



Creating and financing a 21st century public transportation system

Washington, D.C. - February 10th 2009

Mr. Ambassador, Mr. Chairman, ladies and gentlemen

- I'd like to thank you in behalf of the Director of our office, Max Friedli, for the kind invitation to come here and speak to you.
- The subject of our meeting is the "Challenge of Sustainable Transportation for the 21th Century"
- in two countries – namely the USA and Switzerland – which lay in different continents,
- are different in size, population, economy and political system.
- But also share some similarities.



Content



1. Introduction

2. Railway infrastructure for the 21st century

3. Passenger Transportation

4. Freight Transportation

5. Financing Swiss Public Transportation System

First I will give you some general information about Switzerland and our transportation system. Then I will talk about 4 aspects of sustainable transportation in Switzerland:

- the modernisation of infrastructure
- passenger transportation
- freight transportation
- and finally the financing of the transportation system.



Switzerland \approx Greater Washington Area



- Inhabitants: 7.5 mio
- Surface: 16'000 square miles



- Inhabitants: 6.1 mio
- Surface: 6000 square miles

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- Switzerland's population equals more or less the population of the Greater Washington Area.
- The shapes of the two areas are very similar. But the surface of the Greater Washington Area is only about one third of Switzerland.



Switzerland ≈ Greater Washington Area



- Inhabitants: 7.5 mio
- Surface: 16'000 square miles



6.1 mio
6000 square miles

- So this would be a more realistic picture.



Switzerland: 2/3 of surface in the Alps



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- However: two third of Switzerland are covered by the mountains of the Alps - and only faintly populated.



Swiss Public Transportation System



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- The Alps offer spectacular touristic destinations
- very often you can reach them by trains
- for instance the highest-altitude railway station of Europe (Top of Europe = Jungfrauoch at 3454 metres above sea level = 11'333 feet)
- or the foot of the Matterhorn Mountain at Zermatt
- or simply go to St. Moritz by the slowest fast train of the world: the glacier express.
- But enough of tourism promotion!



Interconnected Public Transportation



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The Swiss Transportation System is interconnected. Public busses bring you to and get you from every train station. The point is: you only have to wait a few minutes to carry on your journey.

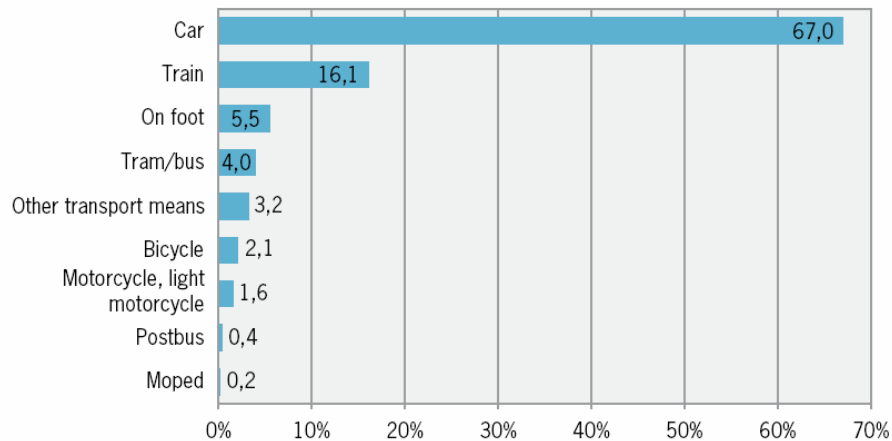
There exists a very fine net of public transportation. On average every inhabitant of Switzerland has less than a quarter mile to walk to the next bus stop or train station.



Modal split

Transport means choice

(Proportion of average daily distance, 2005)



Average daily distance per person in Switzerland: 37.3 km

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In Switzerland in addition to

