



*Showing new ways*



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# OUR ACTIVITIES AND AIMS

The "Österreichische Forschungsgesellschaft Straße - Schiene - Verkehr" (FSV) – the Austrian Research Association for Roads, Railways and Transport – has a very long history. It was founded in 1950 as a specialised subgroup of the Austrian Association of Engineers and Architects under the name "Forschungsgesellschaft für das Straßenwesen" (Roadway Research Association). In the 1980s, the scope of the group's activities expanded and subsequently came to include oversight of roads and transportation.

Today the FSV is a platform for experts who deal with the planning, construction, maintenance, operation and utilisation of transportation structures. The FSV regards itself as a centre of competence that is available for all professional working in the fields of economics, science and administration. In its capacity as the contact agency for both contracting authorities and contractors, the FSV acts as a connector between the public and the private sector.

The FSV defines the state of the art in engineering, preparing guidelines for both road transportation and railway transportation. In preparing and revising these guidelines, the FSV pursues the aim of guaranteeing optimised, safe and sustainable transportation infrastructural structures including both contract related aspects and the standardisation of specifications of works.

The FSV committees form a network of more than 1,400 persons promoting both the exchange of knowledge and development at the national as well as the international level.

The main duty of the FSV is to develop, to document and to communicate the knowledge gained in the fields of roadways, railways and transportation combining science, economics and administration.



# THE ORGANISATIONAL STRUCTURE – MANAGING BOARD AND COMMITTEES

The managing board is the leading body of the FSV and is supported by expert committees, the recommendations from which may be adopted by the managing board. This board includes top representatives of road and railway transportation entities as well as representatives of the Austrian Ministry for Transport, Innovation and Technology, and top representatives from planning engineering, science and industry. The members of the executive committee, including the chairman Univ. Prof. Dr.-Ing. Martin Fellendorf, do preparative work, providing a basis for decisions to be taken by the managing board.

## Chair:

Univ. Prof. Dr.-Ing. Martin FELLENDORF  
Technical University of Graz

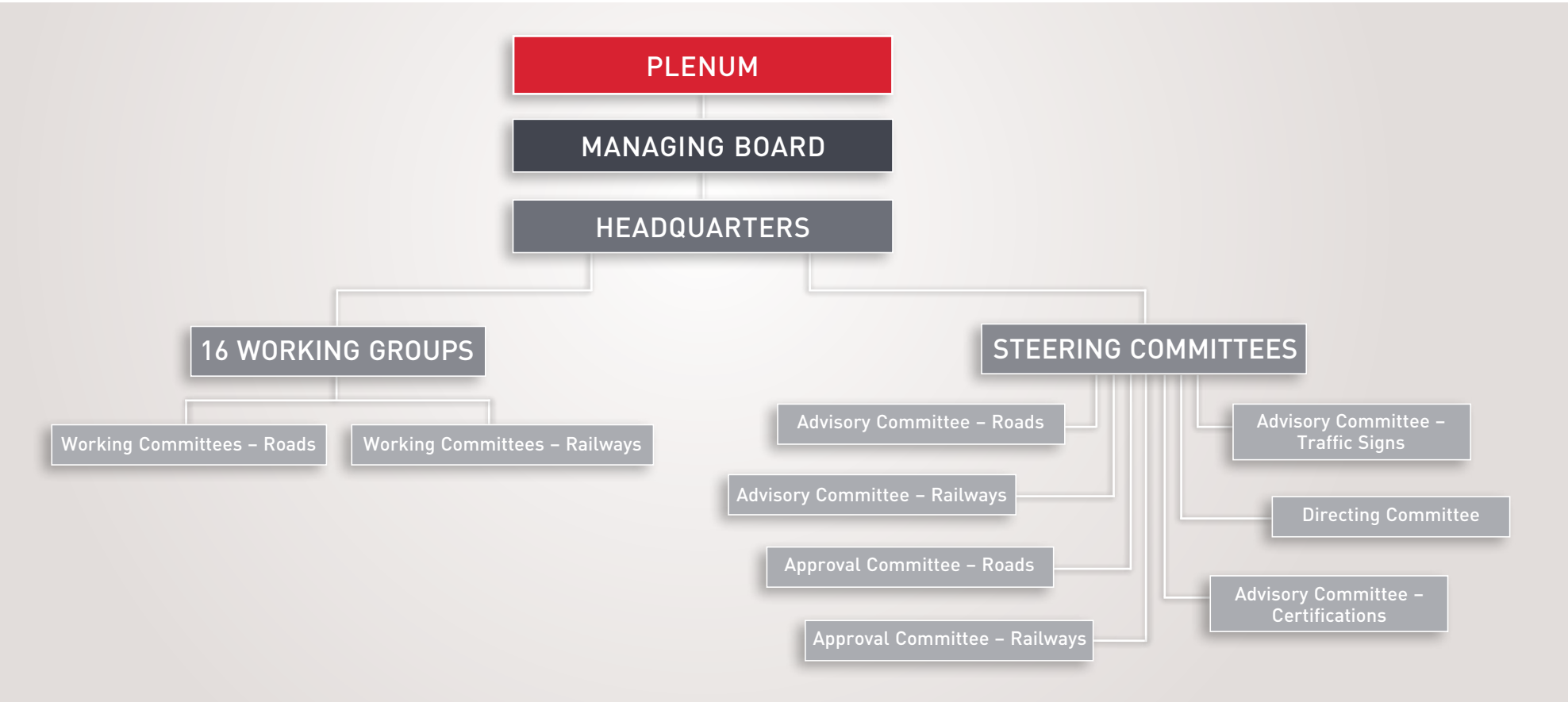
## Deputy chairs:

