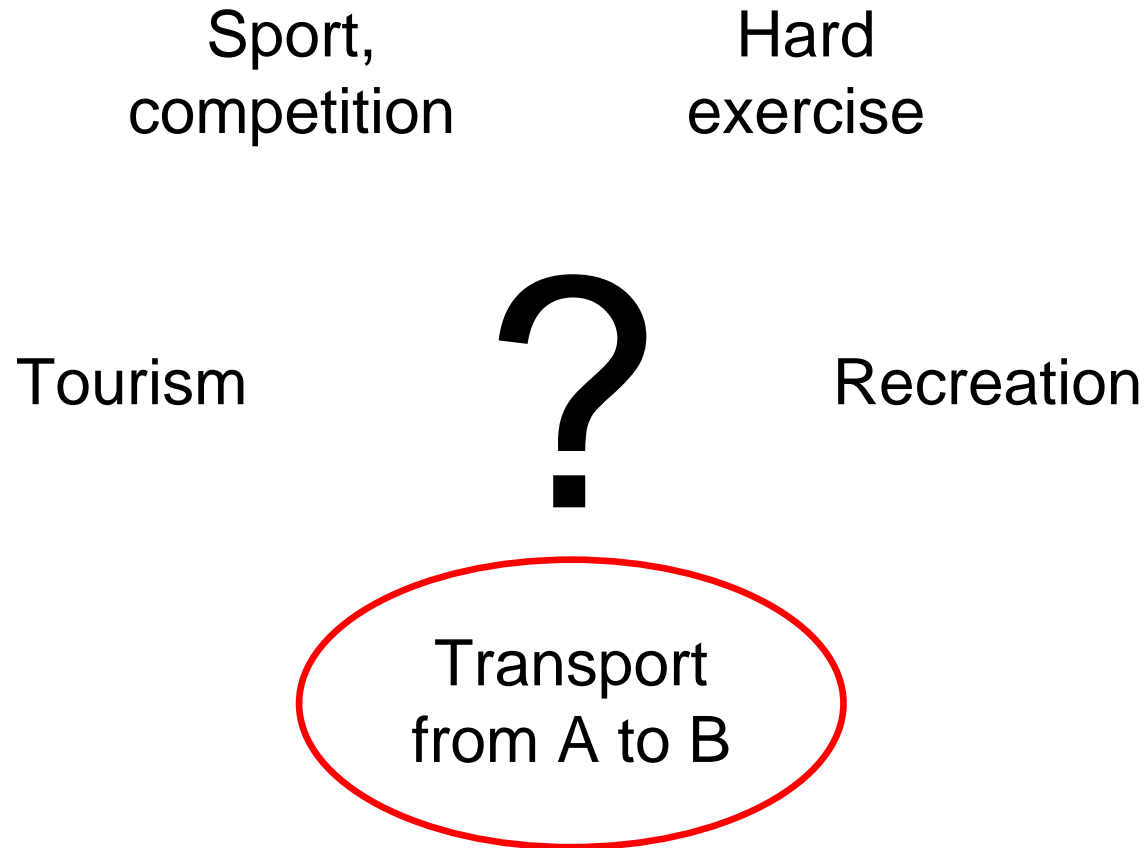


The potential role of cycling in Iceland

An introduction to cycling in Europe and European cycle policies.

Cycling opportunities in Iceland on the short and long term.

Cycling...?



Cycling as a means of transport



Cycling as a means of transport



Cycling as a means of transport



Cycling as a means of transport



Contents

- Cycling in Europe
- Cycling strategies
- Concerns
- Potentials

Cycling in Europe



Cycling in Europe



High levels of cycling

- The Netherlands
- Denmark
- Flanders, Belgium

Medium levels of cycling

- Germany
- Switzerland, Austria
- Sweden (south)
- Finland (parts)
- Some cities in Italy and France

Cycling in Europe



National cycling strategies

- Norway
- Great Britain
- Germany
- Finland
- Czech Republic
- (The Netherlands, Denmark)

Cycling in Europe



Urban cycling strategies

- Paris, Strasbourg, Nantes, ...
- Geneva, Basel, Winterthur, ...
- Brussels, Gent, Antwerp, ...
- Venice (Mestre), Bosen, Ferrara...
- Stockholm, Malmo, Orebro...
- Helsinki, Tampere, Oulu...
- Cologne, Munster, Troisdorf, ...
- Kristiansand, Sandnes, Drammen...
- Odense, Copenhagen, Arhus ...

Cycling in Europe



Cycling at the EU level

- Moderate ambitions in the Common Transport Policy
- Research and development projects on cycling and mobility management, e.g.:
 - BYPAD; WALCYNG; TAPESTRY; INPHORMM



More quality for bicycle traffic



- Publications on cycling:
 - Cycling – the way ahead for towns and cities; Kids on the move

Elements of a cycling strategy

- Targets for cycle use (from NN to MM% in Y years)
- Targets for cycle safety (XX% less injuries in Z years)
- Other targets (e.g. cycle theft reduction, improved competitiveness, improved average cycling speed)
- Measures to achieve the targets

