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National goals and tools to fulfil them: A study of opportunities and pitfalls in Norwegian metagovernance of urban mobility

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1. Introduction

Cities are important in the governance of environmental politics in general, as well as for the accomplishment of goals of low-emission mobility (Betsill and Bulkeley, 2007; Banister, 2008; European Union, 2016). However, despite the increased attention to the issue of sustainable urban mobility, transport policy research is criticised for its lack of attention to power, context, resources and legitimacy (Marsden and Reardon, 2017). This paper addresses these issues, by examining a current example of governance for sustainable transport, namely the Norwegian goals and strategies for zero growth of car traffic, implemented through multilevel urban contracts. The latter are the so-called 'urban-growth agreements' (UGAs),[1] being incentive arrangements involving network cooperation between national, county and municipal authorities on transport and land-use policies for the larger urban regions.

In many ways, UGAs are a continuation of the former toll-road packages. Transport-infrastructure projects in Norwegian cities have long been financed via toll rings. Over time, the funds have increasingly been used for developing infrastructure underpinning sustainable transport, such as public transport, cycling and walking. The UGAs exemplify this, although they also allocate resources for road building.

The UGAs have been promoted as a major tool for achieving the so-called Zero-growth Goal (ZGG). Launched in 2012, this proclaims that all growth in person transport in the larger urban areas is to be absorbed by public transport, bicycling and walking (Ministry of Environment, 2012). Through the UGAs, all three levels of government must implement measures and policy in line with the ZGG. The national government grants 50% of the investment costs for large infrastructure projects, with the county and municipal contribution mainly covered by toll-road payment. Goal achievement is monitored with indicators, including travel surveys, traffic indexes and land-use indicators.

This paper analyses UGAs with a focus on the design of the goals and agreements, assessing how they promote climate-friendly transport. Empirically, the paper builds on an exploration of three current agreements being the empirical cases—the **Oslo**, **Trondheim** and **Stavanger UGAs**,[2] Theoretically, the study applies a metagovernance framework and discusses the ways the national level seeks to influence local land-use and transport policy, but also how the UGAs open for municipal and county authorities influencing decision-making at the national level. Especially, we consider how national authorities design a policy goal (here, the ZGG) and the supporting governance structures (UGAs). We analyse the policy design and implementation in the discourse on metagovernance and ask the following main research question: *To what extent are the Norwegian ZGG and UGAs designed and coordinated in ways that promote climate-friendly transport?*

UGAs involve both a policy package of measures and network-governance structure. Further, it is characterised by national authorities monitoring local-level development through selected indicators. The UGA arrangement recalls interventions and schemes in previous research concerning climate-change experimentation. Bulkeley et al. (2015, p. 18) described urban experimentation as 'integral to the governing of climate change in cities'. In our view, UGAs and the ZGG should also be considered experimentation, but not primarily at the urban level. In terms of metagovernance, they illustrate how the state could act to motivate cities and regions to achieve national policy goals.

This paper contributes to the literature in four main ways. First, it responds to the call for 'on-the-ground' policy analysis (Marsden and Reardon, 2017), highlighting how meta policy is transferred to local-level action. Second, it explores experimentation beyond the strictly urban level by adding a metagovernance perspective. Third, it elucidates metagovernance processes by highlighting the geographical characteristics of contractual agreements and power relations between the network actors. Fourth, it applies two of Sørensen and Torfing's (2009) theoretical metagovernance tools, *network framing* and *network design*, to multilevel contract-based cooperation. The analysis is

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[1] By April 2019, there were agreement structures with slight differences (and names). As a result of renegotiation processes in 2018, in the future, they will all have a similar structure and be called urban-growth agreements. To facilitate reading, all three agreements described in this paper are referred to as UGAs.

[2] To facilitate reading, only the name of the main cities, Stavanger, Trondheim and Oslo, is used in the paper. All three urban regions also involve smaller municipalities. The Stavanger UGA involves Sandnes, being one of the larger cities in Norway (though smaller than its neighbouring city Stavanger).

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Nomenclature

GHG	Greenhouse gas
LW region	Living and working region
UGA	Urban-growth agreement
ZGG	Zero-growth Goal

structured using three dimensions, or fields, viewed as central in the metagovernance of contractual agreements like UGAs, namely, **goal operationalisation** (*network framing*), **scope** (*network design*) and **participation** (*network design*). These are relevant in the analysis of the UGAs' potential to serve the national ZGG. They are also suitable for illustrating elements of state-level decision making and the balancing of different needs in land-use and transport-system development.

2. Theoretical perspectives

The study finds its main inspiration in governance literature. The concept of *governance* refers to situations where 'decision making and implementation take place in networks of public, private and semi-private actors' (Edelenbos et al., 2010, p. 46). While this collaboration is based on interdependence, negotiations and trust, the notion of 'governance without government' (Rhodes, 1996) has been criticised for ignoring the still strong role of government (Hill and Lynn, 2005; Baker and Stoker, 2011; Torfing and Sørensen, 2014; Capano et al., 2015). The government's role has been adapted to more complex, rapidly changing environments (Capano et al., 2015; Torfing, 2016). Thus, 'soft', nonbinding, flexible governing tools are used rather than 'hard' tools that are fixed and legally binding (Vabo and Røiseland, 2012; Blomqvist, 2016).

Our work builds on insights from earlier studies focussing on multilevel-governance networks, which has been discussed as a common mechanism for national governments to solve complex or 'wicked' problems (Tompkins and Adger, 2005; Bulkeley, 2005; Bulkeley and Betsill, 2005; Amundsen et al., 2010) and influence local processes (Hovik and Hanssen, 2015). Exemplifying the latter, Marsden et al. (2009) find increased attention among English municipal-authority transport planning departments on the quality of their planning following the implementation of a national performance-reward scheme. In this context, we also find previous literature on meta-policy to be of high relevance. O'Toole (2004) argues that sustainable development is a meta-policy '*guid[ing] the development of numerous more specific policies*' (p. 38). While the ZGG is not as broad as sustainable development is, this paper treats it as a type of meta-policy applied for guiding the development of more specific policies. To Bache et al. (2015), this translation of policy objectives into more specific measures on the ground is essential for preventing meta-policy from becoming symbolic and toothless locally. They suggest the need for identifying an intervening stage between 'objectives' and 'settings'.

