



STRATEGIC ACTION PLAN FOR UIC LATIN AMERICA REGION



INTERNATIONAL UNION
OF RAILWAYS

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INTRODUCTION

As a global association of railways, UIC is focused on the development of railways as well railway association activities in the Latin American Region. Historically, only two members, from Chile and Peru, have belonged to the UIC as Associate Members. Sporadic contact with other railway and public transport associations has made it possible to come into contact with the reality of Latin American railway companies.

For the past several years, more regular action has been carried out, basically by Brazil. Today, EDLP, ANTT (Brazilian Federal Secretary of State of Land Transport), CPTM and RioTrilhos (the companies of suburban railways from Sao Paulo and Rio de Janeiro) are members of UIC. More companies, from both passenger and freight, are in the process of becoming UIC members in the near future.

UIC can play an important role in Latin America, with, among others, the following main objectives:

- Assist in building awareness of the advantages of rail in Latin American countries and the region as a whole
- Establish and improve cooperation between railway companies in Latin America
- Improve cooperation between railways and industry - Promote interoperability. The ultimate objective of this Latin America Regional Assembly can be summarised as the “creation of a professional environment that maximises the potential in available competencies, guaranteeing value for money for our members”.

The main results expected from this cooperation included:

- Sharing information on rail technology
- Promoting technological development and know-how
- Encouraging members to adopt best practices - Maximising the benefits to the environment of rail.

Several important facts represent excellent opportunities to develop UIC activities in Brazil and in the Region.

- The project to implement the first High Speed system between Rio de Janeiro and Sao Paulo, in which the UIC is cooperating very closely with the Federal Government as well as with local authorities, financial institutions and industry. The development of big projects on stations and real estate linked with high speed projects also enable cooperation with the UIC SMGG (Stations Managers Global Group).
- The development of big projects on urban, suburban and regional transport systems (for example the project “Intercidades”), in some cases in close connection with the high speed project.
- The participation in the debate engaged by ANTT to change Brazilian Railroad Regulation, in order to improve Brazilian Freight Railroad Concession Model and increase competitiveness.

Strategic objectives are to be defined in coherence with the actions of the other UIC Regions.

In cooperation with the different financing actors of the Americas (World Bank, BIRD, Corporación Andina de Fomento-CAF, BNDES, etc.) several actions are expected, in order to help UIC members (present and futures) to develop their transport concept and their business, and in order to promote more sustainable transport in the Region through the development of a modern concept of the railway system.



FACTS & FIGURES

On railways in the Latin America Region

- Diverse economic, political, social and industrial conditions in the different countries and over time
- Difficulties in bringing production into certain regions
- Differences in railway design
- Seven different track gauges
- Very little electrification and double track
- Very few international connections and no concept of a continental network (except in Mexico)

Privatisation, concessions

In the 1990s Argentina began privatising its railways in a process whose basic principles inspired the transformation of the European railways in accordance with Directive 91/440.

Other countries are following more or less similar processes, each according to its own historical specificities, market characteristics, political context and administrative methods.

Some countries (such as Venezuela) have started developing railways. Others (such as Paraguay) have allowed them to disappear almost entirely.

Privatisation process

Twenty years on, this process and the private sector's involvement have had very mixed results, but some conclusions can be drawn:

→ Freight:

- Positive result, a priori
- The idea of international traffic or of a continental network is still absent
- Limited development of intermodal freight

→ Passenger:

- Mainline transport all but abandoned
- Development of urban and suburban services

→ Weak railway industry

Future development

Concessions will require revision (and potentially renovation) in the years to come.

Stronger involvement will be sought by governments in countries such as Venezuela, Ecuador and Bolivia.

Argentina is distinguished by the creation of ADIF (infrastructure manager) and ORF (national operator).

In Brazil the debate is focused on the business model of the railway system.

DILMA ROUSSEFF, PRESIDENT OF THE REPUBLIC OF BRAZIL, GUEST OF HONOUR OF THE UIC GENERAL ASSEMBLY IN DECEMBER 2012

Role of UIC underlined and a “great dialogue” established

Dilma Rousseff, President of the Republic of Brazil, was Guest of Honour at the opening of the 81st General Assembly of UIC, the worldwide railway association which celebrates its 90th anniversary this year. The President of Brazil was welcomed at UIC Headquarters in Paris with addresses by Satoshi Seino, Chairman of UIC, Jean-Pierre Loubinoux, UIC Director General and Guilherme Quintella, Chairman of the UIC Latin-American Region.

