

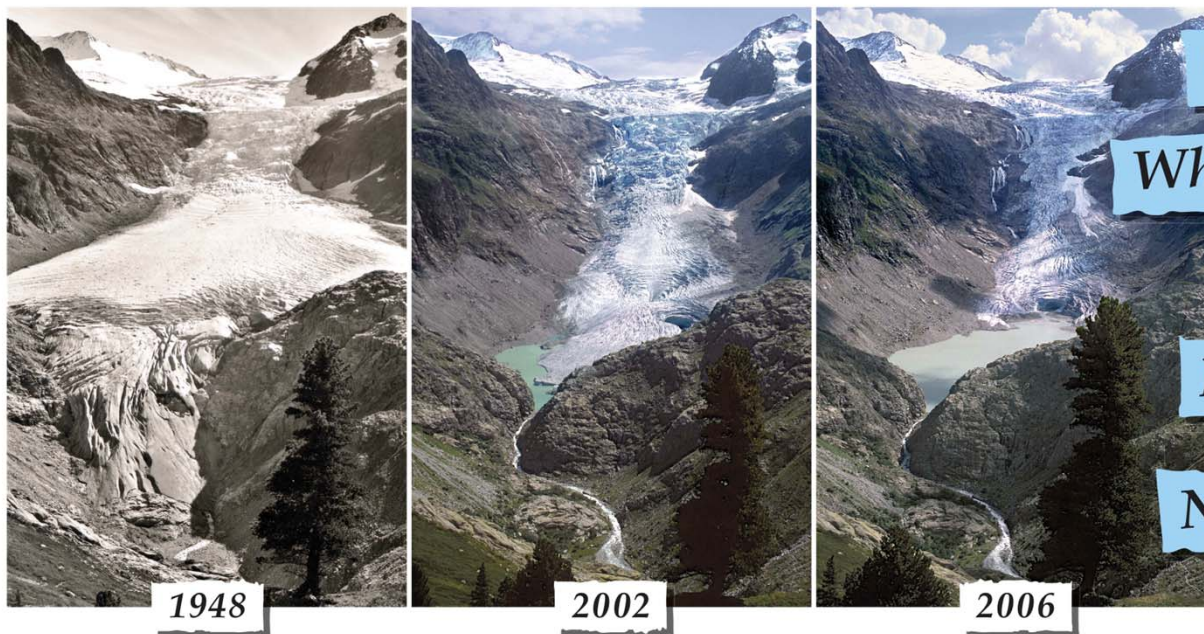


From hardware to software

A new transport policy for the Alps

Input: Toni Aschwanden, Alpine-Initiative, Switzerland
Alpstar Conference, Chambéry, 27th of October 2011

The Alps are heating up



Ça chauffe dans les Alpes!

What's cooking in the Alps?

Es kocht in den Alpen!

Le Alpi son cotte!

Nekaj se kuha v Alpah!

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2050: Snow A.O.C. ?

