9. Contested mobilities and the role of conflict in making sustainable cities

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Cities are not just what is inside them. They are largely produced by what flows through them. In addition to the everyday mobilities of city dwellers, multiple mobilities, such as the movement of workers, tourists, business travellers, goods, information, waste, symbols, and so on, make cities vibrant and nourish them. Mobilities are part of producing and reconfiguring urban meanings, identities, and daily cultures (Kesselring, 2006; Urry, 2007; Freudendal-Pedersen, 2022). They are constitutive forces that shape the world as we see it. In cities, these forces come together, making them the product of interactions, intersections, separations, and segregations.

As a consequence, the physical forms of modern societies are strongly rooted in mobility. Material structures such as transportation infrastructures, gateways, and global transfer points such as train stations, ports, highway intersections, and airports play a key role in defining the metabolisms of cities and what, who, and how much flows in and out of urban bodies (Sennett, 1994; Kesselring, 2008; 2009). Nevertheless, issues of mobility and transportation have become highly politicized and contested, through struggles over who has the right to the city. In relation to highways, airports, train stations, and bridges, but also to the use of urban space for vehicles, parking, urban life, and other purposes, underlying conflicts break out (Sachs and Santarius, 2007; Faburel and Levy, 2009; Gualini, 2015). Discussions crystallize around questions such as: What is a good mobile life? Does it require a car? What makes a city a liveable place? Do we really want sustainable mobility if it means changing our current lifestyles and daily routines?

Infrastructures have become political and reflexive in the sense that even modernized and wealthy societies such as Germany, France, Denmark, Australia, the United States, and many others have growing problems with financing and maintaining roads, highways, bridges, railroad tracks, train stations,

and so on. In the past, these infrastructures became reference points for conflicting discourses about the need for and use of acceleration and the genesis of more and faster flows (Virilio, 2007). It can still be argued that such discourses are prevalent, not least because of the conviction that this accelerated flow is the way to increased growth. But in the mobile risk society, concepts such as seamless mobility and 'zero friction' (Hajer and Kesselring, 1999) are being challenged. In a phase of modernization in which financing becomes precarious, citizens of all social classes fear being the losers of globalization, and the negative unintended consequences of the acceleration of societies become predominant and part of everyday perceptions and discourses. The 'more mobility argument' is losing the persuasiveness and legitimacy it had in the past (Beck, 2016; Kesselring, 2019).

Today, the consequences of climate change are becoming an essential element of the discussion on how future cities and lives might and should develop. Over the past decade, new planning concepts have emerged that focus on urban life that is not dominated by the car and that offer the possibility of transforming some of the urban asphalt into green or blue spaces (Nieuwenhuijsen, 2021). The major focus here has been on promoting active green mobility made possible by the transformation of common urban spaces. These new planning concepts, such as superblocks, low-traffic neighbourhoods, Kiezblocks, or the 15-minute city, have created struggles and conflicts by raising people's fears, doubts, and resistance to changes in current transportation systems. The suggested reconfigurations of urban development are part of the search for alternative futures and sustainable development. The above-mentioned concepts of the 15-minute city, superblocks, or low-traffic neighbourhoods are presented as sustainable urban developments; even though these concepts contain many other elements, it is the issues around mobilities that provoke opposition and resistance, primarily by focusing on blocked flows and immobility.

The questions we want to raise in this chapter are: What are the causes of conflicts in urban and transportation policies? Are there societal benefits to the creation of sustainable mobilities? Can the social forces emerging from such conflicts lead to new concepts of public participation, institutional innovation, and social change towards sustainable mobilities? Is it desirable or even possible to avoid escalation and conflicts? Are there strategies of conflict regulation that allow the politics of life and resistances to participate and contribute to the creation of sustainable mobilities?

Obviously, this chapter cannot provide comprehensive answers to these fundamental questions, but it does emphasize the urgent need for rethinking

the role of conflict as an early-warning system. Such a warning system may signal new communities struggling for the right to the city, or mark alternative paths into the future, or perhaps change the transportation paradigm that has dominated cities as well as rural landscapes for more than a hundred years.

To start this examination, we provide an entry point by focusing on cities, mobilities, and climate change as the framework for the discussion. Following this, we touch upon alternative urban futures and the frictions involved in them, as their forward-looking perspective challenges current planning paradigms and life-worlds. This leads to a discussion of the mobile risk society and its ambivalences, using the example of mobility transition policies as applied in the southern German state of Baden-Württemberg. The chapter concludes by pointing out the need for different urban futures and the role of conflict as a way forward in this transformation.