Measures in a cycling strategy

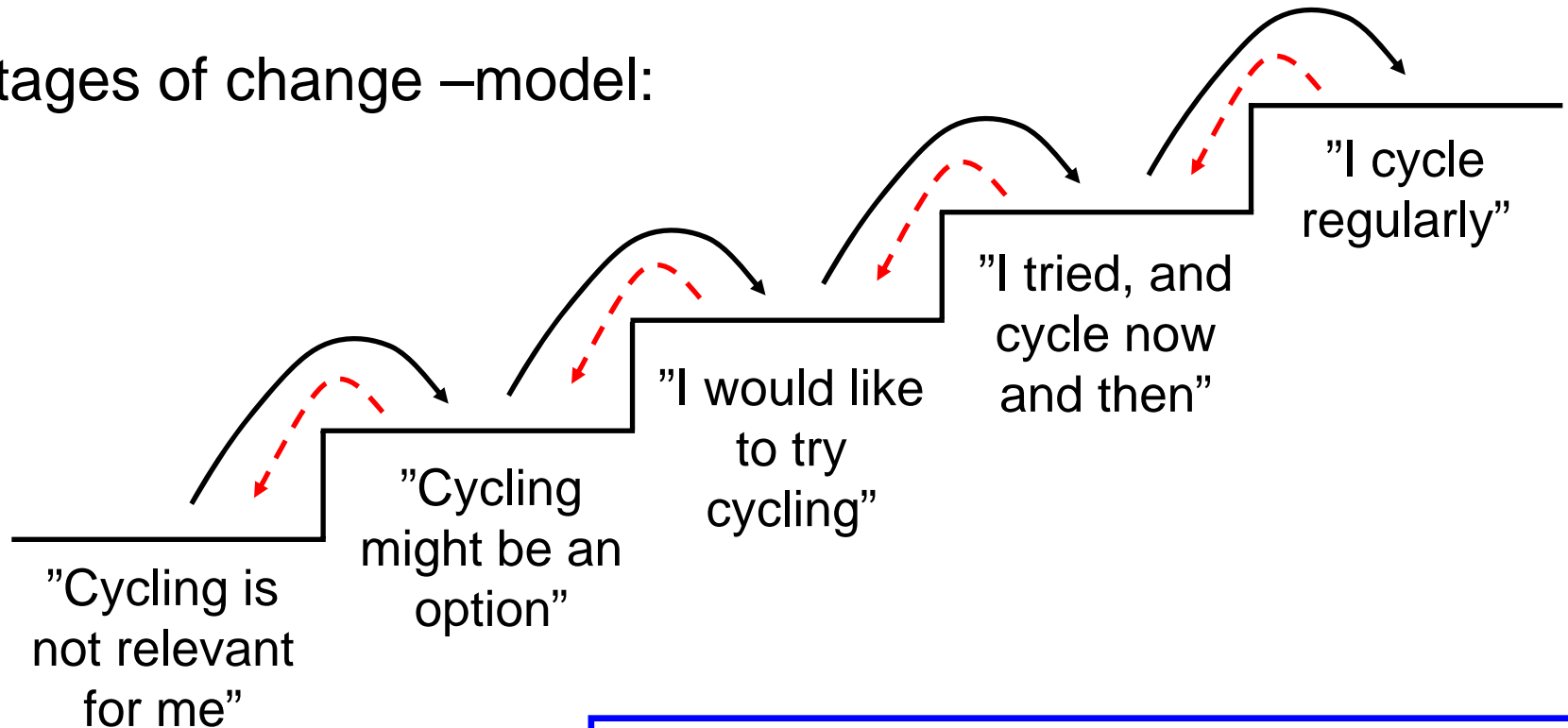
- Communication
 - improvement of the image of cycling
 - information on concrete actions
 - cycle maps and other sorts of route guidance
 - signs and road marking
 - advice on relevant behaviour
 - various (other) campaign activities
- Infrastructure
 - redesign of intersections
 - provision of shortcuts for cyclists
 - provision of cycle parking facilities
 - provision of cycle tracks, cycle lanes, cycleways
- Gimmicks to support the strategy

Arguments for a cycling strategy

- Environment
- Health
- Mobility, access, equity
- Congestion

A behavioural approach

Stages of change –model:



More cycling will in any case be the result of a voluntary behavioral change, and represents a change of the transport culture.

Is a cultural change possible here?

The Icelandic transport culture is already undergoing rapid changes. But is increased cycling a realistic option?

Several concerns:

- weather
- topography
- safety
- pollution
- current transport distances

Concerns – general note

The basic question is, if *some* trips can be replaced by cycling trips.

It is not relevant, whether *any* trip is replaceable.

(The intention is not to replace cars with bicycles.)

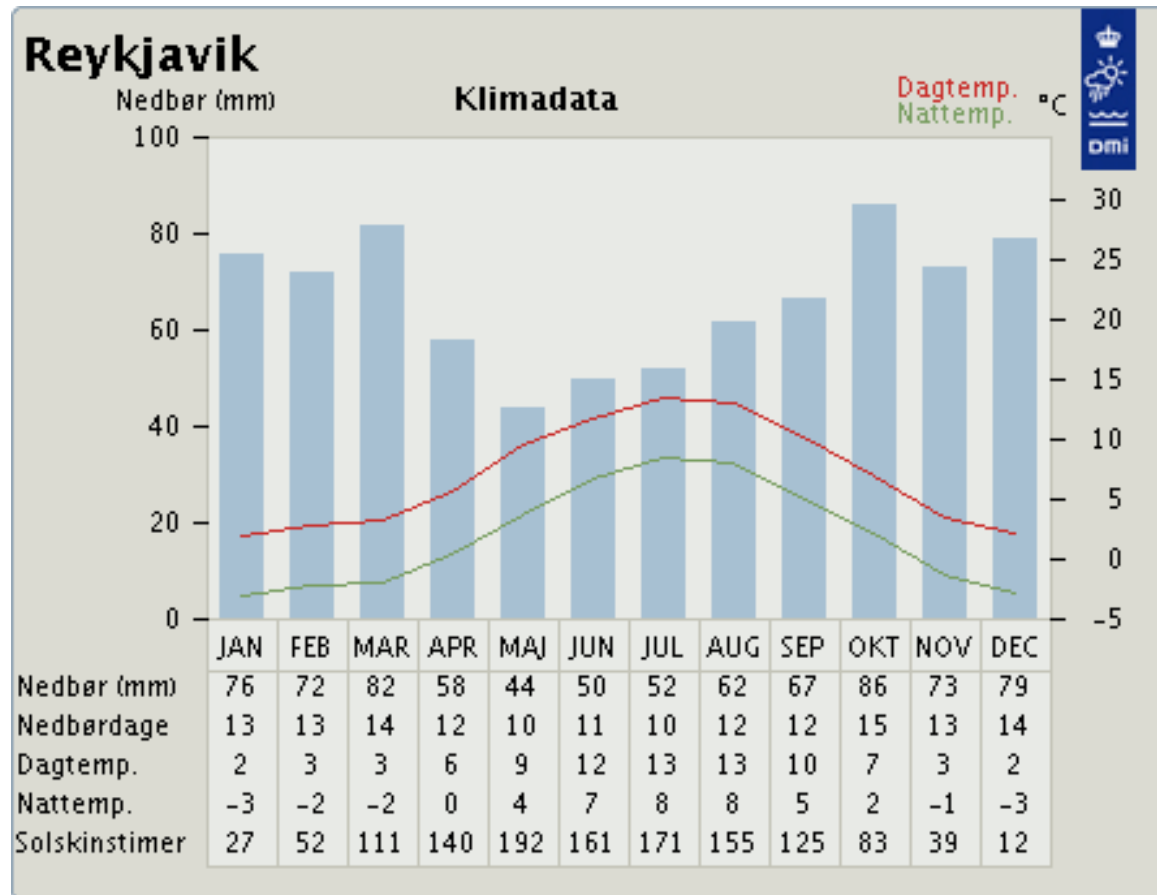
Concern 1: Weather

- Cycling tends to be more popular in countries with cold and even rainy weather than in hot countries.
- Rain will seldom occur during a cycling trip (less than 1:20).
- It is usually much more pleasant to cycle in given weather conditions than what one would expect.
- It is possible to dress against being cold but not (yet) against being warm.
- You seldom experience temperatures below minus 5 degrees centigrade in Iceland (in contrast to e.g. Oulu in Finland, where many are cycling through the cold winter).
- High wind speeds occur in Iceland, but far from daily.



