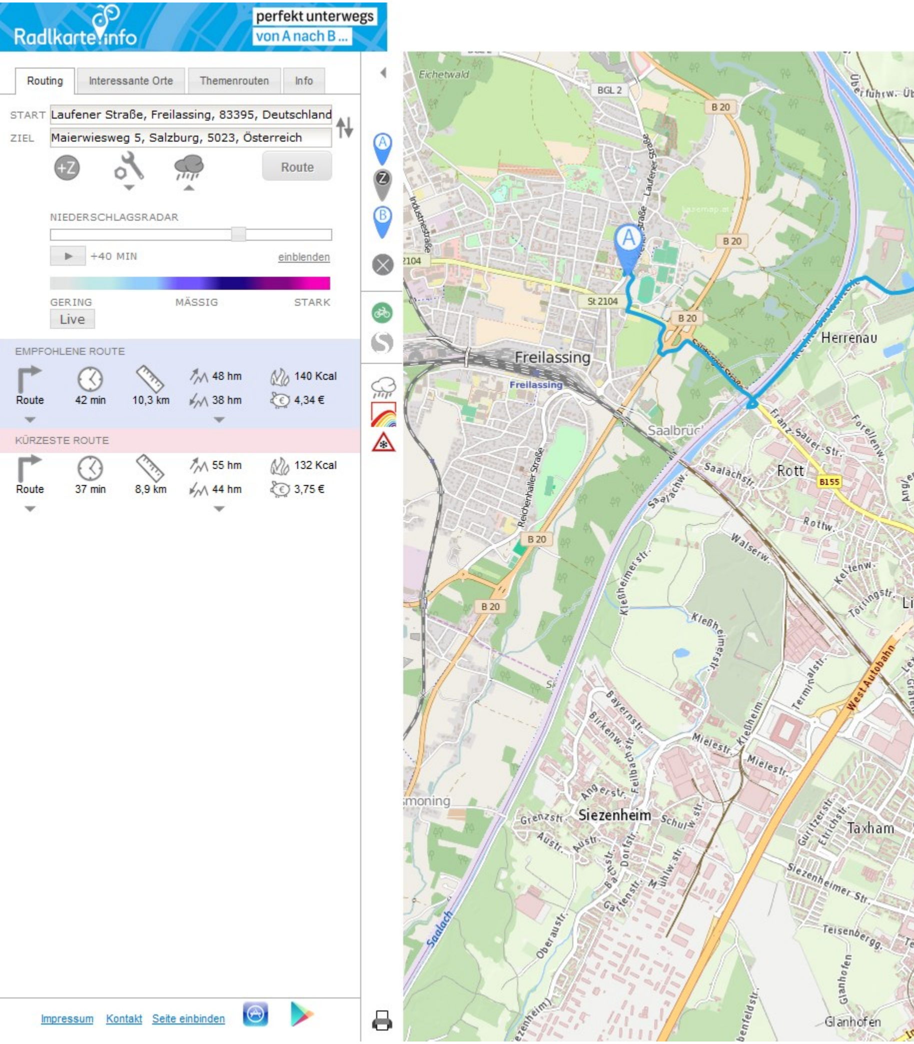
UNIVERSITÄT SALZBURG

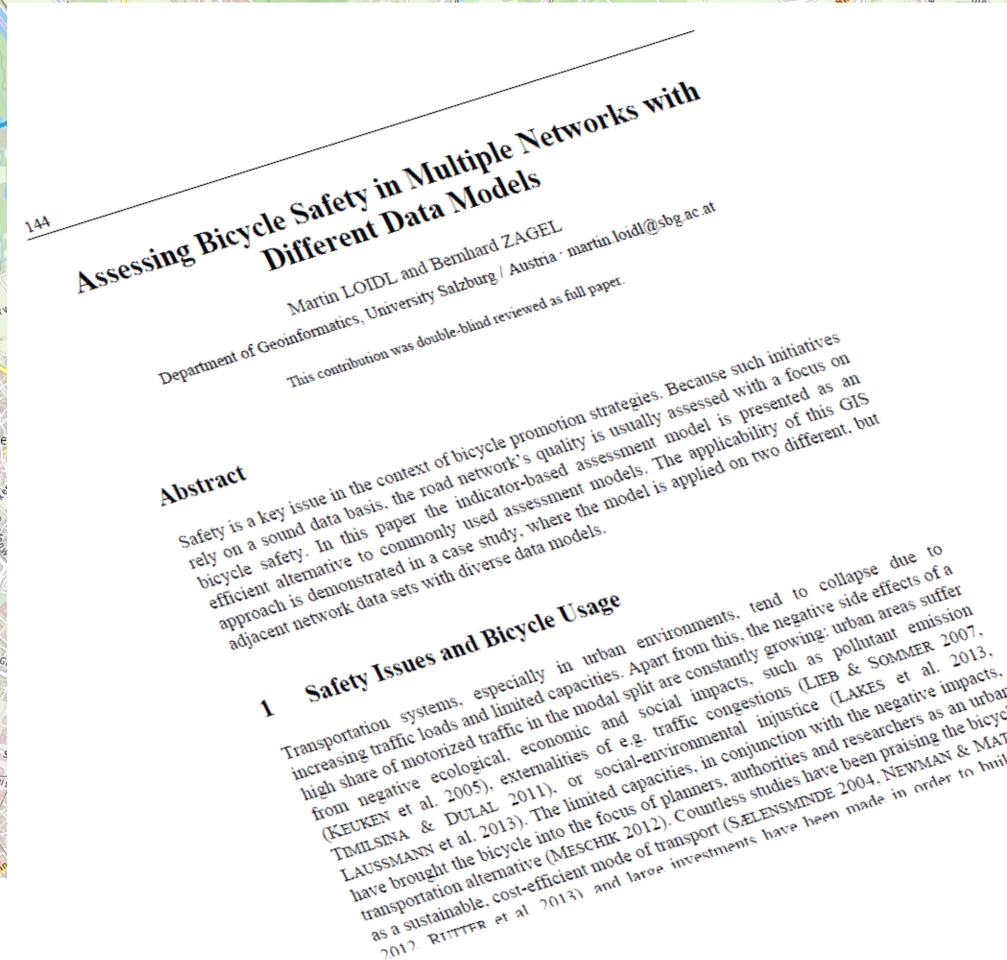
Radverkehrsforschung für Gemeinden

Radvernetzungstreffen
Salzburg, 10.04.2018

Dr. Martin Loidl | martin.loidl@sbg.ac.at

Fahrradhauptstadt





