

# Quality Management in Local Mobility Policymaking: a multi-stakeholder approach to excellence

Follow-up Report

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## **Redactionele toelichting**

Voorliggend rapport vormt een vervolg op de eerdere publicatie 'Quality Management in Local Mobility Policymaking: a multi-stakeholder approach to excellence - Development of an assessment instrument for municipal authorities in Flanders' (Tormans et al. 2011), eveneens uitgegeven bij het Steunpunt Openbare Werken en Mobiliteit – Spoor Verkeersveiligheid. In dit rapport wordt de achtergrond en werking van het ontwikkelde instrument opnieuw beknopt toegelicht, waardoor dit document een op zichzelf staand geheel kan genoemd worden. Verder werden de voorlopige resultaten uit het voorgaande rapport gefinaliseerd en geactualiseerd. Voor verdere toelichting en uitweiding bij de gebruikte methodiek, verwijzen we de lezer graag naar voorgenoemd rapport dat te boek staat met nummer RA-MOW-2011-007.

## **Samenvatting**

Verkeers(on)veiligheid vormt een van de grootste bedreigingen voor de menselijke gezondheid in onze huidige samenleving. Desalniettemin moeten we vaststellen dat het voeren van een mobiliteitsbeleid bij vele lokale besturen in Vlaanderen een sterk ad hoc karakter vertoont, ondanks de goedbedoelde en veelvuldige inspanningen van gemotiveerde en toegewijde ambtenaren.

Het innovatieve instrument dat in het kader van dit onderzoek gegenereerd werd, is erop gericht om de lokale overheden de mogelijkheid te bieden om zichzelf, de organisatie van hun mobiliteitsbeleid en hun realisaties met betrekking tot het verbeteren van de verkeersveiligheid op een vrij eenvoudige, maar wetenschappelijk onderbouwde manier te beoordelen. Als referentiekader voor de ontwikkeling van deze tool werden de algemeen aanvaarde principes van de Integrale Kwaliteitszorg (IKZ) gebruikt.

De primaire doelstellingen van het instrument bestaan erin om een grondig inzicht te verwerven in de huidige gemeentelijke beleidsvorming inzake mobiliteit op vlak van een aantal geselecteerde essentiële strategische beleidsdomeinen, om te wijzen op de potentiële voordelen van IKZ voor lokale overheden, om de gemeentelijke beleidsmakers toe te laten om hun dagelijkse activiteiten vanuit een meer integraal perspectief te bekijken, om de samenwerking tussen belanghebbenden te verbeteren en om de betrokken actoren te voorzien van een uitgebreide ondersteuning en begeleiding bij het uitvoeren van hun functie.

De resultaten van dit onderzoek tonen aan dat een objectieve opvolging van de prestaties en realisaties in het Vlaamse (mobiliteits)beleid verre van gemeengoed is. Bovendien is duidelijk geworden dat zogenaamde 'zachte' beleidsmaatregelen inzake verkeersveiligheid (zoals sensibilisatie en educatie) op gemeentelijk vlak erg weinig aan bod komen, terwijl de beleidsverantwoordelijken het vrij goed blijken te doen wanneer het gaat over het identificeren van de behoeften van gebruikers en bewoners. Een belangrijke uitdaging waarvoor het gemeentelijke mobiliteitsbeleid in Vlaanderen staat, is het opzetten van een raamwerk voor de structurele uitwisseling van gegevens en informatie.

Uit dit onderzoek is verder gebleken dat het mobiliteitsbeleid sterk budgetgedreven is. Dit heeft tot gevolg dat vooral gesubsidieerde (cf. mobiliteitsconvenants) en sterk zichtbare projecten worden ondernomen en dat structurele initiatieven die zich voornamelijk achter de schermen afspelen minder populair zijn. De hogere overheid kan hierin een voorname rol opnemen door de lokale actoren door een gerichte middelenallocatie in de richting van een waarachtig duurzaam mobiliteitsbeleid met aandacht voor de economische belangen, de mens én het milieu.

Samenwerking tussen de verschillende actoren die op het lokale niveau betrokken zijn bij het mobiliteitsbeleid en een structurele uitwisseling van gegevens met de hogere overheid zijn essentiële voorwaarden voor de uitwerking van een doorgedreven mobiliteitsbeleid op lange termijn. Waarachtig toegewijde en gemotiveerde medewerkers

met een open geest en continuïteit in de beleidslijnen zijn sleutelfactoren om te kunnen werken aan een veiliger mobiliteitsbeleid op lokaal niveau.

Het is hierbij belangrijk om te beseffen dat we niet aan elke gemeentelijke administratie meteen de allerhoogste normen moeten opleggen. Voortdurend het eigen beleid in vraag stellen en actief op zoek gaan naar verbetermogelijkheden vraagt veel inzet, energie en middelen, maar het is essentieel om ook aan de komende generaties een veilige mobiliteitsomgeving te kunnen aanbieden.

*Kernwoorden:* lokaal verkeersveiligheidsbeleid, beleidsevaluatie, integrale kwaliteitszorg, IKZ

## **Editorial note**

The present report is a sequel to the earlier publication 'Quality Management in Local Mobility Policy Making: a multi-stakeholder approach to excellence - Development of an assessment instrument for Municipal Authorities of Flanders' (Tormans et al 2011), also published by the Policy Research Centre Mobility and Public Works – Track Traffic Safety. The current report briefly describes the background and implementation of the tool developed, making this paper self-contained. Furthermore, the preliminary results from the previous report have been finalized and updated. For further clarification and elaboration of the methodology used, we kindly refer the reader to the previous report that goes under the reference RA-MOW-2011-007.

## **Abstract**

Road (un)safety constitutes one of the major threats to human health in our present-day society. Yet, in many local administrations in Flanders (Belgium), mobility policymaking is of an ad hoc nature, despite the well-intended efforts of motivated and dedicated officials.

The innovative instrument that has been generated in this study aims at giving local authorities the opportunity to self-assess their organization and performances with respect to mobility policymaking in a fairly simple and straightforward, but scientifically underpinned fashion. The Total Quality Management (TQM) philosophy was adopted as a frame of reference for the development of this tool.

The primary goals of the instrument are to gain thorough insight into current municipal mobility policymaking practices in Flanders on a selected number of essential strategic policy domains, to point out the potential advantages of TQM for local authorities, to enable municipal policymakers to approach their day-to-day activities from a more integral perspective, to ameliorate the collaboration between stakeholders and to provide them with comprehensive support and guidance.