Dipl.-Ing. Franz BAUER | ÖBB Austrian Railways  
Dipl.-Ing. Dr. Eva-Maria EICHINGER-VILL | Austrian  
Ministry for Transport, Innovation and Technology  
Dipl.-Ing. Georg KICHLER | Werner Consult ZT-GmbH

## Other members:

Dipl.-Ing. Peter BEIGLBÖCK | Government of Lower Austria  
Dipl.-Ing. Gerhard EBERL | ASFINAG  
Dipl.-Ing. Dr. Christian Molzer | Government of Tyrol  
Univ. Prof. Dipl.-Ing. Dr. Norbert OSTERMANN | Technical University of Vienna  
Dipl.-Ing. Martin RUSS | AustriaTech  
Dipl.-Ing. Alois SCHEDL | ASFINAG  
Dipl.-Ing. Hubert WETSCHNIG | Porr  
Dipl.-Ing. Eduard WINTER | Wiener Linien





# WORKING GROUPS AND COMMITTEES



## ASPHALT ROADS (A)

- Quality assurance
- Reclaimed asphalt
- Maintenance
- Asphalt research
- Layers of aggregate hot mix



## CONCRETE ROADS (BE)

- Concrete roads in the high-speed roadway network
- Maintenance and operation
- Other concrete roads
- Technology, research and inspection



## BRIDGE DESIGN AND CONSTRUCTION (BR)

- Specifications for bridge construction works
- Weatherproofing and pavement design of bridges
- Fundamentals of planning and design
- Bridge equipment
- Bridge maintenance and bridge database
- Corrosion protection
- Monitoring, inspection and checking of bridges as well as other civil engineering structures
- Specification of works for bridge inspections



## FUNDAMENTALS OF TRANSPORTATION (GV)

- Economic efficiency and financing
- Traffic demand
- Traffic telematics
- Ethical questions in transportation planning
- Traffic analyses
- Mobility management
- Road traffic census



## ROAD PAVEMENT (O)

- Specifications for road construction works
- Design of road superstructures
- Evaluation and analysis of road conditions
- Road drainage systems
- Strategic maintenance management



## PLANNING AND TRANSPORT SAFETY (PV)

- Alignment and cross section design
- Junctions
- Operational aspects of transport safety
- Transportation experts
- Breakdown bays
- Railway crossings
- Strategic planning for transport safety
- Structural transport safety
- Road requirements
- Rural roads and tracks in rural areas
- Specifications for roadway planning works



