

Towards Just Transitions in Urban Transportation

Tim Schwanen

BTR#8: Bridging Transportation Researchers
August 12, 2026

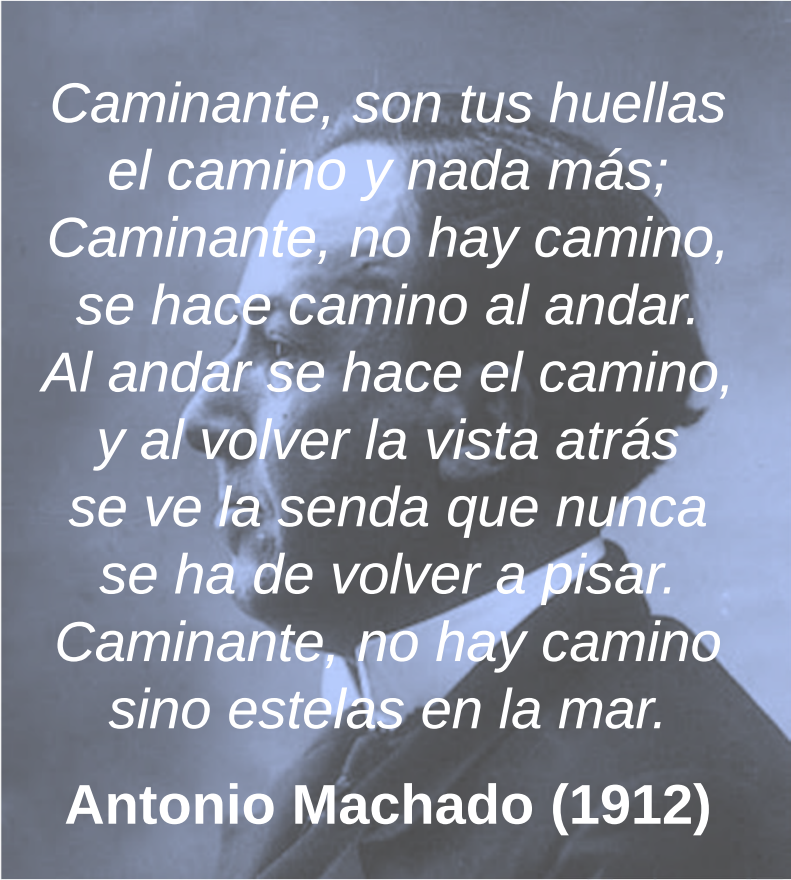


Traveler, there is no road

*Traveler, your footprints
are the only road, nothing else.
Traveler, there is no road;
you make your own path as you walk.
As you walk, you make your own road,
and when you look back
you see the path
you will never travel again.
Traveler, there is no road;
only a ship's wake on the sea.*

translated by Mary G. Berg and Dennis Maloney

Caminante, no hay camino



*Caminante, son tus huellas
el camino y nada más;
Caminante, no hay camino,
se hace camino al andar.
Al andar se hace el camino,
y al volver la vista atrás
se ve la senda que nunca
se ha de volver a pisar.
Caminante, no hay camino
sino estelas en la mar.*

Antonio Machado (1912)

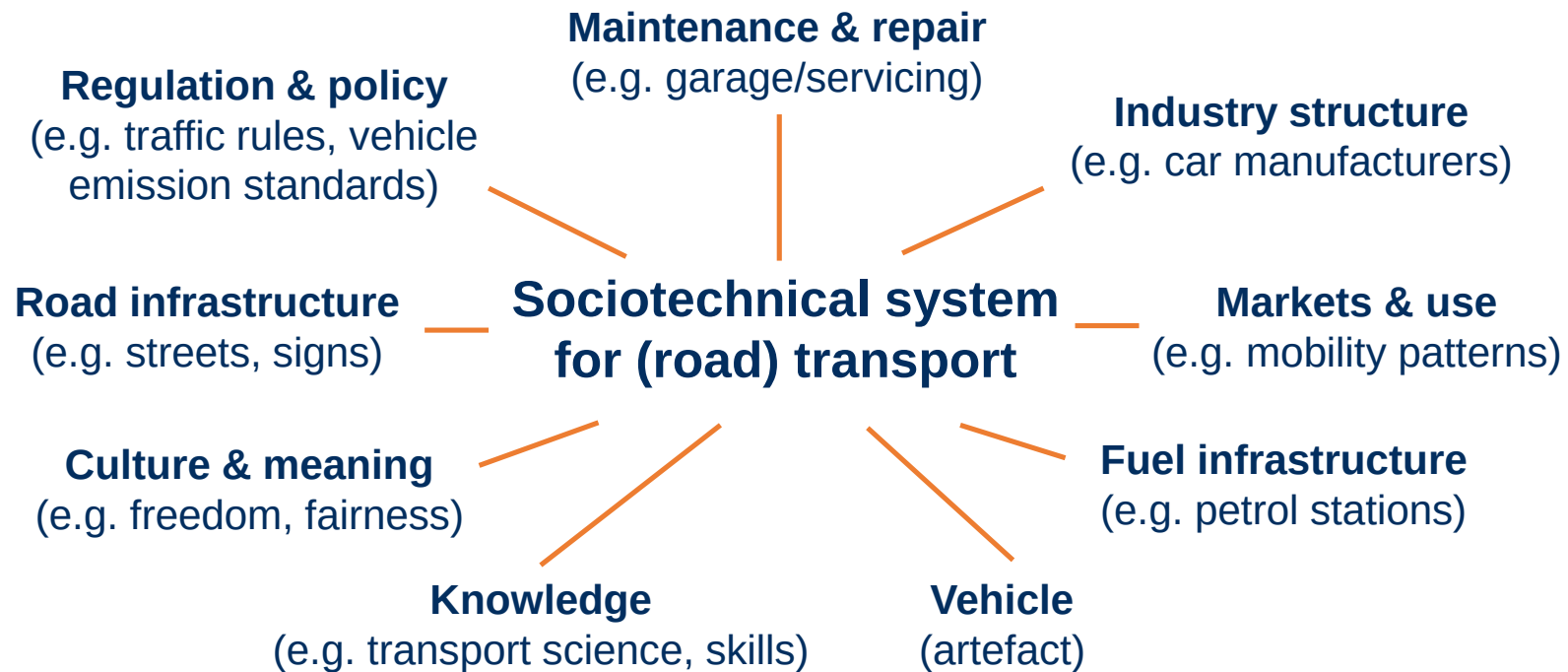
Just transitions in transportation place strong demands on how, as transport researchers, we think, work and act