Cities, mobilities, and climate change

Cities are shaped not only by their physical structures, but also by their flows. These movements contribute to the dynamic and evolving nature of urban life, constantly generating and reshaping meanings, identities, and cultures within the cityscape. Georg Simmel already pointed out in the 1920s that what is visible is only the materialized form of social processes and dynamics. But behind it, the world is mobile and dynamic, constantly changing. In other words, mobilities are constitutive forces that shape the world and its materialities (Cresswell, 2006; Sheller and Urry, 2006). With the pressing issue of climate change, the discussion and promotion of sustainable modes of transportation is becoming increasingly relevant. Transportation is a major challenge but may also contribute to making cities sustainable (World Business Council for Sustainable Development, 2004; Vergragt and Brown, 2007; High-Level Advisory Group on Sustainable Transport, 2016). It makes a material imprint on the city, roads, railways, and all the other materialities of mobilities that visibly occupy urban space, creating pollution, noise, and insecurity.

The Industrial Revolution produced a series of inventions that fundamentally changed transportation. Both speed and capacity increased rapidly, leading to technologically specialized and ecologically devastating forms of industry and transport. The history of transportation and how it has changed lives, economies, urban form, etc. has been described by countless researchers (e.g. Jensen and Richardson, 2004; Urry, 2007; Kesselring, 2014). What is

visible today is how these inventions have required infrastructures to facilitate new, faster, and more efficient movements. In principle, infrastructure is characterized by collectivity; as a starting point, it is thought of as a structure available to the whole of society. Thus, infrastructure development is politically regulated, and infrastructure is traditionally owned and operated by the state. The state builds the structure, but the users can be both public and private. Mobility and its infrastructure systems have long been at the centre of urban planning as the basic principle for creating good and accessible cities (see e.g. Hajer and Kesselring, 1999; Bertolini, 2017; Freudendal-Pedersen, 2020;) while simultaneously constituting the material substrate of the mobile risk society in the age of the second modernity (see Kaufmann, 2002; Canzler et al., 2008).

Infrastructure development is closely linked to economic growth, and here, automobility has been at the centre, as the private car has been seen as the starting point for growth, along with logistical networks (Newman and Kenworthy, 1999; Manderscheid, 2014). This has resulted in cities where life is subordinated to the accessibility of the private car, with a large amount of urban space dedicated to facilitating automobility. In fact, this has transformed the landscapes of time and space for city dwellers (Camagni et al., 2002; Samson and Freudendal-Pedersen, 2022; Boussauw et al., 2023). Neil Brenner argues that

> processes of deterritorialization are not delinked from territoriality; indeed, their very existence presupposes the production and continual reproduction of fixed socio-territorial infrastructures [...] within, upon, and through which global flows can circulate. Thus the apparent deterritorialization of social relations on a global scale hinges intrinsically upon their reterritorialization within relatively fixed and immobile sociospatial configurations at a variety of interlocking subglobal scales. (Brenner, 2004: 56)

This way of allocating space has been criticized for decades. Already Jane Jacobs (1961) was very precise when she predicted how the car and its infrastructures would deteriorate a great deal of urban life; today, that life is seen as an important element to recreate so that cities become places of community and healthy living.

What Jane Jacobs did not know was that climate change and its consequences would become the best visualization of the stress that the focus on flow, efficiency, and speed has put on the planet. In today's cities, most

transportation is done by car and public transportation, although in a few cities bicycles account for a large number of daily trips. Climate change and its consequences have reinvigorated discussions about what the good city is and the role of infrastructural systems focusing on speed and zero friction.

Very visible are the streets, filled every day by an increasing number of cars, occupying and coinciding with what could be inhabited spaces. In a city like Copenhagen, for instance, road and parking facilities occupy 58% of the common space in the city (Københavns Kommune, 2023). At the same time, transportation, locked in as part of everyday routines, is a prerequisite for life. It creates opportunities and ideas about possibilities. The car, for instance, is, for many people, linked to the idea of freedom, but at the same time, it imposes certain structures on us, with unintended consequences that make us unfree (Freudendal-Pedersen, 2009; Cass and Manderscheid, 2018). The close link between freedom and mobility is based on a value system created by modernity and maintained by the right to free movement, now considered a fundamental right. Sennett argues that the cities of the second modernity lack a sense of time: 'not a nostalgic backward time – but a future time. The city must be understood as a process, the images change as they are used, and we must create an urban fantasy formed by expectations that invite surprises' (2007: 290).

