



Stephan Tischler // 20.5.2014

University of Innsbruck // Institute for Infrastructure Engineering // Unit for Intelligent Transport Systems

SUSTAINABLE MOBILITY AND LIVING IN ALPINE METROPOLITAN REGIONS

TOC

Alpine Space

- ❖ Mobility in Alpine Regions

Human Activities // Mobility // Spatial Structure

- ❖ Satisfaction of Needs
- ❖ Accessibility & Spatial Structure

Sustainable Spatial Development in Alpine Space

- ❖ Current Transformation Processes
- ❖ Sustainable Development ? Sustainable Development !

Introduction

Alpine Space



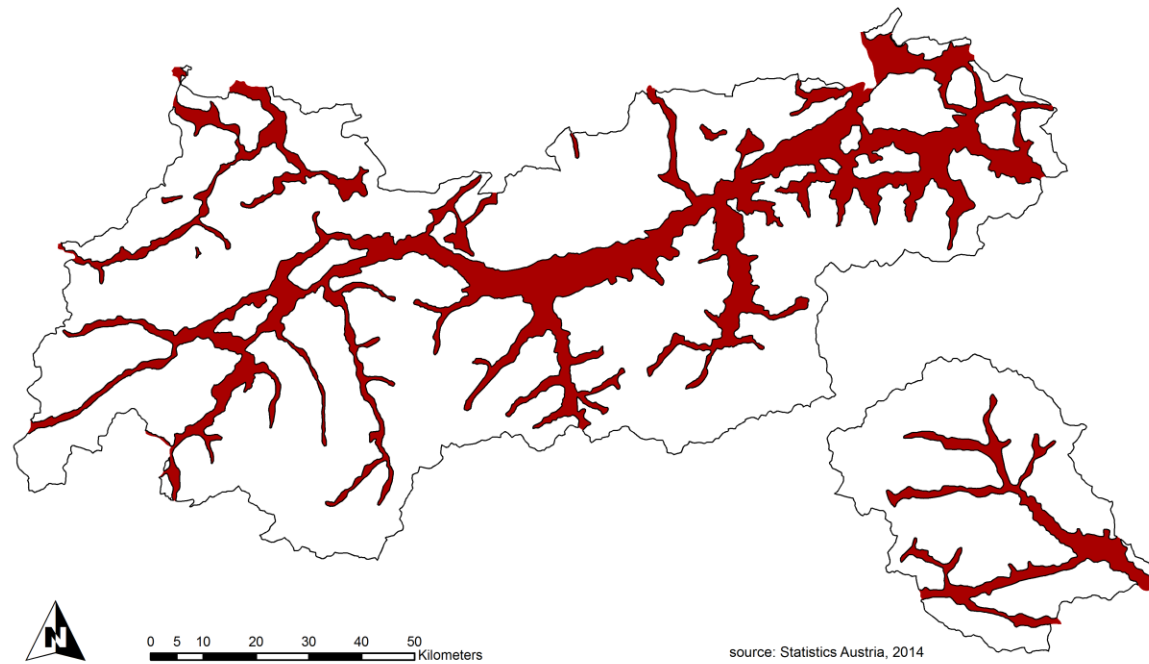
Pfitschertal // South Tyrol (2014, St. Tischler)

