

# Promoting active, healthy commuting

**Velo City – Cycling for the Ages**  
**Dublin, June 26 2019**

Dr. Martin Loidl | [martin.loidl@sbg.ac.at](mailto:martin.loidl@sbg.ac.at)



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.

<https://i.imgur.com/lttqu.jpg>



lack of time = #1 reason for insufficient physical activity



using daily commute by switching to active modes

# Motivators & barriers for active commuting

Internal (personal)

External

Values, habits, lifestyle, ...

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



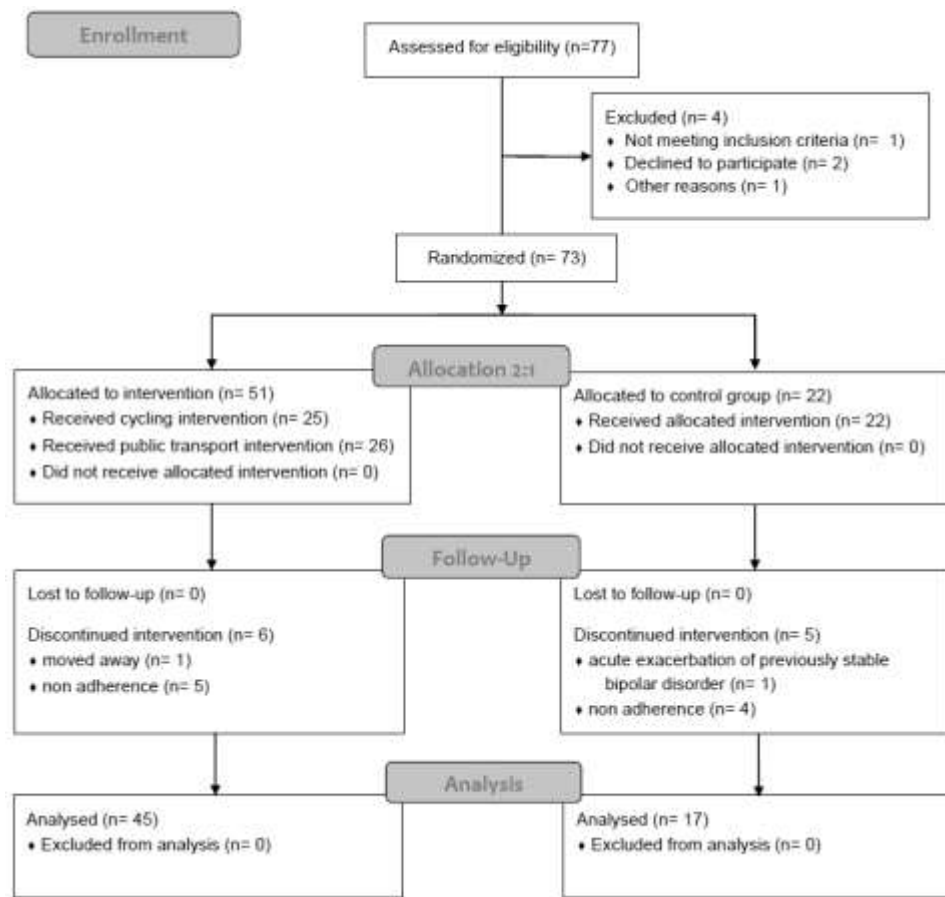
Triggering  
behaviour change

Pre-/post  
examination

Mobility tracking



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)