Even if nearly all stakeholders agree that most of the current systems are unsustainable, urban transportation is still an area with very little or very slow progress. Thinking outside the traditional rational transportation paradigm and designing cities with expectations that invite surprises has not had much success. There are many explanations that can be found in the political economy of this sector, but it seems plausible that the essential problem with transportation is its energy supply: It comes from oil-based fuels produced by stationary labour practices (Urry, 2007; Adey, 2009). Infrastructure systems that facilitate transportation are very much part of political negotiations, where infrastructure has a long lifespan and decisions on such matters therefore have future consequences for the development of cities, nations, and the world. This also means that massive changes and transformations are needed to overhaul current mobility systems to make them sustainable and climate-neutral.

Different urban futures

Although cities and their mobility systems were largely planned according to the same modernist principles after World War II, planners and architects created very different visions and utopias of concrete places. There was also strong emphasis in the post-war period on the social construction of spaces and the imagined communities that would inhabit these places (Pinder, 2005; Jensen and Freudendal-Pedersen, 2012). In many cases, utopian thinking was sought as a way to inspire social change and innovation. Often, these theoretical concepts and thought experiments were aimed at critiquing existing societies and imagining alternatives to urban life and the sociality of urban spaces. Frequently, authors of such critiques began with perceived shortcomings in contemporary social structures and discussions about how to create a better future. Many utopian societies have been imagined as prioritizing equality and justice, often emphasizing strong community ties and cooperation among members of society (Harvey, 2000; Jacobs, 2006). A more recent strand of utopian visions focuses on how to create sustainable practices and harmony with the natural environment (Johns-Putra et al., 2017; Harnesk and Isgren, 2022). In relation to movement and transportation, utopian ideas often incorporate advanced technologies, imagining that these will enhance human well-being, minimize laborious tasks, and create sustainable futures (Timms et al., 2014; Lane, 2019). Thus, utopian literature and theories can be found across various disciplines within the social sciences, and they are a valuable tool for imagining more sustainable futures.

At the same time, utopian thinking has been criticized for being impractical, idealistic, or even oppressive. Yet much of what we take for granted in urban and transportation planning today was conceived as a utopian idea before it was implemented. For example, Le Corbusier's idea of the Radiant City, designed in 1930, was developed as a utopian concept that sought to solve the social, spatial, and environmental challenges of cities (Le Corbusier, 1933/1967). Not by coincidence did it become influential after World War II. The zoning system, which separates different urban functions into distinct areas to optimize efficiency and reduce conflicts; the high-rise residential buildings surrounded by green spaces; the transportation networks, including highways, boulevards, and public transit systems, with the automobile at the centre; the modular design principles and standardization in construction to increase efficiency and reduce costs: all these elements of urban planning were seen at

the time of their implementation as the way forward to creating efficient and prosperous societies.

Today, this approach to urban planning is highly criticized for being unsustainable and human-unfriendly, as its emphasis on standardization and separation of functions has led to sterile, monotonous environments that fail to accommodate the diverse needs and preferences of city dwellers. The Radiant City concept is still influential in the field of urban planning and architecture. Planning guidelines around the world have since been heavily inspired by the ideas of zoning (Koglin, 2013; Fishman, 2016), which has been criticized for its perceived homogeneity, top-down approach to planning, and disregard for the existing urban fabric and social dynamics of cities. The strict separation of functions and reliance on automobile-centric design has shaped the large problems cities are today trying to solve (Urry, 2004; Canzler, 2008). All this is just to point out that previously wild and radical ideas can end up being taken for granted to the degree that they are no longer recognized as such.