Concern 1: Weather

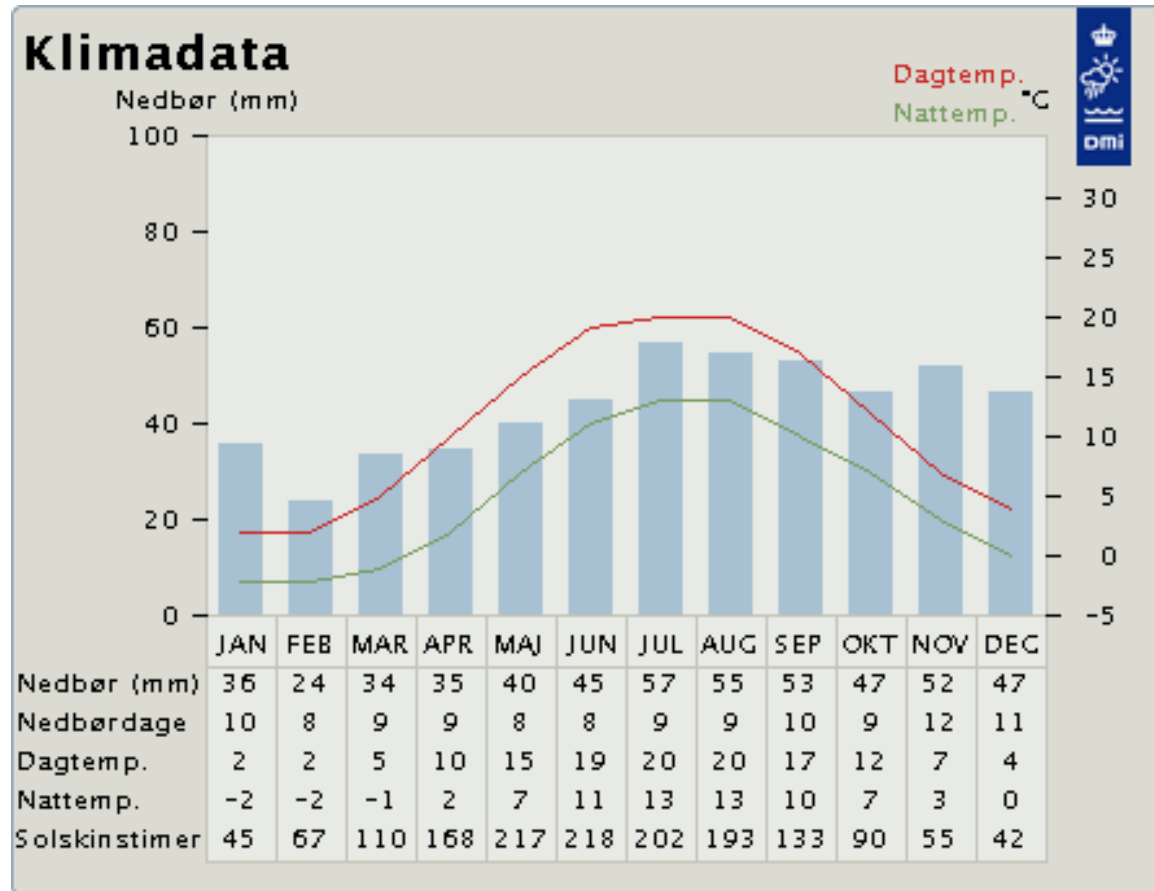
The weather in Reykjavik



Source: Danish Meteorological Institute

Concern 1: Weather

The weather in Copenhagen



Source: Danish Meteorological Institute

Concern 2: Topography

- Cycling is generally more popular in flat than in hilly areas.
- Some hillyness can however be overcome – especially with modern bicycles.
- Several examples of successful bicycle promotion schemes are known from mountainous countries.
- Greater Reykjavik is, for the major parts, not especially hilly.

Concern 3: Cycling safety

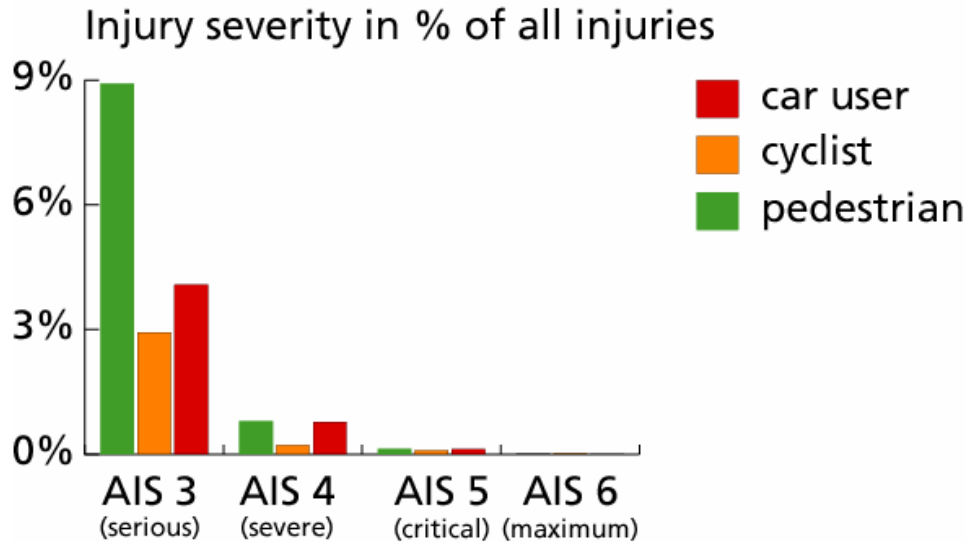
The short version

Cycling give rise to many cycling injuries – but:

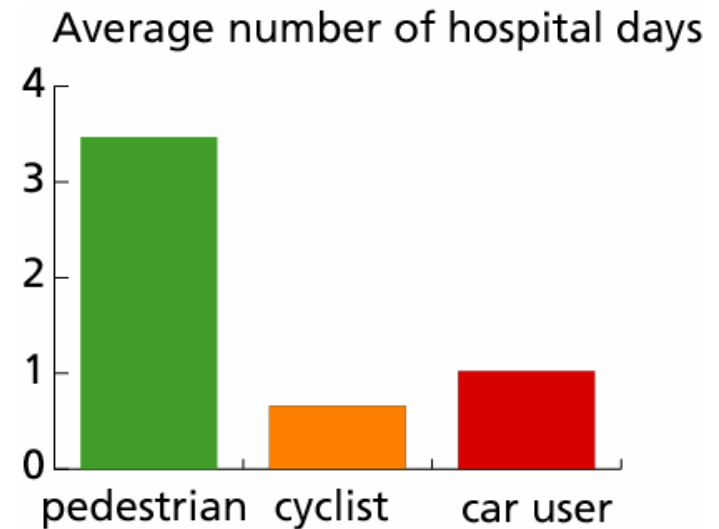
- Most cycling injuries are minor injuries.
- Non-transport activities like off-road cycling and children playing with bicycles are usually included in the figures.
- Skilled cyclists experience only few crashes.
- The perceived danger is less the more people are used to cycle.
- Cycling becomes safer the more people who cycle.