Theoretical perspectives on policy goals are useful for understanding multilevel governance, as it describes how goal formulations at one level relates to reception on another. It should be noted that our analysis of UGAs is focused on the design of this new policy and governance approach. It was beyond the scope of the study to involve any measure of the actual effectiveness of it (in terms of results on car-use etc). However, we will consider aspects of effective goal setting. Jung (2012) describes the differences between goal-setting and goal-ambiguity theory: In the former, effective goal setting potentially contributes to employees' affective response and organisational performance. The goals are clearly specified and of reasonable difficulty. In contrast, goal ambiguity describes situations where the goals are less clear.

A concept that we have drawn particularly on in the framing of our work is the type of network steering referred to as *metagovernance*—the 'governance of governance' (e.g. Sørensen and Torfing, 2009). Jessop (2004, 2016) views metagovernance as a key state activity for securing coherence among governance regimes and providing an appropriate balance between different actors. To be specified though, is that our approach means that not all network partners may have equal power or the same roles (c.f. Torfing et al., 2009). Moreover, we acknowledge the challenges relating to metagovernance through networks. For instance, Torfing (2016) have discussed dilemmas related to inclusion versus exclusion of actors in the network. Having many participants may hinder efficient solutions, while having few participants is less democratically inclusive. This dilemma has been identified in empirical studies of urban networks (e.g. Tønnesen, 2015a). It is further acknowledged in that 'open and inclusive governance networks tend to '*enhance democracy to the detriment of effectivity*' (Sørensen and Torfing, 2009, p. 253), but a potential loss in effectiveness is acceptable to many owing to the undemocratic character of closed, club-like networks.

Moreover, Torfing (2016) highlights the overall normative objective of the network in pursuing and defining the arrangement's scope. The objectives and scope must be reasonably effective in serving a societal need and reasonably implementable. Extensive policy packages are in danger of collapsing due to their complexity (e.g. Petterson, 2014).

Previous research also notes that there is a sensitive balance between different policy objectives of networks. For instance, environmental policy may be de-prioritised compared with economic growth (Bache et al., 2015; Lafferty and Hovden, 2003). To reduce implementation barriers, there is a need for identifying and handling the close connections between environmental policymaking and management of local economies (Tønnesen, 2015b).

Sørensen and Torfing (2009) identify four metagovernance tools; including two hands-on and two hands-off instruments. We focus on the hands-off tools, *network framing* and *network design*. *Network framing* implies influencing the network's political goals, fiscal conditions, legal basis and discursive storyline. Metagovernance through *network design* involves influencing scope, character, composition and institutional procedures of the networks. While there are overlaps, network framing can be seen as more overarching. This analysis is structured via the following three dimensions, which are central in the metagovernance of contractual agreements like the UGAs:

- **Goal operationalisation**, which is related to *network framing*, especially how the ZGG is operationalised in the UGAs (see section 5.1);
- **Scope**, which is related to *network design*, focussing on which processes and measures are placed inside and outside the UGA arrangement (see section 5.2); and
- **Participation**, which is also related to *network design* and involves the variation in governance structures with different representations of county and municipality authorities in the three UGAs (see section 5.3).

Focussing on hands-off instruments does not suggest that they are more relevant than the hands-on ones in the UGAs. The choice rests on the need for demarcation: Hands-off instruments are best suited to frame the paper's empirical material. Concerning Sørensen and Torfing (2005) hands-on instruments, *network management* attempts to reduce tensions, resolve conflicts, empower actors and lower transaction costs through different kinds of material and immaterial inputs and resources. One example is national authorities providing reports and statistics as a foundation for decision making in the UGAs. The second type of hands-on instrument is *network participation*,[3] which influences the policy agenda, range of feasible options, premises for decision

[3] Note that this category, network participation, describes national authorities' involvement in the networks, while our constructed category above, Participation, involves representations of county and municipality authorities in the UGA's.

making and negotiated policy outputs. An example is the national authority's positioning as leader of the political steering groups in the UGAs.

3. Contextual background

3.1. National legislative and administrative framework

In Norway, municipalities employ formal tools influencing land-use and transport patterns. Important decision-making power has been delegated to municipal authorities. The counties provide public transport services and coordinating regional planning. Thus, national environmental ambitions are highly connected to municipal- and county-level policy. However, the national Planning and Building Act contains requirements aiming for consistency between local activity and state policy, including the demand for municipal planning to follow nationally defined goals. In addition, urban regions depend on national authorities for transport-infrastructure investments, as the cost is too high for local or regional actors to cover alone. The three levels of government have different responsibilities in urban transport planning. The municipality is responsible for urban development, municipal roads, parking and land-use planning. The county is responsible for county roads, public transport and regional development, with their responsibility for regional transport and land use plans being central. The state oversees national roads and rail. A political commitment on the municipal and county levels is required to introduce or make changes to toll-road payment schemes, which must be accepted in Parliament.

3.2. The ZGG and UGA structure

To achieve the ZGG, Norway's urban regions must avoid increases in total person-car driving length. The UGAs were launched as a main tool to accomplish this (Ministry of Transport, 2017). The UGA structure is currently open to nine larger urban areas, and by 2019, the largest four have signed (the Oslo, Bergen, Trondheim and Stavanger regions). The UGAs have a duration of about 7 years, but allow renegotiations. In 2018 renegotiations started and in March 2019, the Trondheim area was the first to enter a second UGA.