## URBAN TRANSPORTATION (STA)

- Urban transport planning and land use in urban areas
- Insufficient traffic signals regulation
- Design of urban roads
- Child-friendly transportation
- Strategic traffic management
- Non-motorized traffic
- Installation and operation of traffic signals
- Optimization of urban public transportation
- Urban roads



## OPERATION OF ROADS, ROAD EQUIPMENT (STB)

- Winter service
- Management of road operation activities
- Internal communication systems
- Road marking
- Vehicles and equipment for road maintenance
- Fundamentals of training
- Reclaiming materials in road operation
- Wrong-way drivers
- Traffic signs and directional signs
- Crash barriers
- Construction site security



## AGGREGATES (STEI)

- Conditions and guidelines
- Technology and inspections
- Technological mineralogy
- Chemical stabilisation
- Requirements of stone pavements, stone slabs and kerbs



## TUNNEL CONSTRUCTION (T)

- Specifications for tunnel construction works
- Tunnel construction in urban areas
- Maintenance and operation
- Operational and safety facilities
- Tunnel inspection specifications
- Construction-related fire safety in transportation structures
- Tunnel construction site safety
- Technical infrastructure specifications of works
- Design of pre-portal areas
- Construction design
- Construction database for operation and safety (BuS)





### TENDERING PROCESS FOR ENGINEERING WORKS (TV)

- Value engineering
- Specifications of works
- Awarding criteria
- Public procurement system – conditions of contract
- Surveying specifications
- Index of prices and costs
- Certification of conformity
- Inspection record



### SUBGRADE (U)

- Soil consolidation
- Use of geo-plastics in road construction
- Embedded pipes and outlets
- Earthwork
- Spray injection method (SIM)



### TRANSPORTATION AND ENVIRONMENT (VU)

- Protection of soil and water
- Emissions resulting from traffic – noise
- Emissions resulting from traffic – air toxins
- Environmental assessment
- Amphibian protection
- Landscaping
- Environmental site oversight and support
- Specifications for residential water supply and sewerage works
- Specifications for river engineering works
- Restauration and replacement measures
- Bird protection
- Wildlife protection
- Protection of endangered species
- Mammals in the wild



### RAILWAYS – RAILWAY TRACK (EF)

- Superstructure
- Railway maintenance
- Alignment and cross-section design (clearance and routing)
- Spaces surrounding railway tracks
- Sub-base
- Fire prevention and extinguishing
- Vibration and secondary air-related noise
- Specifications for track superstructure construction works



### RAILWAYS – CIVIL ENGINEERING (EI)

- Traffic loads, route classification
- Railway bridges
- Railway tunnel engineering
- Railway tunnel safety
- Noise protection barriers



### RAILWAYS: PLANNING, TRANSPORTATION AND ENVIRONMENT (EP)

- Railway stations
- Mobility chain accesses
- Mobility chain guidance systems
- Dangerous materials
- Experts for railway civil engineering and operation
- Railway noise
- War relics
- Expenditure and cost estimation related to railway project planning
- Railway project planning specifications



# GUIDELINES PROVIDING SUSTAINABILITY



Sustainability is a central issue of all parts of economics and public life. Strategies and government programs at both the European and the national levels require sustained development. The FSV has carried out a research project aimed at finding answers on how the code for the planning, construction and maintenance of roads and railways (RVS) can contribute to supporting sustainability. The goal of the project was to analyse the RVS in terms of deficiencies and strengths with regard to ecological, economic and social sustainability in order to arrive at a foundation for a revision of the RVS. The Straßenforschungsheft (Road Research Journal) no. 595 "Evaluierung des Regelwerkes RVS hinsichtlich Wirtschaftlichkeit, Verkehrssicherheit und Nachhaltigkeit" (Evaluation of the regulating means RVS with regard to cost effectiveness, traffic safety and sustainability), which is available from the FSV, gives detailed information on how the analysis has been carried out along with the results.

