railway rolling stock"
2. TecRec 100_002: "Driver-machine interfaces"

FIRST TECREC TRANSPOSED INTO A TECHNICAL SPECIFICATION BY CEN/CENELEC

The TecRec 100_001: "Specification and verification of Energy consumption for railway rolling stock" was sent to CEN/CENELEC in 2012 and was approved by the CENELEC TC9X to become a CENELEC Technical Specification from 1 January 2013. The document was submitted to an enquiry within CENELEC, but there has been some delay in the vote process. This TecRec aims to provide a comparative framework for assessing energy performance values for train sets or locomotives on a common basis, thereby benchmarking and improving the energy efficiency of all types of rail vehicles. It was developed under the Railenergy project with the support of the energy experts from UNIFE and UIC.

FURTHER TECREC DEVELOPMENT

NOISE VIRTUAL SIMULATION

The TecRec Standards Steering Group (SSG) steering the TecRec activities is willing to establish a TecRec coming from the ACOUTRAIN project. The TecRec SSG has debated the usefulness of such a TecRec and asked the ACOUTRAIN project team to provide a TecRec "road-map" in order to define the scope, priorities and planning for such a TecRec. If there is no objection from the TecRec SSG, the work on the ACOUTRAIN TecRec should start in 2014.

INTERIOR PASSIVE SAFETY

Following the Safeinteriors project, UNIFE and UIC members have been working together to develop a TecRec for Interior Passive Safety. This group commenced work at the end of 2011 and have continued throughout 2013 to meet regularly as a working group tasked with drafting this technical recommendation. The main goal of this work is to formulate the basis for a technical standard which covers the findings and recommendations from the Safeinteriors project and also, where appropriate, draws on previous experience in other projects. The TecRec is currently in the phase of being finalised with the aim to reach approval of the TecRec by late 2013/early 2014.

THE PROJECT HAS DEFINED THE TWO MAIN PRINCIPLES OF IMPROVING CRASH SAFETY FOR PASSENGER INTERIORS AS:

1. Minimising the number and severity of occupant injuries (occupant injury reduction)
2. Improving the ability of the occupant to self-evacuate from a rail vehicle if the need to do so arose (occupant egress ability)

The drafting is drawing to a conclusion and several interim drafts have been produced with the intention to soon send a draft to the TecRec steering group for review.

06

UNIFE RESEARCH AND DEVELOPMENT ACTIVITIES

A. Projects launched in 2013 under the Sixth call of the Seventh Framework Programme

B. Finalised projects

C. On-going Projects with UNIFE Involvement

A. Projects launched in 2013 under the Sixth call of the Seventh Framework Programme

REFRESCO

REFRESCO ('Towards a **RE**gulatory **FR**amework for the us**E** of **S**tructural new materials in railway passenger and freight **C**arb**O**dyshells') has been conceived in the context of 'lightweighting' of rolling stock. The project officially began on 12 September this year. New materials such as composites and light metallic alloys encourage hope of construction of lighter rolling stock, which will consume less energy and help reduce the emissions of rail transport. While composite materials have already been used in the manufacture of parts of rolling stock, there is currently no way to certify a rail vehicle built entirely or in large part from non-metallic materials.

The overall objective of REFRESCO is to **set the framework for the implementation of new materials in the railway sector through the evolution of certification processes for rolling stock**. REFRESCO will generate recommendations and provide the information needed to adapt the regulatory framework of railway carbody structures to the introduction of new materials.

Among the REFRESCO consortium, led by UNIFE, there are many of the principal European rolling stock system integrators, and members of the rail supply industry, operators and material suppliers, while the university and research sectors are also represented as well as one of the largest certification companies in Europe. The following UNIFE members are partners in the project: Alstom Transport, AnsaldoBreda, Bombardier Transportation, CAF, DuPont Transportation, Siemens, Talgo and Vossloh.

Technical work also began in 2013, with the start of a thorough and wide-ranging benchmarking exercise of the most promising materials being used within and outside the rail sector, as well as an identification of the gaps in current approval methodologies which will need to be filled to allow the use of new materials. The output of this work is keenly awaited by the other Work Packages, whose work will begin early in 2014. The works and outputs of REFRESCO will be pathfinders for the SHIFT²RAIL JU.

REFRESCO is a project with a budget of approximately €4.6m and runs until the end of February 2016. For further information on the project, please visit: **www.refresco-project.eu**

NGTC

In September 2013, the consortium, led by UNIFE, successfully launched the NGTC project (Next Generation Train Control), where all the main European rail system signalling suppliers, together with mainline operators, infrastructure managers as well as urban rail operators are working jointly in developing the next generation of train control systems.

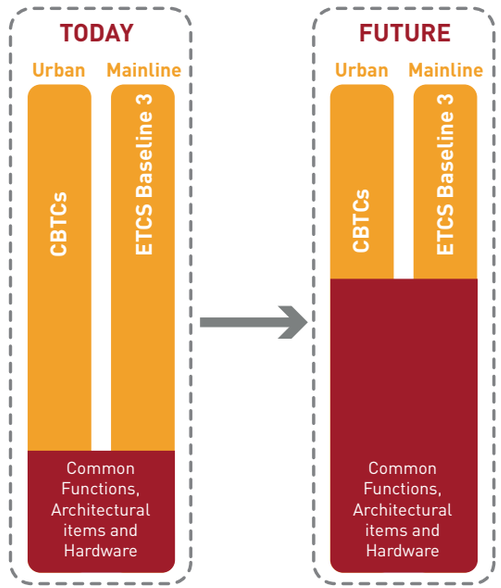
The main objective of the project is to pave the way for standardised train control systems for mainline and urban domains, whilst significantly reducing total cost of ownership and life cycle costs. The proposed solution will make full use of the experience of ETCS and its standardised train protection kernel, while integrating the functionalities known from very sophisticated and innovative CBTC systems.

MOREOVER, NGTC WILL PROPOSE THE WAYS TO INCREASE THE FLEXIBILITY AND EFFICIENCY OF THE ETCS BY INTRODUCING:

1. **Satellite-based positioning** which can completely or partially reduce the number of physical ETCS balises on the track while lowering the installation and maintenance cost of modern signalling systems and train detection systems;

2. **Moving block train separation for mainline train operations** with expected positive effects of the track capacity increase and reduced train operational costs;

3. **IP-based radio communication** which would increase the level of interoperability between different types of railway networks while benefitting from modern radio-based communication technologies with higher transfer characteristics and lower costs.



In the coming year, the project will focus on analysing the similarities and differences of required functionalities of both ETCS and CBTC systems. The target will be to determine the level of commonality of architecture, hardware platforms and system design that can be achieved. A functional requirement specifications document will be issued, combining common functional requirements for main-lines and urban-lines, as well as specifying those functional requirements specific only for each railway domain.

NGTC is an FP7 project with a total budget of around €11 million with expected EU contribution of approximately €6 million. The consortium gathers 21 partners, with a strong presence of UNIFE members such as: Alstom, Ansaldo STS, AZD, Bombardier Transportation, CAF, Siemens and Thales.

The works and outputs of NGTC will be pathfinders for the SHIFT²RAIL JU.

For more information on NGTC, please visit: **www.ngtc.eu**

ERRAC AND FOSTER-RAIL

FOSTER-RAIL (**F**uture **O**f **S**urface **T**ransport **R**esearch RAIL) was successfully kicked-off by ERRAC and its partners in May 2013.

FOSTER-RAIL foresees the **development of Rail Business Scenarios and an updated Strategic Rail Research and Innovation Agenda (SRRIA)**. These activities will be based on the latest document published by ERRAC, "RAILROUTE 2050".

In addition, FOSTER-RAIL plans to continue **working on implementation plans (roadmaps) which take into account the possible standardisation outputs coming from research projects**.
ERRAC will also enhance its relations with other sectors (most notably ERTRAC and WATERBORNE TP, the Technology Platforms of the automotive and waterborne sectors, respectively) but also with other research programmes such as ERA NET and National technology platforms.

The project also supports the building of the interfaces between ERRAC, as the European Technology Platform for rail research and the SHIFT²RAIL JU. FOSTER RAIL also supported the development of the SHIFT²RAIL website, launched in July 2013 (for more information, please visit: www.shift2rail.org).

FOSTER-RAIL gathers 20 partners, including Alstom Transport, Ansaldo STS, Bombardier Transportation and MERMEC.

In addition to this major activity, the new Terms of Reference of ERRAC were approved at the occasion of the ERRAC Plenary meeting, in April 2013. This new document has established several new committees including two Permanent Advisory Groups (Member states and Academics) as well as the ERRAC Strategic Board.

For more information, please visit: **www.errac.org**

CAPACITY4RAIL

CAPACITY4RAIL (New Concept for Railway infrastructure and operation: adaptable, resilient and high capacity) is a four year European research project that began in October 2013 with a budget of around €15 million. CAPACITY4RAIL aims to bring a **system vision of the railways looking towards 2030/2050**, by proposing guidelines for future deployments in the mid-term and recommendations for technologies to be developed and deployed in the long-term in order to obtain an **affordable, adaptable, automated, resilient and high-capacity railway**. With a comprehensive system vision, it will contribute to the development of guidance documents that identify further actions to be taken and future technologies and systems to be developed. It will demonstrate that **a step change in railway infrastructure and operations may be achieved within the constraints of the need to maintain railway services while work is being carried out**.

The project will build on various past and ongoing research projects (for example inputs of INNOTRACK for switches and crossings for future railways). The project will be structured into four Sub-Projects related to infrastructure: track, freight, operation, and advanced monitoring. A fifth transversal Sub-Project will give the project a system view and ensure the connection between the other Sub-Projects. The full sustainability of the developed solutions and innovations will be assessed and scenarios for a smooth migration of the system from its current to its future state will be evaluated.

The project challenges will concern the use of existing know-how, the implementation of findings, the need to find timely low cost ways to add capacity, and rapid implementability at minimal cost. The coordination is of vital importance, which aims to create an open and creative atmosphere and keep a multi-disciplinary system approach.

UNIFE's main role is dissemination and communication. The project is coordinated by UIC. UNIFE members involved in the project are: Ansaldo STS, EFRTC, Knorr-Bremse, Oltis Group, Voestalpine VAE, Vossloh Cogifer and Vossloh Fastening Systems.

For more information on Capacity4Rail please visit: **www.capacity4rail.eu**

B. Finalised projects

CLEANER-D

CleanER-D was launched to tackle the technical challenges the sector faced in complying with new emissions regulation that entered into force in 2012. In fact, rail diesel emissions represent only a minor share of total emissions from the transport sector. Nonetheless, the sector continues to enhance the environmental benefits of rail relative to other transport modes.

After four and a half years of research, it can be concluded that the project was successful in reaching its targets. The two demonstration sub-projects; the Heavy Haul and Light Weight projects have developed propulsion systems for stage IIIB compliant locomotives that were successfully proven in bench and field follow tests. However, from an economic and technological perspective, refurbishment of old existing vehicles with IIIB engines has to be carefully analysed. To evaluate the economic feasibility of the new solutions in comparison to previous technologies, the consortium developed a specific Life Cycle Cost model for diesel vehicles. This model can be applied for all available diesel applications including various technology options such as use of urea.

