

# EUROPEAN FEDERATION OF MUSEUM & TOURIST RAILWAYS

Fédération Européenne des Chemins de Fer Touristiques et Historiques Europäische Föderation der Museums- und Touristikbahnen

# **International Heritage Railway Conference**

Padua, Italy 16-18/04/2015

# **Conference Proceedings**



Conference 2015 Padua, Italy

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de Akker 25

7481 GA Haaksbergen

Netherlands

http://www.fedecrail.org

contact@fedecrail.org

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Conference 2015 Padua, Italy

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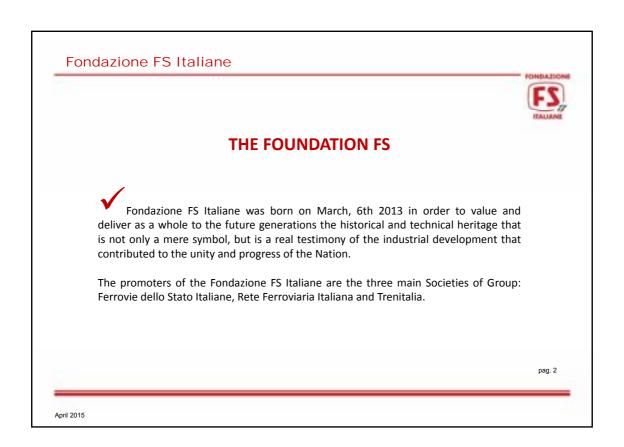
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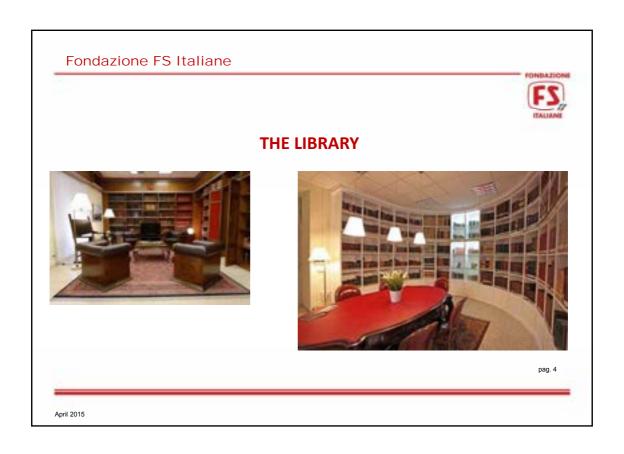




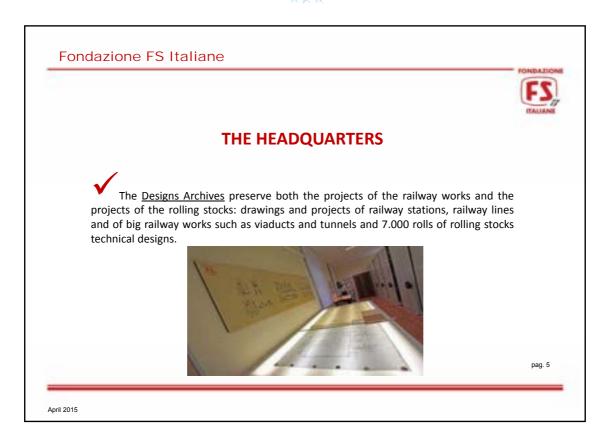


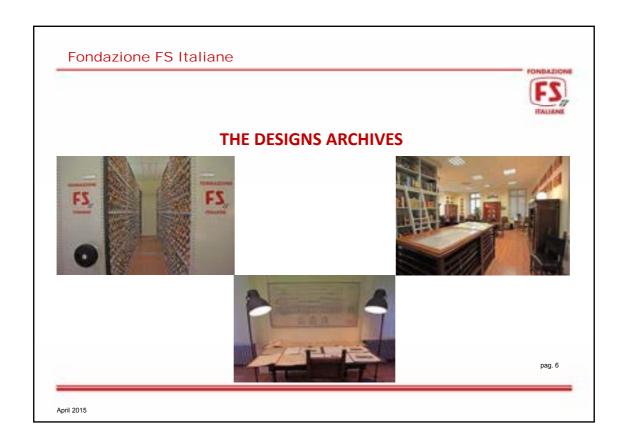




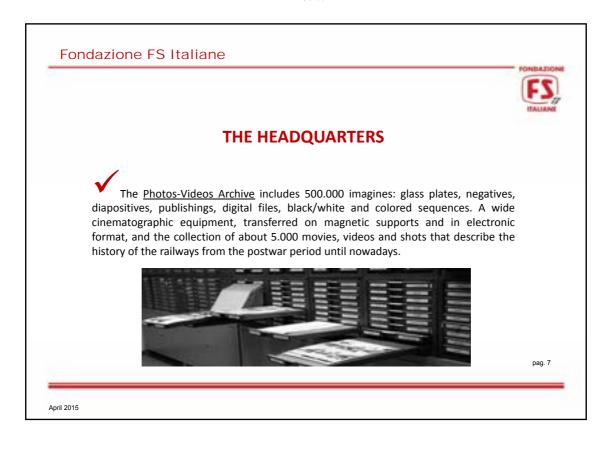
















## Fondazione FS Italiane



# THE TRIPS ON HISTORICAL TRAINS AND THE 'TIMELESS TRACKS' PROJECT





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April 2015

### Fondazione FS Italiane



# THE TRIPS ON HISTORICAL TRAINS AND THE 'TIMELESS TRACKS' PROJECT

For the 'Timeless Tracks' project, four spectacular lines, shut to the local public services, have been identified to establish a true 'dynamic museum' that Fondazione FS intends to preserve and value: the 'Lake Railway' from Palazzolo sull'Oglio to Paratico/Sarnico, on the shores of Iseo Lake; the 'Val d'Orcia Railway' from Asciano to Monte Antico, in the fascinating landscape of 'Crete Senesi'; the 'Park Railway' from Sulmona to Castel di Sangro, passing Roccaraso and the Majella Park, the second highest line of the Country after the Brenner line; the 'Temples line' from Agrigento Bassa to Porto Empedocle, between the Temples of the 'Magna Grecia', an UNESCO World Heritage Site.

