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Context And Development Of An Instrument For Quality Assessment And Guidance For Local Road Safety Policymaking In Flanders, Belgium Non Peer-reviewed author version

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1	CONTEXT AND DEVELOPMENT OF AN INSTRUMENT
2	FOR QUALITY ASSESSMENT AND GUIDANCE
3	FOR LOCAL ROAD SAFETY POLICYMAKING IN FLANDERS, BELGIUM
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1 ABSTRACT

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This paper describes the context for and the development of an instrument that enables Flemish 3 4 local (road safety) policymakers to raise their organization and performances to a higher level of quality management. The tool is developed in response to recent Flemish legislation that 5 6 emphasizes the need for more sustainability, a reduction in the level of road-casualties and that calls on more assistance, guidance and support for local mobility policymaking. Starting from 7 the widespread Total Quality Management-philosophy, from an analysis of widely applied 8 instruments and models in the domain of quality management and from international best 9 practices and authoritative road safety policy plans; the conceptual model of an innovative 10 guiding instrument has been developed. Based on general management theory, local road safety 11 policymaking has been thoroughly analysed and key components (both managerial and 12 technical) have been identified. Using standardized questionnaires, the tool enables officials to 13 position their performance with regard to a 'ladder of development' and to pinpoint where their 14 future points of attention lay. Based on this self-assessment procedure, local officials receive 15 recommendations and examples of good practices, allowing them to hype up their level of 16 performance. When compared to its predecessors and the instruments currently in use, this tool 17 constitutes a significant added value due to its well-underpinned, process-oriented and objective 18 character. Although the instrument is generated for use in local Flemish administrations, it can 19 20 easily be adjusted to other regions thanks to its generic nature. The tool is in its final stage of development and is rigorously being tested. 21

1 INTRODUCTION

2

Policymakers operate in a very stringent and delicate environment. Not only is the nature of 3 4 policymaking very volatile and subject to an extended range of regulations and legislation, actors working in this domain are increasingly being confronted with diverse and ever more 5 6 stakeholders, opinions, special interests, lobbyists, emerging technologies and ideologies. This tendency brings along a growing call for support and guidance, which – up to now – cannot 7 8 always be provided by the supervising administration. At the same time, a trend towards professionalization in the public sector is distending. More than ever, public administrations are 9 adapting concepts stemming from business economics and private management. The 10 Organization for Economic Cooperation and Development (OECD) defines this trend (generally 11 referred to as 'New Public Management') as "a new paradigm shift for public management" and 12 it stresses the importance of its doctrines of public accountability ('accountingization') and 13 organizational best practices. (1-3) 14

This paper describes the development of an instrument that aims at assisting local 15 mobility policymakers in enhancing the quality level of their performance. The objective is to 16 build a tool that supports them in bringing their difficult mission to a favourable conclusion. The 17 objective is to assist them in delineating a strategy and policy that is well-founded, has a high 18 level of sustainability and is acceptable for all parties involved and to do so in a structured and 19 20 more uniform manner. To achieve this goal, the road safety policy domain has been thoroughly analysed for good practices and major concepts of general quality management theory have been 21 introduced into this policy domain. 22

23

24 Background

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26 In the Belgian and Flemish administration, the demand for more sustainability, more soundness and more attention for quality management in policymaking has been around for several decades. 27 Especially in the field of mobility management - a crucial policy domain in Flanders (northern 28 29 half of Belgium) due to its favourable geographical position in the heart of Western Europe and its economically important sector of transport and logistics - a number of initiatives have been 30 undertaken to upgrade the policymaking processes (4). An important step forward was taken by 31 the launch of a plan to preserve the sustainability of Flemish mobility in 2001 [Mobiliteitsplan 32 Vlaanderen, cf. (5)], in which the Government of the Flemish Community drew up a framework 33 to support local administrations in setting up a mature mobility and transportation policy. In this 34 covering plan, five domains of action were identified: accessibility, road safety, liveability, 35 attainability and nature and environment. According to the Flemish Mobility Plan, local 36 administrations are now required to draw up their own local policy plans (Dutch: 'Gemeentelijk 37 Mobiliteitsplan'), in which they have to describe the current status of their municipality for each 38 of the domains indicated. Additionally, they have plot their ambitions and the future actions they 39 want to undertake. This approach of exploration, data collection, background analysis and the 40 elaboration of aspirations in local mobility plans is heavily encouraged and subsidized (6). 41