The results of CleanER-D illustrate that since 2008, the sector has already achieved substantial emission reductions. An overall decrease of 35% NOx and 45% PM is expected by 2020. Furthermore, additional emission reductions are possible by implementing innovative after-treatment technologies and hybrid solutions. Importantly, we have highlighted the potential greenhouse gas emission reduction through hybridisation. In addition to emission reductions, energy storage technologies can bring major fuel consumption savings of up to 20% for regional or suburban DMUs and for shunting vehicles.

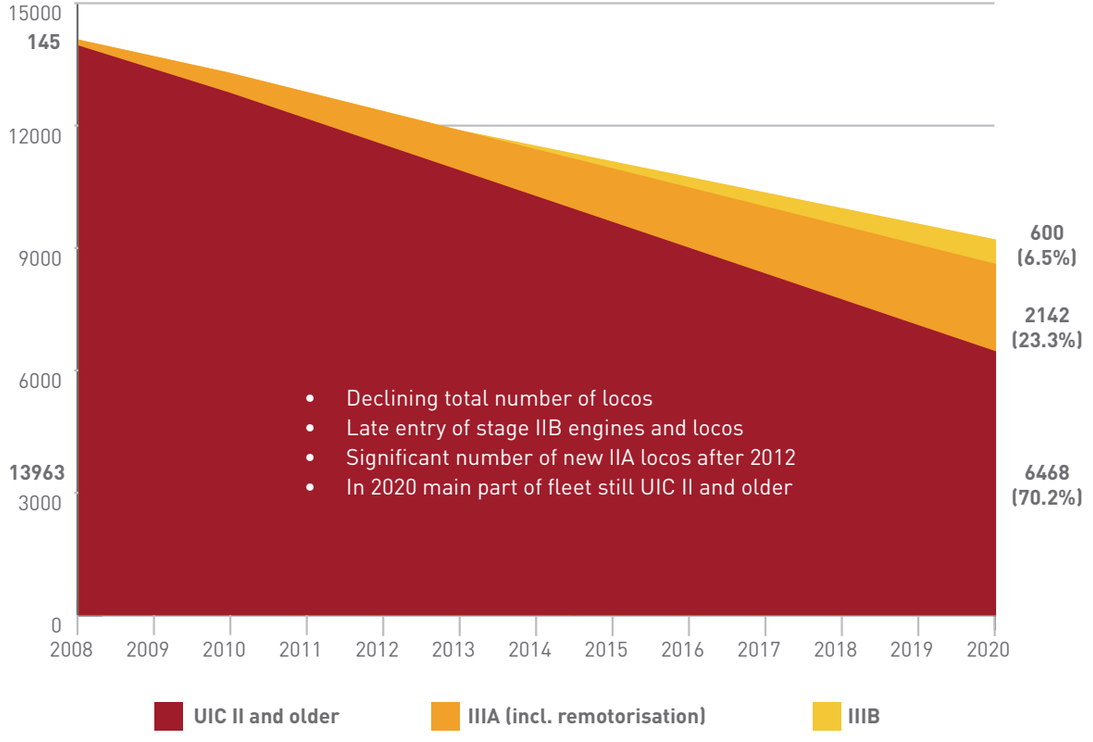
It has been estimated that by 2020, the introduction of stage IIIA and IIIB emission limits will generate societal benefits of around €1.4 billion from cumulated avoided external costs. However, the introduction of these engines will already cost the sector about € 780 million - and this amount does not even include platform development costs for the industry.

Finally, it has been concluded that further significant benefits can already be reached by accelerating the market uptake of Stage IIIA and IIIB compliant engines into the vehicle fleet. Therefore, the consortium have developed recommendations for all involved stakeholders on how to boost emission reduction of rail diesel traction. This should bring increased benefits for society through affordable costs for the railway sector.

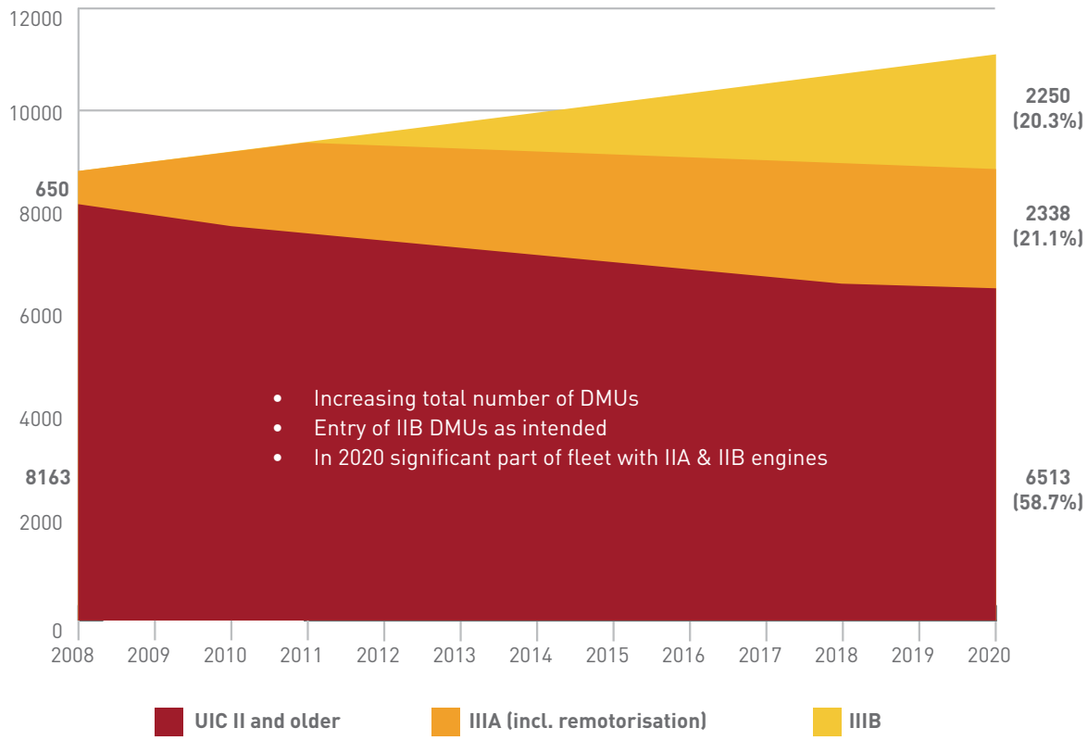
Summary of the Key Recommendations	
European Commission	"Create framework conditions supporting an increase of fleet renewal rates"
Member States and Public Procurement Authorities	"Provide framework conditions and incentives supporting an increase of fleet renewal rates and the use of innovative technologies"
Railway Operators	"Use every possible economic solution over the life of the vehicle to introduce energy efficiency and emission reduction technologies in the rail diesel fleet"
Engine Manufacturers and Vehicle Integrators	"Provide economically viable solutions, which reduce emissions, fuel consumption and LCC"
Infrastructure Managers	"Support energy efficient operation by intelligent traffic flow management on the network"

Future development of European rail diesel fleet until 2020 - locos

Diesel locomotives fleet development (European railway operators, EU27 & EFTA)
Status: Current fleet is UIC II and older as well as IIA engines. Approx. 150 new locomotives p.a. Repowering and decommissioning of old vehicles included



Future development of European rail diesel fleet until 2020 - DMUs



DYNOTRAIN

Following just more than four years of work, 30 September marked the end of the **DynoTRAIN** project. This was one of a cluster of three integrated projects (TrioTRAIN), all co-ordinated by UNIFE, addressing key interoperability issues. DynoTRAIN was focussed on testing requirements for the certification of rail vehicles in terms of running dynamics (track and vehicle interaction).

The final meeting of the project took place on 26-27 September in Frankfurt, Germany. This very successful final meeting was attended by approximately 70 participants, including the vast majority of project partners, with representatives from at least twelve different countries. The meeting also represented an opportunity for the partners to present the work undertaken and results achieved, as well as their proposals for integrations to standards and regulation based upon these, to the assembled stakeholders from outside of the project.

Among the participants were representatives of organisations from across the rail sector. These included the European Railway Agency and the Departments of Transport of countries from within and outside the European Economic Area (such as the United States Department of Transport and Federal Railroad Administration). National Safety Authorities of European Union Member-states were also represented. Infrastructure Managers from outside of the project, from countries both within and outside of the EU, were also in attendance.

This was a very successful project, which achieved its objectives of making contributions to both standards and regulation. Work undertaken in the project informed recent revisions of European standards (EN14363) and TSIs (both Loc & Pas and INF). Representatives of several CEN Technical Committee 256 (Railway Applications) Working Groups were also at the final meeting.

Information from the meeting, as well as further results from the project, is already available on the DynoTRAIN public website (**www.triotrain.eu**).

RIVAS

RIVAS (**R**ailway **I**nduced **V**ibration **A**batement **S**olutions) is a three-year European research project that began in January 2011 with a budget of around € 8.2 million. The project **aims to reduce the environmental impact of ground-borne vibration while safeguarding the commercial competitiveness of the railway sector**. For several areas of concern, vibration should be reduced to near or even below the threshold of perception. The project's goal is therefore to provide the tools to solve vibration problems for surface lines by 2013.

THE KEY DELIVERABLES OF THE RIVAS PROJECT ARE:

1. Assessment of the benefits of mitigation measures in terms of human response and agreed protocol for the evaluation of annoyance and exposure to vibration;
2. Agreed measurement protocols to assess and monitor the performance of anti-vibration measures;
3. Agreed protocol to characterise vibration response properties of soils;
4. Guidelines for track and vehicle maintenance geared towards low vibration;
5. Mitigation measures for ballasted and slab track;
6. Guidelines for the design of transmission mitigation measures under/next to the track; and
7. Guidelines for the design of low vibration vehicles.

Three workshops were organised between May and October 2013. The first two took place in Berlin in May 2013 and the partners presented a number of mitigation measures on track as well as interventions on the transmission path in order to reduce induced ground vibration. The third workshop was organised by UNIFE on 9 October in Brussels with more than 50 experts participating, both from the consortium and from other organisations as well. The event addressed the topic of maintenance and rolling stock aspects in reducing railway induced ground vibrations by controlling the source.

UNIFE's main role in this project is dissemination and communication. RIVAS is coordinated by UIC. UNIFE members involved in the project are: Alstom Transport, Bombardier Transportation, Lucchini RS, Rail One and Vibratec.

For more information on RIVAS please visit: **www.rivas-project.eu**

RIVAS partners during the 3rd Workshop in Brussels, October 2013

TIGER DEMO

TIGER DEMO is the continuation of TIGER and is set to take the four TIGER pilots into a full scale demonstration for subsequent market uptake. **TIGER** Project is a large-scale, integrated, and collaborative project for the development of rail transport in competitive and co-modal freight logistics chains.