Results show that objectively monitoring performances is not common practice in Flemish (mobility) policymaking. Furthermore, it has become apparent that soft road safety policy measures (e.g. sensitization and education) are to a large extent left unaccounted for by municipal administrations, whereas they seem to be doing rather well at identifying users' and residents' needs. A major issue in current mobility policymaking practices in Flanders is the missing framework for structural data-collection and administration.

In addition, it was found that local mobility administration policy is strongly budget-driven, implying that financially stimulated and highly visible projects are much more popular than structural modifications 'behind the scenes'. This provides the higher authority with an opportunity to divert local mobility actions in to the direction of a sustainable transportation system (including social, economic and environmental targets) by means of purposive subsidies.

Collaboration between the crucial actors at the local level and information interchange with higher levels of authority and other municipalities is key to ensure long-term improvements. Truly devoted and motivated actors with an open view and continuity in policy programs are essential in the pursuit of a safer transportation system at the municipal level.

It is important to realize that it is not necessary for every local administration to aspire the highest level of development straight ahead. Surely, to continuously look for actions of improvement and to evolve stepwise towards an integral level of local mobility policymaking requires a lot of effort, energy and resources, but it is critical to ensure the quality of life of future generations.

*Keywords:* Local road safety policy, policy assessment, Total Quality Management, TQM

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# 1. INTRODUCTION

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The safety level of the traffic network constitutes one of the major threats to human health in the present-day society. Making use of the 'modern' transportation system as it exists in the western world can be a very risky undertaking. In the US, 33,808 people died in 2009 as a consequence of a road traffic collision. In the European Union, a total of 34,500 road fatalities were registered in the same year and -although this implies a reduction of 36% when compared to reference year 2001- the ambition of halving the number of road victims by 2010 (to a maximum of ca. 25,000 deaths) was far from being met (Directorate-General Energy and Transport 2010; European Commission 2011; Belgisch Instituut voor de Verkeersveiligheid 2011). Worldwide, each year nearly 1.3 million people die as a result of a road traffic collision (World Health Organization 2011).

Over the last decades, numerous policy initiatives and action plans have been drawn up in an attempt to attain these ambitious targets. At diverse policy levels, numerous political and administrative actors have been concerned with the amelioration of the safety level on our roads for the different transport modes. A crucial position in the policy chain that leads to the implementation of the ambitious policy plans is occupied by the agencies operating at the level of the municipal authority. The politicians, officials and other stakeholders that run these policy bodies are ultimately in charge of putting a significant part of the higher-level road safety policy objectives into practice.

## 1.1 Local Authorities' Arrears

Statistics show that in 2008, 49.8% of the deadly road victims on Belgian roads were registered inside built-up areas, which are primarily under jurisdiction of these local administrations (Casteels et al. 2010). This figure adds to the statement that local policymakers could play a major role in improving the level of road safety in our society. Prior qualitative research has confirmed this thesis by stating that mobility policymaking at a local, municipal level in Flanders is too often of a poor level (Van Vlierden et al. 2003; Polders et al. 2011; Tormans et al. 2012). A great diversity (proliferation) in isolated policy initiatives is omnipresent, political favors for individual interests (often opposing societal interests) are ubiquitous and the collaboration between different (neighboring) towns and cities is below par. The fairly modest means that municipalities have at their disposal and the different visions and interests of the stakeholders they have to serve are commonly put forward as the main causes hereof. Especially officials representing smaller municipalities tend to refer to an acute shortage of (financial) means and personnel as an excuse for their underperformance (Moon & de Leon 2001; Tormans et al. 2008; Tormans, Janssens, et al. 2010). It is evident that sufficient availability of funding and staff is a necessary precondition for any organization to optimize its productivity, its policy outcome and society's benefits. But it is very unlikely that solely providing more means and personnel will turn municipal administrations into top-notch performing organizations. Is a shortage in means truly the determining factor behind this problem or is there a more fundamental explanation to this and do local administrations intrinsically possess the necessary means to ameliorate their performance?

## 1.2 Public Sector Management Shift

Policymakers at all echelons are increasingly being confronted with a very diverse and continuously growing number of stakeholders, opinions, special interests, lobbyists, emerging technologies and ideologies. This tendency provokes a growing call for support and guidance, which cannot always be provided by the supervising policy bodies. Simultaneously, a movement towards professionalization has been gaining strength in the public sector. In an attempt to increase efficiency and to (re)gain the public's trust, public administrators have actively been searching for improvements in their



management practices. This has resulted in an adaptation of various concepts and techniques stemming from private industries and business management practices. This trend is generally referred to as 'New Public Management' or NPM (Hood 1995; Ocampo 2002; Stark 2002; Hood & Peters 2004; Bremmer & Bryan 2008). In this respect, a large number of initiatives have recently been taken in order to transform public organizations into well-led, customer-oriented, cost-efficient, target-driven and transparent entities with a key focus on involvement and empowerment of employees and stakeholders (Borins 2000; Brock 2004; Vinni 2007). Some authors argue however that NPM has radically increased institutional and policy complexity, indicating that increased governance efficiency is not guaranteed by adopting this approach (Dunleavy et al. 2006). It is suggested that digitalization of public governance could be the next crucial step in public authority development.

### **1.3 Quality Assessment**

In that mindset, this study aims at developing an instrument that allows Flemish municipal administrations to self-assess their organizational structures and their performances. The goal is to propose a new tool to help municipalities ensure cohesive and compliant transportation policy development. The instrument aspires to complement the existing evaluation procedures that are considered to be fairly subjective and laborious and is based on the concepts of widely applied quality management instruments and international road safety best practices. One of the starting points of this study it is that solely considering policy outcome and effects is insufficient when assessing a mobility administration. Since mobility policy measures (in practice) are essentially the result of organizational processes that take place 'behind the scenes', it is essential to gain thorough insight in those aspects underlying local road safety policymaking as well. To this end, the concepts of integral or total quality management are adopted as the groundwork and will be elaborated in the next section.

Introducing the instrument for quality assessment in Flemish municipal mobility policymaking that is generated in this study will provide local and higher-level policymakers with a breeding ground for renewal, allowing them to reconsider their organization and daily management practices. It offers policymakers the opportunity to conduct a thorough diagnosis of their activities, to (re)orient their focus in order to improve their organizational structure and service delivery and to objectify what officials can generally only sense. It should guide them in improving the level of road safety within their jurisdiction in a sustainable fashion.