For the show is the journey itself, and what flows out of the window...

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# Fondazione FS Italiane



## THE NATIONAL RAILWAY MUSEUM OF PIETRARSA

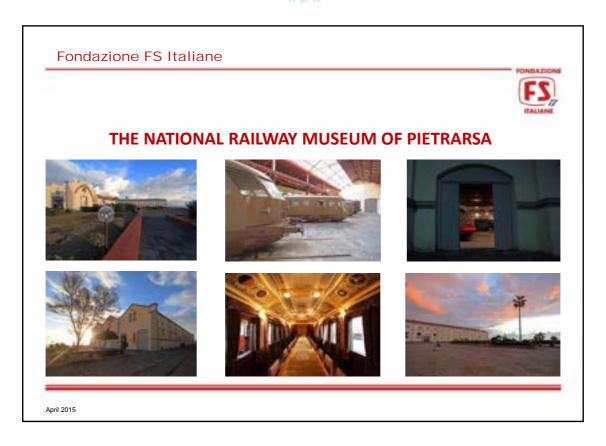
To travel in time is possible. It happens to who visit the National Railway Museum of Pietrarsa, a path longer than 175 years between locomotives and train that united Italy from 1839 to nowadays. Past and present, from the first Bayard locomotive to modern High Speed trains, ideally fit together. Located between Naples and Portici, on the very first railway line of our Peninsula, laid down between the sea and the Vesuvius with a spectacular view on the Gulf of Naples, this complex is host in one of most important Italian industrial archeological site: the 'Royal Mechanical, Pyrotechnics and Locomotives Factory', founded by Ferdinand II Borbone in 1840. A unique expositive location in the whole country and one of the most fascinating railway museum of Europe. Opened in 1989, it extends on an area of 36.000 square metres, of which 14.000 are indoor. In the big square there's the 4 metres tall statue of Ferdinand II depicted while was giving the order to found the Factories: it is made of cast iron and was melt in these Factories in 1852.

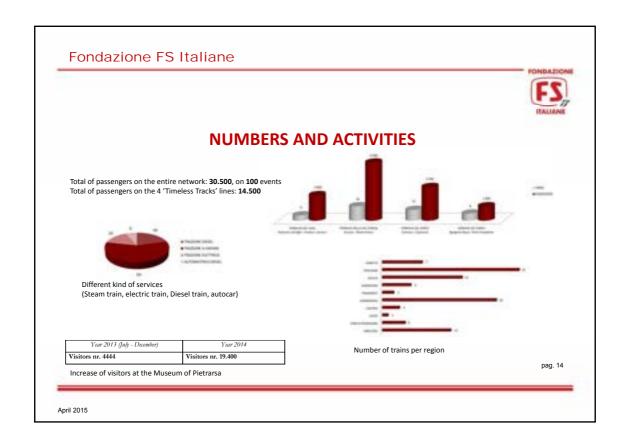
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Fedecrail Conference 2015, Centro Culturale Altinate Padova, 16/04 -18/04/2015

# Europa Nostra and the industrial and engineering heritage including railways

# By Pierre LACONTE

Chair, Industrial and engineering heritage committee, Europa Nostra - Expert member ICOMOS CIVVIH

# 1. INTRODUCTION

This presentation is based on experiences gathered though two organisations devoted to the preservation of industrial and engineering heritage:



# a) ICOMOS

The International Council for Monuments and Sites ICOMOS – related to UNESCO – is the world-wide Organisation defending architectural heritage, co-founded by Prof. R. Lemaire. It includes mostly officials and professionals of monuments and sites. Its activities linked to industrial heritage take place though the autonomous International Committee for the Conservation of the Industrial Heritage TICCIH (<a href="http://ticcih.org/">http://ticcih.org/</a>).

# b) EUROPA NOSTRA

As to **Europe** the organisation Europa nostra is the pan-European voice of heritage, i.e. advocacy by people who live or have a special interest in monuments and sites. It is naturally complementary with ICOMOS. Indeed its private membership allows it to have a total freedom of speech about endangered monuments of sites and interventions towards responsible officials. One of its scientific committees is the **Industrial and Engineering Heritage Committee – IEHC** <u>www.europanostra.org</u> . One of its members is cohosting the next TICCIH Congress (Lille 6-10/9/2015).



# 2. Examples of large-scale industrial heritage actions

(Venice Charter Art. 1 "urban and rural settings")

# 2.1. The Internationale Bauaustellungen (IBA) experience.

The IBA-Emscher Park <a href="http://www.dac.dk/en/dac-cities/sustainable-cities/all-cases/green-city/emscher-park-from-dereliction-to-scenic-landscapes/?bbredirect=true">http://www.dac.dk/en/dac-cities/sustainable-cities/all-cases/green-city/emscher-park-from-dereliction-to-scenic-landscapes/?bbredirect=true</a> extends on 70 km of industrial landscape and includes both industrial artefacts and river improvements.

More recently, **IBA-See** covers projects in the Land of Brandenburg <u>www.iba-see2010.de</u>.





The photo shows a 300 m. coal conveyor which stopped to be used in 1989, soon after having been put into service, and is now a major tourist attraction.

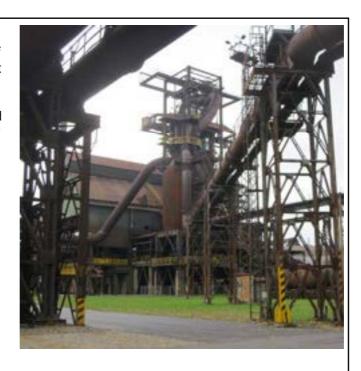
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# 2.2. The case of the Vitkovice steel complex (Ostrava, Czech Republic)



The Ostrava iron and steel complex (one of the oldest and largest in Europe) was the subject of a conference organised in November 2013 by ICOMOS and the Czech Ministry of Finance about the reuse of this complex as a cultural and educational centre. This renewal benefits from local, national and international funding (Norway).