For 2018–2029, national authorities have allocated almost €7 billion to municipalities and counties.[4] Funding for transport development is obtained through toll rings by merging the UGAs into existing regional transport-policy packages based on toll-road schemes. The main UGA projects involve public-transport infrastructure (bus rapid transport in Stavanger and Trondheim and a new metro line in Oslo), improvements to public transport services, improvements for walkers and cyclists and road-infrastructure improvements. While some larger projects are specified in the documents, priorities are determined through portfolio management; the sequence of measures is flexible based on cost, financing or ability to reach the ZGG, representing a central issue. An illustration by the national road authority explains how the packages of measures may differ between the urban regions (Fig. 1). However, one measure is fixed: All the UGAs require strengthened toll-road schemes to access the resources needed for the large-scale UGA projects. There has been a degree of lack of clarity in terms of the responsibility of effectuating new toll-schemes. As the Norwegian prime minister noted, '*Toll-road payment results from locally based decisions, but it is the Parliament that has decided that we should have zero growth in car traffic. When municipalities choose toll roads as financing, then this is up to them*'.[5] As will be returned to, the toll-road dimension of the UGA has been at the heart of local resistance.

The UGAs also address land-use development, emphasising that all three levels of government have requirements for acting according to regional land-use plans. The parties have a shared commitment to achieving the ZGG, which involves the promotion of compact land use and location of new development in areas where there are beneficial conditions for minimising car usage. Municipally, it can involve car-restrictive measures, such as increased parking fees or a reduced number of parking lots.

To monitor local-level development, an extensive indicator set has been established, including yearly travel-behaviour surveys. The agreements do not specify local measures, but the parties are expected to implement stronger measures if ZGG seems unlikely to be reached. If the parties fail to fulfil their obligations, funding may be held back. This system has some similarities with an English performance-reward scheme, where the central government can adjust the funding by up to 25% based on the quality of the plans and goal achievement (Marsden et al., 2009).

In the Norwegian UGAs, lack of goal achievement may also influence state financing in the later rounds of renegotiated UGAs. Thus, the arrangement is in line with the principle of national authorities 'governing at a distance' (Pollitt and Bouckaert, 2004), illustrating the relevance of a metagovernance perspective. While the shared obligation between the parties is emphasised (Ministry of Transport, 2017), the state still has a clear metagovernance role. As a public officer in the Municipality of Trondheim stated, '*[T]here is no doubt that the state is the heavyweight*'.[6]

3.3. The three urban regions included in the study

The **Oslo region**, entering its UGA in 2017, is the largest in Norway, located in the southeast of the country (Fig. 2). The main urban agglomeration is the capital, Oslo, with 673 500 inhabitants. In the functional living and working (LW) region, there are 1 354 500 inhabitants, with Baerum being the second most populous municipality (125 500). The **Stavanger region**, also entering its UGA in 2017, is located on the west coast. There are two municipalities forming a continuous urban area, Stavanger (133 000) and Sandnes (76 500), and there are 340 500 inhabitants in the LW region. Finally, the **Trondheim region** is located in the middle of the country. Here, Trondheim is the largest municipality (193 500 inhabitants), followed by Stjørdal (24 000). There are 282 500 inhabitants in the LW region. The **Trondheim region** was the first to enter a UGA in 2016, and it established the first (and currently only) second UGA in 2019.

4. Methodology

There are currently four Norwegian UGAs. Due to time and budget limitations, we have chosen to study three—Oslo, Trondheim and Stavanger. The fourth UGA, that of Bergen, was excluded because of its many similarities with the Trondheim UGA.[7] By choosing the three UGAs as cases, variations regarding their multilevel governance structures emerged (cf. Flyvbjerg, 2011; see section 5.3).

The data collection was carried out via document studies and qualitative interviews. The document studies comprised the signed UGAs, minutes from negotiation meetings, minutes from UGA steering-group meetings and policy documents. The interviews played a key role, since collecting policy actors' personal assessments of the processes and the agreements in general gave us rich insights about the work with UGAs in practice. A purposive sampling strategy was employed (Lynch, 2013), which not only included actors close to the process but also

[4] The sum also includes a smaller adjoining arrangement called the Reward Programme, not discussed here.

[5] Newspaper article in VG published online (09/09/2018).

[6] Informant quotations and policy document extracts have been translated from Norwegian.

[7] The choice of Trondheim over Bergen rests upon the former urban region being a forerunner in terms of being the first to enter both a first and second UGA.

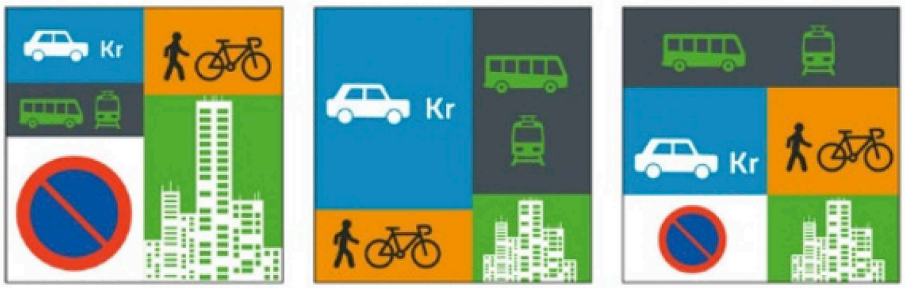

Fig. 1. Three hypothetical packages of measures, illustrating the degree of local flexibility. Explanation; blue - car-usage cost (e.g. toll road), white - car-use regulation (e.g. reduced access to car-parking), grey – public transport facilities, orange – walking and cycling facilities, green – land use regulation (e.g. urban densification). Source: Norwegian Public Roads Administration. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

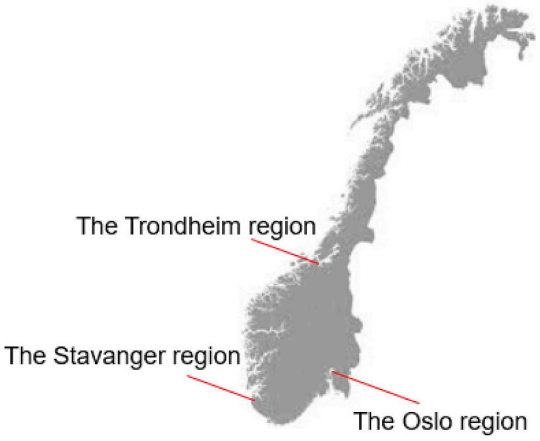

Fig. 2. Locations of the three urban regions.

those indirectly involved or potentially affected. We interviewed politicians, county- and municipal-authority representatives (for the latter both core city and surrounding municipalities), public-transport actors and local business-association representatives. We sought to interview the same types of informants for the three UGA cases; However, due to differences between the urban regions and their governance structures, the number and type of informants were not completely equal. We also interviewed state-level representatives from the national road authority and two ministries. The interviewees were actors holding key positions in establishing and administrating the UGAs and more indirectly involved actors.