## **2. TOTAL QUALITY BACKGROUND**

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For improvements in management practices of local mobility administrations to be permanent, it is essential for these processes of change to be approached from a holistic point of view. Today's policy initiatives and individual policy measures are undertaken with the best of intentions, but society will only be able to pick future fruits if these strategies for improvement are well coordinated and of an integral nature.

An interesting line of thought with respect to the practice of integral policymaking can be found in the philosophy of Total Quality Management (TQM). This managerial approach was founded on the ideas of W. Edwards Deming and has won its spurs in private as well as in public organizations (Redman et al. 1995). It has been the basis for various models for organizational management and a great number of case studies in diverse domains of public management have been documented in literature (Morgan & Murgatroyd 1994; Gaster & Squires 2003; Bouckaert et al. 2009; Van Roosbroek & Bouckaert 2009). TQM is to be considered as a strategy that an organization's management can pursue in order to obtain competitive advantages by attempting to improve all facets of the organization (Imai 1986).

Bouckaert and Thys (2003) define Total Quality Management as a group of managerial techniques that aim at realizing customer satisfaction by pursuing continuous improvement with a strong focus on coworkers' participation. An organization is assumed to have attained the level of TQM when it excels on the following managerial aspects: customer orientation, commitment and leadership of senior management, planning and organization, using quality management techniques and tools, education and training of staff, involvement of stakeholders, teamwork, measurement of results and openness to feedback and cultural change (Vinni 2007).

### **2.1 TQM in Transport Policy**

It is believed that incorporating the ideas of Total Quality (public) Management in the specific field of local mobility policymaking is worthwhile. Efforts to project the ideas of TQM on transport policymaking have previously been made by Metri (2006) and Macário (2001) at a conceptual level.

The use of quality management techniques and practices is thus not new to the domain of urban transport policy. In Europe, several research projects have been carried out in an attempt to assist policymakers in systematically assessing and enhancing their performances (e.g. QUATTRO, EQUIP, BYPAD, MEDIATE). Nevertheless, systematic quality assessments procedures for general municipal mobility policymaking have not been developed yet to the authors' knowledge.

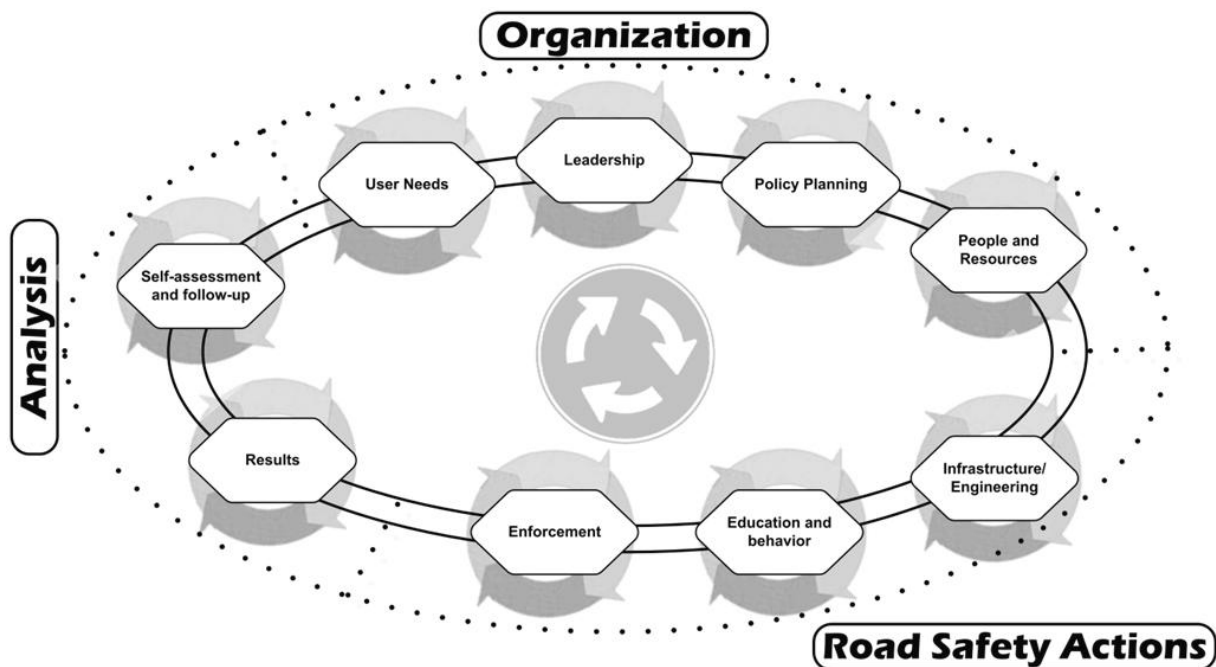
The interest in the potential benefits of quality management in the field of local policymaking in Flanders is fairly recent. In the domains of social services, healthcare and education, its application has been systematically encouraged and has in some cases become statutorily obligatory (Van Roosbroek & Bouckaert 2009; Bouckaert et al. 2009). Nevertheless, very few initiatives have been taken in the domain of mobility policymaking so far, essentially limited to a number of explorative research projects (Van Vlierden et al. 2003; Paris & Van den Broucke 2006; Eeckhout 2009).

### 3. FRAMEWORK FOR QUALITY ASSESSMENT IN LOCAL ROAD SAFETY POLICY

The tool that has been developed in this study is specifically oriented at the Flemish local administrative level, implying that it is attuned to Flemish mobility practice as closely as possible.

#### 3.1 Policy Cycle

Figure 1 represents a comprehensive policy cycle for local mobility policymaking which is based on the conceptual model developed in the aforementioned BYPAD-project (Asperges 2003). In this model, all strategic domains of action (called 'modules') of modern-day mobility policymaking at municipal level are enclosed. The strategic domains are defined as those decision making units that are to be explicitly considered in order to be capable of providing a sustainable mobility policy to the municipality's residents and visitors. The circular character of the diagram stresses the idea of continuous improvement: by paying attention to an authority's performance on each of the modules that have been identified while keeping an eye on potential opportunities for improvement (for the different modules simultaneously), the organization and all of its components can gradually evolve towards the aimed-for level integral policy making. For all aspects underlying the organization and the modules, the continuous search for improvement is sacred.