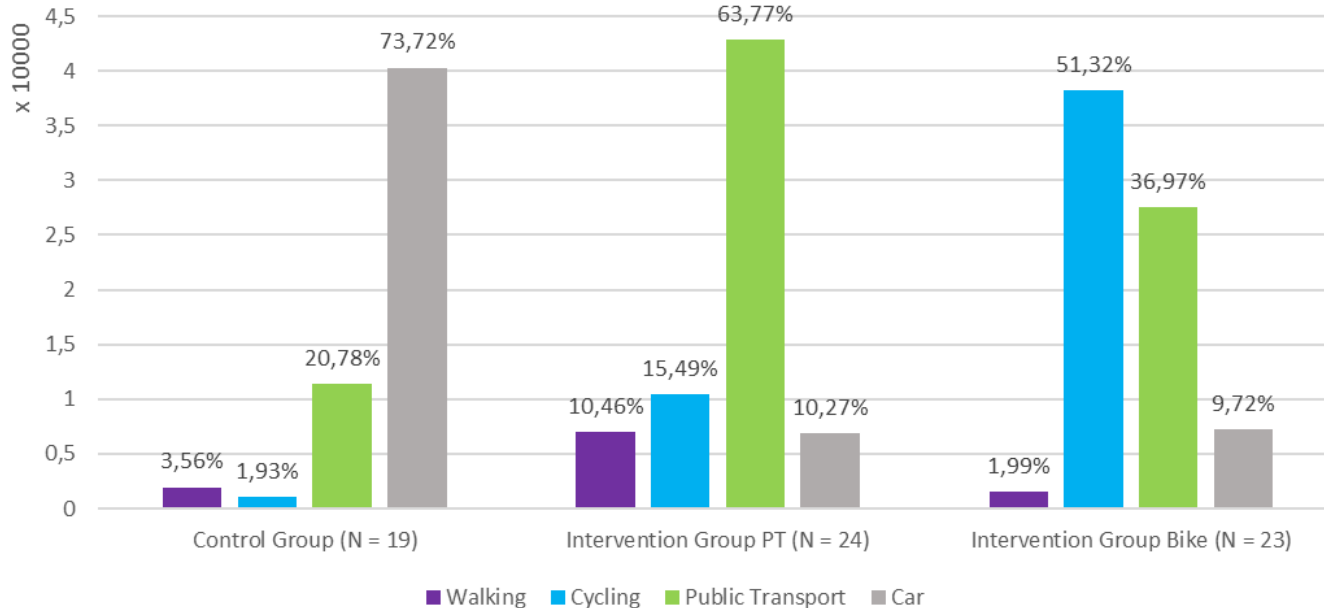




# Mobility behaviour



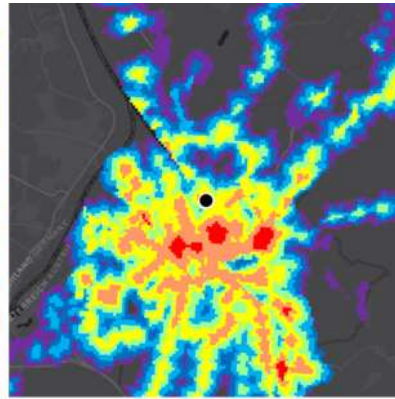
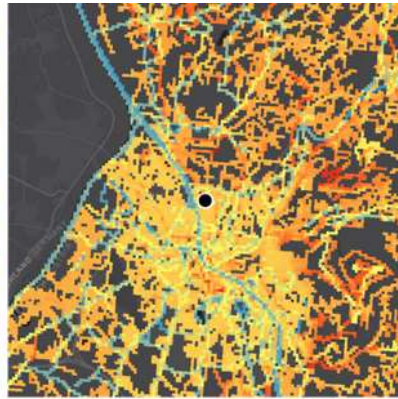
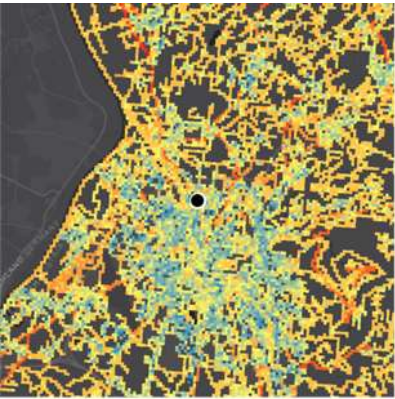
Mileage (km) & Modal Split per Group  
GISMO Intervention Study (1 year)



Loidl et al.  
(under review)



