

Documentation of ViWaS dissemination and networking activities

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PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Involved partners

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1 Introduction

The ViWaS project

Single wagonload (SWL) transport is still a major component in numerous European states' transport systems and in the logistics of different economic sectors such as steel, chemical industry and automotive. However, changing framework conditions and increasingly demanding market requirements have led to dramatic market losses, important financial losses and even to complete shutdown of SWL business in some countries. As this business segment has been evaluated as important for specific transports in a European co-modal transport system also for the future, significant improvements are needed.

The ViWaS partners believe that for the success of SWL, the following two issues might be crucial:

- (1) A viable SWL system is highly dependent on the critical mass. Thereby all options have to be considered to secure a high utilisation of the trains operated on the trunk lines, including a combined production with intermodal loads.
- (2) Only comprehensive and complementary measures are able to sustainably improve and preserve the European SWL systems in accordance with increasingly demanding market requirements.

The ViWaS project will follow such a comprehensive approach; therefore aiming at the development of

- Market driven business models and production systems to secure the critical mass needed for viable SWL operations,
- New ways for "Last-mile" infrastructure design and organisation to raise cost efficiency,
- Adapted SWL technologies to improve flexibility and equipment utilisation,
- Advanced SWL management procedures & ICT to raise quality, reliability and cost efficiency

The applicability of these solutions and their effects will be proved on the basis of pilot business cases (by demonstrations). Thereby important findings will be gained for a European wide implementation of developed solutions.

ViWaS stands for Viable Wagonload Production Schemes.

The ViWaS consortium includes railway operators (SBB Cargo, Fret SNCF, and Bentheimer Eisenbahn), infrastructure providers (Interporto Bologna / IB Innovation) technology partners (Eureka, Wascosa) and consulting/ scientific partners (ETH Zürich, TU Berlin, HaCon, and NEWOPERA).

Work Package 3 aims at maintaining a knowledge exchange between the project and associated partners (such as external experts and cooperating companies involved in the ViWaS business cases) or further stakeholders outside the project with an interest in the ViWaS activities towards a viable SWL transport system. Main purpose is to gather customer input for the project developments, to inform on project achievements, to reach consensus for the chosen approaches, to get support for the implementation of the developments and to initiate a knowledge transfer and replica application in other parts of Europe.

Deliverable D3.1 documents the main ViWaS dissemination and networking activities during the project lifetime. The majority of the activities were carried out by the coordinator HaCon. ViWaS was present on events and conferences, at fairs, in the internet and in several newspapers and magazines. Moreover, a dedicated ViWaS film was produced to present the findings and developments in a very illustrative way.

Within the project lifetime the following main activities have been performed:

- **Facilitating a continuous communication and dissemination process between ViWaS and parties outside the project** e.g. the association of rail forwarders "IBS", Xrail, Shift²Rail as well as further initiatives, rail freight experts and customers.
- **Project website for the dissemination of results and other project related information;** accessible under www.viwas.eu.
- **Preparation of project newsletter and other information material** e.g. a PPT chart presentation and a project flyer with public information on the ViWaS project.
- **Preparation and distribution of press releases / coordination with the press.**
- **Publication of project approach and results in international railway journals** e.g. Rail Business, Railway Gazette and International Transport Journal.
- **Presentation of project approach and results at international conferences** e.g. Rail Efficiency (Berlin), STRC Swiss Transport Research Conference (Ascona), INTERMODAL EUROPE (Hamburg), 10th World Congress on Rail Research - WCRR (Sydney), Transport Research Arena –TRA (Paris)
- **Organisation of ViWaS project stands at transport related trade fairs** e.g. InnoTrans (Berlin) and transport logistic (Munich);
- **Organisation of expert workshops** on dedicated ViWaS topics e.g. regarding "SWL in Italy", "Telematics in SWL transport" and "Advanced technologies for SWL transport".
- **Organisation of a final project conference** on 23 October 2015 in Lucerne.
- **Production of a ViWaS film** illustrating the ViWaS technologies timber cassette 2.0, Flex Freight Wagon and the Container Loading Adapter.
- **Further dissemination events** e.g. with IBS, DMG, VDV.

2 ViWaS Website

The implementation of a project website is obligatory for each and every project. Since 3 September 2012 - on-time for the project start - the ViWaS project website is online and accessible under www.viwas.eu. It provides information on the ViWaS concept, work packages and partners and has been updated continuously with further project information during the project period. The website design together with project logo and colour concept has been elaborated by AhlersHeinel in cooperation with HaCon as project coordinator.

The website is structured into the following subpages:

- **Home**
- **About ViWaS**
Work Plan, Outputs, Project Partners
- **Media Centre**
Publications, Newsletter, Press Photos, Press releases, Media Articles
- **News**
News, Events, Past Events
- **Links**
Project Partners, Other Links

Additionally mandatory formal information and technical support tools are provided via the bottom bar:

- **Contact,**
- **Sitemap,**
- **Imprint & Disclaimer,**
- **Search**

'Home' subpage

The start page introduces the general project goals and provides visitors with a brief overview. Important events such as the Final conference have been also announced on the start page (see Figure 1).

Figure 1: Home screen of the ViWaS Website



'About ViWaS' subpage

More detailed information is supplied within the "About ViWaS" section. Besides a more detailed project summary including key facts, the Work Plan with descriptions for each work package (section "Work Plan" and drop-down menu with work packages) is available. Project outputs are published to the public within the menu item "Outputs" including deliverables and documentations. Finally, the consortium is introduced within the "Project Partners" section with short company/institution descriptions and links to the according websites.

Figure 2: Public ViWaS Deliverables on the website



'Media Centre' subpage

The "Media Centre" provides a variety of ViWaS materials. Official project presentations (for instance from fair appearances), flyers, and the ViWaS film are collected within "Publications". Additionally, visitors are able to download the project newsletters as PDF files in the according section. "Press Photos" provide insights into different project fields. Besides pictures from fairs and meetings, technological or operational outcomes are depicted in three different galleries. The following galleries are available:

Technologies:

- **Photo galleries 'Technologies/Operations'**

Wascosa Flex Freight Car, SBB Eem 923 hybrid locomotive, Eureka aJour telematics, Wascosa Flex Freight Timber Cassette SNCF – Rail/Road Engine Test (at St. Priest logistics centre)

- **Photo galleries 'Events'** (see Figure 3)

InnoTrans 2014, ViWaS workshop "Telematics in wagonload transport" in Munich (22/10/2013), Making-of: The ViWaS Project Film, Transport logistic 2015, Final ViWaS Conference

Figure 3: Event gallery on the ViWaS Website



'News' subpage

The "Media Centre" contains all project news as well as information on all public ViWaS events, such as workshops, fair and conference appearances (see Figure 4).