**Figure 1: Conceptual model.**

As figure 1 shows, municipal road safety policymaking is stripped down to three components that should be addressed simultaneously: the organization's functioning (1 - *Organization*), the road safety strategy development and implementation (2 - *Road Safety Actions*) and the organization's assessment and follow-up (3 - *Analysis*). These three components have been subdivided into nine modules (cf. infra). These modules contain a total of thirty aspects that refine them (see figure 2). In their turn, all of these aspects are specified by means of a total of 134 sub items or points of attention (represented in figure 2). These points of attention constitute the most detailed level of analysis and are used to examine the organization and performance of the authorities under investigation (Tormans, Brijs, et al. 2010).

<b>User Needs</b>	<u>Data collection</u> Frequency Executor Budget Consulted sources Comprehensiveness	<u>User consultation</u> Approach Level of participation Executor Budget Feedback		
<b>Leadership</b>	<u>Communication</u> Internal contactability External contactability Orientation communication lines	<u>Devotion</u> Behavioral expectations Exemplary behavior Prestige Interest Advocacy Commitment	<u>Coordination</u> Strategy Position in political field	
<b>Policy Planning</b>	<u>Profundity</u> Time horizon Policy SMART'ness Policy focus Policy orientation	<u>Vision/mission</u> Existence of vision/mission Internal and external support	<u>Policy background</u> Relation to higher level of authority Consultation of relevant literature Incorporation of user needs Adjustment to third parties	<u>Durability</u> Level of integration Consideration of side domains Consideration of effects Pro-activeness Use of mobility plan
<b>People and Resources</b>	<u>Financial management</u> Budget specificity Budget allocation Financial control Budget availability Budget transparency	<u>Human resources management</u> Competence development Competence identification Recruitment and selection Recognition	<u>Responsibility management</u> Empowerment Task assignment Accountability	<u>Day-to-day management</u> Level of corporation Involvement of staff Technological support Technological openness Work environment Facilitation of daily work
<b>Infrastructure engineering</b>	<u>Nature</u> Conflict-free Forgiving infrastructure Durable infrastructure Self-explaining situations Black spots Focus on specific road users	<u>Triggers</u> Immediate trigger for infrastructural measures Motivation for infrastructural measures	<u>Flanking measures</u> Hinder-reducing measures Communication Cost-effectiveness Preparation Follow-up Public support	<u>Data management</u> Administration of data
<b>Education and behavior</b>	<u>Themes</u> DUI Travel behavior Speeding Seatbelts/Safety equipment Specific themes Driving aids	<u>Educational programs</u> Partners Follow-up Theoretical formation Practical formation	<u>Information</u> Partners Follow-up Motivation Preparation	<u>Sensitization</u> Partners Goals Follow-up Motivation Preparation
<b>Enforcement</b>	<u>Framework</u> Goals Motivation Partners Data registration			
<b>Results</b>	<u>Key indicators</u> Frequency of analysis Efficiency Finances Effectiveness	<u>Residents' indicators</u> Frequency of analysis Perception Level of involvement Administrations' contactability Satisfaction Expectations	<u>Co-workers' indicators</u> Frequency of analysis Co-workers' perception Co-workers' satisfaction Co-workers' devotion Co-workers' expectations	<u>Societal indicators</u> Effects on society
<b>Self-assessment and follow-up</b>	<u>Self-assessment</u> Methodology Organizational level Range of goals considered	<u>Follow-up</u> Assessor Implementation of results	<u>Management of change</u> Frequency of revision Openness to change Importance of management of change	
				<u>Process management</u> Process evaluation

**Figure 2: Underlying aspects and points of interest.**

### 3.1.1 Organizational Aspects

An extensive literature review on the (theoretical) background of quality management and a thorough analysis of widely applied quality instruments such as the EFQM Excellence Model, the Common Assessment Framework (CAF) and the Balanced Scorecard (Kaplan & Norton 1996; EIPA 2006; EFQM 2010) indicated that assessing a municipal mobility policy requires the inclusion of a number of managerial domains. To this end, the following domains have been included in the conceptual framework:

**User Needs** For any organization to be able to provide qualitative products or services that are of value to the customer/consumer, it is crucial that its representatives understand what the customer's needs and expectations are. Similarly, for any public administration, it is essential to gain insight in the *needs* and expectations of the society. A local road safety administration has to determine who the residents and road users are (profiles), in what way they utilize the road network and what the public expects from the local authorities in return for their taxes paid. These themes are to be assessed by the instrument at hand (Van Nuland et al. 1999).

**Leadership** The nature of *leadership* of senior management is essential in the assessment of municipal mobility policymaking (both administrative and political). It is the leader's task to proficiently manage and steer all essential organization-related factors in order to attain the predefined objectives. To fulfill this task successfully, the leader must engage the right people with specific attributes and provide adequate resources at the appropriate times. He must create an organizational structure and environment in such a way that individuals can work together efficiently and effectively (Van Nuland et al. 1999). Communication styles with co-workers and with external partners, the managers' level of devotion, and the overall coordination of the organization's functioning are indicative of the leadership's performance.

**Policy Planning** The *policy planning* processes within the organization are indicative for the quality level of performance. Leadership supplies the motivation and the inspiration, where policy planning and strategy give it its concrete form. Policy planning and strategy formation constitute the guidelines on which the management of personnel, of resources and of activities is based (Van Nuland et al. 1999). Boyne and Walker (2004) claim that existing classifications of private sector organizational strategy have limited relevance to public agencies, indicating that assessing policy planning practices in the public sector cannot be adopted from existing practices without careful consideration. Whether or not an organizational mission or vision has been defined, the profundity and elaboration of policy ambitions, the background against which actions and policy plans are drawn up and the consideration of sustainability in future policy actions give an impression of the soundness of the organization's policy planning processes.

**People and Resources** The output of any organizational process is heavily dependent on the human efforts and *resources* that are available, even more so in service providing organizations. The *people* within the organization constitute the most important asset, because of their knowledge, experience and values. They generate products (services) by operating the processes (Van Nuland et al. 1999). The way in which human resources, funds, data and coworkers' responsibilities are managed, is considered to be determining for the level of quality that is attained.

### 3.1.2 Road Safety Aspects

The starting point for constructing the road safety domain of the conceptual model was a meta-analysis of road safety measures conducted by Elvik and Vaa (2004) and the policy plans of a selected number of authoritative countries and organizations (Netherlands, Sweden, UK, New Zealand, Norway, European Union and the World Health Organization). The information obtained from these documents was converted into a comprehensive overview of those measures that significantly contribute to road safety in different contexts. The identified aspects were categorized according to the commonly known '3

E's of integral road safety': engineering, education and enforcement. The recently added fourth 'E' of encouragement, including incentives and disincentives to behavior change is integrated in the module on education and behavior.