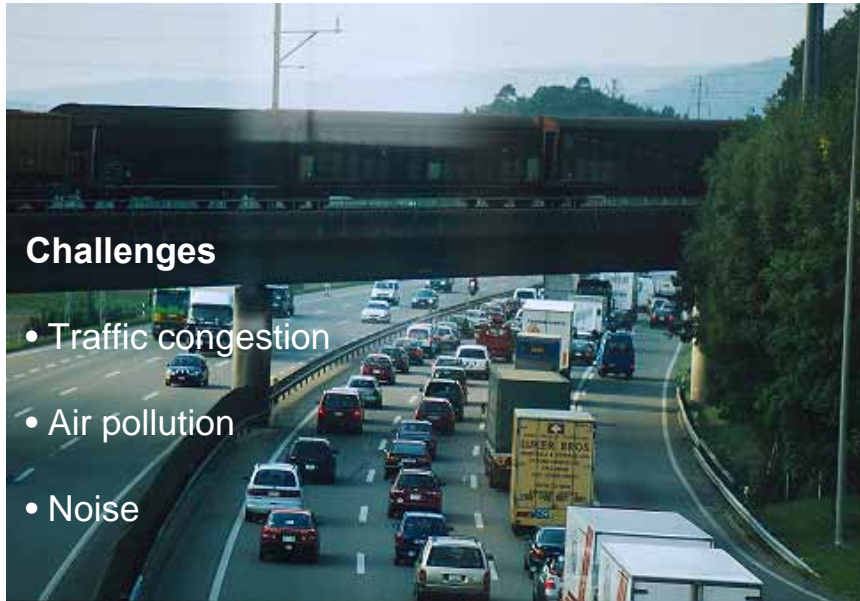
- 265 train lines
- over 900 bus lines
- 19 ropeways,
- 14 funicular railways
- and 7 boat lines are active in public transportation - commissioned jointly by the Confederation and the cantons.

However: Switzerland is a wealthy country. Every person owns in average half a car (comparison: 1.023 car per person in the USA).

This explains why in Switzerland still 2/3 of the daily distance are made by car – about 20% by public transportation, with a growing tendency (comparison: 91% and 2% in USA).



Bottlenecks on roads



Challenges

- Traffic congestion
- Air pollution
- Noise

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Let's now focus on the densely populated third of our country.

The main question in urban areas is how to cope with the continuously increasing traffic.

((Forecasts show an increase of more than 20% of passenger transport on road and rail for the next 20 years – and over 50% in freight transportation.))

Bottlenecks are a fact on the road network, and motorways between the main Swiss cities are increasingly congested.

Many cities suffer from congested urban road networks, at least during peak hours. With the consequences of air pollution, noise and lost time.



Swiss transport policy – aims



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The solution lies in good public transport services. This is the political and social consensus.

According to the decisions of the Swiss government the transportation needs have to be met in a sustainable way.

Sustainable with respect to three aims:

- Ecological: preferring rail vs road
- Economical: public transportation as well as roads have to be affordable
- Social: meaning: equality between regions and mobility for everybody.



Part 2: Infrastructure

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This means: we need new rail infrastructure.

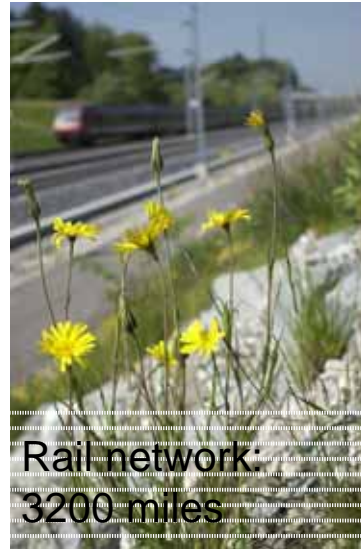
Which by the way is helping in these times to keep construction and high-tech companies alive as well as people at work. Switzerland invests this year almost two billion dollars in new railway infrastructure.

Just a remark to the picture on the slide: this locomotive was not burning. It was the opening train of a new tunnel – with smoke effects.