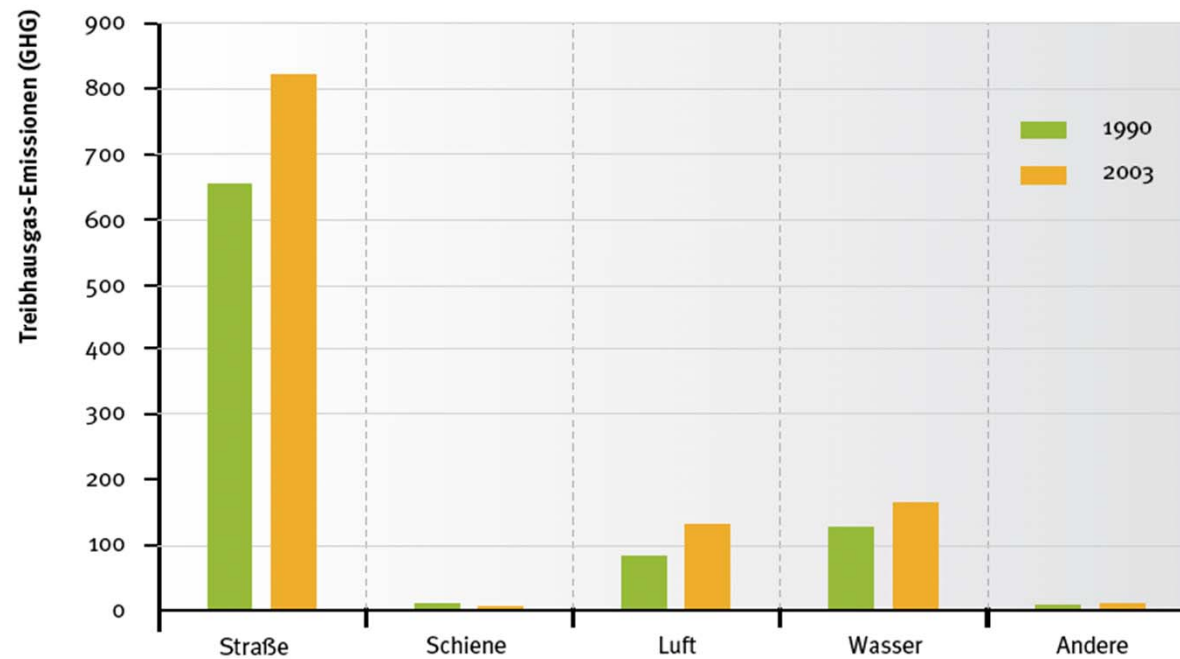


Transport is the bad performer (I)

	Share of traffic in %	Change 1990 to 2005
Germany ¹⁾	27 %	+ 1 %
France	34 %	+ 20 %
Italy	27 %	+ 27 %
Austria ¹⁾	26 %	+ 91 %
Switzerland	29,4 %	+ 8 %
Slovenia	29,6 %	+ 68 %
EU	27,4 %	+ 26 %

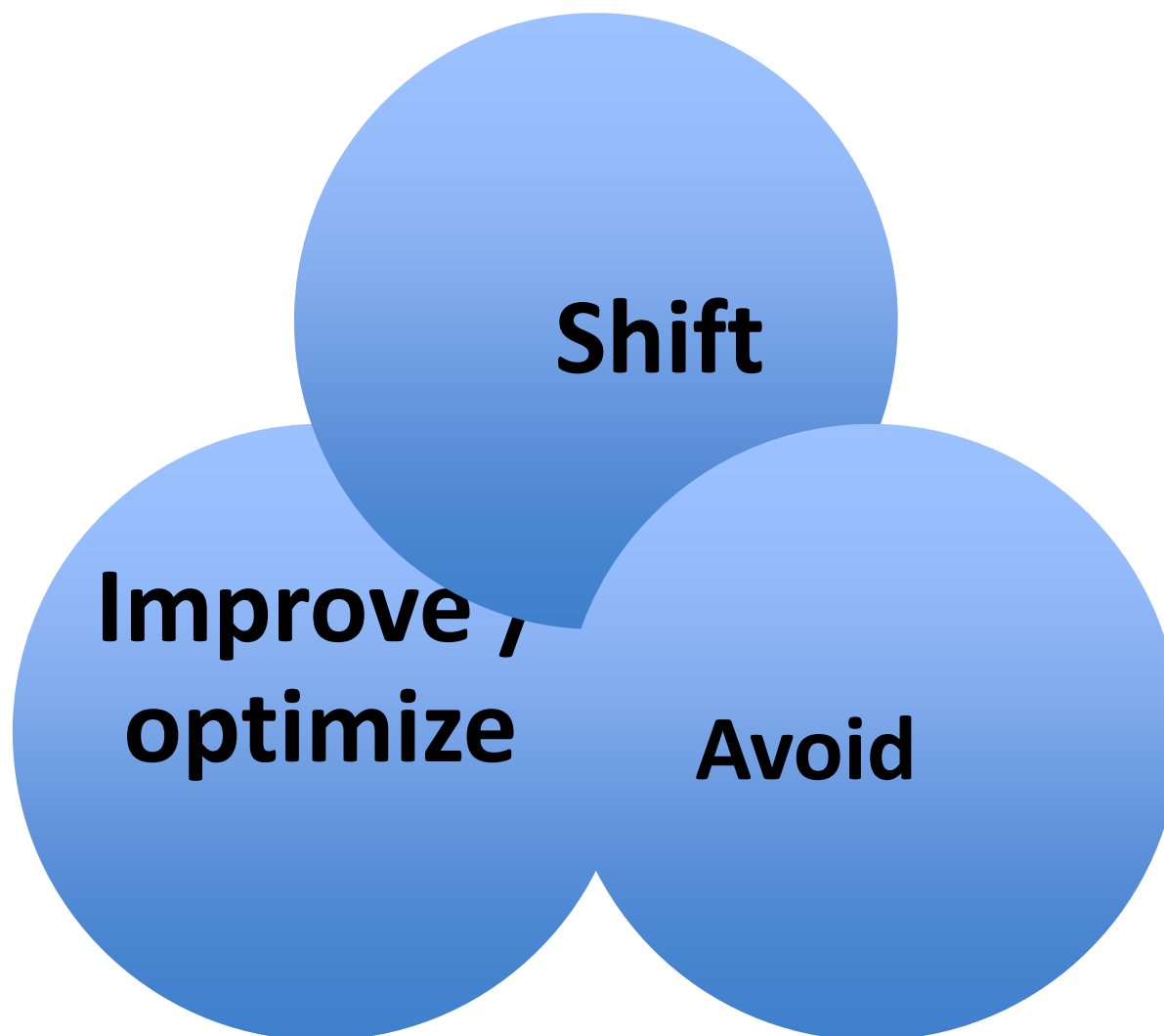
Transport is the bad performer (II)