The project gathered 17 European partners in its consortium. UNIFE was involved in the dissemination activities to ensure that the project deliverables were in line with the interests of the UNIFE members. The project is coordinated by Consorzio Train.

TIGER DEMO has taken the original TIGER Pilots into full scale demonstrators. TIGER DEMO has managed the various fine-tuning of services, as their effective performances are fundamental for achieving the full commercial exploitation in the market place.

THE TIGER DEMO PROJECT WAS COMPRISED OF THE FOLLOWING FOUR DEMONSTRATORS:

1. GENOA FAST CORRIDOR
2. MARIPLAT
3. INNOVATIVE PORT & HINTERLAND OPERATIONS
4. INTERMODAL NETWORK 2015

For more information on TIGER Demo please visit: **www.tigerdemo-project.eu**

C. Ongoing projects coordinated by UNIFE

EURAXLES

EURAXLES (Minimising the risk of fatigue failure of railway axles) was launched in November 2010 under the leadership of UNIFE. The project gathers 23 key rail players, including manufacturers, operators, suppliers, and academic Institutions, in a far-reaching project that **aims to bring the risk of axle failure in rail transport to a minimum**, thereby further improving the operation of the European interoperable railway system.

The main concept of the EURAXLES project is to follow three complementary routes which innovatively consider **the combined influence of axle design, production and maintenance standard parameters, whilst retaining a safe management of the life cycle**. This includes: improving the axle load definition, progressing beyond the state of the art by resolving the problems associated with existing surface coating methods (corrosion, damage) through improved adhesion and new innovative coating and treatment processes; and enhancing the currently-used ultrasonic techniques for inspecting the complete volume of the axle.

In addition, RAMS and LCC analyses will be undertaken in EURAXLES to promote the market uptake of the investigated solution. EURAXLES will yield positive results for the environment in the coatings and adhesion methods it develops that will avoid or severely limit VOC emissions.

The consortium is currently preparing its final recommendations, after successfully completing a testing campaign. The project will prepare and ensure a successful uptake of the results into standards and markets. A special session on EURAXLES was also organised at the occasion of the 17th International Wheelset Congress in Kiev, Ukraine, in September 2013 (see the section about ERWA for more details).

The €2.6 million funding project is steered by the following UNIFE members: Alstom Transport, AnsaldoBreda, Bonatrans, CAF, GHH-Valdunes, Lucchini RS, MERMEC and BVV-RAFIL.

For more information on EURAXLES, please visit: **www.euraxles.eu**

ACOUTRAIN

ACOUTRAIN (Virtual certification of acoustic performance for freight and passenger trains) is a three year European research project that began in October 2011 with a budget of around €3 million. ACOUTRAIN involves the following UNIFE members: ABB, Alstom Transport, Bombardier Transportation, Talgo and Vibratec.

ACOUTRAIN's main objective is **promoting the interoperability of rail traffic in Europe by dramatically reducing the time and cost of the TSI Noise conformity assessment procedure and harmonising the process for noise conformity assessment across Europe by developing standard procedures and procedures for acoustic virtual testing**. Equally important are the objectives of clarifying the application of the simplified evaluation method introduced by the partial revision

of TSI Noise by providing specific examples, and investigating a wider technical scope and impact of the certification procedure. The virtual testing procedures that are being developed in ACOUTRAIN should provide an alternative to the real testing procedures (measurements) that are required today by TSI Noise.

In the first 2 years of the project, the procedures that could be used as a simplified method have been described with dedicated flowcharts (public deliverable D1.1 "Clarification of the simplified method in the partial revision of the TSI"). Moreover a basic concept for virtual testing has been developed, including three different Virtual Testing approaches (Extension of Approval, Hybrid Testing, Full Virtual Testing). During the ACOUTRAIN General Assembly in June 2013 it was determined that the two approaches Extension of Approval and Hybrid Testing have great potential and should be prioritised. The next step will be to validate the proposed procedures for the different approaches considered by using the methods and tools that have been developed so far in ACOUTRAIN and comparing the results to experimental data. Both measurement and calculation uncertainties as well as possible sources for errors will be evaluated during this process. ACOUTRAIN will deliver the main results at the end of the project term (September 2014), which will be presented during the final project conference in September 2014.

For more information on ACOUTRAIN please visit:
www.acoutrain.eu

EUREMCO

EUREMCO (**EU**ropean **R**ailway **E**lectro**M**agnetic **C**ompatibility) began in October 2011. It involves the following UNIFE members: Alstom Transport, Bombardier Transportation and Siemens. Partners from other parts of the rail sector include Railway Undertakings, such as DB, SNCF and Trenitalia, and Infrastructure Managers such as Network Rail and ProRail. Academic Institutions and Research Centres are also involved in the project. The project has a planned duration of 36 months, and will finish in September 2014.

The main objective of EUREMCO is to **harmonise and reduce the certification process of rail vehicles for Electromagnetic Compatibility (EMC)**. The main concept of the project is to specify the conditions for cross-accepted certification throughout Europe by using sound scientific methodologies that allow for the identification of "transfer functions" that need to be applied to results obtained on different test tracks in different countries, for the same power supply system. By also addressing non-electrified lines, the project will cover the entire European railway network. And by helping to close the corresponding "open points" in the TSIs, the project will lead to a **time and cost reduction in the certification process of rail vehicles against Electromagnetic Compatibility issues**, corresponding to an estimated saving of €60 million over the next 15 years.

In 2013, much of the work revolved around the processing and analysis of the data collected from the test campaigns conducted in 2012. While other Work Packages have been planning test campaigns of their own, which will take place in 2014, the Work Packages which carried out tests in 2012 are currently planning validation tests, which will be instrumental in the elaboration of the final results and will be carried out in early-mid 2014.

For more information on EUREMCO please visit:
www.euremco.eu

OSIRIS

The **OSIRIS** project (**O**ptimal **S**trategy to **I**nnovate and **R**educe Energy Consumption **I**n Urban Rail **S**ystems) has completed its first year. The project is partly funded by the European Commission under the Seventh Framework Program. The total budget is € 8 million of which € 4.3 million is EU funded. OSIRIS has 17 partners, including the following UNIFE members: Alstom Transport, Ansaldo STS, AREVA, CAF, Saft and Siemens.

Urban rail systems are complex environments and their energy consumption is characterised by a wide range of interdependent factors. Aside from the energy performance of urban rail vehicles, it is also necessary to consider the energy associated with the infrastructure, as well as the influence of the modes of operation.

During the first year, one of the **major achievements of the project was the holistic strategy for integrated urban rail energy efficiency management. This is based on the use of a model methodology which provides manufacturers and operators with uniform information on the system level as well as new concepts for on-board Energy Storage and new technologies on auxiliary converter and transformer**.

Three presentations of OSIRIS were given during the 2013 UITP World Congress, which was held from the 26-30 May 2013 in Geneva. The presentations on OSIRIS goals and results succeeded in gathering a large audience at the ATM and UITP stands as well as during the UITP High Level Industry Committee (HLIC).

The project was also presented during a joint Workshop UNIFE-UIC on the TecRec 100_001 in October 2013 in Paris, where the Technical coordinator (AREVA) highlighted benefits and limits of integrating the TecRec 100_001 for the Urban Rail sector.

Moreover, the second User Group meeting was held in May 2013 and it was an opportunity for WP Leaders to present the first significant results. Then, thanks to STIB, the participants had the opportunity to visit three braking energy recovery prototypes in a Brussels metro station.

In the coming year, the project will focus on **identifying the standard duty cycles for urban rail applications**. The development of the overall model that takes into account electric as well as thermal energy will continue. The Technical Recommendation of the safety risk assessment of on-board energy storage systems will be completed, while the technology development and their validations will come to maturity.

For more information on OSIRIS please visit:
www.osirisrail.eu

UNIFE-UIC Workshop on TecRec 100_001 in Paris, October 2013

MERLIN

Following the successful kick off of the project at the end of 2012, the **MERLIN** project team, under the coordination of UNIFE, has continued to sustain momentum and ensure that 2013 was a productive year, which will no doubt set a positive tone heading into 2014 and 2015.

MERLIN's full project title is: Sustainable and intelligent **M**anagement of **E**nergy for smarter **R**ai**L**way systems in Europe: an **IN**tegrated optimisation approach. The project was submitted under the topic "Management of Energy in Railways" and follows previous UNIFE coordinated projects such as Railenergy, a project focused on the energy management of the entire European Rail system. A further objective is to consider the implications of the recent efforts to liberalise the electricity market.

MERLIN's main aim and purpose is to investigate and demonstrate the viability of an integrated management system to achieve a more sustainable and optimised energy usage in European electric mainline railway systems.

MERLIN WILL PROVIDE AN INTEGRATED OPTIMISATION APPROACH THAT INCLUDES MULTIPLE ELEMENTS, DYNAMIC FORECASTING, SUPPLY-DEMAND SCENARIOS AND COST CONSIDERATIONS TO SUPPORT OPERATIONAL DECISIONS LEADING TO A COST-EFFECTIVE INTELLIGENT MANAGEMENT OF ENERGY AND RESOURCES THROUGH:

1. Definition of the architecture for an intelligent Railway Energy Management System (REM-S) for both operational and strategic applications
2. Improved design of existing and new railway distribution networks and electrical systems as well as their interfaces with the public grid, while taking into consideration network interconnections
3. Better understanding of the influence on energy demand of operations and operational procedures of the different elements of the railway system
4. Identification of technologies and solutions capable of contributing further to the optimisation of energy usage;
5. More efficient traction energy supply based on optimised use of resources
6. Understanding of the cross-dependency between these different technological solutions to define optimum combinations for optimised energy usage
7. Improving cost effectiveness of the overall railway system

Throughout the first year, the scope of the components and elements of the railway system to be considered in MERLIN has been identified along with the elaboration of global consumption maps of the scenario railway networks. Importantly, the definitions of the scenarios (based on realistic cases) for which the developments of MERLIN will be simulated on are underway – these scenario simulations are a key for the project as it will demonstrate the applicability and viability of the MERLIN outputs. Finally, another key milestone of 2013 is the definition of the first draft of the blueprints for the integrated Railway Energy Management System – this activity will continue throughout the project lifetime in order to refine and precise its specification.

The project's duration is 36 months with an expected finish date of September 2015. The total budget of the project is €7.1 million with almost €4.5 million funded by the EU under the Seventh Framework Programme. The UNIFE members involved in the project are Alstom Transport, AnsaldoBreda, Ansaldo STS, CAF, MERMEC, Oltis Group, and Siemens.

The MERLIN mid-term conference is expected to take place on 13 May 2014 alongside the UIC Energy Efficiency days – UNIFE members will, of course, be more than welcome to attend.