Concern 3: Cycling safety

Cycling injury severity is usually moderate

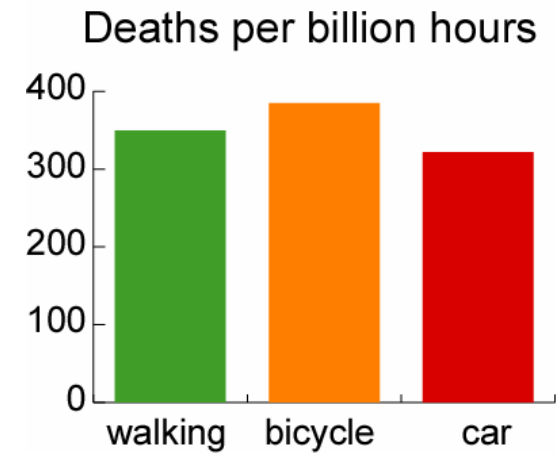
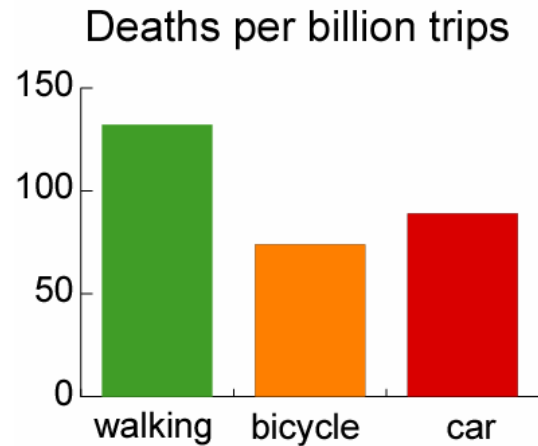
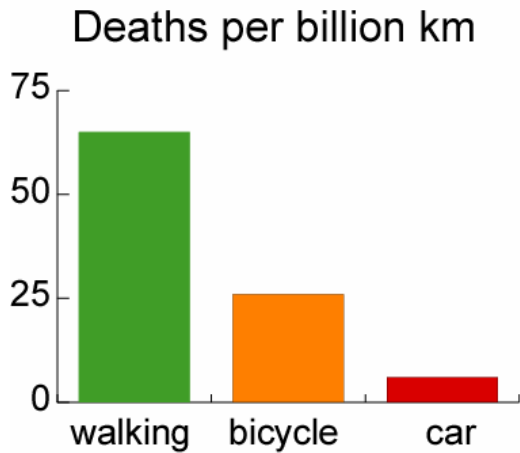


Source: Odense University Hospital, Denmark
(data for 1998-2000).



Concern 3: Cycling safety

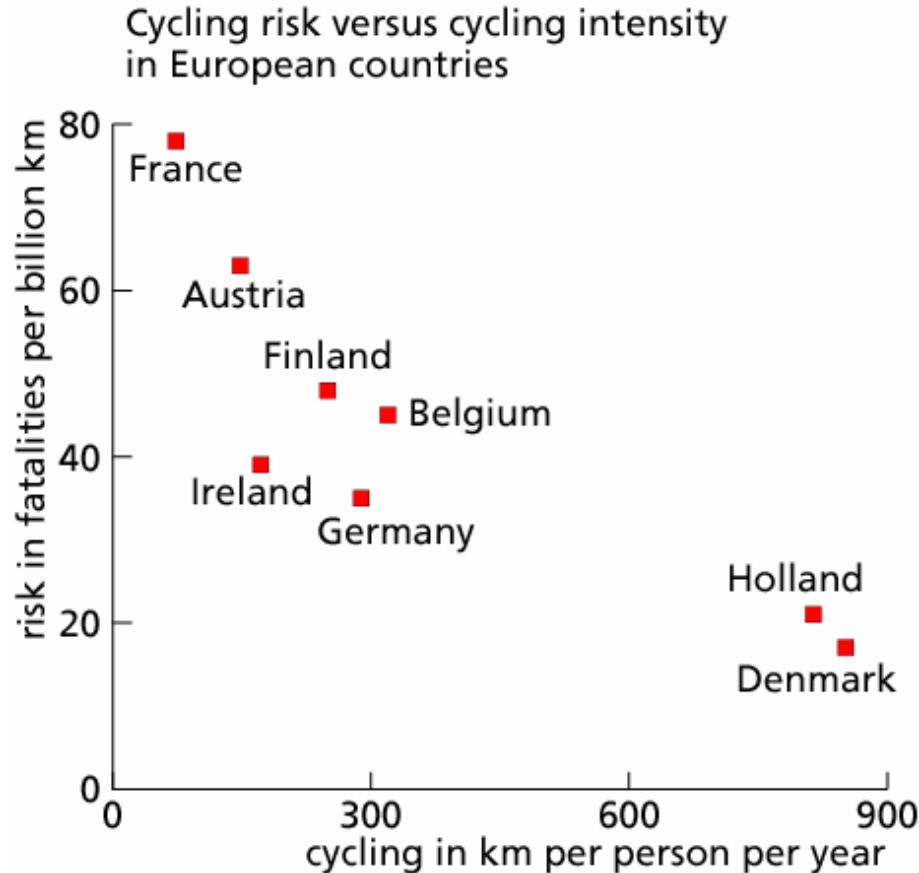
Risk can be calculated in many ways



Source: Statistics Denmark (data from 1992)

