

SATW

Schweizerische Akademie der Technischen Wissenschaften
Académie suisse des sciences techniques
Accademia svizzera delle scienze tecniche
Swiss Academy of Engineering Sciences

Mobility 2030

Congress and MobilitySalon



Opening: Prof. Dr. René Dändliker, President SATW

SATW Congress, 29–30 August 2008, University of Applied Sciences Yverdon-les-Bains

Energy: Facts and Figures CH

25% Electricity (no fossil)

57% Oil (fossil)

12% Gas (fossil)

6% others

heating: 23% ↓

mobility: 34% ↑

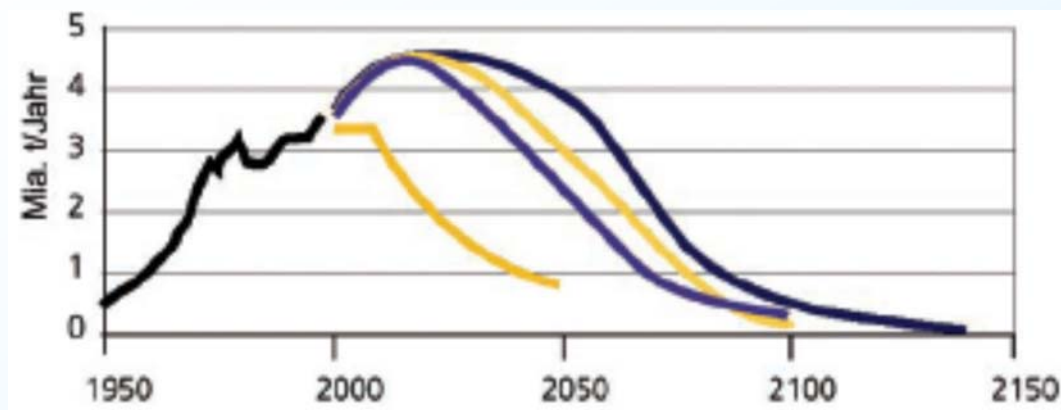


Potential for replacement: heating high

mobility low

Peak Oil and Mobility: after 2030 ?

Peak Oil



Replacement: Electricity, Fuel-Cell, Hydrogen, Bio-Fuel ...
where does it come from ?

daily food = 1/4 liter fuel/day !
photosynthesis efficiency: < 1%
photovoltaic efficiency: >15%



Technology vs. Societal Behavior

«We always underestimate the rate of technological change and overestimate the rate of social change.»

«Wir unterschätzen immer die Geschwindigkeit des technologischen Wandels und überschätzen die Geschwindigkeit des gesellschaftlichen Wandels »

Gerard O'Neill
Physicist and space pioneer, 1981



Leading Role of Public Services

Fleet renewing policy: (gas), hybrid, electric

Orion Diesel-Electric Hybrid Bus

Deliveries (since 1998): Over 1,300 units in service

Largest hybrid fleets: NYC (800), Toronto, San Francisco

Sales: Over 1,500 on order

