

A Quality Monitoring and Enhancement Strategy
In the railway sector for
Privately Owned Wagon Movements

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1. INTRODUCTION

On April 1, 2004, The International Union of Private Wagons (UIP) commenced the Project as supported by the European Commission to enable the UIP Membership to effectively develop a system to monitor the quality of its services and develop practical and effective quality enhancement strategies, measures and incentives.

The UIP hereby respectfully submits its Final Report, covering the six months of operations as planned, with final data being collected in January 2005, after the formal close of operations at the end of December 2004.

Originally, the UIP proposed to conduct the following analyses and investigations:

- 1. The development of a plan for the systematic gathering of data on quality for the total UIP Membership across Europe, potentially including the Accession Countries, such as can be managed within the scope of the UIP Membership reach, specified further by segment, and an initial pilot collection of data in key countries covered by the UIP members, plus Poland.*
- 2. A systematic analysis by phase of the planning and operation of the wagon movement of the nature and causes of non-quality along key corridors and in key industries, and subsequently a formulation of quality enhancement strategies to be adopted by all responsible parties*
- 3. An investigation of the existing terms and conditions of carriage and service between UIP members and the railway operators, delineating existing responsibilities and liabilities, and developing a new framework for EU wide non discriminatory terms and conditions to be made acceptable and common across the sector*

The Project at hand covers the first set of activities only.

Each element was intended to contribute to the creation, on a European basis, of a strongly innovative knowledge center with first, baseline knowledge on the operations of the privately owned wagons, as a segment of the railway sector, and subsequently, a set of innovative operational and formal initiatives to develop new approaches and practices in the industry.

The UIP has mobilized its Membership as much as possible so as to engage them in the thinking and in the gathering of data, first on a prototype basis, and subsequently on a permanent basis.

UIP is conducting this investigation with the support of GIVENTIS, a Netherlands based advisory firm.

For each of the WP Modules of this Project, a report is given here on results achieved and the approaches used, and an overview is given of the total structure of the activities.

2. WORK PLAN

The Project is driven by the conclusions that, despite the above efforts and considerations, there is no real market functioning as yet, and that the Membership of the UIP is extremely vulnerable and dependent on the incumbent railway operators.

During the initial phases of the Project, the incumbent operators have confirmed this conclusion repeatedly, with UIP Members even stating reluctance to participate in the project for fear of retaliation. Their vulnerability is expressed by the fear that the incumbent operators may respond to such pressure as may emanate from these activities that service for the particular Member may deteriorate even further. Only with strong assurances of confidentiality was participation obtained.

What is now *urgently* needed is an operational and institutional strategy to attain the desired quality and performance leap.

This project confirms, the basic data on which to build the strategy is lacking and this undermines any good intention that may be present.

Hence the UIP embarked on a program of work for of which this project will execute the first work package:

Work Package 1.

Objective: Define framework for systematic collection of quality data for private wagon movements, collect quality as available and conduct pilot gathering of data within proposed framework

The development of a plan for the systematic gathering of data on quality for the total UIP Membership across Europe, potentially including the Accession Countries, such as can be managed within the scope of the UIP Membership reach, specified further by segment, and an initial pilot collection of data in key countries covered by the UIP members, plus Poland

This work package can be divided into four tasks:

- 1. Intake at EC and key UIP Members on current definitions and data available*
- 2. Coordinate with total UIP Membership to define relevant quality measures and norms based on (French) best practice*
- 3. Make a proposal for a scheme of standardized collection of data by UIP Members; examine feasibility of extending to key Accession States.*
- 4. Conduct a pilot data gathering according to the scheme proposed, in key countries and evaluate and adjust the method and scheme as necessary*

These Tasks are subdivided into subtasks, with actors and time budgets defined.

The first three phases are methodological in nature and seek to collect and collate any data that is immediately available and make this available to the RMMS Project.

The Fourth Phase is the pilot data gathering exercise, conducted across the key national associations of the UIP, who have disseminated the questionnaire to their most important operational members (as opposed to Leasing Companies). The operational members have filled in the questionnaire based on their own operational data sources.

We have chosen for a focused pilot covering five EU countries, which will serve as a basis for the methodology. This ensures that when all Members are involved and the RMMS obtains as broad as possible a data input, the methodology is as strong as possible and well tested to be further perfected over time.

The data collection has continued for six months from July 2004 through December 2004, with the final data becoming available only in January 2005.

This report reflects the results of the project to the extent that data was available from the UIP within the time frame of the project.

WORK PLAN

	GIVENTIS	UIP	UIP country	Comments	week
Work Package 1					
Intake at EC and key UIP members on current definitions and data available					
Coordinate with EC on RMMS level to define indicators for quality and market size definition	1	1			1
Intake at UIP on French membership data available, on quality, numbers of wagons, main corridors covered, commodities	2	1	2	French Member	
Intake key countries state of the business, data availability from RE's, segments covered and data available; overall project planning confirmation, test applicability French approach	5	1	5	Germany, Spain, Italy and Poland	2,3
Coordinate with total UIP membership to define relevant quality measures and norms based on current best practices					
Collect questionnaires, data currently in use all member associations, ask members to investigate data availability through RE'S	3	5	15	send, call, discuss by phone	4
Propose integrated quality indicators	1				
Plan communication to all Members on data questionnaire	2	2			5
Organize standardized data collection by membership					
Consolidate into single questionnaire, on volume and quality	2	1			6
Coordinate with EC on coverage of UIP questionnaire	1	1		Accession countries	
Obtain agreement UIP membership, as to content and collection method through RE's	5	5	15	send, call, discuss by phone	7
Discuss collection methods with RE's and IM's as to data and data availability	5	5			8,9
Plan, agree on total logistics of collecting UIP data across Europe, budget	5	5		Target is middle of March	9, 10
Conduct Pilot Data Gathering					
Disseminate instructions to key UIP member countries and key Accession States (Poland)	5	5	15	Giventis will support locally; local Associations organise kick-off	11, 12
Support collection with advice, issue resolution, with "help desk" function; Members collect data over six month period according to agreed framework	12	6	30	Four key Members plus Poland spend 1 day each per month supporting their members over six months. Start in April	13-37
Collect questionnaires, and any data flows that may be captured electronically	10	5		First data arrives in May	18-21
Interface with RMMS data warehouse project to store data in agreed format and structure	5				22, 23
Evaluate data captured as to its quality and consistency and evaluate collection process, adjust methodology accordingly; plenary meeting is foreseen in Brussels	10	5	10	Members provide feedback; two month throughput, due vacation June, July	24-30
Project Final Reporting and Administration, final data interpretation month six of trial.	10	5		Target is end of September, due August vacation	31-40
Total days	84	53	92		

3. Intake and EC and key UIP Members on current definitions and data available

The first phases of the project included of course general start up activities and coordination within the UIP, with Giventis and the key Members of the UIP to mobilize the entire family of UIP Associations.

3.1 Coordinate with EC on RMMS.

The first phases included also the coordination with the RMMS to define indicators for quality in terms of variables used and data available.

As the Project is to a large extent the result of the conception of the EC Rail Market Monitoring Scheme (RMMS), it was deemed essential to coordinate with the Commission on the state of the RMMS as to rail freight quality statistics being collected.

Giventis thus conducted an interview with the Commission unit responsible for the RMMS, to introduce the project launch and receive and update as to the evolution of the RMMS.¹

Giventis was informed the Commission does receive on an informal manner data from several sources but does not itself gather or publish such data.

The Commission does indeed receive the quality data gathered by the AFWP, as a courtesy but not for publication.

The Commission also receives data from the International Union of combined Road-Rail transport companies, (UIRR), which is available for publication but only covers a small segment.

Further the Commission scans annual reports and has various other sources of quality data, but the overall conclusion is that no systematic pan European quality data is as yet being collected.

The Commission does have specific requirements to be met by the quality data it seeks to collect across Europe, partly through the current project:

1) ***The data must be user oriented***

This implies that it is the user and the contract terms with the user that determine whether a shipment is late or not; a train may arrive on time in a station, but the wagon still has to be delivered to the right terminal or siding, and must be released on time with all relevant documentation intact.

In subsequent discussions with Operators, being Members of national UIP Associations, this definition was confirmed, albeit that Operators also indicate

¹ Telephone interview Winfried Kleinegris April 21, 2004

that some of their Customers insist on status information at stations, borders, and at other waypoints, as part of their own security and safety requirements.

2) *The data samples collected must be representative*

This implies that the eventual data set being compiled must cover sufficiently broad set of industry sectors and geographic coverage, as well as a sufficiently high response rate.

As we will report subsequently, in each country where data are being gathered, major operators across various segments will be represented.

At the time of this Reporting, no scientific basis can be given for the representative nature of the participating parties, but we have asked for the parties to estimate their market share:

- a) *Spain FAPROVE participants represent 40% of the Spanish market*
- b) *Italy ASSOFERR participants represent 10% of total market and 20% of the conventional (not intermodal) market*
- c) *Germany VPI Members participating probably represent some 5% of the market.*
- d) *France AFWP Members represent some 13% of the market by their own estimate.*

3) *The data set defined must be sufficiently flexible so as to be able to be adapted and expanded over time.*

As the data collection evolves over time, to cover more countries and sectors and as the users determine their specific needs over time, the data collected must be able to evolve without losing continuity of relevance. For instance, if one tracks trains in one country, wagons in another and shipments in a third country, then they are not comparable and it is difficult to migrate from tracking shipments to tracking trains. It would seem that the AFWP approach of tracking trains and wagons provides the consistency and flexibility needed to start with.