Thinking in new futures, with utopias as a tool, does create friction. It can be argued that mediating opposing arguments and facilitating conversations are always good, but that stripping automobility from its power over urban space, transport, and urban planning will create conflict. Within policy analysis and planning there is a long tradition of understanding conflict and its potential ability to innovate and strengthen (Friedmann, 1987). Focus has been on 'the question of the conditions under which conflicts and antagonism can be turned from disruptive social phenomena into transformative potentials' (Gualini, 2015: 3). Scholars have drawn on interdisciplinary approaches to understand the complex social, political, and spatial dynamics underlying planning conflicts and to develop strategies for more inclusive, equitable, and sustainable urban and regional development (Mitchell, 2003; Henderson, 2013). The focus of their analysis is often how different stakeholders, including governments, developers, community groups, and advocacy organizations, exercise power and influence decision-making (Healey, 1993; Flyvbjerg, 2004; Friedmann, 2011). Here, focus is also on finding strategies to mitigate conflicts and build consensus and to recognize the importance of inclusive and participatory planning approaches in this. That conflict often arises in planning contexts related to environmental conservation, land use, and natural resource management is not new, but today, the pressing issue of climate change is enhancing these conflicts. Issues such as urban sprawl, industrial development, protected areas, and resource extraction have intensified the struggle over space.

Gualini points to what he calls the a*ggregative-representative* democratic model and how it is premised on

> the assumption of a 'tacit consensus' on the political validity of technocratic choice – one that could only be validated, self-referentially, through technical-instrumental verification. In light of such assumption, conflict is bound to be viewed as either expression of political arbitrariness or 'systemic noise.' Conflict is seen as a disruptive force that causes an imbalance in a system of interrelated parties – an imbalance that needs to be institutionally resolved through legitimate modes of representation and aggregation of interests. (2015: 5)

This assumption suggests that there is an implicit agreement or acceptance among policy-makers, experts, and the public regarding the legitimacy of technocratic decision-making in certain policy domains, and here especially transportation and mobility planning come to mind. Despite increased critique and debate, the technological fix seems to be prevalent, which we will touch upon in the example from Baden-Württemberg in the next section. The issue at stake is that while technocratic expertise can offer technical efficiency and expertise in complex policy areas, it may also undermine democratic norms by concentrating decision-making power in the hands of unelected elites or bureaucratic experts, potentially marginalizing input from both the public and the social sciences. The assumption of a 'tacit consensus' overlooks the contested nature of technocratic decision-making, which is influenced by ideological biases, power struggles, and competing interests. Technocratic expertise is not value-neutral but shaped by political, social, and cultural contexts, raising questions about whose expertise is privileged and which interests are served by technocratic policy solutions. At least it seems certain that this way of planning future mobility systems has not yet solved the problem of CO_2, nor the many other issues related to the dominant role of automobility (Manderscheid, 2023).

Alternative approaches to technocratic decision-making emphasize the importance of deliberative democracy, participatory governance, and citizen engagement in shaping public policy. Mechanisms for integrating technical expertise with democratic values, such as citizen juries, deliberative forums, and participatory budgeting, all in order to enhance the legitimacy, transparency, and accountability of decision-making processes, are seen as part of new planning concepts. There are examples where, for instance, participatory

budgeting has been implemented (Bernaciak and Bernaciak, 2019; Bartocci et al., 2023). Also the increasing interest in living labs or real-world laboratories that serve as platforms for alternative approaches to technocratic decision-making and innovation can be seen as indicators for new opportunities to bridge the gaps between citizens, politics, and planning (Bergmann et al., 2021). These formats of participatory research and development build on the problem-solving capacities of real-world environments, often situated in urban settings, where stakeholders collaborate to co-create, test, and evaluate solutions to complex societal challenges. These labs typically involve interdisciplinary teams of researchers, policy-makers, businesses, and citizens working together to develop innovative solutions by involving end users in the innovation process from the outset; living labs thus ensure that solutions are tailored to meet users' needs, preferences, and aspirations. Also, they provide opportunities for experimentation and learning in real-world settings where they can gather feedback from users and iteratively refine their approaches based on empirical evidence (Mück et al., 2019; Kesselring et al., 2023).

These examples bring up questions about the roles of expertise, democracy, and power in shaping policy decisions about mobility and urban planning. Competing interests, values, and perceptions of environmental and climate-related risks are at stake in these planning decisions.