Figure 4: News section of the ViWaS website



The screenshot shows the ViWaS website's news section. At the top, there is a navigation bar with links: Home, About ViWaS, Media Centre, News (selected), and Links. Below the navigation bar, there is a breadcrumb trail: Browse: Home / News / News. The main content area is titled 'News' and features four news items, each with a date, a title, a brief description, and a 'Read more ...' link. The first item is dated 26 Oct. 2015 and titled 'Final Conference'. The second item is dated 21 Aug. 2015 and titled 'Final Conference – Brochure'. The third item is dated 31 Jul. 2015 and titled 'Save the Date – ViWaS Final Event'. The fourth item is dated 18 May. 2015 and titled 'Now Available: Fourth ViWaS Newsletter'. To the right of the news items, there is a large, stylized graphic of a newspaper with the word 'NEWS' on it.

News

26 Oct. 2015
Final Conference
The ViWaS Final Conference took place on Friday 23rd of October in Lucerne. 80 Participants attended the conference and heard the presentations held by the ViWaS partners. The Panel of high-ranking experts finally discussed the question "Single Wagonload in the..."
[Read more ...](#)

21 Aug. 2015
Final Conference – Brochure
On October 23rd, the ViWaS Final Conference will take place at "Verkehrshaus der Schweiz" in Lucerne, Switzerland. From today the event brochure including the final agenda and further information is available in English and German. During various presentations ViWaS findings...
[Read more ...](#)

31 Jul. 2015
Save the Date – ViWaS Final Event
Currently, ViWaS is entering its final phase. At the end of November the project will be concluded. In order to promote the project end as well as the ViWaS outcomes, the final event will take place on October 23rd at...
[Read more ...](#)

18 May. 2015
Now Available: Fourth ViWaS Newsletter
After its first release during transport logistic 2015, the fourth ViWaS is now available for download. A field test performed by Fret SNCF with a bimodal shunting engine is the front-page article of the current issue. Project partner SNCF evaluated...
[Read more ...](#)

'Links' subpage

This section includes website addresses of each project partner as well as other relevant links such as the 7th framework programme or the websites of the European and Xrail, the European Wagonload Alliance.

As mentioned before, four ViWaS newsletters have been published during the project lifetime illustrating the following main topics:

- **Newsletter 1 (June 2013)**

Main topics: Introducing ViWaS; Intelligent wagon telematics by project partner Eureka; EU projects and ViWaS partners at Transport Logistic 2013; Upcoming events.

- **Newsletter 2 (April 2014)**

Main topics: Major cost factor “last mile”; Telematics workshop in Munich; ViWaS at World Congress of Railway Research (WCRR) in Sydney; Roll-out of WASCOSA’s new wagon type for enhanced loading processes; Upcoming events.

- **Newsletter 3 (February 2015)**

Main topics: Cost-benefit analysis about the operation of hybrid locomotives; Information about the new Timber Cassette, the latest superstructure for Wascosa’s flex freight© system; an analysis performed by TU Berlin about a joint intermodal/SWL transport; the new WagonSIM simulation tool developed by ETH Zurich that supports the optimisation of the rail network.

- **Newsletter 4 (May 2015)**

Main topics: Deployment of bimodal shunting vehicles in private sidings; The making of the ViWaS project film; Eureka’s approach for optimised telematics visualisation; The ViWaS project and partners at transport logistic 2015

All Newsletters can be downloaded from the ViWaS website.

4 Publications

4.1 Press releases

Press releases that have been sent to the media by ViWaS partners during the project lifetime are collected in a separate section. These entries also include announcements in different languages. In addition to English texts, respective versions in German, Italian, and French have been released.

The press releases lead directly to the "Media Articles". This section gives an overview of ViWaS appearances initiated by project PR measures. In total, 35 articles about ViWaS have been published by different media. The majority was found online, whereas seven are not available anymore on the media's website due to revamped homepages or discontinuation of online magazines. Nonetheless, all internet articles are still accessible on the ViWaS website. Besides digital articles, ViWaS has been mentioned in seven magazines and two newspapers. Most of the articles portrayed the project itself (Kick-off or general presentation). Though, technological outcomes have been topic of some reports, too (e.g. Flex Freight Car).

In addition to press releases provided by project partners, further project updates have been regularly uploaded onto the ViWaS website. These news posts are designed to deliver brief updates on the current progresses achieved by the consortium. Therefore, a variety of work packages has been mentioned within this section since the initial launch of the homepage. Firstly, dissemination activities like conferences, newsletter releases, and fair appearances have been announced and reviewed. Secondly, technical topics and concepts for production schemes have been covered. A total of 26 entries were published since mid-2012. Within the news section, a separate button leads to the project calendar ("Events") that shows upcoming conferences, fairs, and meetings.

Table 1: ViWaS press releases

Topic	Date	Published by
Introduction of the project, including approach, goals	09/2012	HaCon
Introduction of the project, including approach, goals	09/2012	SBB
Announcement of project fair appearance	05/2013	HaCon
Telematics workshop in Munich	11/2013	ENS
Announcement of project fair appearance	04/2015	SBB
Announcement of project fair appearance	04/2015	HaCon

4.2 Media articles

During the project lifetime, a lot of articles have been published in the internet, in magazines and in newspapers. The table below gives an overview on several articles in the media.

Table 2: Overview on ViWaS appearance in the media

Source	Medium	Date	Language	Topic of article
DVZ	Internet	10.09.2012	German	Project kick-off
Transport Research & Innovation Portal	Internet	02.09.2012	English	Project description
SBB Blog	Internet	10.09.2012	German	Project kick-off
European Freight (Forum)	Internet	11.09.2012	English	Project kick-off
Hannoversche Allgemeine Zeitung	Newspaper	11.09.2012	German	Project kick-off
LokReport	Internet	11.09.2012	German	Project kick-off
International Railway Journal	Internet	11.09.2012	English	Project kick-off
Railway Gazette	Internet	11.09.2012	English	Project kick-off
Eurailpress	Internet	12.09.2012	German	Project kick-off
Railway Insider	Internet	12.09.2012	English	Project kick-off
Railway Technology	Internet	12.09.2012	English	Project kick-off
Railway Insider	Internet	12.09.2012	Romanian	Project kick-off
Raillynews	Internet	13.09.2012	English	Project kick-off
International Transport Journal	Internet	14.09.2012	English	Project kick-off
Translogistics	Internet	14.09.2012	English	Project kick-off
Delmas Trade-Watch Magazine	Magazine	16.09.2012	English	Project kick-off
Ferpress	Internet	17.09.2012	Italian	Project kick-off
SoAktuell	Internet	17.09.2012	German	SBB participation
Railway Bulletin	Internet	18.09.2012	English	Project kick-off
Transport Echo	Magazine	20.09.2012	Dutch	Project kick-off
Interessengemeinschaft Bahnspediteure	Magazine	15.10.2012	German	Project presentation
Railway Gazette	Magazine	15.10.2012	English	Project kick-off
Railway Pro	Internet	15.10.2012	English	Project kick-off
Rail Business	Magazine	22.10.2012	German	Project presentation
GRV Nachrichten	Magazine	15.12.2012	German	Project presentation
SBB Cargo Blog	Internet	16.05.2014	German	Flex Freight Car
SBB Cargo Blog	Internet	16.05.2014	Italian	Flex Freight Car

