International Heritage Railway Conference

Antwerp, Belgium
04-06/05/2017

Conference Proceedings
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   UIC Passengers and High Speed Department

2. **Josef Doppelbauer** – The Future of Rail in Europe
   Executive Director, European Union Agency for Railways

3. **Stéphane Disière** – Train World & SNCF Heritage Policy
   Chef de Division, SNCF Marketing & Sales

4. **Henri Jacolin** – Association Internationale d’Histoire des Chemins de Fer
   President AIHCF

5. **Jaap Nieweg** – Overview for “Environmental Issues” Session
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6. **Dipl. Ing. (ETH) Roger Waller** – Case Study: Reducing Emissions - Electric
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7. **Drs René van den Broeke** – Case Study: Loco Emissions Analysis - SHM
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8. **Kees Wielemaker** – Protecting Transport Heritage in Netherlands
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9. **Joseph van Olmen** – Heritage Railways in Belgium and Febelrail
    Chairman, Febelrail

10. **Jacques Daffis** – Peace Train – Train de la Paix
    Vice-President, Fedecrail
Passengers Transport...

- The world is asking for more and more Mobility
- Technology is dramatically evolving
- New technologies are invading everything
- All transport modes are evolving
- Society is asking for new models of accessibility
- Society is asking for sustainability
- Society is asking for safety and security
- ...
- Legal & financial frame of transport are imposing new requirements
- Transport concept is changing
- Transport businesses are being different
- Transport market is facing to new challenges
- Transport conditions (almost always) imply Multimodality
Passengers Railways Transport...

- Historically Railways were THE solution

- Today Railways are just ONE OF THE solutions

- We must ensure that tomorrow, Railways WILL CONTINUE TO BE a solution

UIC : 200 members in 100 countries
UIC’S MISSIONS

• Identify needs, concerns, common interest issues
• Give them a solution / answer
• Promote the Railway as a competitive transport mode of the future, providing capacity and sustainability

How to do it?

Attending steering committees: (objectives definition, action plans)
Participating in working groups
Connecting inside / outside

UIC PASSENGER DEPARTMENT

All efforts are meaningless if we do not have Passengers (or freight)

Passengers represent 50 % of global railway business
80 % or the Rail Passengers in the World are in Asia

Accordingly to UIC Mission, Passengers activities are organised to give a tool to develop any possible activity related with “Passengers”

Principles

Global approach
Open to any UIC member
Consideration of any possible approach interesting members
Consensus-based: everything is to be defined by members
Structure of Passengers Department

- Intercity & High Speed
- Commuters & Regional Services
- Global Passenger activity
- SMGG Station Managers Global Group
- Commercial & Distribution

In cooperation with other UIC Dept:
- Technology
- Fundamental Values
  - Safety, Security, Sustainable Development Unit, Training, Research

High level Passengers meeting

SYNERGIES BETWEEN UIC AND ITS PARTNER ORGANISATIONS

- Activities involving members from all UIC Regions:
  - Europe
  - Asia – Pacific
  - Middle East
  - Africa
  - N. America
  - L. America

TopRail - Working Together - UIC and Fedecrail - Antwerp 05/05/2017
2. Areas of Collaboration

UIC, Wartrain and Federcrail agree to cooperate with each other, to the extent possible, through undertaking active collaboration in the following specific areas of mutual interest:

(i) Promoting of leisure trips by railway
(ii) Increasing rail’s share of the tourist market by identifying how railways can contribute to sustainability challenges.
(iii) Facilitating the understanding of Heritage and Tourism by the rail market.
(iv) Collaborating in the creation of a database of existing tourist trains and services regarding railway tourism.
(v) Promoting interoperability and common standards for railways as well as integration with other modes of transport.
(vi) Undertaking studies in economic, social and technical aspects of tourism and leisure by rail.
(vii) Providing forums for both public and private sectors to share their experiences as well as expertise in the various aspects related to tourism by rail.
(viii) Organising workshops and conferences to disseminate the work done by UIC, Wartrain and Federcrail.
(ix) Addressing issues of environmental concern that would mitigate the detrimental effects of infrastructure development and operation.
(x) Participating in each other areas as the parties may agree.
Tourist railways tend to be isolated products with few interconnections and visibility. There are several quality tourist railway products in the world and there are people interested. However, sometimes they do not know their existence. This provides many opportunities to exploit the products by developing networking and looking for synergies between travel and tourism stakeholders. That is the reason why this project is attractive and necessary.

In the context of steadily growing international tourism, TopRail is a business-driven project that actively promotes railway tourism quality products by increasing the visibility of service offerings.

- Design and create a promotional platform (website) facilitating technical and commercial contacts between potential partners and the local tourism industry
- Set up workshops, conferences and studies to analyse best practices and assess their portability
- Raise awareness in an international environment to reward best practices and quality projects
Participants

Who are the participating companies?

- Railway Operator Company
- Infrastructure managers
- Cruise Operators
- Tour operators
- Federations/Associations
- National/Regional/Local Public Authorities

STATUS

TopRail Partners
TopRail Members

How to become a member?

Invitation-Cooption
MOU (memorandum of understanding)

Press
Others?

Participants

TopRail – Working Together – UIC and Fedecrail – Antwerp 05052017

TopRail – Working Together – UIC and Fedecrail – Antwerp 05052017

FEDECRAIL

de Angoiti & Perez – Working Together UIC and FEDECRAIL
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Organization/Meetings Schedule

**Organization**

- **Steering committee**
  - Strategy/proposals makers

- **Plenary committee**
  - Full discussion/decisions makers

**Working groups**

- Produce contents (sustainability, heritage...)