Road and rail

Road network:
44'000 miles



Rail network:
3200 miles

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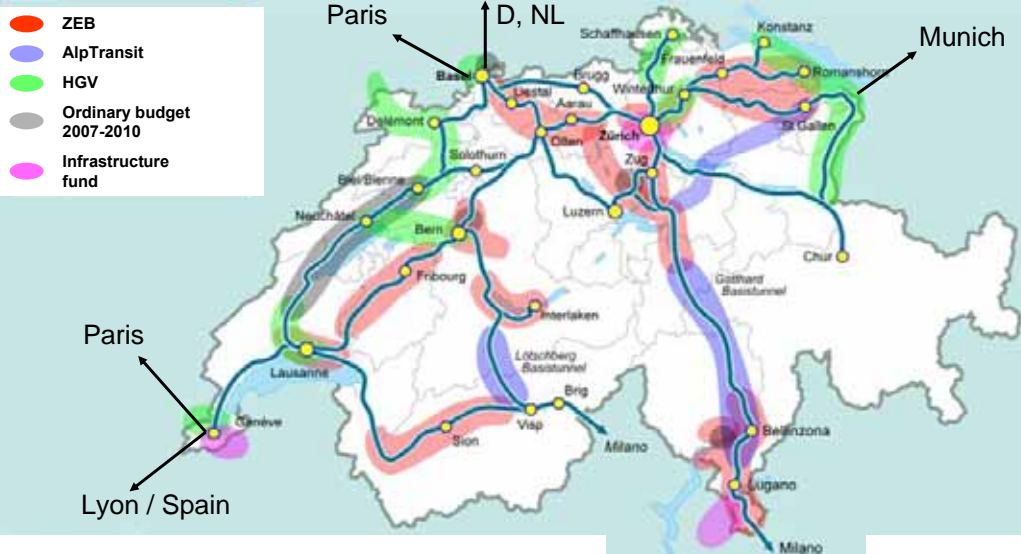
These investments are improving an already dense road and rail network.

The existing road network is about 44'000 miles long. A further substantial increase of road infrastructure is not feasible, due to the geography of the country and costs.

On the other hand the railway network is about 3200 miles long. For about 100 years it did not grow. But in 1987 people voted for new railway lines as well as the public funds for it. This was the starting signal for a railway revival.



More transport infrastructure needed



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The program of rail modernisation foresees the investment of almost 30 billion US \$. On this slide, you see the planned investments in rail infrastructure for the next years. They will be realized all over the country.

The next step is already planned and will cost again between 10 and 20 billion \$. Those further investments are planned between 2015 and 2040. Parliament will decide on it in the next years.

However because trains need not to run as fast as possible but as fast as reasonable Switzerland constructs only 3 highspeed lines.

The first one – east-west – was opened in December 2004. Since then the number of passengers between the main cities (Berne = Capital, Zurich = biggest city) has grown about one third.

The two other lines consist of tunnels under the Alps.



Lötschberg base tunnel



- Beginning of construction: 2000
- Opening: December 9th 2007
- Reliability of tunnel infrastructure > 99,8%
- Increase of passengers >30%
- costs: ~ 4 billion \$

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Lötschberg base tunnel:

Opening: December 2007 → passenger increase: immediately 30%!

Tunnel length: 34.6 km (21.5 miles) → this makes it the third longest tunnel of the world (after the Seikan tunnel in Japan and the Eurotunnel between France and England).

Max. speed for passenger trains: 250 km/h

Costs of the Lötschberg base tunnel:
approx. CHF 4.3 bn / about 4 billion \$.



Gotthard base tunnel



- 57 km (35 miles) → longest tunnel of the world
- V Max.
 - passenger trains: 250 km/h (155 mph)
 - freight trains: 160 km/h (100 mph)
- maximum overlay > 2'300 m
- costs: ~ 10 billions \$
- opening: December 2017

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The Gotthard base tunnel will be with 35 miles the longest tunnel of the world.

The mountain overlay is more than 7500 feet.

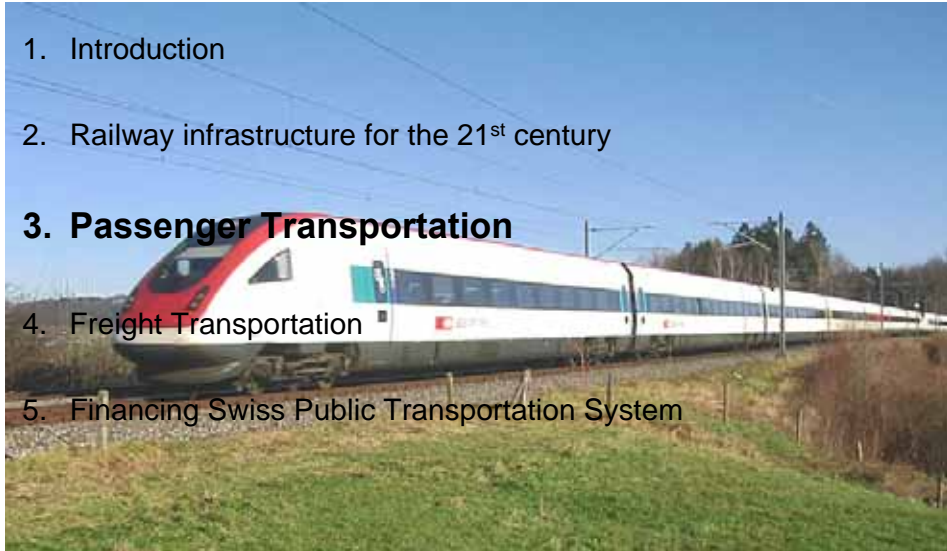
It will open in 2017 and the costs are estimated at about 10 billion dollars.