Transition—Just Transition—Analysis—Diplomacy—Conclusion



JUST TRANSITION NOW

Transition

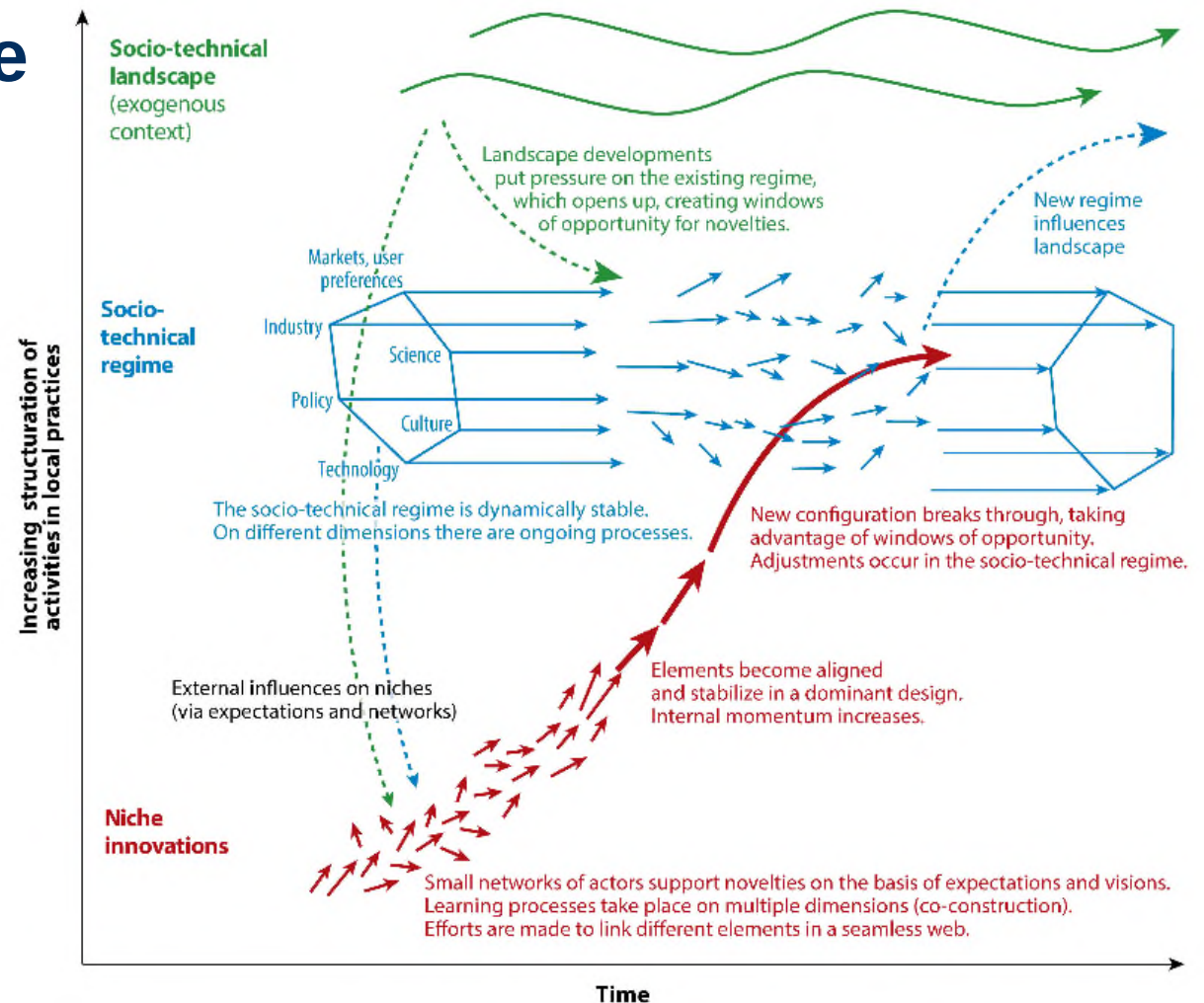


Based on Geels *et al.* (2017, p. 465)

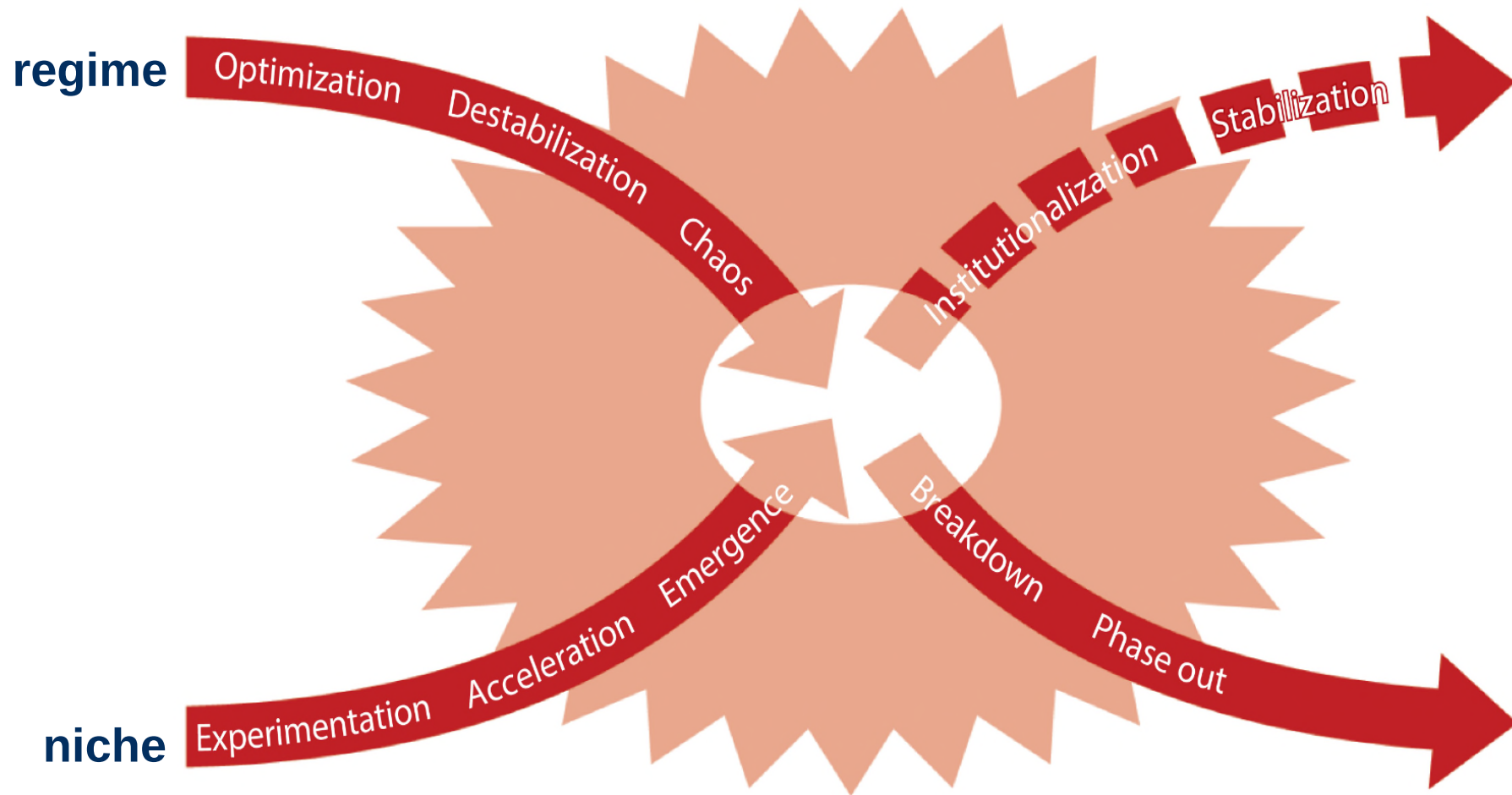
Multi-Level Perspective

Key message:

Socio-technical transitions comes about through interactions between the three levels