For more information on MERLIN please visit: **www.merlin-rail.eu**

D. On-going Projects with UNIFE Involvement

AUTOMAIN

AUTOMAIN (**A**ugmented **U**sage of **T**rack by **O**ptimisation of **M**aintenance, **A**llocation and **I**nspection of railway **N**etworks) is a three-year European research project that began in February 2011 with a budget of around €3.8 million. The project **aims to optimise railway track inspection, maintenance and possessions, and develop processes and technology so that railway infrastructure is only maintained when intervention is needed**. Within the project, research is being carried out in the areas of railway infrastructure inspection, high speed maintenance and possession planning.

Five National Workshops to present the final results have been planned by operators and infrastructure managers that make up the consortium: the Netherlands (ProRail), France (SNCF), Finland (Trafikverket and Lulea University), Germany (DB) and UK (Network Rail and Birmingham University). The events will take place between December 2013 and January 2014 and will be published on the new AUTOMAIN website.

TO DATE, THE PROJECT HAS DELIVERED INTERESTING RESULTS ON:

1. Functional requirements, key performance indicators and evaluation criteria for more efficient track maintenance; and
2. Process improvement tools for track maintenance

UNIFE's main role is dissemination and communication. The project is coordinated by ProRail. UNIFE members involved in the project are: MERMEC, Strukton Rail, Vossloh Cogifer and EFRTC.

For more information on AUTOMAIN please visit: **www.automain.eu**

ECUC

ECUC (**E**ddy **CU**rrent Brake **C**ompatibility) is a three year European research project that began in September 2012 with a budget of around EUR 3.2 million. The project **aims to prove that Eddy Current Brake (ECB)**

is a highly effective and applicable solution for increasing the braking capacity of new high-speed trains. Moreover it aims to solve the concerns raised by infrastructure managers by proposing concrete and realistic solutions to overcome any possible drawbacks that ECB have experienced on some lines. A **new generation linear eddy current brake** will be designed and the study of incompatibilities will be performed in two domains: electromagnetic and thermo-mechanical. As a result, ECUC will also propose new designs and engineering and operational guidelines for eddy-current brakes and signalling equipment. In its last stages it will define Technical Recommendations for the correct interoperable functioning of the ECB in a complex railway system.

In order to ensure that the research and innovation objectives of ECUC project are achieved, a clearly defined work program was drawn up and divided in five technical work packages (WP) with two work packages dedicated to management and dissemination. In 2013 two technical WPs were active: WP2 (Identification of the performance requirements, design parameters and their relationship) and WP3 (Eddy-current braking system model design). The results of WP2 contain the definition of the design parameters and requirements of ECB based on the analysis of all the actors involved in this project (ECB, rolling stock, track, trackside equipment). WP3 has started at the beginning of 2013 and the interaction between ECB and the track and trackside equipment is being characterised.

UNIFE is the leader of the Work Package dealing with dissemination and exploitation. The project is coordinated by CEIT (Centro de Estudios e Investigaciones Técnicas). UNIFE members involved in the project are: Alstom Transport and Knorr-Bremse.

A workshop was organised jointly by UNIFE and CEIT in September 2013 gathered more than 20 participants from the consortium and elsewhere. The event addressed the first results and it was followed by a presentation of the main dissemination activities carried out during the first year. Moreover, a special session was dedicated to a debate on the EM compatibility between ECB and signalling systems and the interaction between ECB and the track.

ECUC Workshop, September 2013

For more information on ECUC please visit: **www.ecuc-project.eu**

MARATHON

MARATHON (**M**ake **R**ail **T**he **HO**pe for protecting **N**ature) is an EU FP7 co-funded project that aims to increase network capacity and cost efficiency by the coupling of two classical trains, the two locomotives of the train are then connected via a radio link with a driver controlling the front and middle locomotive from the master locomotive (usually the front loco). This need has been reinforced by market studies which show great potential for these types of trains.

MARATHON looks at deploying "longer, faster and heavier trains" on the existing infrastructure. A key technical solution to be developed by the project is a wireless communication device which can enable two locomotives and trains to be connected together with the middle locomotive operated remotely from the front locomotive. The project has confirmed that this is technically possible with the use of a radio link to drive a "Marathon" train with a length of up to 1500m. Further tests have been performed in France between Lyon and LeBolou using real train circulations to identify the appropriate communication technologies and radio frequencies able to provide uninterrupted radio signals. Simulations have also been conducted to analyse the longitudinal effects that Marathon trains may endure. These tests will complement the brake tests.

UNIFE's main role is dissemination and coordinating the development of technical recommendations that will be useful for the industry. MARATHON was present at several key events in 2013 including Transport Logistic event in Munich over the summer. The project will run for 36 months in total and has an overall budget of €4.38 million. The project is coordinated by D'Appolonia and the technical leader is NewOpera. UNIFE members involved in the project are Alstom Transport, Faiveley and Vossloh.

For more information on MARATHON please visit: **www.marathon-project.eu**

PROTECTRAIL

PROTECTRAIL (The Railway-Industry Partnership for Integrated Security of Rail Transport) is a European integration project with the objective of **developing an interoperable and modular architectural framework for mainline rail security solutions**. Eventually, this framework would allow the creation of a system architecture that makes **plug-and-play for security solutions** possible. It will be possible to integrate new solutions easily into existing security systems. The solutions developed in the project were tested in October 2014 in a successful demonstration event that took place at the IK test ring near Zmigrod in Poland. Technologies integrated, tested and successfully validated included systems for intrusion detection, video tracking, scanning for dangerous goods as well as track protection.

Together with UIC, UNIFE takes a leading role in dissemination. PROTECTRAIL is co-funded by the European Commission within the framework of the FP7 programme and has a total budget of €20 million. It was also decided to extend the project from February 2014 to June 2014.

For more information on PROTECTRAIL please visit: **www.protectrail.eu**

SUSTRAIL

SUSTRAIL (The sustainable freight railway: designing the freight vehicle/track system for higher delivered tonnage with improved availability at reduced cost) is a four year European research project that began in January 2011 with a budget of around €9.5 million. The project **aims to contribute to a new era in the rail freight sector by adopting a holistic approach, implementing a clear methodology and viable procedures for combined improvement in both freight vehicles and track components**. The expected benefit from the SUSTRAIL project is an increased performance of the whole rail freight system (vehicle plus track), which is assessed and quantified through the implementation of appropriate life cycle cost analyses. SUSTRAIL will therefore promote modal shift of freight in Europe from road to rail, providing the approach, structure, and technical content to support this modal shift through improvements in the railway freight system including innovations in rolling stock and track components.

Selected routes have been identified across three European countries (UK, Bulgaria and Spain) that have been investigated in terms of capacity, type of freight vehicle and characteristics of the infrastructure. This made it possible to define a benchmark that will be used to compare and assess the benefits of the proposed SUSTRAIL upgrades both on vehicles and infrastructure. Business cases have been set up to demonstrate on real routes the contributions, solutions and innovations SUSTRAIL is aimed at introducing in the railway sector.

In 2013, two project General Assemblies and a project Mid-Term conference were organised to discuss about the progress of the project and present the first results of SUSTRAIL. UNIFE's main role is dissemination and communication. The project is coordinated by Consorzio Train. UNIFE members involved in the project are: Lucchini RS, MERMEC and Tata Steel.

For more information on SUSTRAIL please visit: **www.sustrail.eu**

SECUR-ED

SECUR-ED (**Secur**ed Urban Transportation – A **E**uropean **D**emonstration) is a demonstration project with the objective to provide a set of **tools and procedures to improve urban transport security**. The project, which started in April 2011, is co-financed by the European Commission in the framework of FP7 and has a budget of €40 million and a duration of 42 months. It brings together 41 partners, including major security technology providers, rolling stock manufacturers and public transport operators. It includes UNIFE members, such as Alstom Transport, Ansaldo STS, Bombardier Transportation and Thales. A key element of the project is the demonstrations which will take place in Paris, Madrid, Berlin and Milan. The results of the project will be tested and validated in realistic scenarios. **Each demonstration focuses on different technologies and threats, ranging from CCTV and video analytics to CBRN-E and intrusion detection**. SECUR-ED also focuses on a non-technological approach to security by including the development of training and lesson plans for operational public transport workers. All **solutions are designed to be transferable, scalable and adaptable to the needs of different public transport systems**.

Most of the demonstrations took place in late 2013. Successful demonstrations were run in Berlin, Milan, Madrid, and Paris, the main demonstration cities, as well as Lisbon, one of the add-on partners which implements SECUR-ED solutions on a smaller scale, proving the scalability of the SECUR-ED solutions.

UNIFE is predominantly involved in the dissemination of the project by organising a series of events and coordinating the participation of project partners in conferences. For instance, SECUR-ED was presented at the HOMSEC fair in Madrid and the UITP World Congress in Geneva. The main dissemination event of the project in 2013 was the midterm conference which was held in Geneva and brought together public transport security experts from all over the world. Under the leadership of UNIFE and UITP, SECUR-ED also produced an introductory video to the project which can be found on the project website. UNIFE is also the contact for the Industry Advisory Group where interested companies can follow the project and advise the consortium.

The project will end in the second half of 2014. The date and location of the final conference will be announced on the website.

For more information on SECUR-ED please visit: **www.secur-ed.eu**

ALL WAYS TRAVELLING

In 2012, the consortium "All Ways Travelling" won a tender, initiated by the European Commission (Mobility and Transport General Directorate) to develop and validate a model for multimodal pan-European passenger transport information and booking system.

The consortium is comprised of Amadeus, BeNe Rail, IATA, Thales, UNIFE and Zeppelin University. The project forms one of the initiatives adopted by the European Commission (EC) within its Roadmap to a Single European Transport Area. The roadmap aims to build a more efficient, sustainable transport system to increase mobility across Europe, drive growth and associated employment within the transport sector, and reduce carbon emissions.

In the first stage of the project, the All Ways Travelling consortium has undertaken an in-depth study of multimodality. The study was completed at the end of 2013. A series of Proofs of Concept (POC) in terms of business models, operations and specific technologies that have been identified as critical for market delivery were also developed.

The long-term objective of the EC is to ease travel across Europe using various modes of transport, such as air, rail and urban transport, thus enabling European residents and visitors to enjoy a seamless door-to-door travel experience.

By addressing the clear requirement for easy access to travel solutions that combine different transport modes, the roadmap will establish a framework for European multimodal transport that streamlines shopping, booking, ticketing and payment processes.

The project is coordinated by Amadeus. The works and outputs of All Ways Travelling will be pathfinders for the SHIFT²RAIL JU.

For more Information on All Ways Travelling please visit: **www.allwaystravelling.eu**

07

SIGNALLING AND ERTMS

A. ERTMS Memorandum of understanding

B. ERTMS deployment on the right track?

C. UNISIG working for a stable and interoperable ETCS

D. ERTMS as a Global standard

E. ERTMS communication

SIGNALLING AND ERTMS

A. ERTMS Memorandum of understanding

In 2013, the industry has continuously worked to deliver on the commitments agreed in the ERTMS Memorandum of Understanding which was signed in April 2012 by the European Commission, the European Railway Agency and the railway associations CER, UIC, EIM, GSM-R Industry Group, ERFA and UNIFE. The following major achievements can be highlighted as the industry contribution to the success of the common approach described in the MoU.