Already 80% of the tunnel is at this time excavated.



Part 3: Passengers

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On the new infrastructure modern passenger trains are or will be running – on some lines with speed of 125 mph and only two minutes space between one train and the following.



Miles by train / citizen in 2007

- Switzerland: 1307 miles
- Japan: 1228 miles
- France: 839 miles
- Germany: 564 miles
- UK: 321 miles
- USA: 87 miles



Swiss citizens love their railways! Not only they voted several times in favour of rail projects.

They also use them. Over 50 % of Swiss citizens are frequent users of public transport means.

This makes us world champions in train journeys. Only the Japanese are close to the Swiss.

There are two main reasons for this support for public transport.

- The good service is one factor.
- The attractive ticketing system another. 1 out of 3 Swiss citizens use a half-price pass - and 1 out of 25 has a general-pass which offers use of the whole public transport network, including buses.



Part 4: Freight

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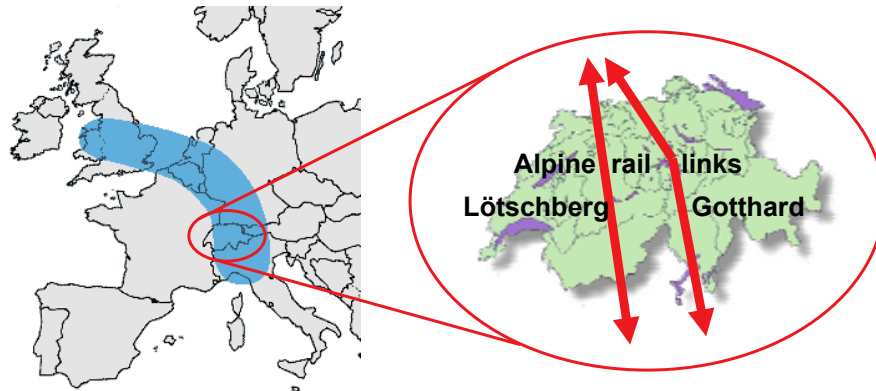
Now to the freight transportation on rail: In this field Switzerland is european champion. And comparable to the USA.

The rail share of freight transport is 40% - about five times higher than the european average and close to the modal share of the railway in the USA.

After a market opening ten years ago now 12 cargo railway companys compete for freight transportation in and through Switzerland.



Connecting Europe



- The „blue“ Banana
- 150 Mio. people

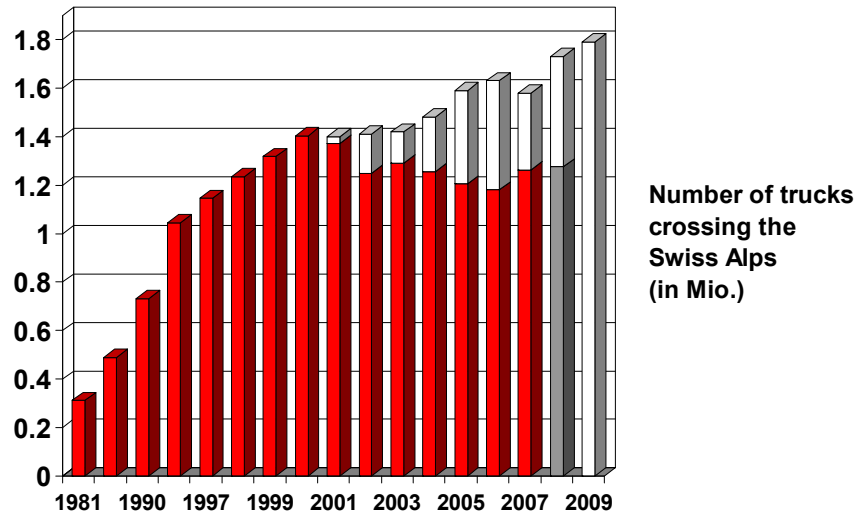
This is an attractive market, because Switzerland is in the heart of Europe.