It has become clear that the approach adapted from the AFWP – which is the basis we started with – can be adapted to cover the needs across segments and markets.

a) Domestic – Domestic traffic

The French AFWP approach is limited to domestic traffic. The participating UIP Members in the four other countries have adopted this as the core traffic to pursue, for both Full Trains and Single Wagons

b) Domestic – Border

International traffic is to be followed to and from the borders, this being the scope of operational control for most Operators involved.

It seems thus that the data set will evolve as more capabilities are developed to track progress along the way, and at each end.

In Italy the members even requested and have for themselves decided to make distinction between short and long distance traffic, being <400 km., < 800 km., and <1200 km., and 1600 km. Their feeling was that this should provide good segmentation to begin to understand where the problem is.

It should also be considered that different segments have different requirements as to transit time and flexibility.

Certain goods may be very time critical in a JIT supply chain, and there the criteria may be that a train or a wagon must arrive at a siding within a specific 2-hour time slot.

Other segments may have the flexibility to specify an arrival between 0900 and 2400 on a specific date and others may even give the operator several days to complete a shipment movement that only takes 12 hours.

This will be captured in the user orientation factor, in the sense that the Contract with the Carrier should specify such service level details, and that should be the basis for defining a “delay”.

For example, a train may be delayed arriving in a station, but if the shipment is still within the due date then there is an operational delay but not a commercially relevant delay.

Given the above the Commission would consider the AFWP approach as an acceptable approach, providing it is translated across Europe in a manner that meets the criteria set out above regarding user orientation, representative sampling and flexibility.

As will be evidenced by the Instructions as set out per country, the above considerations have been expressly taken into account into the definitions of delay for both full trains and single wagons.

Discussions confirmed for instance that some Operators measured delay in terms of hours and others in terms of days, reflecting their markets and segments.

Considerable discussion was conducted with the Commission on the need to ensure the data warehouse of the RMMS is populated in a controlled manner.

The UIP Project approach will provide sufficiently consistent data to provide a basis for further rationalisation and homogenisation of the RMMS database over time.

In an interim review on May 27 2004 the Commission concluded:

“It needs to be made clarified where the data collected under this survey will be stored and under what conditions the Commission can have access to it, and, eventually, disseminate results of analyses to be carried out on the data. Furthermore,

the data must be stored in a convenient format, in order to limit downstream data conversion activity to an absolute minimum. According to the grant agreement Art. II.3, the Commission has the ownership rights of the data. UIP will indicate what data could not be published due to confidentiality reasons.”

It is suggested that key and informative parts of the Survey results be stored with the Commission as a part of the RMMS. To publish all the data collected would quickly lead to an information overload to the reader/viewer.

It is suggested that some sample data be used to design the survey output for publication on the RMMS website in graphical form as a basis for publishing the survey results.

As integral part of this Final Report, a CD is supplied with all the relevant data by country, to exclude any company-specific inputs, but to include all country level monthly summaries.

A discussion on data available from Infrastructure Managers from Performance Regimes to be put in place, and related reporting regimes was also foreseen.

On December 1, the UIP and Giventis visited with the Association of European Infrastructure Managers.

It was made clear that indeed the infrastructure managers at the national level have available the information on where each train is, and of course according to which schedule, and hence, whether it is late or on time. This information can only be shared with the Operators who are the direct customers of the infrastructure being provided.

It was emphasized by the EIM that there is indeed also in conventional rail movements, a whole chain of parties needed to deliver the service of moving a wagon from A to B, and even more parties to move the goods transported in the wagon from door to door. In this respect the quality being delivered by a forwarder to his customer at A is a matter between them, privately.

The throughput time and the information provided and the price agreed, as well as the punctuality achieved may already take expected delays by terminals, truckers, railways, as well as corresponding agents and terminals at B into account. Hence the punctuality of the train per se is not always an end user issue.

However, in the view of Giventis, the intermediate market of agents buying rail movements is in itself a market that deserves to be served punctually as a basis for being able to provide the eventual user oriented door-to-door service. This market is served by the railway operators providing traction to UIP Members, and also providing wagons to non-UIP members.

A discussion on definitions of causes of delay adopted was also foreseen. This will not be relevant for this stage of the project as there is no systematic data feed for tracking the causes of delay.

3.2 Intake at UIP on French Membership data available, on quality, on numbers of wagons, main corridors covered, commodities carried

Intake at UIP on French Membership data available, on quality, on numbers of wagons, main corridors covered, and commodities carried was foreseen and conducted.

The purpose was to explore specific data available regarding punctuality and variables used:

- 1) Definitions as pertinent to private wagon owners, such as:
 - a) Working days lost
 - b) Damage to wagons
 - c) Damage to goods
 - d) Number of days during which wagons are deemed lost
 - e) Number of wagons actually lost
 - f) Number of days transit exceeded norm for empty wagon returns
- 2) Definitions available on causes of delays, other non-quality, categories used segregating carrier related causes and infrastructure related causes
- 3) Definitions of traffic lanes along which measurements were carried out
- 4) Definition of commodities of goods carried, value of such goods carried
- 5) Explanation of how data was gathered physically, what data sources and methods applied by the French Membership, coverage of market and feasibility of expanding coverage domestically and for international traffic

It was also intended to explore data available from SNCF and French Infrastructure Manager, manually and via direct data feeds

Review AFWP Approach

As the UIP Quality Monitoring Project depends to a large extent on the model already developed and in place in the French market, a review was necessary of the approach in use there, as being implemented and managed by the French UIP Member, the Association Française des Wagons Particuliers (AFWP).

On April 8, 2004 a meeting was held at the AFWP with M. B. Laurent hosting. The purpose of the meeting was to understand the methods and approaches used at the AFWP, and to see whether such approaches could be used in other countries.

Giventis reviewed the documentation available and presented by the AFWP, as a basis for the discussion beforehand.

Already for several years, the AFWP is collecting quality data in the French market and this is provided to the Commission as a courtesy, but not for publication.

There are several parameters to consider in the AFWP approach.

- It covers the domestic market only, and is representative
- It is user oriented, and contract based
- It collects a core of variables with specific definitions to be used

As a model for the UIP Quality Monitoring Project across Europe, this has several implications and suggests decisions to be made.

1. Market Coverage

- a. The AFWP collects data only on domestic traffic as all border crossings still involve a change of engine and driver and a handover to another railway, and the end-to-end responsibility of service is thus fragmented, and leads only to confusion as to data accuracy and dispute as to responsibility.
- b. If the AFWP approach is to be followed across Europe, and if the data-sets are to be comparable, then the data to be collected in other countries, then at least the data in the other countries should cover domestic traffic there as well.

This has been adopted.

- c. The AFWP approach entails the collection of data by some 11 users of rail service, in various sectors and is deemed by the AFWP to be representative as it covers some 13% of the market.

2. User Oriented

- a. In the view of the AFWP, any definition of delay should be Contract based.

In general this means that the contract should specify the performance to be delivered and any deviation there from is deemed to be a service breakdown.

This has been adopted.

- b. This implies if a train is on-time arriving at a station, but the specific wagon is late in being available for the customer at a specified location, then there is still a delay.

Conversely, if a train is late at a station but the wagon delivery deadline at the required location is still being met, then there is no delay.

This is implicitly accepted.

- c. This is significant for the location and manner in which quality performance data is to be gathered. Data from the PRE's that are generated automatically to indicate arrival and departures at stations can be relevant or may be very irrelevant. This will have to be defined by each user.

As already discussed, several Operators use EDI data from the PRE's also to track the whole journey because their customers require them to do so for security and safety reasons.

3. Variables and Definitions

- a. The following variables are taken up by AFWP in their questionnaire:
 - i. Number of complete trains expedited
 - 1. Empty
 - 2. Loaded

And

 - 3. Scheduled
 - 4. Unscheduled
 - ii. Of these:
 - 1. The number of complete trains on time
 - 2. The number of trains delayed:
 - a. By 1 day
 - b. By 2 days
 - c. ...
 - d. By 7 days
 - e. More than 7 days

iii. The number of wagons expedited in several types of modes

1. In scheduled trains, loaded and empty
2. In unscheduled trains, loaded and empty
3. Loose wagons, loaded and empty

The following table is being used in France and has been adopted by the other Members.

Company:						Month:						Route/Corridor:							
Number of Complete Trains (loaded and empty)						Number of Wagons Expedited (loaded and empty)													
Scheduled			Unscheduled			In Scheduled trains				In Unscheduled trains				Loose Wagons			Total		
Loaded	Empty	Total	Loaded	Empty	Total	Loaded	Empty	Total	Loaded	Empty	Total	Loaded	Empty	Total	Loaded	Empty	Total		
Nr. trains Wacons Expedited																			
Number trains and wacons On Time																			
Number of trains and wacons LATE																			
Days late																			
1																			
2																			
3																			
4																			
5																			
6																			
7																			
>7																			
TOTAL																			

This has proven to be a powerful basis for mobilizing the other UIP national Associations, and has been very useful.

3.3 Intake at key countries for state of the business, data availability from RE's, segments covered and data available; overall project planning confirmation, test applicability of French approach

Based on the French model we were able to suggest a similar approach to the key countries selected.

These countries are Germany, Spain, Italy, as well as Poland.

The intake covered the state of the business in each country regarding private wagons and the quality of the service as a whole.

We explored data already being gathered quality with a quick questionnaire, and found that no quality data was being gathered at the Association level, but that the Operators themselves did of course track the quality.

In each country we explored the feasibility of gathering data by questionnaire as was done by French Membership. This entailed analyzing the nature of the Membership as to types of firms, and in which activities were being conducted.

We discussed how to explore in these key countries the data available directly from national RE's and IM's, manually and via direct data feeds. At the express request of Operators and National Associations, it was decided to wait with contacting PRE's and IM's until the participants as a group were fully organized and operational in gathering their own data. Then there would be no question of individual companies being singled out for any "retaliation" and the request for information could be positioned as fully complementary, to provide a top down view, and to compare the performance achieved with State Owned Wagons.