**Events**

- Workshops 20/30 people
- Conferences 200/300 people

**TopRail President**

- Twice a year/on demand

**TopRail Members**

- Once a year/on demand

**UIC Resources**

- On demand

**External Resources**

- 2/3 times per year
  - Mars (after Fitur & ITB)
  - June
  - Nov (after WTM)

- Every two years
  - Mars

**UIC Staff**

- TopRail Members

**Deliverables 2016-2017**

**2016:**
- First TopRail Workshop in Paris, June 2016
- Sustainable Tourism Workshop in Vienna, October 2016
- Creation of the website Toprail.org, November 2016

**2017:**
- Sustainable Tourism on Rail
- Improvement of the website www.toprail.org
Sustainable Tourism

ST OMT definition

“Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities”

Action: Specific workshops on Sustainable tourism by rail

Outcome: Sustainable Tourism on Railways Guidelines
Meeting the demand...

* A perfect opportunity to generate value added experiences*

Railway tourism products are heterogeneous and attractive for all type of customers

- Young people
- Adults (Active and Retired)
- Families
- Railway enthusiasts
- People who discover railways
- Domestic and international tourists

Let them dream of you

*Train* + *People* + *Resources*

*A world of opportunities*
Thank you for your kind attention
The Future of Rail in Europe

FEDEC Rail Conference, Antwerp, 5 May, 2017
Josef Doppelbauer, Executive Director

Is There a Future for Rail?

...I think I saw it still moving,...
The European Railway Industry is Under Threat

Outside World (Automotive, Digital, ...)

Other Modes  \rightarrow  European Rail Supply Industry  \rightarrow  Outside Europe

Will the European Rail Sector Master the Transition?

- Digital
- Connectivity
- Internet of Things
- Hyperloop
- Autonomous Cars
- Industrie 4.0
Transport is the Backbone of the Economy – Rail is the Backbone of Transport

Shared, seamless, sustainable Transport

- Safety
- Reliability
- Resilience
- Connectivity
- Affordability
- Upgradeability
- Cost
- Market share
- ...

Technology (digital, automation, ...)

Innovation Steps

- Mobility and Logistics Services
- Customer Driven
- Single European Railway Area
- EU-wide regulation & processes
- Technical harmonisation, in particular ERTMS
- Market Orientation
- Global Reference

Enablers

- Innovation & digital technologies
- Cooperation & competitive operation

Supporting Infrastructure/Ecosystem Enablers

- Single European Railway Area
- Global Reference

Shared, seamless, sustainable Transport

- Safety
- Reliability
- Resilience
- Connectivity
- Affordability
- Upgradeability
- Cost
- Market share
- ...

"Gradually and then Suddenly ..."

(Moore's law)

- Innovation by combination
- Based on existing technologies
- Simplified customer adaption
- Standardisation boosts innovation
- Network effects – the more users, the faster the improvement

On which side do you see rail?

- Innovation "by design"
- Unproven technologies
- High transaction cost
- Proprietary solutions create risks
- Fragmentation prevents improvement
The European Railway System Needs to Innovate!

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The Interoperability Vision

The legacy of national monopolies with national rules means that where rail could be most competitive (long distance freight and medium distance high speed passenger), fragmentation undermines competitive position of railways ("95% of our traffic is national")
The New Role of the Agency
- Technical Pillar of the 4th Railway Package

The Agency will issue single EU-wide vehicle authorisations and safety certificates to train manufacturers and railway undertakings.

The Agency will be in a position to issue an approval required for the NSA authorisation of ERTMS trackside projects (a binding opinion on ERTMS trackside specifications).

All applications to the above processes will be handled by the so-called One-Stop-Shop developed by the Agency.

- Covering applications at the Agency, but all national applications for Safety Certification, Vehicle authorisation, and trackside/infrastructure authorisation as well.

The New Vehicle Authorisation

1 Authorisation by ERA
We are Shaping the Future of Rail in Europe!

Single European Railway Area (SERA)

safe :: connected :: affordable

Making the railway system work better for society.

Follow us on Twitter: @ERA_railways
5 May 1835: a train ran for the first time in Belgium and on the European continent. Brussels, now linked with Mechelen by railway line, became the first capital in the world accessible by train.
SNCF responsible for the history of the Belgian railways

- SNCF aims to care for the conservation of the historic heritage of the Belgian railways and to bring it into the spotlight.

- This is a public service assignment for which the Belgian State has allocated a grant stipulated in the management contract.

- The scientific team in charge of the conservation and the display of the railway heritage is a part of SNCF. A contract signed with Infrabel (the railway infrastructure manager) ensures the global management of this public service assignment.

The Belgian railways collections

Before the opening of Train World, the heritage of the Belgian railways was inaccessible to both the general public and researchers. The collections were to be found in four different sites.
An unknown collection

- The collection of 200 vehicles was reduced to 70 engines.
- The 22 best preserved machines are displayed in Train World.
- The other pieces were loaned or donated to Belgian tourist railway associations, which are restoring them and making them accessible to the public.
- The items on loan will also be available for temporary exhibits in Train World.
SNCB conserves six royal coaches

Leopold II / Albert I royal coach

Leopold III / King Baudouin I royal coach

An unknown collection
SNCB conserves 20,000 railway objects, works of art (including 4 paintings by Paul Delvaux), 15,500 posters (2,000 distinct posters), 100,000 photos, 1,400 hours of audiovisual material.
In 2007, a study was carried out to determine the best site for the future museum.
Several alternatives were explored, in Brussels as well as in the North and the South of the country.
The most notable contenders were: Ostend, Mons, Liège, Tour et Taxis, Brussels-West station... and Schaerbeek station.
An original scenography

SNCF has entrusted the design of Train World to artist François Schuiten who has worked in close cooperation with the SNCF historic heritage team.
Train World: a train opera

Restoration of the rolling stock
Steam locomotive 10.018 (Kinkempois workshop)
Placing of the bridge 23/10/2013

Financing

Belgian Railway Company (grant of the Federal government)

Total budget: 23.75 million €

- 0.9 million = feasibility study
- 0.35 million = restoration guard house
- 12 million = new building
- 5.9 million = scenography
- 3.8 million = restoration 2 railway stations
- 0.7 million = fine for crossing deadline(s)
The public shows up