Source	Medium	Date	Language	Topic of article
SBB Cargo Blog	Internet	16.05.2014	French	Flex Freight Car
ETR Swiss	Magazine	01.09.2014	German	Swiss Split
ETR Swiss	Magazine	01.04.2015	German	wagonSIM; ViWaS
SBB Cargo Blog	Internet	01.05.2015	German	Fair Appearance
SBB Cargo Blog	Internet	15.05.2015	German	Project event
SBB Cargo Blog	Internet	15.05.2015	French	Project event
SBB Cargo Blog	Internet	15.05.2015	Italian	Project event
International Innovation	Magazine	30.08.2015	English	Project findings
DVZ	Newspaper	30.10.2015	German	Final conference
Rail Business	Newspaper	02.11.2015	German	Final conference

5 Main dissemination events

5.1 Overview

In addition to media activities, the ViWaS consortium organised and participated in various dissemination events. Since September 2012, the project counts a huge number of international appearances split up into different categories:

- Conferences and fairs,
- workshops
- and the dedicated ViWaS final conference

Main purposes of the appearances are on the one hand the promotion of project outcomes, on the other gathering feedback provided by business experts to enhance and improve certain project fields to achieve optimal results.

Even after the end of the project, the consortium and especially project coordinator HaCon will further disseminate the ViWaS findings and developments. Therefore, among other things, full papers have been submitted to present ViWaS at the Transport Research Arena (TRA) 2016 in Warsaw (18th-21st of April) and the World Congress on Railway Research (WCRR) 2016 (29th of May- 2nd of June).

5.2 Conferences and fairs

As mentioned above, international events have been attended to present ViWaS to a broad, worldwide audience. These project appearances took place in a total of nine countries which are Austria, Belgium, France, Germany, Greece, Italy, Slovakia, Switzerland and Australia. Major events with ViWaS participation are presented in the following sections.

The table below lists all conferences and fairs in which ViWaS was part of the agenda/ represented by a fair stand. The final conference has a separate section in chapter 5.4.

Several “highlights” are summarised in the following.

Table 3: Conferences and fairs

Event	Type	Location	Date	Topic
InnoTrans 2012	Fair	Berlin	18.09.2012	General project presentation
IBS Congress and ViWaS Workshop	Workshop/ Conference	Antwerp	11.10.2012	Presentation of the ViWaS concept
ViWaS Workshop "SWL Transport in Italy"	Workshop	Bologna	09.04.2013	Workshop on SWL traffic in Italy with relevant stakeholders
transport logistic 2013	Fair	Munich	04.07.2013	General project presentation
ViWaS Workshop "Telematics in wagonload transport"	Workshop	Munich	22.10.2013	Workshop on telematics with stakeholders
InnoTrans 2014	Fair	Berlin	23.09.2014	General project presentation
transport logistic 2015	Fair	Munich	05.05.2015	General project presentation, ViWaS event
Final Conference	Conference	Lucerne	23.10.2015	Presentation of the project outcomes, final ViWaS event
Cinquième Journée de rencontres et d'échanges OFP	Conference /Meeting	Paris	05.11.2015	Presentation of ViWaS achievements, in particular concerning last-mile
European Freight and Logistics Forum	Conference	Barcelona	26.11.2015	Presentation of ViWaS achievements, in particular concerning last-mile
Rail Efficiency Conference	Conference	Berlin	20.11.2012	Presentation of ViWaS telematics solutions
Presentation at DMG Frankfurt	Conference	Frankfurt	29.11.2012	General project presentation
Swiss Transport Research Conference (STRC)	Conference	Ascona	24.04.2013	General project presentation

Innotrans 2014

During the 23rd-26th of September, ViWaS was part of the HaCon Stand at the Innotrans 2014 in Berlin. The picture (Figure 6) shows Lars Deiterding, head of HaCon transport & logistics consulting team, informing about ViWaS and the current status of the project.

Figure 6: ViWaS at the Innotrans 2014 trade fair



Source: HaCon

Transport logistic 2015

In May 2015, ViWaS had its largest fair appearance during transport logistic in Munich (May 5 – 8). With regard to the advanced project phase, several outcomes were presented to the logistics audience. Considering the business importance as the largest logistics fair in the world, ViWaS participated with two designated stands (Stand B6, 122 and FGL, stand 804/1- ViWaS wagon as part of “SwissMovers” appearance) in the exhibition. In addition, seven companies out of the consortium presented their solutions (including ViWaS findings) at their own stands.

Stand B6, 122:

Located right next to project partners HaCon and Eureka, the indoor stand provided an overview of ViWaS activities. The ViWaS film has been continuously shown on a large screen TV positioned at the back side of the stand. In case visitors asked for more detailed information, a PC station with different ViWaS presentations has been installed. Furthermore, a seating area for discussions and talks has been erected underneath the television.

Figure 7: Map of the fair ground with locations of ViWaS partners



Figure 8: ViWaS stand in hall B6



Source: HaCon

ViWaS wagon on the open-air site

On the fair ground's open-air site three technological innovations developed in the scope of ViWaS have been presented to the public. As already pictured in the project film, the Timber Cassette 2.0, the Container Loading Adapter and the Flex Freight Car were installed as part of the "SwissMovers" stand to show the public practical operation examples. Thus, the key features of the ViWaS outcomes have been emphasised:

- Loaded Timber Cassette 2.0 to show ability to transport truckloads of wood with only on cassette;
- Walkable Flex Freight Car to underline accessibility by forklifts;
- Container Loading Adapter underneath a standard 40' container to demonstrate the use of the additional platform on the wagon

Figure 9: ViWaS wagon displaying project outcomes



Source: HaCon

In order to show the innovations in daily business, the project film was shown constantly on a flat screen TV in the container. Additionally, various information materials like newsletters and fact sheets about the Swiss Split have been placed on the stand to provide visitors with details about ViWaS.

On 6 May 2015, a designated ViWaS event took place in the “SwissMovers” pavilion to give attendees background information about the project developments. Four short presentations were held by project partners:

- Niklas Galonske, HC: General project information;
- Daniel Bürgy, SBBC: Swiss Split and related innovations (hybrid locomotive, Container Loading Adapter, wagon fleet);
- Irmhild Saabel, WAS: Flex Freight Car based on Flex Freight System, Timber Cassette 2.0,

- Victor Behrends, ENS: aJour telematics, loading sensors.

About 30 experts attended in the ViWaS event at the “SwissMovers” conference hall. Because all presentations were held in German, translators were booked for English-speaking visitors. Approximately one third of the attendees made use of the translations.