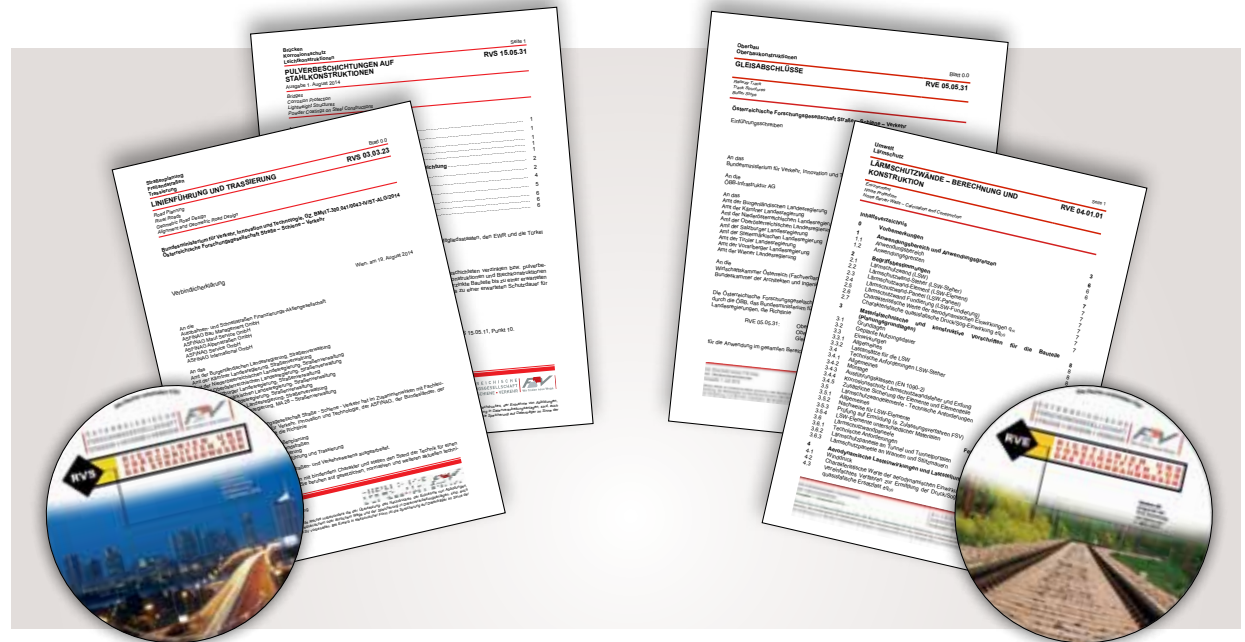
The specifically developed evaluation method is currently used when preparing RVS codes as it enables an objective and reproducible evaluation of guidelines which, in addition to a clear overview of deficiencies and conflicts, also provides a description of possibilities for improvement which have to be taken into account when revising the codes. It provides important suggestions for people involved in the preparation of RVS codes, helping them to broaden and clarify the RVS contents. This procedure thus enables improved quality management in preparing RVS codes.





# RVS AND RVE – REGULATING TRANSPORTATION INFRASTRUCTURE

The RVE (the code covering the planning, construction and maintenance of railways) and the RVS (the code covering the planning, construction and maintenance of roads) include the engineering state of the art and can be used by all persons involved in planning and construction (planners, engineers, contractors, administrations). The use of these “rules of the game” on the one hand guarantees a uniform quality level in terms of the planning, construction and operation of transportation infrastructure and, on the other hand, it provides a high level of both safety and quality for the user of the infrastructure while at the same time generating national economic benefit. The more than 300 RVE and RVS are prepared and administered by expert committees. The members of these committees come from the fields of construction administration, planning, science, construction industry and infrastructure operators; they work in an honorary capacity.



# SPECIFICATION OF WORKS



A standardised specification of works is a compilation of standardised texts, which according to the Austrian public procurement law (BVerG), is preferable for use in the preparation of specifications of works.

Since 2008 the standardised traffic infrastructure specifications of works (LB-VI), which is regularly issued by the FSV, has been widely used as a basis for the preparing of tender documents in civil engineering. As it is continuously improved and updated and brings together both users and experts, it has become a standard document widely used in the field of engineering.