Whilst addressing the heads of the world’s railways gathered at UIC, President Dilma Rousseff stressed: “the fact is that Brazil has an unbalanced transportation matrix. A continental country like Brazil cannot be fundamentally connected by highways. There should be a way of being able to articulate different modes: highways, waterways and railways.” 2007 was a very important year to recognise the importance of the rail system, as well as to reform it and rebuild it. Important steps were the launch of an Investment Plan for Railways which was the PAC (Growth Acceleration Program) with 5,000 km and in 2012 the launch of EPL - Enterprise Planning and Logistics - responsible for thinking and planning a modal integration of the Brazilian port system. “It will help build the next challenge, 10,000 km of railways.” She described the current project saying that “10,000 km of railways are too little for Brazil. We are still at the early stage which basically consists of freight”... and “as for passengers, a bidding process will be released on 13 August for the choice of the high-speed train technology and operator...” adding that “there is also a real need for light rail systems.”

About UIC’s role, President Dilma Rousseff stressed: “I believe that a great dialogue is to be established with Brazil, which will support its members’ opportunities, will enable stability and security for investments, and will ensure the conditions necessary to Brazil not only to structure its transportation system capable of fitting its challenges for the 21st century, but rather more to allow its people to have more efficient transportation, either for companies



From left to right: Guilherme Quintella, CEO EDLP Brazil and Chairman of UIC Latin-America, Satoshi Seino, Chairman of UIC Asia, Dilma Rousseff, President of Brazil and Jean-Pierre Loubinoux, UIC Director-General.



President of Brazil Dilma Rousseff and Vladimir Yakunin, President of RZD and UIC Chairman.



From left to right: Joe Szabo, Federal Railroad Administrator, USA, Satoshi Seino, Chairman of UIC Asia, Dilma Rousseff, President of Brazil, Vladimir Yakunin, UIC Chairman and Jean-Pierre Loubinoux, UIC Director-General.

with regard to freight - where Brazil is a major producer of food, minerals, energy (oil) and manufacturing, and with regard to passengers.”

And in conclusion “I believe that this partnership between Brazil and UIC has everything to yield strong results” and “I am sure that due to the size and importance of UIC, our interests coincide and converge towards a future of opportunities.”

SPEECH GIVEN BY THE PRESIDENT OF BRAZIL DILMA ROUSSEFF

OPENING OF THE UIC 81ST GENERAL ASSEMBLY - PARIS, 12 DECEMBER 2012

The spoken word alone prevails

Greetings and thanks for the invitation to attend the 81st General Assembly:

- Satoshi Seino - UIC Chairman
- Jean-Pierre Loubinoux - UIC Director General
- Mauro Moretti, UIC Vice Chairman
- Guilherme Quintella - Chairman of UIC Latin America

Guilherme Quintella made an accurate and clear framework of the characteristics of the Brazilian railway system and its challenges.

The fact is that Brazil has an unbalanced transportation matrix. A continental country like Brazil cannot be fundamentally connected by highways. There should be a way of being able to articulate different modes: highways, waterways and railways, mainly due to the geographical difficulties of the country. In the Amazon, for example, the waterway is the predominant mode, and it is important to connect it to the rest of the transport network.

Therefore, 2007 is very important year. In that year, the importance of the rail system became clear, as well as reforming it and rebuilding it, because for many years the system was somewhat stressed and little was invested.

From there, we launched an Investment Plan in Railways, which was within the PAC (Growth Acceleration Program), with 5,000 km: The North-South Railway, cutting the country lengthwise, hinged with some railroads in the transverse direction, the east-west axis, which transport ore and grains production in Brazil, making them more «flowable by Brazil.»

More recently (August 2012), we took a step forward, and to do so:

We launched the EPL - Enterprise Planning and Logistics, responsible for thinking and planning and modal integration of the Brazilian port system. It will help build the next challenge, 10,000 km of railways, in a Logistic Plan for \$91 billion (USD 40 billion) in short-term loans, beyond the 5,000 km already included in PAC.



The EPL has worked on a model for private investor-friendly frameworks.

- It assumes the risk of demand
- The Government acquires the entire rail capacity (which then is resold to operators)
- The right of passage between railways is ensured by the track rights

Thus, investment is safer and interesting.

We believe in the importance of private sector in all phases of these projects, both Brazilian and foreign investors.

This is very important, especially in a country the size of Brazil, and its vocation for grain and ore.