A (semi-structured) interview guide was developed. Thirty-seven face-to-face interviews were conducted (in 2017). To cover the UGA renegotiation processes, four follow-up interviews were conducted with interviewees from the first round (February/March 2019). The participants were guaranteed anonymity; with the informants' permission, the interviews were recorded. They were then fully transcribed, and the transcripts were loaded into NVivo, a software program for qualitative analysis. The material was coded and analysed according to a set of defined categories.

5. Three relevant fields for UGA metagovernance

5.1. Operationalisation of the ZGG: network framing

The UGA does not have a goal-hierarchy structure; the agreements aim to reach the national ZGG - that all growth in person transport in urban areas is to be absorbed by public transport, bicycling and walking (Ministry of Environment, 2012). This goal is considered to serve multiple purposes. According to a state-level informant, '*There hasn't been a goal structure established, with sub-goals jointly pointing toward a main goal [in the UGA arrangement]. Instead, it has been announced that if one manages to achieve the Zero-growth Goal, one will manage everything*'. Municipalities may also have more ambitious local goals. **Oslo** for example, seeks a 36% reduction in greenhouse gas (GHG) emissions (all sectors) and 20% reduction in car traffic by 2020. However, while the Oslo goal proclaims transport reduction, the ZGG involves not only the core city of Oslo but also the larger urban region (see 5.3). Thus, it differs from other Norwegian transport goals by both not setting a 'reduction number' (for e.g. car-use reduction or GHG emission level) and by including the core city and its surroundings. Thus, the UGA is lifted above the traditional showcasing exercise of cities presenting ambitious climate policy goals to reach within their own municipal borders (Gustavsson and Elander, 2012; Isaksson et al., 2017). Handling the different contexts and distinctions relating to land-use and transport policy in the wider urban region is another matter. Hence, central to the ZGG ambition is how it is set to cover the wider urban area. Last, the ZGG differs from other Norwegian transport goals by being tightly connected to population growth, which varies substantially between the urban regions. All else being equal, it will be harder for an urban region with strong rather than weak population growth to reach the ZGG.

Many informants related the short-term success of the ZGG, understood as its widespread integration in national, county and municipal plans, to politicians' and public officials' view that it was understandable and politically manageable. However, this does not necessarily mean that the goal will be effective; moreover, the most effective measures are often the hardest to implement (Rist, 1998; van der Doelen, 1998; Givoni et al., 2013; Givoni, 2014). While most informants applauded the ZGG, some emphasised the difference between zero growth and car-use reduction. Noting that the **Stavanger region** has the highest car share among the largest Norwegian regions, one state-level informant asked, '*Why should they be allowed to drive as many cars in the future as they have in the past?*'

Another characteristic of the ZGG is its orientation towards vehicles' driving distance in the urban areas. According to the goal, the number of kilometres driven using private cars should not increase regardless of whether growth occurs for electric or fossil-based cars. This is of especial relevance in the Norwegian context, with its high and increasing levels of electric-car usage. By 2018, there were 142 000 electric vehicles, representing 43% growth from 2017 (Statistics Norway, 2018a). Thus, strong growth in electric-car usage could hinder the UGA regions from reaching the ZGG, although fossil-car usage is kept at bay. This illustrates how the ZGG not only relates to climate issues, but also addresses traffic-flow issues, hereunder the avoidance of congestion. Hence, it is only '***in part*** *a goal for reducing climate gas emissions*' (Ministry of Transport, 2017, p. 146, own emphasis). This orientation potentially reduces the chances of incentivising for electric-car usage, but the ZGG may have broader relevance and durability from this perspective. While GHG emissions from cars may drop due to innovations in engines or fuel, the ZGG may still be relevant for reducing other negative externalities from urban car usage. As noted in the national transport plan, *'Zero- or low-emission cars use as much road space and parking capacity as diesel and gasoline cars and contribute to congestion, accidents, noise and particulate matter'* (Ministry of Transport, 2017, p. 147).

A final feature of the ZGG is its focus on personal transport. Freight transport is not included due to a desire to facilitate service provision

and ensure good conditions for the business sector (Ministry of Transport, 2017). In Norway, road freight transport is expected to double toward 2050 (Hovi et al., 2017), and a lack of local goals and visions for urban logistics has been noted (Fossheim et al., 2017). Thus, a situation could occur where the UGA cities fulfil the ZGG but still experience ever-increasing volumes of freight transport. As defined and operationalised, the ZGG and UGAs do not seem set to become driving forces for innovative urban logistics. As one county-level officer in the **Trondheim region** stated, *'I definitely think that reports on freight transport need to be* included [in the UGA arrangement]. *Because what you don't measure, you won't focus on […] If we solve the situation with private cars now, we will still have an enormous stream, and a growing stream, of freight cars*'.

5.1.1. Discussion: the dimension of goal operationalisation

The concern about the ZGG and UGAs not highlighting urban freight is understandable. Freight is central to a range of urban challenges, and the UGAs seems unlikely to address this. The challenge echoes Marsden et al.'s (2009) remark on the potential negative effects of performance rewards in the transport sector: '*Whilst the system appears to offer benefits of enhanced performance on defined indicators, this may lead to imbalances in priorities between those things for which performance is rewarded and those for which it is not*' (p. 66).

On the other hand, one reason for the good reception of the ZGG may be that it is perceived as manageable, in line with goal-setting theory (see Jung, 2012, and section 2) emphasising the mobilizing effects of goals being specific and reasonable difficult. Still, it is unclear whether actors fully comprehend what it requires to have zero growth in an urban region experiencing population growth.

