

# **Alpine Crossing Exchange**

A market economy tool to shift goods from road to rail in the alpine region

Toni Aschwanden, Alpine-Initiative (Switzerland) Alpweek 2008, 13<sup>th</sup> June 2008

# The Alps – a unique natural landscape











# The Alps – a unique cultural scene











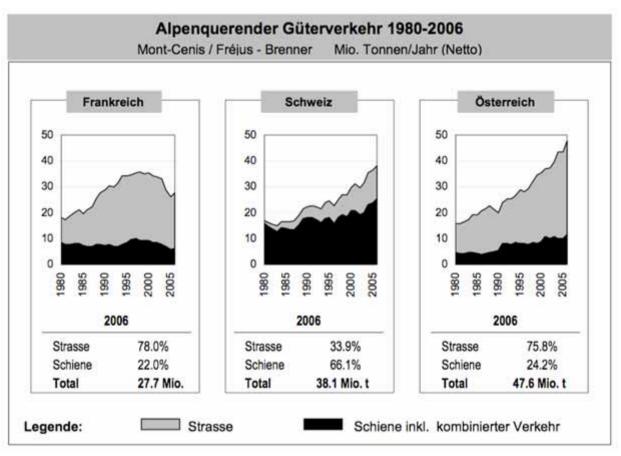
# The Alps – a region of transit





# Development of transalpine freight transport 1980-2006





Attention: Only inner alpine arc (Fréjus au Brenner)

Source: Alpinfo BAV 2007

## Negative effects

Accidents

Fragmentation of Landscape

**Pollution** 

Noise









## Pollution & Noise: Increased negative effects



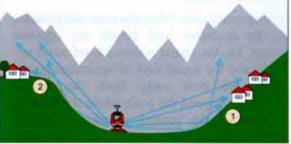
A special situation of air pollution (Flat terrain to Valley: different dispersion concentration 3x higher)

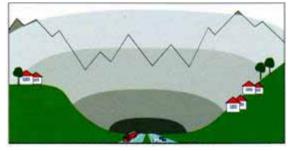
Temperature inversion traps the air pollution (even more important during the night - 1 lorry has the effects of 6 lorries during the day) noise propagation in valleys (Echo effect)











Source: ALPNAP

#### The Alps and Climate Change



- Increase of temperature up to 2-3x higher
- glaciers decreasing
- permafrost melting

CO<sub>2</sub> global problem, but local consequences, therefore act locally:

Road Transport is the "Climate Sinner" Shift goods from road to rail needed





Source: Gesellschaft für ökol. Forschung

#### Alpine Initiative



- Swiss NGO (financed by membership & donations), actively involved in European transport policy (T&E, ITE, Cipra)
- Objective: Protection of the Alps from the negative effects of road freight traffic

FORZA 2009!

NACH PLAN!

GÜTER AUF DIE BAHN-

1994: Adopted of the "Alpine-Initiative" by the Swiss population

and the cantons

Freight Modal shift from road to rail

No new motorways in the Alps

#### Other popular referendums:

1998: HVF

1998: FinÖv

2004: Avanti-No

⇒ Continuous support by Swiss Population for modal shift policy





Constitutional obligation (Art. 84 BV) "Al"
Traffic transfer act
Bilateral Land Transport Agreement

User and polluter pays principle: Swiss HVF More capacity and productivity NRLA

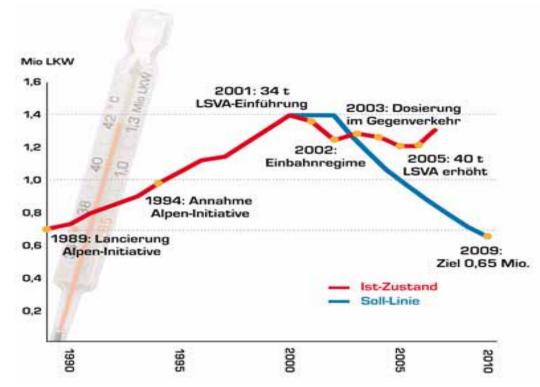
More efficiency and quality:
Railway Reform