Abbildung 2: Treibhausgasemissionen im Verkehrssektor



Quelle: Europäische Umweltagentur 2007

Strategies to cut CO₂ emissions



Instruments to cut CO₂ emissions



Planning



Regulation



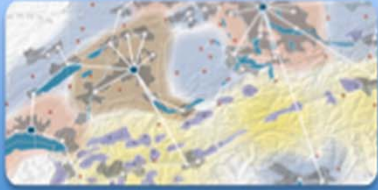
Economic instruments



Information



Technology



Planning

- High density land-use (“avoid”)
- Car free settlements (“avoid”)
- Road freight to rail and water (“shift”)
- Integrated public transport (“shift”)



Regulation

- Parking restrictions (“avoid”)
- Access restrictions (“shift”)
- Vehicle emission / Fuel standards (“improve”)
- Speed limits (“improve”)

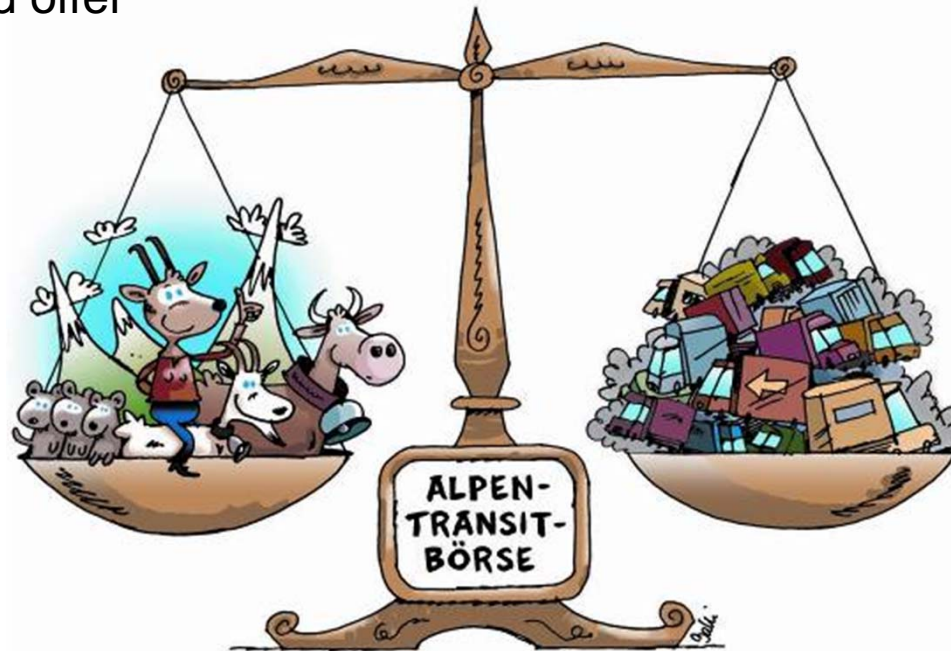


Economic instruments

- Fuel taxes, vehicle taxes (“avoid”)
- Internalization of external costs (“avoid” / “shift” / “improve”)
- Subsidizing alternative modes (“shift”)
- Pricing instruments (“improve”)
- Emission trading / certificate trading (“avoid” / “shift”)

Example:
“Alpine Crossing Exchange” for trucks

sensitive Alps:
a limited resource, limited capacity
⇒ limited offer



high demand of road
crossing trips

offer and demand balanced and regulated by an exchange

Example:
“Alpine Crossing Exchange” for trucks



Planes: Airport slots



Trains : Charges for
 railway paths



Ferry: Tickets

In the future the crossing of the Alps and other sensitive regions should need a crossing right !