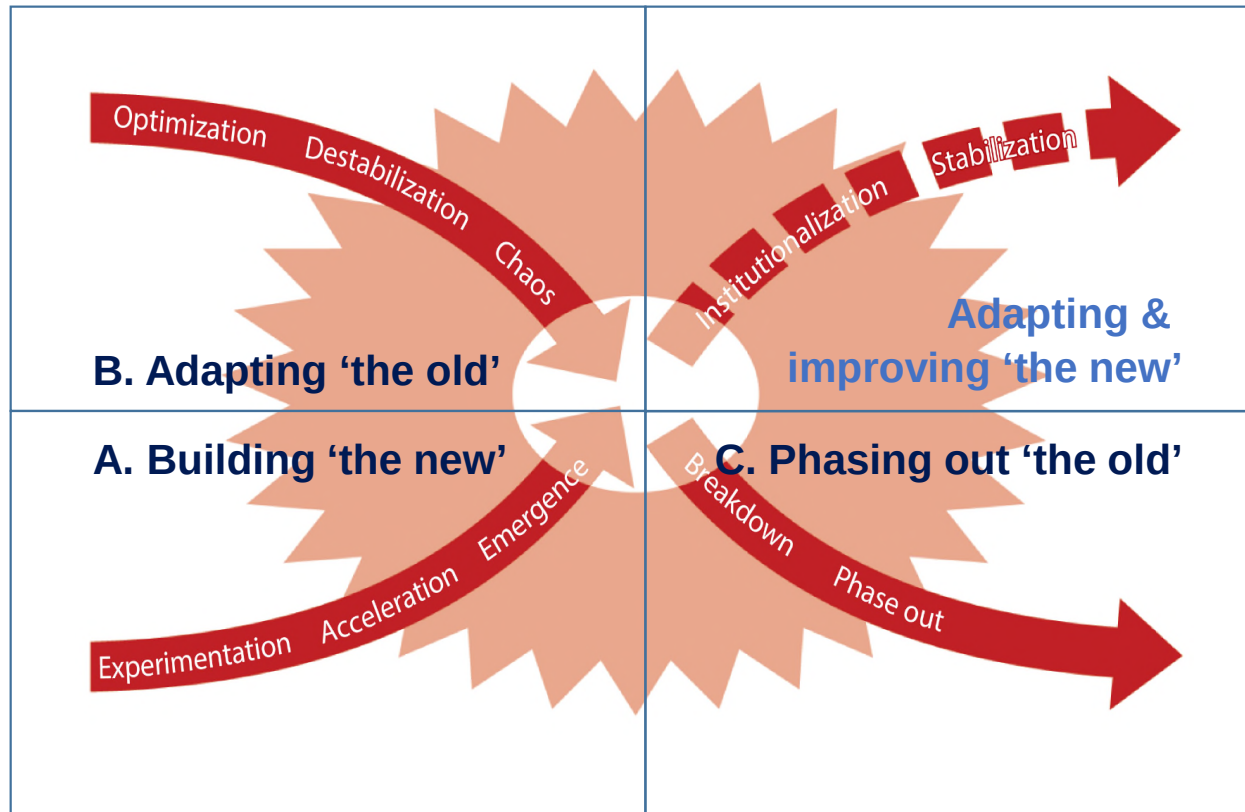


Sources: Geels (2002, p. 1263), Loorbach et al. (2017, p. 606)

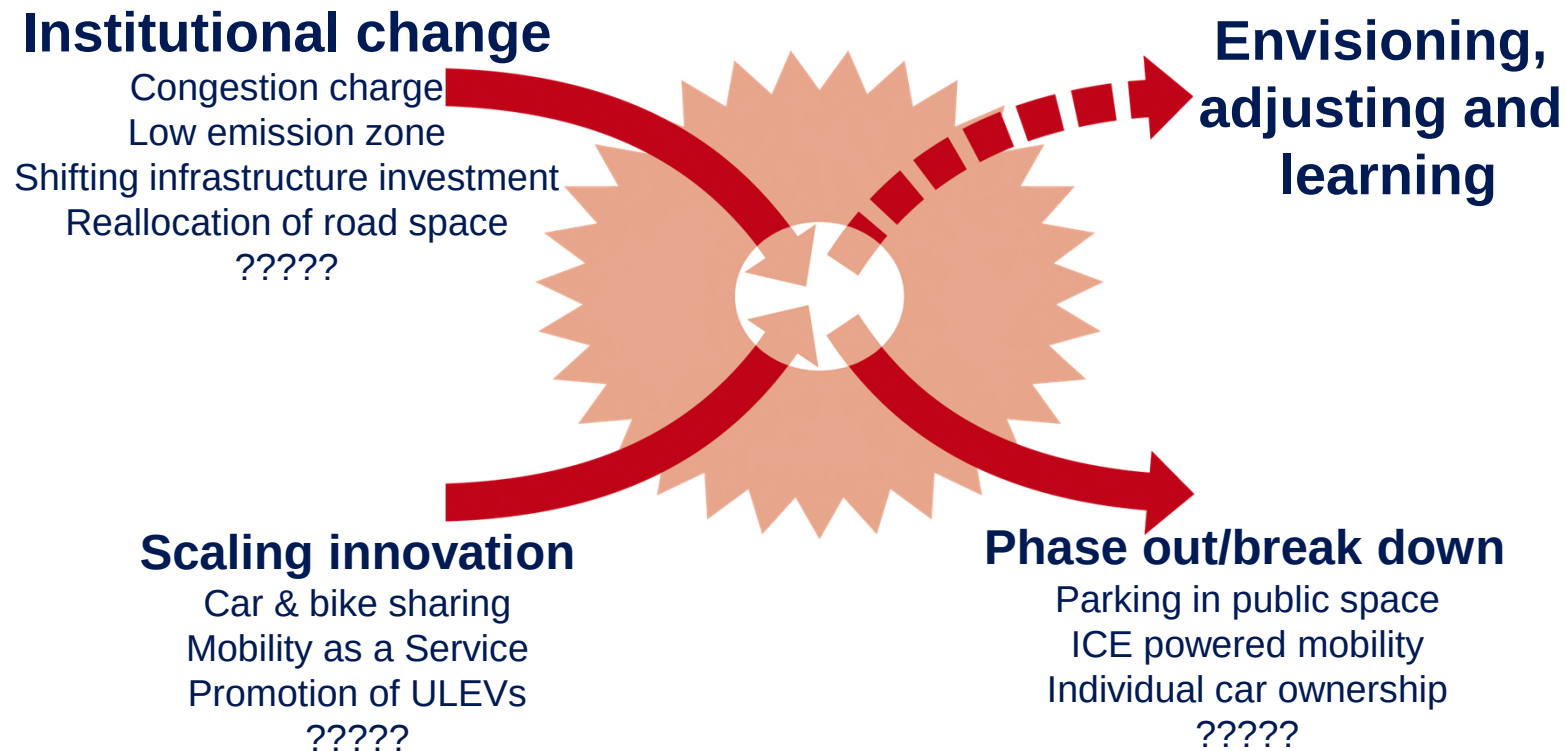


Source: Loorbach et al. (2017, p. 607)

Governing change



Governing change





Contents lists available at ScienceDirect

Journal of Urban Mobility

journal homepage: www.elsevier.com/locate/urbmob



Transition governance for just, sustainable urban mobility: An experimental approach from Rotterdam, the Netherlands