© Pierre Laconte 2013.



Its gas holder was preserved and transformed into a cultural centre.

© Pierre Laconte 2013.





The top floor was transformed into a theatre and concert hall.

© Pierre Laconte 2013.





Cases like the one of Ostrava illustrate the transnational significance of Europe's industrial heritage. The iron and steel produced by this complex was used by successive belligerents and also allegedly for the building of the Eiffel Tower in Paris. Since its restoration in mid-2012, the new cultural and educational centre has had more than 1 million visitors. Further extensions are planned. © Pierre Laconte 2013.



# 2.3. Industrial heritage handled as part of an urban renewal project: The case of Brussels canal area



The multimodal Tour & Taxis customs and international trade complex as it was in 1907. It became redundant as a result of the European Common Market and was sold by its owner, the Belgian railways to developers and was threatened of demolition.





A common master plan for the site was agreed on by the new owners. It includes housing, offices, exhibition space and a large public park (designed by Bas Smets).

The Royal warehouse of Tour & Taxis itself, built in 1907 on the former a postal service complex developed by Charles V, was saved from demolition among others thanks to a campaign triggered by Lord Soames, an early Europa Nostra President. Its superb Jügendstil architecture has been well preserved and the interior floors were kept and adapted into multiple service activities.

By contrast the celebrated Manufaktura textile plant in Lodz, Poland, of similar quality, was sold to developers without strings and largely rebuilt as a shopping complex.



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Detail of the maritime station (arch. E. Van Humbeek 1904-1907).

The entire Brussels canal area is presently open for renovation.
A general master plan was elaborated (2014) by Alexandre Chemetoff & Associés, Paris. The apartment tower on the right replaces a former warehouse.
© Pierre Laconte 2013.







The fully preserved station of Schaerbeek is to be the entrance gate to the new railway museum built at the initiative of artist François Schuiten. To open in 2016.



A key item of the museum will be the restored A2004, the only remaining of a series of aerodynamic locomotives, running at more than 100 miles per hour.

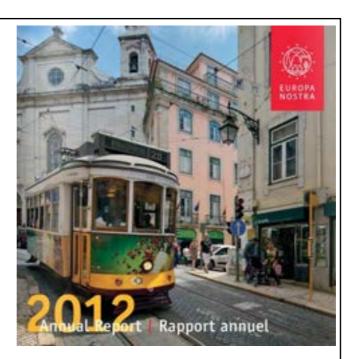


# 3. Examples of single industrial buildings and engineering built artefacts

An important source of examples of industrial and engineering preservation is provided by the **Europa** 

Nostra's Conservation

Awards. Europa Nostra's activity covers all the fields of architectural heritage. It organises exchanges of experience among its members and lobbying actions towards authorities.





Within Europa Nostra the Industrial and Engineering Heritage Committee (IEHC) is endeavouring to draw attention on this type of heritage, mainly through private initiatives. Herewith a pumping station transformed into a hotel, fully respecting the Venice Charter.





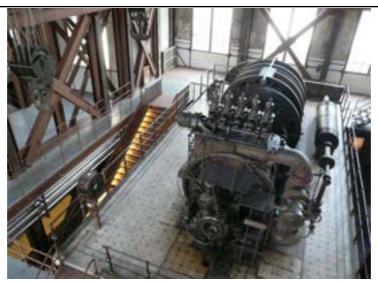
Grand Prix 2013, category Research

Exceptional machines of Wielemans-Ceuppens Brewery, Brussels, Belgium Grand Prix 2013, Category Research. To be restored for educational purposes at the initiative of IEHC (2016).





IEHC organises industrial heritage study tours. As an example the IEHC 2011 tour covered the **Dutch waterworks heritage**, including the Haarlemmermeer pumping station: herewith, participants to the explanations by Ir. Hans Pluckel, Commissioner, Hoogheemraadschap Rijnland.



Another example of best practice was explored at the 2010 IEHC study tour to Istanbul (2010): it included **the "Sentral" power plant** (now Bilgin university conference and exhibition centre). It has fully preserved its machinery, an attraction of its own for its events. By contrast London's Tate Modern, also located in a former power plant, has totally eliminated the industrial and engineering memory of the place.

© Photo: P. Laconte





Coal-gas production plant of Athens © Photo: P. Laconte

The Athens IEHC Industrial and engineering tour (2013) included a visit to a **coal processing plant** transformed into an educational museum immediately after its closure.

The coal gas produced in the "retorts" ascended through vertical tubes to the upper part of these retorts. The tubes lead up to the hydraulic main or "gas trap", a large pipe filled with water up to the middle. The gas passes through the water and accumulates in the upper part of the main.



Industrial heritage tourist trails have become an important part of tourist income in Germany. At European level, the *European Route of Industrial Heritage (ERIH)*, represented in IEHC, is a network (theme route) of the most important industrial heritage sites in Europe, for example the Landschaftspark Duisburg-Nord.



From the 19<sup>th</sup> century, pumping was done by steam machines and later by fuel turbines. The disused machinery is kept in running order for educational purposes and occasionally reactivated in case of very high rains, which tend to rise in frequency.



© Photo: P. Laconte

Disused water collectors can be transformed in meeting places such as restaurants, keeping the existing machinery whenever possible.

© Photo: P. Laconte





Old factories served by canals are another interesting example of industrial and engineering heritage, and application of the Venice Charter. In as much as possible, they are kept intact, but equipped with the latest machinery, in accordance with Charter of Venice. Herewith a rice conditioning and precooking plant hosted in century old brick walls and served by century old ships. © Photo: P. Laconte





A fine example of engineering heritage is provided by **the station and train offered by Mussolini** to the pope in 1932 after the reconciliation between Italy and the Vatican. In 2012, a trip took place from Rome's Vatican to Orvieto, using the 1932 papal train, hardly ever used and in mint condition. Hereby the papal train ready to cross the Vatican City wall for its heritage tour. © Photo: P. Laconte





Pamphlet for **The Jacobite 2015 schedule**, welcoming all friends of industrial heritage. Since 1 April 2015 it is operated by Abellio, a subsidiary of the Dutch State Railways.