It is part of the so called “blue banana” which links the strong economic regions in Europe from the UK over the Benelux countries and Germany to Northern Italy.

In order to enhance transit links within the blue banana, Switzerland is currently constructing the two new rail links through the Alps I already mentioned before.



Results of the Swiss transport policy



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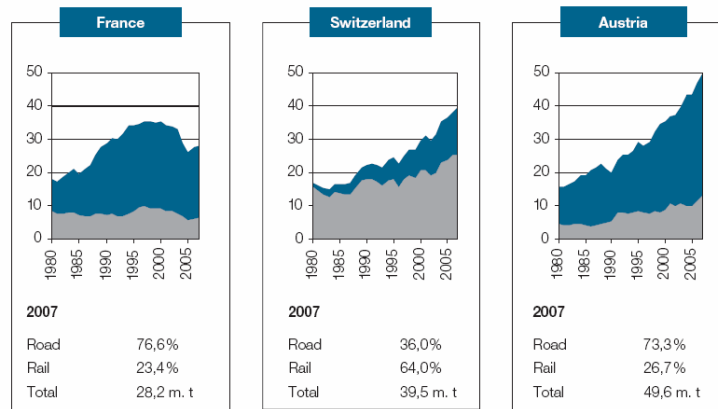
The huge growth of transalpine truck journeys in the 80ies and 90ies had nuisible consequences fort the nature and peopla along transit corridors. So in 1994 voters changed the Swiss Constitution, demanding protection of the Alps from the negative effects of through traffic by road.

The policy of transfer from road to rail started at the beginning of this century. Since then, the trend of increasing number of lorries could be broken and the number has – until 2007 - slowly decreased.

According to studies, the number of trucks would have continued to grow without our traffic policy. This is shown by the white columns. Without an active policy of transfer from road to rail there would be each year about half a million additional trucks passing the Alps.



Alpcrossing freight traffic



Alpine bow delimited by Mont Cenis/Fréjus and the Brenner, million tonnes/year

■ Road
■ Rail incl. intermodal rail/road traffic

Because of this active policy the situation of Switzerland is clearly better than that of our neighbouring countries.

2/3 of the freight through the Alps are transported on rail in Switzerland – only about a fourth in France and Austria.

But the goal is to cut the trucks to half: from 1.3 millionen trucks passing the Alps in the year 2000 to 650.000. This goal has to be reached in 2019.



Part 5: it's all about money...!

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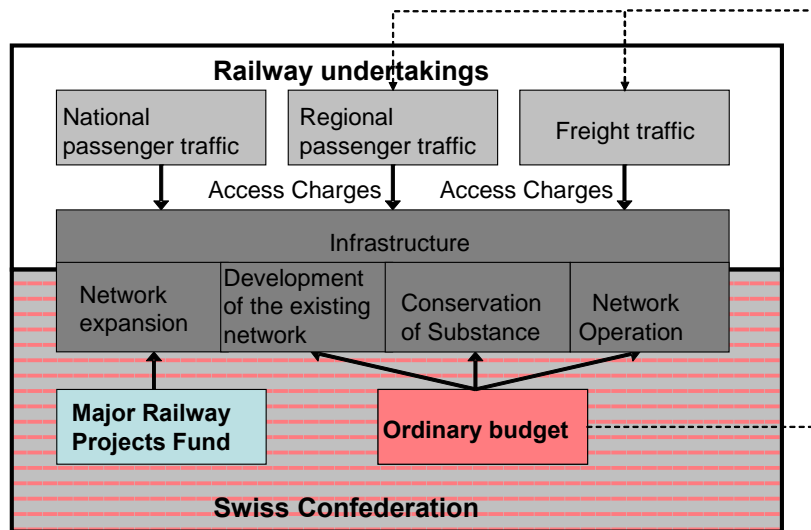


These duties – infrastructure modernisation, a good public service for passengers and transfer of goods to rail – have to be supported by the state.

10.2% of the state budget goes to transport. This is the fourth largest area of expenditure for the federal government – about 60% of it going into public transportation.