**Engineering** Which infrastructural measures have been taken and what were the (direct) triggers hereto? How was the collaboration with different partners involved organized? Which flanking measures were adopted and how where they implemented?

**Education (and behavior)** Which initiatives did the organization take to educate, to inform and to sensitize its road users? What part did the local authority play herein? What preparative and accommodating actions were carried out and how were the campaigns generally prepared, assessed and followed-up?

**Enforcement** Which actions were taken? What were the hind-lying ambitions? How was the collaboration with the police services organized? How was the data registration and follow-up of enforcement initiatives established?

### 3.1.3 *Analysis Aspects*

Openness towards learning from their own prior performances is an essential condition for continuous improvement. A feedback-loop allows the organization to monitor its performances and to draw useful lessons from them. This idea is closely linked to Deming's PDCA-cycle (Deming 1986). Virtually all quality models and instruments include a feedback loop in their assessment procedures. The quality assessment (and data collection procedure) that is required within this feedback-loop is twofold: results of previous policy and self-assessment procedures are considered.

**Results** The extent to which external and internal organizational results and performances are taken into account is incorporated in the instrument. In this respect, focus is put on customers' satisfaction, coworkers' appreciation and societal effects. The applied techniques and their frequency of use are indicative for the organization's level of development.

**Self-assessment and Follow-up** Internal facets, such as the implementation of self-assessment initiatives and the extent to which the gathered data are used to improve the organization's operation are aspects that are considered.

## 3.2 Ladder of Development

The essence of the TQM-approach lies in its pursuit of continuous improvement by means of a staged development. This implies that an organization should not precipitately strive for becoming a top-performer, but it is important to have a clear view on its current performance and on where immediate (short-term) opportunities for improvement may lay. A metaphor frequently used to describe this concept is one of mounting a ladder of which the diverse rungs represent different quality levels that the organization or administration can attain. Previous research and policy-evaluation tools in which a comparable methodology was applied, suggested using a ladder with four or five rungs (Miermans & Zuallaert 2001; Asperges 2003; Øvstedal et al. 2010).

### 3.2.1 *Rungs of Development*

For this specific case of local road safety management, a four-rung ladder has been generated. Bottom-up, the rungs are named as follows: 'ad-hoc', 'isolated', 'system-oriented' and 'integral'.

**Rung 1 - Ad hoc Level** Mobility policymaking is approached from a problem-solving point of view. Problems are solved when they become apparent and preventive actions

are very rare. It is an organization with minimal attention for quality management: short term policymaking, informal culture and practices, individual and unstructured initiatives.

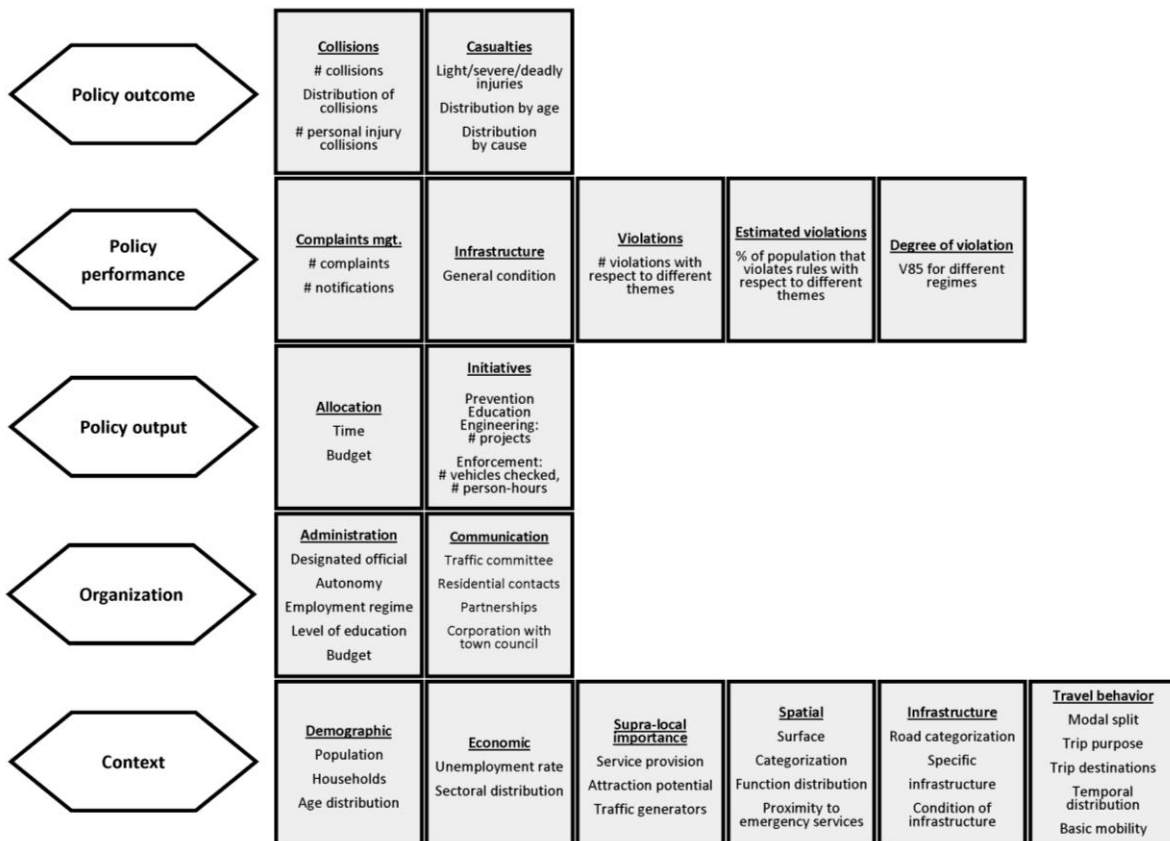
**Rung 2 - Isolated Level** The mobility administration is internally well organized, but its performances are critically hindered due to its isolation within the municipal administration. Contacts with other policy domains are rare and there is no common vision on mobility in place. Organizations typically have systematic (though fairly confined) consideration for quality management and processes are not fully controlled: systematic but basic identification of user needs and policy priorities, continuity of policy practice is unguaranteed, a lack of policy support and guidance and deficiencies of diverse natures are common.