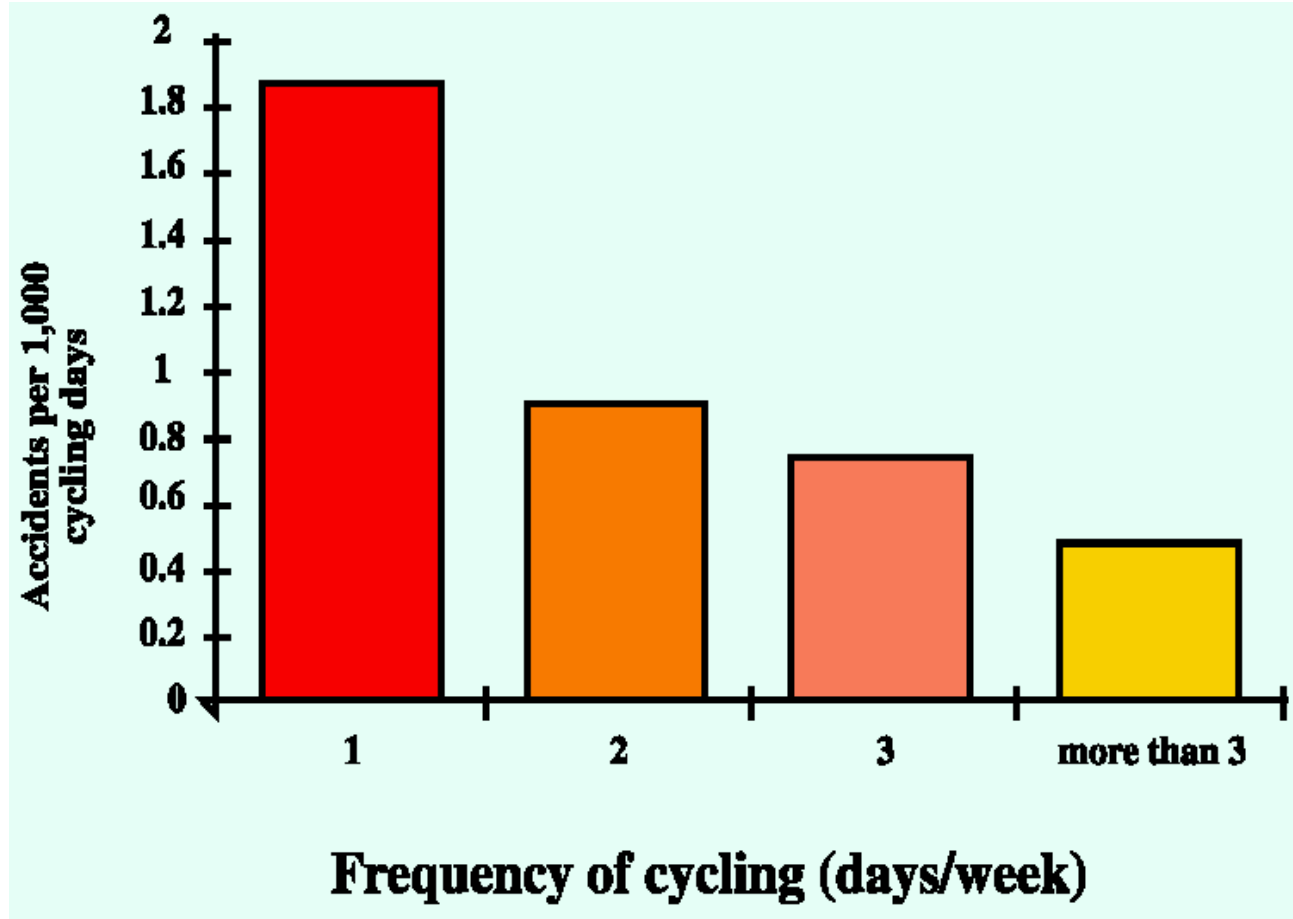
Concern 3: Cycling safety

Risk is least where there is much cycling



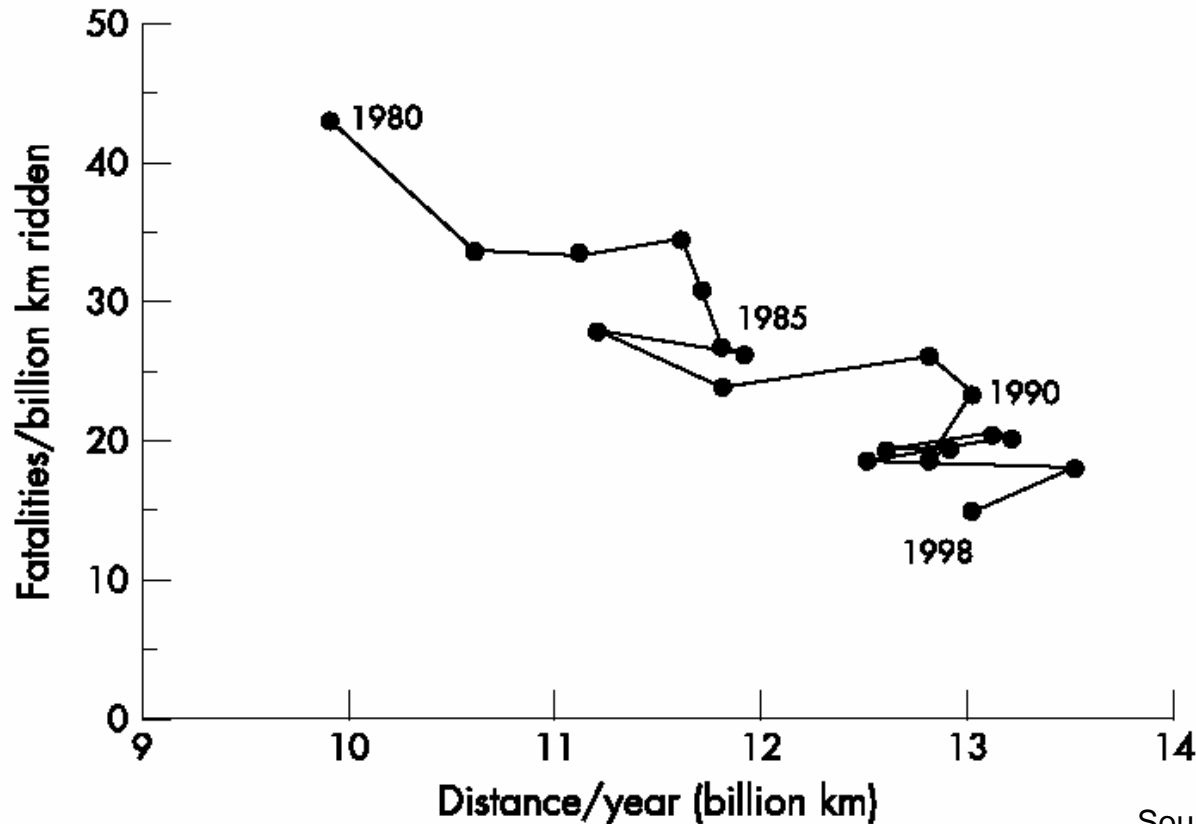
Concern 3: Cycling safety

Risk decrease with rider experience



Concern 3: Cycling safety

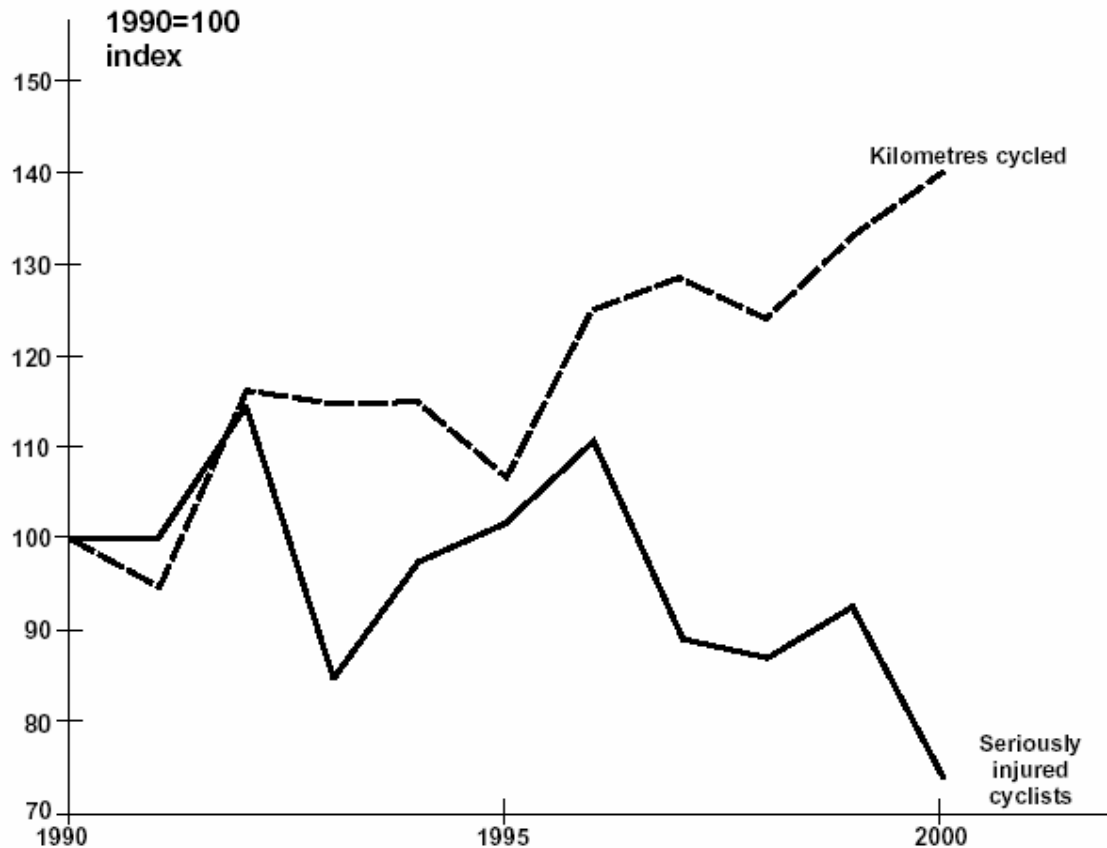
More cycling does not necessarily mean more cycling injuries



