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## **The New Swiss Transalpine Rail Axis A Contribution to the European Integration ?**

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*The European railways have woken up and are preparing the conquest of the parts of freight and passenger traffic which they detained earlier. Thanks to the progress of railway technology, it is now possible to build high performance networks which improve the position of railways in the intermodal competition. In the same time, the position of road traffic will deteriorate for several reasons. Switzerland is ready to build a high performance transalpine railway line which will permit to carry transalpine freight traffic in an ecological way and to connect through the Alps the high performance lines situated in the plains of northwestern Europe and Italy. In my opinion, this construction will provide an important contribution not only for the integration of European railway networks, but also for the European integration itself.*

### **Pioneer performances in the past**

In the course of its history, Switzerland has always taken advantage of its central geographical position. But due to the difficult topographical conditions, our country had to fulfill great tasks, because a favourable situation does not automatically guarantee anything as far as the traffic flows are concerned. This applies particularly to Switzerland, an Alpine country. It has always been necessary to implement traffic infrastructures across and through the Alps in order to enable the means of transport to reach the speeds attainable in the plains. As a result, our country was not isolated and it remained connected to the rest of Europe thanks to the link established through the Alps. With the development of high speed railway technology we are compelled to face once again outstanding challenges. As transport minister of Switzerland, I am happy to take advantage of the numerous pioneer performances which occurred in our transport history. Without being accused of chauvinism, I can therefore mention with pride the improvement of the pass roads, the railway tunnel at the Gothard and the Gothard highway.

### **The triumph march of the automobile and the losers**

As its name appropriately indicates, the automobile is not only mobile, it is also autonomous. If the road network is large enough, the automobile offers the greatest flexibility in traffic. After the Second World War, big national roads and highways were built everywhere, which integrated the already existing regional and local roads with vast ramifications: global high performance networks were created. This paved the way for the triumph of the automobile. The progress achieved in the automobile technology and the improvement of the standard of living helped to establish definitely this triumph.

On the side of the losers, we find the environment in the first place. Even a strict environmental legislation did not hinder the growth of the pollution resulting from road traffic. These problems are well known, but we find nevertheless the railway on the losers' side; it is precisely the means of transport which could carry traffic in a more ecological way. During the period following World War II, European railways transported the greatest part of the passenger and freight traffic, today they carry only a fraction of this former part. Maritime and inland navigation have lost market parts, but not in the same measure as the railways. This evolution, which damages the environment, is due to many reasons, which can be reduced to one common denominator:

#### **Insufficient competitiveness of the railways**

During a long time, no noticeable progress was realized in the railway technology. Furthermore, the extension of the railway networks took only place on a small scale or too slowly. Some lines were improved and could therefore be used by more rapid trains. However, the local, regional and national railway lines could not be integrated into national and international networks, because beside other obstacles there were some technical incompatibilities. As a result, the railways could not benefit from their network potentiality and flexibility, possible in theory, and could not compete successfully against road traffic. Furthermore, as the latter was not compelled to cover its external costs, it enjoyed an unjustified advantage. As a compensation, rail traffic was subsidized almost everywhere. This unfortunately led to a paradoxical situation: nowadays, both means of transport are too cheap.

#### **Renaissance of the railway**

As astonishing as this may seem, the rebirth of the European railways is due, in my opinion, to the political errors committed until now in the traffic policy. Road traffic is bound to collapse, as it grows continually on the main axes. It is more and more obstructed and loses therefore its competitiveness with regard to the railways. On the other hand, the need to protect the environment leads to the promotion of rail traffic. Furthermore, the railway technology has progressed a long way in the last years. In addition, the combined traffic road/railway in the freight sector offers a new quality by combining the almost unlimited flexibility of surface road traffic with the high mass transport potential of the long distance railway.

Like the triumph of the automobile, the renaissance of the railway is based on the extension of an efficient infrastructure. From the success story of the automobile, I infer the following requirements: the road and the rail systems are to be developed on the international level in order to constitute high performance networks.