We can also integrate with the railroads waterways, where we have much to gain, both in the south, mainly Argentina and Uruguay, as well as the connection of the central-western Brazil, a major producer of grain in the world, to the biggest international markets.

We think the Brazilian railway project has just begun. 10,000 km of railways are too little for Brazil. We are still at the early stage, which basically consists of freight.

As for passengers, a bidding process will be released on August 13, notice for the choice of TAV (High Speed Train) technology and operator, linking the two largest producing regions of Brazil, in the industry, and the two largest GDPs of Brazil: São Paulo and Rio de Janeiro.

As rightly said Guilherme Quintella, we will not stop on that line. We will complete the investment in passenger transport. TAV is also critical to attack the urban question in the two largest cities in Brazil, which will allow new reallocations along the 510 km alignment linking Rio and Sao Paulo. People can perfectly work and live along the axis, or even in Rio de Janeiro.

Moreover, as the TAV is the first high-speed system in Latin America, and it will serve as a demonstration of the viability of these systems on the continent. In addition, it will structure both urban and regional transport.

Another aspect is the need for light rail systems. The federal government has been investing in five (5) major cities in the past year:

- Porto Alegre
- Curitiba
- Belo Horizonte

- Salvador
- Fortaleza

All with significant investments.

Brazil has decided to invest in the subway lately.

Today we have «medium» cities with 2 million people, and for them the passenger rail system is the only solution to the congestion and chaos in urban transport, especially in Brazil, where individual transport has long been privileged, which is extremely wasteful in terms of restructuring of urban space in cities like São Paulo, Rio de Janeiro and Belo Horizonte and other 6 or 7 Brazilian cities. They need transportation based on subways and trains.

So I'm very pleased to be here today and I accepted the invitation. I believe that UIC has a great dialogue to be established with Brazil, which will give its members opportunities, that will enable stability and security for investments, and will ensure the conditions necessary to Brazil not only to structure their transportation system capable of fitting its challenges to the 21st century, but also to allow its people to have more efficient transportation, either for their companies, with regard to freight, where Brazil is a major producer of food, minerals, energy (oil) and manufacturing, and with regard to passengers.

Therefore, I believe that this partnership between Brazil and the UIC has everything to yield strong results. We would like you to participate in this huge effort, which after the investments in China, may be the biggest investment in railways in the world.

I'm sure that due to the size and importance of UIC, our interests coincide and converge to a future of opportunities.

I wanted to thank you once again.

I am accompanied by Prof. Luciano Coutinho, president of BNDES (National Bank for Social and Economic Development), a key institution to facilitate investments in 10,000 km of railways. Besides allowing the reduction of the demand risk, we also reduce the exposure of railroads to credit risks.

Thank you.

LATIN AMERICAN CONTEXT AND PROJECTS

Latin America represents a huge share of the world's land area and is composed of 33 countries (UIC definition and including islands). The concept of a network is not present in the total list of lines in operation and among the listed countries, 18 countries have some kind of railway infrastructure in operation, with notable operation in only 10 of them.

Latin America has no continuous and well-developed railway infrastructure which can be accommodated into carrying freight or passengers across the entire continent, east-west or north-south.

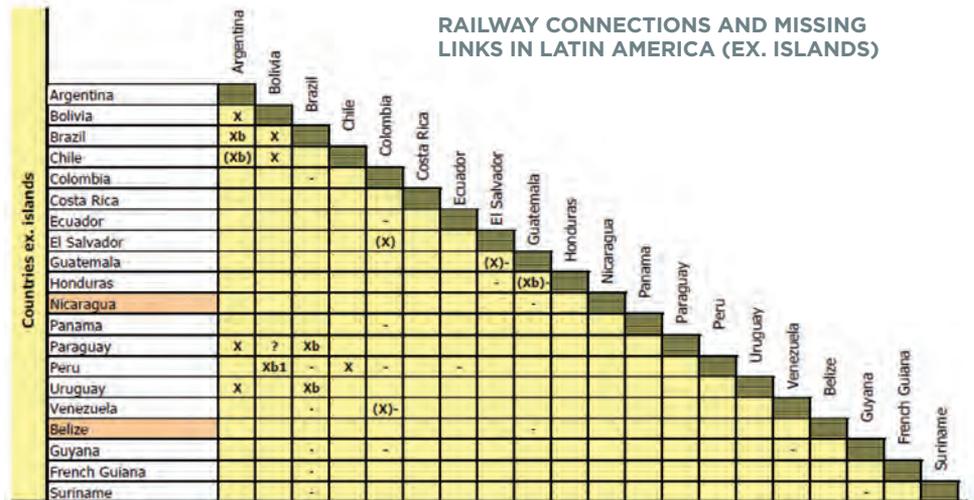
Many regional links are often missing. If they exist, some are deteriorated, outdated or closed due to various reasons. Regulations, infrastructure, rolling stock and procedures in Latin America are not homogenous, all contributing to more complex border crossings in regions where the infrastructure exists. This discontinuity has severe impact on effective logistical chains, time consumption as well as costs.