Many thanks to the members of Europa Nostra's Industrial and Engineering Heritage Committee :

- •Drs. Ambass. Rienko Wilton (NL) Secretary
- •Mr Angus Fowler (DE)
- •Mr David Morgan, MBE, TD (UK)
- •Ing. Eusebi Casanelles i Rahola (ES)
- •Prof. Dr Dietrich Soyez (DE)
- Dr Paul Smith (FR)
- •Drs Hildebrand de Boer (NL)
- •Mr Cyril Winskell, MBE, FRIBA (UK)
- •Arch. Francesco Calzolaio (IT)

Pierre Laconte, Chairman, 12/4/2015

A refereed paper with references, based on a former PPT was published in « Change of time » (2014)















The project Access2Mountain in the SEE program 4: Regional Railways - Ways to Success (Workpackage 4)

## **Ernst Lung**

Federal Ministry for Transport, Innovation and Technology (bmvit) based on 2 reports, worked out by the contracted consultant

Otfried Knoll

**Knoll Traffic & Touristic Solutions** 

Jointly for our common future

FEDEC Rail Italy 2015, Padova







## **Source of photos:**

Most of the presented photos are copied from the 2 reports, worked out by Otfried Knoll and from the English summary, which we elaborated together. In these reports, the sources are indicated in detail.

I thank Otfried Knoll for many interesting pictures, some photos are from our project partners. Many further pictures are downloaded from the websites of the analyzed railway companies and from the STA (board of the province Südtirol/Alto Adige for public transport).









# Main targets of the project Access2Mountain:

- providing attractive, multimodal "soft" mobility offers to motivate additional guests for environmentally and socially sustainable tourism in the Alps and in the Carpathians,
- to improve the mobility situation (without car) for the inhabitants of mountain areas,
- opening up new customer potentials for public transport, especially in the tourist traffic to improve the utilization of buses and trains and contribute to sustain and to improve public transport services in mountainous, rural regions.







Source: Otfried Knoll April 2014









# Partner in Access2Mountain

- Leadpartner: Austrian Environment Agency (coordinator),
- Austrian Federal Ministry for Transport, Innovation and Technology
- · National Park Gesäuse
- Mostviertel Tourismus
- Miskolc Holding (HU),
- University Camerino (IT)
- European Academy Bozen/ Bolzano, Institute for regional research (IT)
- Maramures- Infotourism (RO)

- Regional Development Agency Košice (SK)
- Regional Development Agency Rzeszow (PL)
- · Timok Club (Serbia)
- · Carpathian Foundation
- Observer (not financing partners) from Belgium, Montenegro; Czech Republic, Slovenia und and Austria, e.g. railway operator NÖVOG (Mariazeller Bahn) and FEDEC Rail



# Working Packages (WP), Duration and Budget





- · WP 0: project preparation
- WP 1: Project and financial management
- WP 2: dissemination, e.g. homepage <a href="https://www.access2mountain.eu">www.access2mountain.eu</a>
- WP 3: transport and environment data, transport model
- WP 4: regional railways
- · WP 5: multimodal passenger traffic
- WP 6: Awareness raising, training programs, building networks for implementation of measures
- WP 7: Conclusions for the implementation of the transport protocols of the Carpathian Convention and the Alpine Convention

**Duration of the project:** 3 years, May 2011 until the end of April 2014 **Project budget** total: 2,22 Mio. €, thereof 1,89 Mio. EU regional funds (South East Europe Program, ETC) partner bmvit 31.500 €















# List of analysed railways

red = full analysis based on questionnaires black = selective analysis

- 1. Pinzgauer Lokalbahn
- 2. Stern und Hafferl
- 3. Zillertalbahn

### Germany:

- 4. Bayerische Oberlandbahn (BOB)
- 5. Harzer Schmalspurbahnen (HSB)
- 6. Hohenzollersche Landesbahn (HzL)
- 7. liztalbahn
- 8. Waldbahn
- 9. Usedomer Bäderbahn (UBB)

### Czech Republic:

10.JHMD narrow gauge railway

#### Switzerland:

- 11. Chemins de fer du Jura (CJ)
- 12. Rhatische Bahn (RhB)

### Italy:

- 13. Vinschger Bahn
- 14. Ferrovia Trento-Male-Marilleva

### Slovakia:

15. Tatranská Elektrická Železnica, (TEŽ)

### Spain:

16. Ferrocarril de Sóller SA (FS)

#### Great Britain:

- 17. Ffestiniog and Welsh Highland Rail
- USA / Canada:
- 18. White Pass /Yukon Railway







# Successfactor: Support on all political levels – tasks of communities

- (financial) contributions to the construction and maintenance of railway stations
- improve the accessibility for pedestrians and cyclists
- awareness and information policy "ticket offices in the city"
- mobility management activities to strengthen public transport
- land-use planning targeted on short ways to the railway stops (e.g. reasonable density of settlements)
- presentation of regional railways and public transport on the websites of municipalities

Jointly for our common future



# the case study Vinschgerbahn

After the effort to implement a forward-looking strategy the communities have an important role.

If the crosslinking with everyday life should succeed and the everyday traffic should be more attractive, even the everyday things must be solved

This concerns, for example:

- The design of the community home page with reference to the railway
- Competent mobility counseling at municipal offices, possibly even ticket sales and job ticket advice
- · The acquisition of conservation, design and maintenance of stations
- · Useful information at public transport stops
- A good integration of the railway stations in cycling and walking networks
- The parking management and access restrictions for cars.
- The support of the railways by the provision and maintenance of bicycle stands and park and ride locations.



Source: Otfried Knoll 2.4.2014

KNOL

# **Example: Railway stations in the Vinschgau**





With the new, state-owned organization structure often new ways were chosen. For example, the previously perfectly restored stations were supplemented with modern waiting areas and information devices and then placed in the custody of the Venosta Valley ("Vinschger")communities.