144

Assessing Bicycle Safety in Multiple Networks with Different Data Models

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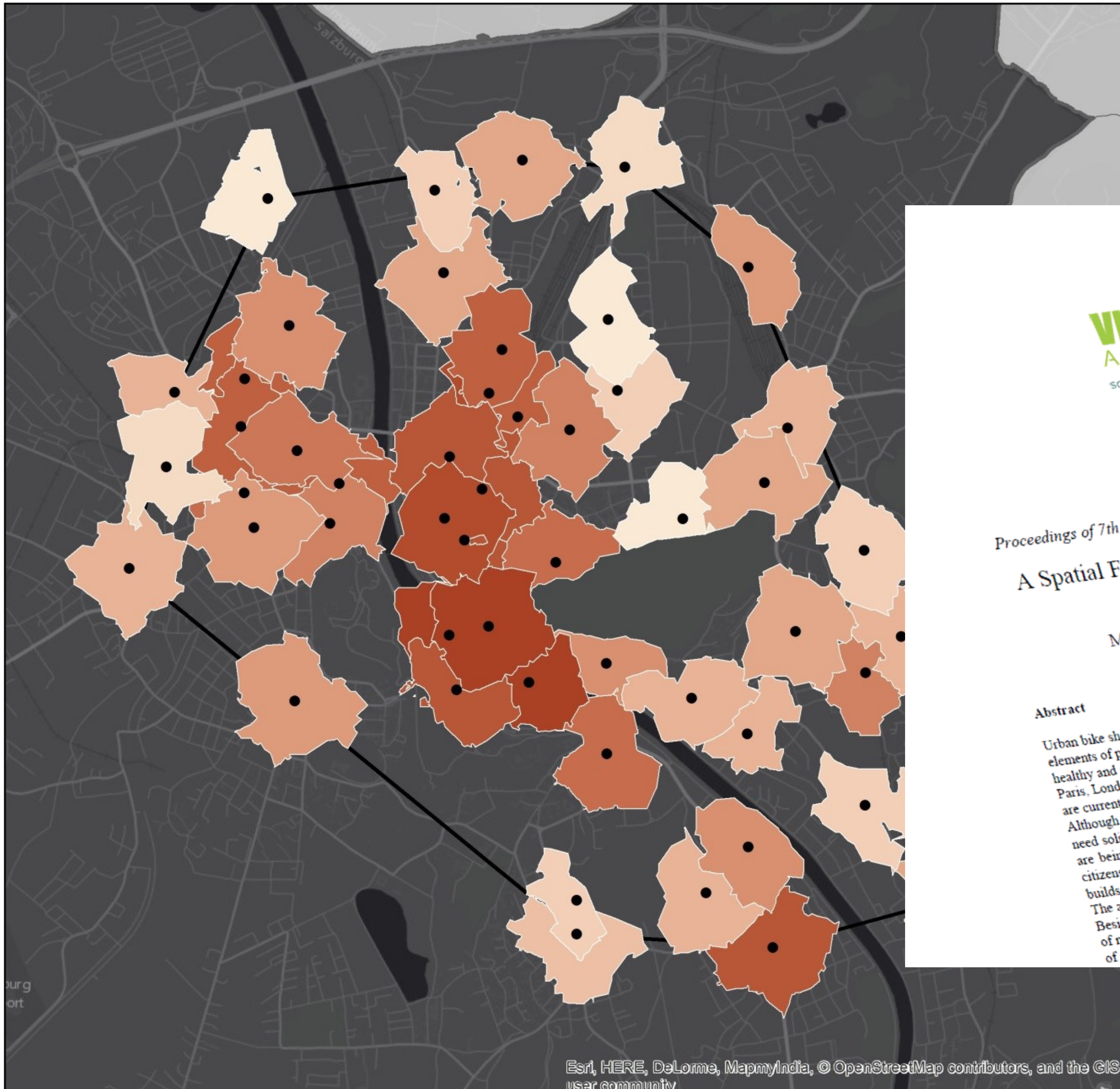
This contribution was double-blind reviewed as full paper.