After a five-year period, the legitimacy of the communal plan ends. Local officials and stakeholders then have to assess the topicality of the plan and decide on the future focus of the local mobility policy. Using an administrative tool provided by the Flemish Government ('Quick Check'; Dutch: Sneltoets) (7,8), the local administration can evaluate the accurateness of its plan. By applying this tool, policymakers end up in one of three possible tracks: complete renewal (track 1), enlargement and/or deepening of specific themes (track 2) or confirmation and minor
update of the plan (track 3).

Although this Ouick Check-procedure constitutes major improvements with respect to 3 4 prior methodologies and local officials consider it to be very helpful and user-friendly, a number of critiques can be formulated. For one, the procedure is of a very qualitative nature and despite 5 6 the involvement of a commission of independent experts (Provinciale Auditcommissie), an objective verification of the conclusions is hard to achieve. Furthermore, some points of attention 7 and topics are formulated rather vaguely, which leads to conflicting interpretations and 8 heterogeneous implementations. To local officials, the test has a firm administrative and 9 compulsory undertone, which may harm the integrity of the outcome. The most important 10 drawback of the 'Sneltoets' is its inability to generate an accurate image of the level of quality 11 and sustainability of the policymaking process itself. The procedure only judges the façade of the 12 policymaking, being the administration's plans and ambitions and the extent to which this is in 13 line with the current situation. It does not consider any processes and modes of operation 14 'behind-the-scenes'. (9) 15

16

17 Scope

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This research aims at enhancing the methods and instruments that are available to local officials 19 20 in the field of mobility policymaking and at facilitating the process of drawing up a sustainable and high-quality local mobility policy (plan). The ultimate objective is to provide a tool that 21 allows policymakers to self-assess their achievements from an integral perspective and that 22 guides them towards a higher level of performance quality. International experience and the 23 Flemish Mobility Plan indicate that attempting to include all aspects that arise when setting up an 24 integral mobility policy, is a massive challenge. At every step in the decision-making process, 25 26 side domains such as spatial planning, economics, demographics, technology, environment and socio-cultural evolutions come into play. To limit the scope of this project at this stage, only one 27 of the five domains of action identified in the Flemish Mobility Plan will be addressed for now, 28 i.e. road safety. When the framework of this tool is finalized, the other policy domains will be 29 dealt with. This allows for a step-by-step generation of a well-founded framework, which can 30 fairly easily be adjusted and translated to diverse domains of interest and to other regions. 31

32

Road Safety Policy

34

The Flemish Government stated in its Mobility Plan that "public road infrastructure and the way 35 it is used do not always comply with the safety level that can be assumed to be socially 36 acceptable: road un-safety implications beyond doubt constitute a significant social issue" (5). 37 Moreover, on an international and supranational level, road safety is a major priority in 38 policymaking. According to the World Health Organization (WHO), 1.2 million human beings 39 are killed in road incidents and another 50 million persons get injured annually. Projections 40 indicate that these figures will swell by about 45% over the next 20 years unless there is new and 41 more commitment to prevention (10). SafetyNet points out that "road traffic accidents in the 42 Member States of the European Union annually claim about 43.000 lives and leave more than 43 1.8 million people injured" (11). Leonard Evans states that in a typical month, more Americans 44

die in traffic than were killed by the 9/11 terrorist attacks in New York! (12)