The most "promoted" obstacle is the lack of a common railway gauge. The Latin American gauges are more challenging than in many other regions of the world. The main gauge is 1.000 mm, 1.676 mm, 1.600 mm and 1.435 mm. However, other gauges also exist.

Furthermore, there might be missing links due to geographical conditions, national conflicts, damage or economic reasons (not considered commercially viable to build the link). And in addition to these physical discontinuities, there are political and administrative barriers like tariffs, border crossing permissions, customs, change of crew, safety inspections, bureaucratic administration procedures and various other impediments. These non-physical challenges can be considered as more important than the physical.

All these physical and non-physical barriers interrupt movement of goods and passengers, which again cause additional costs and thus affect the future Latin American Railways, as well as the rail's connection to intermodal freight centres (like ports) and the international market.

RAILWAY COUNTRIES	
1	Argentina
2	Bolivia
3	Brazil
4	Chile
5	Costa Rica
7	Cuba
8	Dominican Republic
9	Ecuador
10	El Salvador
11	Guatemala
12	Honduras
13	Nicaragua
14	Panama
15	Paraguay
16	Peru
17	Uruguay
18	Venezuela



X: shows direct connections, not connections through third country, which is possible for many route.
 (X): plan, project or partly operational
 b: break of gauge
 (X)-: connection probably damaged, closed etc
 1 Includes a railway ferry across lake Titicaca from Puno (Peru) to Guagui (Bolivia)

BRAZILIAN PROJECTS

LOGISTIC INVESTMENT PROGRAM

On August 15, 2012, the Brazilian Federal Government launched the Logistics Investment Program. The program includes a set of projects which will contribute to the development of a modern and efficient transport system and will be carried out through strategic partnerships with the private sector, taking into account synergies between road and rail networks, waterways, ports and airports.

In the railway sector, the program foresees investments worth US\$ 49.8 billion in construction and/or upgrading of over 11,000 km of rail lines. The railway program has three main guidelines: the provision of a wide, modern and integrated rail network; efficient and competitive supply chains; and lower tariffs.

The program comprises railway concessions due 35 years of broad gauge (1,600 mm) railways, with high load carrying capacity, and geometric design optimized to allow higher speeds (80 km/h).

Logistic Investment Program

Railway Section	Km	Investment (R\$ Bn)
São Paulo - Mafra - Rio Grande	1.800	28,10
Uruaçu - Corinto - Campos	1.730	23,50
Belo Horizonte - Salvador	1.651	12,60
Maracaju - Eng. Bley - Paranaguá	1.012	10,30
Salvador - Recife	1.200	8,80
Lucas do Rio Verde - Uruaçu - Palmas - Anápolis	1.920	7,80
Anápolis - Panorama - Dourados	1.294	5,10
Rio de Janeiro - Campos - Vitória	634	4,20
Açailândia - Vila do Conde	480	3,10
Ferroanel SP (Norte/Sul/acesso porto de Santos)	245	Indefinita

The program introduces a new railway concession model, in which concessionaires will be in charge of the infrastructure, signalling and traffic control.

“TRENS INTERCIDADES” (REGIONAL EXPRESS TRAIN SERVICES)

As the most populous and economically important state of Brazil, São Paulo has the first (and major) rail intercity state project of the country. This initiative has been started by São Paulo

NEW RAILWAY

The Brazilian Federal Government launched the Logistics Investment Program. The program foresees investments of US\$ 49.8 billion in construction and the concession of over 10,000 km of rail lines. The objective is to balance the Brazilian matrix of transport, providing a competitive environment in rail transport, reducing the costs and avoiding logistics waste of around US\$ 100 billion per year. For this reason, the Government has created a mixed model for operation of the current railroads (vertical) and the future ones (horizontal). The plan represents the largest effort of expansion of the national railway network already done by Brazil. The objective of the Government is to reduce the Brazilian logistics cost by 30% and increase the competitiveness.