SUSTAINABLE MOBILITY AND LIVING IN ALPINE METROPOLITAN REGIONS

Stephan Tischler // 20.5.2014 // mobil.TUM // Munich

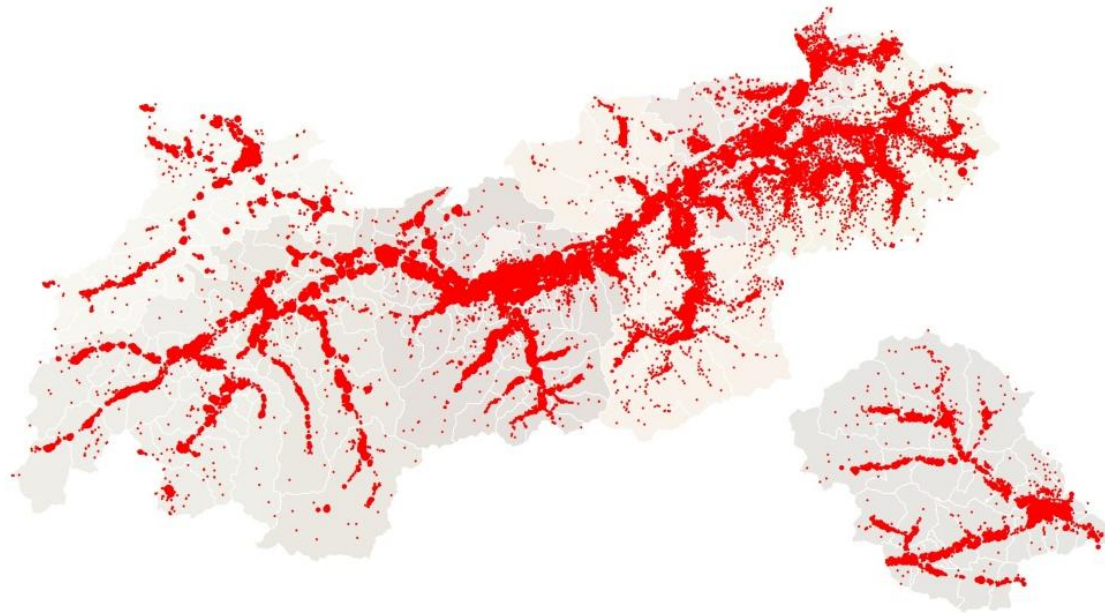
Alpine Space // Characteristics

Area of permanent Settlement



Alpine Space // Characteristics

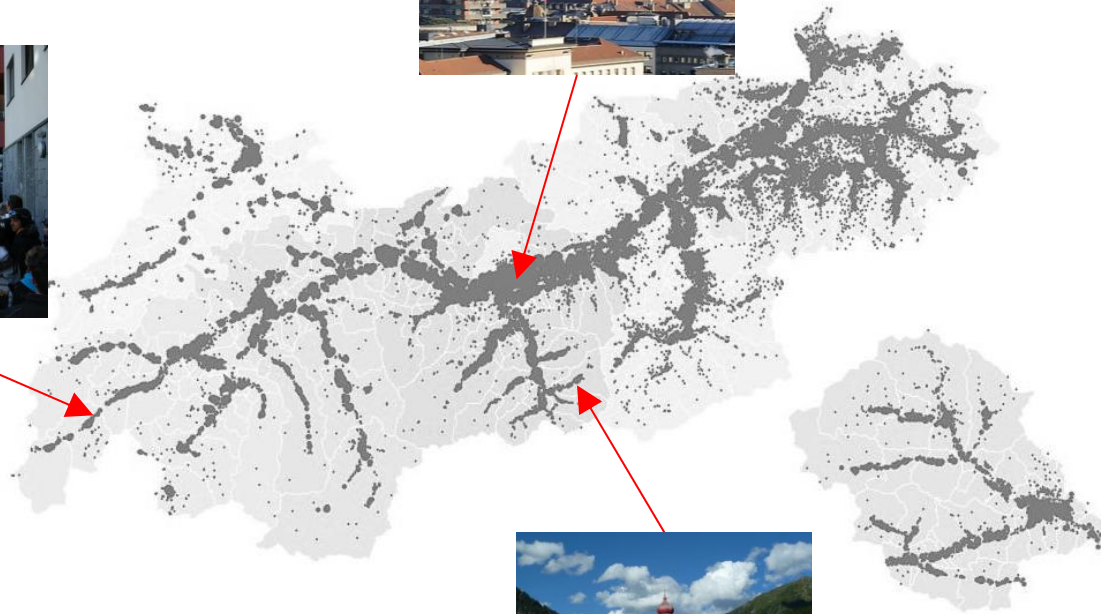
Urbanization



population density (2010)