The mobile risk society and the case of a mobility transition

The discussion so far shows that mobility and transport are not only highly debated and contested issues related to urban and societal developments. In particular, the rapidly advancing climate crisis (Aron, 2022; Archer and Rahmstof, 2011) makes it clear that mobility and transportation also remain the biggest problem areas of climate policy, with the least improvement in terms of overall greenhouse gas (GHG) reductions (see e.g. IPCC, 2022). Net GHG emissions from transport remain at 1990 levels despite visible political efforts at the national and European levels to promote the electrification of transport and expand public transport capacities; technological innovations to reduce the consumption of the car fleet and develop alternative fuels; regulatory innovations such as stricter EU fleet limits, the EU Clean Vehicles Directive, and the EU-level Sustainable and Intelligent Mobility Strategy; and noticeable changes and objections in public discourse on the importance of the car and measurable changes in mobility behaviour. In other words, despite these numerous

measures and a decline in average annual car mileage in Europe, there have been rebound effects such as consumer choices for larger vehicles, increased safety measures by the automotive industry, and an increase in weight-intensive technologies in cars, which have all contributed to the fact that there has been no reduction in the absolute levels of GHG emissions from transportation compared to almost 35 years ago. While other sectors such as manufacturing, heating, buildings, agriculture, and others are showing significant declines in GHG emissions, the transportation sector is far from any kind of significant change in trend. In fact, the opposite is the case: Mobility and transport are still the accelerators of climate change in Germany as well as globally. While the 'German Energiewende' has become a technical term in the vocabulary of sustainable transition, no one would ever mention the 'German Verkehrswende' (i.e. transit transition), even though the term has been around in Germany since the early 1990s (Hesse, 2018).

Against this background, several questions have become relevant for the analysis of political processes in the 'mobile risk society' (Beck, 1992; Hajer and Kesselring, 1999; Kesselring, 2008; 2019). The production and management of risks increasingly characterizes contemporary societies. Climate change has been considered the proof case for the 'world risk society' and the ability of global nations to cope with the self-inflicted problems caused by an unsustainable and carbon-based lifestyle and system of production and consumption (Beck, 2016). In industrial societies, risks were once primarily associated with industrial accidents and pollution. Today, risks have become more complex, globalized, and interconnected, encompassing issues such as global warming, worldwide pandemics, financial crises, cyberwarfare, and technological disasters. Yet they are also becoming more concrete and visible, even for those citizens of the Global North who have understood climate change as an abstract threat and have been able to ignore the unintended consequences of carbon-based economies and societies. The concept of the risk society (Beck, 1992) emphasizes the uncertainty, reflexivity, and collective responsibility inherent in managing these emerging risks.

In the following, the mobility policy of the federal state of Baden-Württemberg in southern Germany will be used as an example. We will show how work is being done to mitigate the climate impacts of transport-related environmental risks such as air pollution, GHG emissions, particulate matter, and traffic accidents. Dependence on fossil fuels and inefficient transportation systems contributes to environmental degradation and public health hazards, posing significant risks to current and future generations. Addressing

these risks requires a transition to more sustainable modes of transport, such as public transport, active mobility (cycling and walking), and electric vehicles. In the future, the use of green hydrogen energy and fuels derived from renewable energy (fuel cells) may also be considered. Policies that address these challenges must navigate the complex interconnection between technological innovation, regulatory frameworks, and social practices for sustainable mobility. They must ensure that emerging mobility solutions contribute to sustainability goals while minimizing potential risks and negative externalities.

The mobility transition in Germany: The case of Baden-Württemberg

In Germany, the state of Baden-Württemberg is one of the pioneers of mobility transition. It is located in the southwest of Germany, bordering Switzerland and France. With 11 million inhabitants, it is the third most populous state in Germany, and its capital, Stuttgart, has 610,000 inhabitants.

Baden-Württemberg is the cradle of the modern automobile. Bertha Benz, business partner and wife to Karl Benz, was the first person able to see the societal relevance and the innovative potentials of the vehicle constructed by her husband, patented in 1886. Today, Baden-Württemberg hosts leading car producers Daimler, Porsche, and Audi, as well as a variety of global suppliers such as Bosch and Mahle, together with a wide range of so-called hidden champions: small- and medium-scale manufacturing companies that hold leading positions in producing for and maintaining the worldwide 'system of automobility' (Urry, 2004). It is easy to imagine that the current transitions and upheavals in automobility, and the question of what the future of motorized individual transport will be, are on top of the region's political agenda. In Baden-Württemberg alone, conservative estimates suggest that up to 35% of jobs directly related to the production of the internal combustion engine will be lost as the industry transforms. About 3.3% of new jobs could be created, for example, by the new electric powertrain industry (Frieske et al., 2019; Loogen, 2023).