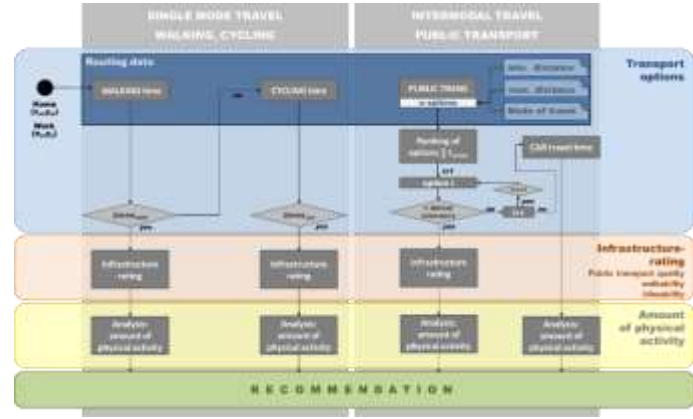
# Environmental factors



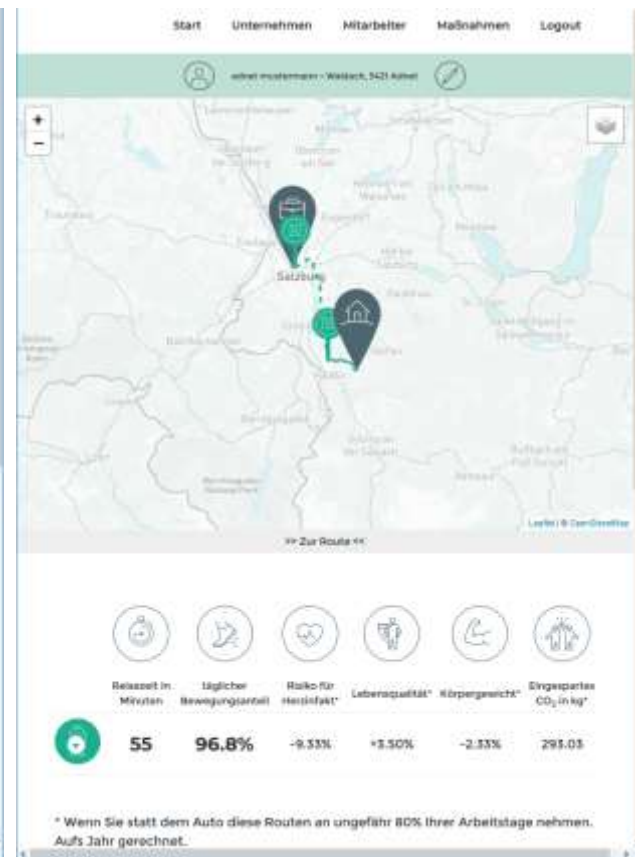
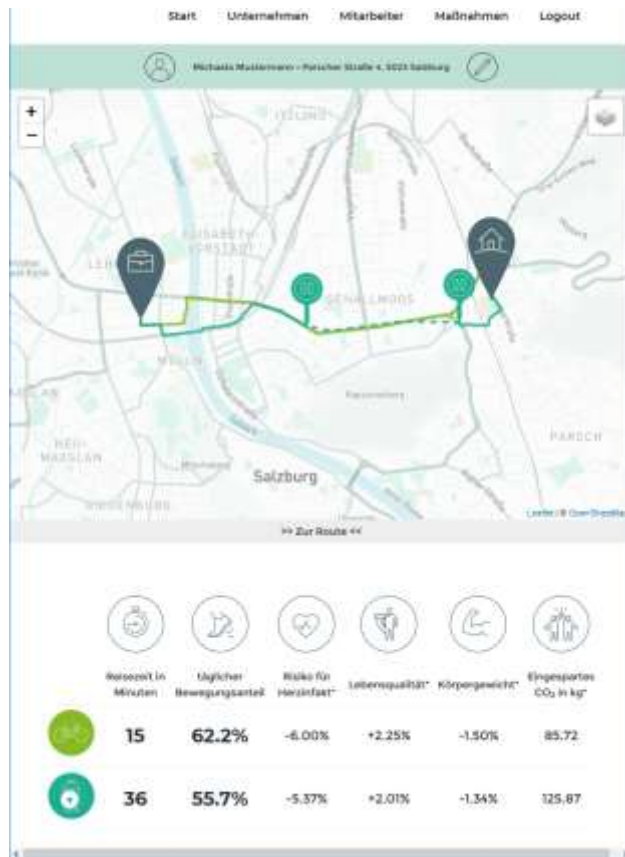
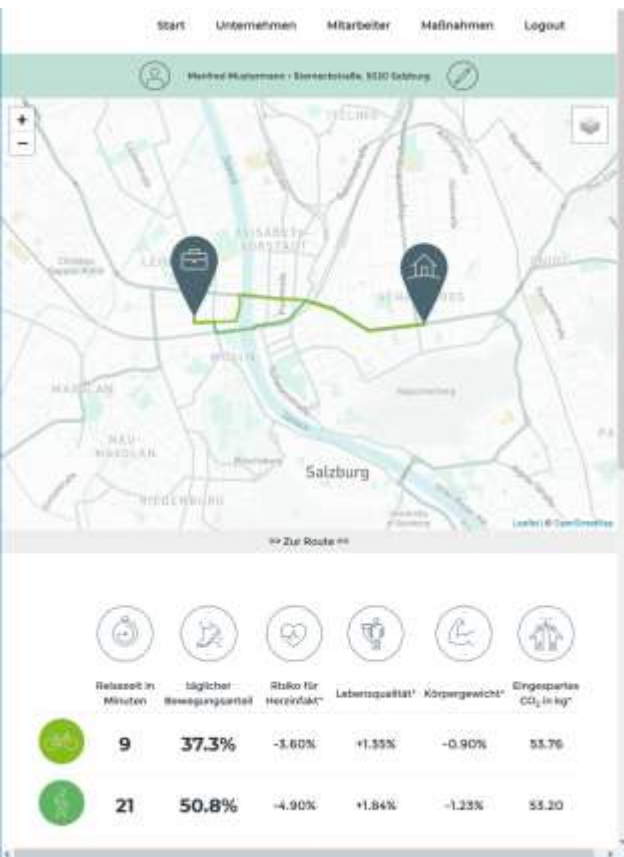
Quality assessment