Abstract

Safety is a key issue in the context of bicycle promotion strategies. Because such initiatives rely on a sound data basis, the road network's quality is usually assessed with a focus on bicycle safety. In this paper the indicator-based assessment model is presented as an efficient alternative to commonly used assessment models. The applicability of this GIS approach is demonstrated in a case study, where the model is applied on two different, but adjacent network data sets with diverse data models.

1 Safety Issues and Bicycle Usage

Transportation systems, especially in urban environments, tend to collapse due to increasing traffic loads and limited capacities. Apart from this, the negative side effects of a high share of motorized traffic in the modal split are constantly growing: urban areas suffer from negative ecological, economic and social impacts, such as pollutant emission (KEUKEN et al. 2005), externalities of e.g. traffic congestions (LIEB & SOMMER 2007, TIMILSINA & DULAL 2011), or social-environmental injustice (LAKES et al. 2013, LAUSSMANN et al. 2013). The limited capacities, in conjunction with the negative impacts, have brought the bicycle into the focus of planners, authorities and researchers as an urban transportation alternative (MESCHIK 2012). Countless studies have been praising the bicyc as a sustainable, cost-efficient mode of transport (SÆLENSMINDE 2004, NEWMAN & MAT 2012, RUTTER et al. 2013) and large investments have been made in order to buil



Verleihstationen Kerngebiet (Potenzial)

Ergebnis des gewichteten Bewertungsmodells

Einzugsgebiete und Potenzial der Stationsstandorte Phase 1

VIENNA 2018 TRA
A digital era for transport
solutions for society, economy and environment

Proceedings of 7th Transport Research Arena TRA 2018, April 16-19, 2018, Vienna, Austria