Supporting measures: promotion of intermodal transport, reduction of rail infrastructure charges + Check/Controls

Source: Swiss federal office of transport BAV

## Development of lorry traffic through the Swiss Alps 1989-2007: Still well above the goal of 650'000





End of 2001: The Alpine-Initiative proposed the «Alpine Crossing Exchange» as additional tool, now in discussion in CH and Alpine Countries

### **Alpine Crossing Exchange**



Sensitive Alps:
 a limited
 resource,
 limited capacity
=> Limited offer



high
demand of
road
crossing
trips

Offer and demand balanced and regulated by an exchange

## Alpine crossing exchange (2)



- 1. Limitation of the number of transalpine lorry trips
  - Political decision
  - step by step reduction from current levels
- 2. Distribution of passage rights
  - days, passes
  - based on safety, health, pollution
- 3. Auction
- 4. Trade of licences by internet based exchange
- ⇒ Cap and Trade system





#### Basic elements are not new



Capacity limitation exists everywhere, also in the transport sector

**Tradable permits** (here the right to cross the alps by truck) already used elsewhere (emission trading, electricity market)

**Exchange as a trading place** (traffic demand and environment capacity) efficient way of allocation (but clear limits needed)

#### Trading of limited resources



#### Today:

- Capacity of road defines the traffic amount
- Limitation of traffic trough road capacity (i.e. congestion)
- At the edge of the collapse (tunnel accidents, pollution, etc.)

#### With an Alpine Crossing Exchange (ACE):

- Environment Capacity defines the traffic amount
- Limitation trough the number of crossing rights considering environment, health, safety aspects
  - \* Switzerland: in principle 650'000 lorry trips from 2009 (also other country have known limitations)

#### To be used in all Alpine Countries!



F/I: Tolls and/or tunnel charges

+ Alpine Crossing Exchange

A: Tolls + Alpine Crossing Exchange

CH: HVF + Alpine Crossing Exchange

SLO: ..... + Alpine Crossing Exchange



- ⇒ No concurrence to Heavy vehicle Fees, but complementary!
- ⇒ Regulatory measure for sensitive region of the Alps
- ⇒ Common demand of concerned regions!

#### **A Win-Win Situation**







## A win for the population

- Better air
- Less noise
- More safety







- Equal competitor
- More equal price in comparison with the road





#### A win for the economy

- It will be possible to plan road transport more reliably. (Delivery On time)
- Major congestion (and their associated costs) will disappear
- Logistics sector gets incentive to invest in the rail sector in the long run (new rolling stock etc.; now uncertainty)



#### A win for the environment



- Better occupied trucks
- Less senseless transport
- More rail
- Sensitive Alps will be protected













#### Alpine Convention:

asking for an increased shift of freight transport to the rail by building the appropriate infrastructure and by **economic incentives** which are not discriminating according to the nationality.



European Environment Agency (2001) However, it is clear that technological measures alone **are not sufficient** to reduce the environmental impact of traffic below critical levels and critical loads in mountainous areas. **Additional packages of measures are needed, including transport demand management**.



Declaration of the transport ministers (A, D, I, F, CH, EU) following their meeting in Zurich (2001 after Gotthard accident)

- speed limits
- Minimal distance between heavy vehicles of 150 meters.
- ⇒ **implicit restriction** of the amount of trucks for safety reason (now with a so called "drip-count system")
- ⇒ These instruments are partially also applied in French-Italian tunnels through the Alps

Austria: Coalition program of the SPÖ/ÖVP (January 2007) "The government wants to prepare a new strategy for true costs in freight traffic. Additionally it's foreseen to work with our neighbours to implement a Alpine Crossing Exchange." (page 66, own translation)

Eurovignette (2006) Integration of external cost (not yet) possible. Mark-ups in sensitive regions (very limited). But subsidiary principle to combat environmental impacts with regulatory charges (art 9 - 1a):

**EUROPEAN** COMMISSION Directorate-General for Energy and Transport



WEIZ

Rene Bürcher Beitung

"This Directive shall not prevent the nondiscriminatory application by Member States of: (a) regulatory charges specifically designed to combat time and place-related traffic congestion; (b) regulatory charges designed to combat environmental impacts (...)