1 Numerous plans and targets have been drawn up to reduce this number of casualties. In 2 its White Paper on the Future of the European Transport Strategy (2001), the European Commission set the ambitious target of halving the number of deadly casualties by 2010 (13,14). 3 4 As we rapidly approach this time horizon, it is clear that this goal will not be met and that there are significant variations in the progress made by Member States (15). Certain countries 5 6 significantly outperform others, but the ultimate goal of zero casualties ("It can never be ethically acceptable that people are killed or seriously injured when moving within the road 7 8 system", dixit Claes Tingvall, architect of the Swedish Vision Zero approach) has not been achieved anywhere so far (16, 17). 9

In Belgium, equally ambitious targets have been set. For the country, the objective is to reduce the number of traffic-related deaths to 500 per year by 2015 (18). The Flemish Regional Government aims at a maximum of 250 victims on its roads by 2015 (19). The most recent data show a number of 1.067 fatalities in 2007 for Belgium and 527 for Flanders (20). When compared to other European Member States, it shows that Belgium has a rather bad report on traffic safety. Independent from the methodology used, Belgium is not ranked as one of the ten best performing EU-countries (21,22).

Road safety may seem to be an issue with global dimensions and with a vast number of 17 major actors in various domains involved; one has to bear in mind that any initiative in tackling 18 this immense challenge stands or falls by the very last link in the chain of policymaking and its 19 20 implementation: the realization of strategies and measures by the lowest level of authority (city council). Local officials are aware of this responsibility and most of them undertake efforts to 21 improve the level of road safety. Nevertheless, only few of them succeed in deploying an 22 efficient, effective and sustainable policy. No precise definition of good traffic safety 23 (policymaking) exists, but there is a common sense of what the concept denotes; the remainder is 24 filled in by each body or official itself. This leads to a mishmash of interpretations and 25 26 initiatives, one being more successful than another (12). The objective of this research is to 27 contribute to a more harmonized approach and to an increased level of road safety in Flanders by offering local administrations the instrument at hand. 28

29

30 **METHODOLOGY**

31

The backbone of the underlying research is shown in figure 1. Starting from an extensive literature research in three diverse domains, conclusions converged and were reflected to the domain of local road safety policymaking.



Flemish Mobility Plan

3 4 5

6 The starting point of this research is the Flemish Mobility Plan (5). The goal of the underlying project (entitled: 'Sustainable Mobility in Flanders') was to control emerging mobility issues, to 7 8 force back environmental pollution and nuisance and to guarantee the accessibility and 9 liveability of cities and villages. The spearheads of the plan were the optimization of infrastructural works and a continued development of public transport in order to provide a 10 valuable alternative to car-usage. The idea was to come up with an outline that indicated the way 11 in which the mobility in Flanders should evolve during the next decade (2001-2010). Key 12 challenges of the Mobility Plan were the necessity of a more integrated approach towards 13 14 policymaking, the development of (monitoring) instruments to support local policymakers, an improved communication and a more thorough consultation of stakeholders. The development of 15 the Quick Check-procedure can be considered to be a direct outcome of these recommendations 16 17 (6).

Furthermore, the Flemish Mobility Plan contained a large number of policy recommendations for each of the five policy domains identified. For the sake of the first stage of this research project, policy measures concerning road safety planning were thoroughly examined and have been used to build up the instrument under consideration.