The ZGG is simultaneously a narrow and wide goal. The narrowness is found in its focus on person transport and driving lengths. It is the total driving length of private cars in urban areas that is targeted, regardless of the emission type. However, this operationalisation may secure the goal's broader relevance and durability, as addressing levels of person car usage reduces other negative externalities. Thus, the ZGG can have positive implications for a range of urban challenges.

As described in section 2, the ZGG is a meta-policy to be translated into specific measures locally. National authorities allow for different combinations of policy measures given that the package is considered to lead in direction of zero growth. Thus, the weighting between measures differs in the Norwegian UGAs to allow municipal actors to adjust their policies to the local context. However, as described in section 5.3, the shaping of toll-road schemes is more restricted, causing tension between the state and municipalities. Further, while the packages may have some local flexibility, tension could arise if the UGA indicators suggest a lack of goal achievement. The UGAs state that this would require the implementation of counter-measures and a strategy shift. This is in line with the national government's tendency to become more 'local' (Bouckaert and Kuhlmann, 2016), with more freedom at the local level often being met by performance indicator systems, regulations and standards (Pollitt and Bouckaert, 2004; Tranvik and Fimreite, 2006).

5.2. Demarcation of the UGA scope: network design

Land-use and transport-system development are extensive policy fields. Hence, in structures like UGAs, some aspects will be defined as within the scope of the agreements, while others will remain outside. These choices will influence the UGAs' complexity and potential for changing transport patterns. As described above, the characteristics and operationalisation of the ZGG have implications for the UGAs' scope, as do institutional conditions at the state level. This is especially evident in the **Trondheim region**, where there were tensions between the municipal and county levels on one side and the state on the other concerning the expansion of a main road link between Trondheim and the second largest city in the area, Stjørdal. While the municipality and county wanted improved railroad facilities first, the state prioritised the new road. In other words, expecting municipal and county authorities to target zero growth, the state simultaneously decided to build massive road infrastructure that will likely reduce the chances of reaching the ZGG, frustrating municipal- and county-level informants:

> *It is an especial challenge that the E6 road towards the east, Trondheim–Stjørdal, is going to be four lanes […]. It was a [municipal] political wish to first build double railroad tracks between Trondheim and Stjørdal […] to reach the ZGG […]. The more cars a road stretch attracts, the higher the score it will obtain in the socioeconomic calculations [giving high a rank in the New Roads agency system]. That is exactly what we don't want: […] more person cars on the E6 road between Trondheim and Stjørdal.* (Public officer, Municipality of Trondheim)

The road project illustrates a well-known tension between whether to facilitate or restrict car usage in urban areas. The UGA aims for ZGG, while increased traffic efficiency through road-capacity expansion is simultaneously being targeted. How this relates to state-level fragmentation is illustrated by the abovementioned road project in the **Trondheim region**; In 2015, a new state agency called *New Roads* was established to optimise Norwegian road building by reducing cost, streamlining planning processes and prioritising projects with high expected economic benefits. The agency was given the responsibility for a set of road plans. Among these were the road stretch between Trondheim and Stjørdal, which scored high on anticipated profitability. The new agency was not part of the UGA governance network, nor did the ZGG seem to be an integral part of their scheme for evaluating the road projects. In the parliamentary document in which the plans for the road expansion are anchored, the only references to the ZGG and UGA are found in descriptions of the local political handling of Trondheim municipality (Ministry of Transport, 2018). Here, Trondheim municipality states, '*If governmental initiatives challenge the [ZGG], the state must also take responsibility for implementing measures. […] The city council will clarify the state's responsibility for mitigating measures in the [UGA renegotiations]*' (p. 10).

For a long time, the discussion in the Trondheim UGA centred on whether induced traffic resulting from the road-capacity expansion should be included in the traffic counts used to indicate its goal fulfilment. In the end, railroad improvements were set as a main measure for countering the new road's traffic-inducing effects. The result is evident in the new UGA, where emphasis on improved railroad services is clear (Trondheim UGA, 2019). Thus, the UGA potentially activates a mechanism where the state will compensate state-measures working against the ZGG.

Scope is also relevant for localisation debates. In line with research acknowledging the close connections between land use and transport emissions (e.g. Næss, 2006, 2012; Banister, 2011; Tennøy, 2012), national authorities have established guidelines emphasising localisation of visitor-intensive functions in central areas and near public-transport hubs (Ministry of Local Government and Modernisation, 2017). For the **Stavanger region**, the UGA states that localisation of visitor-oriented state enterprises needs to follow the national guidelines (Stavanger UGA, 2017). However, simultaneously with the **Stavanger UGA** negotiations in 2016–2017, there was also another issue arising—where to locate the new regional hospital. With an estimated 7670 workers and 966 420 visitors per year (Tennøy et al., 2017), this decision has large transport consequences, as the decided locality on a hilltop in the urban outskirts does not seem to enhance ZGG attainment. Among our informants, there were split opinions on the desirability of this location, much in line with the different professional perspectives. Complex needs are balanced in situating hospitals; as a Stavanger-municipality politician illustrated, '*The new locality is the worst solution in terms of transport […], but because the hospital wants it that way, the health policy in it, transport arguments lose*'. The new hospital will likely become a rather car-based structure, likely to work against ZGG achievement.