With the experience of the French UIP Member AFWP as reference point, the four key countries to be targeted for pilot data gathering were approached for their cooperation and for an examination as to the state of the business and data availability.

1. Italy
2. Germany
3. Spain
4. Poland

Their co-operation is extremely critical as these national associations themselves had to approach their national Members for their participation to the actual data gathering. We discussed the French methodology, the data available from the national railway enterprise and planned to meet their members so as to present the project and mobilize them in this respect. It was clear very early that the "Intake" aspect had to be supplemented with a "Mobilization" aspect, and this required extensive effort as reported earlier, almost in a separate WP module.

3.3.1 Italy

The Italian UIP Member is ASSOFERR. The UIP Quality Monitoring Project team met with the Secretary General of ASSOFERR on April 16, 2004 in Brussels, and Giventis has met and spoken with ASSOFERR on numerous occasions since then.

ASSOFERR was established in the year 2000, as a merger between two historically active associations, ASSOCARRI and SUNFER.

This was deemed necessary in the Italian market so as to represent all the railway interests from a single association platform excluding the Railway Undertakings and the Infrastructure Manager.

Hence the ASSOFERR membership includes:

1. Private Wagon owners
2. Traditional Forwarders and operators
3. Intermodal Rail & Road operators
4. Intermodal Rail & Sea operators
5. Owners and managers of private sidings

Some of the Member firms belong in several of these categories.

With this as background and perspective, the issue of rail service quality was discussed extensively.

Quality is seen as a major issue, indeed as the big problem in the sector. Thus the need and necessity to measure quality is deemed to be very strong.

Within ASSOFERR there have been in the past some attempts to define quality indicators, but this was not deemed to have been very successful for several stated reasons.

1. Every company has different needs and different requirements
2. Every company has strong reluctance to give away strategically sensitive information

The main PRE in Italy is Trenitalia Cargo with a 97% market share.

The other two (new) players, Rail Traction Company and Nord Cargo have only 3% of the market, so one is still very dependent on Trenitalia for service.

Intake Italian UIP Member ASSOFERR

May 10:

- **Quality is the key hot topic in rail freight**
- **Past efforts at collecting quality data failed as all users had different needs and concepts**
- **Strong fear of giving up strategic information**
- **Suggested key corridors to work on**
- **Meeting set for Milan May 19**

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A further Intake and Mobilization meeting took place in Milan, on May 19. This was a well-attended meeting with representatives from several Operators and users.

A few key issues were raised and included in the final set of Instructions.

1. For loose wagon movements domestically it was indicated that today, no real contract or norms exist in practice.

The suggestion was made by the Members to apply the CIM norms also for domestic movements of loose wagons; this was adopted.

2. As mentioned before, the Italian ASSOFERR Members wish to have a distinction made for performance between distance categories.

Intervals of 400 Km were chosen to make this distinction, in line with the CIM norm of moving 400 Km per day.

This distinction was accommodated also in the spreadsheet developed by ASSOFERR to support data collection.

CIM conditions for loose wagons

Example

1. Planned trip 5 loose wagons 600 km
2. Wagons agreed to be available June 1, at 09.00 hrs
3. Lead time norm per CIM
 - 12 hours for consignment indicates departure on June 1, 21.00 hrs
 - Trip is 600 km, so CIM allows 48 hours transit time
 - Target arrival time is June 3, 21.00 hrs
 - Arrival on June 3 is deemed to be "on time"
 - Arrival June 4 is deemed to be "Late" by 1 day

Article 16
Transit periods

§ 1 The consignor and the carrier shall agree the transit period. In the absence of an agreement, the transit period must not exceed that which would result from the application of §§ 2 to 4.

§ 2 Subject to §§ 3 and 4, the maximum transit periods shall be as follows:

a) for wagon-load consignments

- period for consignment 12 hours,
- period for carriage, for each 400 km or fraction thereof 24 hours;

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3. International traffic was discussed extensively and the known border issues indicated as reason for having difficulty assigning blame to one or another party for delays.

It was decided that traffic to and from the borders would be tracked as well by those parties having international traffic under their control for the domestic-to-border stretches.

As a result of this very successful meeting where all parties were strongly engaged, ASSOFERR continued to further mobilize these and other parties.

3.3.2 Spain

The Spanish UIP Member FAPROVE was the current President of the UIP at the start of the Project and very supportive of the UIP Quality Monitoring Project.

A meeting was organized on May 20, 2004 in Madrid.

A very positive and creative meeting was held, with strong discussion on FAPROVE's own priorities and needs, as well as a discussion on the need for a strong follow up.

The material discussion focused on similar issues as discussed with the Italian Membership.

The FAPROVE Members disagreed however with the need to introduce distance classes into the data collected. They felt this complicated the work for this first phase; the project team concluded also that the market needs in Italy with both distinct short (Milan area) and long distance markets (to and from the South) being very important were simply different and should be accommodated.

After this meeting, the FAPROVE management proceeded to drive the process fairly autonomously, as had been agreed in the meeting.

FAPROVE provided strong impetus by translating the instructions and equally to provide a spreadsheet in Spanish to support its Members.

As a result of the good efforts made by FAPROVE, some six different companies will participate in the Project.

3.3.3 Germany

After a slow start, the German VPI Membership, some 10 different companies from both industry and the Operator side committed to participating in the survey. In practice only five actually participated.

Giventis met with the German UIP Member VPI on April 30, 2004 in Hamburg. VPI has some 97 Members, including leasing companies, logistics companies and manufacturers in various sectors such as the chemical and petrochemical industry.

More problematic is the international traffic, where the quality is worse. Here we are told the typical cross border issues still play a large role, but on top of that, each user has to connect to multiple EDI systems to get status information, which then has to be translated to useful ETA's and deviations from the ETA's.

It was suggested we (eventually) discuss the EDI available to customers with the DB management. Such discussions are – as a result of this Project – being conducted by individual DB customers participating in the survey.

To further operationalize the UIP Quality Monitoring Project in Germany, a follow up meeting was planned for May 20 in Hamburg with further member representation. This was cancelled due to scheduling conflicts.

A second meeting did take place on May 24, 2004. But again with limited attendance, although the stated interest on behalf of the Membership continued to grow.

With the support of the European Commission the project was again strongly introduced on June 3 General Assembly of the VPI and this had very positive results.

A third “mobilization” meeting was eventually planned and held in Hamburg on July 9, 2004, and this was very well attended.

Again a strong and engaging meeting was held, and the basic framework was confirmed and the operators present committed to send data.

Particularly Degussa was instrumental in making it clear to other Operators that the standard data file obtained from DB AG could be manipulated to apply the CIM rules and obtain a level of objective quality norms for domestic single wagon movements, in the same way as adopted by Italy and Spain.

This method, to add some calculations to a standard spreadsheet, was gratefully adopted by other Members, and this is a very positive self-supporting behaviour.

Despite the slow start due to scheduling issues, a very strong commitment from the German VPI Members was obtained.

We were happy to see strong representation from both industry and Operators, each with different needs, and this will provide a rich set of experiences once the data is received.

As data gathering progressed some members experienced difficulties in actually meeting their commitment.

Hence, given a membership of 95, and an assumed total market share of these members of 50% (average of UIP members for Europe), these 5 firms can be seen to represent 5% of the German market.

With these five we estimate some level of representative market coverage may be deemed to have been achieved, with both major industrial parties and major forwarders participating.

3.3.4 Poland

Fairly quickly after the start of the project, subsequent to the initial intake at the French AFWP, the Polish IGTL was contacted.

The IGTL President DEC was also contacted, as its president Mr. Godlewski speaks very good English.

A good understanding was achieved with DEC, but not so with IGTL, and this resulted in serious delays.

Mr. Godlewski even gave a presentation to the IGTL Board on behalf of the UIP Project and reported a reasonably favourable response.

Intake at Polish UIP Member IGTL

Status May 10

- **April 19 telephone briefing to IGTL**
- **April 27 Giventis presentation given to IGTL Board by DEC (Polish IGTL President)**
- **Giventis invited to major annual event May 14 outside Warsaw, all Members present**
- **“No data and no system seems available”**
- **Probably need to develop a manual approach in few key lanes**
- **Key questions raised:**
 - Objectives
 - Time needed to collect data
 - Financing

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Some key issues were raised, as to fully understanding the objectives, the effort and time and hence cost of collecting data. Some Members did and others do not have this data available.

On May 14 Giventis met with the Polish UIP Member IGTL and its Membership in Kazimierz Dolny, outside of Warsaw.

A presentation was given to explain the goals and purposes of the UIP Quality Monitoring Project. After a private meeting with the Secretary General in the preceding evening, the Members attended an early morning meeting in a fairly informal breakfast meeting setting, as this was the only time slot available in the program.

IGTL has a large number of Members, including various rail oriented interest groups and publishers.

Out of the discussions at the breakfast meeting and the evening session, some key market issues and considerations were evident.

The Polish rail market is still dominated by PKP, the national railways; PKP attended the conference but an interview was at this setting not feasible.

The rail market in Poland is currently characterized by a predominance of low-grade commodity manufacturers as users, shipping coal and timber etc., with low quality needs. As western industries continue to migrate their production into Poland, the requirements will be stricter, but today the users have a rather broad bandwidth of quality demands. If a coal shipment is a few days late, there is no perceived problem.