A Spatial Framework for Planning Station-based Bike Sharing Systems

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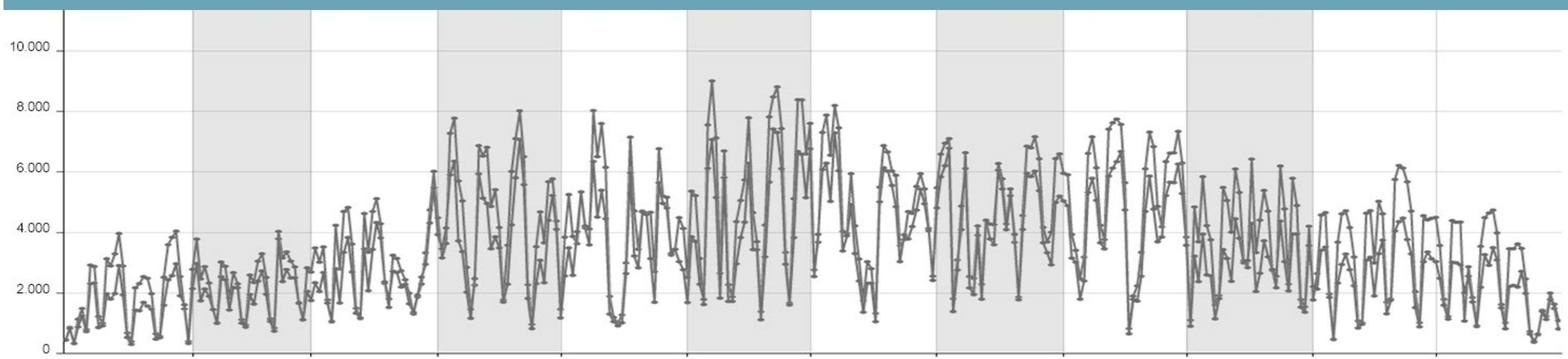
Abstract

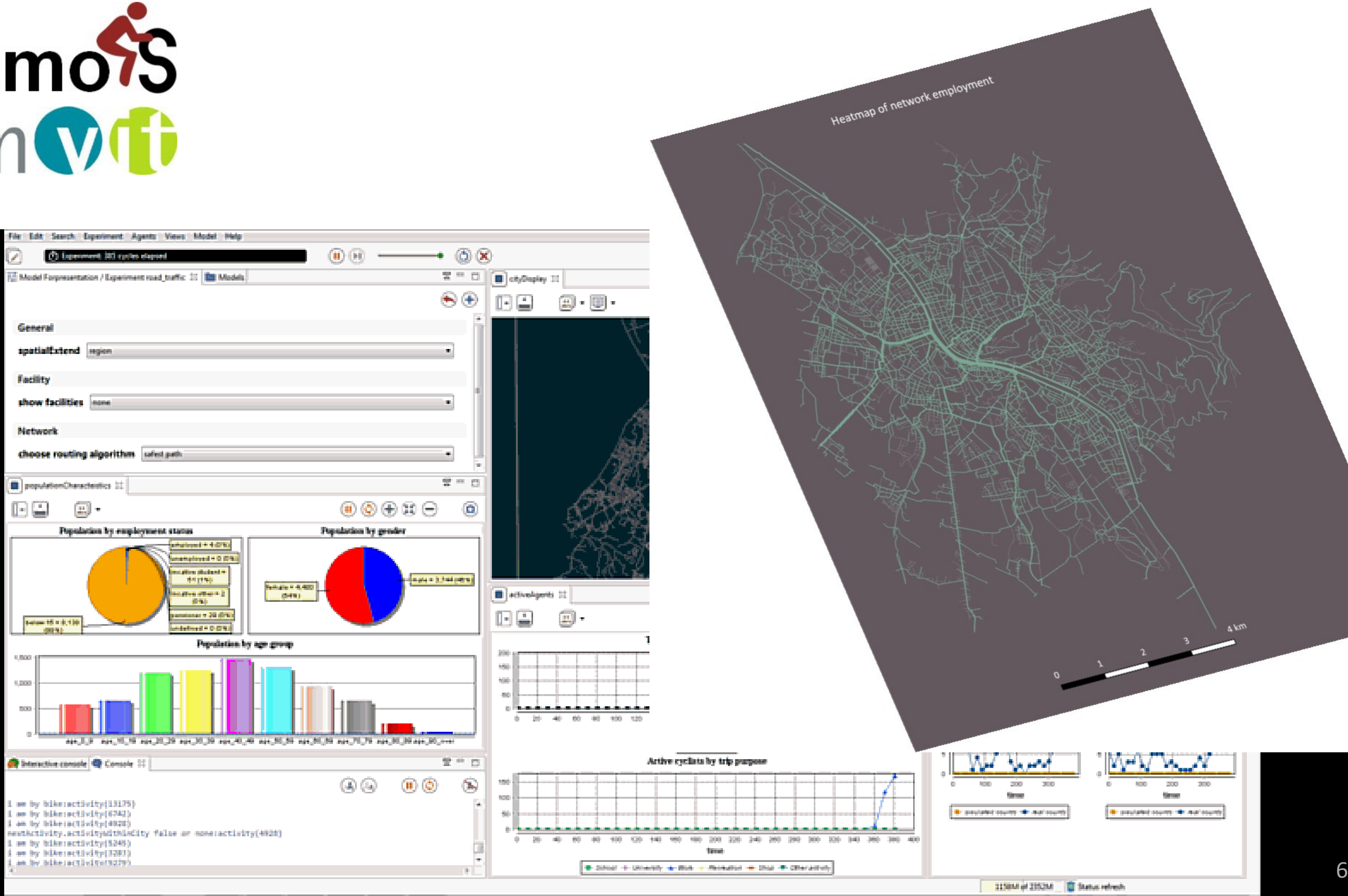
Urban bike sharing systems (BSS) are currently gaining momentum worldwide. They are regarded as integrated elements of public transit systems and perfectly anticipate the societal trend of the sharing economy as well as healthy and sustainable urban lifestyles. While BSSs are already well established in large metropolises, such as Paris, London or New York City, large and midsized cities have made first experiences in the past few years or are currently in the phase of launching new systems.
Although the evidence base for system metrics of BSSs is huge and still growing, cities and/or private operators need solid indications for a successful operation of a BSS in a particular urban environment before investments are being made. In order to transfer existing knowledge and parameters to a specific urban setting, consider citizens' demands and to provide an evidence base for decision makers, we propose a spatial framework, which builds on spatial data and is implemented in geographic information systems (GIS).
The applicability of this spatially explicit approach is demonstrated in a case study from Salzburg (Austria). Besides the decision-critical information that is gained through spatial models and analyses, the integrative role of maps becomes obvious. They serve as intuitive, common denominator for inputs, discussion and presentation of results and thus perfectly facilitate a multi-perspective planning process.