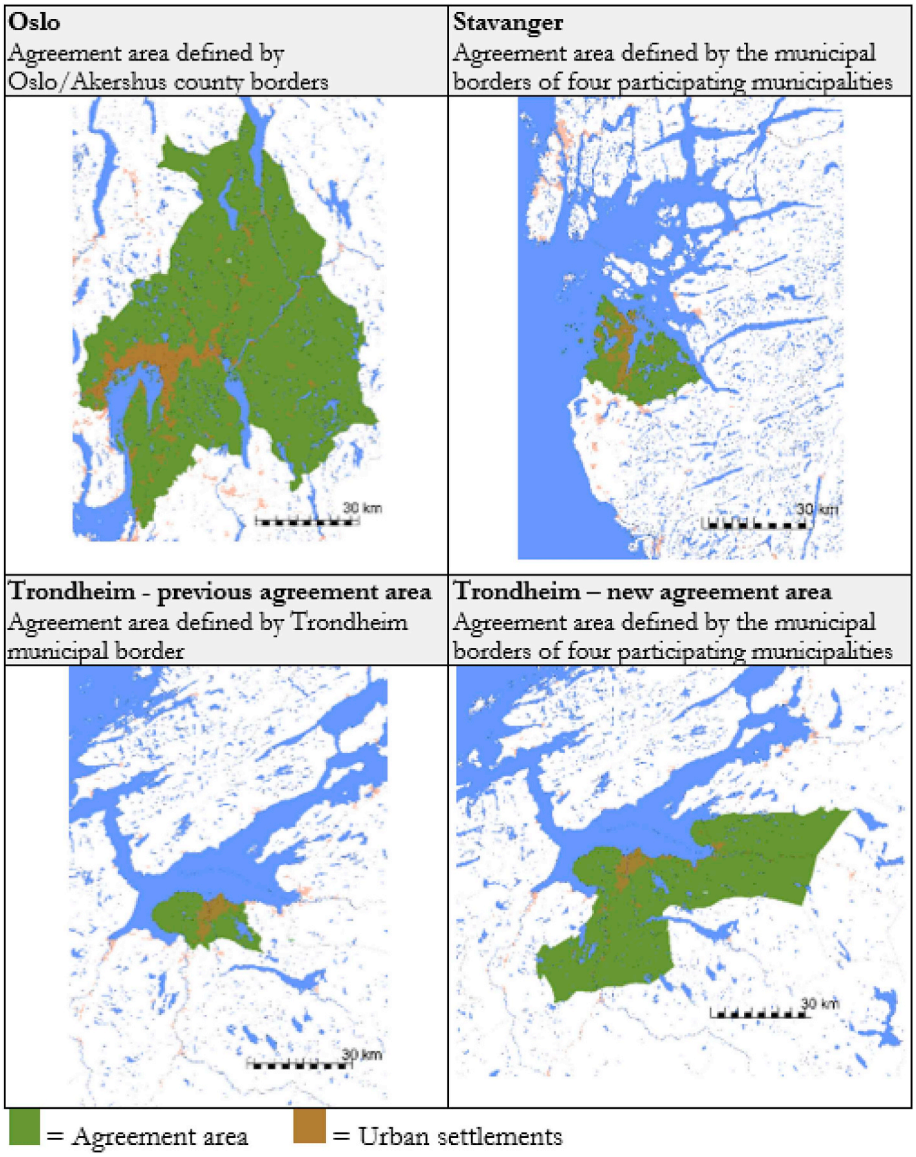

Fig. 3. Geographic size of agreement areas.[8]

Like in the road expansion in Trondheim, compensatory strategies are being discussed:

> *There are different ways of solving it, you can […] have a traffic decrease in another part of the [region where] you allow for increase [at the new hospital location at Ullandhaug], but there has to be corresponding reduction in another part of the region.* (Employee Norwegian Public Roads Administration)

While decisions undermining environmental goal achievement are still being made, an important question is whether the UGA provides a structure highlighting compensation for such policy. If so, this could raise the question of transport effects and reduce the number of such decisions in the future.

5.2.1. Discussion: the dimension of scope

Concerning scope, the analysis shows how some dimensions of land-use and transport policy are defined as within the UGAs, while others are outside. The described hospital reallocation and road-expansion exemplify two large-scale projects seemingly being somewhat outside the scope of the UGAs. However, the discussions of compensatory measures shows that they are still attached to the UGAs. This points towards Rhodes' (2006) notion of internal accountability of governance networks, where the differing interests among the partners act as checks and balances.

Clearly, the UGAs do not function solely as a one-sided tool of national authorities steering local-level decision making in direction of the ZGG. Both the hospital and road-capacity projects illustrate state-driven initiatives likely to undermine the ZGG and particularly in relation to the latter the reactions from the municipal and county authorities were strong. Hence, expectations and commitments go both ways: '*[W]e have gradually started to think of this as a way and instrument to more strongly commit the state to be part of what we already agree on [at the municipal and county levels]*' (Politician, Oslo region). In the renegotiated **Trondheim UGA**, there are 20 bullet points describing commitments for each party, with 5 outlining the state's commitments (Trondheim UGA, 2019).

[8] The new agreement area in the Trondheim region includes the municipality of Klæbu, which will merge with the municipality of Trondheim on 01/01/2020.

Table 1
Characteristics of the three UGAs.[9].

	UGA municipalities (number)	Municipalities in the LW region (number)	UGAs' land area (km^2)	Share population of UGA area of the larger LW-region population (%)
Oslo	23	30	5372	93.8
Stavanger	4	14	446 (1313)	72.4 (75.2)
Trondheim	4	10	322 (2227)	68.4 (89.9)

Numbers in parentheses describe expected changes after the UGA renegotiations, and in Trondheim, changes following the signing of the new UGA (March 2019).[10]

5.3. Participation in the UGA: network design

As noted in section 3, Norway's largest urban regions have a history of cooperating through urban transport packages. These packages' internal organisation varies in relation to, for example, the number of municipalities participating and county authorities' role in the network-governance structure. National authorities have permitted different models, reflecting how governance modes typically co-evolve with the dynamics in a city or region (Healey, 2004; Tønnesen, 2015b). At the UGAs' outset, the national authorities announced that the governance structure of an already existing Oslo transport package would be the national model (Ministry of Transport, 2017). However, this instruction addressed the composition of negotiation and steering groups and established the state as leader of the political steering groups (exemplifying hands-on metagovernance; see section 2). The question of whether there would be a shared model for geographic demarcation of the UGAs and a similar role for county authorities in representing the municipalities surrounding the core city was less clear.