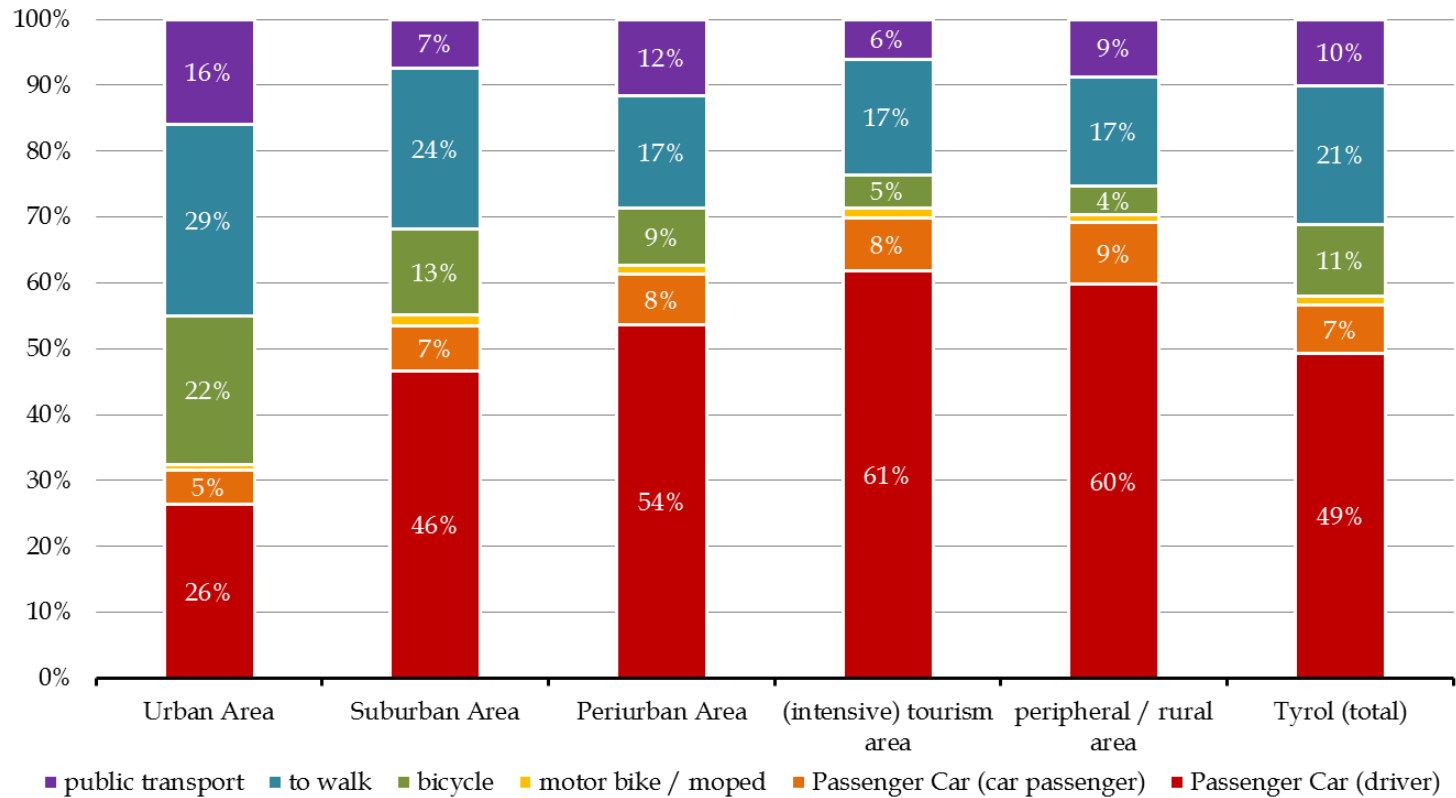
Alpine Space // Characteristics

Different Types of Land Use



Alpine Space // Characteristics

Different Types of Land Use & Mobility



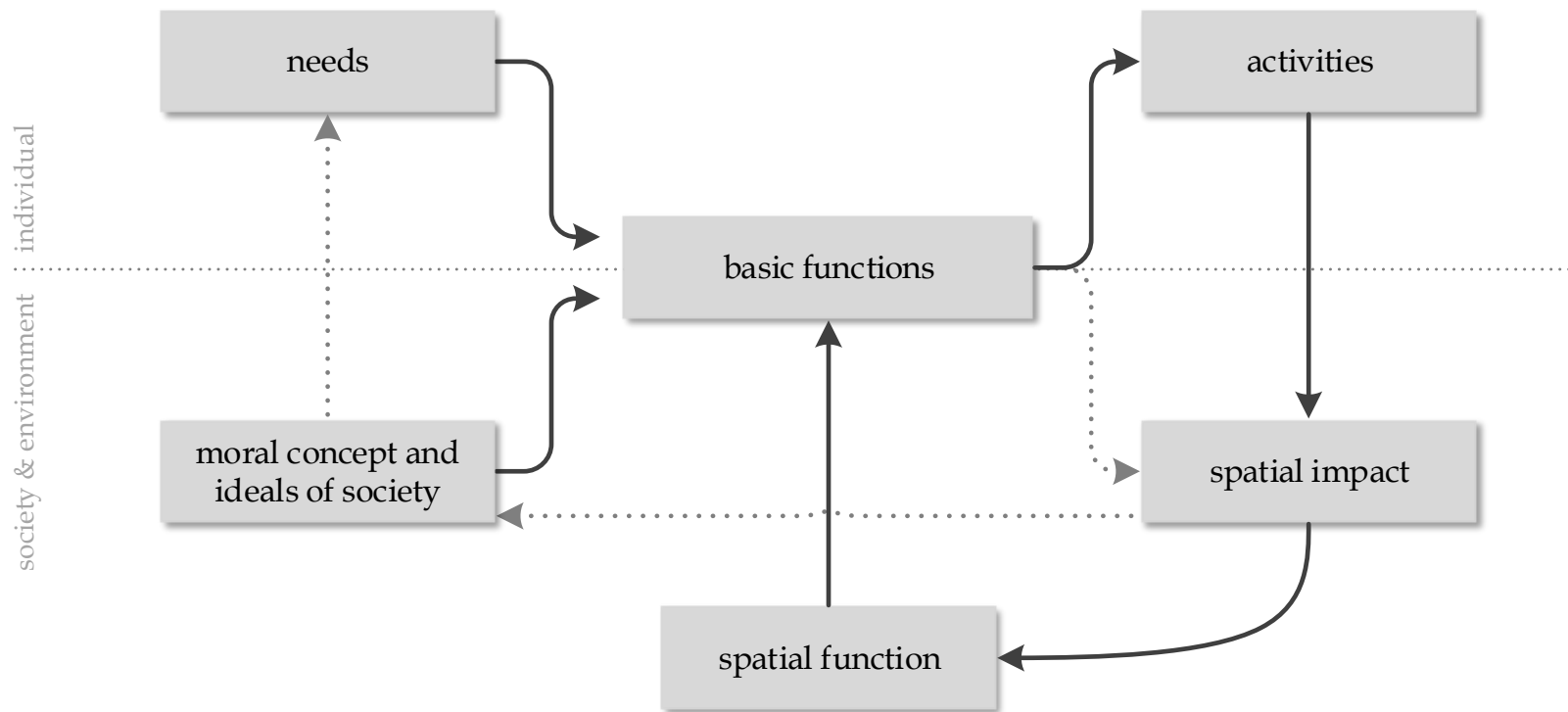
source: Amt der Tiroler Landesregierung (2012)