Figure 10: ViWaS event at transport logistic 2015



Source: HaCon

Figure 11: ViWaS event at transport logistic 2015



Source: HaCon

Cinquième Journée de rencontres et d'échanges OFP

Armand Toubol (NEWO) was invited to present ViWaS achievements at this meeting organized by the Objectif OFP association on November 5th.

The purpose of that meeting was to analyse the difficult situation of the wagon load activity in France and the various possibilities to progress. It was really an excellent opportunity to develop the ViWaS achievements and specifically the new proposed last mile solution. All actors involved in the wagon load activity were represented in the very large audience attending the conference (more than 300 attendants). The final round table involved precisely infrastructure manager, a new entrant in the railway undertaking business and A. Toubol for ViWaS project.

The representative of the Transport Minister Mr Mallot, special advisor for Political affairs, having heard the difficulties encountered by the actors working in that type of transport, underlined the willingness of the authorities to simplify the rules as they considered this segment important for the competitiveness of the ports and the industry.

The representative of DG Move (Alexis Padoy) had clearly underlined at the opening of the conference the importance attached by the Commission to the relaunch of that type of transport essential for certain industrial activities in Europe.

Figure 12: Impressions of the Cinquième Journée de rencontres et d'échanges OFP



European Freight and Logistics Forum

Armand Toubol was invited to present the ViWaS innovative achievements for the last mile of the wagon load transport at the AGM of the F&L Forum on November 26th – 27th.

This opportunity was extremely favourable as the attendance involved stakeholders involved in that activity as service providers and decision makers.

The program of the conference and the possibilities of networking to have direct dialogs with interested stakeholders to disseminate the concept and the solutions were involving the demands from the shippers in the field of automotive, agricultural, chemicals and metals transport important users of wagonload transport.

The audience was impressive (around 70 attendees) with 23 large European shippers company present at decision levels, with large service providers (CER, DB-Schenker,

Hupac, LKW-Walter, Russell, Transped, Grimaldi, Suardiaz, Transfesa among others) and large ports (Barcelona, Rotterdam, Calais, ...).

Armand Toubol presented the contribution of ViWaS to the relaunch of the wagon load transport after its regular decrease capitalizing on the study made for DG Move, on the first achievements of Capacity4Rail.

The debate showed a great interest from the audience in the development of ViWaS achievements for the Last mile. This was supported by the fact industry is presently developing the homologation of the RR-Tractor on the main railway Network.

During the debate all participants underlined the urgent need to preserve all existing wagon load infrastructure to avoid irreversibility in case of new buildings for housing. The participants and the shippers put a major attention to reliability and to the cost of the operations welcoming any development in that respect. Digitalisation debates for rail activity were concentrating on a common standard for data, their accessibility with the difficulty of overcoming the problem of data property. Last mile solution was highly welcomed with an anxiety on the risk of new constraints put by IMs. The progress of the industry towards such a homologation in France and in Germany was a good sign.

Figure 13: European Freight and Logistics Forum



5.3 Workshops

In the frame of ViWaS, several workshops have been held in order to validate and refine the business cases and finally the project outcomes. These occasions have been used to organise an extensive knowledge transfer and to gain dedicated expert feedback. The following four were of particular importance.

Workshop IBS

The first workshop was held in the frame of the IBS (Interessengemeinschaft der Bahnspediteure, e.V.) Congress in Antwerp on October 11th 2012. Shortly after the project start, the main focuses of the workshop were:

- Current situation of SWL in Europe
- ViWaS goals
- Expectations of SWL customers, in particular the IBS members

The discussion has shown that the ViWaS project and the concepts are generally supported by the IBS members. However it has been recommended not to limit the improvement efforts to only five single business cases but to consider the European dimension. It has been agreed to facilitate a continuous information exchange on SWL issues and involve further experts inside IBS, if necessary.

Workshop “Single Wagonload traffic in Italy”

On the 9th of April 2013, the second ViWaS workshop with the topic “SWL traffic in Italy” was held in Bologna (Italy). Thereby the following main purposes have been reached:

- Bringing together of important stakeholders in the rail logistics business in Italy
- Presentation of approach and status of the ViWaS project
- Discussion on how to provide competitive SWL in Italy

As a starting point for the discussion with further stakeholders, the ViWaS partners organised this workshop on “SWL in Italy”. The workshop specifically intended to develop a common view among the main stakeholders on the market potential of Italian SWL and to outline potential approaches for its proper exploitation. The results of the workshop have been considered in the further project work and for the setup of appropriate business cases. With more than 30 participants, including Xrail, Captrain Italia, Rail Cargo Italia and several others, the workshop was a great success.

Figure 14: ViWaS workshop on SWL in Italy



Source: HaCon

Workshop “Telematics in wagonload transport”

The third workshop was dedicated to the topic “Telematics in wagonload transport” and took place on the 22nd of November 2013. Three purposes defined the framework of this workshop:

- Discussion of processes and information requirements in wagonload transport chains;
- Presentation and discussion of the ViWaS development approach on intelligent telematics;
- Understanding of chances and requirements from the European regulative framework “TAF TSI” with respect to telematics and IT.

During the intensive discussion, several points were raised, e.g. the fact that different stakeholders (RUs, clients of RUs, wagon keepers,...) have different information needs. Moreover, these needs, at different states along the transport chain, lead to several challenges like the harmonisation of interfaces etc. DB Schenker Rail and UIP have expressed their interest to support the further telematics developments within ViWaS. Details of a potential collaboration have been further discussed and coordinated by Eureka, DB Schenker Rail and UIP with the support of HaCon.