All three cases in this paper have representation at the municipal, county and state levels but still illustrate distinct governance structures. Our main interest lies in the membership status of the municipalities constituting the LW region, and more specifically, smaller municipalities neighbouring the core city. In the first UGAs, substantial variance in the governance structure was found. In the **Trondheim region**, the UGA formally involved only the core municipality; yet, the geographical area (and number of participating municipalities) was expanded in the second agreement (see Fig. 3). In the **Stavanger region**, the municipalities of two bond cities are involved (Stavanger and Sandnes), followed by two smaller adjacent municipalities. In the **Oslo region**, Oslo is currently the only signing municipality, but this UGA includes 22 surrounding municipalities represented by the Akershus county authority. While the county authorities are part of all the UGAs, only in Oslo do they represent municipalities that have not signed the UGA. This makes both the number of municipalities attached to the UGA and agreement area larger in the Oslo region.

The UGA's geography matters for both the effectiveness of decision making and potential for goal alignment. Considering goal alignment, a state-level informant commented, '*The issue of geographic demarcation is also difficult given that the ZGG becomes increasingly hard to obtain as the area you define increases*', and it has to be achieved for the whole area. For the **Stavanger region**, the shared commitment is delineated in the UGA-document: *'The [ZGG] shall apply to all municipalities. A possible growth in person traffic with cars outside the central city areas must be compensated with equivalent reduction in car traffic from the more densely populated area'* (UGA Stavanger, 2017, p. 2). Using the **Oslo region** as an example, traffic counts show zero growth in traffic in the core city, but growth in the surrounding county of Akershus (Ministry of Transport, 2017). If the goal achievement fails due to traffic growth in neighbouring municipalities, core-city municipalities could end up having to compensate for this.

Transport patterns are closely related to the LW region characteristics, implying that transport challenges are not solvable in the core city and coordinated politics in the wider region are required. Goal achievement will depend on stringent land-use policy in the wider urban region to reduce car commuting. Thus, when the first **Trondheim UGA** involved only one of the 10 municipalities in the LW region, it is fair to say that it was limited. In comparison, the **Oslo UGA** covers 23 of 30 LW municipalities (Table 1). Moreover, in this area, more people in the LW region live within the boundaries of the UGA area compared with the other two regions.

With the renegotiations, changes are occurring. In April 2018, the government invited UGA renegotiations, with greater focus on including the municipalities surrounding the core city. In the **Trondheim region**, a new UGA was, as mentioned, signed in March 2019; involving four municipalities gave the agreement a more regional character (see Fig. 3). This makes the UGA population closer to that of the LW region (see Table 1). In the **Oslo region**, the geographical UGA area will remain unchanged, but there is likely to be stronger involvement of the three municipalities surrounding the core city. This would require them signing a new UGA following the ongoing negotiations. In the **Stavanger region**, the geographical UGA area was not expected to change. However, fuelled by fierce resistance towards a stronger toll-road scheme (involving congestion pricing), one municipality, Sandnes, is threatening to leave the UGA arrangement. While having accepted toll-road funding as part of the first UGA, the re-negotiation process mobilized heavy resistance at the local level. Referring to the first round of UGA, the mayor of Sandnes stated, '*Yes, we were part of this, but it was a mistake. We should never have done it, but we must also dare to turn around*'.[11] Seemingly willing to accept a loss of state funding, he proclaimed, '*We will not be part of a UGA involving congestion pricing*'.[12]

While the reasons behind the resistance are multiple, some answers can be found in the characteristics of the **Stavanger region**. Stavanger and Sandnes form a continuous urban area, but the latter has a much lower population. Moreover, while Stavanger covers 71 km^2, Sandnes comprises a larger area, at 304 km^2, with less densely populated urban settlements. These factors make Sandnes more car based, setting premises for negotiating land use and transport in governance structures like the UGA and illustrating reasons for its resistance.

Sandnes' exit would not only have consequences for financing the UGA but also reduce the UGA's relevance as a tool for addressing mobility in the continuous urban area. The situation illustrates the UGA's endeavour to include not only the core city but also neighbouring municipalities. Nevertheless, these factors illustrate how the geography of UGAs relates not only to complexity of network cooperation; it is also a fundamental issue with consequences for goal achievement and ability to address the societal need as intended (to reduce negative externalities of increasing car usage).

The geography is also relevant regarding resource allocation and

[9] The definition of the LW region is based on Gundersen and Juvkam (2013). The population is based on Statistics Norway (2018b), while the built area is based on Statistics Norway (2017; using two categories: area used for dwellings and area used for commerce, public and private services).

[10] Estimations of changes in land area and per cent population are based on the municipalities invited to the renegotiation and merging of municipalities implemented 01/01/2020.

[11] Newspaper article in Dagsavisen Rogalands avis, published online (17/08/2018).

[12] Newspaper article on NRK, published online (11/03/2019).

project planning. The core cities could receive most UGA financing due to the partial prioritising of resources based on goal-achievement potential. However, this could influence the smaller municipalities' willingness to work under the regime, as noted by a public officer in Trondheim: '*No one wants to be part of a committing agreement if they don't get something back*'. The actors need to consider the effectiveness of each project separately (i.e. how much it supports the ZGG) and simultaneously provide smaller municipalities with 'carrots' making UGA participation sufficiently attractive.

5.3.1. Discussion: the dimension of participation

We focussed on the participating municipalities, and to some extent, the county authorities' role in the UGAs. While initially allowing for substantial variation, the UGAs are becoming more alike. All the UGAs seem to be involving three or four signing municipalities, including the core city and a defined set of surrounding municipalities. In the **Trondheim and Stavanger regions**, these municipalities define the geographical borders pertaining to the ZGG. In contrast, the ZGG area for **the Oslo region** is much larger. In addition to four (likely) signing municipalities, the UGA area will involve 19 municipalities represented by the county authorities. It is reasonable that the latter will bear less goal-achievement responsibility and receive fewer resources. Including the city surroundings, while allocating greater responsibilities and resources closer to the core city, could prove beneficial. At the same time, a state representative highlighted that there could be benefits of wider inclusion in the **Oslo UGA**: '*[F]rom a professional and principal point of view, one should perhaps have [included] all the municipalities that form the continuous urban area and region*'.