Source: P. L. Jacobsen 2003
(data from the Netherlands)

Concern 3: Cycling safety

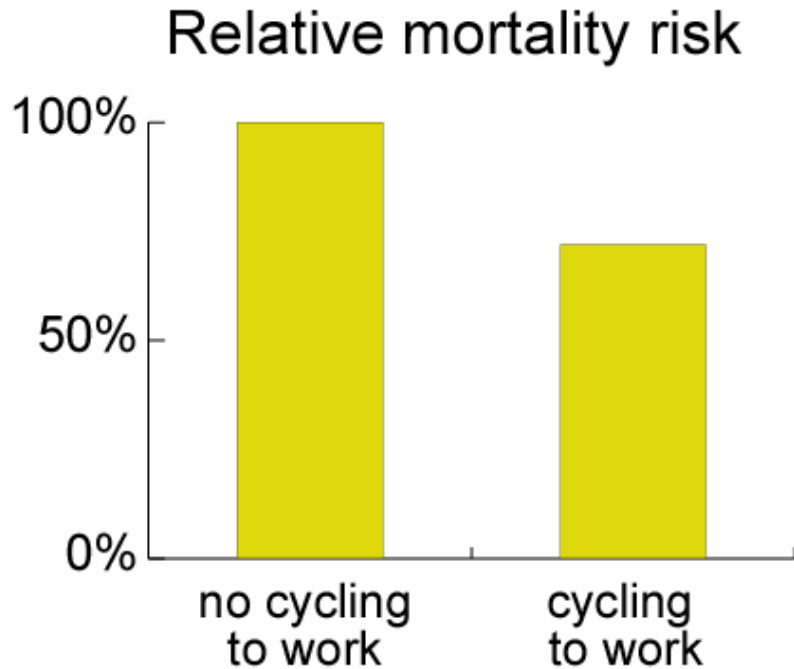
More cycling does not necessarily mean more cycling injuries



Source: City of Copenhagen, 2002.

Concern 3: Cycling safety

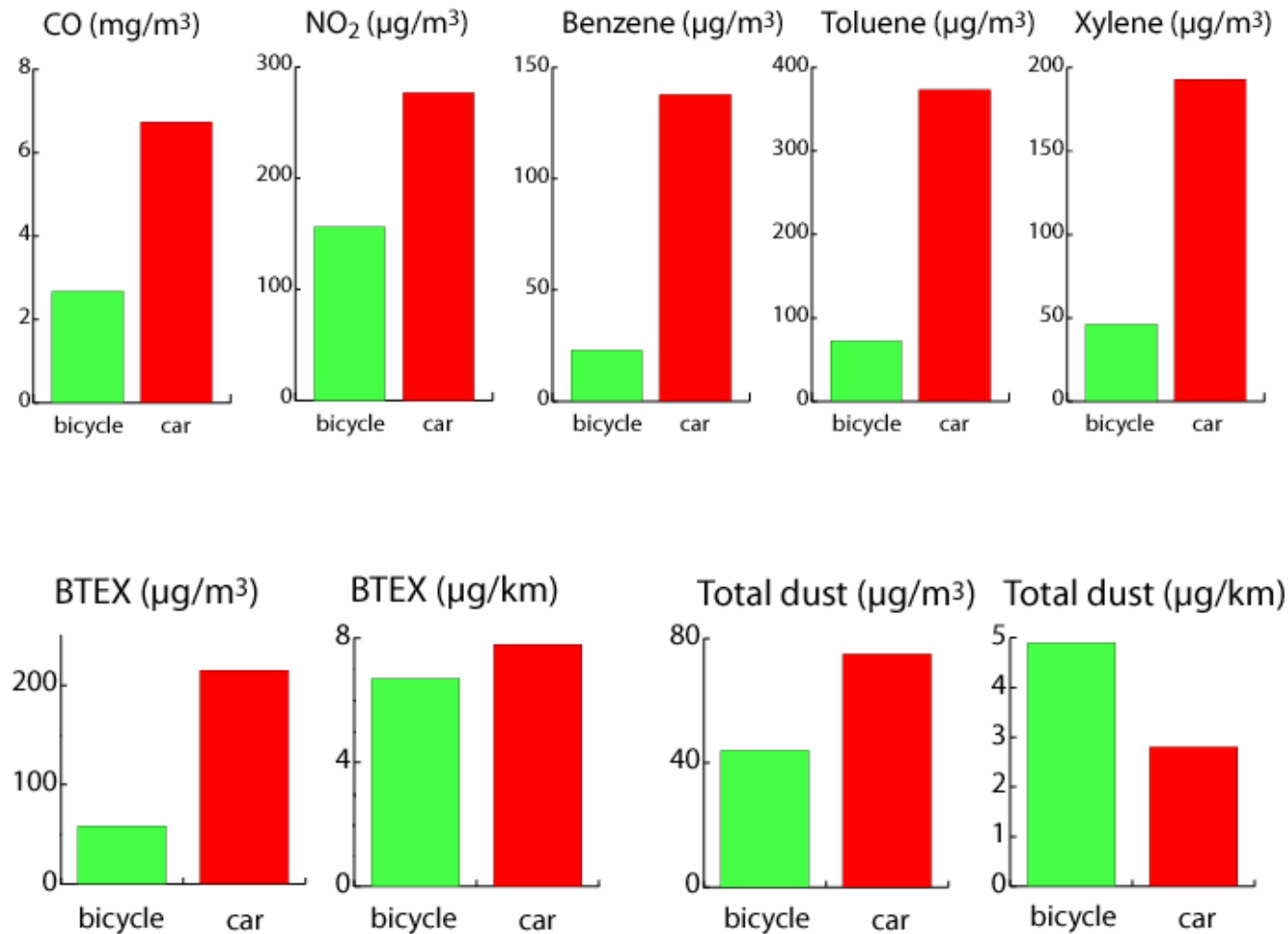
The combined health and safety perspective