Figure 15: ViWaS telematics workshop in Munich



Source: HaCon

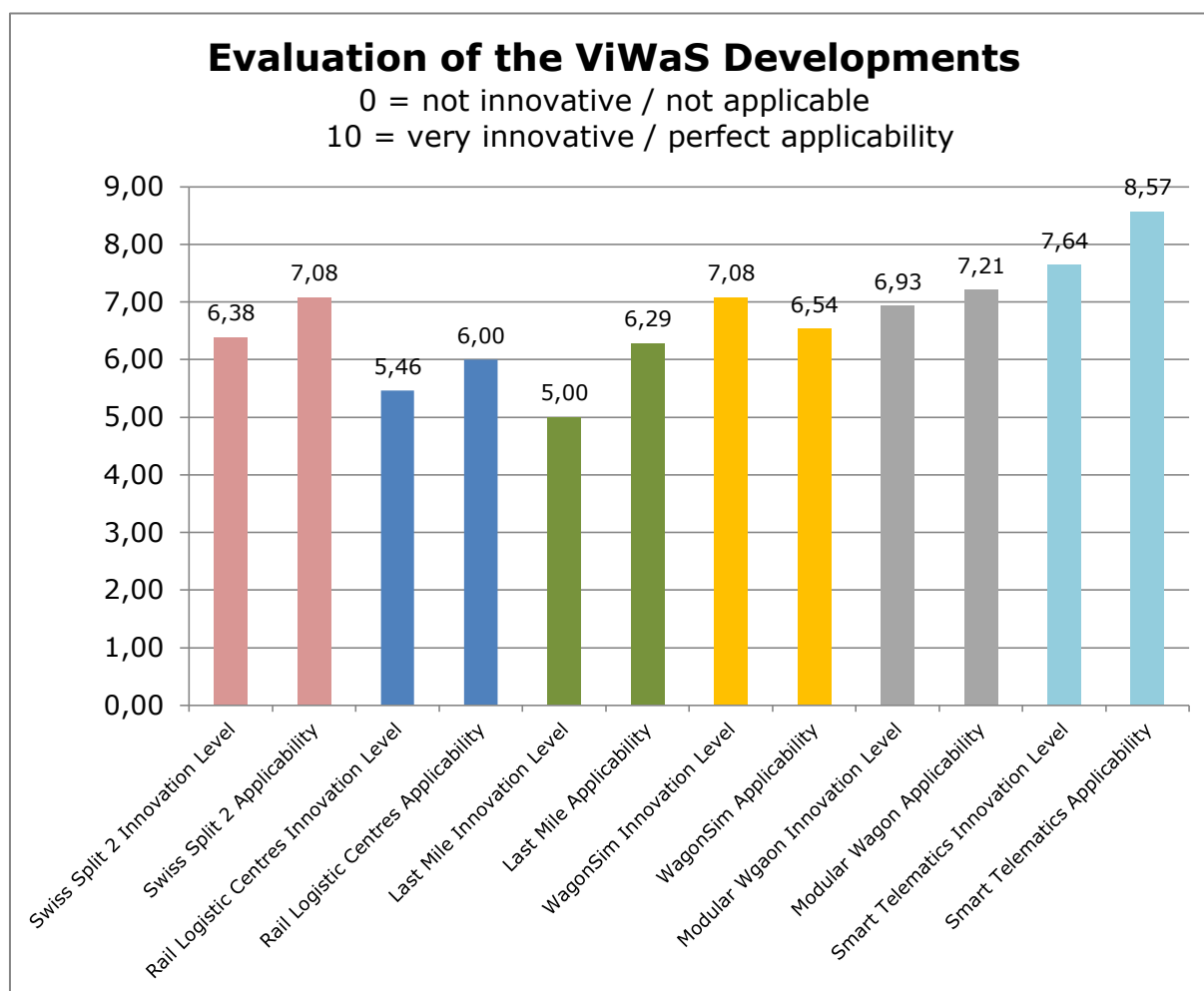
Workshop on wagon technologies

The occasion of the transport logistic 2015 was also used to present the ViWaS developments on wagon technologies and gain dedicated feedback from potential users.

Workshop in the frame of the final conference

The final conference (23rd of October, see subsequent chapter) was also used as a kind of feedback workshop. About 25% of the attendees returned the feedback form and also gave written feedback to dedicated topics. As it is displayed in the chart below, the smart telematics developments achieved very good results in terms of innovation level and applicability.

Figure 16: Feedback on ViWaS results (final conference 23/10/2015)



Source: HaCon

5.4 Final Conference

The Final Conference of ViWaS took place on 23 October 2015 in Lucerne in the Swiss Museum of Transport. The event was combined with the "Asset Intelligence Day" of ViWaS partner Wascosa that took place just one day before (22 October 2015). The choice of the organisation framework was motivated by the following reasons:

- Overlapping in the audience
- Synergy effects (e.g. lower costs for event equipment usage and simultaneous translation)
- Possibility to exhibit the ViWaS wagon technologies (close distance to operation area of equipment; venue with own railway siding for exhibition purposes).

The ViWaS conference has been announced via different information channels:

- Several mailing shots by coordinator HaCon and WP3 co-leader NEWOPERA with the "Save the Date" flyer and later the Event Brochure (Appendix 1)

- Direct mailing by Wascosa to the registered participants of the Wascosa Asset Intelligence Day;
- Publication of Conference and all related information on ViWaS website and the event online portal "Eventbrite" that was used for participant registrations.

As a result some 80 participants – mostly high level representatives from the Transport & Logistics Sector - joined the conference. The conference itself was composed on the following major elements

- Presentation of ViWaS achievements (organisational improvement + technical innovations);
- Panel discussion;
- Exhibition of prototype ViWaS wagon technologies (Wascosa Flex Freight Car and Timber Cassette 2.0 + Container Loading Adapter of SBB Cargo);

Additional benefits were generated by the project partner stands (HaCon – ViWaS issues + Further EU studies; Eureka – telematics innovations) and extensive networking opportunities during the breaks. The conference was held in German with optional simultaneous translation to English and vice versa.

Figure 17: Impressions of the Final Conference (part 1)



a. Niklas Galonske (HaCon) opening the conference [Source: HaCon]



b. Partner stand of Eureka [Source: HaCon]



c. Introduction by Gerhard Troche (EC, DG MOVE) [Source: HaCon]



*d. Exhibition of ViWaS wagon technologies; explanation by Patrik Dober (SBB Cargo)
[Source: HaCon]*

After welcome and introduction by ViWaS project manager Niklas Galonske (HaCon) and Gerhard Troche (EC, DG MOVE), Marian Gaidzik (HaCon) guided through the event.

The first session under the topic "New Organisational Structures for less-than-trainload Services" included the following presentations:

- The Swiss Way for a Renewed Rail Freight System (Patrik Dober, SBB Cargo)
- Bundling in Rail Logistic Centres Enable Single Wagonload Services in Regional Areas (Joachim Berends, Bentheimer Eisenbahn)
- Lean Solutions for Last Mile operations (Denis Lévy, Fret SNCF)

The second session contained the following three presentations:

- WagonSim - Simulation Tool for Optimisation of Wagon-based Production Schemes (Dirk Bruckmann, University Rhein-Waal)
- Modular Freight Wagons for Flexibility in Rail Transport (Irmhild Saabel, Wascosa)
- Smart telematics in Rail Freight (Victor Behrends, Eureka)

The conference was concluded with a panel discussion on the topic "Single Wagonload in the Year 2030 - Disappeared or Still Viable". Moderator Marian Gaidzik (HC) discussed with widely acknowledged experts from the rail freight and logistics sector:

- Olaf Krüger (Chairman of Board IBS)
- Joachim Berends (CEO Bentheimer Eisenbahn, Vice President Association of German Transport Companies (VDV))
- Armand Toubol (Vice Chairman NEWOPERA)
- Gerhard Troche (European Commission, DG MOVE)
- Sassan Rabet (CEO Xrail)

Also the audience participated in the discussion and raised several questions. For interested people, a guided tour through the Transport Museum was organised.