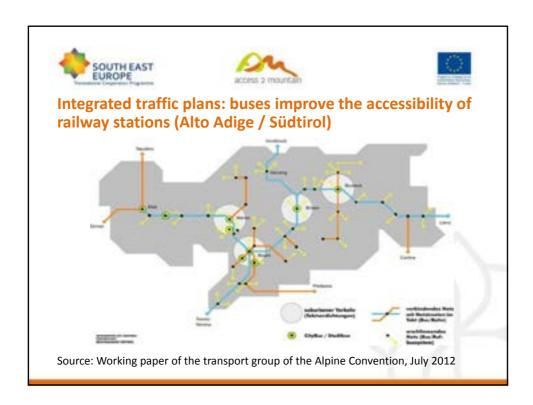
Source Otfried Knoll 2.4.2014











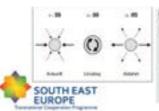






# Timetables meeting the demand of (potential) passengers

- Almost all regional railways that are also relevant for every day mobility offer one train every hour in both directions in a fixed schedule ("Taktfahrplan"),
- In some cases every half an hour a train is offered (plan of RhB, partially implemented by the Zillertalbahn and the Vinschger Bahn (accelerated trains)
- Suitable connections with regional and local bus services and long distance trains are offered in most cases





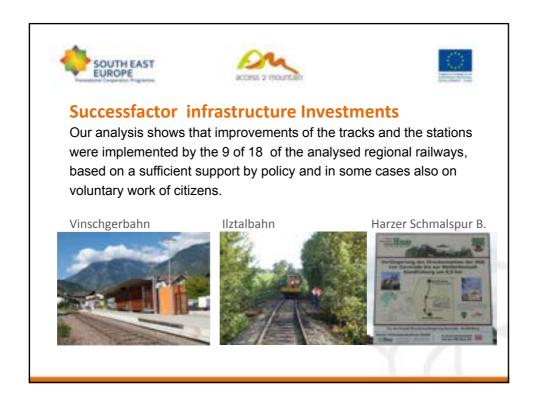






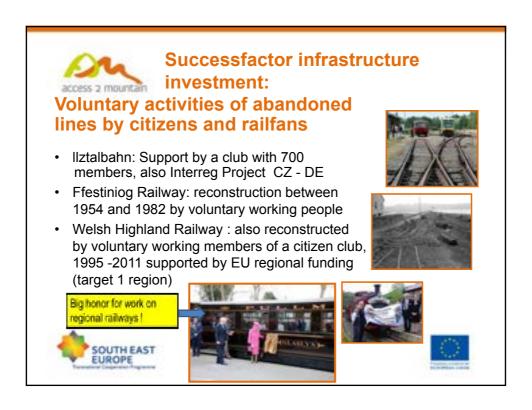




















# Successfactor rolling stock, suitable for the requirements of passengers:

- easy accessibility for all passengers, also for handicapped people with wheel-chairs and for passengers with heavy luggage,
- comfortable facilities to transport luggage and sports utilities,
- carrying bicycles,
- good view on the landscape,
- · enough capacities to meet peak demand

For longer trips buffets or dining cars are attractive for passengers















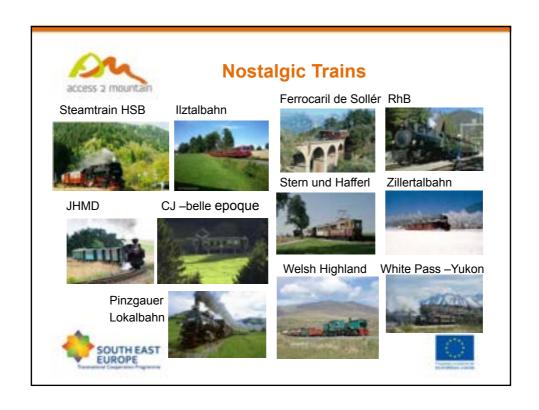
















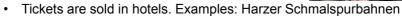




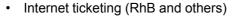


# Easy access to suitable tickets

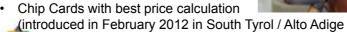
- Conductor service in the trains. Examples: UBB, Pinzgauer Lokalbahn, Zillertalbahn
- Regional train tickets are included in existing all-inclusive packages



- Destination guest cards are including public transport. Examples: South Tyrol /Alto Adige, see also following slide
- · Service points in railway stations
- Cafeterias in railway stations sell tickets (Vinschger Bahn)



SOUTH EAST EUROPE



















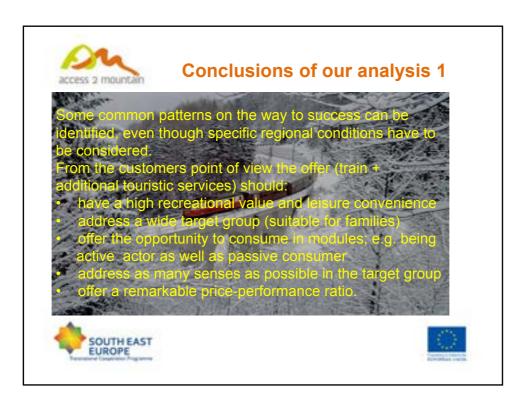


















# **Conclusions of our analysis 3**

There are several potential threats that have to be considered too:

- Service portfolio and operations are designed too closely to the operator's needs. The market's needs are succumbed.
- The service is oriented towards rapid economic results and successes.
   Profitability is too much in the foreground. If the targeted profitability is not achieved within a specified time limit the goal is often abandoned.
- The willingness for investments and financial support by public authorities are only focused on infrastructure while marketing activities are not supported at all.
- The railway's operator expects the full support by the regional actors in any
  means while these actors rely too heavily on the operator's activities. As a
  result there is no common spirit of optimism.