2015: Sep 25 > official opening
2015: Dec 15 > 50,000 visitors
2016: Mar 15 > 100,000 visitors
2016: Aug 15 > 150,000 visitors
2016: Dec 15 > 185,000 visitors
2017: Apr 15 > 260,000 visitors

Output campaign

Ranking TripAdvisor:
- no. 8 as attraction in Brussels (393)
- no. 2 as museum in Brussels (108)

Appreciation in social media:
- TripAdvisor: 4.5
- Google: 4.5
- Facebook: 4.7

Facebook likes:
- Train World 16,000 ⇔ 24,000 SNCB
Target groups

- Families with children till +/- 12 years (cfr campaign image) (30%)
- School groups, mainly primary level (but educational packages for all levels) (20%)
- Groups/associations of ‘mediors’, senior citizens, youth groups and clubs ... (20%)
- Day tourists (10%)
- International tourists (5 => 10%)
- Railway and train lovers/staff (5 to 10%)

Train World: a unique place for events
More than a museum
I thank you for inviting me at your conference, what gives me an opportunity to make acquaintance with your association, to present the activity of IRHA and, I hope, to start a cooperation between our two associations.

IRHA was created in 2002 on the initiative of Michèle Merger, a railway history researcher, member of the French association of railway history, with the assistance of some railway companies or railway heritage foundations like CFF Historic, FS, SNCF, RENFE, etc. and with the strong support of UIC (Union Internationale des Chemins de fer). IRHA is supposed to be the mother association of all national and international railway history associations, like your association.

Legally, IRHA is a French association, based on the 1901 French law on associations. At the beginning, IRHA was Western European. Most of its members were French, Italian, Spanish, Belgians, Netherlands. The two first conferences were organised in Semmering (Austria) in 2004: « across the borders, financing the world railways »; and Lisbon in 2006 « railway modernisation, an historical perspective ». Two books on the records of these conferences were published.

IRHA extended its membership to Eastern Europe with the conference organised in Bratislava in 2009: « railways in transition, Eastern European railways, past, present and future ». Its records were published in a third book.

In 2010, the fourth conference took place in Mechelen (Belgium): « cities, users and their railways ». The book will be published soon.

The fifth conference took place in Lviv (Ukraina): « how the periphery became connected with the centers of industrialisation ». This conference attracted many young researchers from Ukraina, Russia, Belarus, happy to participate to an international conference. But due to language problems (many lecturers from Eastern Europe did not master English) IRHA will not be in a position to publish a book, the cost of translations exceeding its financial capacity.

Santiago de Chile was the place where IRHA organised its sixth conference in 2013 on the theme: « railways in Latin America, history and legacy ». We had no precise idea on the...
railway research potential on this continent. Lecturers came from many Latin American countries, but we realised that research was concentrated in Argentina, Brasil and Peru. The records of this conference will be published next year in Spanish by a Argentinian publisher.

The last, seventh, conference was organised in Istanbul in November 2016 on the theme: »Turkey between Europe and Asia, past and future«. It was a success, as a fruitful discussion took place on the route of a possible future railway connection between Europe and China. Lecturers came from many countries, including China and India. We intend to publish as soon as possible the records of this conference.

The next conference will take place in Budapest in November 2018 on the theme: «railways and the first World War». The concept of the conference is almost finalised and a call for papers will be sent in the next weeks. No doubt that this theme may interest many of the members of your association.

We have further projects: a conference, tentatively in 2020, in Nigeria on African railways. But other ideas may be surge. I think of the railway heritage, which has only been treated on the margin during our previous conferences. A conference could be organised on this important issue with Fedecrail, as you are devoting, with the railway museums, a lot of your energy to preserve the railway heritage.

So, as you see, IRHA is gradually becoming a really international organisation, as it includes members from 18 countries, from Chile to Belarus, from Belgium to Ukraine. The two vice-presidents are French and Spanish, the secretary general is German, the treasurer is Italian, and the president is French. Fedecrail could envisage to support IRHA becoming a member. It would be most welcome.
Ladies and gentlemen.

Welcome in the second half of the 2017 congress-program in which we pay attention to theme two; the future of heritage railways after the environmental agreements in the Paris conference 2015. We have three speakers in this part of the program who will tell you from different angels how they look into a future perspective for heritage rail.

It is about 27 years ago, that the United Nations started their environmental conferences. The Paris one was leading to an agreement that will slow down the warming up of the earth. This will be achieved by the reduction of the use of traditional fuel, like coal, oil and wood with as an expected result the reduction of the output of CO2, fine particles and other noxious emissions to almost zero in the year 2100.

The Fedecrail council have accepted a new strategic plan for the period 2017 – 2022, produced by the strategic workgroup. It will be presented to the Fedecrail members tomorrow morning during the AGM. Annex to this plan we developed a first draft how to cope with the changing of the world in the so called energy transition, a process in which we shall change from the use of traditional fuels to alternate energy forms, like wind-, sun-, and tide-energy and of course another attitude by the human race in using the traditional fuels.

We think that we should diminish where possible and following the Paris agreement, the use of the traditional fuels, but as said - where possible - because we will aim for retaining the conceptual authenticity of the objects preserved by us, together with the processes belonging to this objects and their authentic form as they are presented to the public.

That means that we should persuade politicians, that we can reduce the asked output of CO2 quite a lot, but not all. This should be accepted by them on base of the cultural value of the working preserved objects. A sort of mutual interest between the green and the cultural heritage world.

The goals formulated by EU and UN in the Paris agreement reduction of CO2 and fine particals with 40 % in 2030, compared with 1992. Also in 2030 the used energy should be for 30% carbon neutral and in 2050 the use of energy should be in balance with the absorbing power of the earth. In 2100 the production of CO2 should be almost zero.

So using modern technics, improve the quality of the conceptual authentic objects and combine this with the development of a globally accepted cultural value …..