An important milestone in regard to collecting standardised texts that were formerly spread throughout the whole field of engineering has been reached by bringing together the fields of residential water supply, river engineering and traffic engineering. The fourth version of the specifications of works compendium (May 2015) now includes most of the specification texts that are relevant to civil engineering, covering the following fields:

- Road construction
- Railway superstructures
- Bridge construction
- Tunnel construction
- Landscaping
- Residential water supply and sewage
- River engineering

The FSV will continue to provide regular improvements and updates in collaboration with 150 experts in order to maintain the high quality level of this compendium.

01	Projektierung und Bauwerksprüfung	LG	LB
<b>0101</b>	<b>Projektierung</b>	<b>ULG</b>	<b>LB</b>
010101	Detailentwurf	UP	PA L LB
010102A	Instandsetzungsentw. mit Statik	GP	PA L LB
010102B	Instandsetzungsentw. ohne Statik	GP	PA L LB
010103	Standicherheitsnachweis	UP	PA L LB
010105A	Statik Stahlwasserbau	GP	PA L LB
010105B	Ziviltechniker Statik Stahlwasserbau	GP	PA L LB
010110	Planungsarbeiten Stahlbau A	UP	PA L LB
010111	Planungsarbeiten Stahlbau B	UP	PA L LB
010112	Planungsarbeiten Stahlbau C	UP	PA L LB
010113	Planungsarbeiten Stahlbau D	UP	PA L LB
010114	Aufz. Durchbiegungsböhr. Eisenbahnbrücke	UP	PA L LB
010120	Montage-, Arbeits-, Gerüstpläne	UP	PA L LB
010130	Vermessungsarbeiten	UP	PA L LB
<b>0102</b>	<b>Bauwerksprüfung</b>	<b>ULG</b>	<b>LB</b>
010201	Brückenprüfung	UP	PA L LB
010202	Brückeninspektionsgerät	UP	PA L LB
010203	Inspektionsgerät Transport	UP	PA L LB
010204	Inspektionsgerät Betrieb	UP	h L LB
010205A	Sonderprüfung Druckfestigkeit D50	GP	VE LB
010205B	Sonderprüfung Druckfestigkeit D100	GP	VE LB
010205C	Sonderprüfung Druckfestigkeit D150	GP	VE LB
010206	Aufz. 010205 Schnitte Bewehrung	UP	VE LB
010207	Sonderprüfung Betondeckung	UP	m2 LB
010208	Sonderprüfung Endoskop	UP	h LB
010209A	Haftzugfestigkeit Beton	GP	VE LB
010209B	Haftzugfestigkeit Abdichtung	GP	VE LB
010209C	Haftzugfestigkeit	GP	VE L LB
010210	Sonderprüfung Rissweitenänderung	UP	PA L LB



Engineering  
Vorportaltbereich  
Verkehrszeichen  
Brücke  
Unebenheit  
Asphalt  
Landschaftsbau  
Wildschutz  
Audit  
Fahrbahn  
Inspections  
Mobilität  
Landesstraßen  
Geoinformation  
Schienenweg  
Road  
Verkehrssicherheit  
Value  
Gesteinskörnung  
Verkehrssicherheit  
Erschütterungen  
Erhaltung  
RVS  
Grünbrücke  
Winterdienst  
Straßentunnel  
Eisenbahnkreuzung  
Zuschlagskriterien  
Bauwerksprüfung  
Korrosionsschutz  
Streusplitt  
Arbeitspapiere  
Kreuzung  
Safety  
RVE  
Brückenausrüstung  
Verkehrsnachfrage  
Ausgleichsmaßnahme  
Amphibienwanderungen  
Gleiszone  
Lärmschutzelement  
Unfall  
Qualitätsmanagement  
Leistungsbeschreibung  
Ausbauasphalt  
Verkehr  
Luftschall  
Düsenstrahlverfahren  
Beton  
Bodenmarkierung



# TRANSPORTATION DICTIONARY

Language has always been a crucial part of life. The ability of humans to create and use complex language systems makes us to a unique species. However, if we do not speak the same language this can lead to a number of problems. This is most true when we speak with people who use words that we do not know, whether in private or in business. This is one of the reasons why the Austrian Research Agency for Roads, Railways and Transport has prepared a dictionary, which undoubtedly can be regarded as the most comprehensive German language dictionary of transportation terms. It is available as both a print book and e-book, and also provides a database supported search for terms leading to related fields via links.