22

23 International Benchmark of Road Safety Measures

24

The second perspective, from which this project is approached, has an explicit international 25 background. Starting from a meta-analysis conducted by Elvik and Vaa (23) and policy plans of 26 27 a selected number of authoritative countries and organizations (Mobility Plan and Road Safety Plan in Flanders, Staten-Generaal voor de Verkeersveiligheid in Belgium, Duurzaam Veilig in 28 29 The Netherlands, Vision Zero in Sweden, Tomorrow's Roads Safer for Everyone in the United Kingdom, Road Safety Strategy 2010 in New Zealand, the Transportation Plan in Norway, the 30 European Union's White Paper on Road Safety and its Mid-Term Review and the WHO Report 31 on Road Traffic Injury Prevention), a benchmark analysis has been carried out in order to 32 identify measures that significantly contribute to road safety. This led to an overview of 33 international best practices in road safety management. Subsequently, the selected actions were 34

classified into a number of summarizing categories: 'traffic regulation and control',
 'infrastructure', 'education', 'sensitization and behaviour', 'enforcement', 'collaboration' and
 'flanking measures'. Policy measures that are not feasible for the level of local road safety
 policymaking were ignored.

5

7

6 Quality Management

8 The ultimate objective of the instrument at hand is to enhance the level of quality in decision-9 making in local mobility policy. This implies that the idea of quality management has to be 10 introduced in this specific policy domain. To gain insight in the theory and practice of quality 11 management, a state-of-the-art review has been made up (cf. (24)).

"What is quality?" Formulating an answer to this question is not as straightforward as it 12 may seem. A number of scientists in the field of operations management (e.g. Joseph M. Juran, 13 Philip Crosby and W.E. Deming) have formulated their interpretations over the years, letting the 14 orientation of quality management evolve from a product-approach to a consumer-approach. 15 Each of these 'quality-gurus' has contributed to the meaning that the concept 'quality' has today. 16 Nevertheless, the judgment of what 'quality' denotes still is a very subjective and personal 17 matter and the concept is very hard to quantify (cf. the meaning of the concept 'qualitative 18 (research)' as an antonym to quantitative) (25-27). 19

20

21 Private sector

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23 The idea of contemplating quality as an essential part of organizational management stems from the private sector. Initially, 'quality' had a strong output-related connotation: when the final 24 product met the producer's expectations, a high level of quality was considered to be met. Later 25 26 on, the (financial) importance of avoiding scrap, rework and loss of products in the production process became more prominent. The focus of quality management was put on controlling the 27 underlying (production) processes, rather than the output. Nowadays, quality is regarded from a 28 29 more integral, organizational and consumer perspective. The desired level of quality is considered to be met if products comply with consumers' expectations, if the highest standards 30 are attained and if an explicit quality focus is present in every single layer and cog in the 31 organization. This interpretation constitutes the foundation of the Total Quality Management-32 philosophy (TQM) and was first introduced by W.E. Deming (27). Cohen and Eimicke define 33 the different components of TQM: "Total means applying to every aspect of work, from 34 identifying customer needs to aggressively evaluating whether the customer is satisfied. Quality 35 means meeting and exceeding customer expectations. Management means developing and 36 maintaining the organizational capacity to constantly improve quality." Carr and Littman 37 describe TQM as "a fundamentally different approach from traditional management 38 characterized by: a customer focus; elimination of errors and steps that do not add value to 39 products and services; prevention of problems; long-term planning; teamwork; fact-based 40 decision making; continuous improvement; horizontal and decentralized organizational 41 structures; and external partnering arrangement." (28-30) 42

To support private companies in raising their organizational level of quality (and evolve to the level of TQM), a number of methodologies and instruments have been developed and are frequently applied in practice worldwide. The best known instrument is the model of the International Standards Organization (ISO). This methodology implies that the organization under consideration is evaluated according to the ISO-standards. The goal of this tool is not to rate the business's performance, but to develop a quality system within the organization. It strives towards a standardization of every aspect of the organization according to the highest level of quality. (31)

5 Another popular instrument is the Balanced Scorecard, developed by Kaplan and Norton 6 in 1992. The concept of this approach is to generate an instrument that resembles the cockpit of 7 an airplane: an overview of the organization's performance is presented by making the policy 8 vision operational by means of concrete and measurable indicators, allowing the management to 9 have a clear view on the organization's condition at all times. The Balanced Scorecard manages 10 to summarize the organization's performance, based on monetary and non-monetary data (32).