Alpine Space // Characteristics

Conclusions

- ❖ outstanding topographic situation
- ❖ different types of land use
- ❖ various daily / weekly / seasonal rhythms of spatial processes
- ❖ overlapping spatial functions
- ❖ natural hazards

Human Activities // Mobility // Spatial Structure



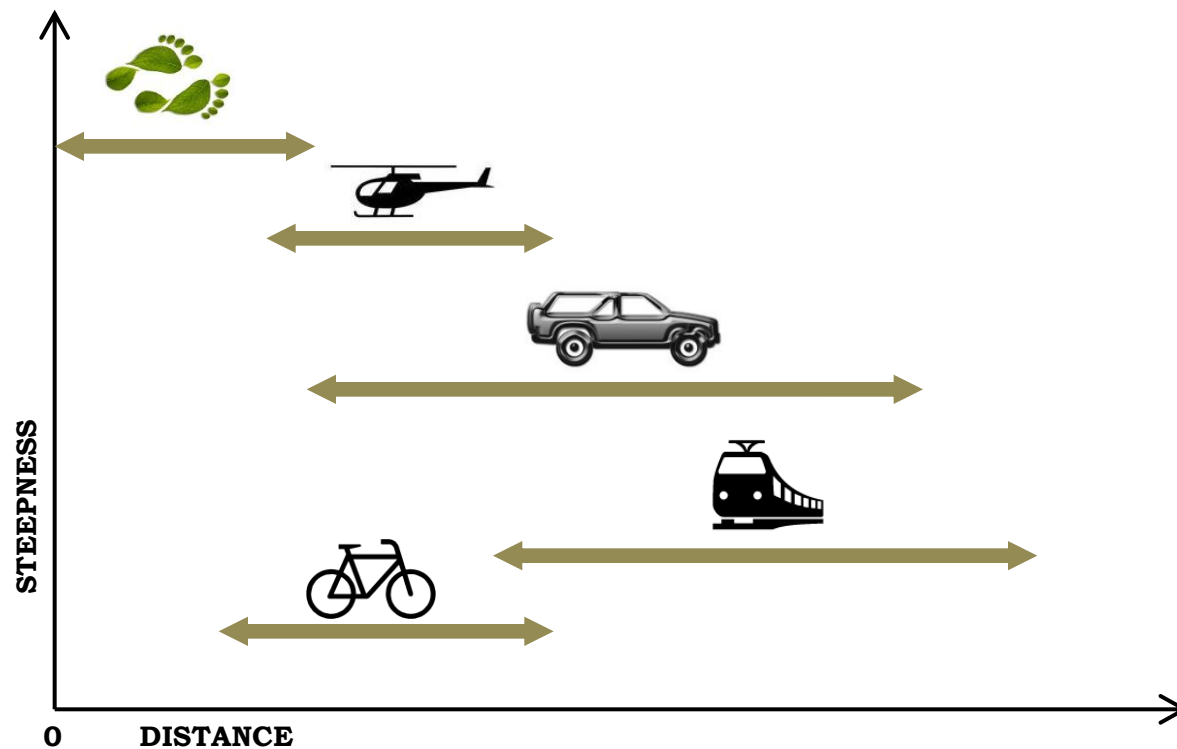
Human Activities // Mobility // Spatial Structure