Source: L. B. Andersen 2000
(data from Denmark)

Concern 4: Pollution

Exposure to pollutants by bicycle and in a car



Source: Dutch and Danish studies in congested traffic

Concern 4: Pollution

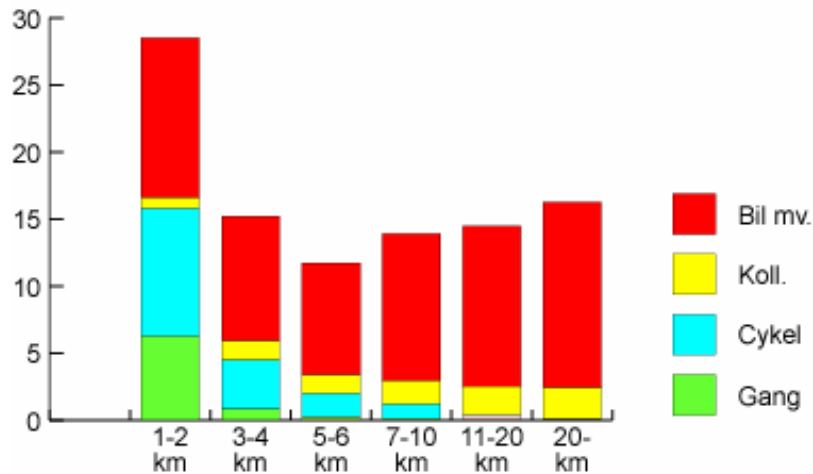
Pollution *is* a problem – especially ultrafine particles are found to threaten health.

Cyclists don't emit any dangerous substances, so from this point of view cycling is desirable.

Known studies, moreover, usually conclude that cyclists are not more – and sometimes even less – exposed to pollutants than car users or users of public transport. For the individual, cycling will thus not be a 'sacrifice' for the common good.

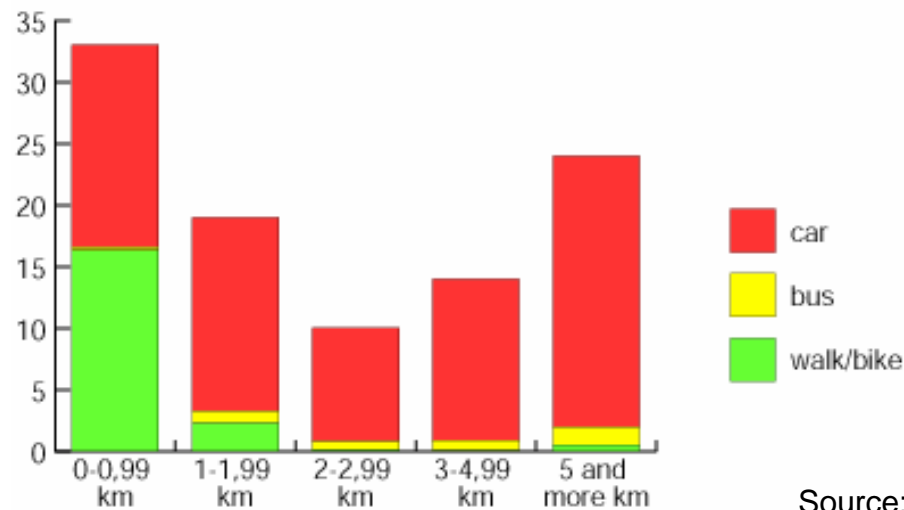
Concern 5: Current distances

Denmark



Source: Statistics Denmark

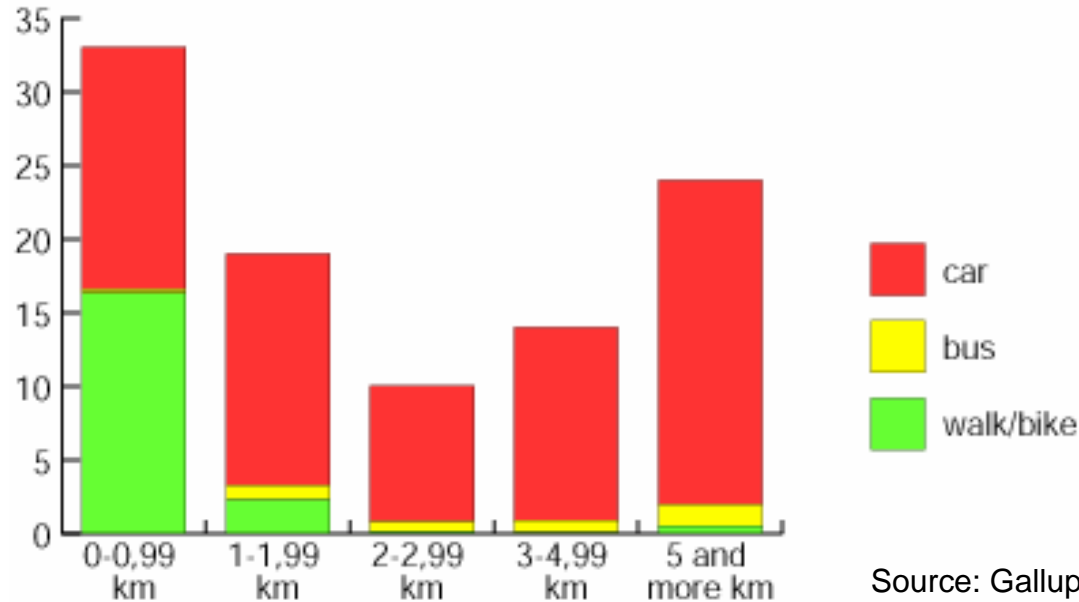
Iceland



Source: Gallup 2002 / City of Reykjavik

Concern 5: Current distances

Transport in Reykjavik - % of all trips



Source: Gallup 2002 / City of Reykjavik

Worth noting:

52% of all trips are less than 2 km

76% of all trips are less than 5 km

- a huge cycling potential exist

Concerns in conclusion

Icelandic conditions are special – yes.

But it is difficult to find reasons not to promote cycling as a means of transport in Iceland.

Several trips currently undertaken by car (and several walking trips) can be replaced by bicycle trips.

It is rather a question on how than of why not.

