Promoting active, healthy commuting

Velo City – Cycling for the Ages
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Guthold et al. 2018, The Lancet

**42.3 out of 100** do not meet WHO recommendations for physical activity (150 minutes per week) in western countries.

Lee et al. 2012, The Lancet

**9% of premature mortality caused by physical inactivity worldwide.**

WHO 2018, GAPPA

**54 billion $** per year direct health care costs caused by physical inactivity.
lack of time = #1 reason for insufficient physical activity

using daily commute by switching to active modes
Motivators & barriers for active commuting

Internal (personal)

- Values, habits, lifestyle, ...

External

- Environment, support, ...

Need to be addressed in an integrated approach.
Rationales for GISMO project:

- Commuting trips as opportunity for physical activity
- Evidence for companies
- Individual recommendations for commuters
investigation of health effects of interventions

spatial models and optimization approaches

web-based information platform
Clinical intervention study, N = 73 (2:1) 1 year

Niederseer et al. (under review)
Health effects IG

- Improved exercise capacity („fitness“) Reich et al. (under review)
- Reduction of body fat Sareban et al. (under review)
- Increase in QoL scores (SF-36) Neumeier et al. (under review)

For all investigated parameters: the more active mobility (dose), the larger the health gain (effect) Schmied et al. (under review)
Mobility behaviour

Mileage (km) & Modal Split per Group
GISMO Intervention Study (1 year)

Control Group (N = 19)
- Walking: 3.56%
- Cycling: 1.93%
- Public Transport: 20.78%
- Car: 73.72%

Intervention Group PT (N = 24)
- Walking: 10.46%
- Cycling: 15.49%
- Public Transport: 10.27%
- Car: 63.77%

Intervention Group Bike (N = 23)
- Walking: 1.99%
- Cycling: 36.97%
- Public Transport: 9.72%
- Car: 51.32%

Loidl et al. (under review)
Environmental factors

Loidl et al. 2018, GI_Forum
Interactive web tool
Conclusion

- Health gains through active commuting
  - Contribution to fight prevalent physical inactivity
  - No additional time resources required
- Behaviour change is possible
  - Targeted measures + individual recommendations
  - Requires cross-sectional collaboration
- Big effects with little investment

Thank you for your attention!