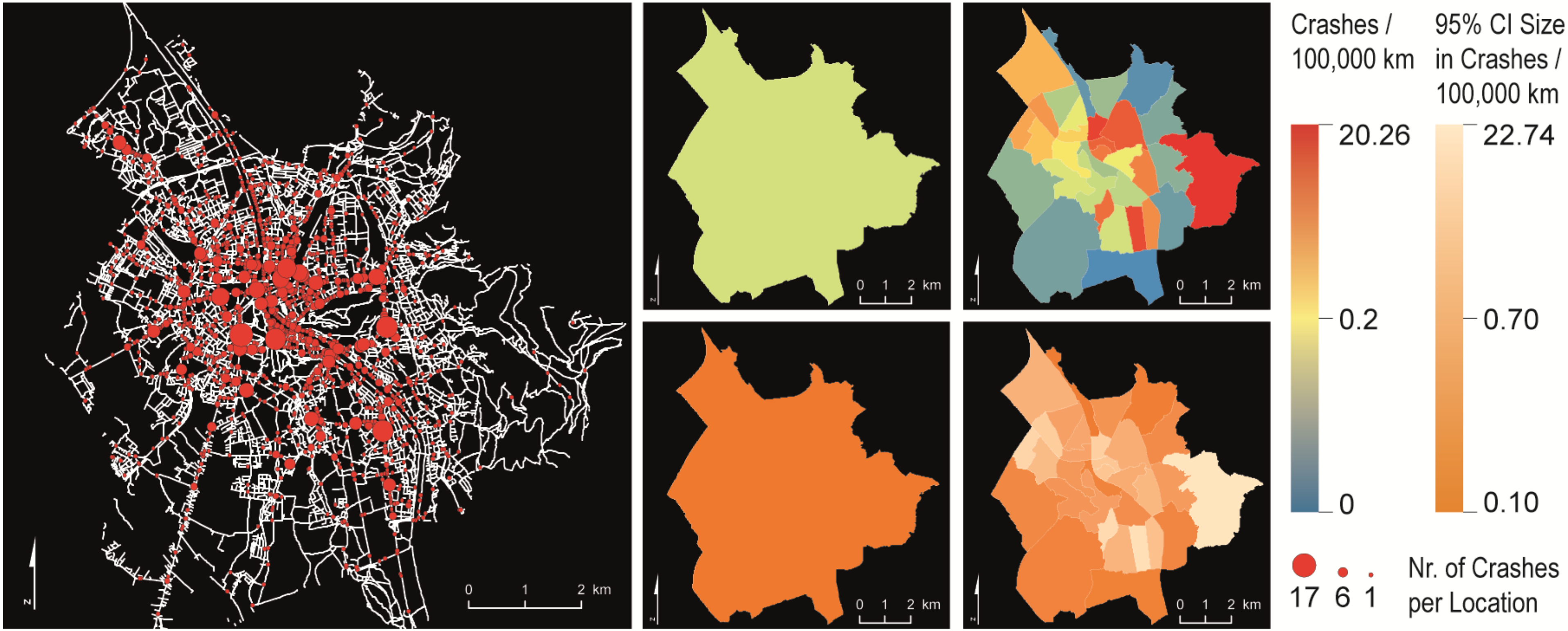
Salzburg	Dr. Bernhard Zagel [Bearbeitung: ML 07.03.2017]	[Juli 2016] Projekt-Workshop [Dezember 2016]