**Rung 3 - System-oriented Level** The organization has a clear vision on urban mobility and different representatives and actors are internally collaborating rather well. Nevertheless, there is a chronic lack of interaction with and of input from comparable municipalities, higher-level authorities and other stakeholders. Furthermore, consequent feedback loops from the past and reliable predictions are missing. This type of organization is characterized by sufficient data-availability, formal and binding agreements, a thoroughly planned approach to renewal and improvements, explicit attention for competence-based promotions, adjusted job descriptions, stimulation of engagement and empowerment.

**Rung 4 - Integral Policymaking** The organization continuously strives for improvement and is characterized by intense relations with target groups, actors and other stakeholders: regular systematical analysis and assessment of the organization's performance, use of quality criteria (indicators) as a policy instrument, structural problem-detection and problem-solving, future minded and innovative thinking, existence of synergetic effects of collaboration within and outside the organization.

### 3.3 Context

To gain insight into the level of performance of a local road safety authority, it is essential to correctly position the organization against its background. Policy priorities and practices may be very dependent on the specific situation that the policymakers are operating in. Next to these external factors, it is important to map the internal organization of the authority. This allows for analyzing the relationship between the organization's setup and the level of performance achieved by the administration. In order to obtain a complete overview of an organization's environment and to correctly interpret the effects of the organizational performance on road safety in practice, a number of indicators are mapped. These indicators deal with the organization and its context (policy input), the policy output (safety measures and programs: e.g. number of speed and alcohol checks, budgets for sensitization, etc.), the policy performance (safety performance indicators: e.g. number of traffic violations, percentage of road network equipped with sidewalks) and the policy outcome (e.g. number of casualties and collisions). The data collected by these indicators can be linked to the results that have been obtained through the internal assessment of the organization. An overview of the indicators used is presented in figure 3.



**Figure 3: Context indicators.**

### 3.4 Validation

For the instrument to be useful in practice, it requires a broad basis. Therefore, the tool was generated with a strong focus on target group participation. As a first step, two focus groups were organized with a total of fifteen participants including local officials, local politicians and representatives of local police departments. The methodology, conceptual model and underlying aspects were systematically discussed, justified, specified and adjusted. The design of the instrument was then presented to the Association of Flemish Cities and Municipalities (VVSG), to a selection of researchers in the domain of transportation sciences and to policy auditors that are entrusted with the screening of municipal mobility plans.



## 4. EMPIRICAL

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### 4.1 Pre-study

In a pre-study to this research, twenty-five Flemish local mobility administrations were assessed with respect to their performances, internal operations and organizational structures. For every municipality involved, the leading official of the mobility administration, the competent politician (representative in the town council) and a selected number of residents were inquired in a semi-structured interview. The combined results of these case studies indicated that the quality level of local mobility policymaking administrations is generally fairly frail and of an ad hoc nature. Four factors were found to be determining for this finding: default of *political continuity*, *internal conflicts* between stakeholders, lacking *internal expertise* and deficient *financial resources*. Inter-stakeholder *collaboration*, residents' *participation* and *policy-integration* with higher-level programs were concluded to be the strengths of current mobility policy practices in Flanders (Polders et al. 2011; Tormans et al. 2012) .

### 4.2 Data Collection

The assessment tool introduced in this paper was put into practice by means of standardized questionnaires. This allows performing the evaluations without immediate intervention of an assessor, it facilitates uniform processing of the results and it reduces the workload for the respondents. Drawbacks of this approach are the risk of misinterpretations by the respondents and the lack of nuances in the answers.

The questionnaire is designed to be completed within a 90 minute timeframe. For discussing potential conflicts in visions between the represented stakeholders, another 40 minutes are foreseen. The standardized questionnaire consists of 134 questions: one multiple-choice question for each point of interest. For every question, five potential answers are provided, corresponding to the four levels of development and one "not applicable"-option. In case a respondent feels unsuited or ill-informed to answer a certain question, he is requested to leave it blank. It is stressed to the participants that all answers will be processed anonymously.

The questionnaires are to be filled out by at least three crucial actors in the domain of local mobility policymaking: a delegate of the local *administration* (leading official), a representative of the local *political actors* (elected member of town council) and the leading officer of the local *police force*. In order to be able to monitor the procedure and to prevent misinterpretations, all parties are requested to simultaneously complete the assessment.

The respondents first fill out an 'appreciation'-questionnaire. This checklist consists of twelve statements covering the modules of the conceptual model. The outcome of this questionnaire provides insight into the different stakeholders' views on the mobility policymaking practices in the municipality under consideration, without being influenced by aspects that are addressed by the remaining part of the questionnaire. Comparing these results to the final results provides an indication of the degree to which the instrument is capable of measuring the level of development. Subsequently, the respondents fill out the questionnaires.

### 4.3 Analysis and Consensus

The respondents' answers are immediately processed, providing the moderator with an overview of conflicting visions between the participants. When all respondents have individually finished their assessment, a consensus-meeting is held to sort out the differences and to give the actors the opportunity to provide additional information on

certain answers. This first step of analysis is intended to provide the participants with some immediate preliminary feedback. This should confirm the value of their time-investment and convince them of the validity of the tool. Hereto, it is essential that the responses of the participants can be processed very quickly (nearly real-time). To this end, the respondents were given tablet-PC's on which the web-based surveys were published. The assessor collected and processed the answers on a laptop. This allows quickly summarizing and visualizing the results, giving the respondents a first glance at their score and their position relative to the other municipalities.

After the meeting, the assessor determines the average level of development for each of the points of interest addressed in the questionnaire. Where no conflicts were found, the consensus score was calculated as the average of the scores given by the three actors. Where dissension was present, the consensus score is based on the discussion that was held after filling out the questionnaires. In addition, the individual and consensus scores are aggregated at the level of the underlying aspects.

At the end of the meeting, the official and the representative of the police zone received a context questionnaire (cf. 3.3 Context), which they were asked to complete during the course of one month.

#### **4.4 Recruiting Participants**

In order to recruit participants for this project, a stratified sampling method was applied. Invitations were sent out by email to the politician competent for municipal mobility policy. Non-responses were followed up by telephone. Municipalities were selected with respect to their geographical orientation. After having invited 72 out of 308 municipalities (23.38%), a contact rate of 80.55% was obtained. Non-responses are those cases where it was not possible to contact the political representative in person after several attempts. Of those municipalities that could be reached, thirty agreed to participate (acceptance rate of 51.72%). The most commonly given reasons for not participating are the fact that there is no designated mobility official (yet), that the mobility administration has only recently been established, a lack of time and the absence of (interest in) an assessment culture within the administration. Two cases were rejected because one of the actors was absent during the assessment meeting.

