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# A Sufficient Path to Climate-Neutral Transport

## Facing climate mitigation, adaptation needs and transport justice

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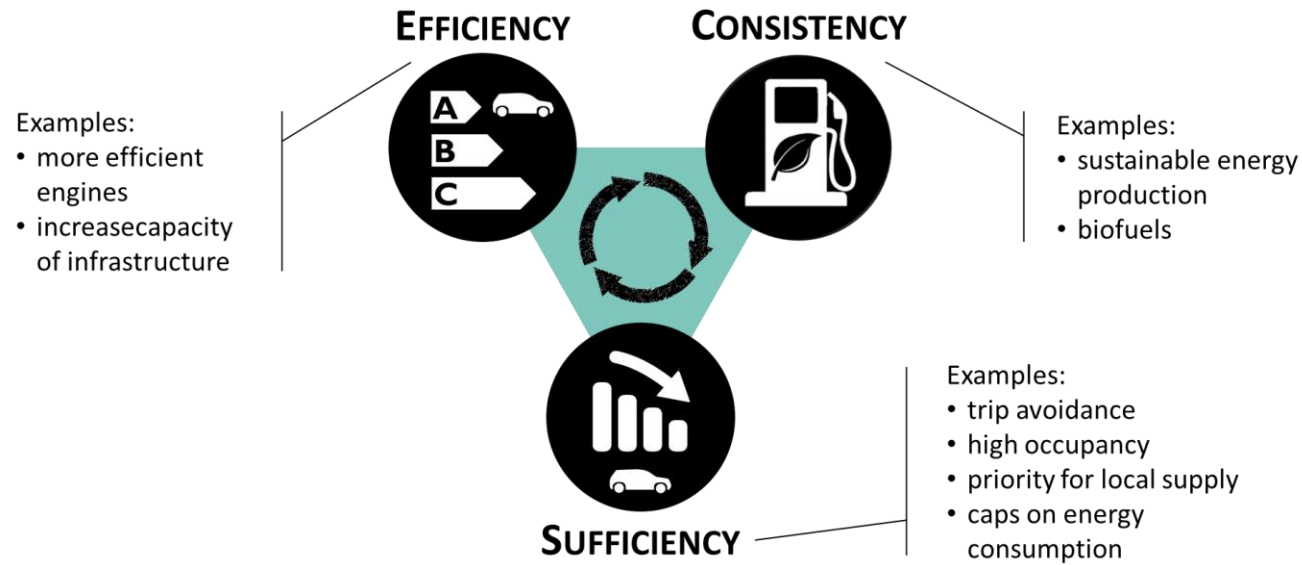
# TRANSPORT CHALLENGES

## So much to do, so little time…

# MITIGATION STRATEGIES IN TRANSPORT

Which strategies ensure climate mitigation?

Which measures does it need?



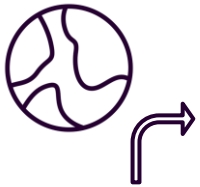
# CLIMATE IMPACTS AND ADAPTATION NEEDS

→ Will increasing heat in cities lead to rural migration and more commuter traffic?

→ How will increasing cases of wildfires, flooding and land slides affect our infrastructure?