Z_GIS

Wissen nicht, wo, wann, wie viele Radfahrer auf den Straßen sind.



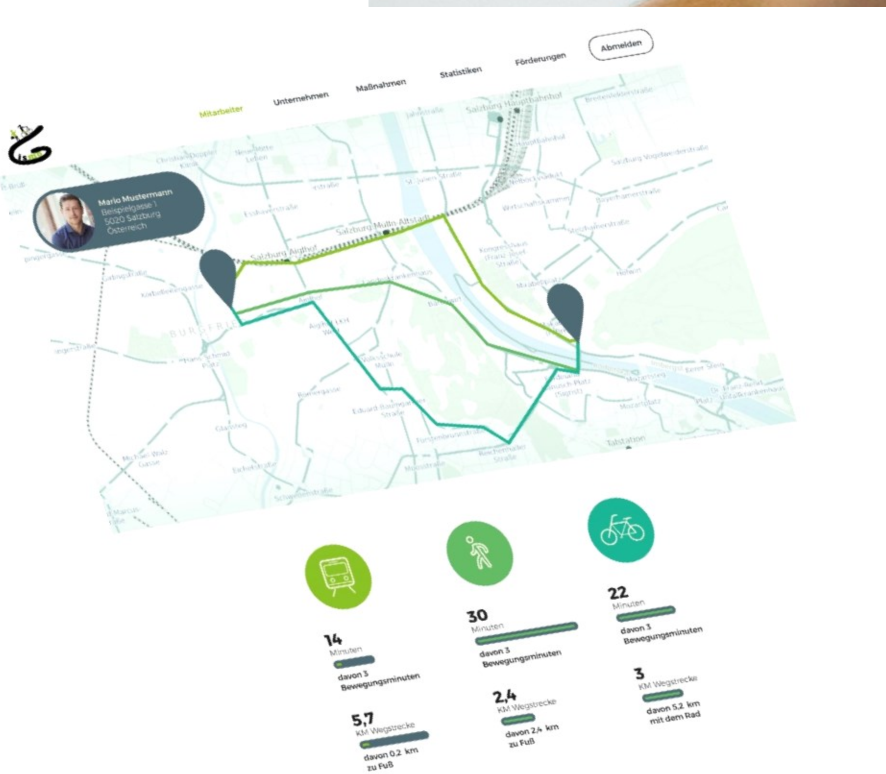

File Edit Search Experiment Agents Views Model Help
General
spatialExtend
Facility
show facilities
Network
choose routing algorithm
Population by employment status
Population by gender
Population by age group
Active cyclists by trip purpose
Heatmap of network employment
0
1
2
3
4 km



0 1 2 km
Crashes / 100,000 km
20.26
0.2
0
95% CI Size in Crashes / 100,000 km
22.74
0.70
0.10
17 6 1
Nr. of Crashes per Location


Förderung aktiver =
gesunder Pendelmobilität

gefördert durch (FFG Projektnr. 854974):



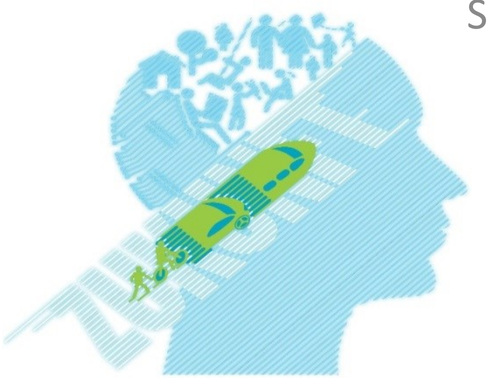
Gefördert durch:

Das Urbane Mobilitätslabor Salzburg –

Innovative Mobilitätslösungen für die ganze Region

Markus Fedra

SIR- Salzburger Institut für Raumordnung & Wohnen



Beispiel „Qualitätsmessung Radinfrastruktur“

(1) Forschungsprojekt „Bikealyze“: Evaluierung von Methoden der Datenaufzeichnung

(2) Aufbau UML-Dienstleistung für einen „Schlagloch-Index“: Entwicklung eines marktfähigen Angebotes

(3) Einfache & kostengünstige Nutzung der Dienstleistung im Rahmen von Innovationsvorhaben möglich

MobiLab
Mobilitätslabor Oberösterreich

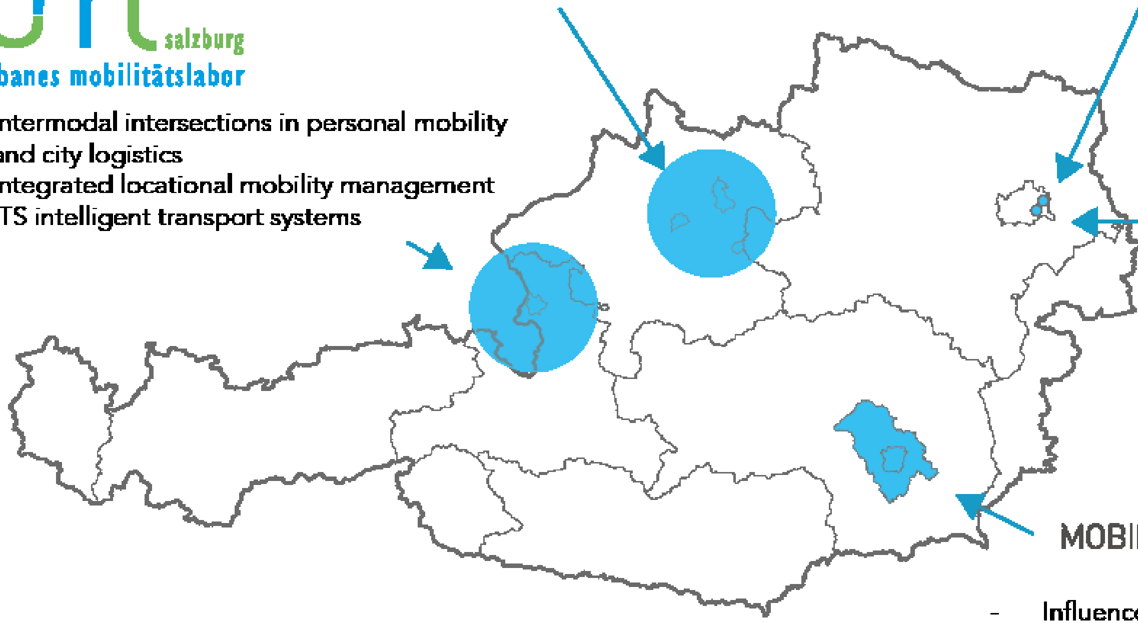
- Last mile
  (delivery service 4.0, city logistik hub)
- Private and public mobility service
  (multimodal lifestyle)

aspern mobil LAB

- Active mobility plus
- (Shared) mobility as a service (MaaS) plus

uml salzburg
urbanes mobilitätslabor

- Intermodal intersections in personal mobility and city logistics
- Integrated locational mobility management
- ITS intelligent transport systems



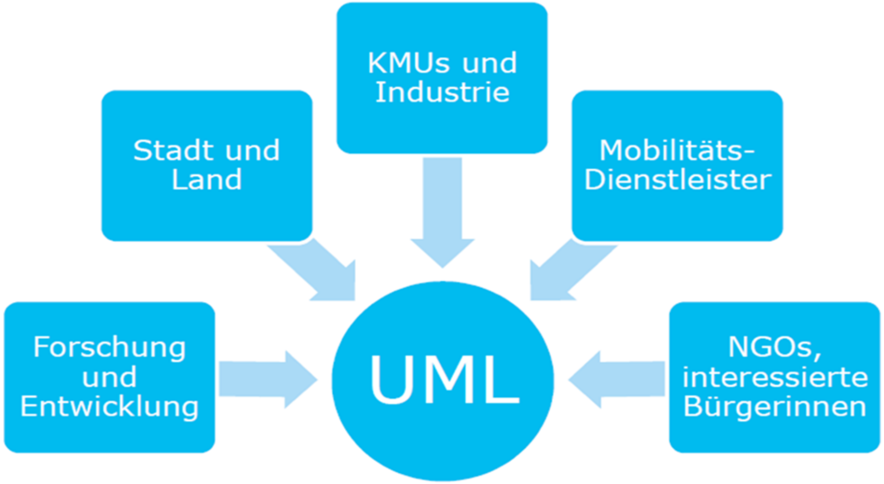
thinkport VIENNA
powered by BOKU Wien und HAFEN WIEN