1. The UNISIG companies have developed and prepared for signature a framework agreement to enhance the collaboration of the industry to carry out interoperability tests for railway operators, infrastructure managers, national authorities and public institutions. This agreement serves to support interoperability and satisfy third party requests for interoperability tests in a coordinated manner.

2. In addition to delivering the updated specifications for the ERTMS maintenance release, UNISIG has delivered train interface and RBC (Radio Based Communication) interface specifications to the European Railway Agency. These technical contributions support the overall goal of providing a stable and cost-efficient system to the railway operating community.

B. ERTMS deployment on the right track?

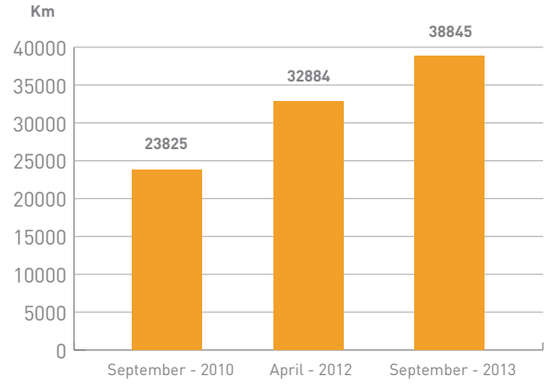
Germany has announced early 2013 that it would equip its Rail Freight Corridors with ERTMS, which was excellent news for the sector. The first priority is Corridor A (Rotterdam - Genoa) which will be equipped by 2018. This positive message from Germany will certainly boost the further implementation of ERTMS, since equipping these corridors will enhance the interoperability between Germany and its many neighboring countries.

UNIFE also welcomes the new multi-annual financial framework proposed by the European Commission for the period 2014-2020. This shows continuous support of the European Commission and ERA to ERTMS deployment in Europe. The Connecting Europe Facility (CEF) doubles the budget available for ERTMS deployment compared to the previous financial framework (2007-2013). In a period of 7 years, starting from 1 January 2014, an expected budget of € 700 million to € 1.1 billion will be allocated to ERTMS investments with a funding rate of 50% to 85% for countries eligible for cohesion funds.

UNIFE looks forward to the realisation of ERTMS projects and the use of the available fund and seeks solutions to the technical burdens which impact the success of financing the deployment projects. (For more information please see the CEF article in the European Affairs section).

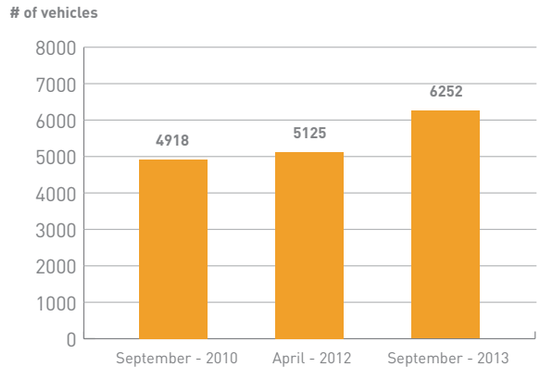
More than 29000 km of tracks and almost 3000 vehicles are ERTMS equipped outside Europe

ERTMS EQUIPPED TRACK IN EUROPE (km) CONTRACTED



Source : UNIFE

NUMBER OF VEHICLES EQUIPPED WITH ERTMS IN EUROPE CONTRACTED



Source : UNIFE

SIGNALLING AND ERTMS

C. UNISIG working for a stable and interoperable ETCS

2013 also provided lots of challenges and workload to the UNISIG Working Groups. The main objective of the working groups is to fine tune and provide a stable and backwards-compatible standard Baseline 3 to customers.

UNISIG has largely contributed to the first Maintenance Release being developed jointly with the European Railway Agency and the railway sector. The specifications have been shaped over the course of 2013 but will be approved in 2014. Nonetheless, as described in its title, further releases will be published in the coming years to close all the open points of the standard and take into account the return of experience of the first Baseline 3 projects.

UNISIG was successful in the TEN-T 4th call and additional funds were awarded to the working groups to support the ERA activities and work on common specifications.

ERTMS has been deployed in 37 countries

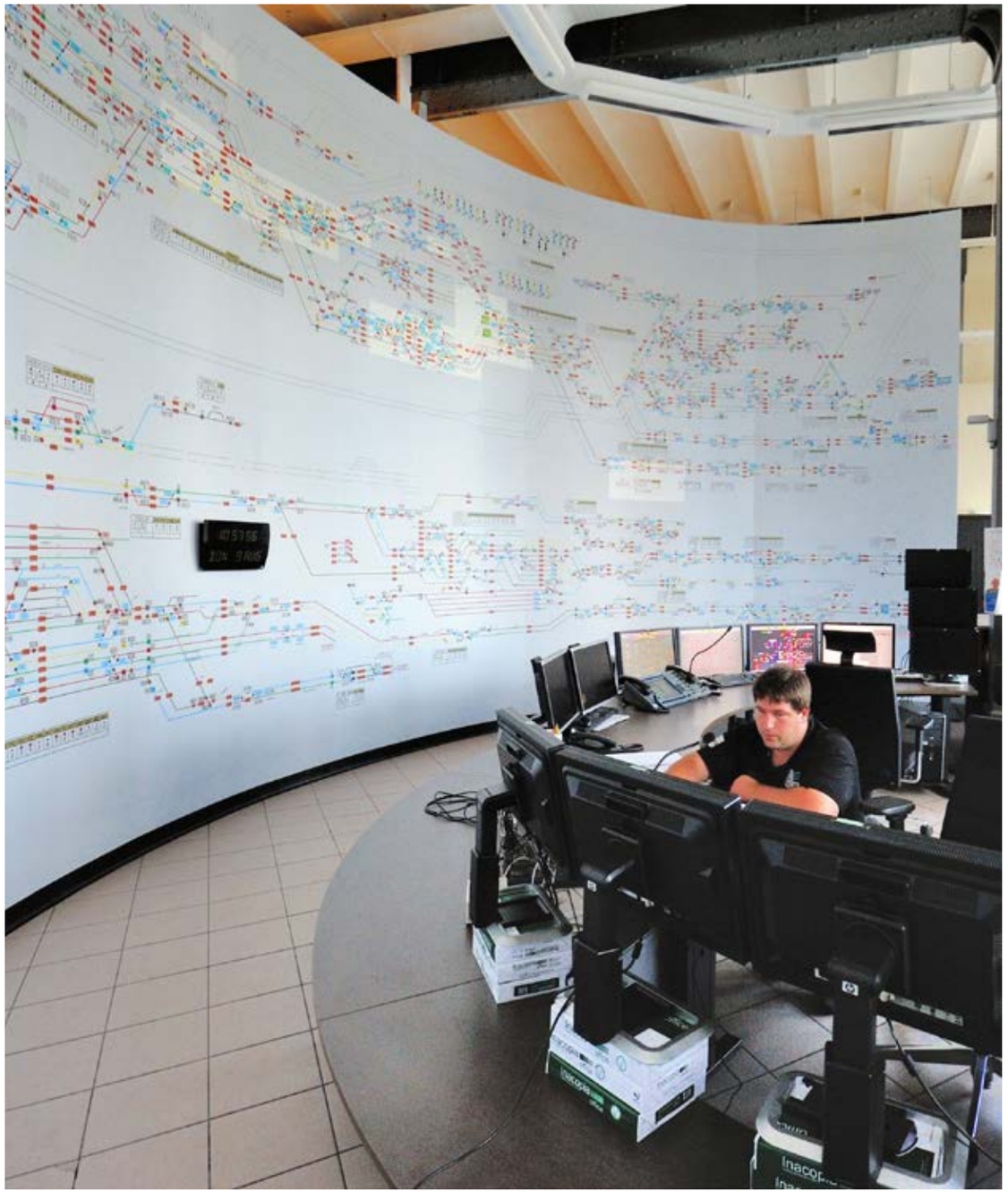
UNISIG Working Groups took the lead in drafting the Technology Demonstrators (TDs) for SHIFT²RAIL IP2 - Advanced Traffic Management and Control System. The majority of the TDs are contributing to the European Commission's strategies for enhancing ERTMS. Taken as an example TD1 (Adaptable communications), its objective follows the priority set by the European Commission on evaluating future telecommunication solutions for ETCS. (For more information please see the SHIFT²RAIL chapter)

D. ERTMS as a Global standard

Belgium doubled the track km equipped with ERTMS since the beginning of 2012

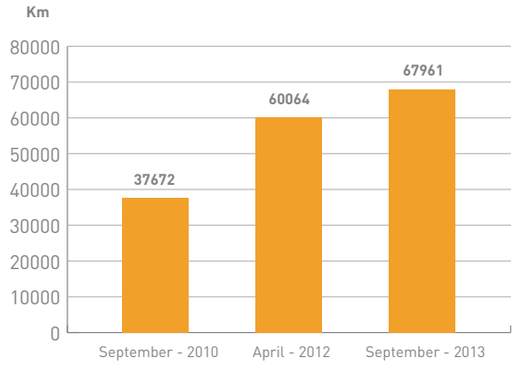
Even though ERTMS was originally designed to be the unique but ubiquitous signalling system for Europe and support full interoperability across the EU, it has proven to be perfectly suitable and is situated to become THE global signaling system. Moreover, SHIFT²RAIL will further reinforce this position by bracing technical solutions to enhance the system to encompass the worldwide needs.

ERTMS is deployed in a growing number of countries. Currently 37 counties are using ERTMS. More than 29000 km of tracks and almost 3000 vehicles are ERTMS equipped outside Europe. Significant investments are in progress in the Middle East as well as in the Maghreb countries.



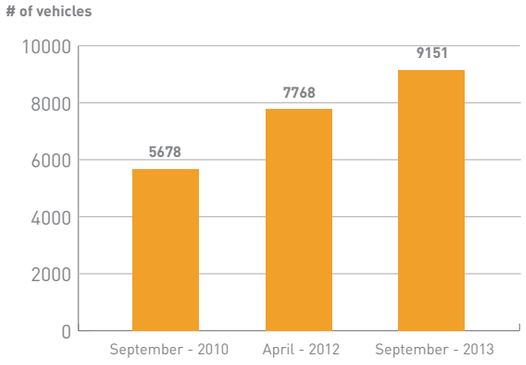
SIGNALLING AND ERTMS

ERTMS EQUIPPED TRACK WORLDWIDE (km) CONTRACTED



Source : UNIFE

NUMBER OF VEHICLES EQUIPPED WITH ERTMS WORLDWIDE CONTRACTED



Source : UNIFE

E. ERTMS communication

RE-LAUNCH OF THE ERTMS.NET WEBSITE

ERTMS.net website was renovated with a new design, extended information and more user-friendly applications.