# TRANSPORT JUSTICE

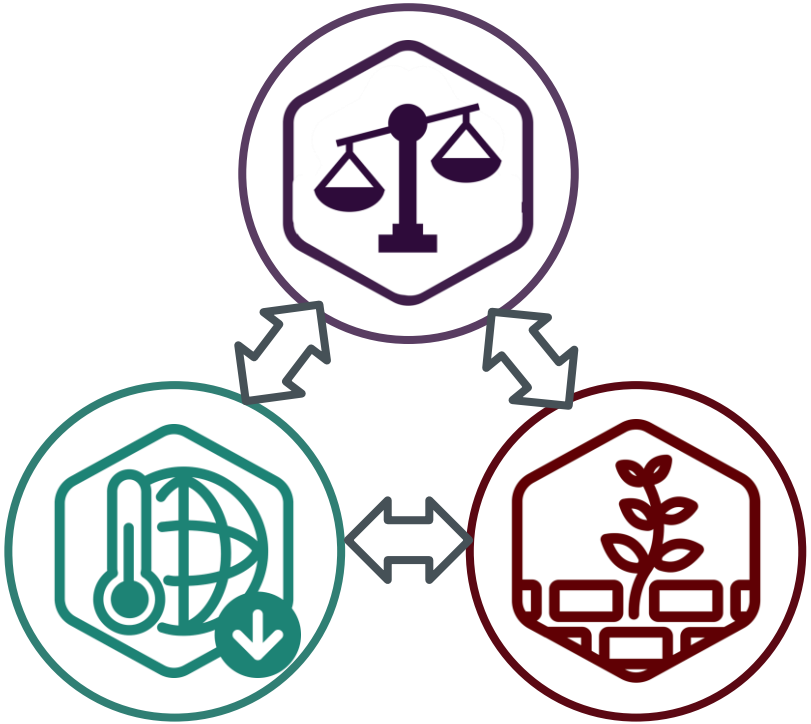
Generational justice



Global justice

Societal justice

# … AND ALL WITHIN 15-20 YEARS?



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# A DIRE NEED FOR PARADIGM SHIFTS

## It‘s not about mobility, it‘s about accessibility

# HOW TRANSPORT NEEDS ARE UNDERSTOOD

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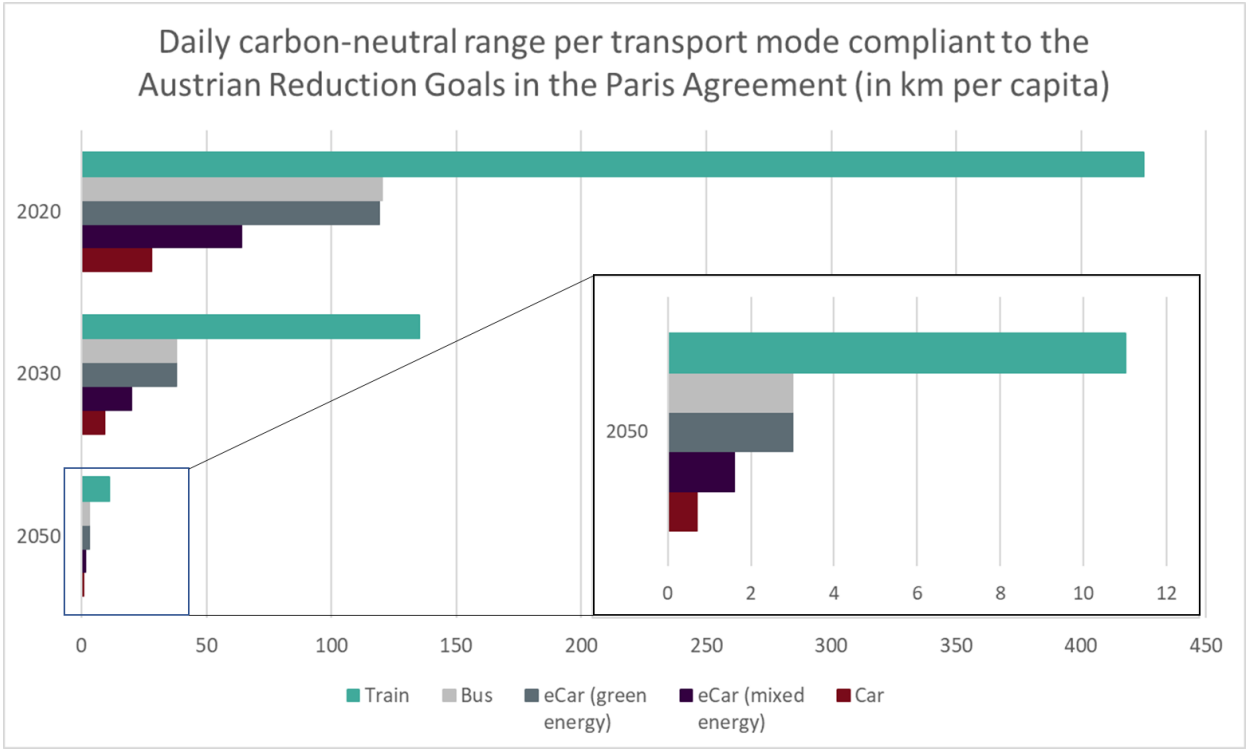
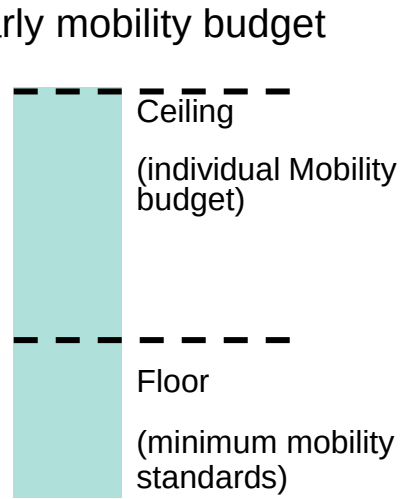
# HOW TRANSPORT NEEDS SHOULD BE DEFINED