I am very glad that our three speakers will give us the first steps in this direction,

a. May I give the floor to Roger Waller, the general manager of DLM

b. May I give the floor to René van den Broeke, the general manager of the Museumstoomtram Hoorn – Medemblik.

c. May I give the floor Kees Wielemaker, the Chairman of the Dutch heritage Railway Association (HRN)
Reduktion der Emissionen von Dampflokomotiven

Probleme, Verbesserungen und Lösungen

Nichts bleibt, wenn sich nichts ändert

Wenn wir unsere Dampflokomotiven weiter in Betrieb halten wollen, müssen wir sie der heutigen Zeit anpassen!

Stört es die Besucher eines Schlosses, dass der Rittersaal elektrisch statt mit Fackeln beleuchtet ist, über Steckdosen, Sprinkleranlagen und Videoüberwachung verfügt?
Rauch bedeutet schlechte Verbrennung und schadet dem Image der Dampflokomotive!!
Gekürzte Meldung aus der Berner Zeitung vom 8. April 2017

"Es gingen mehrere Meldungen zu einer Rauchentwicklung in der Stadt Bern bei uns ein", sagte Christoph Gnägi, Mediensprecher Kantonspolizei Bern, auf Anfrage. Die Polizei und die Berufsfeuerwehr seien daraufhin ausgerückt.

Gnägi konnte aber Entwarnung geben: "Es hat sich herausgestellt, dass heute Samstagmorgen eine Dampflokomotive aus dem Bahnhof Bern herausgefahren ist". Diese haben den Rauch entwickelt.

Das Rauchproblem kann mit von der SLM/DLM entwickelten Leichtölfeuerung gelöst werden.

Verbesserung der Dampfproduktion

• Anheizen mit elektrischem Vorheizgerät
• Kessel und Dampfleitungen isolieren
• Feuerschirm einbauen bzw. verlängern

Modernisierungen:
• Umbau auf Heissdampf
• Umbau auf Leichtölfeuerung
• Umbau auf GPCS (Kohlevergasung)
• Einbau eines Abdampfvorwärmers
Verbesserung bei Kohlefeuerung

- Personalschulung, vor allem der Heizer
- Gasarme Kohle (Ruhrkohle, Walisische Kohle)
- Kohle sieben, nur Stückkohle laden
- Anheizen mit elektrischem Vorheizgerät
- Feuer aufbauen mit sauberen Holz
- Ringfeuer beim anheizen und vor der Abfahrt
- Wenig, aber häufig feuern
- Abblasen der Sicherheitsventile vermeiden
- Ruhige, gleichmässige Fahrweise
- Konstruktiv: Verbrennungskammer, GPSC

SAR 25 NC 3450 Red Devil mit GPCS Kohlevergasung
GPCS: Sekundärlufteinlässe

MODERNE DAMPFTECHNIK

wirtschaftlich und umweltfreundlich
25 Jahre *modern steam*

Die Modernisierung der Dampflokomotive Heidi
2005–2015: Revision und Modernisierung

Arbeiten der DLM:
• Neuer, geschweisster Kessel mit neuem Überhitzer
• Isolation von Kessel, Zylindern und Dampfleitungen
• Leichtöfeuerung Bauart SLM/DLM
• Elektrisches Vorheizgerät
• Neue Lempor-Blasrohranlage, Bauart SLM/DLM
• Neue Kolben und Kolbenstangen, neue Flachschieber
• Inbetriebsetzung der Leichtölfeuerung

Arbeiten der RhB:
• Revision des Fahrwerks

Arbeiten des Clubs 1889:
• Finanzierung, übrige Arbeiten, Inbetriebsetzung, Betrieb

SLM/DLM-Leichtölfeuerung

• Einmann-Bedienung möglich
• Feuer reinigen entfällt
• Kein Aschkasten und Rauchkammer entleeren
• Sauberste Verbrennung, kein Rauch
• Kein Funkenwurf, keine Böschungsbrände
• Besserer Wirkungsgrad
• Garantierte Brennstoffqualität
• Einfach regulierbar, abstellbar (Tunnel!)
• Leicht zu bedienen
• RhB: Wegfall der Feuerlöschzüge
Elektrisches Vorheizgerät
Abstrahlungsverluste

Die Abstrahlungsverluste betragen nur 2 bis 5% …. und sind daher vernachlässigbar. Falsch, denn
- 2 bis 5% beziehen sich auf die höchste Kesselleistung
- Abstrahlungsverluste treten während der gesamten Betriebszeit auf

Typische Abstrahlungswerte bei nicht isoliertem Kessel:
- Rangierloks, z.B. E 2/2, E 3/3 (Tigerli): 20 bis 30 kW
- Streckenloks, z.B. 01, 52, 141 R: 100 bis 150 kW

Energieverlust einer 52-er bei 200 Einsatztagen:
200 x 24 h x 100 kW = 480'000 kWh !!

Isolieren spart Energie und Kosten

Wirksame Kesselisolation
Weitere Energiesparmassnahmen

1) Speisewasservorwärmung:
   • Oberflächen-, Mischvorwärmer, Abdampfinjektor
2) Rollenlager
   • Achs-, Stangen- und Steuerungslager
3) Stromversorgung
   • Achsgenerator statt Dampfturbogenerator
4) Gegendruckbremse
   • Kühlwasser vom Tender statt vom Kessel
5) Organisation
   • Betriebstage bündeln, Leerfahrten vermeiden, zusammenarbeiten

52 8055: Achsgenerator
Gleitlager sind Ölschleudern!