Figure 18: Impressions of the Final Conference (part 2)



a. Audience at the final conference [Source: HaCon]



b. Victor Behrends presenting the smart telematics [Source: HaCon]



c. Panel discussion [Source: HaCon]



d. Guided Tour transport museum [Source: HaCon]

5.5 Other dissemination meetings

The tables below list all further dissemination meetings and events to which ViWaS partners have contributed / or which have been organised by ViWaS partners.

Table 4: Dissemination events and meetings in responsibility of HaCon

Event	Type	Location	Date	Topic
Meeting with Port of Antwerp	Meeting	Antwerp	12.10.2012	Presentation of the ViWaS concept
SHIFT ² RAIL Coordination Meeting	Meeting	Brussels	04.07.2013	General project presentation
Information exchange HC/VDV	Meeting	Hannover	30.01.2014	General project presentation

Table 5: Dissemination events in responsibility of NEWOPERA

Event	Type	Location	Date	Topic
ViWaS Meeting with P&G	Meeting	Brussels	17.01.2013	Project solutions to replace partly P&G's road transport
Meeting with 5L initiative	Meeting	Ludwigshafen	02.04.2013	General project presentation
ERFA Annual Event	Conference	Brussels	16.05.2013	Presentation and discussion of ViWaS goals
Meeting with Interporto Marche	Meeting	Monza	19.06.2013	Project solutions
Meeting with FEDERCHIMICA	Meeting	Milan	12.07.2013	SWL in chemical industry, KPIs, success criteria
Coordination meeting with 5L initiative	Meeting	Frankfurt	23.07.2013	Subsequent meeting (see meeting on April 2 2013)
Intermodal Europe 2013	Fair	Hamburg	09.10.2013	General project presentation
Meeting with ERFA	Meeting	Brussels	02.04.2014	Presentation of ViWaS; discussion about last mile
Meeting with FFG	Meeting	Vienna	10.04.2014	General project presentation
Logistic Club Vienna	Conference	Vienna	15.04.2014	General project presentation
Meeting with Modalhor and Port of Strasbourg	Meeting	Strasbourg	09.10.2014	ViWaS findings applicable for specific harbour use
GNTC meeting on combined transport	Meeting	Paris	16.10.2014	ViWaS project overview and discussion about last mile
ViWaS meeting in Athens	Meeting	Athens	20.10.2014	General project presentation
ViWaS Meeting at CEI Milano	Meeting	Milan	05.11.2014	General project presentation, discussion

Event	Type	Location	Date	Topic
ViWaS at Rail Summit	Conference	Brussels	05.11.2014	Discussions about last mile cost reduction
ViWaS at Logistic Club Meeting	Conference	Vienna	27.11.2014	Project presentation with focus on SWL importance
ViWaS at UNIFE + CER Meeting	Conference	Brussels	27.11.2014	Monitoring and its role in SWL
ViWaS at "Success Through Innovation" conference	Conference	Vienna	01.12.2014	General project presentation
Alumni Association at Uni Wien	Conference	Vienna	17.12.2014	General project presentation, feedback from experts
ViWaS at "ELOCOT"	Conference	Vienna	10.06.2015	General project presentation, feedback from experts
ViWaS at "Wirtschaftsfaktor Luftfahrt"	Conference	Vienna	16.06.2015	Applicability of ViWaS elements to the (rail) connection of airports
5th Mobility Symposium	Conference	Vienna	24.06.2015	Presentation of the ViWaS project
Logistic Conference Federchimica	Conference	Milan	01.07.2015	Presentation of the ViWaS project
European Forum	Meeting	Alpach	20.08.2015	Presentation of the ViWaS project
Meeting with stakeholders, in particular French shipowners	Meeting	Paris	14.09.2015	Presentation of ViWaS; discussion about last mile
Meeting at ERRACC with experts and stakeholders	Meeting	Brussels	16.09.2015	Presentation of ViWaS; discussion about last mile
Klimaaktiv Conference	Conference	Vienna	16.09.2015	Presentation of ViWaS, feedback from experts
Horizon 2020 Conference	Conference	Vienna	22.09.2015	Presentation of ViWaS outcomes, feedback from experts
Meeting at Ministry of Transport France	Conference	Paris	29.09.2015	Presentation of ViWaS outcomes; discussion about last mile

Table 6: Dissemination events in responsibility of other partners

Event	Type	Location	Date	Partner	Topic
World Congress of Railway Research	Conference	Sydney	25.11.2013	ETHZ	Project poster presentation, discussions
Expert Workshop on telematics	Workshop	Munich	02.12.2013	ENS	Workshop on telematics with external experts
International Freight Transport Modelling Workshop	Workshop	Berlin	20.03.2014	ETHZ	Gathering input/information about telematics
Euro-Zel Zilina	Meeting	Zilina	03.06.2014	TUB	Presentation of ViWaS general analyses and success criteria

6 ViWaS film

Improved SWL technologies are an important ViWaS element for the strengthening of SWL transport. A film has been evaluated as the most appropriate medium to show the elements of these innovations and especially their application in real life situations. The film consists of three parts dedicated to the following developments:

- Container Loading Adapter;
- Flex Freight Car;
- Timber Cassette 2.0,

The film has been produced by GSP from Zurich, Switzerland – who were selected as a result of a restricted call for tenders.

The film production and presentation is connected with the following phases and milestones:

- **12/2014:** Call for tenders submitted to potential film companies;
- **01-03/2015:** Receipt of proposals, selection procedure, negotiations with film company regarding concept and technologies, contract signing;
- **03-04/2015:** Fine-tuning of concept, specification of contents, film shooting, final cut and production

The filming was done on 14 April and 16 April 2015 at Zurich freight yard as well as in the intermodal terminals of Rothenburg and Gossau. To emphasise the technological innovations through different shooting angles, a drone and a mobile crane have been deployed. Thus, innovative features are highlighted in the final film (see Figure 19).

As a result of the film shootings, GSP had a total of four hours of video material to work with, equalling a total of more than 300 GB of high-resolution data. The final five-minute film consists of three parts, each depicting one of the innovations mentioned above. This three-part concept enables the possibility to only show a single innovation to the audience.

- **From 05/2015:** film presentation and deployment

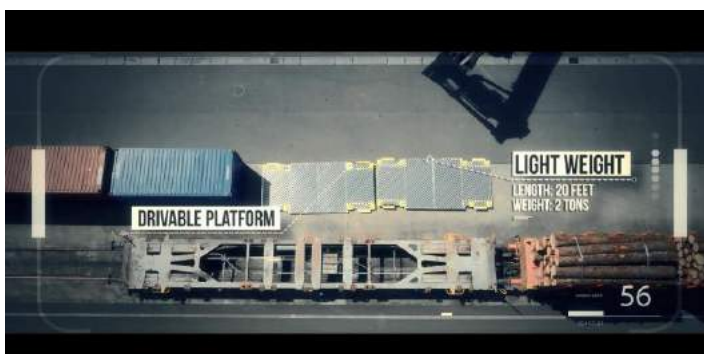
At transport logistic fair in Munich (5–8 May 2015) the ViWaS film had its debut. Shown at both project stands, the film reached a broad perception by the rail transport and logistics sector. On the open-air site, the stand concept took advantage of the separate film sections by showing each at designated installations (barrels with integrated tablets).