THE LATEST ERTMS STATISTICS FROM SEPTEMBER 2013 ARE AVAILABLE. FROM THE GRAPHS THE FOLLOWING CONCLUSIONS CAN BE DRAWN:

1. In the year of 2013, Europe regained its leading role in ERTMS deployment;
2. Steady increase in investments in the EU Member States is visible, slight slowdown in ERTMS investment outside Europe;
3. Small EU Member States, such as Belgium and Denmark, are continually increasing ERTMS deployment;
4. Significant increase in the number of vehicles equipped with ERTMS thanks to investments in Western Europe e.g. Switzerland and Germany;
5. Belgium almost doubled the track km equipped with ERTMS since the beginning of 2012.

NEW FACTSHEETS

The number of countries equipped with ERTMS is constantly growing; this positive evolution was also reflected in the ERTMS Factsheets. In 2013, three new factsheets were published, presenting ERTMS deployment in different areas of the world: Denmark - announced to equip its entire national network with ERTMS, in the Middle East and Maghreb countries significant investments are in progress.

PARTICIPATION AT CONFERENCES

UNIFE and UNISIG have represented the supply industry at the major ERTMS events: UIC GSM-R Conference, Test4Rail, and the ERA Control Command and Railway Communication Conference 2013.

08

A. ERWA - Railway Wheels and Wheelsets Committee

ERWA - RAILWAY WHEELS AND WHEELSETS COMMITTEE

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A. ERWA - Railway wheels and wheelsets committee

ERWA, the UNIFE Railway Wheels Committee, currently comprises 10 companies from 9 different countries, all of which produce railway wheels and wheelsets in Europe: Bochumer Verein Verkehrstechnik, Bonatrans, CAF, Lucchini RS, Lucchini Sweden, Lucchini UK, Lucchini Poland, Radsatzfabrik Ilsenburg, Valdunes SAS, and Valdunes Belux.

At present, the ten companies are organised in five European groups, each of which is vertically integrated from forge to finished products: Bonatrans Group, CAF, GHH-Valdunes, BVV-Rafil, and the Lucchini RS Group.

The ERWA General Assembly hosted by Lucchini Sweden was held on the 21 May 2013 in Stockholm. About 40 representatives of the rail supply industry participated in the annual meeting. Raimund Abele, GHH-Valdunes, ERWA Chairman, as well as Mr Francesco Lombardo of Lucchini RS (Chairman of the ERWA Technical Committee) and Mr Jakub Weimann of Bonatrans (Chairman of the Development Committee) presented the activities and the progress of their respective groups. The three Chairmen were also renewed by the General Assembly for another year in their positions.

IN 2013 NUMEROUS ACTIVITIES COORDINATED BY THE ERWA STEERING COMMITTEE WERE CARRIED OUT. THEY CAN BE SUMMARISED AS FOLLOWS:

1. Strategic/public affairs activities
   - Market statistics and trends
   - Communication strategy and lobbying

2. Technical activities
   - Contribution to European standards and TSI
   - IRIS
   - Joint R&D projects (EURAXLES)

In September 2013, the 17th edition of the International Wheelset Congress (IWC) took place in Kiev, Ukraine. UNIFE and ERWA (the UNIFE Railway Wheels and Wheelsets Committee) as official organisers of the event were present for this four-day conference with technical presentations as well as exhibition stands. Raimund Abele (CEO of GHH Valdunes and ERWA Chairman) officially opened the event which gathered the worldwide wheelset experts to share and exchange on the latest key innovative developments in the area.

In addition, the UNIFE-led FP7 project, EURAXLES also had the chance to present its current activities in a dedicated session. The leaders of the different streams of activities have had the chance to explain the current findings for this important project for the safety of railway axles.

ERWA will continue to develop and promote this significant event in the future, and is committed to prepare a successful event in 2016.

For further information about EURAXLES, please contact **lea.paties@unife.org** or visit **www.euraxles.eu**

09

A. IRIS is still on track

B. Strategic orientation

IRIS - INTERNATIONAL RAILWAY INDUSTRY STANDARD

A. IRIS is still on track

In 2013, IRIS experienced significant growth and progressed in three areas in particular: growth of certified sites, development of tools for IRIS stakeholders, and confirmation of strategic development for the future.

As in previous years, the number of certified sites continued to grow, by the end of December this year, nearly 950 sites were listed on the IRIS portal. The IRIS Management Centre was also pleased to develop a number of documents, guidelines, and tools aimed to fulfil the needs of all sector stakeholders. Finally, strategic decisions for the continuous implementation of the IRIS standard were taken and are currently being applied.

Detailed activities to be highlighted:

1. IRIS MANAGEMENT CENTER

The IMC team

In 2013, the IRIS team was reinforced in order to be able to cover the new tasks and organisational developments. The team added one new member, Maxime Schaub-Crouan at the beginning of the year.

2. IT SUPPORT

Following the decision of the IRIS Steering Committee to change IT providers, a dedicated project was launched and managed by Maxime Schaub-Crouan. On 1 June, the switch between the two systems was finalised without any major issues at the database and Portal level. At the end of 2013, the Audit-tool was also transferred in two steps to the satisfaction of the users.

Other developments in the IT infrastructure and support are planned in 2014 to better manage development of the IRIS scheme.

3. TECHNICAL PROGRESS

SEVERAL SUB-WORKING GROUPS OF THE TECHNICAL FORUM FOR IMPROVEMENT WERE LAUNCHED AND /OR FINALISED ON FOLLOWING SUBJECTS. MOST OF THEM ARE EXPECTED TO RESULT IN A GUIDELINE:

1. Maintenance (published in June)
2. Special Processes
3. Problem Solving
4. RAMS/LCC
5. Configuration Management
6. VDB feedbacks

Angela de Heymer follows the progress of the groups which report regularly to the IRIS Steering Committee.

The full comprehension of requirements must first be ensured by the standard itself. Thus, the IMC progressed in 2013 with the addition of new official languages available in electronic format. In addition to the English, French and Italian versions published in 2012, the IMC has produced a German version in May, a fully revised Russian version in September (respecting herewith the agreement signed with the Russian Rail Association (MP-UIRE)) and finally a Polish version in November.

The IRIS electronic standard is available in English, French, Italian, German, Russian and Polish

The availability of a recognised version is a key element of the worldwide development of IRIS. Other languages have been requested to UNIFE, who will progressively propose them to the sector for development.

4. WORLDWIDE EVOLUTION

In September, during the Expo 1520 in Shcherbinka (suburbs of Moscow) IRIS celebrated its initial achievements in certification in the Russian Federation. Bernard Kaufmann and Valentin Gapanovich, RZD Vice-President and NP-UIRE Chairman, officially awarded 15 certificates to local companies.

Also at the Expo, the IRIS Advisory Board held a meeting in order to share experiences with the Russian industry.

China is an important country for IRIS growth and has many IRIS certified sites and certificates. IRIS Management travelled to China several times over the past year to look into IRIS development and ensure quality control—that the standards set by the IRIS seal are maintained. To do this, two meetings with the local authorities were organised, some industrial sites visited and some CB offices audited.

In the United States, IRIS is not as widespread, but the IRIS management team is taking some actions to further develop the standard. In fact, when UNIFE met with American Public Transportation Association (APTA) in November 2013, an MoU was signed between the two associations that, among other things, support the development of IRIS in the US.

From left to right: Bernard Kaufmann (GM, IRIS), Valentin Gapanovich (Senior VP, Russian Railways) Arkadi Wladimirtsev (GM, Russian Register), Kurochkin Alexandr (Executive Director, Transpnevmatika)

5. AUDITOR COMPETENCE

Actions taken in 2013 for auditor competence are:
The strengthening of prerequisite criteria of candidates
The complete revision of the training concept
The evolution of the rules

By analysing the outputs of the monitoring actions performed by the IRIS Management Centre and the feedback received from the members and the IRIS audit reports, it is clear that we have to concentrate our efforts to ensure competent assessments of the companies by our approved auditors.

SEVERAL ACTIONS HAVE BEEN TAKEN IN 2013 IN THIS RESPECT:

1. The pre-requisite criteria of the candidates was strengthened,

2. The training concept was completely revised during the three sessions organised during the year. We concentrated more on evaluating their capacity to assess situations in line with the rules than on pure transfer of basic knowledge.

3. The evolution of the rules was linked to the needs of the quickly growing scheme such as:

   - The assessment duration per site,
   - The scope assignment per auditor where a process approach was applied

This process approach is not only central to the competence but also for the audit itself in order to secure the working processes of our industry. The important element is not only the result that was achieved, but more on the process by which it was achieved, in order to ensure a sustainable quality for our customers.

The Auditor Validation Committee (AVC) who is in charge of the follow-up of the auditors was involved in all these aspects.

B. Strategic orientation

THE FIVE WORKING GROUPS MANDATED BY THE PRESIDING BOARD IN 2012, HAVE CONTINUED THEIR WORK THIS YEAR. HERE BELOW ARE THE NOTICEABLE OUTPUTS WHICH WERE REACHED:

1. The commitment of the rail industry (signed by the presidents in 2012) which defines the auditing policy within our industry was progressively applied by the actors.

2. The monitoring of the topical sub-working groups was made regularly by the UNIFE Strategy Committee.

3. The common work with the operators (our customers) is implemented through several actions:

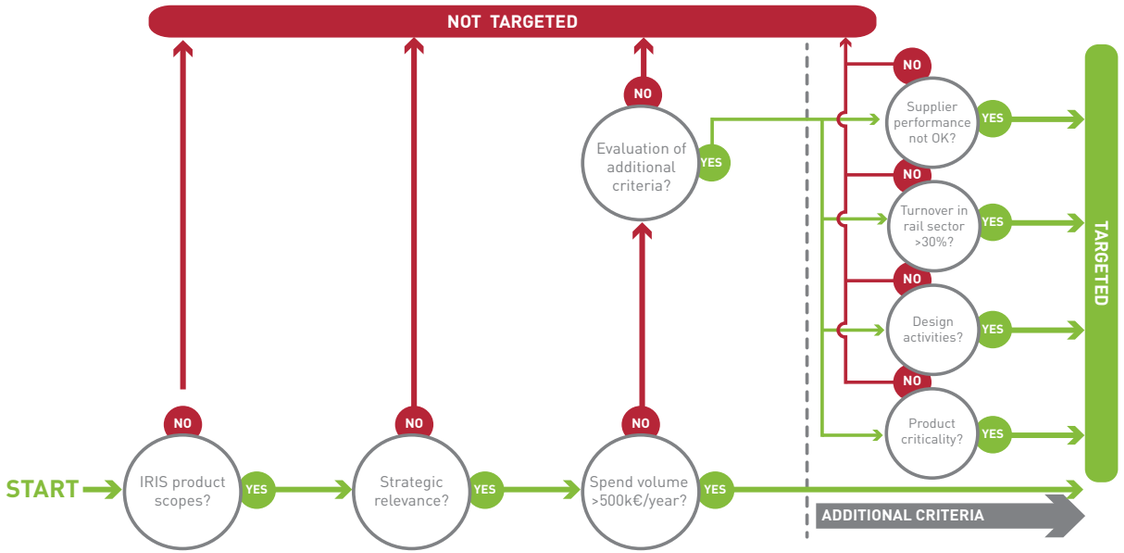
   - The preparation of a meeting with UIC
   - The integration of operators in working groups
   - The reporting of IRIS achievements during project meetings

4. The analysis of the IRIS development in Asia focused on China and several steps are defined and partially implemented

5. The main achievement was reached in the field of the supply chain management. The working group members asked the UNIFE Presiding Board to fix in a commitment some clear criteria for a common strategic panel management. The Presidents validated the commitment during their UNIFE General Assembly meeting (June, 2013) and we communicated the document to all UNIFE members and interested parties. The implementation of this important structuring process is currently in preparation.