Schmierölverbrauch pro Tag: 10 Liter

52 8055 Rollenlager-Triebwerk
## CO₂-Emissionsfaktoren

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<td>0.0236 TJ / t</td>
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Biomasse gilt als CO₂-neutral:
Holz, Pellets, Bagasse, Chinaschilf, Torf 0 t CO₂ / TJ

Emissionsfaktoren der fossilen Brenn- und Treibstoffe des Treibhausgasinventars 2013 (BFE/BAFU)

Verglichen mit Kohle emittiert die Verbrennung von Heizöl ca. 20% weniger CO₂. Bei Dampflokomotiven beträgt die reale Reduktion wegen des besseren Wirkungsgrades der Ölfeuerung rund 30%.

## CO₂-Reduktion bei Verwendung von fossilen Brennstoffen
Holzgefeuerte Dampflokomotive der Benguela-Bahn in Angola

Speicherlokomotiven
wirtschaftlich – sauber – leise – umweltfreundlich – CO2-neutral
Neue Dampflokomotiven

Einmannbetrieb, Pendelzugfähig, Rollenlagertriebwerk, Leichtölfeuerung oder Hochdruck-Speichertechnik

Mit Hochdruckspeichertechnik sind Aktionsradien von 100 km für Tender- und 250 km für Schlepptenderlokomotiven möglich

Die saubere Dampftechnik gibt es!

Wir müssen sie nur anwenden
SUSTAINABLE BUSINESS PRACTICES AT MUSEUMSTOOMTRAM HOORN-MEDEMBLIK

CONNECTING TWO HISTORIC TOWNS
20 KM BRANCHLINE NORTH OF AMSTERDAM
van den Broeke – Case Study: Loco Emissions Analysis - SHM Experience

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Conference 2017
Antwerp/Belgium

ROLLING STOCK OF DUTCH STEAM TRAMWAY ORIGIN

LIVING/WORKING MUSEUM
250 DAYS OPERATION EACH YEAR
1. LIGHTING UP THE ENGINE

2. ISOLATION
3. WATER TREATMENT

4. CHANGING COALS
MORE TO ACHIEVE...
5. ‘PHASE CHANGE MATERIALS’

6. ‘BIOCOAL’?
ENVIRONMENTAL & EDUCATIONAL VALUES
The value of a register of heritage rail vehicles and cooperation in the transport heritage movement

It’s a pleasure for me to be able to show you and discuss with you two subjects which are closely interrelated to each other. The first subject is how and why we have set up a register, containing preserved railway and tramway rolling stock in The Netherlands. The other subject is that we now closely cooperate with the other sectors of the transport heritage movement, viz historic road transport, the maritime heritage and historic aviation.

I

Almost 20 years ago we started as a working party, with the aim of setting up a Register of all historical preserved rail vehicles in The Netherlands. We were convinced that it should be possible to draw up an inventory of all preserved rolling stock (both railways and tramways) in The Netherlands, to have it recorded and furthermore to judge the historical and cultural value of each object. As Jaap already told us, the cultural value of rail heritage may be used as an instrument to secure long term preservation, as working objects.

The initial aim of the Register as we saw it was to develop a tool to judge the historical value of an individual object, in relation to other objects. Some funds were asked for financial support, which they did whole-heartedly.

We started formulating general starting points and conditions for the Register. For example, it should be possible to list an old carriage now in use as a chicken shed. The state an object is in should not harm its classification. And whether a vehicle is in working order or not is not important. Furthermore, each item listed should have been built in The Netherlands or have been used in The Netherlands or in one of its former colonies.

What should be decisive, is the historical value of each object. For ranking this historical value we decided to use an adapted form of the already existing classification for monuments, developed by the Dutch Mondriaan Foundation, eventually leading to three categories.

The first A-category is based on the representational value and on the rarity of the object concerned: the object should represent a crucial development in the history or in the technical development of Dutch rail transport or it should be the unique or almost unique representative of a class that has been for a longer period an icon for Dutch rail transport.

To be considered for the second B-category, a vehicle should be part of a combination of vehicles that has historical value as a whole. When an object was involved in a major event in the history of Dutch rail transport or when it has an extra value because of the location where it is preserved or when it has documentary value because it is almost unchanged since building, it can also be placed in the B-category.

The third C-category does contain those objects which are necessary to maintain and present a collection as a whole, but which don’t have a great historical value in itself, because there have been more items of the same type preserved: see for instance the picture of the tipper cars behind the steam locomotive.

Before we wanted to start with the registration of rail vehicles, first of all it was important that the owners of historical rolling stock should be convinced of the value of registration. What are the benefits of registration? First of all, the cultural value of rail heritage is instrumental in...
securing long term preservation. Secondly, governments - either local, regional or national - and restoration funds will have a means of judging requests for grants for restoring and maintaining heritage rolling stock. Thirdly, listed objects could possibly enjoy certain benefits, such as reduction of taxes or being excluded from certain safety or environmental measures. These sorts of benefits still have to be elaborated. Furthermore, a register gives an overview of and insight in the National Collection. Moreover, the Register can be used as a sound basis to be able to show the richness and the extent of the railway heritage in our country.

Communication with the owners of heritage rolling stock was and is of vital importance. Several discussions were arranged and these yielded a number of relevant additions to the project and created more support for it.

We were very happy to discover almost all owners of historical rolling stock welcomed the registration scheme as a very valuable way of adding more status to the sake of railway and tramway preservation in The Netherlands.

We started with an all-over exhaustively stocktaking of all preserved engines, coaches and freight cars in The Netherlands, even including for instance all preserved narrow gauge tipping-cars. Now, the data of about 2.000 objects have been collected. The owners and keepers were asked to check and, if necessary, to complete the database of what vehicles survived.

In the meantime, an assessment-committee of wise men and women was set up. Not only experts on the history of railways and tramways were asked for the committee, but also people who have experience with the preservation of objects of industrial heritage or who have knowledge of the history of engineering. From the beginning, it was made clear that the owners of historical rolling stock could not join the assessment committee.

The working party was transformed into an advisory board.

Meanwhile a number of very inspiring discussions took place in the advisory-board. Some examples:

- Does the current condition of an object make any difference in valuing it? Our answer was no! Any object can have a certain historical value, regardless the state it is in, albeit in use as a pigeon house or as a holiday-home.