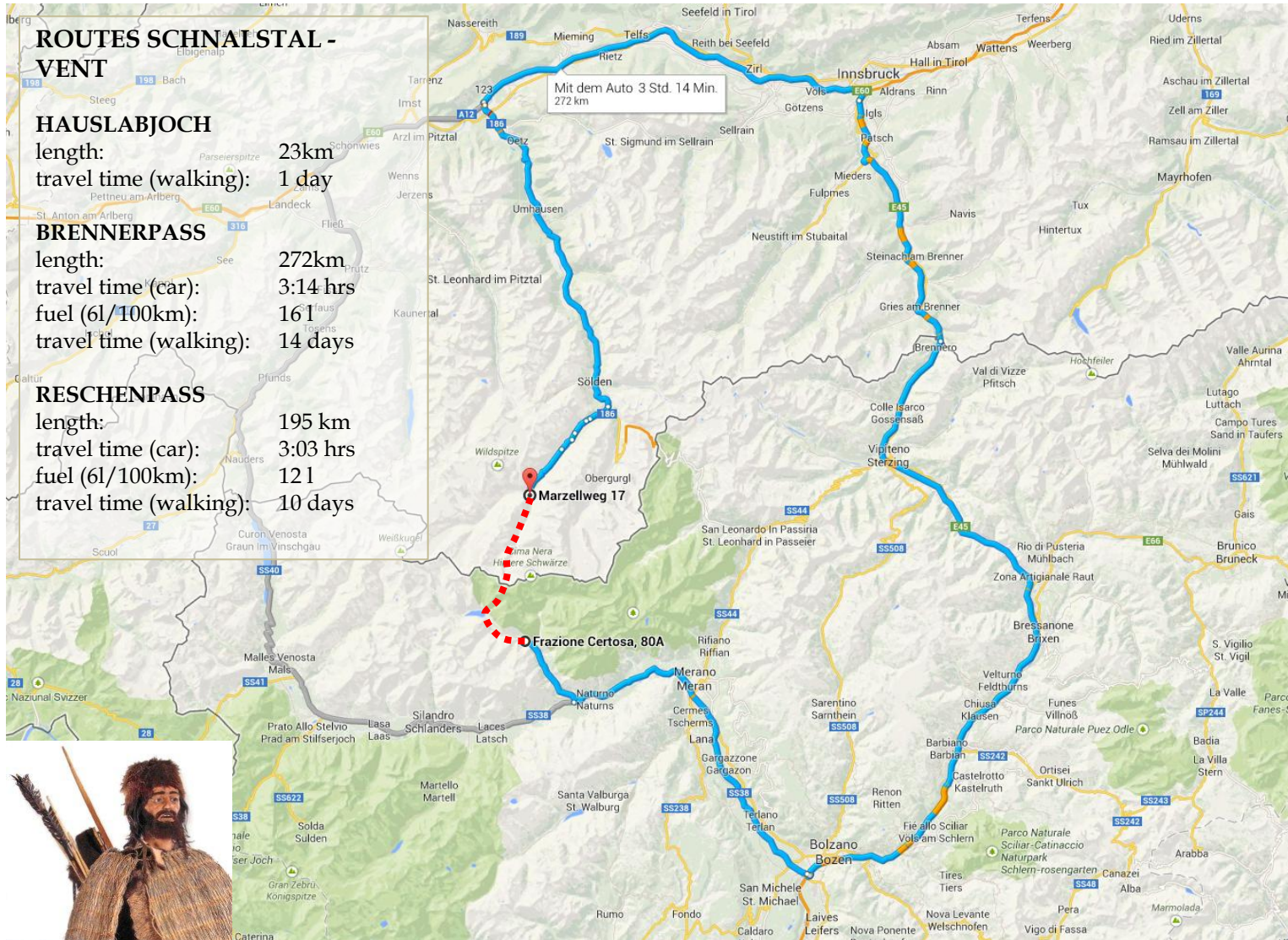
Accessibility in Alpine Regions

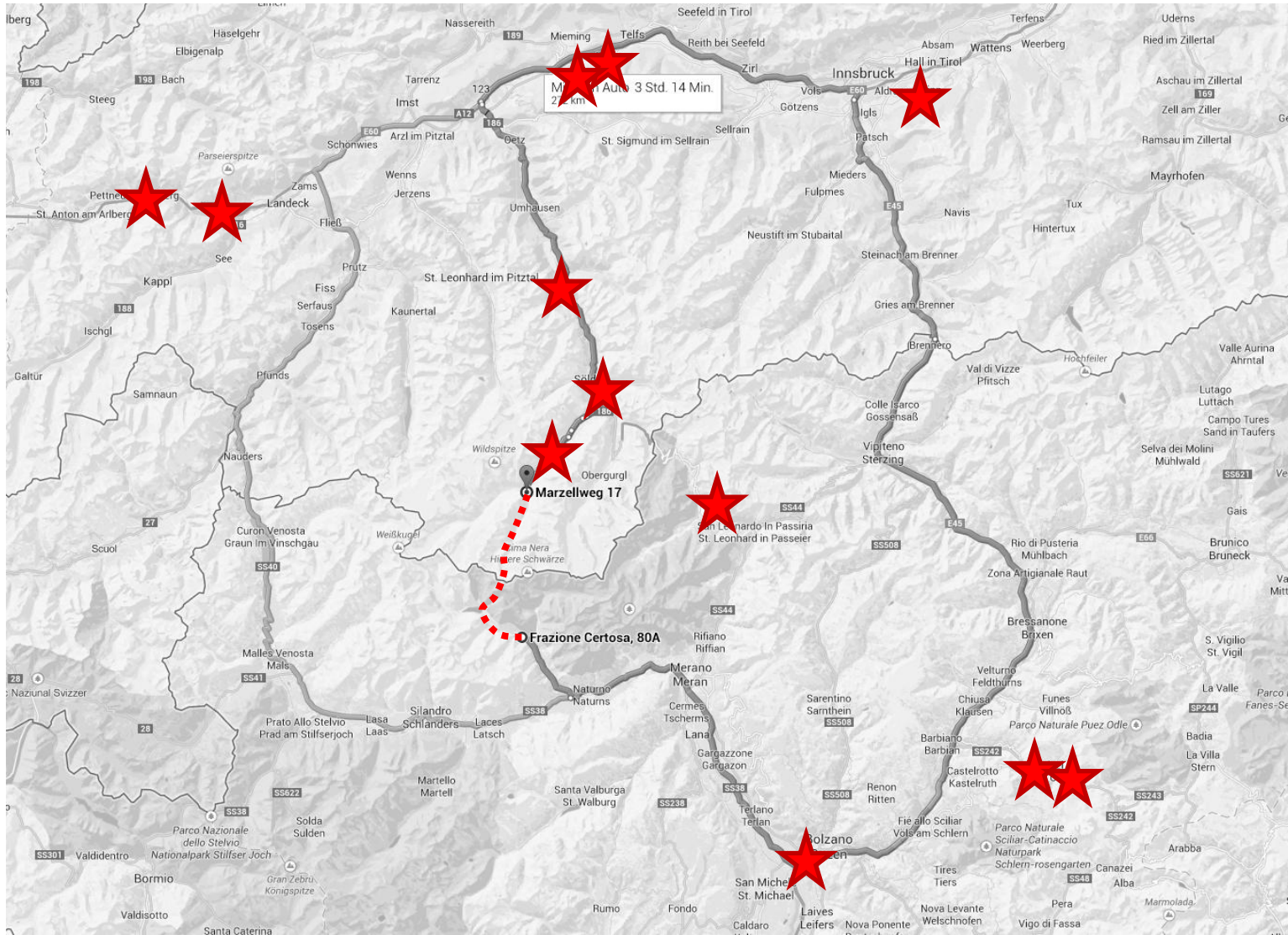


Human Activities // Mobility // Spatial Structure

Accessibility in Alpine Regions







SUSTAINABLE MOBILITY AND LIVING IN ALPINE METROPOLITAN REGIONS

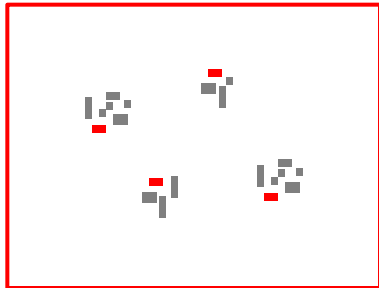
Human Activities // Mobility // Spatial Structure