In what is now the third Baden-Württemberg government under Green Party leadership, and despite very ambitious attempts at sustainable mobility transition, transport still remains the major problem area of the federal state's climate policy. The state government has made visible efforts to promote the electrification of transport, expand public transport capacities, and develop new funding schemes for financing sustainable mobility; this has happened alongside technological innovations to reduce fleet consumption and propel

sustainable fuels, regulatory innovations such as stricter EU fleet limits, Germany's Clean Vehicles Procurement Act (SaubFahrzeugBeschG) to implement the EU Clean Vehicles Directive, the Sustainable and Smart Mobility Strategy at the EU level, and a decline in the importance of the automobile in mobility behaviour. Despite all of this, net GHG emissions from transport remain at the 1990 level. In absolute numbers, there is no discernible decrease compared to the values 35 years ago. However, in 2021, as in the previous legislative period, the Green–Conservative coalition in Baden-Württemberg once again made a clear and unambiguous commitment to ambitious climate protection in its coalition agreement. In it, ambitious GHG reduction targets were formulated for the period up to 2030 and beyond. They go far beyond what the German coalition on the national level announced at the same time. With regard to the mobility sector, the 2021 Baden-Württemberg coalition agreement states that

> in the coming years, we will jointly see sustainable mobility as a key element for climate protection and for the economic future of our state. We are implementing the European Union's climate protection goals in Baden-Württemberg, especially in the transport sector, and are consistently pursuing the path to a new mobility culture. We will take advantage of the challenges and opportunities of Baden-Württemberg as a climate protection state by harmonizing economy and ecology through innovation and technical progress. (Bündnis 90/Die Grünen und CDU, 2021; translated by the authors)

With its Climate Protection and Climate Adaptation Act (KlimaG BW), Baden-Württemberg has committed itself to achieving its climate protection targets. By 2030, net GHG emissions are to be reduced by a total of 65% compared to 1990. By 2040, Baden-Württemberg aims to be net GHG-neutral. The state can achieve these targets only if it uses political instruments at the national and EU levels and also supplements them with its own targeted measures. Precisely because Baden-Württemberg wants to be GHG-neutral five years earlier than the federal government and 10 years earlier than the EU, it needs innovative approaches that go beyond business as usual.

In the transport sector, the state government has defined five sub-targets, based on extensive calculations (Figure 1).

Figure 1: Targets for the transformation of the transport sector as set by the Ministry of Transport Baden-Württemberg.

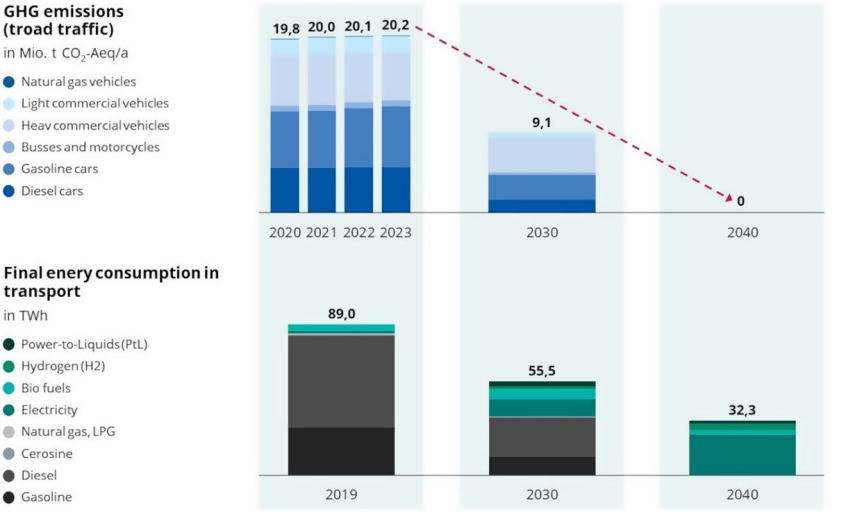
Source: Adapted from *The Mobility and Climate Concept of the State of Baden-Württemberg*.[1]

These targets must be achieved by 2030 in order to realize the state's contribution to achieving the goals ratified in the UN Paris Climate Agreement of 2016. In addition, they make very clear that climate neutrality can only be achieved by 2040 through the interplay of political regulation with the technological, transport-organizational, and social-innovation strength of the economy and society in Baden-Württemberg. In response to the worsening problem of global climate change, these targets have repeatedly been adjusted since they were first set in 2011. While the coalition agreement of 2021 states that every third car must be climate-neutral by 2030, it now claims 'every second car will be climate-neutral'. Whereas in 2015 the state transport minister assumed that it would be sufficient if every third ton of freight transported was carbon neutral by 2030, it is now assumed that 50% of freight transport must be decarbonized to achieve the necessary effects. In contrast, as a reaction to ongoing and controversial political struggles, the target for 'climate-neutral' cars in cities has been softened from 33% to 20%. It is not difficult to see that these goals are highly contested in the realm of political action. In order to achieve climate neutrality in transportation in 2040, Baden-Württemberg has to reduce GHG emissions from 19.9 million tons of CO2 equivalents per year in 2022 to 9.1 in 2030 and to net zero in 2040 (Klima-Sachverständigenrat [Climate Expert Council] Baden-Württemberg, 2023: 62). Clearly, this cannot