Meeting Poland May 14

- **Polish president DEC, also as operator, very supportive**
- **Interviews with key operators positive and supportive**
 - “Will send you past six months data” CEMET CEO
- **Market sees quality as in increasingly critical issue**
 - Today coal and steel major commodity, don’t need punctuality
 - Future, will be more and more involved in sensitive supply chains
- **IGTL Director skeptical**
 - “We have no data...”
 - “Need funding”
- **Need second meeting with bottom up support from DEC, CEMET, a few others to be approached, including VTG subsidiary**

GIVENTIS

Due to language barriers and some misunderstandings as to data availability, serious delays have been incurred in mobilizing the Polish IGTL Membership.

Only in early July did the IGTL Management find time and focus to again engage with the Project and a new meeting with Members was promised but was never realized.

On the positive side, Giventis did discuss the project with CEMET who assured us the data needed is available.

Finally, at the writing of this Final Report, we have to conclude the Polish Membership could not be mobilized by IGTL as apart from early data from CEMET, no other data was sent.

The above report describes the WP 1.1 tasks, where it is clear that it was underestimated how much time would be needed to mobilize the Membership.

The Membership in France, Italy, Spain and Germany are now well mobilized and this forms the basis of the Project.

Polish Members did not send any substantial data.

As a result of this initial – extended – effort at mobilizing the UIP local Members, we have a good coverage of participants across the key countries targeted, with the exception of Poland.

Follows an overview of the participation in the Survey across the countries involved.



4. Co-ordinate with total UIP Membership to define relevant quality measures and norms based on (French) best practice

It was intended to survey *all* the UIP Member Associations on data available and to obtain their input.

This was achieved partially through the various General and Specific meetings of the UIP involving the national associations.

It was also indicated to specifically do certain tasks, reviewed below.

4.1 Collect questionnaires, data currently in use in all member associations, ask members to investigate data available through RE's and IM's.

The intent was to explore the feasibility of using *existing data* as starting point for prototype data set for UIP purposes and for EC RMMS purposes.

At the time of this reporting, we expect to get the same results as were obtained with the four pilot countries, namely that at Association level, there is no data. There is little point in a questionnaire cycle in this respect and the data model and collection methods already developed seem already very stable.

At the time of this Final Report, we have discussed data feeds from PRE's with the most active participating national Members of the UIP.

Deutsche Bahn sends invoices in the form of a spreadsheet with embedded in them the actual departure and arrival dates and times, but not for all movements. Certain members have difficulty therefore reporting on border-domestic movements, as they get no information on this from DB AG.

Trenitalia enables large shippers to track progress via Internet real time. If there is a major train delay, then shippers/customers get a message of delay. In general users get time of departure and time of arrival with the shipping documents a few days after the movement, but only from some offices. Hence the overriding way for controlling departure and arrival time is for shippers warehouses and terminal operators to note manually departure and arrival time, not Trenitalia.

Renfe has an electronic system called SACIM 2000 that can be accessed via Internet. Users can see the schedule of arrivals and departures of the trains. Normally this seems to be satisfactory.

4.2 Propose integrated quality and volume indicators

With the data to be collected from all the UIP Member Associations, it was to be further analyzed what should be added to the French model. This was to be done in the following manner:

- 1) Compare variables collected, data available, gaps
- 2) Discuss reasons for any differences, solutions for gaps
- 3) Define most robust common variables, based also on practical availability short term
- 4) Define most robust data gathering methods, cycles.

Given the above expectation, this activity will not be based on any further input and is essentially completed already. Certainly the discussions across four major and mature markets France, Italy, Spain and Germany have resulted in a robust data gathering method which will now be the basis for collecting data in all UIP Member Associations.

1.3 Plan communication to all Members on data questionnaire

We have communicated to all UIP Members the results of these consultations, the method and the participation level, and we have sent out a standardized set of instructions out to enable all national Associations to collect data in the same manner.

On September 16, a presentation was given by the UIP as prepared by Giventis to mobilize all UIP members to participate in the quality project. This presentation included project purpose, scope and status and an outline of the methodology.

1. Make a proposal for a scheme of standardized collection of data by all UIP Members.

While the mobilization of local members to participate has cost more effort and time than anticipated, the method has proven very robust, and is deemed essentially to be complete.

The following Tasks were foreseen, and *here annotated with their final status*:

1. Consolidate into single questionnaire on volume and quality measures

Design single questionnaire to be used by all UIP national associations for standardized data sets

Questionnaire tested and further developed by Italian, German and Spanish UIP Members is stable and can be used by all other UIP national associations.

Please find an overview of the methodology in Appendix I., based on the inputs and discussions held in all participating UIP Member Associations. As the methodology is slightly adjusted per Member country, please also find the instructions as developed per Member Country in these Appendices as well.

2. Coordinate with EC on geographical coverage of UIP questionnaire, within EU or beyond, possibly to include Poland.

UIP membership covers 16 countries including some new EU Members, and this was the assumed scope of questionnaire. Given the challenge experienced to mobilize just four members, it is not likely that the UIP will extend the survey structurally into 2005, nor across all Member countries. There is not the organizational scope to achieve this. Instead each individual UIP member may now see fit to embark on the same exercise themselves to the extent possible under local conditions.

As for the pilot data gathering it was always the intention to limit this to France, Italy, Spain, Germany and Poland.

3. Obtain agreement from UIP Membership as to content and collection method through RE's, IM's

The Member Associations were asked to endorse the Method and instructions used in pilot countries as a basis for data collection in their own countries.

This was done at the Directors meeting on July 29 through a presentation by Giventis as well as at a meeting on September 16, 2004.

4. Discuss collection methods with RE's and IM's and their associations as to data and data availability.

In the five pilot countries it was intended to approach the IM's and the PRE's so as to formally establish what data is being provided or could be provided to serve the purpose at hand.

In the most positive manner possible, the national PRE's would enter into a discussion to provide:

- i. *Insight into the data being provided today to users*
- ii. *Insight as to what data could be provided after the fact administratively to achieve the same goal, but not on real time EDI basis*
- iii. *The information available centrally as to punctuality on an aggregated level.*

This was not pursued structurally, for reasons stated, being that no positive outcome was expected. However progress is being made in some key areas, very much as a result of the mobilizing effort undertaken through this project.

We note however that the German VPI Member ESSO has already asked DB AG to provide point-point arrival date information in the billing spreadsheet for International loose wagon movements.

Also several VPI Members in Germany have – as a result of this project - learned from each other how to process administrative invoice data, which includes departure and arrival data from DB AG, into a quality dataset.

In this respect the intervention by Giventis in the German market has been successful in creating a movement in this direction.

A meeting was held with the EIM Marc Falchi on December 1, 2004. At this meeting the project was discussed extensively, as well as the macro framework of the market itself.

It was clear that there was a great deal of concurrence in the understanding of the situation at hand.

There are several layers of players involved in creating end-end rail-based logistics services.

Rail services are provided sometimes to end-users such as manufacturers, but also to forwarders such as many UIP members. It is these forwarders that buy the traction services from PRE's.

The PRE's buy infra services from the infrastructure managers. It was made clear in the discussion that of course the infrastructure managers know where all the trains are and if they are on time.

It was also made clear that such information as to the punctuality of the specific train/locomotive can only be made available to the PRE's in their direct relationship with the infrastructure manager.

The Members of the UIP Associations will thus not be able to obtain punctuality data per movement from the infra managers.

5. Plan and agree on total logistics of collection UIP data across Europe, and make a budget for such data collection on an annual basis

Based on the experience in the five pilot countries and the activities of the participating Members in each country, a cost estimation can be made for the collection on a national basis for the pilot countries and for the other UIP Member Associations and their Members.

Since it is not likely that all UIP countries will participate in the exercise further for several reasons, a complete plan to collect the data will not be made.

We do have the case of Italy, where extensive data is being collected. Based on the data presented here from Italy, we can draw the following conclusions:

- i. One month data gathering in Italy across 8 members costs about Euro 15,000*
- ii. One year will cost Euro 180,000*
- iii. Across 10-20 markets, this would cost Euro 1.8 – 3.5 mln., plus central project support.*

6. Conduct Pilot Data Gathering

The core of the project is of course to obtain data, from the five pilot countries, based on a common framework.

At the time of Final Reporting this has now been assured for France (on-going), Italy, Spain and Germany, with UIP - Poland not being able, in the end, to mobilize its Members.

6.1 Disseminate instructions to key Member countries of UIP and Key Accession States, notably Poland

- 1) Key countries are as previously targeted: Spain, Italy, France and Germany as well as Poland

This target group was agreed, remained stable and implemented but with varying results as reported above.

- 2) UIP national associations disseminate questionnaires to the operating companies with Instructions in Kick Off sessions locally, Giventis to attend.

Questionnaires have been developed in close coordination with the Member associations and their Members in Spain, Italy and Germany and these instructions have been adopted.

Giventis has been to Spain, Italy and Germany (3 times) to do the intake and both mobilize and instruct the participating Members.

Copies of the finalized instructions are enclosed in the Appendix.

6.2 Support Members with advice, issue resolution and provide “Help Desk” function, while Members collect data over six months of operations

- 1) Starting up the process will result in many questions that can best be answered by UIP centrally, rather than in each country

Data was collected over the period July – December.

Giventis provided support and continued to encourage individual Members to provide the data requested. On several occasions Members needed coaching and instructions to get the dataset right.

- 2) Six months of full operations were to be covered, but we planned to intervene in process if there are problems after two months and adjust accordingly

A conference was planned for managing feedback and any structural change, but no special meeting was held for this purpose other than the Meetings indicted on July 29 and on September 16.

As mentioned above, small interventions were necessary after the data gathering started as to methodology. As stated already, we incurred problems in Poland and in Germany as to full participation.