# A THOUGHT EXPERIMENT…

This is how far we could only go per day with specific modes of transport if 2050 decarbonisation targets in the transport sector were mandatory tomorrow…



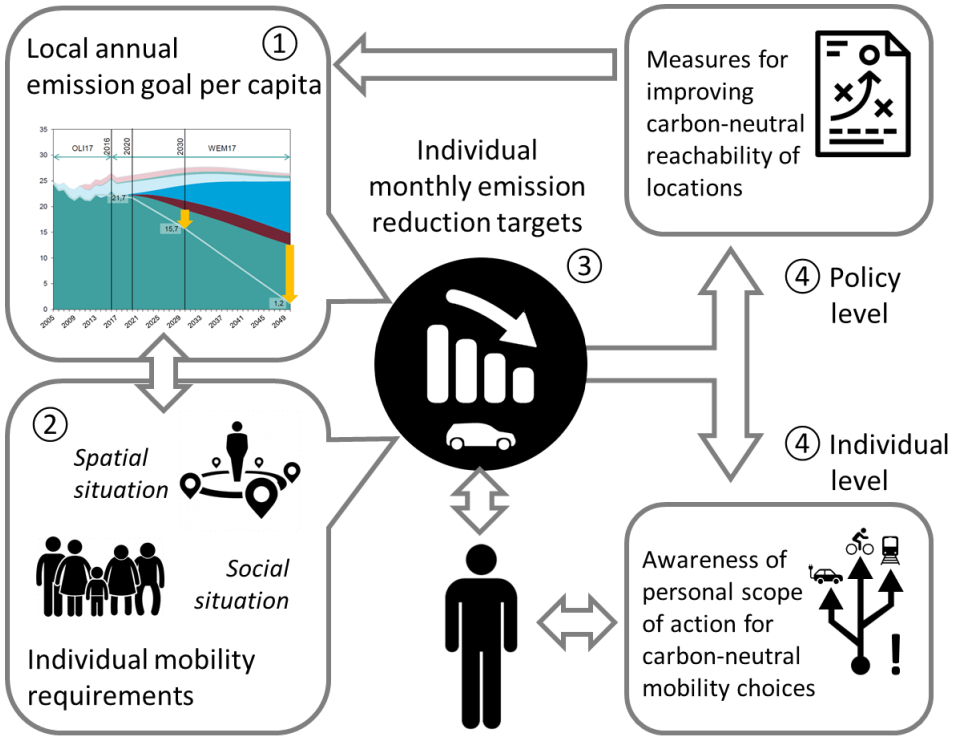
# WHAT IF EACH OF US HAD A MOBILITY BUDGET




*The upper limit is defined by how much transport emissions we can „afford“ per person and year*

*The lower limit is defined by how much emissions have to be accepted for a person to reach the nearest everyday funcitonalities.*

# FAIR INDIVIDUAL MOBILITY CARBON BUDGETS




① Average monthly allowance for individual mobility budgets based on local annual emission goals and population

② Individual spatial situation (reachability of locations, available mobility options) and social situation (responsibilities for household members, financial basis)

③ Provision of individual monthly emission targets (allowance in form of mobility budgets with tradable mobility permits)