A third widely applied methodology is a model generated by the European Foundation for Quality Management and is known as the EFQM Excellence Model 2000. This model presents a self-assessment methodology that allows managers to pinpoint those policy fields on which they are performing well and which require more attention. The major contribution of the EFQM-approach is that it considers both organizational aspects ('enablers') and results. Completing this self-assignment, critical issues in the organization are revealed and programs for improvement can be started up. (31-33)

Apart from the tools described above, numerous sector-specific instruments have been introduced. Most of them share their background with one of the models mentioned above.

20

21 Public sector

22

In recent years, public sector organizations are trying to get rid of their traditional, caricatural, 23 input-oriented and funds-dissipating image. Carried by the wings of the New Public 24 Management-movement, ever more aspects and concepts stemming from the private sector are 25 26 being introduced in public management. Along with this shift, attention for quality management in public administrations has significantly grown (34). Nevertheless, due to the specific 27 characteristics of the public sector, a concept like TQM cannot be translated into the public 28 sector without major adjustments. As Swiss states, "the use of TQM in government has several 29 major problems: insufficient modification for services; insensitivity to the problems of defining 30 governmental customers; inappropriate emphasis on inputs and processes; and demands for top-31 32 level intensity that can rarely be met by the governmental culture." Nevertheless, the philosophy on which TQM is based, undoubtedly offers great opportunities to enhance public sector quality 33 34 management. (35)

As in the private sector, a number of instruments have been developed to assist public sector policymakers in increasing the quality level of their work. Most of the tools used in the public sector today stem from the instruments used in private organizations. As suggested by Swiss, these tools have been adjusted for the specific characteristics of public administrations.

For ISO-standardization and the Balanced Scorecard, only minor justifications had to be 39 made to make them compatible with the public sector. For the EFQM-approach, completely new 40 tools have been developed. The major advantages of applying the EFQM-approach in public 41 administrations are the fact that the information paucity is reduced and that it clamps down on 42 the initiative overload of individual officials. A popular EFQM-based model for public 43 administrations is the Common Assessment Framework (CAF), which resulted from a European 44 45 attempt to coordinate the modernization of public services within the Member States and constitutes a simplified version of the EFQM-approach. (31,32,36) 46

CONCEPTUAL MODEL

1

4 Management Cycle

5

6 Taking into account that road safety is a major social issue, that the Flemish regional government urges on an increased support for local policymakers and the idea that (total) quality 7 management can significantly improve the achievements of an administration; a conceptual 8 model for a guiding instrument has been drawn up (see figure 2). 9

10



11

12 FIGURE 2 Conceptual model.

At the core of the tool is the management-cycle as defined by Deming (27), which is 13 esteemed to be the point of departure for a quest towards TQM. Deming thoroughly analyzed 14 business processes and managed to define four consecutive steps that are continuously repeated 15 when managing an organization: a planning-phase in which is considered how to implement a 16 certain (aspect of a) policy plan, a doing-phase in which it is implemented, a check-phase in 17 which the output or outcome is evaluated and an act-phase to adjust the policy. After this act-18 phase, a new management loop starts with the plan-phase. This management cycle is also known 19 as the Plan-Do-Check-Act-cycle (PDCA-cycle) and is applied widely in modern Quality Control 20 Management. This approach, which is complementary to the Eastern Kaizen philosophy, is based 21 22 on the belief that our knowledge and skills are limited, but continuously improving, because we 23 tend to 'learn-on-the-job'. 'Learning-by-doing' occurs when a problem solver associates plans

and actions with results. The PDCA-cycle should repeatedly be implemented in spirals of
increasing, incrementing knowledge, letting the system converge on the ultimate goal: Total
Quality Management. (37,38)