Facts:

- Includes more than 10,000 items
- 3,900 terms relating to RVS and RVE
- 900 terms relating to laws
- 5,300 terms relating to standards (ÖN, DIN)
- Sources: laws and regulations, LB-VI, RVS, RVE, DIN, ÖNORM, ASFINAG
- Topics: transportation planning, transportation safety, transportation and environment, tendering and contracting, road construction, bridge construction, tunnel construction, railway construction and landscaping as well as quality assurance with regard to both planning and construction.



# CERTIFICATION OF TRANSPORTATION SAFETY AUDITORS

According to EU directive 2008/96/EG which covers the safety management of road infrastructure, specifically trained road traffic safety auditors have to be in place especially for carrying out road traffic safety audits and inspections.

The FSV has provided the following fundamental documents for both the education and certification of such auditors:

RVS 02.02.33 Traffic Safety Audit

RVS 02.02.34 Road Safety Inspection

RVS 02.02.35 Certification of Traffic Safety Auditors and Road Safety Inspectors



In addition, the FSV has made available a training module lasting several days as a basis for achieving the certification. The aim is to offer advanced training according to directive 2008/96/EG to both highly qualified planning experts and experts working in other fields. For this purpose, a certification advisory board has been established, the members of which have the required competencies in both coordinating the training and evaluating the traffic safety experts.

The FSV has thus established itself in its capacity as a competent Austrian service centre for the training and evaluation of road traffic safety auditors. In 2014, more than 250 experts attended the trainings and more than 20 of them have already been certified by the Austrian Ministry for Transport, Innovation and Technology.



Bundesministerium  
für Verkehr,  
Innovation und Technologie







# TECHNICAL APPROVAL PROCEDURES

The system for the approval of both producers and systems dealing with the corrosion protection of steel structures according to RVS 15.05.11, which was established in 2007 by the FSV, has proven its reliability in practice. Bringing together the items in LG36 of the standardised transport and infrastructure specifications of works version 4 and the corresponding RVS 08.09.01 covering steel surface protection as well as RVS 15.05.11 "Bridges, Steel Corrosion Protection", a compact compendium has thus been made available which can be used for both the tendering and the carrying out of works involving corrosion protection of steel structures.

In May 2012 the FSV issued RVS 08.09.04, offering entrepreneurs the possibility to gain a "site licence" according to RVS 15.05.11

and enabling them to carry out corrosion protection works by providing surface protection and sealing of metals used on construction sites. Since 2013, several companies have already applied for a "site licence".

The currently approved corrosion protection producers and systems can be found on the FSV website. Using this system, both the preparing of tender documents and the carrying out of steel corrosion protection works can be made significantly easier. The representatives of the hiring entity thus no longer have to check and evaluate the approvals of the contractors, and both national and foreign producers of corrosion protection systems forwarding their licences are no longer obliged to prove the suitability of their systems for each contract.