The Presidents of the UNIFE Presiding Board validated the UNIFE commitment for supply chain management.

THE CRITERIA AND FLOWCHART:



THE CONSEQUENCES:

IN CASES WHERE A SUPPLIER IS IDENTIFIED AS AN IRIS TARGETED SUPPLIER AND DOES NOT COMPLY WITH THE REQUIREMENTS, ONE OF THE FOLLOWING CONSEQUENCES APPLY:

1. The supplier will not be considered in the tendering process, unless they commit to becoming IRIS certified,
2. An audit based on the requirements of IRIS is conducted at suppliers' premises and at supplier cost. A successfully passed audit is a prerequisite for qualification to offer. Furthermore a negative effect will be applied on the supplier offer/selection evaluation.

Each company has to decide the application of the consequences in its supplier base by ensuring the proper IRIS implementation and the fulfilment of the agreed IRIS objectives.

Either a non-IRIS certified supplier confirms to achieve the certification, ideally within 18 months by an agreed certification plan with a contracted certification body or audit results have to confirm that supplier's organisation ensures the required quality of future deliveries.

THE DEPLOYMENT:

THE PRINCIPLES DEFINED IN THIS DOCUMENT ARE TO BE IMPLEMENTED IN THE INDUSTRY ORGANISATIONS AND BE WIDELY COMMUNICATED:

- Internally: at all levels of quality and purchasing organisation
- Externally: to suppliers, partners and customers.

Furthermore, the principles and their deployment within the associated members will be monitored by the UNIFE Presiding Board and will be reviewed after 12 months by the Working Group.

THE COMMITMENT:

The below undersigning members of the UNIFE Presiding Board herewith declare officially and bindingly the respect and consideration of the above mentioned criteria and application of the defined rules.

All other UNIFE members are expected to align their processes according to the above mentioned criteria and to formally apply this commitment.

Brussels, 12th June, 2013

UNIFE COMMUNICATIONS 2013

10

A. European Railway Award 2013

B. UNIFE General Assembly 2013

C. UNIFE Interactive Analysis

A. European Railway Award 2013

The jointly sponsored CER-UNIFE 2013 Railway Award Ceremony and Annual Reception was a great start to a year full of political accomplishments made by the Industry on the EU level. In the political category the award went to Benedikt Weibel, former CEO of the Swiss Federal Railways (SBB) for the influence and strategic direction he put into the Swiss rail system and the technical category winner was Dr Johannes Nicolin, Technical Director at AAE, for his technical contributions in the area of rail freight.

Keynote speaker of the gala evening was once again European Commission Vice-President Siim Kallas, who outlined key points of the recently released fourth railway package. In his speech, he highlighted that "Europe's railways are on the brink of perhaps the most radical change in their history. The idea of having a real 'European railway' to join up our continent is very much alive. But we need now to take some radical decisions to restructure Europe's railway market to encourage innovation and the provision of better services. Rail will then be able to grow further, to the benefit of citizens, business and the environment".

Representing the European Parliament, MEP Brian Simpson (S&D, UK), Chairman of the Committee on Transport and Tourism, remarked that "This Fourth Railway Package is an important piece of legislation for the future of European railways. It is important in my view to keep both the political and the operational elements of this proposal together in a package and for us all to make a great effort to deliver a coherent set of reports that will lay down the foundations for a bright future for our railways."

2013 Political Laureate Benedikt Weibel had a major influence on the strategic direction of the Swiss Federal Railways in his fourteen years as CEO. He oversaw systematic and successful progress in long-distance, regional and international services, always focusing on customer needs. Under his leadership the density of trains per line kilometre increased by 25%. Former Swiss Transport Minister, Moritz Leuenberger, gave the laudatory address to Benedikt Weibel, remarking that, "Benedikt Weibel has devoted his whole personality to the railways. He perfectly understands that railways are all about the people who use them and pay for their infrastructure and operations. No public support, no railways." On a more general note, he added: "If the trains are to run faster and better, the railways must be restructured slowly but surely."

The laureate of the Technical Award 2013 Dr Johannes Nicolin, was introduced by Fernand Rippinger, CEO, CFL Cargo. Referring to Dr Johannes Nicolin's career, Mr Rippinger stated: "Dr Nicolin, the prestigious European Railway Award has been awarded to you as a clear appreciation of the whole railroad community for the many, excellent contributions you made helping us in our move from antiquated, old fashioned railroads to technologically well advanced and highly competitive freight enterprises." Dr Johannes Nicolin served as Director of Engineering for freight cars and bogies at Waggonfabrik Talbot in Aachen, before he became Technical Director at AAE Ahaus-Alstätter Eisenbahn AG. His impressive range of innovations, especially in intermodal freight wagons helped increase the customer value through reduced maintenance costs and enhanced handling efficiency.

Since 2007, the European rail sector has honoured outstanding political and technical achievements in the rail sector. The European Railway Award 2013 attracted more than 600 guests from all over Europe, including high-level politicians and transport stakeholders.

The next edition of the European Railway Award (2014) will be held in Brussels on 28 January. For more information on the 2014 European Railway Award Edition visit: **www.europeanrailwayaward.eu**

European Commission Vice-President, Siim Kallas.

UNIFE COMMUNICATIONS 2013

B. UNIFE General Assembly 2013

This year, UNIFE hosted its 23rd annual General Assembly in Vienna from 12-14 June. The event was a great success with over 170 attendees. In addition to the committee and board meetings, UNIFE members had the opportunity to listen to debates and speeches from the Austrian Transport ministry, the Austrian Rail Industry, CEOs from Europe's largest rail manufacturers, and high-level European transport authorities. The statutory meeting that took place on 13 June was chaired by Henri Poupart-Lafarge, UNIFE Chairman.

The event was opened with a welcome speech from Herbert Kasser, Secretary General of the Austrian Federal Ministry for Transport, and was immediately followed by a presentation from Barbara Bonvissuto, Deputy Head of Unit, DG Enterprise and Industry, who announced and introduced the findings of their newly published Competitiveness Survey of the Rail Supply Industry.

Five roundtable discussions, moderated by Chris Jackson (editor-in-chief of the Railway Gazette), were organised throughout the day in addition to the customary UNIFE Statutory meeting which took place after lunch. The three morning roundtables focused on developments in the Austrian rail system; with presentations from the Austrian Railway operator, OBB, the Viennese Urban transit operator, Wiener Linien, and questions and discussion from the UNIFE presiding board CEOs that sat on each of the panels. The first panel addressed the future of rolling stock procurement in Austria and included a presentation from Georg Lauber (CFO, OBB Passenger Transport) and discussion and debate from Jochen Eickholt (CEO of Siemens Rail Systems). The second panel addressed the future of urban transportation in Vienna, with a presentation by Markus Ossberger (Head of Business Unit Infrastructure at Wiener Linien) with contributions and discussion from Henri Poupart-Lafarge (UNIFE Chairman, President Alstom Transportation). The last Austrian-focused roundtable focused on developments in infrastructure and signalling in the Austrian rail network with a presentation by Rudolf Koller (Head of International Affairs, OBB) with contributions from UNIFE panellist, Gabriel Colceag (Vice President of Urban Rail Signalling, Thales Transportation Systems). Prior to lunch, Karel Vinck, European Coordinator for ERTMS gave an update on ERTMS policy.

The afternoon roundtables focused on the European-level initiatives of the industry; specifically the work being done on the Fourth Railway Package and SHIFT²RAIL. Keir Fitch (Deputy Head of Cabinet, DG MOVE), Marcel Verslype (Executive Director of the European Railway Agency), and Jochen Eickholt participated in the debate on the Fourth Railway Package and the benefits it would bring to the European rail market and industry. The SHIFT²RAIL panel consisted of Keir Fitch, Henri Poupart-Lafarge, and Sergio De Luca (CEO, AnsaldoSTS) and addressed in depth the future of the initiative's structure.

The next UNIFE General Assembly will take place in London from 11-13 June. More information on the event can be found on the UNIFE website www.unife.org.

THE MAIN DECISIONS OF THE UNIFE GENERAL ASSEMBLY 2013 WERE THE FOLLOWING:

1. The General Assembly approved the co-optation of Jochen Eickholt (CEO, Siemens Rail Systems) and Lutz Bertling (CEO, Bombardier Transportation) as Presiding Board Members until the completion of the mandate of the current Presiding Board (June 2014)
2. The General Assembly ratified the admission of six new full members: ARDANUY, CENTRALP, KOLOWAG, NEXALA, PLASSER & THEURER and SIRTI
3. UNIFE Presiding Board agreed on a common approach for the targeting of suppliers for IRIS certification, which they signed on 12 June
4. The General Assembly approved the UNIFE General Policy for 2013 and the budget proposal for 2014

UNIFE COMMUNICATIONS 2013

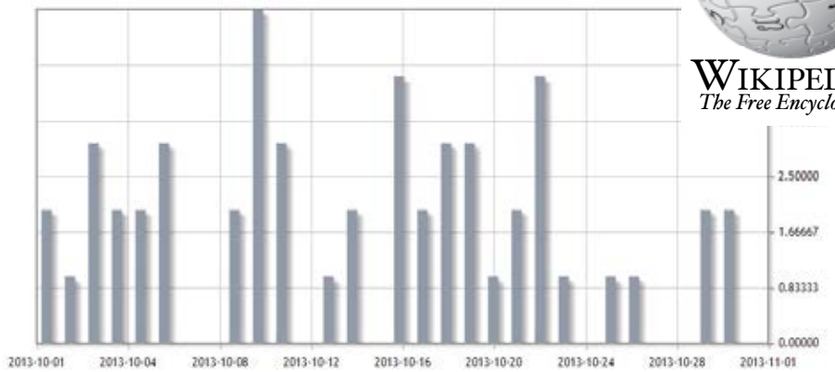
C. UNIFE Interactive Analysis

Google Analytics

56,941	Visits
36,086	Unique Visitors
152,328	Pageviews
00:02:22	Avg. Visit Duration
61.04%	New Visits