4

6

5 *Modules*

7 The next step consisted of identifying which facets the process of policymaking in local 8 road safety embraces. Bearing the EFQM-approach in mind, two major aspects were considered: organizational ('behind-the-scenes') and concrete ('on-the-field') aspects. For the former, the 9 different aspects and processes that come into play when an administration stipulates and bring 10 into practice its ambitions. The conceptual model of the EFQM-approach and Deming's PDCA-11 cycle were used as a reference here. Four crucial stages (called 'modules') in the local road 12 safety planning process were identified: 'user needs', 'leadership', 'policy on paper' and 'people 13 and resources'. Of these modules, the last three stem directly from the EFQM-model, whereas 14 the 'user needs'-module was added to account for this specific need in public services. 15

For the lower part of the conceptual model (the actions-phase), the benchmark of 16 17 international road safety policy plans and best practices was used to define six more modules: 'traffic regulations and control', 'infrastructure', 'education, behaviour and sensitization', 18 'enforcement', 'cooperation' and 'self-evaluation, monitoring and follow-up'. These modules 19 20 result from the categorization with respect to road safety enhancing measures that was carried out in the preparatory phase of this research. Since all identified measures were enclosed and 21 categorized in this analysis, it can be assumed that these modules comprise virtually all elements 22 23 that road safety policy strategies can embrace.

Each of the modules that were identified, was projected on Deming's PDCA-framework. 24 This led to the identification of three major phases: a planning-phase in which a policy strategy is 25 26 prepared, an action-phase in which the different specific road safety domains are addressed and an effect-phase in which the results of the implemented policy making and the corresponding 27 measures are monitored and evaluated. Subsequently, the planning-phase is picked up again, 28 29 taking into account the results of the evaluation in the former run of the cycle. Note that in this conceptual model, Deming's act-phase is comprised at the beginning of the planning-phase and 30 that the sequence of the modules within the different phases is not binding. (39) 31

32

33 Aspects

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For every module, underlying aspects were identified. This allows for covering the complete road safety and policymaking domain. As before, organizational aspects were analysed according to the theoretical EFQM-background, whereas the content-oriented aspects were based upon the international benchmark of road safety measures and the selection of best practices. The underlying aspects per module are listed in table 1 and discussed hereunder.

To gain insight in the extent to which user needs are taken into account, the method and nature of the collection and the processing of the required data are considered. Furthermore, the frequency and the way in which users (citizens) are consulted are contemplated. Concerning the module 'leadership', the model considers the different types of external consultation and internal communication that are present in the organization (e.g. top-down vs. bottom-up). The level of managerial commitment, the management's motivational capacities and the efforts undertaken to coordinate diverse parties involved are also examined in this module. The 'policy on paper'- module investigates how well policy plans are underpinned, to what extend they are documented and in which respect they take considerations on sustainability into account. In the fourth module, three resource management domains that are adapted from the private sector are considered: financial management, human resource management and responsibility management.

Modules 5 to 9 address specific road safety issues. In module 5, the accurateness and 5 6 background of traffic regulations and techniques for traffic control are evaluated, herby focusing on recent local initiatives. For infrastructural matters, it is verified why and how certain measures 7 have been implemented and which flanking actions are undertaken to support them. The seventh 8 and eighth module take a look at the way citizens are encouraged to respect traffic regulations: 9 by education, by behavioural change, by sensitization and by enforcement. For each of these 10 aspects, their specific implementation is looked at. Module 9 concerns the cooperation of the 11 local administration with actors in other policy domains, the private sector and supporting 12 services (e.g. prevention, medical workers, etc.). Finally, the tenth module focuses on the 13 administration's openness towards self-assessment, the application of monitoring techniques and 14 the adaptation of the policy and strategy to the outcome of these evaluations. 15