On 12 May 2015 the ViWaS film has been uploaded on the internet. Thus, the public can watch the film on the project website or YouTube (named: "ViWaS: Impulses for European Wagonload Transport").

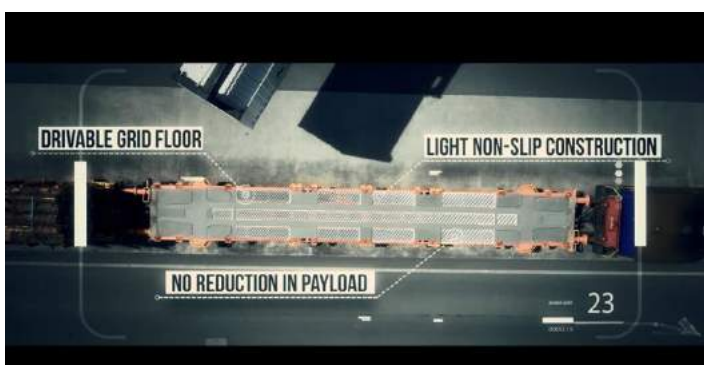
Figure 19: ViWaS film



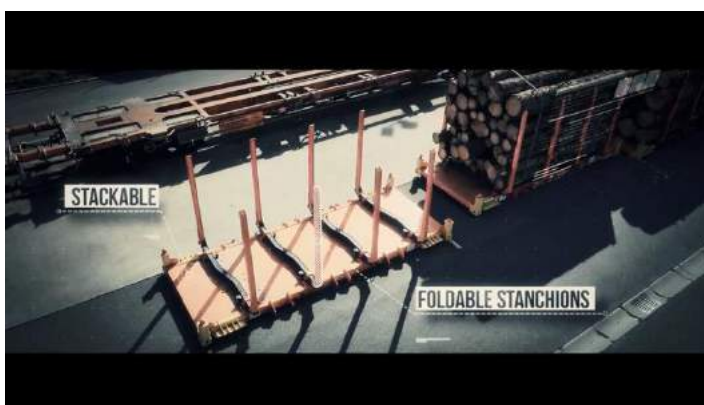
Film shooting



*Scene of
'Container Loading Adapter'*



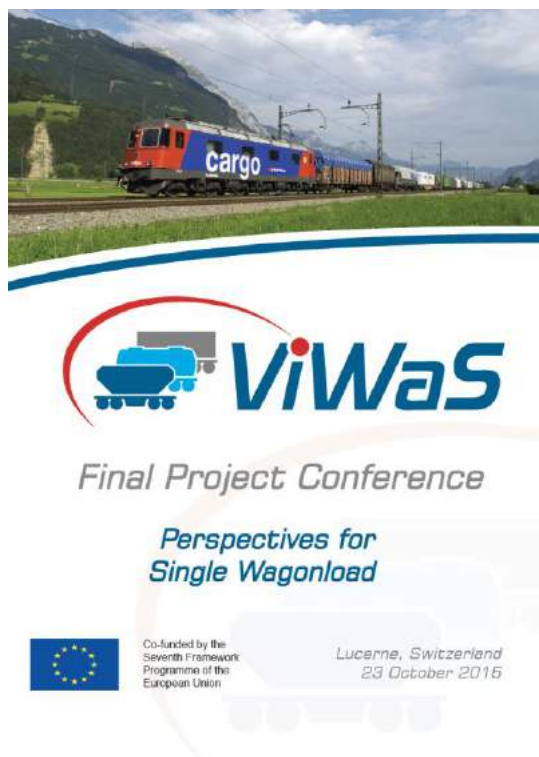
*Scene of
'Flex Freight Car'*



*Scene of
'Timber Cassette 2.0'*

7 Appendices

Appendix 1: ViWaS Final Event Brochure (front page)



Appendix 2: International Innovation article (front page)



Appendix 3: Newsletter I (front page)



Newsletter 1
June 2013

VIABLE WAGONLOAD PRODUCTION SCHEMES

EU PROJECT GIVES NEW IMPULSES FOR COMPETITIVE SINGLE WAGONLOAD TRANSPORT

In the past years, high production costs and low quality standards led to decreasing transport volumes in single wagonload transport (SWL). Launched in September 2012, the EU project ViWaS needs to revert this tendency. Under the leadership of HaCon, ten European companies and research institutions from the areas of rail transportation and logistics have joined forces to develop solutions for competitive single wagonload transport that are simultaneously innovative and practical.

PROJECT IDEA
On the basis of real business cases, ViWaS will improve specific SWL technologies. The project focuses on the efficiency of SWL to make it more sustainable. New concepts and targeted developments aim at making improvements in multiple areas, for instance:

- intelligent bundling concepts like a combination of wagonload and intermodal traffic
- increased efficiency for servicing the "last mile"
- adapted technologies to improve flexibility and equipment utilisation
- shorter transport times
- better transport quality
- end-to-end information supply

INTELLIGENT TELEMATICS
To coordinate transport chains efficiently, accurate real-time information is necessary. A gapless monitor-

ing is a key component for transport organisation of cargo. New telematics systems for goods wagons are expensive. The ViWaS consortium develops new devices with reasonable operating costs (see below).

SWL IN ITALY
Italian SWL has been shortened drastically within the last years. As a result, road transport increased heavily. A business case involving leading freight traffic centres in Bologna and the Naples region shall realise SWL in Italy. In spring 2013, a workshop in Bologna with all project partners plus representatives from economy and logistics discussed first strategies and concepts. Xrail, the production alliance of seven European freight railway companies, presented an operating concept for Northern Italy that identifies potential single wagonload freight flows.

PROJECT ROADMAP
Workshops are a major component within the project. ViWaS benefits from a vital exchange with external partners. Companies, organisations and experts provide input and feedback which can be taken into consideration for the project. With further business cases, ViWaS will enter the demonstration phase in March 2014. The project results will then be tested under real conditions to draw conclusions and develop strategies for further actions.