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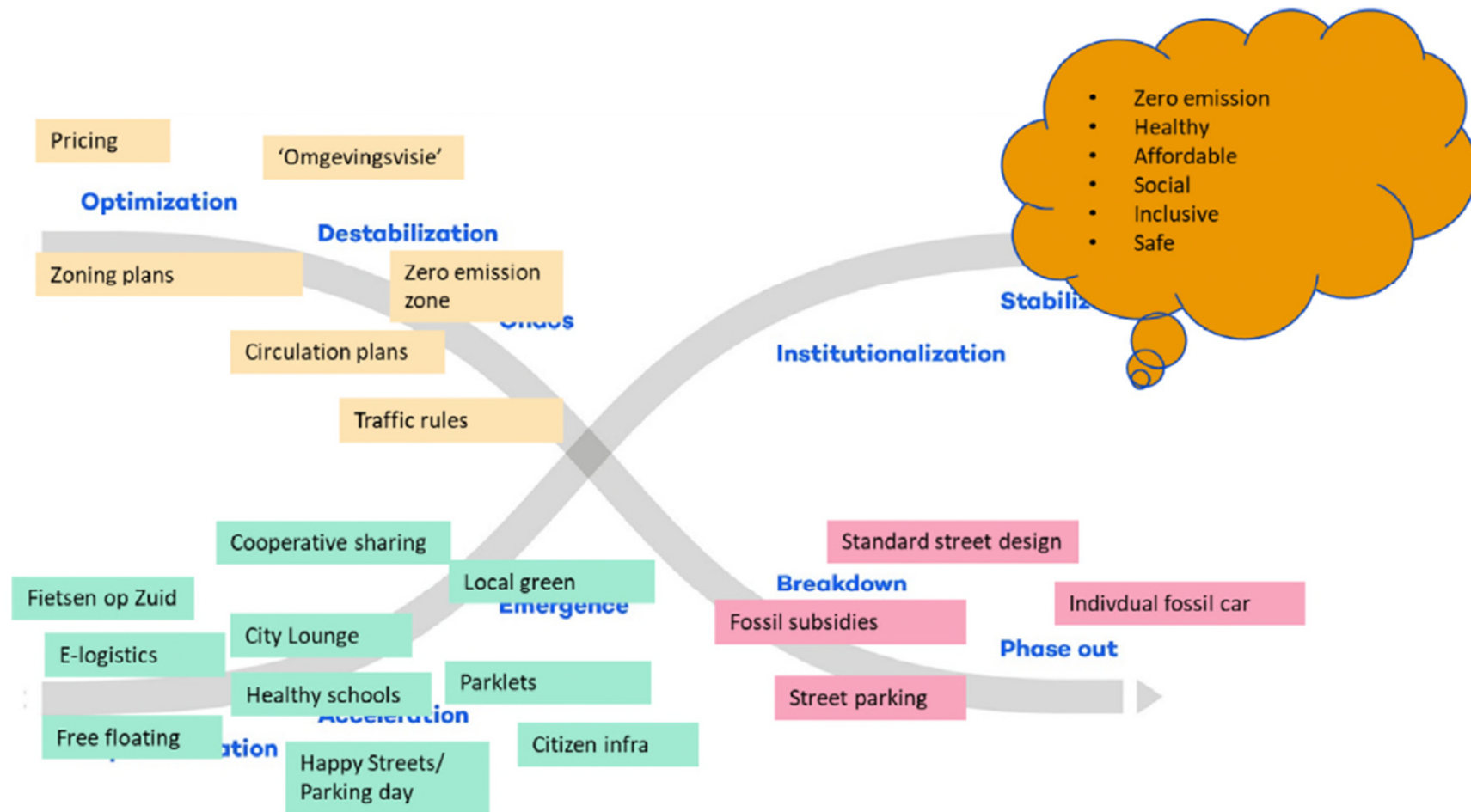


Fig. 3. Transition strategy for just, sustainable mobility future in Rotterdam.

Reflections on transition governance

TG is *not*:

- primarily geared towards technological change
- a blueprint for institutional change from above

TG is best thought of as:

- amplification and channelling of spontaneous, incipient tendencies that are geographically differentiated and distinctive at each iteration
- ‘work in progress’ – constantly in need of (re)development

Accumulation of footprints rather than a road (Machado)



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Just Transitions

“ *the term has become extended, multifaceted and
in some senses problematically polysemic,
” which leaves room for confusion in interpretation*

Energy Research & Social Science 82 (2021) 102291



Contents lists available at ScienceDirect

Energy Research & Social Science

journal homepage: www.elsevier.com/locate/erss



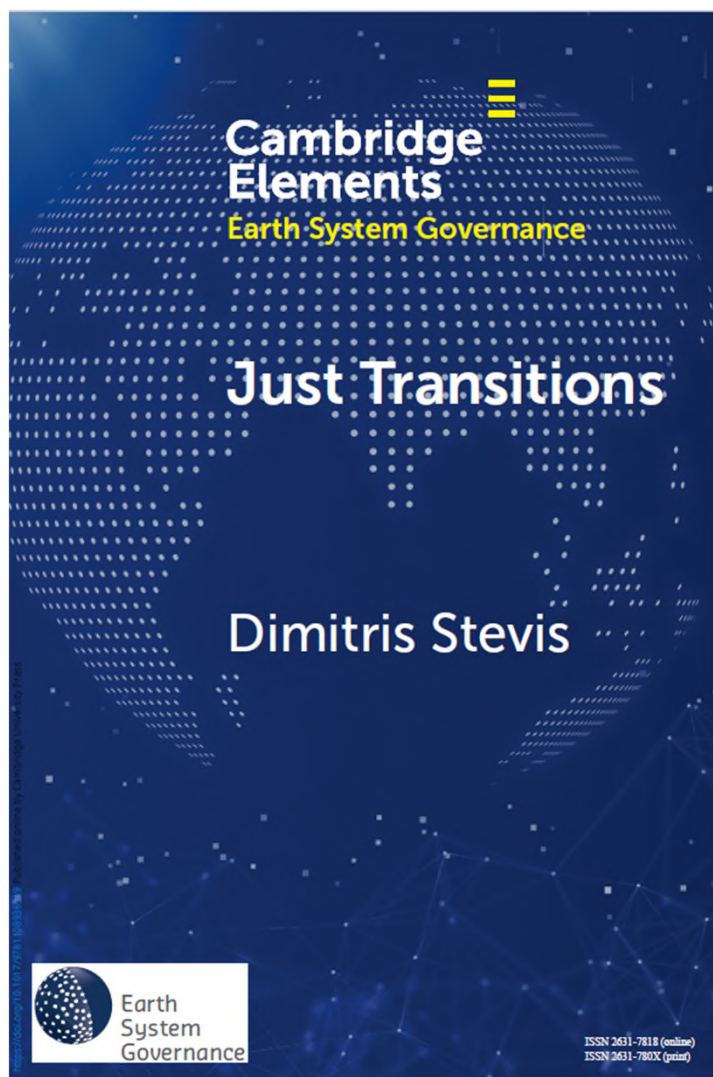
Review

Just transition: A conceptual review

Xinxin Wang, Kevin Lo^{*}

Department of Geography, Hong Kong Baptist University, Hong Kong, China





Prioritising just transition for transport in Nationally Determined Contributions

A just transition to equitable, healthy, green and resilient transport and mobility systems is central to socio-economic prosperity for the people and the planet. A just transition secures the future and livelihoods of workers and their communities during the transition to a low-carbon economy, effectively limiting global temperature rises to 1.5°C above pre-industrial levels

- The concept arose from the global labour movement to provide a framework to address the social impacts of the climate crisis
- Since the 2015 Paris Agreement on Climate Change, a 'just transition of the workforce' has been embedded in global climate goals
- Detailed guidelines for a just transition have been endorsed by the International Labour Organisation (ILO) and are the central reference for implementing policies and measures

There is significant job creation potential in the transformations towards sustainable transport. Ensuring a 'just transition' has gained increasing prominence in recent years, and many places have implemented policies and programmes to support workers during the changing circumstances necessary as part of climate action. However, too often, climate action in transport sidelines the people who are actually operating our transport systems, supply chains and moving societies forward. Integrating transport workers' voices into decision-making is crucial. From the outset, workers and their communities should inform the approach, identifying and addressing risks while maximising benefits to advance climate and social goals collectively.