How to promote cycling in Iceland

Short term:

- Increase cycle use at current facilities by marketing (communication) activities
- Initiate long term planning

Long term:

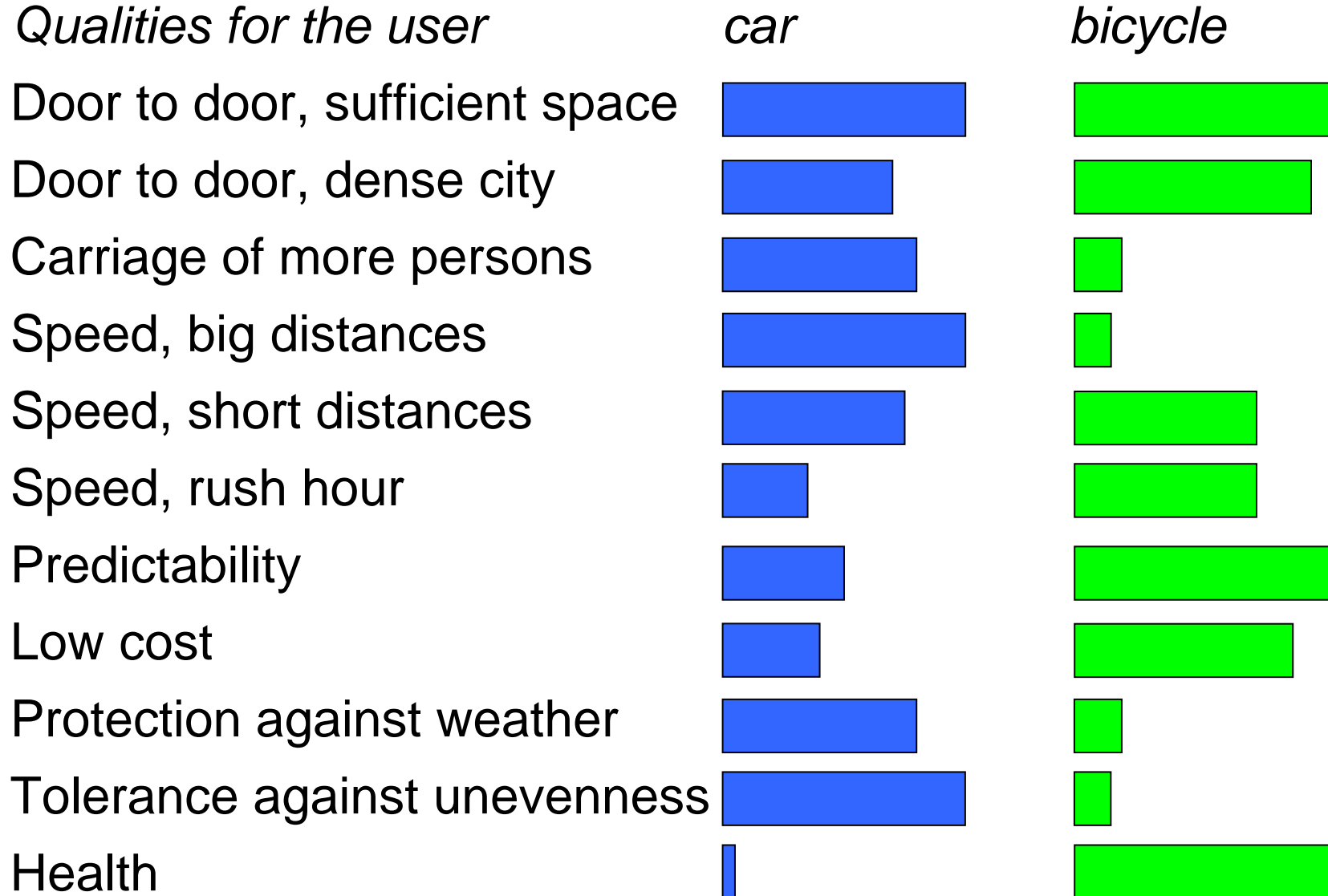
- Realise plans for improved conditions
- Continue marketing (communication) activities towards more cycle use

A few words on facilities

- A *network* should be in place enabling cycling from A to B
- Special *on route* facilities for cycling are not generally necessary
- Cycling in mixed traffic – together with cars – is safe and convenient at moderate car speeds and moderate and even high car traffic levels
- High car speeds and high car traffic levels make separate facilities necessary
- Use of pedestrian space is a fair starting point
- Several shortcuts can be introduced

Competitiveness is the issue

Qualities for the user



Marketing issues

- Health and cycling
- Safety and cycling
- Weather and cycling
(how often do extreme weather situations occur – and can even they be tackled by the user?)
- Time expenditure and cycling
- Thank you for choosing the bicycle
- Cycling *is* possible here...



How to save time on health

General issue:

No physical activity is associated with daily activities

Recommendation: 30 minutes physical exercise per day.

Approach 1:

Go to the gym or similar
(which takes time)

Approach 2:

Bike to work
(which also takes time)



How to save time on health

Transport home-work

Car 50 km/h no exercise

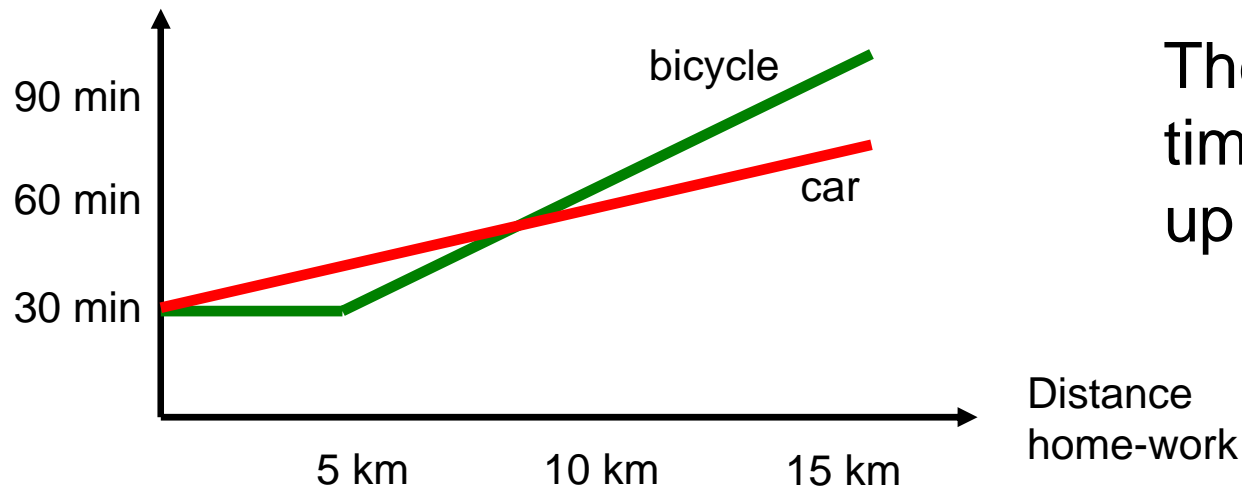
Bicycle 20 km/h exercise

Target 30 minutes exercise per day

Time spent daily on transport and exercise

Conclusion:

The bicycle saves time for distances up to 8 km.



Final remark



Final remark



Final remark



Good luck
promoting
cycling in
Iceland