④ Policy level:
Targeted measures to improve spatial reachability by analysing local mobility budgets
Individual level:
Achievable monthly goals and suggestions of alternatives for informed mobility choices

Source: project mobalance

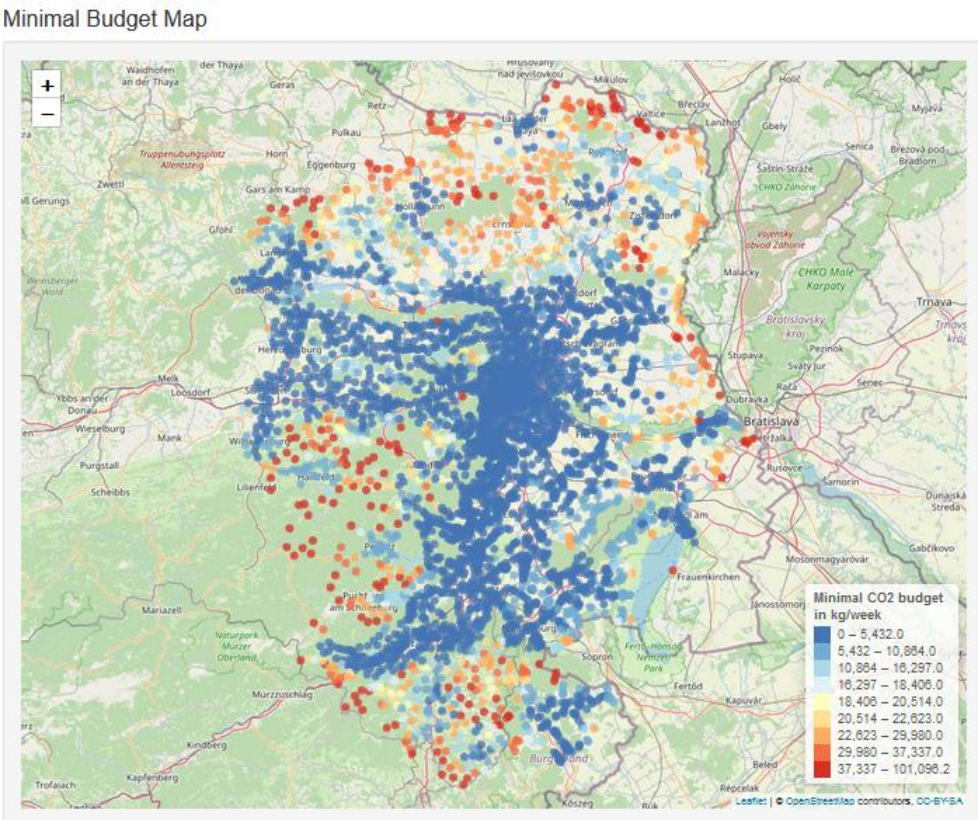
# NEW PRIORITIES

**Location**

**Digitalisation**

**Transportation**

# IT IS POSSIBLE!




Local accessibility of everyday functionalities…

- *brings transport decarbonisation targets within reach*
- *frees surfaces for nature based solutions for more resilience*
- *provides equal accessibility for people from all walks of life*