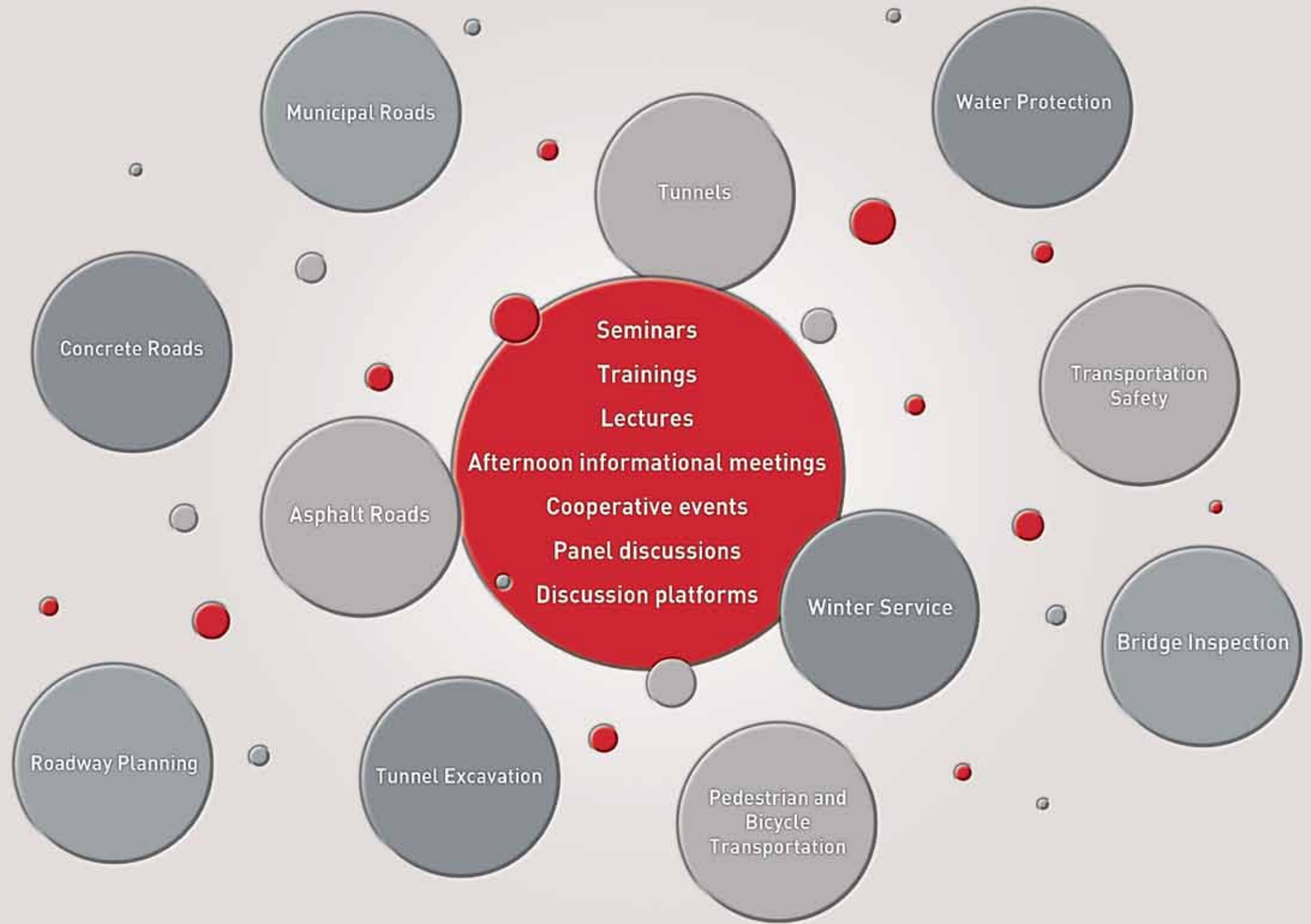
# EDUCATION AND TRAINING

One of the most important FSV activities is the organisation of events mainly aimed at distributing the knowledge collected and documented in both working groups and working committees. Thus a variety of events dealing with both the latest FSV publications and important transportation-related issues are regularly being offered.

Administrative authorities, planners and builders who are using FSV publications have the opportunity to gain new knowledge by attending seminars or informative afternoon meetings. Special lectures are offered to experts from various sectors. Meetings and congresses offer good opportunities for immediate knowledge exchange and are thus very well attended, attracting hundreds of participants. The FSV program is concluded with discussion platforms and panel discussions.

When planning such events, special attention is paid to collaborating with other entities such as transportation associations, universities, ministries, Austrian provinces and building associations in order to address a broader audience.







Wir finden neue Wege.

Willkommen am Verkehrstag

DESK  
für  
Infrastruktur

ZOR

NEUHAUSER

Fintona

ProVies

Argos  
chemisches Abfallsortierungssystem

Argos



# FSV TRANSPORTATION DAY

FSV Transportation Day is Austria's most important event dealing with transportation infrastructure and takes place every year in Vienna. It is a favourite of experts and is attended by a great number of transportation decision makers, offering an ideal platform for both exchanging knowledge and networking.

Lectures held by experts addressing the issue of new developments in transportation have always been and will also continue to be a fixed part of the FSV annual meeting which offers a great variety of lectures covering the majority of transportation issues. You'll find a list of topics dealt with over the last few years at [www.verkehrstag.at](http://www.verkehrstag.at).