- What if a certain object is valued as a class A-object? Should the owner be forced to restore it to its original condition or isn't this the aim of registration? Frankly speaking, we were a bit afraid that obligations like this would restrain owners to present their items for registration. We made, however, a number of recommendations on how preserved rolling stock should be maintained and restored to its former glory. One of these recommendations is that an owner should develop a collection management plan. Others are that the owner should document all objects in his collection and that restoration of an object should be based on thorough research. In addition, all members of our umbrella organization HRN have to adhere to the Fedecrail Charter of Riga.

- What about replica's? Should they be part of a national collection and should they be registered? We did agree that replica's sometimes can fill in a gap in an existing collection. Perhaps 'De Arend' in the Dutch Railway Museum at Utrecht is the most vivid example of a replica. It was built in 1938, almost one hundred years after the original 'De Arend' was built in England. It has become well known and it enables the Railway Museum to show the development of steam locomotives in such a way, that it almost has become a museumpiece in itself. ♦ Another example is the replica of the Arnhem-tram 76, which was completed about 20 years ago. The original 76 was built for 1067 mm gauge.
track, but the replica received standard gauge bogies, to be able to run in the Arnhem open air museum.

- Another example: the Veluwsche Stoomtrein Maatschappij is operating for almost 40 years their 2-6-2 loco 23 071. As such the engine did become very familiar on their railway. Unfortunately, the engine doesn't have any history on Dutch railways. As a matter of fact it was imported from Germany in 1977. Our opinion was that we shouldn’t built a ‘museum of the museum’, so we decided not to incorporate rolling stock from abroad, not even if it was in use for a long time already on a Dutch preserved railway. But also, trams were imported from abroad.

- In this respect, another question was raised. Do, for instance, Belgian and German locomotives come under this register as well, as far as they saw service on a regular basis to and from Dutch frontier stations. The ‘Schienenbus’ on this picture is an example of a German train running in the fifties and sixties from the German town Aachen to Maastricht in The Netherlands. It has now been preserved by the ZLSM. ♦ And what about, for example, a Pullman coach used by the Compagnie Internationale des Wagons-Lits in trains to and from The Netherlands, not to talk about freight cars from other countries that were once a common sight in Holland. When you’re living on an island, this problem won’t bother you that much I suppose, but we’re still studying on this subject. Excluding rolling stock from abroad does however not mean that this is not of any value.

- Another theme of discussion: of several classes of locomotives, carriages and trams, more than one have been preserved. Do they all receive the same status, is it first come, first served, does the lowest number or the oldest receive the highest status or the one that has been restored in the best way?

The register is being maintained by HRN. To pay the cost of maintenance of the register, each owner presenting an object to the assessment-committee has to pay an enrollment-fee and yearly a fixed charge for each object entered in the Register with an A- or a B-status.

II

In the meantime, another initiative was started. In the year 2000 the Transport Heritage Association of The Netherlands was founded. In this association representatives of the four sectors in transport heritage, viz historic road transport, the maritime heritage, preserved railways and historic aviation are working together, because we’re partly facing the same problems and it’s easier to secure access to authorities when working together. Cooperation will carry more weight than doing it alone.

The main aims of this association are:

- Protection of transport heritage
- Sharing skills and knowledge
- Securing the use of mobile heritage for the future
- Increasing the visibility of objects of transport heritage
- Securing widespread support for transport heritage

I would now like to share with you some of the results we have reached so far with this kind of cooperation.

First of all, in an early stage it was decided to set up a register listing all objects of transport heritage: cars, trains, planes and ships. The register containing preserved railway and tramway rolling stock which I just discussed with you, is part of this transport heritage register.

To get that far, we developed a more elaborated method of determining the historical and cultural value of objects of transport heritage. This method was described in a book, called
‘Erfgoed dat beweegt!’, or in English ‘Heritage that moves’. The third print run of this book was published in 2015.

In the meantime, in The Netherlands a new heritage law was being prepared. Our Transport Heritage Association successfully tried to draw the attention of some members of the parliament during the preparation phase. We asked them to pay attention to transport heritage, when judging the draft for this new law. These discussions resulted in the adoption of two motions in our Parliament:

If new legislation leads to bottlenecks regarding the keeping and operation of objects of transport heritage, the Minister of Culture is committed to a proactive approach in solving these bottlenecks, for instance by encouraging other ministries to develop exemptions on their legislation for the transport heritage sector.

The Minister should support the improvement and the enlargement of the National Register of Transport Heritage and to support a greater visibility of items of transport heritage, for instance by the realization of a website with a list of iconic objects, examples from our transport heritage collection which represent certain economic and social developments.

Regarding the legislation bottlenecks, we put together a list of concerns which is discussed on a regular basis with staff members of the Ministry of Culture. This list of concerns does not only enumerate the bottlenecks we have observed, but we also make recommendations to solve these bottlenecks. So far, this consultation has been very constructive.

Regarding the list of iconic artefacts, we got the opportunity to ask a lecturer of the Maastricht University to write a survey of the history of mobility in The Netherlands, presenting in his text several social and economic developments that would not have happened when for instance the development of railways had taken place in quite another pace or when one hadn’t been building canals in our country in the 19th century. For instance, it became easier for the wealthier people to live outside the cities where they were working, when railways and tramways were built and opened up the areas surrounding those cities.

We looked for examples which represents these developments. So, this list of iconic objects does not contain the so-called unmissable works, but it does contain items that have played a major role in the economic and social development of our country. Building this website took place in close cooperation with the Cultural Heritage Agency of the Ministry of Culture.

The iconic artefacts are presented on a website, containing the survey of the history of mobility in our country, a timeline and some 120 iconic objects of all four modalities of mobility. It was presented at the second national congress about transport heritage which we held in July 2016 and which was even opened by the Minister of Culture herself, arriving on a 1933 bicycle with wooden rims!