Information

- Promotion of alternatives to travel (“avoid”)
- Travel awareness (“shift”)
- Mobility management (“shift”)
- Eco-driving (“improve”)

*Example awareness raising:
practical tool to compare environmental impacts*



➔ **CHOOSE YOUR ROUTE**

From: Zürich |

To: Chambéry

➔ **CHOOSE YOUR TIME**

Date: Th, 27.10.2011




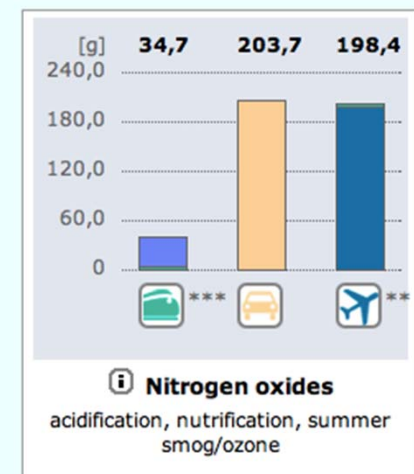
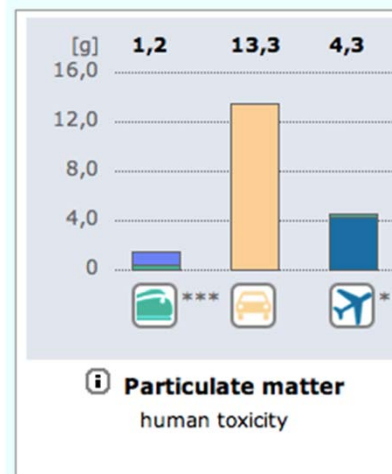
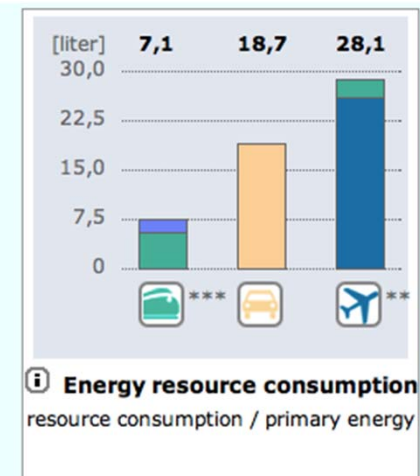
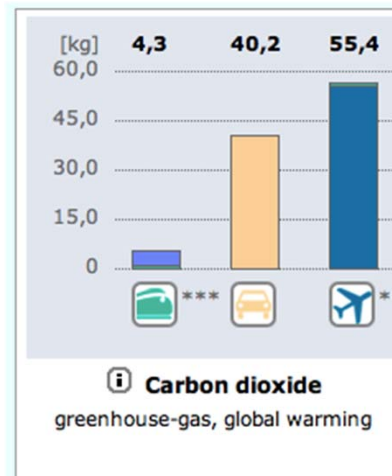
Time: 08:00

Departure

➔ **SEARCH CONNECTION**

➔ New request

 www.ecopassenger.com



*Example awareness raising:
practical tool to compare environmental impacts*



SBB CFF FFS Online timetable.

1	Station/Stop	Date	Time	Platform	Travel with	Occupancy	Comments
	Zürich HB	Th, 27.10.11	dep 05:21	15		1. ↑ 2. ↑	InterCity
	Genève		arr 08:15	3	IC 706		FA R BZ R
	Genève		dep 08:41				RegioExpress VL
	Chambéry-Challes-les-Eaux		arr 10:10		RE 96632		

Duration: 4:49; runs 26. Oct until 10. Dec 2011 daily

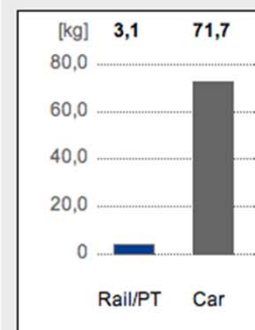
SBB Ecocalculator

By making your planned journey by train you will generate 23 times less CO₂ and consume the equivalent of 26,8 litres less petrol than if you go by car.