A just transition for transport workers - what does it take?

- Co-create plans with workers and their trade unions
- Guarantee decent work, safeguards against climate harms, social protection, training opportunities and job security for all workers
- Underpinned by ILO fundamental labour rights and the freedom of association and collective bargaining
- Facilitate through social dialogue between workers and their unions, employers and governments
- Ensure intra-, intergenerational and gender equity, racial justice, respect for the rights of indigenous peoples, impacted communities and migrants
- Align climate finance with just transition objectives and appropriate benchmarks, assessments and monitoring

SLOCAT Transport, Climate and Sustainability Global Status Report - 3rd edition and its Takeaways for Decision Makers

How investing in public transport this decade can protect our jobs, our climate, our future by ITF and C40

COP28: Climate Justice, Worker Justice by ITF

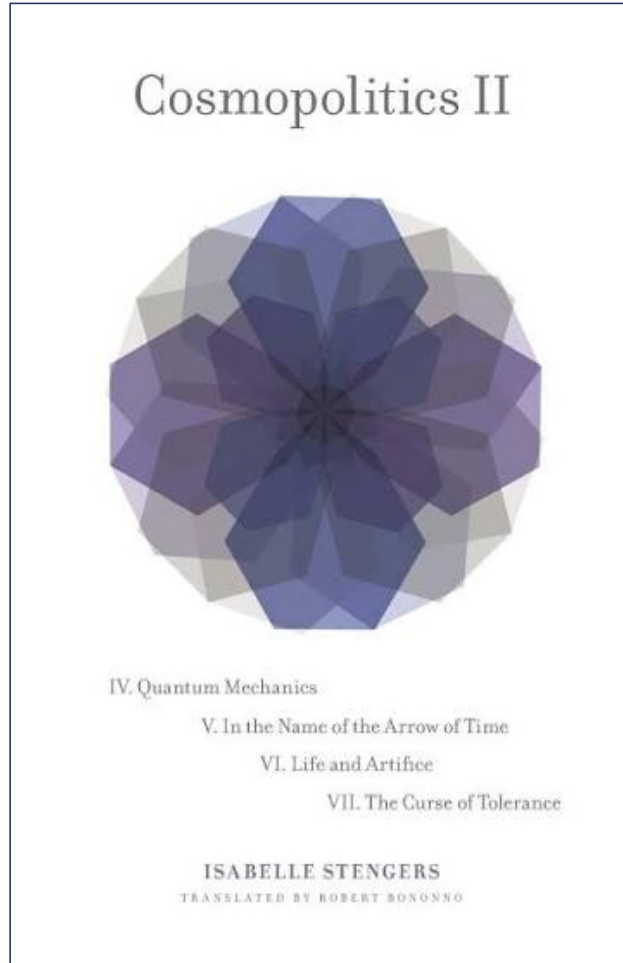
A just transition for transport workers: The foundation for sustainable and decarbonised transport pathways by ITF and SLOCAT

Observations about transportation

Academics as analysts and diplomats

Academic comfort zone: analysts considering multiple dimensions of justice in transition dynamics

Beyond the comfort zone: diplomats 'making their own roads' (Machado) towards just transition



Diplomat

Conceptual persona forcing scientists to think differently about how they engage societal constituencies

Putting themselves at risk – they:

- Abandon the idea that science produces objective, valueless truths ('the Science says ...')
- In their scientific practices:
 - Recognise that others have their own concerns
 - cultivate meaningful relationships with them
 - co-create local solutions in cautious and care-full ways

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JUST TRANSITION NOW

Analyst

Dimensions of justice

Distributive justice: distribution of benefits (e.g. accessibility) and burdens (e.g. air pollution)

Procedural justice: nature of governance and decision-making, in particular the level of participation, inclusiveness, and the influence participants can wield

Recognition justice: recognition of concerns, needs, values and practices of individuals, groups and communities

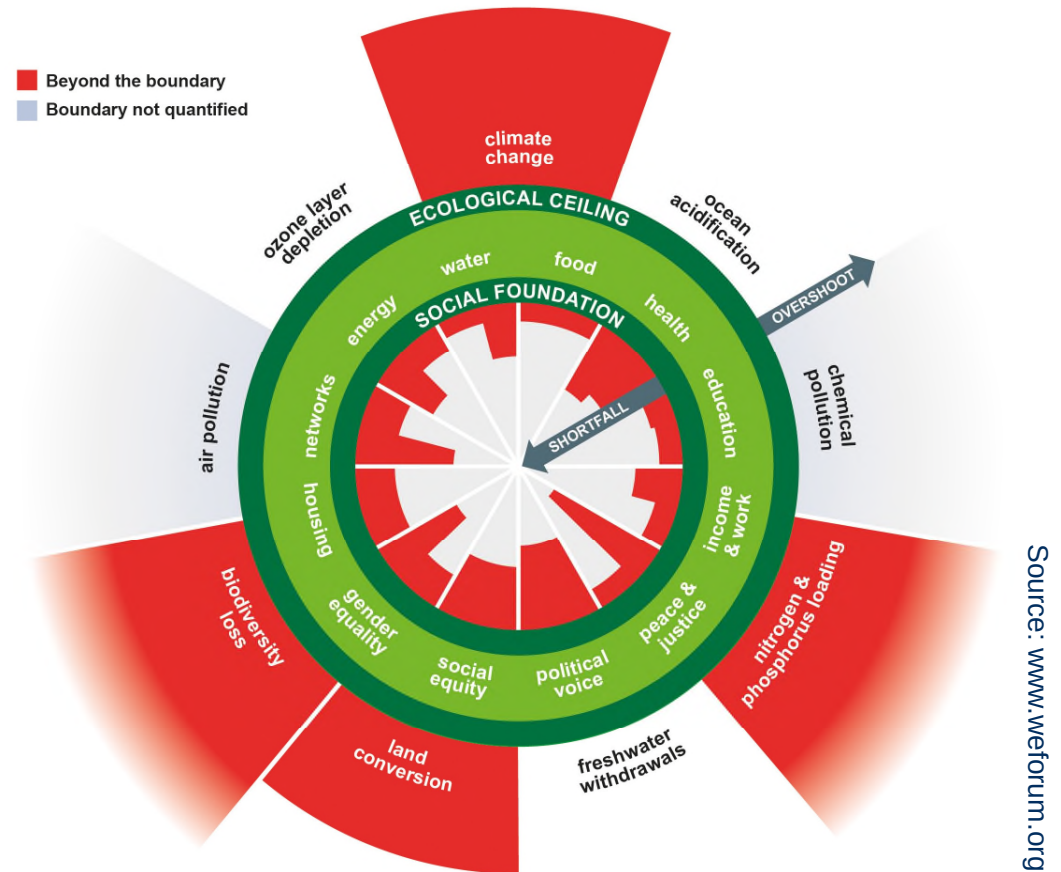
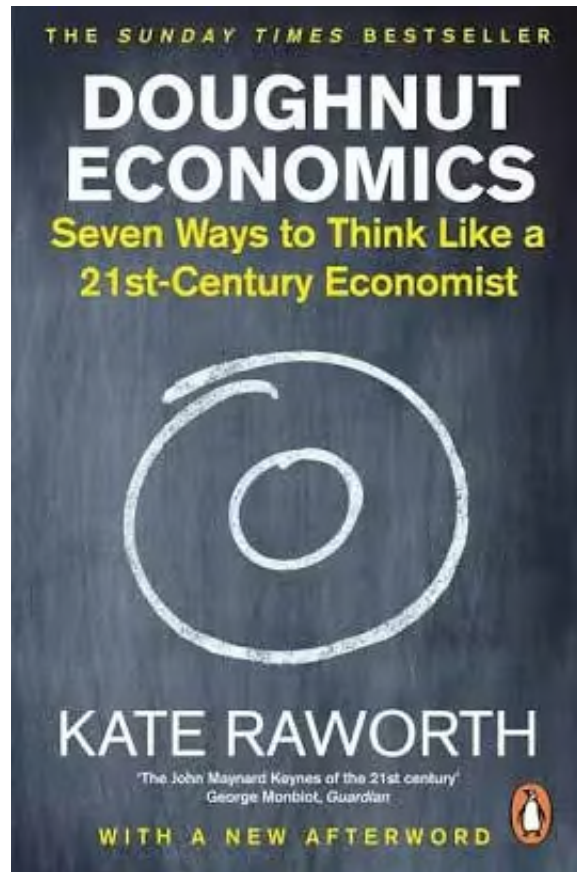
Epistemic justice: Attunement of knowledge production processes to concerns, practices & experiences of individuals groups & communities