Conclusions

- ❖ basic human needs & functions haven't changed
- ❖ location of opportunities changes and influences mobility & spatial structure
- ❖ Mountain Ranges are not a barrier to mobility

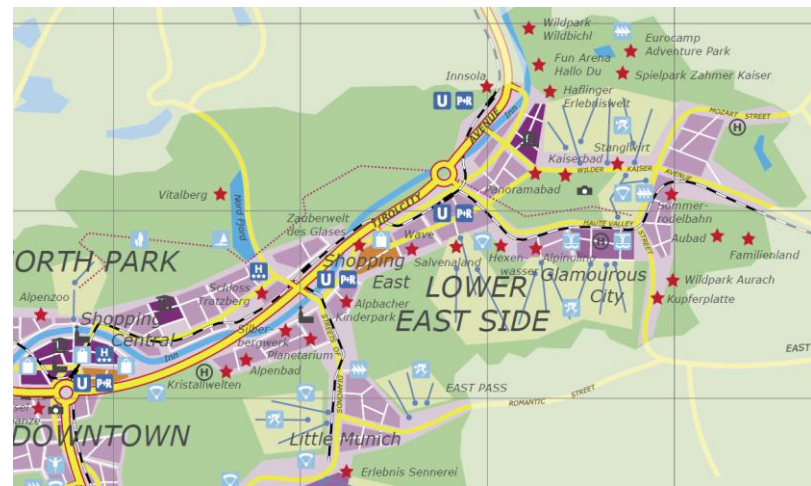
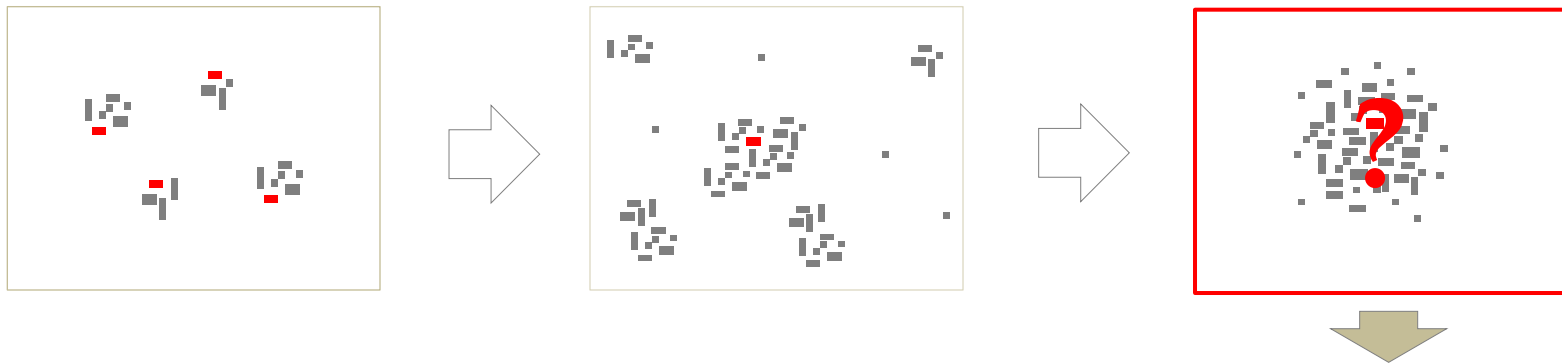
Sustainable Spatial Development in Alpine Space