# Masterplan for regional railways key elements (1)

- · Strengths and weaknesses / chances and risks analysis
- · general vision for the regional railway
- budget framework
- passenger potentials (trends and forecasts)
- embedding in regional planning, traffic- and tourism concepts
- coordination with land use planning and regional development priorities
- objectives and measures for infrastructure, services, rolling stock, maintenance concept for vehicles, workshops,
- time schedule ("roadmap") for the implementation, coordinated with the budget









# Masterplan for regional railways, key elements (2)

- operational part (management strategy, timetable, special operations, personnel, ...)
- commercial section (supply and service levels, pricing, sales strategy, ...)
- creativity part (design quality, CI, CD, promotional policies, information systems, ..)
- · cooperation strategies
- communication concept (make the market aware of USP, external and internal)
- communication strategy: partners, reporting, press contacts, information of the public.















# Implementation- measures on the Mariazellerbahn

- Investments by the observing partner NÖVOG as operator of the Mariazellerbahn to improve infrastructure and for new rolling stock (called "Himmelstreppe") with the objectives to reduce travel times to be more competitive to cars and to implement suitable timetables ("Taktfahrplan")
- The investments should reduce the operating costs of the Mariazellerbahn
- Cooperation with communities (e.g. for the maintenance of stations ) and with the tourism stakeholders in the served regions
- The country exhibition in 2015 is a challenge for the Mariazelllerbahn ted. An innovative ticketing system (reservation in the web) should guide the visitors to avoid congestion.
- In addition to the modern train-sets, traditional trains with for than 100 years old locomotives should be a point of interest for whole families and not only for rail fans!









# Further developments based on the findings in "Access2Mountain"

- The results of the project prove that regional railways can be successful in tourism and the good practice analysis is helpful for "follower" railways.
- In addition to the work-package 4 "regional railways" also innovative and attractive intermodal offers for tourist traffic, including long distance rail travelling were analyzed, the report is a helpful good practice guide.



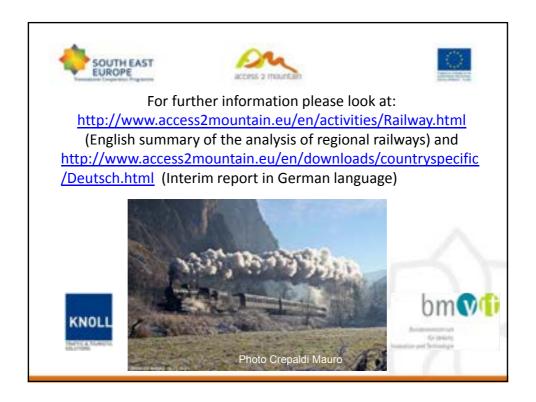














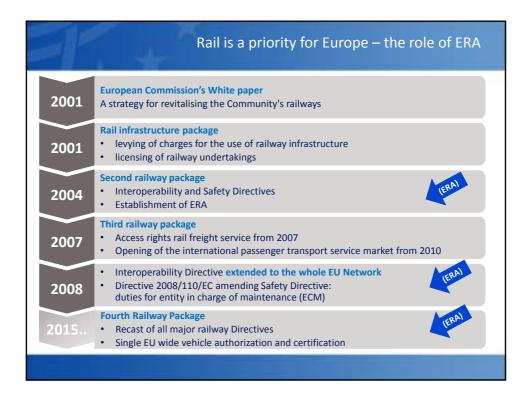






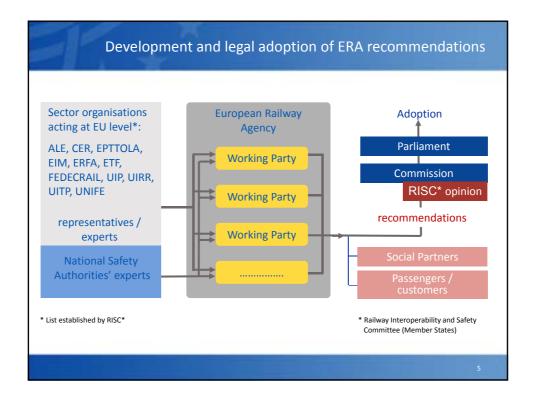












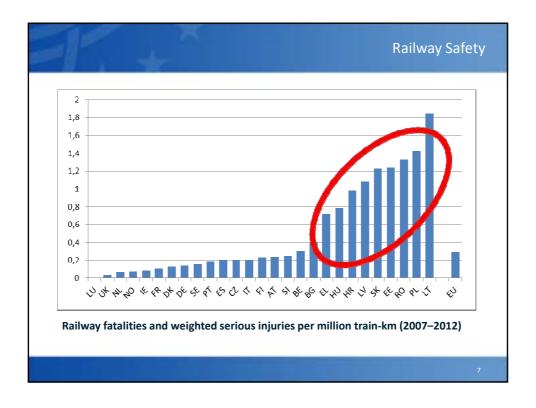
### The EU legal framework for a shared railway system

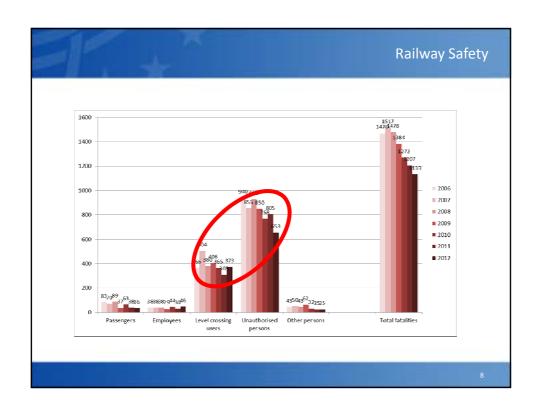
The "shared" system, managed by many actors each responsible for their own part of the system - including its safety - is intended to be operated as an open market for products and services:

# Single European Railway Area

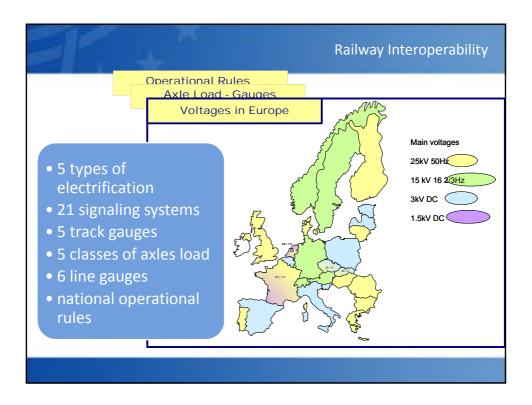
This requires harmonised and transparent rules and processes – like roads and aviation – to define the optimal level of technical harmonisation and maintain/improve the overall safety levels.