It is obvious that the voluntary recruitment strategy used in this study potentially constitutes a major drawback for the validity of the results: it can be assumed that only those municipalities that are sure of their ground (and of the quality of their performances) are eager to participate for reasons of recognition. This is an important notion that had to be kept in mind when analyzing the obtained data.

#### **4.5 Results**

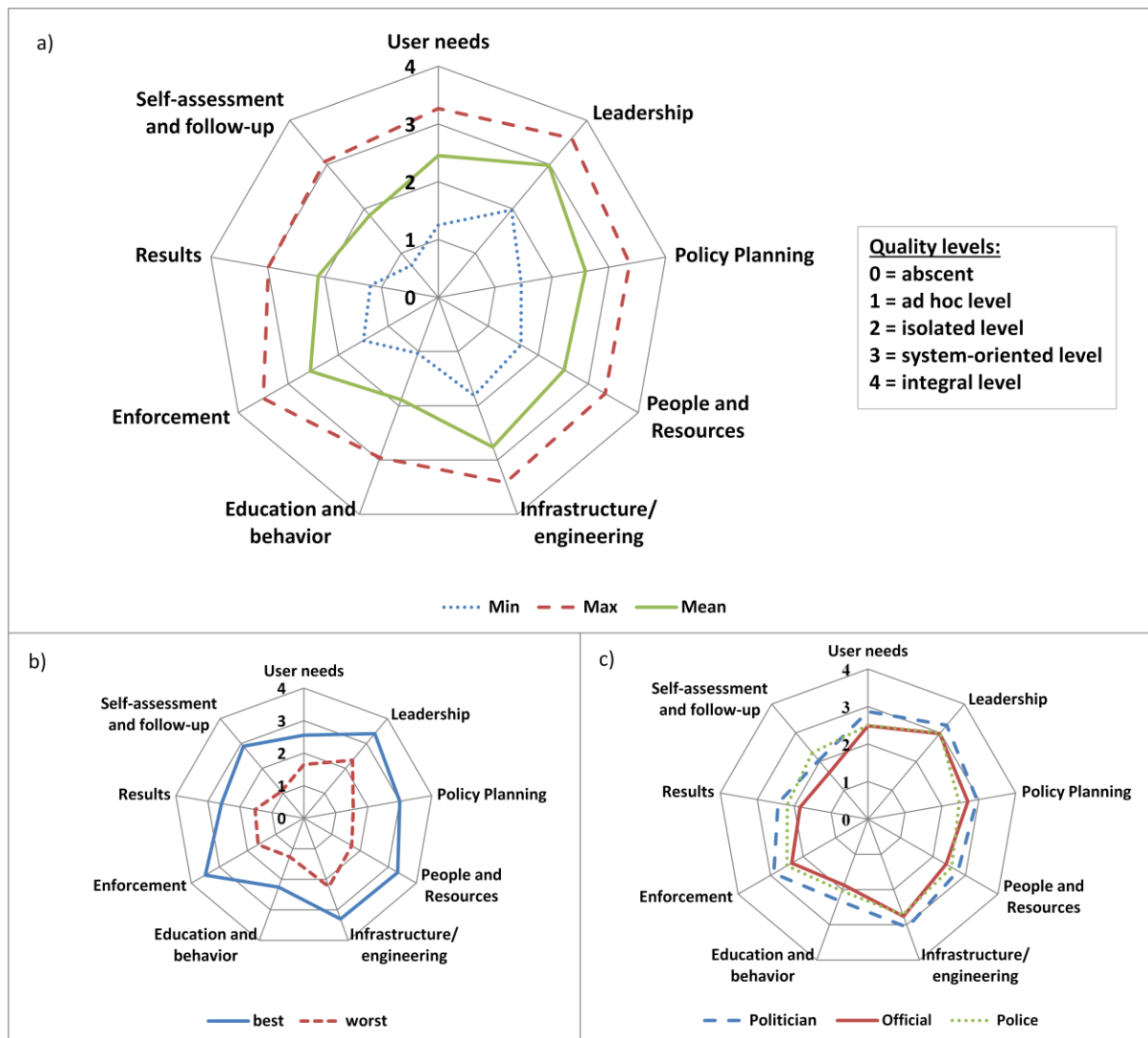
This section provides the results based on the twenty-eight municipalities that have been assessed. The results are based on the scores aggregated at the module-level. In-depth analyses with respect to patterns in the underlying aspects and relations to the background data are subject of future research.

Figure 4a shows the evaluation curves of three hypothetical municipal mobility administrations. The dashed line connects the highest scores that were obtained for each module, whereas the solid line depicts the average scores on each module. The dotted line depicts an imaginary administration bringing the lowest registered results together. It is apparent that the average and minimum scores on the analysis modules ('results' and 'self-assessment and follow-up') are considerably lower than for the other modules. This seems to confirm the assumption that monitoring and assessing the results of implemented road safety projects and measures is not common practice in Flemish municipal mobility policymaking. Road safety actions in which other authorities are not directly involved ('education and behavior') are addressed to a lesser extent when

compared to the initiatives where the administration can often adopt a more passive, follower's role (e.g. infrastructure where the regional authority is the leading partner and enforcement which is primarily dealt with by the police force).

Figure 4b pictures the scores obtained by the best (solid line) and the worst (dashed line) performing administration in the subset. This ranking is based on the un-weighted average of the aggregated scores at the module-level. The worst performing administration specifically obtains low scores on the analysis modules ('results' and 'self-assessment and follow-up') and on policy aspects related to education and behavior, especially when compared to infrastructure (necessary and mostly subsidized) and enforcement (organized by police force without involvement of the local representatives). The best performing municipality excels on all domains, with a minor drop in the score on the behavior and education module. It is not surprising that a municipality that obtains good scores on the organizational and road safety modules also stands out on the analysis-modules.