LOGISTIC COST In 1000 TRU (Ton per Km)

- Waterway: US\$ 12
- Railway: US\$ 18
- Highway: US\$ 45

CURRENT MATRIX

- Waterway: 17%
- Railway: 25%
- Highway: 58%

LOGISTICAL COSTS COMPARED

- World average: 10x
- Brazilian average: 15x
- 5% of the GDP represents a waste of US\$ 100 billion per year
- The Brazilian target is to reduce the logistic cost by 30%

VERTICAL MODEL

- The concessionaire provides the transport services
- The concessionaire is also the infrastructure manager

HORIZONTAL MODEL

- Separates the operator of trains of the manager of infrastructure
- Creates the figure of the Independent Railway Operator (OFI) They are:
 - Current operators of infrastructure of the former Federal Railway
 - New railway operators independent
 - Owners of cargo
- Creates de figure of the Manager of Railway Infrastructure - This manager will be responsible for building, maintaining, and administering the railroad (not being able to transport cargo)

OFI

- Purchase flow capacity of the Brazilian Railway Company (EBF)
- Buy cars and locomotives
- Operate the compositions
- Commercializes the transport service

GIF

- Dispute the concessions of new railroads
- Builds and maintains the permanent way
- Manages the Operations Center
- Sells the capacity of the track for the EBF

BRAZILIAN RAILWAY COMPANY (EBF)

- Purchase 100% of the capacity of the manager (GIF) with 15% in advance
- Sells the capacity to the Independent Operators
- Should guarantee the track rights to the OFIs in all railroads (horizontal and vertical)

FINANCING CONDITION

- Interest: T.JLP + 1,0%
- Shortage: up to 5 years
- Amortization: up to 25 years
- Leverage: 65% up to 65%

CONCESSIONAIRE'S REMUNERATION

- The concessionaire will have two rates, one called Tariff for the Operational Capacity Availability and the other called Entitlement Tariff

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Source: ANTT with the collaboration of EDP.

EDP é associada à ADTrem



State Government and private companies became interested on creating a whole network. Indeed, EDLP (UIC Member) and BTG Pactual have launched unsolicited proposal to structure a PPP model for a rail network covering, firstly, the Macrometropolis. A link among these cities, with only a few stops, will be created in the railway network: Santos, Mauá, São Caetano, Santo André, Jundiaí, Campinas, Americana, São Jose dos Campos, Taubaté, Pindamonhangaba, Sorocaba and São Paulo. The central station will probably be in a neighbourhood called Água Branca, but certainly in São Paulo (city). The average speed is 120 km/h, with a maximum of 180 km/h. The whole network will be 430 km in length.

TAV PROJECT

The High Speed Train (TAV) is a high speed passenger rail service that will connect the cities of Rio de Janeiro, Sao Paulo and Campinas. The TAV project represents a new technological milestone for Brazil, comprising a new transportation alternative that will offer passengers a comfortable, safe, fast, reliable and high quality trip.

The project, which has estimated investments

worth over US\$ 17.8 billion, will reduce the pressure imposed by the growing passengers flow on congested highways and airports located over the Rio de Janeiro - Sao Paulo axis.

Currently, there is no corridor in the world more suitable for a high speed train than Rio de Janeiro and São Paulo. Indeed, if we take the population (20 million in São Paulo and 12 million in Rio), the distance between them (450 km), and the current air shuttle (around 6 million passengers/year), that shows an incredible potential. The extension to Campinas is important to begin to reach the countryside of São Paulo, a very rich and populous area.

Nevertheless, implementing a high speed line has always been a very complex process, as it involves very high implementation costs, interaction with several cities and communities and very complex engineering solutions. The Brazilian government decided to postpone the auction of the High Speed Train at least until 2014, but is still convinced of the importance of this project that is the most important structural and transformation project in Brazil after the construction of Brasilia.

Published by: UIC Communications Department

- Director of Publication: Jean-Pierre Loubinoux, UIC Director-General
- Prepared by: Inaki Barron, UIC Coordinator for the Latin America Region, with the contribution of EDLP
- Publisher: Marie Plaud, UIC Communications Department
- English version: Helen Slaney
- Design: Marc Desmoulin/La Belle Equipe
- Photographs: Dreamstime - Corbis- UIC - DR
- Printer: Acinnov

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ISBN: 978-2-7461-2229-1



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