PROJECT KEY FACTS

- Budget: 4.2 million €
- EU contribution: 2.9 million €
- Duration: 9/2012 – 8/2015
- Coordination: HaCon Ingenieurgesellschaft mbH
- Consortium: ten European companies and research institutions from the areas of rail transportation and logistics
- Project goals:
 - exploring new markets for SWL
 - optimising "last mile" operations
 - improving flexibility and efficiency of equipment usage
 - increasing transport quality and reliability


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HaCon
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Appendix 4: Newsletter II (front page)



Newsletter 2
April 2014

VIABLE WAGONLOAD PRODUCTION SCHEMES

COST EFFICIENCY AS A KEY FACTOR FOR RAISING THE COMPETITIVENESS OF SWL TRANSPORT

"Last mile" services are the major cost driver, improvements necessary

In rail freight transportation, the market share of single wagonload (SWL) has decreased across Europe in the last decade. In 2005, SWL accounted for 23% of the European rail freight performance. In Germany, Switzerland, France, Italy, Sweden, Poland, Slovenia compared to only 30% in 2010.

The following main challenges and reasons for the decrease of SWL have been identified:

- Costs: high rail production costs, e.g. related to infrastructure and operation of marshalling yards;
- Access and "last mile" operations: decreasing number of sidings deteriorate direct access to SWL transport; "last mile" rail services are complex and costly, shippers have to bear extra costs for operation of their sidings;
- Logistics requirements: high requirements from customers' side regarding reliability and real-time transport transparency;
- Competition: on one hand negligible competition within the SWL market itself, but strong competition with block trains/intermodal transport and road transport.


In view of the described conditions and requirements, the SWL market in European countries has changed. Behind this background, within the ViWaS Work Package 4, the development of SWL in Germany, Switzerland, Italy and France has been examined in detail.

The results of the analysis have shown two major transitions. Firstly, in many European countries such as Italy, the "classic" SWL system has almost completely disappeared. Secondly, new production systems have been introduced to increase the competitiveness of SWL services.

COST STRUCTURE
Major cost factors in single wagonload transport are related to "last mile" operations such as shunting at the shippers' rail sidings but also sorting and train-building processes in marshalling yards.

In comparison, shunting is avoided in intermodal transport where, never possible, which leads to significant cost advantages.

Continue on inside >>



Overview of SWL networks in Europe

Source: HaCon

Appendix 5: Newsletter III (front page)



Newsletter 3
February 2015

VIABLE WAGONLOAD PRODUCTION SCHEMES

Hybrid Locomotives Improve the Last-Mile

Bentheimer Eisenbahn Presents Results of Performed Cost-Benefit Analysis

Single wagonload (SWL) operation has to be comparatively improved to strengthen its competitiveness, thereby focusing on crucial factors such as cost efficiency, reliability and transport time. Especially the "last-mile" offers potentials for cost reductions. Besides improvements of operation procedures, an optimised rolling stock in the last-mile service can benefit the overall SWL efficiency. As a consequence, ViWaS activities also focus on new SWL traction schemes using multi-functional hybrid locomotives.

In order to meet future emission limits, hybrid powertrains, already successfully established in the automotive industry, enter the rail sector, too. Both locomotive manufacturers as well as rail operators see manifold improvement opportunities for rail freight through the usage of hybrid powertrains in locomotives. Hybrid engines can operate on both electrified and non-electrified track sections. They are therefore able to replace diesel locomotives already running on electrified lines. By doing this, the share of electrified operations would increase, whereas operation costs, greenhouse gas (GHG) emissions, and noise would decrease at the same time. If rail transport routes consist of both electric and diesel parts – typical for SWL services – a hybrid locomotive could be used serving the entire transport chain. The elimination of locomotive



Bombardier's TRAXX F140AC with last-mile functionality delivers the best efficiency on the network of Bentheimer Eisenbahn. Source: Bombardier

changes between electrified and non-electrified route sections leads to significant benefits for reliability and transport time. Older engines currently used in short-haul traffic or shunting operations could be also replaced. Additionally, the diversity of operated locomotive models would decrease and, consequently, wear up maintenance procedures and costs.

ANALYSIS

Especially in regard to the profile of served routes, ViWaS partner Bentheimer Eisenbahn might benefit from the operation of hybrid locomotives in their SWL transports. To determine possible advantages, Bentheimer Eisenbahn recently performed a cost-benefit

fit analysis. Company-specific factors like the length of sections not equipped with catenary lines, maximum weight and speed of train as well as the current costs for electricity and diesel have been considered. The starting point of the analysis is a comparison of different locomotive types. For this purpose, the main characteristics of four models have been listed. On the one hand, the existing rolling stock with the company's DB Class V100 and DB Class V100, on the other hand two models from Bombardier's TRAXX locomotive family, the F140 DE with diesel engine and the F140 AC hybrid engine with last-mile functionality.

For the comparison, two different line sections have been analysed.

Appendix 6: Newsletter IV (front page)



Newsletter 4
May 2015

VIABLE WAGONLOAD PRODUCTION SCHEMES

Separating Train Movements and Shunting

Last-mile Operation Method with Bimodal Vehicles Offers Potential for Cost Savings

Last-mile operations are one of the main cost drivers in SWL transport. Thus, in order to increase the overall service efficiency and competitiveness, this part of the transport chain has to be optimised. Different possibilities to reduce SWL production costs through improved last-mile services have been examined by ViWaS partners.

One approach evaluated by Fret SNCF with the support of NEWOPERA is the development of a new operation method based on the idea of separating train movements and shunting actions. For this purpose, bimodal vehicles are expected to enable shunting operations independently from the line locomotive, with a much higher efficiency. After a positive cost-benefit evaluation,

a trial in real-life conditions has to prove the capabilities and advantages of bimodal shunting engines.

In February 2015, ViWaS partner Fret SNCF received a bimodal shunting tractor for a field test in Saint Priest near Lyon. The R12444 of the Belgian manufacturer MOL is equipped with trailing wheels for use in rail mode and rubber tyres that ensure traction during both road and rail operation. Two to three minutes are needed to set the tractor on rail, the rail exit time is significantly lower at about 20 to 25 seconds.

In order to examine possible benefits through the deployment of a bimodal shunting tractor, the vehicle

Better Ergonomics

Fuel consumption: -35%

will be constantly compared with the SNCF class Y8000 shunting locomotive. The comparison is performed with regard to functionality, ergonomics, security, maintenance, availability, and environmental factors.

In general, the MOL R12444 received mostly positive feedback from the operators. Though an easy and intuitive handling in terms of controls, drivers emphasise the vehicle's operational readiness, flexibility and precision. In contrast to the Y8000 locomotive, better ergonomics, advanced technologies and security levels as well as a better general performance have been determined. Consequently, the bimodal capabilities increase the vehicle's flexibility and efficiency allowing the realisation of completely new solutions in shunting. Negative feedback was given concerning the narrow interior space, slight transmission judder and the main brake pipe pressure that affects precise handling at times.

Performed measurements revealed advantages of the bimodal tractor over the Y8000. Firstly, the brake pipe fill-in time is approximately 20 percent lower. Secondly, the fuel consumption undercuts the conventional locomotive by about 35 percent.



Arrival of the MOL R12444 rail-road tractor at Saint Priest terminal. Source: Fret SNCF