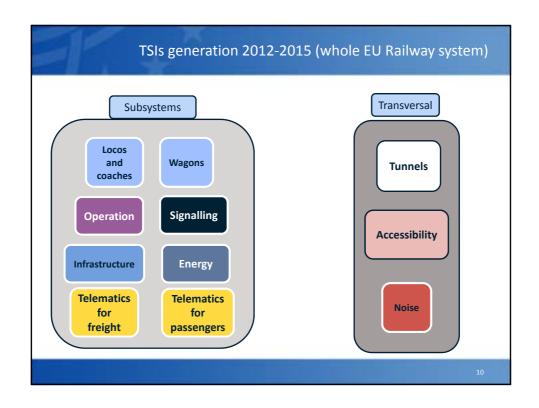




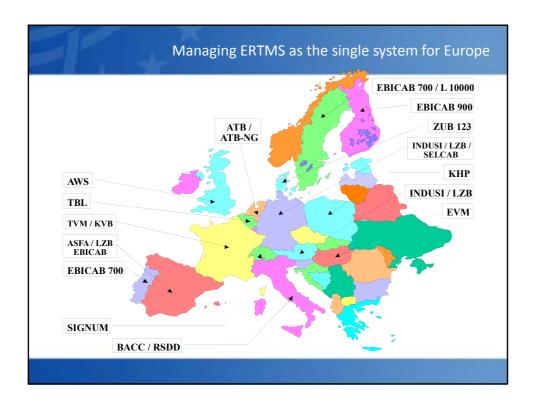


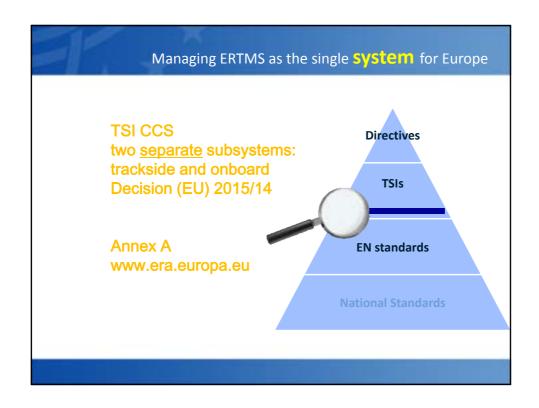




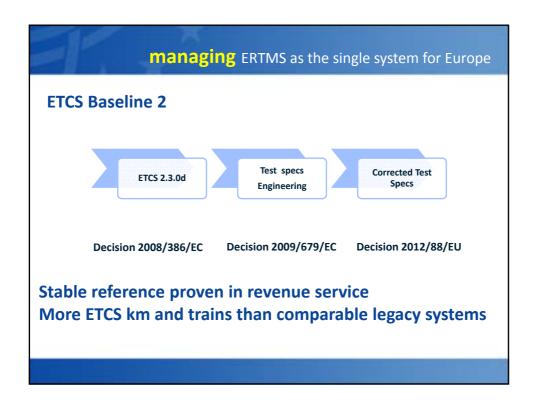
















# managing ERTMS as the single system for Europe

#### ETCS Baseline 3 legal reference:

Adoption: Commission Decision 2012/696/EU of the 6th November 2012
First Maintenance Release: Decision 2015/14/EU of the 5th of January 2015

MoU 2012, art 37:

"The Parties recognise that, once adopted, Baseline 3 will provide a stable basis and they do not consider the need to envisage another Baseline in a foreseeable future. In addition, they recognise that the following modifications could be introduced in the medium term

- IP based communication...
- ATO...
- Other developments...typically new interfaces..or new technologies..like positioning.by satellite..

#### Art 38:

Such improvements in the specifications do not imply the upgrade/replacement of existing 2.3.0d and Baseline 3 equipment.

### ETCS Baseline 2 and Baseline 3

# The decision to apply B2 or B3 is left to the applicant

- Trains equipped with B3 can operate on B2 and on B3 lines
- B3 specifications can be used to design and authorize new B2 lines
- Facilitation mechanisms allow upgrade of ERTMS equipped lines to B3 without extensive balise modifications

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## GSM-R and Interferences with public networks

- > The problem of interferences is recognised by all concerned parties.
- Over 1000 interference locations have been reported, although only in limited cases railway operation is impacted. Without measures the impact will increase, due to rollout of 3G/4G public networks.
  - There is a legal basis for introduction of 3G/4G (UMTS/LTE) in the frequency bands close to GSM-R, formerly used by GSM.
- > Solutions are defined, to be introduced simultaneously:
  - Coordination between network operators, guidelines for radio planning: ECC Report (now in consultation). Can lead to local improvement of GSM-R networks. Application will be monitored by national frequency regulators.
  - Installation of improved on-board radio equipment or filters: products are available now and their use is allowed in the TSI CCS.
- > Implementation of solutions cannot be forced by law.
- > Three Interference Workshops since 2012, last one in November 2014 at ERA; Regular monitoring at Commission level with DG Connect and Move.