**ATTENTION**: upcoming revision of the directive! (EU Commission proposal in July 2008)

⇒ First drafts are no step forward for the Alps! Support of alpine actors needed!

#### EU zeigt Interesse an Alpentransitbörse

Pionierrolle der Schweiz in Locarno gewürdigt

Die Europäische Union zeigt sich der Idee einer Alpentransitbörse gegenüber nicht mehr abgeneigt, hiess es gestern an einem Verkehrskongress in Locarno. An der dreitägigen Veranstaltung zum 125-Jahr-Jubiläum des Gotthardtunnels wurde das ganze Panorama des alpenquerenden Bahnverkehrs ausgelegt und die Pionierrolle der Schweiz gewürdigt.

bhn. Locarno, 19. Oktober
Die Europäische Union beginne sich langsam mit der Idee einer Alpentransitbörse anzufreunden, sagte Enrico Grillo Pasquarelli, Direktor der Generaldirektion Energie und Verkehr bei der EU-Kommission, am Freitag in Locarno an der Studientagung «Der Gotthard: Von Favres Tunnel bis zum Alptransit». An der dreitägigen Veranstaltung wurden verschiedene Aspekte des alpenquerenden Verkehrs erörtert.

#### Neue Haltung der EU

Bedingung für eine Versteigerung der Durchfahrtskontingente sei für Brüssel, dass die Schweiz «eine funktionierende Alternative» zur Verfügung stelle. Die EU werde kein ideologisches Veto einlegen, falls die Schweiz dem Güterverkehr auf der Strasse eine quantitative Grenze setzen wolle, sagte Grillo Pasquarelli. Bereits im Mai vergangenen Jahres hatte EU-Verkehrskommissar Jacques Barrot gesagt, dass er sich für die Übergangszeit, bis alle Alpenübergänge fertig gestellt sind, eine Transitbörse vorstellen könne.

Grillo Pasquarelli sagte am Freitag, dass der Umweltschutz für ein so fragiles Gebiet wie die Alpen ein verständliches und wichtiges Argument sei. Noch vor zwei Jahren hatte Grillo Pasquarelli in Sedrum eine Transithörse für den Schwerverkehr als nicht kompatibel mit dem EU-Recht ausgeschlossen. Dessen Prinzip sei der ungehinderte Verkehr. Die Einführung der Börse | ergriffen werden.

machte Grillo Pasquarelli nun von einer funktionierenden Alternative - sprich: der Fertigstellung der Neat - abhängig.

#### Versteigerung von Fahrtrechten

Im vergangenen Juni hatte der Bundesrat bekanntgegeben, die Verlagerung des Güterverkehrs von der Strasse auf die Schiene mit der Schaffung einer Alpentransitbörse vorantreiben zu wollen. Die Ausserungen von Grillo Pasquarelli dürften den Bundesrat nun freuen. Die Schweiz will die Alpentransitbörse ohnehin nur in Abstimmung mit der EU einführen. Mit der Alpentransitbörse soll das Durchfahrtsrecht für den Schwerverkehr auf der Strasse marktwirtschaftlich geregelt werden: Die Gesamtzahl der jährlich zugelassenen Fahrten für jeden Transportbetreiber wird in Form von Alpentransit rechten festgelegt, die ersteigert werden können. Dafür braucht es jedoch wahrscheinlich eine Änderung des bilateralen Abkommens.