#### **European high speed networks**

The strenuous success of the French South-East high speed train (TGV) can easily be compared with the triumph march of the automobile. It has clearly shown that such high

performance trains can compete not only with the automobile but also with the airplane. It has also proved the profitability of these trains. In accordance with this positive experience, new high speed trains have been put on the rails, particularly in France, but also in Germany, Italy and other European countries. However, up to now, the companies were mainly restricted to the operation of point-to-point services. Therefore it remains a huge potential of enhancement, which ought to be exploited; this potential results from the constitution of networks, which is necessary for an optimal concentration of traffic. Our neighbouring countries, i.e. France, Germany and Italy have already taken this step and are about to develop their railway networks according to their national plans for traffic infrastructures. The next and last step will be to integrate the national high speed networks into a European network. This measure is also realized rapidly in the territory of the European Community (EC).

People do not know well enough that freight traffic can also be carried with high performance trains and that freight lines can profitably be integrated into a global system. This lack of perspective is due to the fact that the matter is more complicated in the freight sector. A part of this traffic runs on the same lines as the passenger traffic, another part is carried on its own lines. This complicates the optimization of the networks. Furthermore, the greatest potentialities of the railways lie in combined traffic. As a result, the planning of high performance networks in freight traffic must also take into account the planning of road infrastructures, in order to find the best locations for the terminals (interface points between the two means of transport). Despite these difficulties, the steps to be taken do not basically differ from the ones concerning passenger traffic. They will also be taken on the national and international level, perhaps at a more moderate pace.

#### **A Swiss high speed network?**

High speed lines are only appropriate if they are not cut by too many stops. Railway users, passengers and consignors attach a lot of importance to the effective transport duration, not to the top speed of the means of transport. In a small country like Switzerland, the development of a high speed network should be limited to a few traffic connections, which would not, however, respond to our dense urbanization structure. This does not mean at all that we could not set up a national network with great capacity. With Railway 2000, we are realizing a national basic interval time-table project which, in accordance with the population density and the short distances, is based on the model of an optimized agglomeration traffic (Switzerland as a conurbation). It is therefore a project for inland passenger traffic. Our country has to be covered with junction points from where a passenger train or a bus will leave every hour in the direction of all other junction points, in order to reach them in less than one hour. On the more important connections, the travel duration and the intervals between the trains will be shortened. We already possess one of the densest railway networks in the world. Parts of it will be developed and completed with a few new lines in order to reach the necessary speeds. Constructions will be completed out by the year 2000.

If the neighbouring countries improve again their technology, Switzerland could be set aside once more and this could not be prevented by "Railway 2000" alone. This latter project will concentrate the big Swiss traffic potential on the international high speed lines. The traffic can thus be led to these lines through a small number of connections in Geneva (connection for the TGV Geneva - Mâcon) and Basle (Connections for the TGV Rhin - Rhône and the German Intercity-Express ICE lines to Cologne and Hambourg).

### **Problem of freight transit**

At present, 60 million passengers and 70 million tons of freight are transported every year between Ventimiglia and Tarvisio through a few transalpine axes prescribed by the topography. We expect that until 2020 the number of passenger trips will exceed 100 million and that freight traffic will reach 140 million tons. 50 percent of passenger transit and 20 percent of freight transit flow at present through Swiss alpine passages. In Switzerland, as everywhere, passenger traffic is mainly dominated by the road. In comparison with the rail transit part for freight traffic through France and Austria (20 %), the corresponding part of the railways is very high in Switzerland (80 %). This special situation results mainly from our regulations. The global weight of road trains is limited to 28 tons and these vehicles cannot circulate during the night and on Sundays. These restrictions have prevented an even bigger avalanche of road transit, but they have also led the lorries to cross the Alps through Austria and France, putting a heavy strain on the transit routes of these countries. For this reason, we had to face the protest of the EC which accused us of a lack of solidarity: our transport policy would impede the European integration and create pollution in the neighbouring countries. But the Swiss population has adamantly maintained its will to conserve our national regulations and the permanent demand of the EC concerning the right to cross our country with 40 ton lorries could absolutely not be accepted.