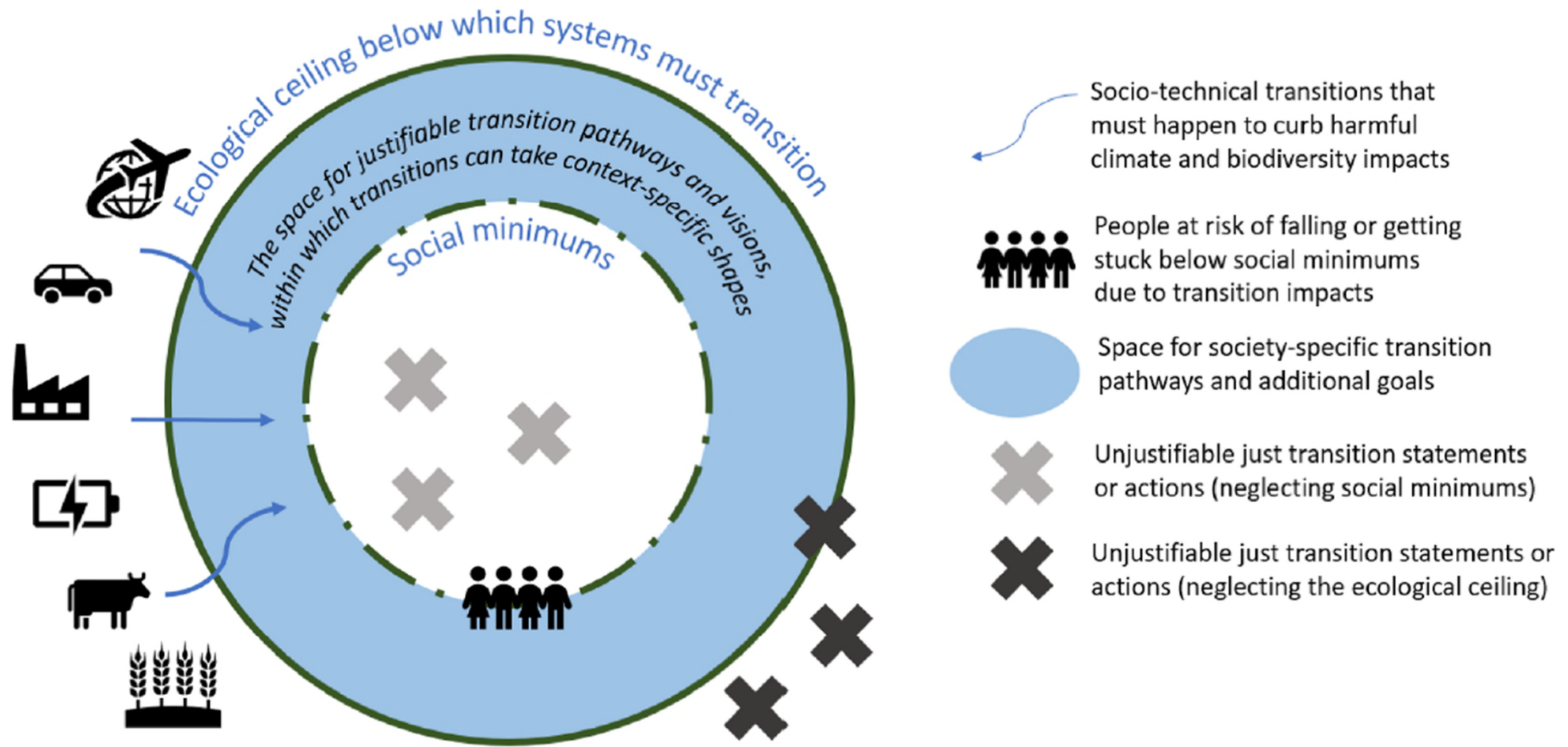
Restorative justice: rectifying past, and avoiding future injustices

Analysts' soft blueprinting of JTTs

Multiple manifestations, but two are increasingly common with regard to just transitions in transportation and more generally:

- a) Specification of ecological upper and social lower boundaries on the safe and just space for system transition dynamics
- b) Specification of static end states based on historical and current, often Euro-American, moral ideas and frameworks about 'right' and 'wrongs'





Source: Kortemäki et al. (2025, p. 8)

Fig. 1. A visualization of just transition boundaries. Delayed climate or biodiversity action would narrow the space left for pluralism and negotiability in transitions.