Past



Sustainable Spatial Development in Alpine Space

Future (?)



SUSTAINABLE MOBILITY AND LIVING IN ALPINE METROPOLITAN REGIONS

Stephan Tischler // 20.5.2014 // mobil.TUM // Munich

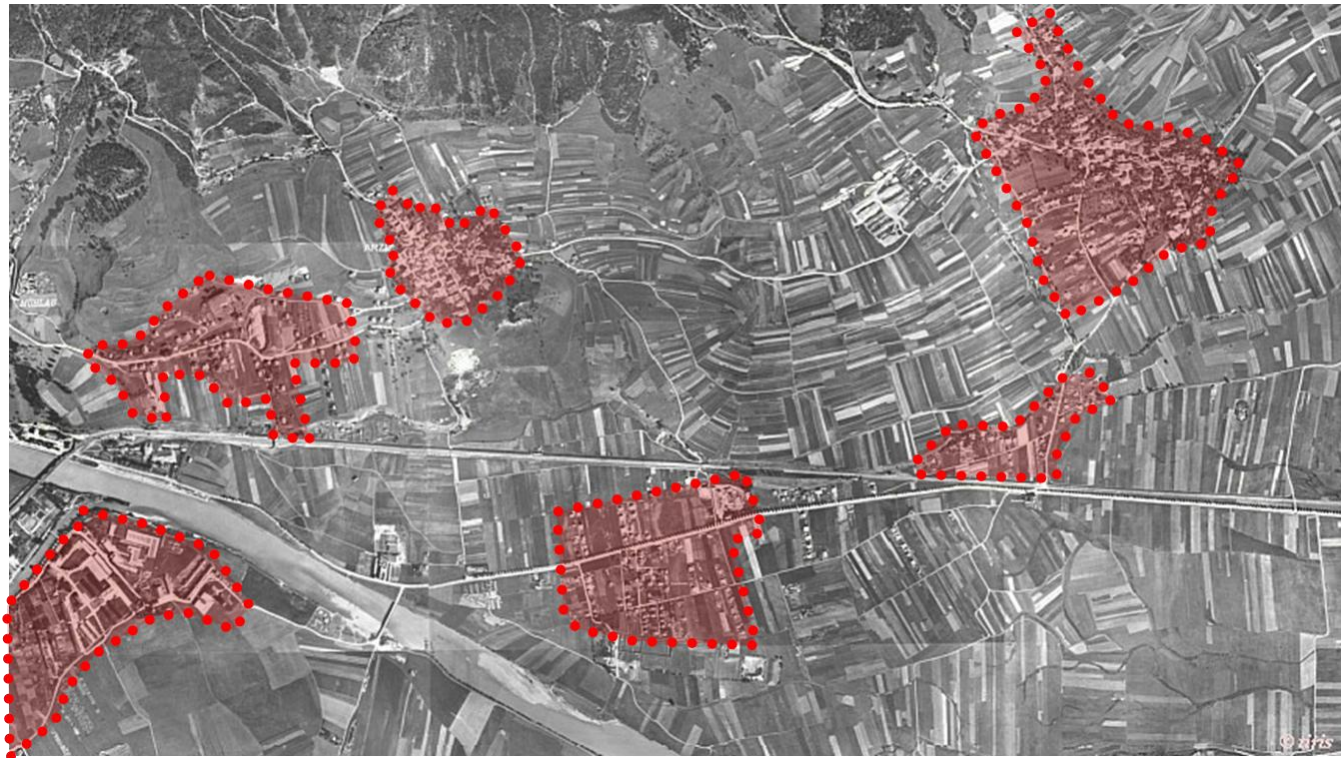
Sustainable Spatial Development in Alpine Space