Swiss system of financing rail infrastructure

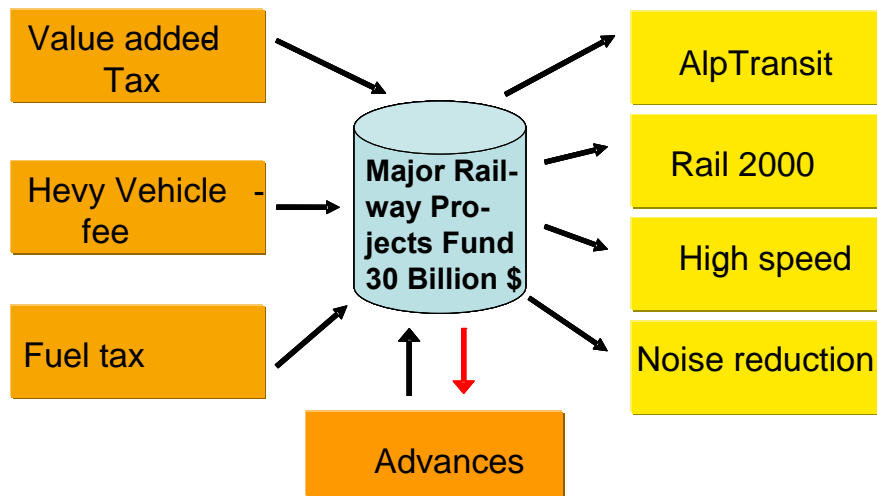


Don't be afraid! I will not explain to you in detail how the financing system for public transportation is working. This slide should only show you the complexity of the system.

I will concentrate on one element: the fund for major railway projects (here in blue).



How does the Railway Projects Fund work?



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But I can't spare you this, because it is a Swiss speciality:

In 1998 the Swiss voters accepted together four big railway projects. And together with it a fund to finance them.

This fund is alimeted by several sources, mainly through the Swiss Heavy Vehicles Fee which is a toll on all Swiss roads for all vehicles above 3.5 tons.

A small part of the fuel taxes is also dedicated to this fund, as well as 0.1% of the VAT (Value added Tax).

In this way the road traffic – mainly truck traffic – is co-financing new railway infrastructure. This is the result of the political will of Swiss voters. It is also logical because road users benefit of modern railway lines (because of fewer congestions). And it helps to internalize external costs – a topic that Franziska Borer Blindenbacher will adress soon at this workshop.



Revival of Railway



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Some weeks ago we saw this picture of President Obama and vice president Biden taking the train to inauguration. Is this a sign for a revival of the railway system in the USA?

Maybe we will get an answer in the following of this workshop.



Ein Bundesrat im Pendlerstress Hamster stahl Leuenberger den Platz

ALLTAG Hamster in der ersten Klasse, Politiker, die mit indiskreten Fragen nerven. Krach im Ruhewagen: Wer per Zug unterwegs ist, hat eine Menge zu erzählen – zum Beispiel der Berufspendler Moritz Leuenberger (60).

VON CHRISTIAN DORER UND BEAT JOST

Verkehrsminister Moritz Leuenberger ist täglich mit den SBB zwischen Zürich und Bern unterwegs.

Neulich im überfüllten Intercity zwischen Zürich und Bern. Ein Goldhamster thront frech in seinem Käfig auf einem Erste-Klasse-Fauteuil. Frauen im Fauteuil gegenüber macht keine Anstalten, den Sitz für Herrn

Leuenberger zu räumen. Sie wundert sich zunächst, dass ihr ein Herr mit Schirm im Weg steht. «Nach fünfminütigen Verhandlungen war der Hamsterkäfig dann auf dem Boden und ich auf dem Sitz», erzählt Leuenberger weiter. Happy End? Weit gefehlt! Kaum hat er's

Staatstheater ausgedauert», so Leuenberger später. Genau zu jenem Delikt wollte ihn ein Nationalrat anstiften, der sich zu ihm setzte. Leuenberger: «Der fing an zu fragen: Wie war dies und wie war



«dass jedes Geräusch stört.»
Es gebe Leute, die ihre

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Let me close with this picture. In Switzerland – much smaller as the USA – we are use to see government members as train commuters. Our transportation minister is taking the train on a daily base.

Once he even had to fight for a seat against a hamster, as tells this newspaper story.

Thank you for your attention!