6.3 Collect questionnaires and any data flows that may be captured electronically

- i) We collected the questionnaires via the national Members, as well as directly from Operators (Germany).
- ii) Electronic data feeds providing punctuality data do exist but only on a per shipment basis to the direct customer:

(1) National railroads, the PRE's provide to varying degrees, EDI data feeds to user-Operators being UIP Members.

(2) PRE's also provide monthly billing records on operations, indicating date sent and arrived, and this was converted by some Members into the raw data we were seeking to collect.

(3) Individual local Members of national UIP Associations have sent their data to the national Associations for compilation once a month, or to Giventis directly, usually towards the end of the following month.

6.4 Interface with RMMS data warehouse project to store data in agreed format and structure

Some discussion has taken place and has been reported here on the storing of the data in an agreed format within the RMMS data warehouse.

We have indicated a CD will be provided with all the relevant summary data per country without any company specific data, such that the EC can derive any further analyses out of this as required into the future.

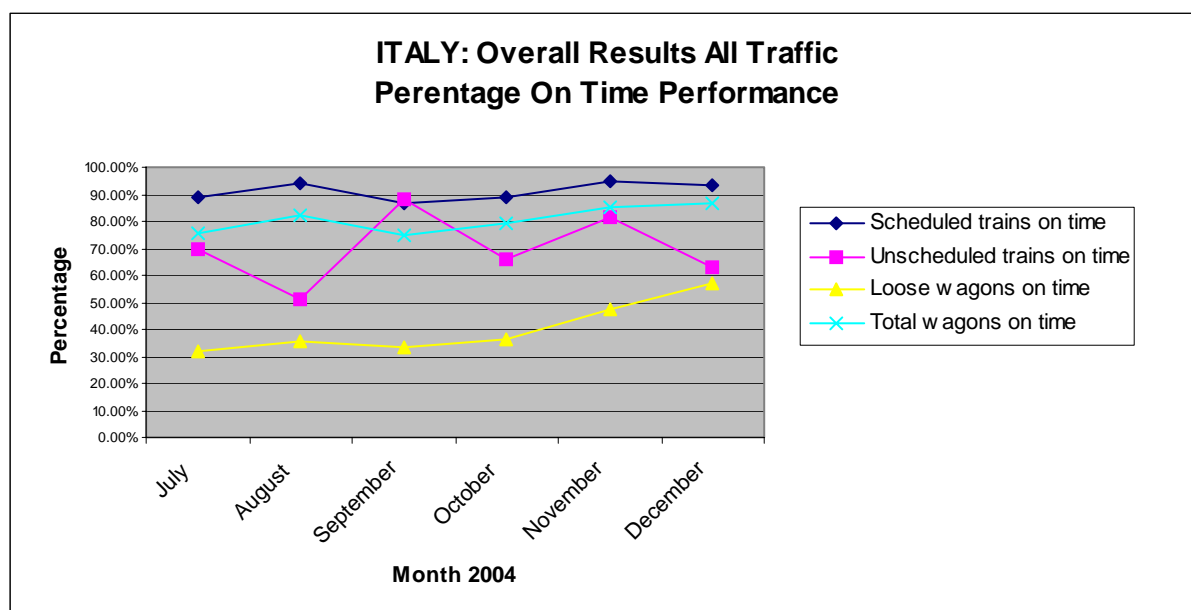
6.5 Evaluate data captured as to its quality and consistency and evaluate collection process, adjust methodology accordingly

Good data is available for Spain, Italy, Germany, and of course France as described above. We provide here the basic summary data available in these countries as a high level method of reporting the results.

Italy

The results for Italy are generally improving.

- Scheduled trains are generally more than 90% on time.
- Unscheduled trains have an erratic performance, but the trend appears to be towards an improvement
- Loose wagons show poor performance, but improving during the course of the year.
- As a result, overall performance is improving

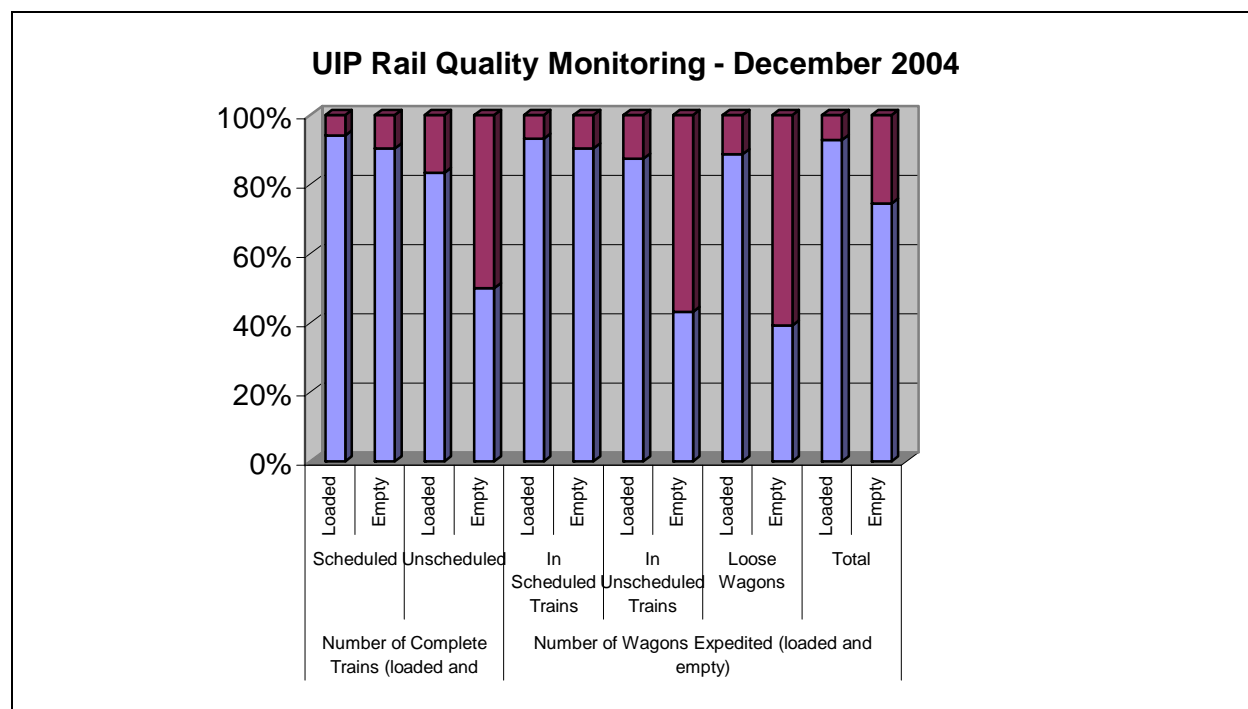


As a total result, the overall performance on a per wagon basis is improving during the course of the year.

In the overall database, further desegregations are possible. This could result in numerous analyses, particularly in Italy where distinctions for distance are introduced.

As an example, we present the month of December 2004. A very marked difference in performance is visible between the overall performance and the *empty* unscheduled trains, and the *empty* loose wagons that are only 40% on time.

Such a difference may well be explained by the lack of priority given to such empty wagons, but such empty repositioning is precisely critical to the quality that logistics service providers are able to give to their customers, i.e. an empty wagon on time to be filled for on-time dispatch.



We can make further distinctions as to performance by distance class. The Italian Members of ASSOFERR insisted on making this distinction and the relevant data were captured accordingly.

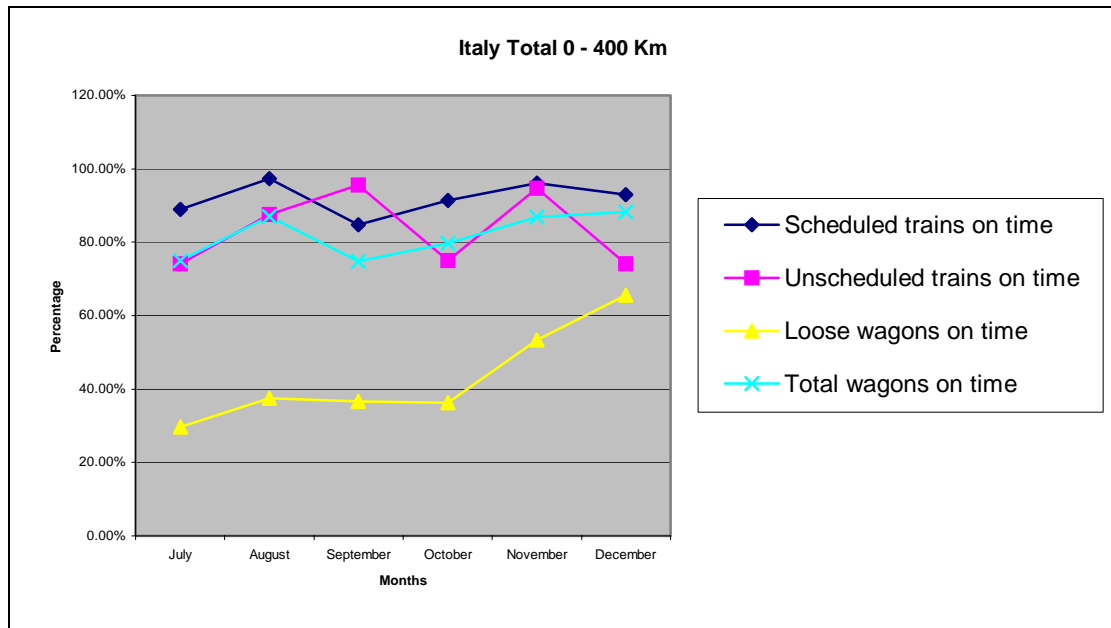
Distinction was made in distance classes for traffic moving:

- From 0 - 400 km
- From 0 - 800 km
- From 0 -1200 km

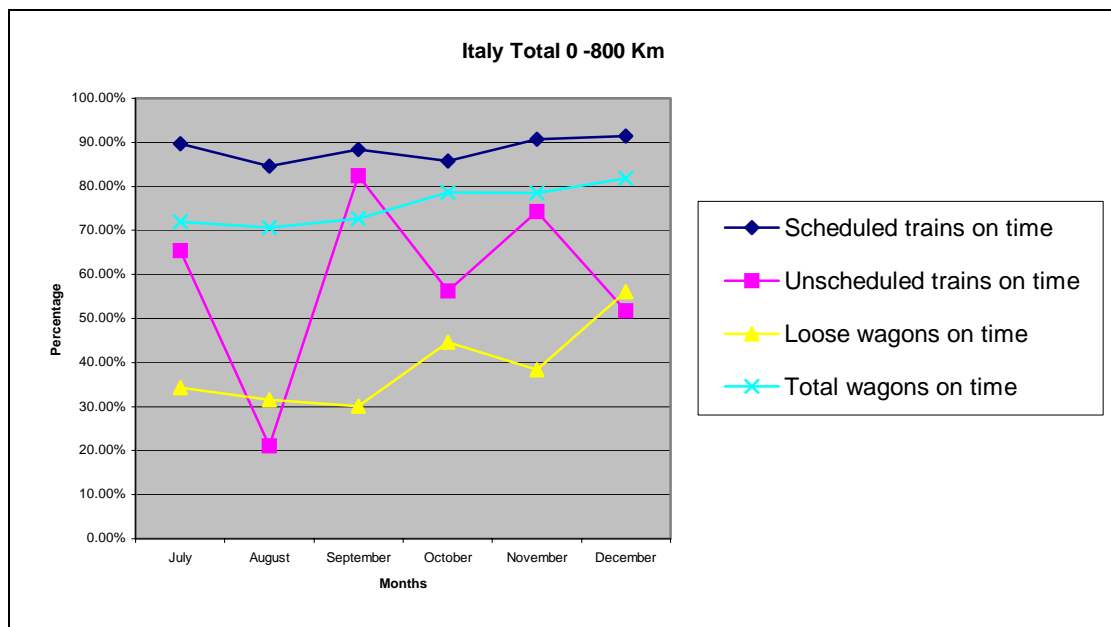
We shall see some differences in performance across these distance classes as illustrated below.

The reasons can be many and diverse, and we will not here speculate too much about these possible reasons.

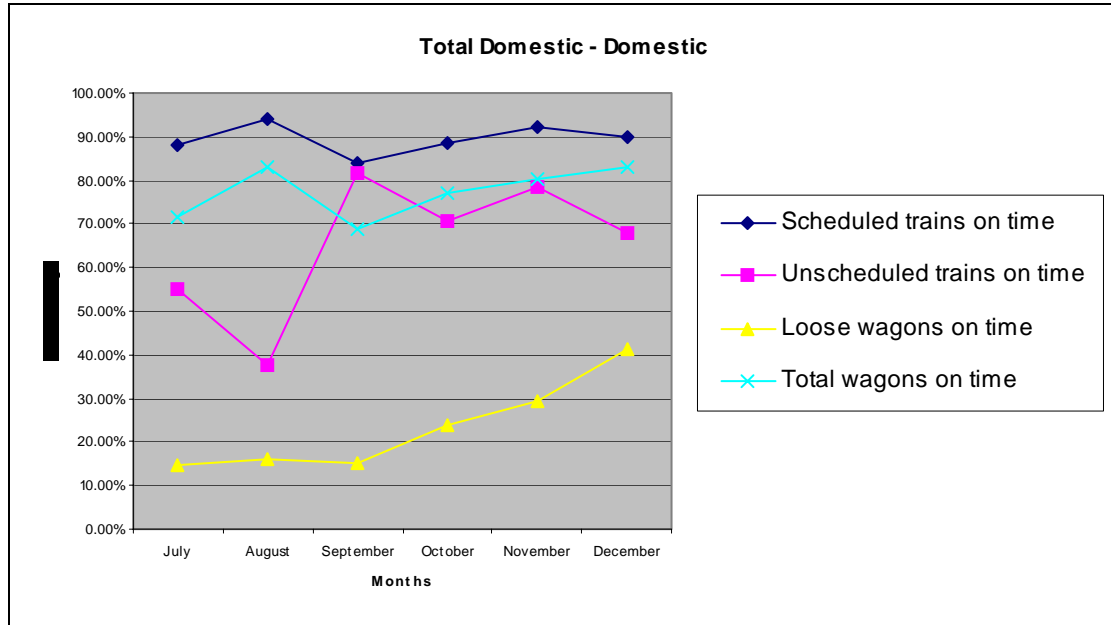
For example in the distance class for traffic moving from 0 –400 km we see a pattern very close to the overall picture seen above.



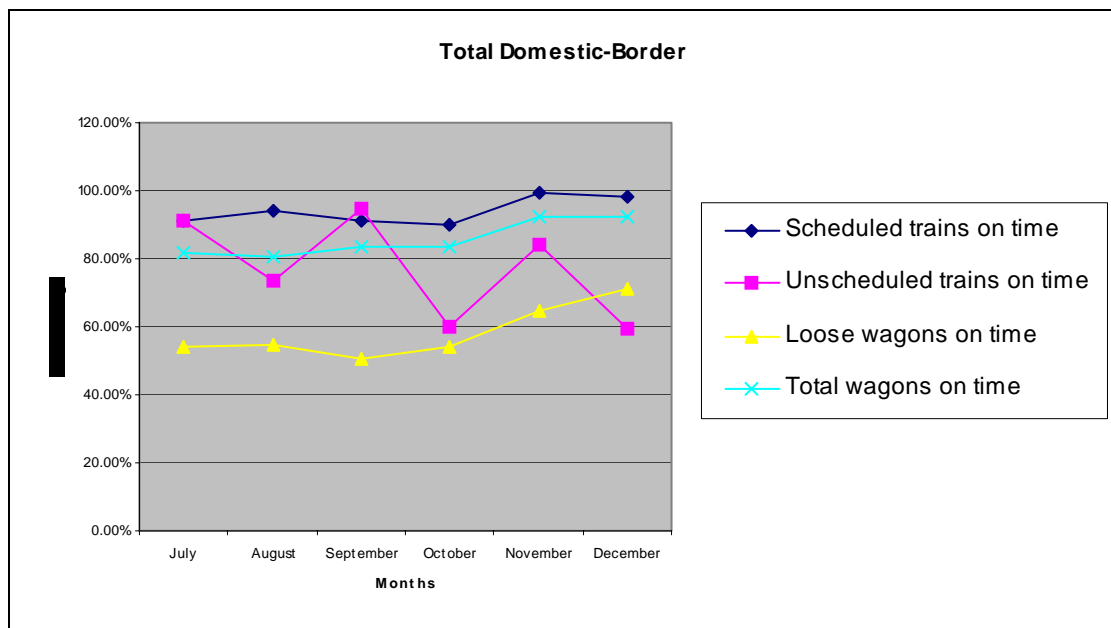
If we now examine the distance class of traffic moving 0 – 800 km we see a marked deterioration of the on-time performance of loose wagons and unscheduled trains become very erratic in performance.



In the Italian market some 13,000 wagons monthly were monitored. Of these some 7,500 moved in the Domestic-Domestic segments, meaning origin and final destinations were both domestic locations within Italy. Some 5,500 were moving between a domestic location and an international border with end-point or origin in another country, designated Domestic-Border traffic.



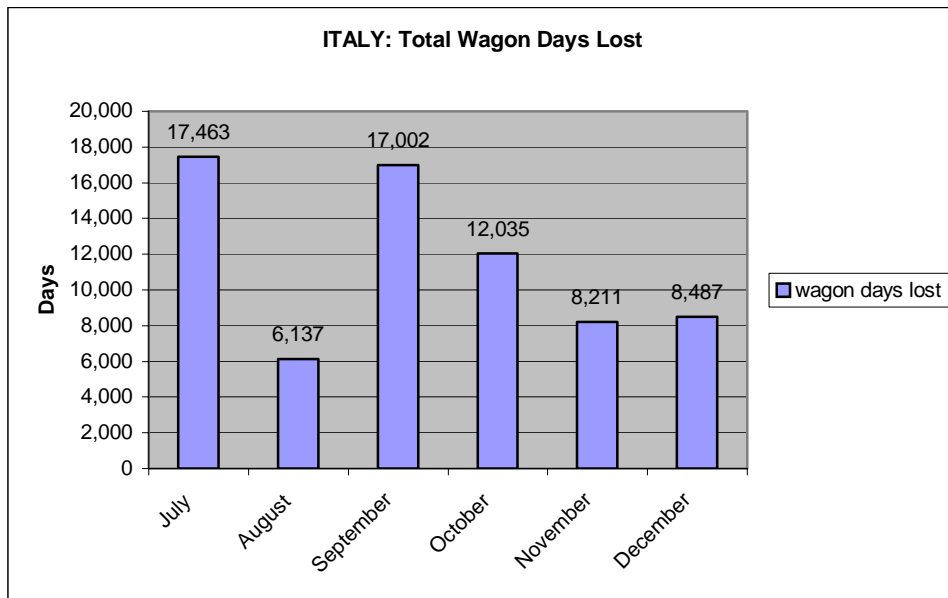
Compared to the total and compared to the Domestic-Border traffic shown below, the Domestic-Domestic traffic shows very poor – but improving – loose wagon delivery punctuality.



By contract, unscheduled trains in the Domestic-Border segment show a deterioration in punctuality emerging.

The result of these delays, however they can be segmented is lost wagon days – days in which the owners of the wagons cannot make them function economically because of delays.