1 https://vm.baden-wuerttemberg.de/en/humans-the-environment/targets

be achieved through technological and regulatory measures and innovations alone. Rather, it requires significant changes in the mobility practices of households, businesses, public institutions, and administrations.

Figure 2: Projected Greenhouse gas emissions in transport in Baden-Württemberg (road transport).



Source: Climate Expert Council Baden-Württemberg (2024).

So far, however, the emphasis in Baden-Württemberg has been on technologically and instrumentally oriented measures and policies. Up to now, it has not been possible to say that measures aimed at technological and planning innovations and those aimed at social practice innovations have been treated equally or integrated conceptually. From the point of view of social science–based sustainability and mobility research, it seems urgently necessary to integrate the mobility practices of private households, businesses, and administrations in Baden-Württemberg even more strongly into the state government's mobility transition strategy. Adjustments of different measures to support the socio-cultural change towards sustainable mobility are comparatively inexpensive. In times of increasing uncertainties and insecurities about the best development path and increasingly fragile social and political consensuses, it is all the more important for politicians to reconnect with soci-

ety. A topic as emotionally charged and relevant to everyday life as sustainable mobility can be successfully developed in the direction of climate neutrality if people see themselves as part of the process and the solution design and do not feel that they are being overrun by politics. This is an explosive political issue, especially when it comes to the climate-neutral transformation of city and town centres, which needs to be handled with sensitivity.

Conclusion

The planning of transportation and urban environments is in a phase of potential conflict, or at least there is significant friction in the field. The work of reconstructing community representation through advocacy, as Davidoff (1965) pointed to decades ago, is still relevant today, even if current focus is more on collaborative approaches rooted in communicative ethics and argumentative rationality (see e.g. Fischer and Forester, 1993; Healey, 1993). This also means that an acknowledgment of power relations and conflicts when transitioning towards sustainable mobility involves a change in 'business as usual'. Building resilience to existing and emerging risks while adapting to changing social, environmental, and technological conditions requires approaches that facilitate collaboration, social innovation, and learning among diverse stakeholders. These include governments, businesses, civil society organizations, and communities. This resilience can enhance society's capacity to respond effectively to the challenges of a mobile risk society, and to increasing uncertainties, in order to promote sustainable mobility transitions.

In relation to the questions posed at the beginning of this chapter, we argue that conflicts arise when different stakeholders' priorities regarding transport and mobility begin to diverge. Sustainable mobility is needed to reduce GHG emissions, air pollution, and dependence on fossil fuels to mitigate climate change. Promoting active transportation, such as walking and bicycling, improves public health and stimulates economic development by making urban areas more attractive to residents, businesses, and tourists. Walkable neighbourhoods, vibrant public spaces, and active transportation enhance liveability, well-being, and urban aesthetics. This will create friction and conflict but can also serve as a catalyst for new approaches to public participation, institutional innovation, and social change towards sustainable mobility. These conflicts can mobilize diverse stakeholders, including residents, community groups, advocacy organizations, policy-makers, and

experts, to engage in dialogue, collaboration, and collective action to address common challenges and advance sustainable mobility goals. Conflicts can catalyse broader social change by raising awareness, mobilizing public support, and shifting societal norms and values towards sustainability.

While it may not always be possible or desirable to avoid all conflict, efforts should be made to minimize escalation and manage conflict constructively to achieve positive outcomes for sustainable mobility. We suggest engaging stakeholders early in the decision-making process to identify and address concerns, build trust, and foster cooperation before conflicts escalate. We suggest to conceive of conflict as an opportunity for learning, innovation, and growth, rather than as an obstacle or failure. Engaging in conflict allows urban future-makers to learn from decision-making processes and to build resilience. Finally, strategies of conflict regulation can enable participation and resistances, and may contribute to the creation of sustainable mobilities.

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