The first congress on transport heritage was held in 2015 and the third one will be in 2018. Focus will then be on a new Environmental Planning Law which is in development and on city marketing: how can municipalities and regional governments use transport heritage to make their cities or regions more attractive for visitors? The conference will be organized in cooperation with the National Open Air Museum in Arnhem.

Finally: we are now working towards a digital transport heritage platform. This new platform will be based on the register mentioned earlier and will include the iconic objects website I just showed you. Emphasis will be on the role all means of transport played in the social and economic evolution of our country and our transport heritage collection will be used to illustrate these developments.
Of course, we have more activities and plans: we are for instance closely cooperating with the organizers of the European Heritage Days, to pay more attention to our mobile heritage during these days.

We have still a long way to go, but we are convinced of the fact that cooperation between the four sectors of transport heritage has brought us now already many advantages, which we wouldn’t have reached when working alone.

I thank you for your attention.

Kees Wielemaker
Dutch Heritage Rail- and Tramway Association (HRN)

Dutch Transport Heritage Association (MCN)

Two subjects:
- The value of a register of heritage rail vehicles
- Cooperation in the transport heritage movement
A register of historic rail vehicles

Initial aim:

• Developing a tool to judge the historical value of a historic rail vehicle, in relation to other objects.

The first vehicle to be registered, railcar DE1 41, built in 1954.

Main conditions

Each item listed should:

1. have been built in The Netherlands
   and/or

2. have been used in The Netherlands or in one of its former colonies.
Ranking historical values

A-category: representational value

• The object should represent a crucial development in the history or in the technical development of Dutch rail transport
• The object should be the unique or almost unique representative of a class that has been for a longer period an icon for Dutch rail transport

B-category:

• Combination value
• Attractiveness
• Documentary value
• Context value
Ranking historical values

C-category: necessary for the collection as a whole

- The object is of cultural and historic importance
- The object is an attractive part of the collection of the owner

Benefits of registration

- Securing the cultural value of items of the railway heritage is instrumental for long term preservation.
- For funds it is a neutral basis for judging requests for grants.
- Overview of and insight in the ‘National Collection.
- Benefits like tax reduction or exemptions from government measures.
- Basis for showing richness and extent of rail- and tramway heritage.
First steps

- Stock taking of all preserved rolling stock
- Setting up an assessment committee of wise men and women
- Transforming the working party into an advisory board for the assessment committee

Points of discussion I

Does the current condition of an object make any difference when assessing it?
Points of discussion II

- What are the obligations of the owner or keeper when his object is classified in the A-category?
- All members of HRN have to adhere to the Fedecrail Charter of Riga

Points of discussion III

What about replica’s?
Points of discussion IV
What about objects imported from abroad?

Points of discussion V
What about objects from abroad that saw service in The Netherlands?
Costs and maintenance

- Maintenance is by HRN
- Owners pay for having their objects registered.

Transport Heritage Association of The Netherlands

Close cooperation between:

- historic road transport
- the maritime heritage
- historic aviation
- railway and tramway heritage
Main aims:

– Long term protection of transport heritage
– Sharing skills and knowledge
– Securing the use of mobile heritage for the future
– Increasing the visibility of objects of transport heritage
– Securing widespread support for transport heritage

Results of cooperation I

A new transport heritage register was set up, containing four sectoral registers.
Results of cooperation II

A book, entitled ‘Erfgoed dat beweegt!’ (Moving Heritage) in which we described how to determine the historical and cultural value of objects of transport heritage was published.

Results of cooperation III

A new heritage law

- Focus on bottlenecks for operating mobile heritage, caused by new legislation
- Support for increasing visibility of objects of transport heritage
Results of cooperation IV

A website based on a scientific survey of the history of mobility in The Netherlands and devoted to preserved iconic objects, illustrating this history.

Level 1: Timeline and homepage.

Example: systematically opening up the country
Level 2: zoom in on a certain historic development

Level 3: zoom in on a certain object
Results of cooperation V

• National Congress on Transport Heritage, first held in 2015.
• The 2016 Congress was opened by the Minister of Culture, who entered the congress building on a veteran bicycle.

Still a long way to go:

• National Congress on Transport Heritage in 2018, in cooperation with the National Open Air Museum in Arnhem.
• Working on a national digital platform for transport heritage.
Thank you for your attention, endurance and patience!
In all, 16 societies and organizations operating:

- 4 standard gauge steam & diesel heritage lines (3*)
- 2 metre gauge tramway heritage lines (1*)
- 4 narrow gauge 60 cm steam & diesel heritage lines (1*)
- 8 local railway & tramway museums (2*)
- 1 national railway museum (Train World) (1*)
- 3 heritage tramway operators on public tram lines (2*)
- at present no heritage railway operators on Infrabel

70 km of preserved railway & tramway lines
170 000 passengers / year on lines operated by not-for-profit organizations

(*) = to be visited during excursions Fedecrail
BELGIAN RAILWAY & TRAMWAY HERITAGE
BEARS WITNESS TO A GLORIOUS PAST...

- First steam operated state railway line opened already in 1835 between Brussels and Mechelen (Malines)
- Standard gauge network grew to a length of more than 5000 km
- “Vicinal” metre gauge network reached almost 4800 km
- In total, the network exceeded 10 000 km, including tramway networks in major towns and industrial railways
- Total surface of Belgium is only approx. 30 000 km², so railways found everywhere, even in remote villages in the Ardennes or in rural Flanders

- What is left in 2017 ?
  - Infrabel standard gauge network approx. 3600 km
  - Coastal tramway 67 km
  - Tramway networks in Brussels, Antwerp, Gent, Charleroi
BELGIAN RAILWAY & TRAMWAY ROLLING STOCK CONSTRUCTION INDUSTRY

- Before WW I, little Belgium was a very important industrial nation: coal mining industry, iron and steel industry, metal construction, railway and tramway rolling stock construction, etc.