CO₂ (Carbon dioxide), Energy consumption and travel time per journey

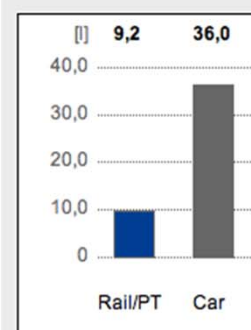
CO₂ (Carbon dioxide)

Greenhouse gas, into kg per person and trip



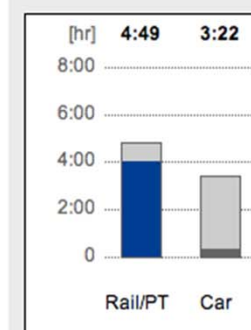
Energy consumption

Primary energy, into converted into litres of petrol per person and trip



Travel time

Total travel time, into hr per person and trip



usable time
Non-usable time

■ Rail / PT average capacity utilisation

■ Car Average car for Switzerland (8.8 l/100km), drive / engine technology: Average, 1.6 persons (Swiss average)

⚙ Change settings



Technology

e-mobility
(„improve“)

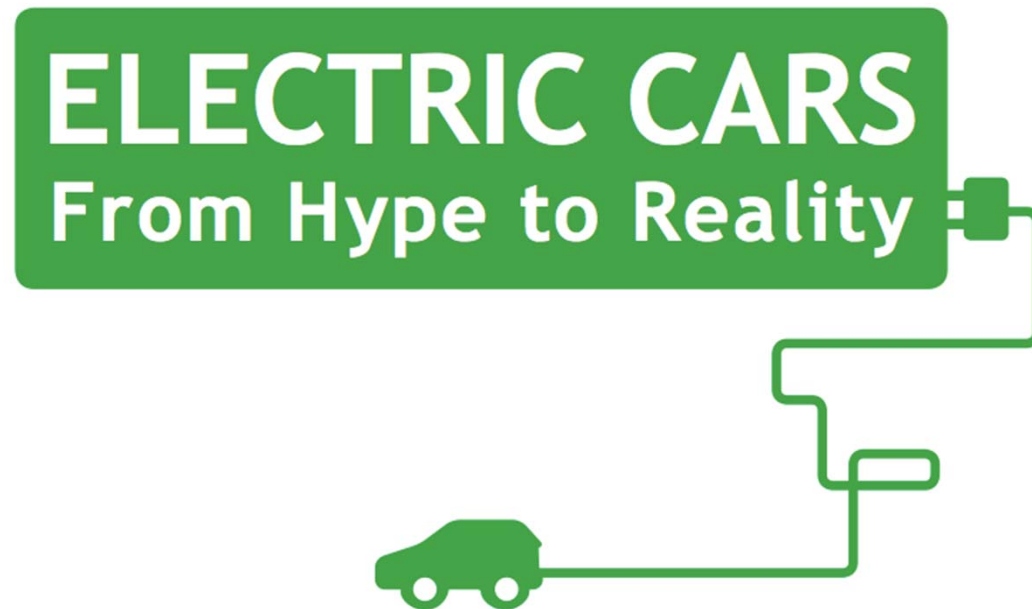
biofuels /
agrofuels
(„improve“)

Newer engines
(„improve“)

home office,
teleconferencing
(“avoid”)

high speed
trains („shift“)

Risks and conflicts: e-mobility



- Origin of the energy source? => renewable from the own region!
- A “zero emission” car / truck still provokes capacity problems (congestion, accidents)

Risks and conflicts: Agrofuels/Biofuels



Risks and conflicts: Megaprojects



underestimated costs
+ overestimated revenue
+ undervalued environmental
impacts
+ overvalued economic
development effects

Smart tools needed

- Not one solution – but policy packages !
- Shift, avoid and improve !
- Is the time of big projects over ?
- Transport networks needed, not only corridors
- smaller & regional solutions: Flexible, cheaper, shorter planning period
- Software and information systems to improve the use of current transport infrastructure

- Existing best practices in the Alps

COMPACT NR 01/2010

TRANSPORT
IN CLIMATE CHANGE

A CIPRA BACKGROUND REPORT

CIPRA Compact



“Alpine Space Program” -
Projects

- Alps are recognized as sensitive region!



Special measures needed
Political will needed
forerunner role / laboratory!

Rethink transport myths



Transport is the Motor
of the Economy

Building Roads is
Always Good!

Road Pricing will Frustrate
Economic Development.

More Cars
mean More Freedom.

We mustn't Try
to Reduce Traffic

Congestion can be solved
by Road Building,

Behaviour change





Thank you for your attention!



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