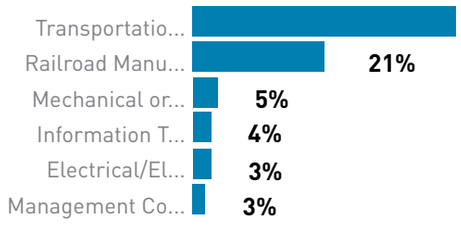
www.unife.org

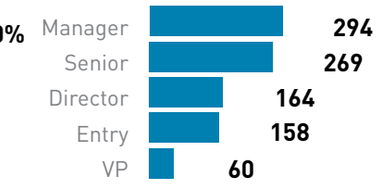
779 UNIFE Page views



WIKIPEDIA
The Free Encyclopedia

LinkedIn UNIFE Brussels Group





MEMBERS	1,133	
SENORITY	26%	**Manager**
WEEK OVER WEEK GROWTH RATE	43%	
FUNCTION	13%	**Engineering**

@ UNIFE

173	Tweets
800	Following
1,278	Followers

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UNIFE MEMBERS IN 2013

A. Full members

B. Associate members

UNIFE MEMBERS IN 2013

A. Full members

ABB	**ABB Sécheron** www.abb.com
Alcatel·Lucent	**Alcatel Lucent** www.alcatel-lucent.com
ALSTOM	**Alstom Transport** www.alstom.com/transport
ALTPRO d.o.o. RESEARCH - DEVELOPMENT - PRODUCTION	**Altpro** www.altpro.com
amurrio	**Amurrio Ferrocarril y Equipos** www.amufer.es
Ansaldo STS A Finmeccanica Company	**Ansaldo STS** www.ansaldo-sts.com
AnsaldoBreda a Finmeccanica Company	**Ansaldo Breda** www.ansaldobreda.it
ArcelorMittal	**Arcelor Mittal** www.arcelormittal.com
Ardanuy	**Ardanuy** www.ardnuy.com
ASTRA	**Astra Vagoane Călători** www.astra-passengers.ro
AŽD PRAHA	**AZD Praha** www.azd.cz
Balfour Beatty Rail	**Balfour Beatty Rail** www.bbrail.com
Bochumer Verein Verkehrstechnik GmbH · seit 1842	**Bochumer Verein Verkehrstechnik** www.bochumer-verein.de
BOMBARDIER the evolution of mobility	**Bombardier Transportation** www.transport.bombardier.com
BONATRANS	**Bonatrans GROUP** www.bonatrans.cz
CAF	**CAF** www.caf.net
Casram Railway & Industry Solutions	**Casram Rail** www.casram.com
CENTRALP	**Centralp** www.centralp.fr
CERONTECH	**CeronTech** www.cerontech.com
chaps	**CHAPS** www.chaps.cz
COLAS RAIL	**Colas Rail** www.colasrail.co.uk
COMAU	**Comau** www.comau.com
Constellium	**Constellium Valais SA** www.constellium.com
DUPONT	**DuPont Transportation** www2.dupont.com/Rail/en_GB/
ECM	**ECM** www.ecmre.com
efacec	**Efacec** www.efacec.pt
EKE ELECTRONICS	**EKE Electronics** www.eke.com
ELECTRO-MOTIVE	**Electro-Motive Diesels** www.emdiesels.com
Grupo CAF eliop seinalia	**Eliop Seinalia** www.eliopseinalia.com
ELTA	**ELTA** www.elta.fr
EuroMaint	**EuroMaint Rail** www.euromaint.se
Exa	**EXA** www.exa.com
Faiveley TRANSPORT	**Faiveley Transport** www.faiveley.com
FAR SYSTEMS	**FAR Systems** www.farsystem.it
FOGTEC FIRE PROTECTION	**Fogtec** www.fogtec-international.com
frenoplast	**Frenoplast** www.frenoplast.com

UNIFE MEMBERS IN 2013

Funkwerk Information Technologies www.funkwerk-it.com	**Indra Sistemas** www.indracompany.com
GDF Suez www.gdfsuez.com	**Ingeteam** www.ingeteam.com
GE Transportation Systems www.getransportation.com	**Intecs** www.intecs.it
GHH-Valdunes www.ghh-valdunes.com	**Invensys** www.invensysrail.com
Greenbrier Europe www.gbrx.com/European_Rail_Home.php	**Kirow Ardelt** www.kranunion.de
Harting www.harting.com	**Knorr-Bremse** www.knorr-bremse.com
Hasler Rail www.haslerrail.com	**Kolowag** www.kolowag.com
Hirschmann www.hirschmann.com	**Koncar** www.koncar.com
Hoppecke www.hoppecke.be	**Kontron** www.kontron.de

Lucchini RS www.lucchinirs.it	**Radsatzfabrik Ilsenburg** www.rafil-gmbh.de
Magliola Antonio & Figli www.magliola.it	**Rail.one** www.railone.com
Matisa www.matisa.ch	**Saft** www.saftbatteries.com
MERMEC www.mermec.it	**Sapa** www.sapamasstransportation.com
Nexala www.nexala.com	**Schaeffler Group** www.schaeffler.com
OLTIS Group www.oltisgroup.com	**Schaltbau** www.schaltbau-gmbh.com
Patentes Talgo www.talgo.com	**Scheidt & Bachmann** www.scheidt-bachmann.com
Pixy www.pixy.ch	**Schroff** www.schroff.biz
Plasser Theurer www.plassertheurer.com	**Sécheron** www.secheron.com

Selectron	www.selectron.ch
Siemens Mobility	www.mobility.siemens.com
SIRTI	www.sirti.it
SKF	www.skf.com
Skoda Transportations	www.skoda.cz
Strukton Rail	www.struktonrail.com
Tata Steel	www.tatasteeleurope.com
Thales Rail Signalling Solutions	www.thalesgroup.com

UniControls	www.unicontrols.cz
VDS Video Display Systems	www.vds-it.com
Vibratec	www.vibratec.fr
Voestalpine	www.voestalpine.com
Voith Turbo	www.voithturbo.com
Vossloh	www.vossloh.com
VUKV	www.vukv.cz

B. Associate members

ACRI, Czech Republic	www.acri.cz
AGORIA, Belgium	www.agoria.be
AIF, Romania	www.asifrom.ro
ANIE/ASSIFER, Italy	www.anie.it
Austrian Association of the Railway Industry, Austria	www.bahnindustrie.at
EFRTC (European Federation of Railways Trackworks Contractors)	www.efrtc.org
FIF, France	www.fif.asso.fr
Holland Rail Industry, Netherlands	www.hollandrailindustry.nl
Mafex, Spain	www.mafex.es

Rastia, Bulgaria	www.rastia.org
RIA, United Kingdom	www.riagb.org.uk
SIRTS, Poland	www.sirts.pl
Swedtrain, Sweden	www.swedtrain.org
Swissrail Industry Association, Switzerland	www.swissrail.com
UNISIG	
VDB, Germany	www.bahnindustrie.info
ZVEI, Germany	www.zvei.org

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UNIFE STAFF IN 2013

A. UNIFE Staff in 2013

B. UNIFE wishes all the best to those who left the team in 2013

UNIFE IN 2013

A. UNIFE staff in 2013

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Wolgang Jakob

Mara Buttarelli

Simona Jursova

Foucaud Triebel

ACRONYMS

AEIF	European Association for Railway Interoperability
APTA	American Public Transportation Association
ATO	Automatic Train Operations
CBTC	Communications Based Train Control
CEE	Central and Eastern Europe
CEF	Connecting Europe Facility
CEN	European Committee for Standardisation
CENELEC	European Committee for Electro-technical Standardisation
CER	Community of European Railways
CIS	Commonwealth of Independent States
CSM	Common Safety Methods
DG CLIMA	Directorate-General for Climate Action
DG MARKT	Internal Market and Services Directorate General
DG MOVE	Directorate General for Mobility and Transport
DG R&I	Directorate General for Research and Innovation
DG TRADE	Directorate General for Trade of the European Commission
DPF	Diesel Particle Filter
DMI	Driver Machine Interface
DMU	Diesel Multiple Unit
EC	European Commission
ECAs	Export Credit Agencies
ECB	Eddy Current Brakes
EFRTC	European Federation of Railway Track-works Contractors
EIM	European Rail Infrastructure Managers
EMC	Electro-Magnetic Compatibility
EP	European Parliament
ERA	European Railway Agency
ERATV	European Register for Authorised Types of Vehicles
ERFA	European Rail Freight Association
ERDF	European Regional Development Fund
ERRAC	European Rail Research Advisory Council
ERTMS	European Rail Traffic Management System
ERWA	European Railway Wheels Association
ETCS	European Train Control System
ETS	European Trading Scheme
ETSI	European Telecommunications Standards Institut
EU	European Union
EURNEX	European Rail Research Network of Excellence
FP7	Seventh Framework Programme
FRA	US Federal Railroad Administration
FTA	Free Trade Agreement
FRS	Functional Requirement Specification
GCC-SG	Gulf Cooperation Council Secretariat General
GHG	Greenhouse Gas
GRB	Group of Representative Bodies
GPRS	General Packet Radio Service
IEC	International Electro-technical Commission
IMC	IRIS Management Centre
IPs	Innovation Programs
IRIS	International Railway Industry Standard
ISAB	Independent Safety Assessment Body
ITRE	Committee on Industry, Research and Energy in the European Parliament
JNS Joint	Network Secretariat
JPCR	Joint Programming Committee Rail
JRC	Joint Research Centre
JSG	Joint Sector Group
JTI	Joint Technology Initiative
LCC	Life Cycle Costs
LOC & PAS	Rolling Stock Locomotive and Passenger Carriages
MEP	Member of European Parliament
MG	Mirror Groups
MoU	Memorandum of Understanding
NB-Rail	Association of Notified Bodies
NIB	National Investigation Bodies
NRB	Network of Representative Bodies
NRMM	Non Road Mobile Machinery

NSA	National Safety Authority
NP-UIRE	Russian Union of Industries of Railway Equipment
OECD	Organisation for Economic Co-operation and Development
OTM	On Track Machines
ORS	Operational Requirement Specification
NOx	Nitrogen Oxide
PPP	Public Private Partnership
R&D	Research and Development
RAMS	Reliability, Availability, Maintainability, Safety
RDD	Register of Notified National Rules
RINF	Register of Infrastructure
RISC	Railway Interoperability and Safety Committee
RZD	Russian Railways
S&R	Standards and Regulation
SRG	Standards and Regulation Group
SRRA	Strategic Rail Research Agenda 2020
SRRIA	Strategic Rail Research and Innovation Agenda 2050
SRT	Safety in Railway Tunnels
UIP	International Union of Private Wagons
UIRR	International Union of Combined Road - Rail Transport Companies
TecRec	Joint UNIFE and UIC Technical Recommendations
TEN	Trans-European Networks
TEN-T	Trans-European Network for Transport
TG	Topical Groups
TMP	Technical Management Platform
TRAN	Committee on Transport and Tourism in the European Parliament
TRA	Transport Research Arena
TSI	Technical Specification for Interoperability
UIC	International Union of Railways
UIP	International Union of Private Wagon Owners
UIRR	International Union of combined Road-Rail transport companies
UITP	International Association of Public Transport
UNISIG	Union Industry of Signalling

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