Public Awareness



Human Activities // Mobility // Spatial Structure

(sub)urban sprawl



1940

Human Activities // Mobility // Spatial Structure

(sub)urban sprawl

1970



Human Activities // Mobility // Spatial Structure

(sub)urban sprawl

2005



Sustainable Spatial Development in Alpine Space

Disparities & Dependencies



- ❖ Spatial Disparities
- ❖ Temporary Disparities

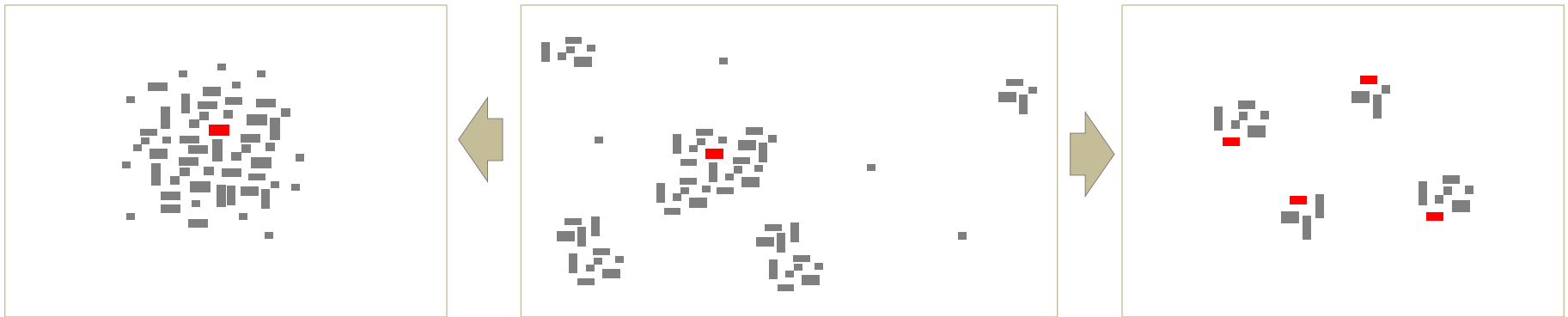


Dependencies

- ❖ Transport Infrastructure
- ❖ External Conditions

Sustainable Spatial Development in Alpine Space

Sustainable ?



MAYBE ...

NOT SUSTAINABLE

MAYBE ...

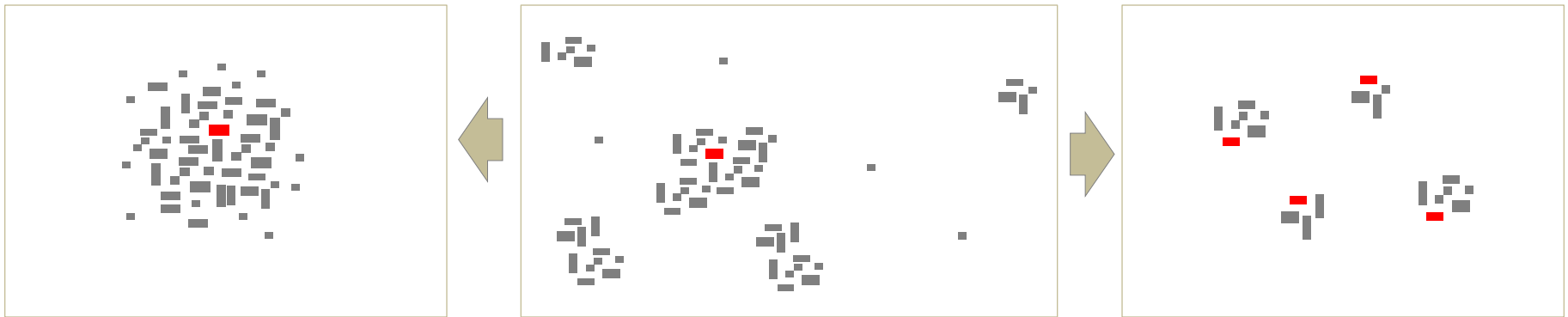
Sustainable Spatial Development in Alpine Space

Resilience & Vulnerability



Sustainable Spatial Development in Alpine Space

Sustainable ?



NOT SUSTAINABLE

NOT SUSTAINABLE

SUSTAINABLE !

Sustainable Spatial Development in Alpine Space

Conclusions

- ❖ satisfaction of human needs and basic functions
- ❖ enable mobility for all groups of society
- ❖ ecologic and economic compliant basis
- ❖ characteristic features of mountainous areas
- ❖ public awareness of sustainability

Thanks for your attention!



Stephan Tischler

University of Innsbruck
Institute for Infrastructure Engineering // Unit for Intelligent
Transport Systems
+43 (0) 512 507 - 62404
stephan.tischler@uibk.ac.at