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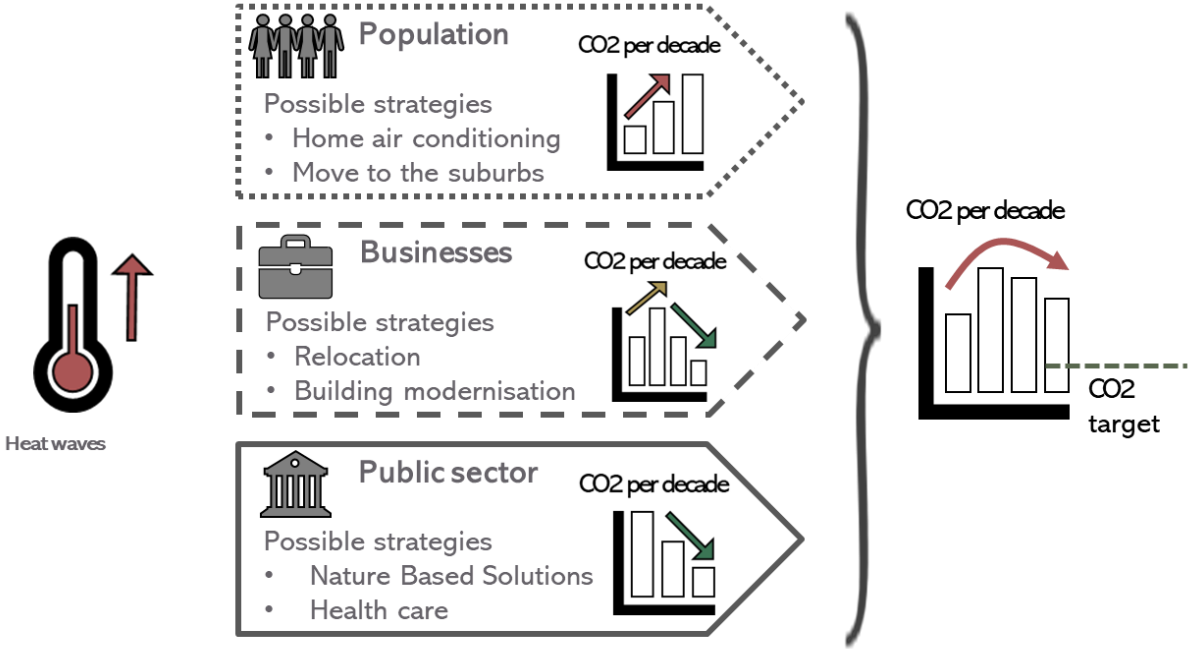
# BALANCING CLIMATE ADAPTATION & MITIGATION

## Looking beyond transport

# COUNTING IN REBOUND & SPILLOVER EFFECTS

Adaptation strategies may be conflicting and concequently jeopardising mitigation goals.



KNOWING

*Framework for defining climate mitigation pathways based on understanding and integrated assessment of climate impacts, adaptation strategies and societal transformation*

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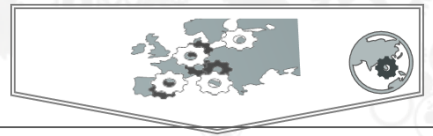
Climate Impact Contexts

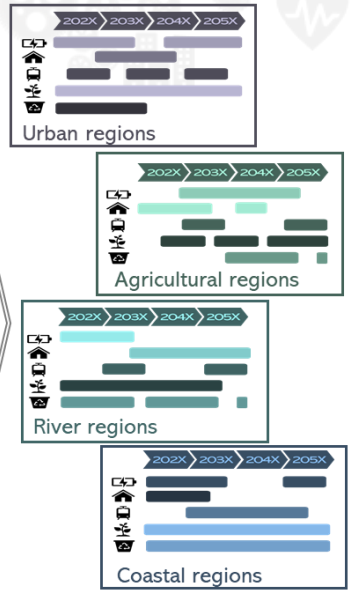
Demonstrator & Follower Regions



Framework for modelling impact interrelations

Assessing combinations of measures

Climate Mitigation Pathways




Climate Activation & Empowerment Services

Project KNOWING is funded by the European Union - GA Project 1011056841

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KNOWING

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**KNOWING** follows a three-pillar strategy for assuring the best possible transfer of knowledge and tools to public authorities, stakeholders, initiatives and the general public by increasing

Profound and comprehensive **knowledge** about quantifiable cross-sectoral interactions, complementarity and trade-offs of adaptation and mitigation measures *(“knowing what”)*

General **awareness** of this knowledge to increase the acceptance and support of measures and inspire active engagement and societal transformation *(“knowing why”)*

**Tools and guidelines** to apply this knowledge and accelerate the implementation of effective adaptation and mitigation plans *(“knowing how”)*

Hence, KNOWING develops the knowledge and solutions that will help…

1 … **authorities** to know which measures and conditions for adaptation to set along climate mitigation pathways,
2 … **businesses**, production and service providers to know how to adapt to changing conditions and climate impacts,
3 … **people** to know how to adapt their lifestyles in the most sufficient way and why measures need to be set.

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# THANK YOU!


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