#### Wegweisende Politik der Schweiz

Das Engagement der Schweiz als Pionierin im alpenquerenden Verkehr wurde insbesondere von Joachim Fried, dem Konzernbevollmächtigten für europäische Angelegenheiten und Wettbewerb der Deutschen Bahn AG, gewürdigt. «Ohne das Engagement der Schweiz wären die anderen Bahnen in Europa noch nicht auf dem Stand, auf dem sie sich heute befinden», sagte Fried. Auf dem Korridor Rotterdam/Antwerpen-Genua finde heute ein Wettbewerb der grossen Player statt, der ohne die Schweiz so nicht hätte stattfinden können. Der Schienenverkehr müsse sich iedoch einfügen in ein globalisiertes Netz von Transportwegen und -systemen, zu denen auch der Transportwee auf der See und in der Luft echöre.

Er plädierte für eine noch stärkere Vernetzung der Schienentransporteure mit anderen transkontinentalen Systemen. Dazu müssten iedoch auch eine Reihe von Folge- und Begleitmassnahmen





Commission's Transport White Paper (2006) In addition, where an increase in infrastructure capacity is not possible charging can help to optimise traffic. Fees may be modulated to take environmental impact or congestion risks into account, in particular in environmentally sensitive and urban areas. In such areas, other forms of capacity allocation could be used such as market exchanges of transit rights.





Positive Evaluation in two studies commissioned by the Swiss government. ACE is:

"feasible, efficient and effective" (2005) and "practicable" (2007)

(No technical barriers, can be implemented in 18 months)



CH: Part of the governments proposal for a new traffic transfer law: **Now discussed in the Swiss**Parliament.



International level: The transport ministers of the Alpine Countries (and the EU Commission) decided to jointly finance a study regarding the implementation of new systems for the regulation of transalpine road transport. Results End of 2008.

# The "holy cows" of the European transport policy can continue to graze





#### "Non-discrimination"



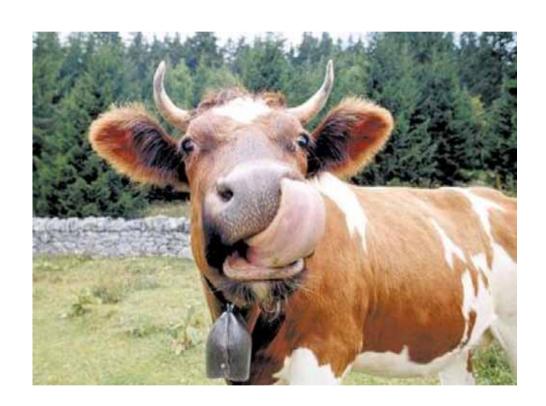


Independently of the nationality, each carrier has access to the exchange and therefore the same condition to acquire a crossing right.

Solution for regional traffic possible (=> Declaration of Zurich)

# "Freedom of choice of means of transport"





Everybody can use the road if he pays the price on the Exchange (demand / supply)

Just same condition for different transport means:

- Airplane: Slot

- Train: Trasse (Train Slot)

- Lorry: Crossing Permit



#### "No limitation of transport"



There is no limitation of traffic capacites if one considers the means of transport in a global manner (Road and Rail) in short term.

There is free rail capacity across the Alps already today

Judgements health vs. Free movement of goods (ECJ)

#### "Limited taxes"





EU: Special measures for sensitive regions are needed and justified!

Switzerland: upper limit of road taxes in bilateral agreement with the EU but ACE is no new tax if the crossing permits are distributed to railway users



# To resume: Alpine Crossing Exchange

- Combines ecological objective with a market-economy tool.
- To reduce heavy goods traffic to level that is acceptable for both people and nature.
- Reinforce transfer from road to rail.
- Traffic management tool for sensitive regions. Not in concurrence to Eurovignette / HVF.

## Thank you for your attention!





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