Wide inclusion in the **Oslo region** would involve handling more contextual and geographically based differences of interest. Addressing the tension between the core city and its outskirts, a central informant in the Oslo negotiations stated, '*The interest in the [surrounding] county of Akershus is […] proportional to the distance to Oslo*'. In this sense, the UGA operates in a well-known political landscape, where enthusiasm for environmental action is typically stronger in central cities than in suburban surroundings (e.g. Dierwechter, 2010). However, the renegotiation process of the **Stavanger region** illustrates that a centre–periphery understanding of implementation challenges is too simple. While smaller than Stavanger, Sandnes is by no means a small city in the Norwegian context. Still, the lower density, more spacious land area and more spread settlements of this municipality set clear premises for land-use and transport policy. Sandnes' leaving the UGA would clearly reduce the UGA's general relevance as a tool for solving urban mobility challenges.

Geographical size and participation relate to a discussion concerning the relationships between network complexity and effectiveness (see e.g. Sørensen and Torfing, 2009; Vabo et al., 2011; Tønnesen, 2015a). With wider governance structures, although praiseworthy for numerous reasons, decision making could take longer due to comprehensive processes (see section 2). If Sandnes leaves the UGA, tension may be reduced and decision-making may be more effective. However, such a UGA would have reduced relevance.

Finally, the UGA negotiations in the **Stavanger region** exemplify Marsden et al.'s (2009) *ability differences* between the municipal-authority players. This study supports these researchers' conclusion of heterogeneity between municipal-authority players influencing the dynamics within reward schemes. Understanding and addressing how implementation barriers vary across the urban region should be a high priority for national authorities.

6. Conclusion

The aim of this paper was to investigate to what extent the Norwegian ZGG and UGAs are well-designed and coordinated to promote climate-friendly transport. Starting from Sørensen and Torfing (2005) understanding of metagovernance tools, the analysis was structured using three central dimensions in the metagovernance of urban contractual agreements: *goal operationalisation*, *scope* and *participation*.

Through our analysis, we have found that the ZGG serves a range of urban challenges concerning mobility. However, the lack of addressing and monitoring levels of urban freight and heavy vehicles has been questioned. Meanwhile, in line with goal-setting theory (see Jung, 2012), some of the ZGG's strength lies in how understandable and manageable relevant actors find it. Ensuring that the goal is not too wide is part of this. Further, a strength of how the ZGG is operationalised lies in the degree of local flexibility in adapting packages of policy measures. Yet, while flexible at the outset, the UGA actors are expected to adjust the strategies if indicators point to a lack of ZGG achievement. It remains to be seen how such situations will be handled. One measure which in practice has not been optional is the implementation of stronger toll-road schemes. Without these, it would be very difficult for the municipal and county partners to contribute with 'their 50% share' of the UGA financing. For the Stavanger region, where the highest tension is observed, the issue of local decision-making power over toll-road schemes has been at the heart of the UGA resistance. This feeds into a more general discussion on the degree of state influence on local-level decision making (see e.g. Bouckaert and Kuhlmann, 2016).

The current research confirms the importance of clear national targets and frameworks (see e.g. Bache et al., 2015): There seems to be a certain shared understanding among relevant actors of the ZGG and how the UGAs are intended to serve it. Less prevalent is an understanding of local implementation barriers. The involved actors would likely benefit from a greater understanding of how *ability differences* between municipalities affect decision making in reward schemes and how to handle this (cf. Marsden et al., 2009). Particularly in the Stavanger region, the UGA structure is shaky due to divergent views on toll-road payment. Further, the region illustrates how ability differences between municipalities do not necessarily follow a traditional centre–periphery pattern. The municipality in which where most toll-road resistance is found, is by no means a small outskirt municipality. Hence, the study shows how varying land-use and transport characteristics between municipalities partly explain their ability differences and differing implementation barriers for new toll-road schemes. Since GHG emissions is a regional issue, there is a need for strong regional governance institutions (cf. Dierwechter and Wessells, 2013). Should Sandnes leave the UGA, its relevance would be reduced: It is in the regional ambition of the UGAs that some of its greatest potentials are found. The ZGG is not a goal to be reached in only some ambitious core-city municipalities; instead, it addresses the urban region level via intermunicipal and multilevel cooperation.

The UGA structure fits with the observed restructuring of the state and creation of new state spaces in urban sustainability (Hodson and Marvin, 2009; Bulkeley and C Broto, 2013). State financing and prospects of new urban futures are launched, while the state operates at the fringes of the local-policy sphere. The UGAs' clearly targeted but somehow open and still not fully institutionalised way of working is an experimental approach by which the state seeks to motivate and coordinate the actions across government levels. Based upon our analysis, we conclude that the approach seems promising for the development of new, locally and regionally grounded approaches to achieving ambitious policy goals. While previous research focussed on experimentation as a key aspect of governance capacity at the urban level (see e.g. Bulkeley et al., 2015), our study highlights how the state can work with experimentation through metagovernance. Analysing the ways in which the UGAs are metagoverned provides insight into the power, context, resources and legitimacy of Norwegian urban policymaking (cf. Marsden and Reardon, 2017). Hence, the focus on 'realities on the ground' has highlighted the struggles over defining what urban sustainability entails (Bulkeley and Betsill, 2005). Here, a second strength of the UGAs is evident: The way in which the partners discuss how to

avoid falling short of the ZGG and what to do if this occurs indicates that the ZGG goes beyond symbolic meta-policy, i.e. policy lacking substantive action on the ground. Therefore, the UGA could become the crucial intervening stage, giving the ZGG teeth (cf. Bache et al., 2015). For example, the railroad improvements in the Trondheim region seems to have gained momentum by working as a compensatory measure for a state's road-capacity expansion project. If the UGAs create a de facto sense of shared commitment and equality, this will promote climate-friendly transport. This does not obscure that the parties have, and should have, different roles and powers in the Norwegian planning and decision-making system. Instead, it points towards the UGAs becoming a governance arena with internal accountability, where differing interests among the partners act as checks and balances (c.f. Rhodes, 2006).

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Appendix A. Supplementary data

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