- Thousands of locomotives, coaches, wagons and tramway were exported; some can still be found in museums and on museum lines in several countries

- Belgian entrepreneurs constructed and exploited railway and tramway lines all over the world

- Only three companies “survived” in one or other way:
  - the John Cockerill company (CMI: Cockerill Maintenance et Ingénierie); it celebrates its 200th birthday this year!
  - ACEC, now a main actor in the development of the ETCS / ERTMS system and integrated in Alstom Group
  - La Bruguoise & Nivelles, nowadays part of Bombardier Group, who is in charge of building new rolling stock for Belgian railways

THE RAILWAYS & ANTWERP

- Antwerp was reached by rail in 1836

- Very quickly, freight transport developed; in 1843 the port was connected by rail with Köln in Prussia, creating a transport link that stood in direct competition with the Rhine (Holland !) for freight transport between Prussia and the North Sea ports

- Competition between the ports of Antwerp and Rotterdam is still very fierce, but the role of the railway has diminished, road and barge transport now playing a much more important role

- Antwerp is still a “railway port”, with many docks and industries connected to the railway network

- A huge marshalling yard “Antwerpen Noord” still in continuous operation

- Tramways: first horse tram lines in 1873, first electric trams in 1902; currently, the network has a length of 75 km; several new lines are being constructed or lengthened
Antwerp Central station and its train shed: opened to passengers in 1905 as a terminus station; completely refurbished some years ago; new tunnel enables through running to the North (including TGVs to Amsterdam)

Other railway buildings have found a new life after closure; one has even become a head office of a bank, another (the steam/diesel shed of Antwerpen Dam) is now a very popular hall “Spoor Noord” for summer events, concerts and festivities

VlaTAM (Flemish Tram and Bus Museum): located in an historical pre-WW I tram shed, … but currently closed as substantial roof works are being carried out
I hope this short “Belgium overview” has aroused your interest and that you will enjoy your excursion programme!

J. Van Olmen, 5th May 2017
PEACE TRAIN
FEDECRAIL Congress 2017 - Antwerp
Status report

Context

• New generations did not experience railway « glorious » period.

• The need to re enchant « railway tourism » to keep historic and touristic railway active and attractive.

• An idea irrupted: to create an event to highlight European touristic railway.
The concept

Celebrating a peaceful Europe for the hundredth anniversary of World War One’s end.

The project

• World War One is the last major conflict using railway as the main mean of transport.

• Face to face meeting with two historical trains: a German and a French.

• Possibility to decline the concept beyond other European frontiers.

• A strongly evocative itinerary (or a site).

• Today’s European youth on board the train.
Strong messages

- Peace in Europe
- Armistice hundredth anniversary
- The attractivity of a territory linked with history
- Railway inheritance

Graphical sketch
The initial project

- An ambitious project:
  - A German train departing from Berlin towards the meeting point, possibly preceded by an "exhibition / animation train"
  - A French train departing from Paris towards the meeting point preceded by the SNCF « exhibition » train – The French train travelling through stopover towns along the former front line.
  - One train coming from Belgium and Luxemburg
  - Other trains....

- A budget amounting approx. 3 million Euros, presented to the services of the European Parliament.

- The initial project could not be implemented for various reasons: public works, finance and method.

A reconfigured project

- Cheaper
- Less constraints
- Public works
Achievements over the past year

1. We wrote a presentation of the reconfigured project.
2. We identified a French touristic train owning its proper railroad out of the national network, run by a particularly dynamic association.
3. In parallel, we identified and met, a local community able to become the local project manager: Le Pays Thur Doller
4. We updated the French and German touristic railways on the project progress during the UNECTO congress in 2016.
5. We met the Head of the Region and could obtain his support (in a complicated French context).
6. We submitted the project to the services of the European Commission and applied for a financial aid.

The venue
Three components

- The event:
  - The peace train (one week of events)

- Institutional component:
  - The UNECTO Congress together with other European railway partners (FEDECRAIL, VDMT, HRA ...)

- Technical component:
  - Connection of the Railway to the French RFN

Finance

- The project requires a financial engineering now supported by the local project management and the help of UNECTO.

- We are waiting the position of Innovation and Networks Executive Agency (INEA) depending of the European Commission.

- The discrepancies presented in the table below are associated with various parameters to be validated soon

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Next step....

- Pending decision of the services of the European Commission:
  - Funding: GO
  - No funding: NO GO – Local project

- Creation of a steering committee (gathering the various partners and the great orientations)

- Creation of a project management (local)

- Seek for private funding

UNECTO posture

- UNECTO initiated the project

- UNECTO sees a unique occasion to achieve an event in favour of the European touristic and historical railway.

- UNECTO can’t be the project manager, nor the pilot.

- UNECTO promoted, organised and financed the project pattern and the meetings, sensitized its partners; it played the role of an incubator

- UNECTO now is the project partner; the federation considers holding its congress 2018 close to the event.
To be discussed...

• Jacques DAFFIS and JM GASC mentioned the support of VDMT (following the participation of Heimo ESCHENSPERGER to the UNECTO congress), and of other national federations as well as of FEDECRAIL (following the presentation of the projet at the congress).

• After:

  • Does VDMT confirm the free loan of a locomotive and three cars (part of a leader European railway + ...?) transport can possibly be paid by the organisation
  
  • Is FEDECRAIL able to confirm the attendance of its President at the event?
  
  • Does FEDECRAIL confirm Jean-Michel GASC’s ability to remain a technical actor of the project?
  
  • Can FEDECRAIL pay in 2017 J DAFFIS and JM GASC's travel arrangements linked to the preparation of the event?

Conclusion

• The project « Peace Train » was presented to FEDECRAIL in 2014.

• UNECTO succeeded in readjusting the project around concrete partners.

• Long live to the touristic railway and to the European touristic railway!
PEACE TRAIN

FEDECRAIL Congress 2017 - Antwerp

Thank you for your attention