Walkability, Bikeability  
— excellent  
— medium  
— poor

PT Quality (OV Güteklasse, Hiess 2017)  
1 2 3 4 5 6 7

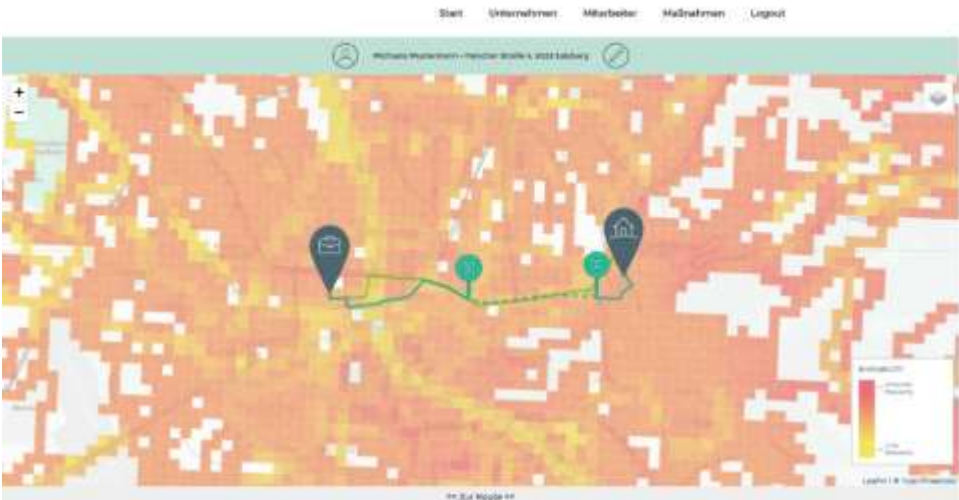


Loidl et al. 2018, GI\_Forum





# 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!



[gicycle.wordpress.com](http://gicycle.wordpress.com)



[@gicycle\\_](https://twitter.com/gicycle_)