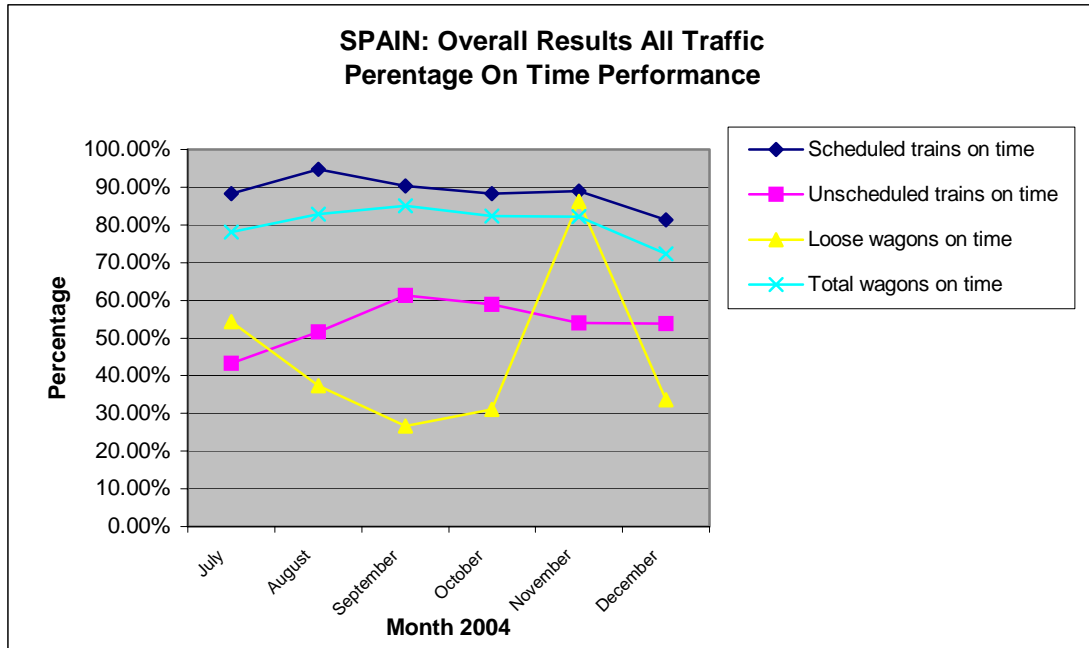
In Italy the number of wagon days lost evolved as shown below for the companies participating only.



In total some 69,355-wagon days were lost in Italy for the survey participants in the six-month period covered.

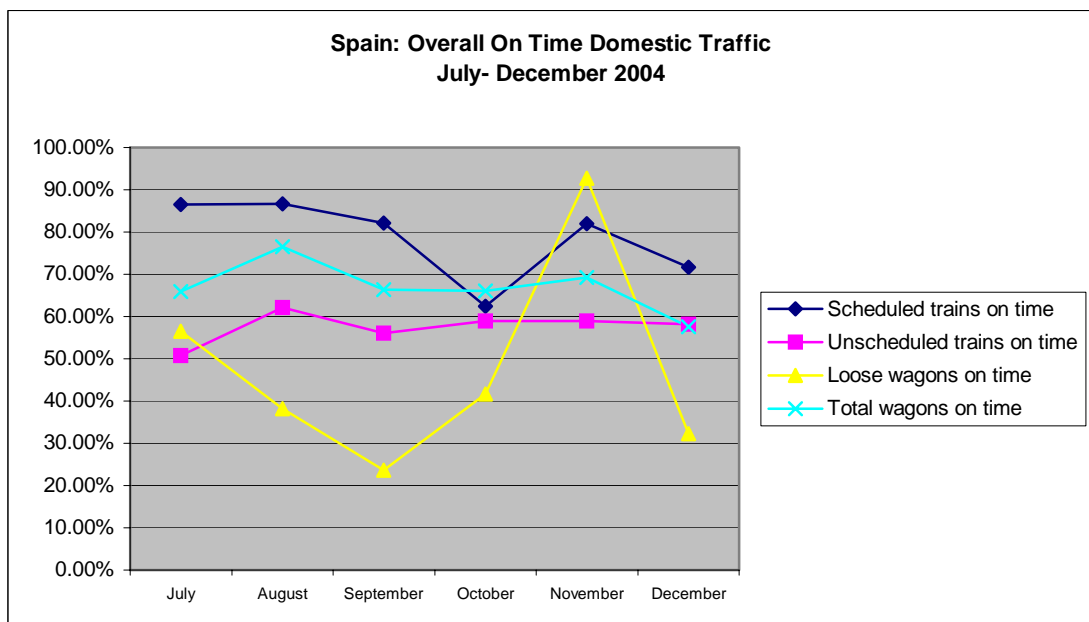
Spain

The performance in the Spanish market in contrast to Italy, is deteriorating. Scheduled trains, unscheduled trains and loose wagons are all suffering increased unreliability.

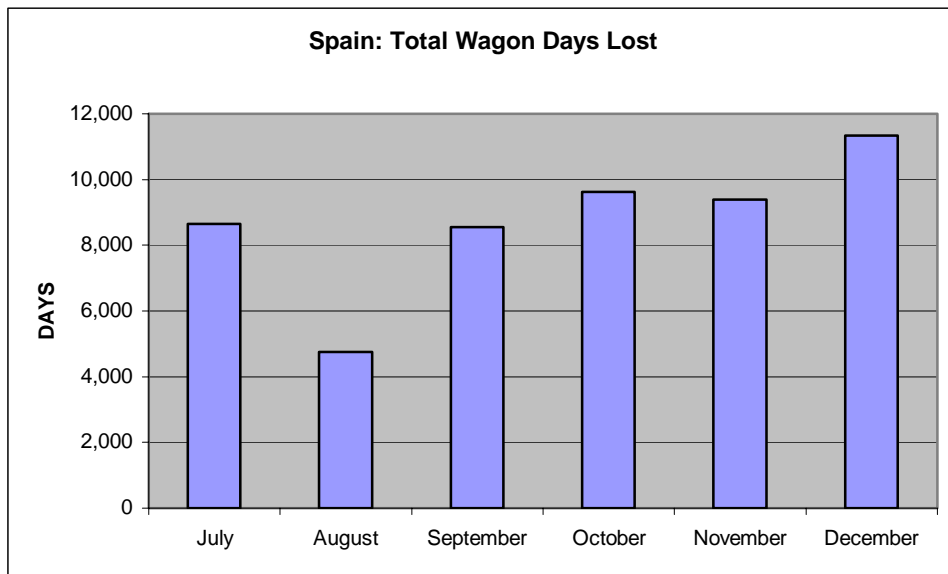


In the Spanish market, the members reported on some 16,000 wagons monthly, of which some 5,500 are in the Domestic traffic segment.

For this Domestic traffic, the picture is even more marked. Even scheduled trains are not more than 70% on time and this is also very unstable. The other elements are similar for the total as dominated by the International Domestic-Border traffic.



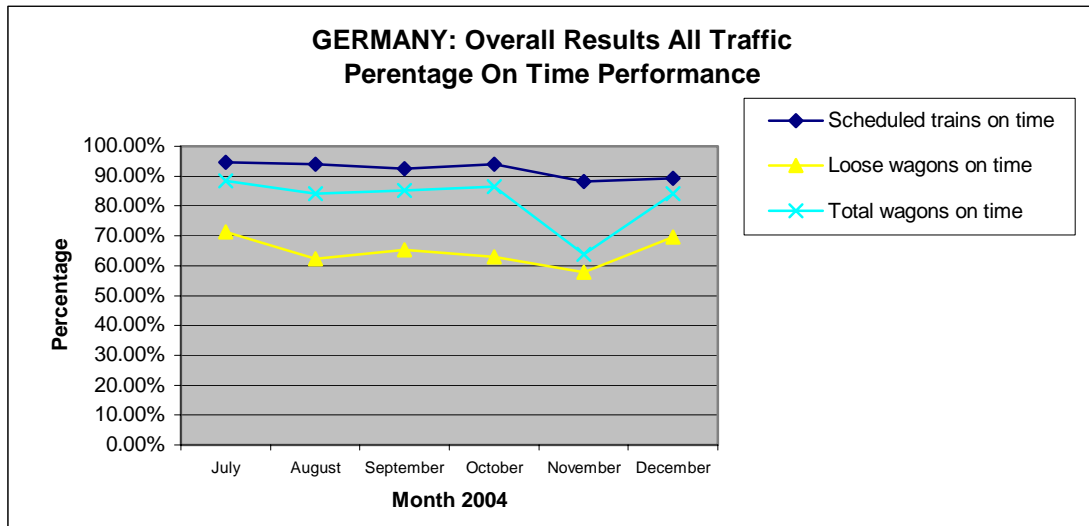
As a result the economic losses are mounting. Lost wagon days are increasing each month as is seen below.