Freight Logistics
- transport
- transhipment
- information
- storage
- digitalisation
- decarbonisation
- consolidation

MOBILITY LAB

- Influences of mobility awareness and behaviour
- City regional logistics
- Traffic management 2.0
- Autonomous driving

Das sind wir!



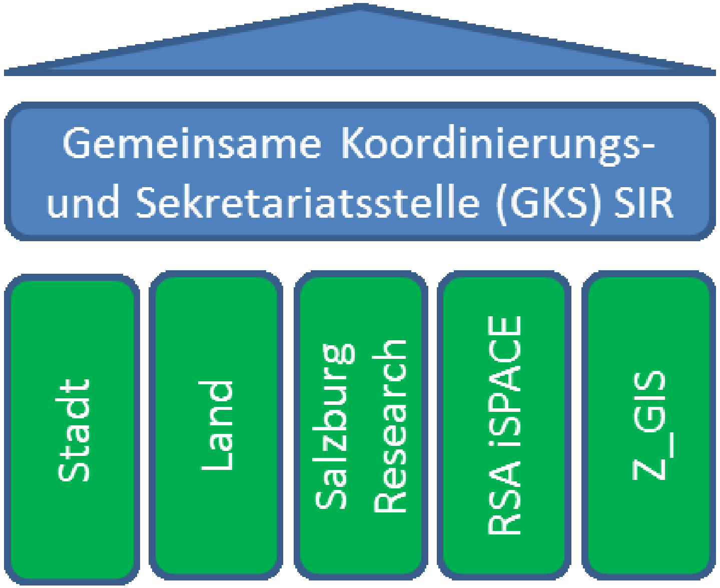
- Plattform und Drehscheibe für Experten, Dienstleister, Stakeholder, Projektideen und Informationen
- Netzwerkknotenpunkt zwischen Verwaltung/Politik und Forschung/Privatwirtschaft
- Zentralraum Salzburg dient als Labor

Das sind wir!

urbanes mobilitätslabor salzburg

- Das UML Salzburg initiiert, unterstützt und begleitet Innovationsvorhaben

- 2 öffentliche Partner und 3 Forschungspartner mit komplementären Forschungsschwerpunkten



bmvit FFG URBANE MOBILITÄTS LABORE

SIR SALZBURGER INSTITUT FÜR RAUMORDNUNG & WOHNEN · SMART CITY Salzburg · LAND SALZBURG · salzburgresearch · rsa iSPACE · Z_GIS

Basisaufgaben

Basisaufgabe	Kurzbeschreibung
Abstimmung Masterpläne	Inhaltliche Abstimmung von geplanten Innovationsvorhaben mit den Strategien und Masterplänen von Stadt und Land Salzburg
Bewusstseinsbildung für Bürger, Planung und Politik	Einbettung von neuen Forschungsergebnissen und Technologien in die politische, planerische und gesellschaftliche Praxis

Dienstleistungen

1. Tageszeitabhängige Fahrzeiten auf Basis FC-Daten
2. ProbandInnen-Datenbank „ways2dat“
3. Integrative Standort-, Haltestellen- und Trassenanalyse
4. Integrierte Feedback-App für ÖV-Nutzer
5. Testräume
6. Qualitätsmessung von Radfahrinfrastruktur
7. Bikeability-Index für Mobilitätsinfrastrukturen und urbane Räume
8. Humansensorik und soziale Medien zur Bewertung urbaner Räume
9. Wissenstransfer
10. Cloudbasierter Analysedienst für Mobilitätsdaten

Kontakt & weitere Info

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Salzburg macht's vor

Innovative Mobilitätslösungen für die ganze Region