As minister of a democratic country, I cannot meet the requirements of foreign governments against the will of our population. My refusal stands even if these wishes are appropriately motivated and if the EC threatens us with severe sanctions. If I decided to give way, my days as Federal Councillor would be counted. On the other hand, I would immediately give up my job if the adaptation of our traffic regulations were only justified by political reasons. This is by no means the case: there are many practical reasons which speak against the adaptation. Our road transit axes are already saturated, so that they could absolutely not absorb the new traffic which would derive from the suppression of our weight limit. Chaos could only be avoided by the construction of new motorways and by the development of the existing ones. From an ecological point of view, this is totally impossible. The population living along the Gothard motorway could not bear any new road. As we know, the limit values of the ordinance concerning air protection are frequently exceeded.

In the context of the development of European railways, which is linked with the risk of our country being isolated, and with national interests colliding with international demands concerning transalpine freight traffic, we are now able to offer a solution which is related to our former pioneer performances and which can get us out of the dilemma; we are willing to build a new transalpine rail axis (NTRA).

### **The NTRA as a link**

Although Parliament approved the NTRA project on the 4th October 1991, our people will have to vote on it on the 27th September 1992. With costs exceeding 14 billion Swiss francs (prices of 1991), this project has huge dimensions; beside the road network, it is the most expensive infrastructure that our country has ever built. Construction will take place in two phases: until 2000/2005, a tunnel of 30 km will be bored at the basis of the Loetschberg. an even longer basis tunnel, at the Gothard, will be finished by the year 2010/15. Its length will cover 50 km. The whole project includes other smaller tunnels for the access to the north and to the south, as well as for the continuation of the basis lines in the south. However it is wrong to consider that at the end of the constructions, Switzerland would look like an Emmental cheese.

The NTRA will comply with the requirements of the European high speed lines. It will connect these lines through the Alps and contribute to the creation of a European high speed network. The NTRA represents one of the most important direct North - South links in Europe. The transport time from Strasbourg to Milano will be cut from seven to four hours. With a duration of two hours, the railway trip from Zurich to Milano can constitute a valuable alternative to air travel. Europe and Switzerland will benefit from these travel time reductions. Finally, the NTRA will also connect the peripheral regions like Ticino and Valais to the inland network system of "Railway 2000".

#### **The NTRA also resolves the dilemma in freight transit**

The NTRA will also improve the quality of European freight traffic through the Alps, which was an objective of our negotiations with the EC regarding a transit agreement. For the flow of this traffic, we shall promote the combined traffic rail/road. In order to make it competitive with road traffic, which does not need transshipment, it is absolutely necessary to create new rail infrastructures. We are now investing more than 1,4 billion Swiss francs (prices of 1991) in a provisory solution until the NTRA provides us in the next century with the capacity needed for transporting 70 million tons, of freight through the Alps each year. Our yearly capacity, as foreseen by the temporary solution, will grow from 160'000 to 470'000 consignments for the accompanied and unaccompanied combined traffic. With the capacities for container traffic, the transit corridor will accomodate each year 700'000 consignments in 1994/95. This allows us to serve as a test country for combined traffic. In order to insure the success of this test, it is necessary to undertake further efforts, particularly for the European harmonization of technical norms and competition rules. The declarations of the EC make us very confident in this respect.

On the international level, our proposal with the NTRA and the temporary solution for the transit corridor has created the basis for the conclusion of a transit agreement between our country and the EC. This agreement foresees that the freight traffic of the EC crosses Switzerland by rail, mainly by combined traffic. As the agreement is concentrated on combined traffic, it recognizes our transit policy and gives us the safety we need to realize the planned infrastructure investments. I am therefore very optimistic about the result of the votation on the NTRA.

#### **Conclusion**

From a national point of view, the NTRA represents the backbone of the Swiss integration in the European high performance networks. From an international point of view, it is also one of the most expensive and important lines for the constitution of an integrated European high performance network. Such networks are absolutely necessary if we want to improve the competitive situation of the railways, so that they can again fulfill their mission, i.e. carry the passenger and freight traffic in an economical and ecological way.

As the "Memorandum" advises to finish one's contribution with a question for the reader, I ask a somewhat rhetorical question: Can you share my opinion and understand that with the NTRA, our country gives an important contribution not only for the integration of the European rail networks, but also for the European integration itself?