Germany

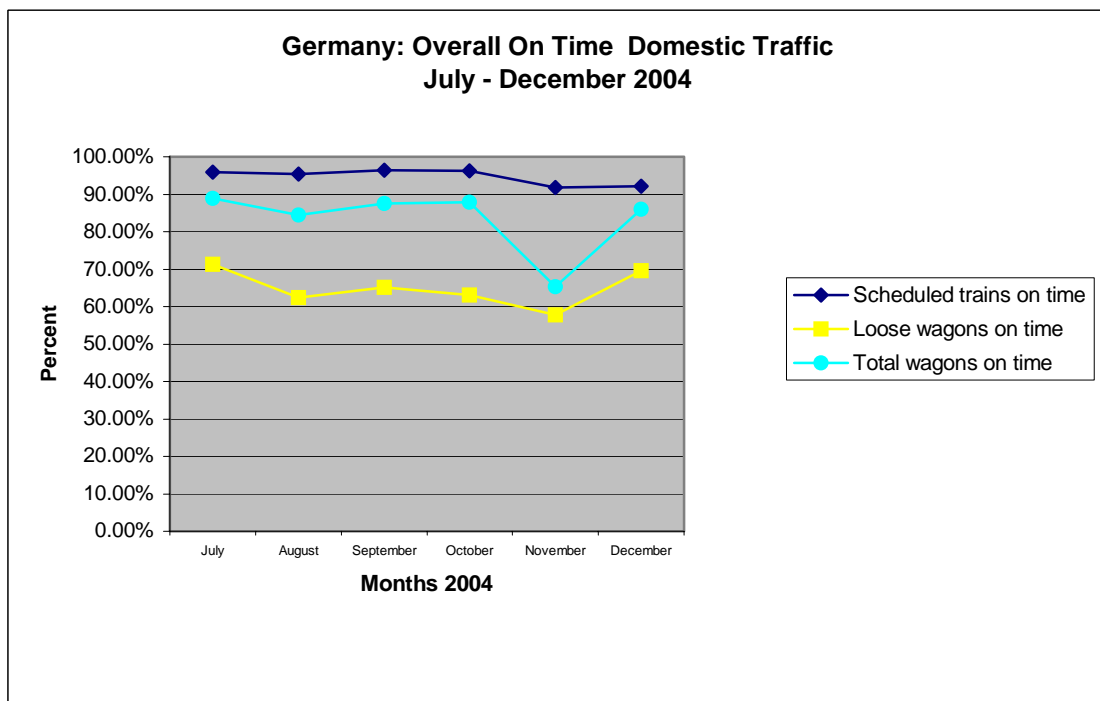
For Germany five participating firms provided the basis for the survey. Very few unscheduled full trains were reported so these were left out of the analysis.

The results show a good but slightly deteriorating performance overall. Loose wagon movements are improving.



In the German market some 20,000 wagons were tracked each month. Of this some 19,000 the overwhelming majority were in the Domestic segment.

For Domestic traffic the situation as reported is therefore very similar to the overall trend, indeed with some marked improvement in the last reported month visible.



The economic damage to the industry has been calculated in the same manner as for Italy and Spain, based on the number of working days lost.

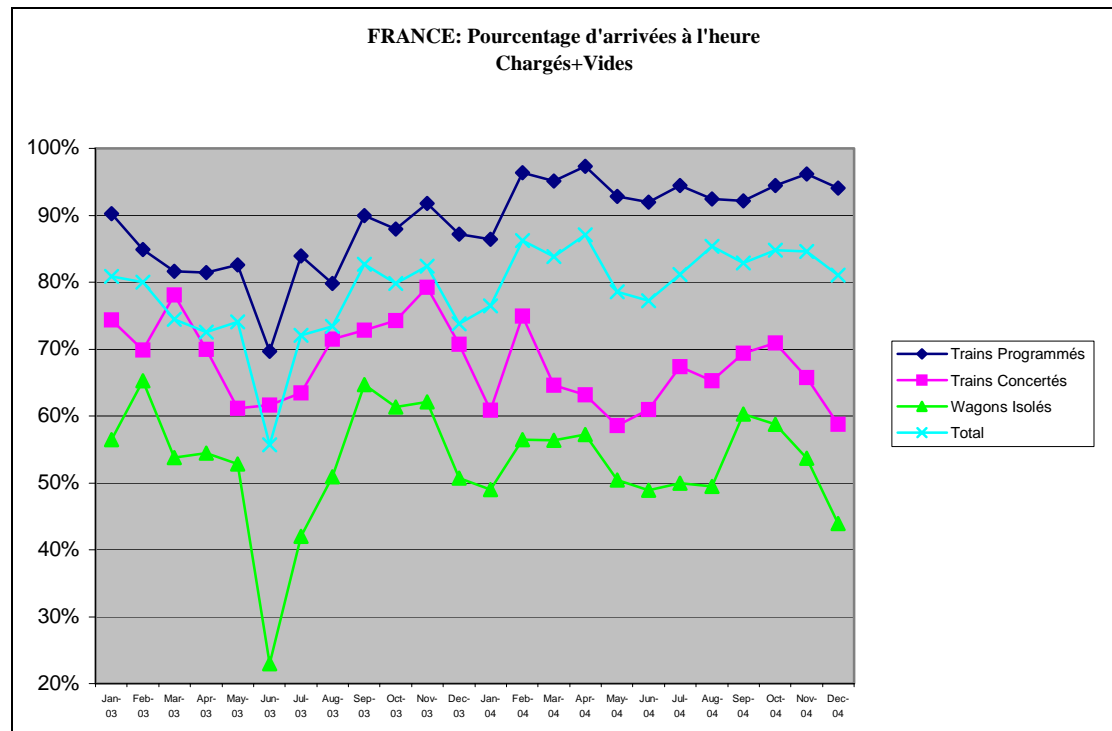


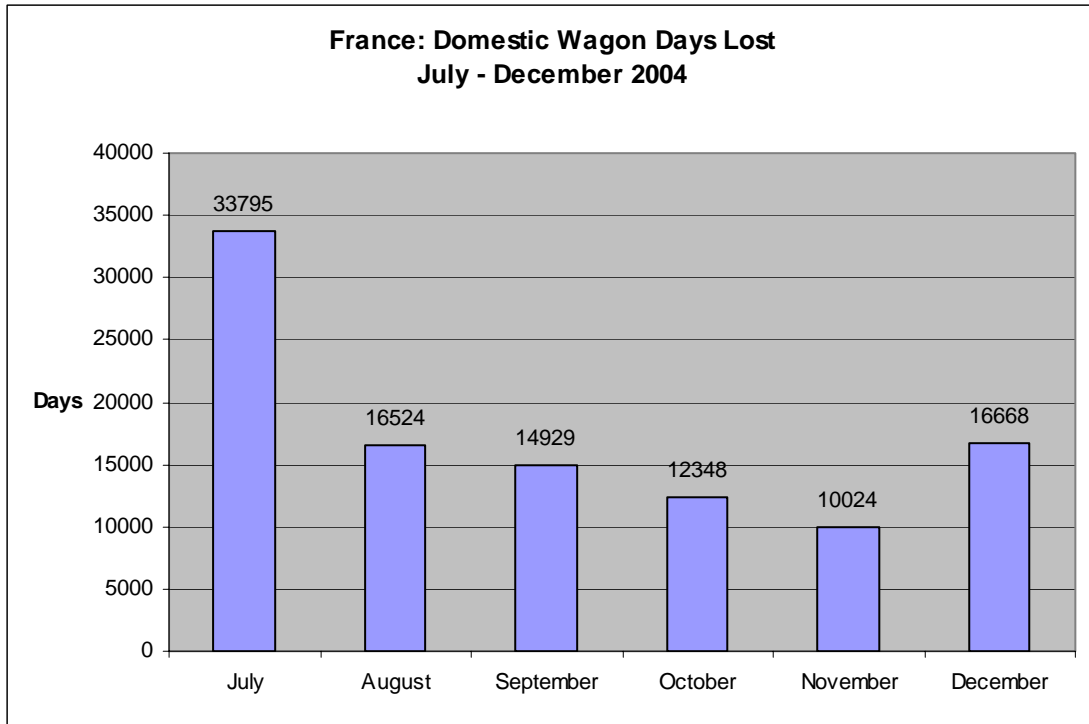
France

The French market as tracked by the UIP Member AFWP and their approach has been the model for tracking the other markets.

As the AFWP has been conducting this survey for some time, for 2003 and 2004 a full 24 months of data is available, and provides interesting perspectives.

- Scheduled trains' performance is going up, with some 90% of trains arriving on time
- Unscheduled trains have seen a marked downturn in performance, particularly in the last few months of the year.
- Equally loose wagons have also seen deterioration in performance, particularly also over the last few months of the year 2004.





The number of days lost increases sharply in December 2004, which correlates with the increase in delays charted above as well for the unscheduled trains and loose wagons.

Conclusions & Recommendations

There are several types of recommendations to be made from the experience of the project at hand.

Results

From a representative cross section of the market we have the data to indicate economic loss due to delays alone.

Country	market share represented	Days Lost
Germany	5%	30055
Italy	10%	69335
Spain	40%	52289
France	13%	104288

Extrapolated across the entire EU we are a large number of day lost..

Clearly this fact cannot be left ignored at a time when the railway industry desperately needs investment in new rolling stock and new business initiatives.

Methodological

The methodology, as outlined in the various country Instructions and in the generalized Methodology, works well across all the countries and companies participating. This implies it can be extrapolated across more countries and participants.

Participation and Coverage

As in all projects, it is deemed to be extra work, and participants want to see some action as a result of the work done. The proposed Phase II, investigating the cause of delays and addressing these in direct communication with all the relevant parties was welcomed by a number of participants.

Cost

We have seen in some instances the work involved is minimal as the data is there and the statistics asked for can be generated easily (German market). In other cases the existing in-house quality processes capture arrival and departure times and this too is of little marginal cost. The costs likely go up when manual work is needed.

We have given the example of Italy where the costs are Euro 15,000 per month or Euro 180,000 per year, plus central support.

Continuation

From a methodological perspective, the project has successfully shown a quick way to capture a first level view of the evolution of rail service quality in Europe. We would deem it very adequate for the purposes of political market monitoring. It is never intended or robust enough to act as a basis for claims or any other legal action.

Many further discussions are necessary to fully capture the notion of quality in the sector. Other aspects include damage to goods and wagons, provision of warnings and real time corrections of problems.

Expansion of the number of participants would be very desirable, but that would depend on the will of the UIP Members to join this process.