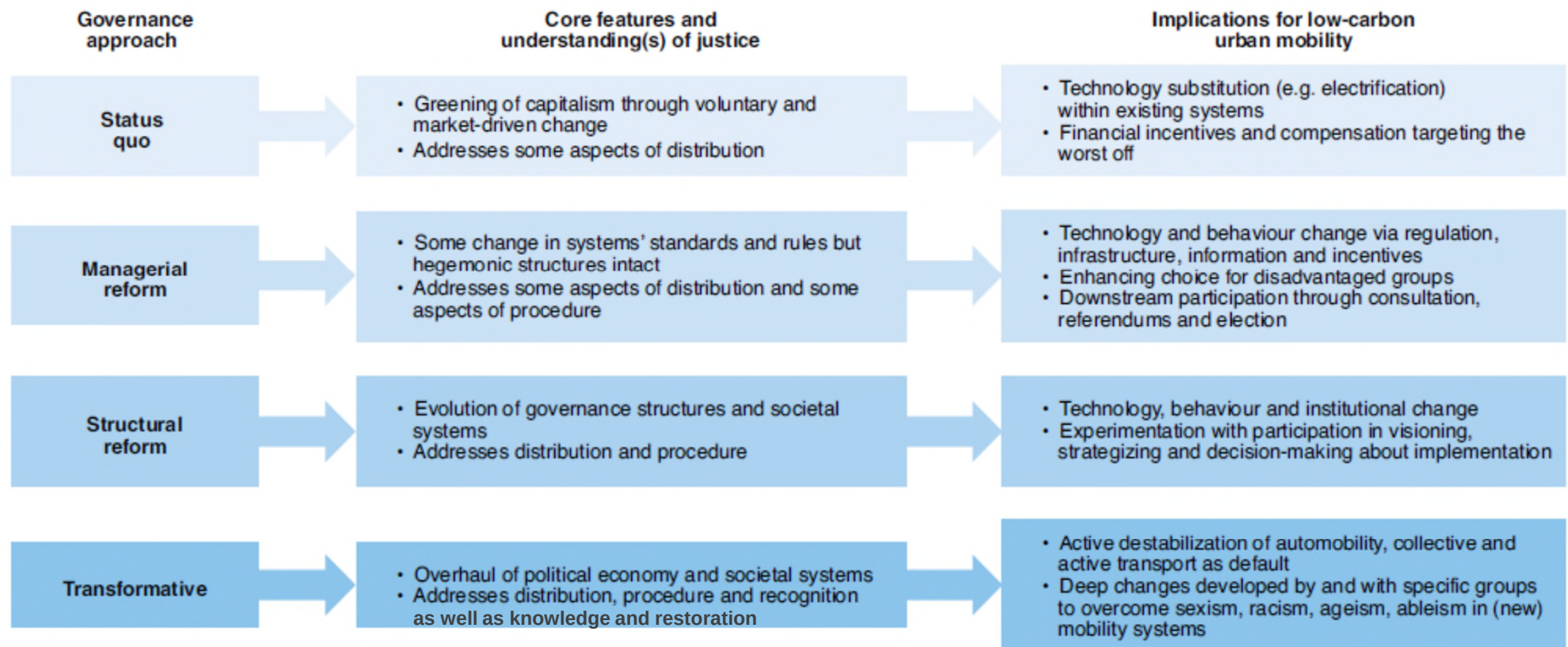


Fig. 1 | Four approaches to governing low-carbon transitions. These approaches were first identified by The Just Transition Research Collective¹², and are extended here to urban mobility.

NATURE ENERGY | VOL 6 | JULY 2021 | 685–687 | www.nature.com/natureenergy

Source: Schwanen (2021, p. 685)

Analysts' soft blueprinting

Usefulness

Allow 'kinopolitical constellations of uneven mobilities' to be challenged (Sheller 2018, 2023)

Can inform formation of legislative and regulatory frameworks & funding arrangements at national and supranational levels

Risks

Justice and normativity as unchanging benchmarks and elevate Euro-American notions to universal standard (Tyfield & Zhang 2026)

Offers little or no direct guidance to negotiation of contestation (and climate delay) and action at local level



“ *fairness is not a high priority when it comes to setting out the goals of a transport strategy, nor, therefore, is it influential in the choice or design of policy interventions. Instead, fairness currently remains an empty signifier* ”

Ternes *et al.* (2024, p. 10), based on interviews with UK transport planning agencies



They the people: subject formation processes in urban electric mobility policy and implications for a just mobility transition

Hannah Budnitz and Tim Schwanen

Transport Studies Unit, University of Oxford, Oxford, United Kingdom

ABSTRACT

As the transition to electric mobility accelerates, debate over whether such a transition can be inclusive and equitable has grown. There is also debate as to whether a mainly distributive approach to transport policymaking can adequately address injustices within urban transport systems. Through use of Foucauldian analysis of subject formation, this paper assesses how multiple dimensions of mobility justice beyond the distributive are accounted for within policy documents relevant to the transition to sustainable and electric mobility in the UK city of Bristol. We find that despite a collective desire for socially just transitions to electric and/or sustainable mobility, the subjects constituted in Bristol's policy documents are, with narrowly classified exceptions, fairly generic and in keeping with neoliberal discourses of behavioural choice and citizen activation. Opportunities to be involved in transport policy development tend to generalise and responsibilise participants. Thus, the framing and language used constitute subjects in ways that largely prohibit the creation of genuinely diverse, including contrarian, knowledges about existing and future transport systems, increasing the likelihood of misrecognition and injustice. We conclude that although local policy contributes to a more just mobility transition, it could do more if subject formation was practiced differently.

ARTICLE HISTORY

Received 6 March 2025
Revised Accepted 4 June 2026

KEYWORDS

Electric mobility; just transition; policy; subjectification; discourse analysis; Bristol

Beyond infrastructure: Unpacking the complexity of exclusion and implications for just mobility transitions

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ARTICLE INFO

Keywords:
Inclusion
Social equity
Mobility justice
Cycling
Exclusion
Just transitions

ABSTRACT

There is an emerging awareness that the transition towards sustainable transportation systems may contribute to widening social disparities, especially related to access to opportunities and services among marginalised communities manifested as transport exclusion. However, mechanisms that lead to or compound transport exclusion are less understood and empirics uncovering how marginalised communities experience exclusion are limited. This study uses a qualitative approach to explore the experiences of exclusion in mobility among 'community leaders' representing marginalised populations, including children, elderly, low-income individuals, disabled people, LGBTQ+, and communities of colour. We use the case of cycling to provide a lens into such transitions, as cycling is often referenced as a mode with sustainable and inclusive benefits. The study is based in Amsterdam, the Netherlands, which offers a unique context to situate mobility justice dilemmas due its matured cycling environment and policies. Findings highlight the complexity of exclusion and the need for a holistic, comprehensive approach to transportation planning to ensure a just mobility transition. The study calls for a transformation towards epistemic and procedural justice where knowledge, skills, and representation at all municipal levels become more inclusive of diverse perspectives in planning practices and decision-making processes, requiring a combination of top-down and bottom-up strategies.

Observations about transportation

Academics as analysts and diplomats

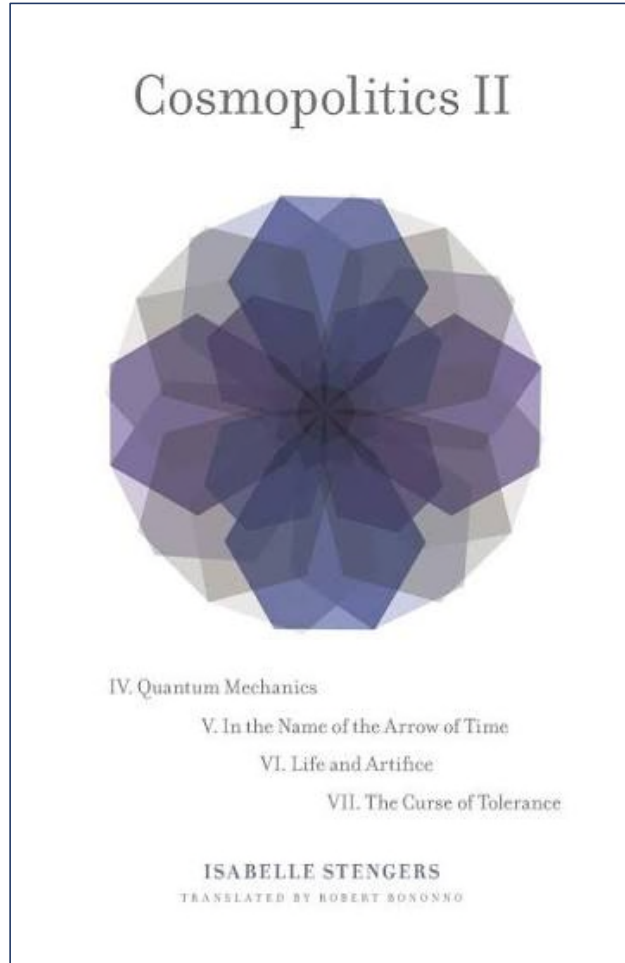
Academic comfort zone: analysts considering multiple dimensions of justice in transition dynamics

Beyond the comfort zone: diplomats 'making their own roads' (Machado) towards just transitions



JUST TRANSITION NOW

Diplomat



Diplomat

Create meaningful relations with different constituencies with their own concerns to instigate or accelerate just transportation transitions as part of research projects

Involve and speak for those who are institutionally excluded, refuse to participate in policy circuits, or cannot articulate their concerns (e.g. future generations, animals, plants)

Rework and reinvent institutions for participation and knowledge production at the heart of just transportation transitions