In figure 4c, the tendencies in scores of the different actors involved are depicted (mean score over all administrations). The political actor (dashed line) generally assigns higher scores, whereas the official (solid line) and the police representative (dotted line) usually have a less positive idea about municipal mobility policy practices. Possible explanations for this observation are that the politic representative holds the ultimate decision power and that he/she usually combines multiple policy domains and/or jobs. Mobility officials encounter the existing obstacles in their everyday jobs, which – when not accurately dealt with – may lead to frustration. The police force representative regards the mobility administration from an external point of view and often has a clear image of the potential for improvement that is commonly present. Police departments generally have a lot of data on the road safety situation within a municipality, but the administrations and policymakers do not seem to be able to adequately make use of it. As the results for the aspect 'self-assessment and follow-up' in figure 4c suggest, police representatives expect more of the municipality's follow-up than the administration delivers.



**Figure 4: (a) Highest, lowest and mean scores interconnected; (b) best and worst performing administration; (c) mean scores of different actors.**

## 4.6 Appreciation

From the analysis, some interesting conclusions could be drawn. The presence of a leading figure who is genuinely interested in or committed to mobility policy seems crucial. Ideally, a devoted politician is backed-up by a dedicated official or – in case of absence of a truly devoted political actor– an official that has the capability to develop a mobility policy in a sustainable fashion. A bond of trust between elected politicians and designated officials and mutual recognition are cornerstones of a fruitful municipal mobility policy and can be major sources of frustration (Polders et al. 2011).

Another determining issue is the position the politician takes between his electorate and the administration. In order to make decisions, politicians often have to weigh up the two interests they have to serve: the individual needs of their voters versus the communal interest of the municipality. This is very determining for the degree of freedom the officials experience when doing their job. It seems that the political favors that are rendered to individual residents form a major source of frustration in the administrations and stands in the way of durable, well underpinned mobility policymaking.

A major concern that has been addressed by multiple officials is the grown gap between the administration and the police department. Especially in entities that belong to multi-municipality police zones, it is felt that the reorganization of the local police services in 2001 has complicated the communication with the administration, in particular when it comes to exchange of data. In addition, several representatives of police departments denounced the apparent differences in interaction and collaboration within multi-municipality police zones.

The receptivity to the ideas of NPM is another issue that weighs on the level of performance. Concerning the underlying aspects of job-devotion and empowerment, major improvements have been achieved over the last decades, but it is often mentioned that a reverse movement is recently felt to be emerging. Human resource management and merit recognition are domains of organizational management on which major room for improvement is left.

As opposed to what is commonly assumed, the size of the municipality (in terms of population or surface) does not seem to be a determining factor. The amount of financial means that mobility policymakers have at their disposal is much more important. Administrations that do not receive sufficient operational means are very dependent on subsidies from the higher level government and from joining in on other association's initiatives, especially when it comes to infrastructure, education and sensitization. This implies that their action radius is commonly very limited. Clark and Whitford (2011) also found a positive correlation between federal level funding and state-level spending in the US.

A recurring issue in municipality mobility policymaking is the fact that it is very reliant on the composition of the political coalition in the town council. This complicates matters since many visions and expectations have to be accounted for. In addition, the 6-yearly political term at a municipal level stands in the way of the development and implementation of a long-term mobility vision.

A final matter that is often addressed is the absence of a higher-level framework of guidance for local mobility policymaking. There is no generalized methodology for data collection and administration, for assessing user needs, for evaluating the own achievements and for collaboration with external partners. In practice, mobility policymaking is very often of an ad hoc nature out of necessity.

## 5. CONCLUSIONS

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The study and instrument described in this paper aim at introducing a fairly straightforward and standardized methodology for municipal mobility policymakers to assess their performances and to position themselves with respect to their colleagues in Flanders. In addition, identifying the specific policy domains on which improvements can be made and comparing the evolution in those scores over time (longitudinal analysis) provides them with a thorough insight into their achievement. Objectively monitoring performances is not common practice in Flemish (mobility) policymaking today.

Results confirm this statement. Apart from practices concerning result analysis and self-evaluation, it has become apparent that 'soft' road safety policy measures such as sensitization and education are to a large extent left unaccounted for by municipal administrations. The assumption that municipal authorities are doing rather well at identifying user and residents needs could be confirmed. A major issue in current mobility policymaking practices is the missing framework for structural data-collection and administration.

In addition, it was found that local mobility administration policy is strongly budget-driven, implying that financially stimulated and highly visible projects are much more popular than structural modifications 'behind the scenes'. This provides the higher authority with an opportunity to divert local mobility actions in to the direction of a sustainable transportation system (including social, economic and environmental targets) by means of purposive subsidies.

Collaboration between the crucial actors at the local level and information interchange with higher levels of authority and other municipalities is key to ensure long-term improvements. Truly devoted and motivated actors with an open view and continuity in policy programs are essential in the pursuit of a safer transportation system at the municipal level.

It is important to realize that it is not necessary for every local administration to aspire the highest level of development straight ahead. Surely, to continuously look for actions of improvement and to evolve stepwise towards an integral level of local mobility policymaking requires a lot of effort, energy and resources, but it is critical to ensure the quality of life of future generations.

It cannot be denied that the instrument covers only one aspect of the struggle to increase the safety on our roads. TQM is offered by this paper as one of the steps towards reducing urban transportation casualties and enhancing roadway safety. While TQM is believed to be a helpful quality control mechanism for policy planning, there are a number of other important factors that influence roadway safety. A key factor is design, while driver behavior and roadway conditions are among others. Their application at the municipal level has been addressed by this tool, but further developments and research on these grounds remains utterly important.

## **6. FURTHER RESEARCH**

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This paper showed the added value of the developed instrument. At the same time, a number of interesting directions for further research can be stated. The background data (context) can be processed by means of various analytical and statistical techniques. Municipalities can be clustered based on their background and performance, a factor analysis can be conducted to identify hind-lying principal components and regression analyses can be carried out in order to find causal relations between and within both context and quality performance related issues. Determining whether the implementation of this instrument effectively improves the level of urban road safety is another aspect worthwhile investigating. In addition, the correct weights for the different aspects incorporated in the instrument need to be determined. A Data Envelopment Analysis (DEA) could be applied in order to gain insight into the level of efficiency of Flemish municipal mobility policymaking practices and to identify benchmarks for the individual participants.

Furthermore, it is obvious that only one (important) aspect of mobility policymaking has been addressed in this tool. It is most probably a very interesting exercise to extend the scope of the project to the other essential domains of mobility policymaking: accessibility, livability, reach ability and the environment. A very interesting project in this respect is the MEDIATE-project (Mediate Consortium 2010).

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