The expert fair established in 2012 offers the ideal forum to attendees, companies and lecturers, giving them the opportunity to touch base and get to know each other. This has two positive side effects: attendees can deepen their knowledge already gained in the field of transportation while having the opportunity to make contacts which may be beneficial in the future.



# INTERNATIONAL CONNECTIONS

The FSV headquarters in Vienna is the seat of the Austrian National Committee of the "World Road Association AIPCR/ PIARC Association mondiale de la Route". Austria is an official member of this association which includes a total of 113 member states.

The FSV maintains many international contacts, in particular with the Swiss (VSS) and German (FGSV) partner associations. In meetings of German speaking countries (D-A-CH) and in special meetings with other European countries, there is a continuous exchange of ideas concerning transportation.

The regular exchange of ideas with our Hungarian partner association (MAUT) has to be singled out as it has led to a collaboration not only at the expert level but also at the administrative/organisational level. In addition, close contacts are also maintained with the Slovenian road research association (DRC).



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Kfz > 3,5t



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**VERKAUF / SALE** 


**Raststation  
Walsenberg**



**ERÖFFNET**





# THERE FOR YOU – THE FSV

The team of the FSV is led by the Secretary General Martin Car and provides support in all matters related to expertise, organisation, event-related organisation and administration.

We keep you informed about the specified media in relation to the level of detail required.

## The FSV Website

Updated information is available at [www.fsv.at](http://www.fsv.at) and at [www.verkehrstag.at](http://www.verkehrstag.at).

## These websites contains information about:

- Upcoming events
- RVS (Code for the Planning, Construction and Maintenance of Roads)
- RVE (Code for the Planning, Construction and Maintenance of Railways)
- Specifications of works used in the fields of transportation and infrastructure
- Publications (road research journals, traffic censuses, journal series, etc.)
- FSV approvals
- Certifications of RSI and RSA
- The organisation itself and leading transportation experts

## The FSV Shop

The FSV Shop is our electronic distribution system. Guidelines, instructional documents, working papers, specifications of works, etc. are available via the online shop.

## The FSV Internal Communication System

The FSV internal communication system provides for both communication and exchange of information between the FSV working committees and members.

## The FSV Newsletter

The monthly FSV newsletter offers updated information on new publications and FSV events via e-mail.

## FSV-aktuell – The Official Publication of the FSV

The journal "FSV-aktuell" is the official print medium of the FSV, including information on both FSV activities and updated issues of RVS and RVE. The road journal "FSV-aktuell Straße" is published monthly as a supplement to the journals "Straße + Autobahn" (roads and highways) and "Straßenverkehrstechnik" (Road Traffic Engineering). The railway journal "FSV-aktuell Schiene" covering rail transportation is published quarterly as a supplement to the journal "ETR – Eisenbahntechnische Rundschau" (railway engineering review).



# OUR MEMBERS: EXPERTS IN TRANSPORTATION

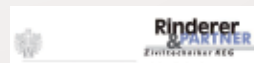
The members of the FSV are independent experts in the fields of planning, construction and operation of transportation structures who work in honorary capacities. They are actively involved in the affairs of the association, which allows them to get new information very quickly as well as to meet leading experts in the relevant fields and to establish close working relationships with them.

In addition to the active members, there are also legal entities and individuals who regularly support the association as non-active members.

The supporting members are independent companies that are active in the field of transportation who support the FSV through annual contributions which bring them the many advantages referred to below:

- 5 vouchers to attend afternoon informational meetings covering the RVS/RVE free of charge
- 5 complimentary tickets to FSV Transportation Day ([www.verkehrstag.at](http://www.verkehrstag.at))
- Price reductions for attending lectures (member conditions)
- Regular information for members
- Sponsor listing in the FSV annual report
- Preferential treatment with regard to the public-oriented positioning of your company
- Price reductions with regard to both sponsoring and exhibitions
- The possibility to participate in the FSV Plenum





ÖSTERREICHISCHE  
FORSCHUNGSGESELLSCHAFT  
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