SPECIFIC



E-cargo bike delivery
in suburban locations

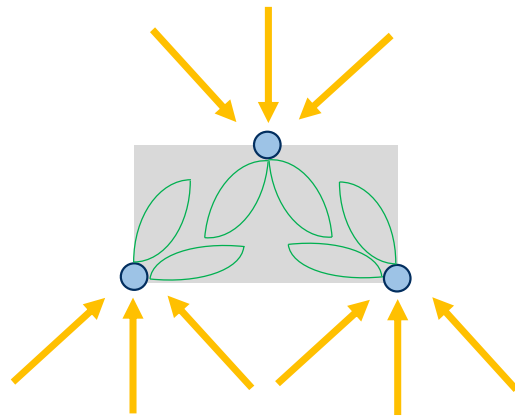
E-cargo bikes for trips
within organisations

Commuting by different
bikes, 10-30 km

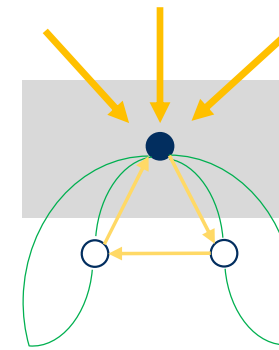
Parental, primary school
& extra-curricular travel

Primary school travel
for children & youth

Two-echelon last-mile delivery strategies



Conventional



'Inside-out'

→ Truck/van → E-van — E-bike/trike ■ City-centre
● Transshipment point ● Central depot ○ Mobile transshipment point



● City Centre
★ BS13 and BS14



	Distance per delivery (km)		Time per delivery (min)		Cost per delivery (£)	
	Mean	Median	Mean	Median	Mean	Median
18/01-30/09	0.65	0.59	6.4	4.6	1.31	0.93
30/09-10/02						
All days	0.79	0.64	6.3	4.0	1.27	0.81
Wed-Sun	0.85	0.71	6.8	5.0	1.37	1.02
Mon-Tue, BS13-14 routes	<u>0.80</u>	<u>0.67</u>	<u>5.6</u>	<u>4.0</u>	<u>1.14</u>	<u>0.81</u>
Mon-Tue, Non-BS13-14 routes	0.70	0.52	5.7	4.0	1.17	0.81

Red=highest value; pink=second-highest value; green=lowest value

“ *It definitely is more efficient, but it does feel like all the reward ... maybe not all the reward cos I guess the community and the environment gets reward, but a lot of the reward goes to the company and not to the rider. So, we’re working harder in worse conditions and potentially finishing earlier so they can deliver more boxes and get more money.* ”

‘Ben’

Rider concerns

Before interviews (09/24)

Poor access to facilities (toilet, lunch, shelter/warmth) & assistance

Area's safety:

- cycling friendliness
- 'rough' area (deprivation)

Lack of social interaction & loneliness

Waiting for e-van

After interviews (02/25)

Access to toilets, places to buy lunch, dry/warm places to rest

Traffic safety, especially on roundabouts & major roads connecting centre and suburbs

Mentally preparing for long day out, loneliness an issue for only some

Generally not an issue

Transition experiment is a mixed bag from a just transition perspective

Rider safety and wellbeing must be considered alongside travel distance, time & cost

Expansion into low-density suburb enabled by:

- Acceleration of trip-making
- Transfer of costs—greater traffic safety risks, lower earnings, less access to facilities & less sociality—onto riders



Streets in Indian cities

Climate impacts

- Extreme heat and urban heat islands
- Toxic air pollution
- Erratic rainfall causing floods
- Water shortage

Key to livelihoods:

- 10m street vendors, 20m transport workers, 7.7m platform workers
- 90% informal—climate shocks mean income loss
- Climate risks intersect with caste, religion, gender & origin





Just transition challenges

Experience: workers suffer intensifying impacts:

- *Health:* headache, fatigue, skin conditions, poor mental health and—esp. women—urinary tract infections
- *Finance:* more often repair/replacement of auto-rickshaw

Policy ignores workers' plight and knowledge

Concepts: Euro-American notions of recognition and dignity do not translate easily to local context

Vocabulary:

- Different terms used by policy & media elites and workers
- Not always a clear distinction between weather and climate (Kannada: ಹವಾಮಾನ) and sometimes a privileging of elements (Bengali: আবহাওয়া)



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Conclusion

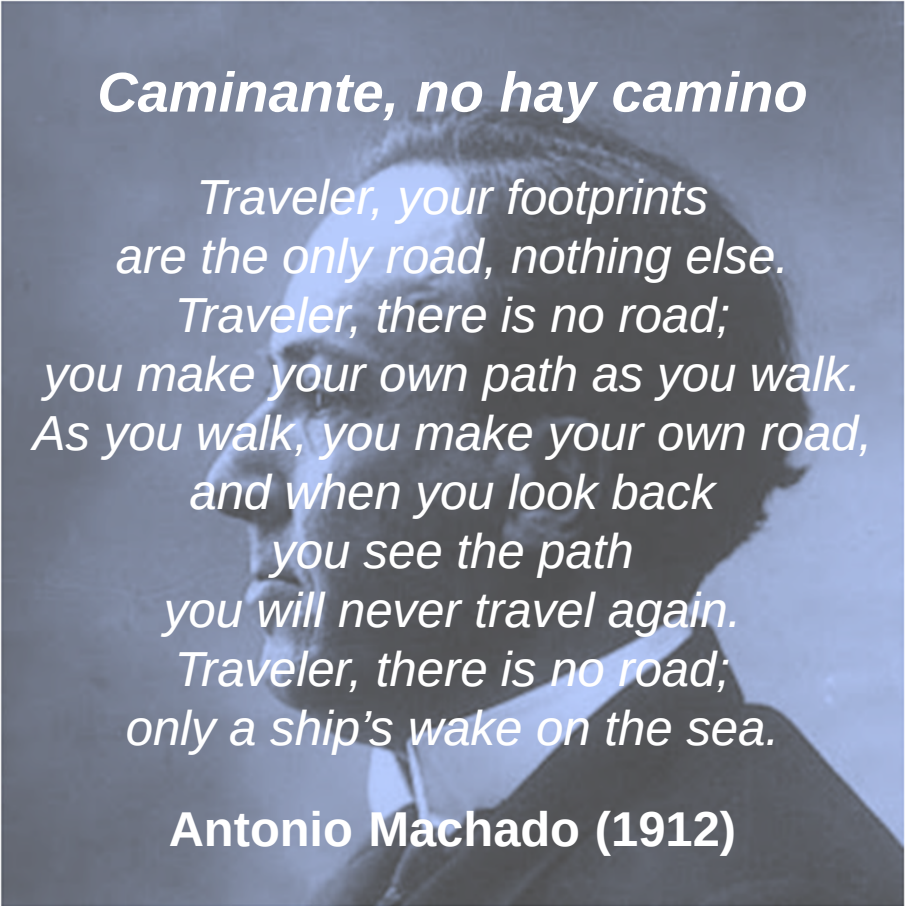
Take-aways

Realising just transitions in transportation demands more than our:

- mostly static frameworks & models
- conventional focus on transportation equity (distributive justice)
- historical role of analyst

Through diplomacy and experimentation with knowledge, procedure and recognition we can begin to pave new roads

Caminante, no hay camino

A faint, blue-toned portrait of Antonio Machado is visible in the background of the text box.

*Traveler, your footprints
are the only road, nothing else.
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As you walk, you make your own road,
and when you look back
you see the path
you will never travel again.
Traveler, there is no road;
only a ship's wake on the sea.*

Antonio Machado (1912)

Thank you

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