#### Evolution of railway radio communication system

- > The GSM-R industry stated support for GSM-R until at least 2030
- > EC target dates: new solutions defined for the CCS TSI from 2018, deployment possible from 2022.
- > ERA has defined the Program on Evolution of GSM-R. Draft planning:
  - Mid 2015: Report on analysis of different scenarios for providing the requested services: dedicated networks, shared networks, public networks, satellite, hybrid.
  - Mid 2015: analysis of radio spectrum needs.
  - Mid 2016: analysis of impact on TSI CCS.
  - Mid 2018: proposal of changes in the TSI CCS.
  - Continuous cooperation with UIC (who should prepare the update of requirements and technical standards, together with ETSI and 3GPP) and other projects.
- > ERA investigates the benefits of cooperation/asset sharing with other non-commercial sectors with similar radio related needs:
  - Public safety, urban rail, utilities
  - > Considerations for the use of public networks



## ERTMS is a major EU industrial project

Political support: EC ERTMS Coordinator Mr Karel Vinck

Legal obligations for ERTMS deployment

EU money for grants and financial support:

- > TEN-T 2007-2013: +700 millions
- > CEF 2014-2020: +/- 1 billion programmed
- > + EU cohesion funds
- study on the innovative finance mechanisms for ERTMS (PwC)

### Leveraging on grants

### ERA cooperation with INEA on TEN-T funded projects

- > Call text
- > External evaluation
- > Financing decision
- > Follow up: 60 actions, 45 still ongoing

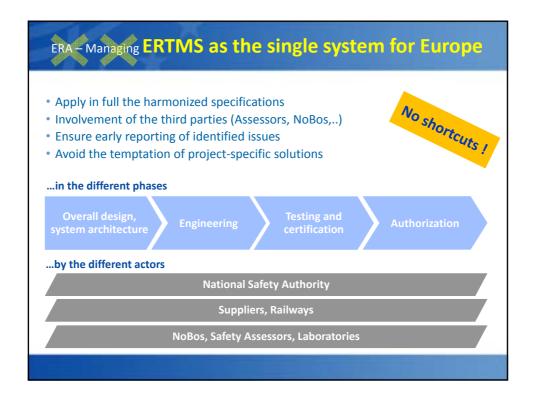
Level of application of Interop Directive and TSI not satisfactory

#### Lessons learned:

- > Eligible contracts only if ETCS sw maintenance included
- > Trackside first (full compliance, ERA scrutiny)

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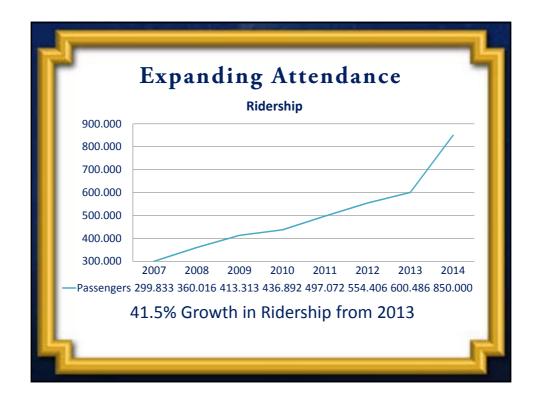




















## **Event Overview**

- THE POLAR EXPRESS™ Train Ride draws an average ticket yield \$20 more than generic events at a higher demand
- Several licensed partners sell as many as 25,000 tickets in 24 hours when their events open for sale in the summer and fall
- Locations have seen ridership as high as 95,000 passengers during an eight week season



# Retail Opportunities Rail Events Inc. offers a comprehensive line of retail merchandise to maximize the customer experience and support partner revenue In 2014, Rail Events offered 60 products available to partner venues for order at wholesale cost The 2015 product line will be further expanded to 100 products and will feature a refined ordering process







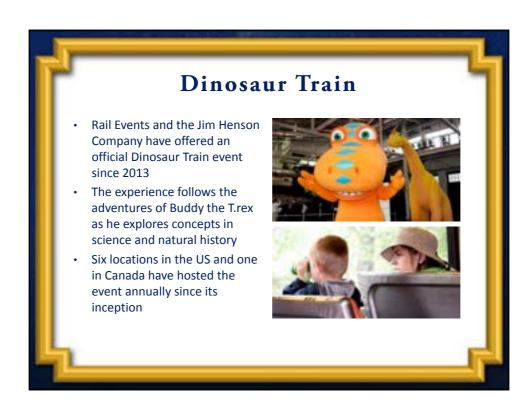






























# Fedecrail Italy 2015 Conference

Henry Cleary, HLF Project Director,
Boiler and Engineering Skills Training
Trust (BESTT - UK)

BESTT provides training in repair and construction of historic (riveted) boilers. We have 8 trainees and a Training Manager paid for by the National Lottery, plus several retired experts.





BESTT is a co-operative initiative between historic railways, road steam engines and steam ships

Boiler repair in the UK is carried out by around 10 – 20 small enterprises.

Road steam boiler repairs support several 1-2 man businesses





# Boilers are the most safety critical component of a steam engine

In the 1950s a locomotive boiler was changed every 10 years;

Today most railway boilers are over 60 years old (some are 100 years plus!) .







Boilermakers who learnt their trade in the 1950s/1960s are retiring and there is no one to take their place.

Gordon Reed, still volunteers at NRM York at the age of 85.

These skills were learnt in the workshop. Computers can't help!





# BESTT has developed a 5 step plan

- 1. Use reference materials\* to construct a training syllabus
- 2. Find boilershops willing to take a trainee
- 3. Recruit independent assessors to check the trainee's work records
- 4. Recruit Trainees and Training Manager
- 5. Award Foundation Qualification to successful trainees
- \*eg Heritage Railway Association (HRA) Boiler Code of Practice





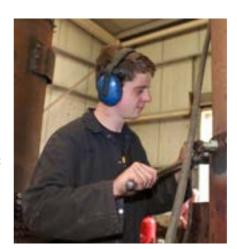
### Can we attract new trainees?

- Trainees are paid 12-16,000 euros for 12 months of training
- In addition there is a 3,300 euro bonus if they complete the course with good evidence
- The work is hot, repetitive and needs both physical strength and spatial thinking
- So far we have received a good number of enquiries



# Questions (answers will take 2 years!)

- Will our trainees get permanent jobs?
- Will they continue to learn (one year makes a worker useful, not fully skilled)?
- Can we persuade historic railways and museums to make training a priority?
- Can we persuade Government etc to recognise our course?
- Can we obtain other funding to continue?





BESTT would be happy to co-operate with other Fedecrail members on these issues – Thank you.

Without him ...

This will disappear





BESTT contact: jhenrycleary@aol.com