16

M1 - User needs	M2 - Leadership	M3 - Policy on paper	M4 - People and resources	M5 - Traffic regulation and control
Data collection	(Internal) communication	Substantiation	Financial management	Contemporaneity
User consultation	Management devotion	Elaboration	Human resource management	Background
	Coordination	Sustainability	Responsibility management	
M6 - Infrastructure	M7 - Education, behaviour and sensitization	M8 - Enforcement	M9 - Cooperation	M10 - Self-evaluation, monitoring and follow-up
M6 - Infrastructure Nature of modifications	M7 - Education, behaviour and sensitization Education	M8 - Enforcement Nature	M9 - Cooperation Policy domains	M10 - Self-evaluation, monitoring and follow-up Self-assessment
M6 - Infrastructure Nature of modifications Trigger for modifications	M7 - Education, behaviour and sensitization Education Behaviour	M8 - Enforcement Nature Framework	M9 - Cooperation Policy domains Private sector	M10 - Self-evaluation, monitoring and follow-up Self-assessment Monitoring

17 TABLE 1 Underlying Aspects

18 19

20 *Ladder of development*

21

22 A crucial aspect of the TQM-approach lies in its pursuit of continuous improvement or staged 23 development. 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 24 can attain. Previous research and policy-evaluation tools in which a comparable methodology 25 was applied [cf. (40-42)], suggested using a ladder with four or five rungs. For the specific case 26 27 of local road safety management, four rungs have been defined: 'ad-hoc oriented', 'isolated', 'system-oriented' and 'integral' policymaking. Note that the ultimate level of TQM is not 28 included in this hierarchy, since this is considered to be a purely theoretical aspiration level. 29

The main distinctions between the different rungs or quality ranks are based on the level of integrality in policymaking that is attained by the local administration. The characteristics of each of the four quality standards are summarized in table 2.

1 TABLE 2 Quality Levels

	ad hoc	isolated	system-oriented	integral
scope	ex post	short term (1-2 y)	medium term (5-10 y)	long term (10-20 y)
focus	problem solving	project realization	comply with higher policy	integral policymaking
data use		-	+	++
budget	irregular	fixed but low	fixed and designated	variable but guaranteed
staff - number	low	low	sufficient	sufficient
staff - skills	low	general knowledge	specialized (by experience)	highly educated and specialized
internal communication	limited	top down	top down	multidirectional
external communication	limited	limited	contact with stakeholders	intense external relations
structure	informal	vaguely structured	well structured	well structured
approach	individual projects	road safety domain	mobility domain	complete local policy domain

2 3

4 The instrument at hand allows to audit and rate the (process of) local road safety policymaking using this ladder of development. This gives the local administration the opportunity to gain 5 insight into its overall achievements with respect to quality management. The asset and added-6 7 value of this tool is not only its capability of providing insight into the general level of quality 8 management of the administration; it also allows for positioning its performance on each of the 9 predefined domains (modules) individually. This gives policymakers the chance to conduct a thorough diagnosis of their performances and allows them to (re)orient their focus in order to 10 improve their performances. 11

13 **OPERATIONALIZATION**

14

12

The assessment of the administration's performances will be put into practice by means of standardized questionnaires. Statements have been formulated with respect to the modules and the underlying aspects defined in table 1. For every aspect, a statement is set up for each of the four quality levels (using sub-criteria). This procedure is illustrated below.

The local authority and its related stakeholders will be asked to indicate to what respect 19 the different statements suit to the current policymaking activities. Using the Likert-methodology 20 [cf. (43)] and the standardized questionnaire, local officials, politicians, police department, 21 civilians and other stakeholders will be asked to individually judge the local road safety 22 23 policymaking on the different themes defined. Afterwards, the results are analysed by a supervising moderator and a meeting will be held in which the outcome of the inquiry is 24 discussed with all parties. The goal of this meeting is to open up the debate, to give stakeholders 25 the opportunity to ventilate their opinions and make nuances where necessary. The ultimate 26 objective of this meeting is to reach a consensus on the quality level achieved by the local 27 policymakers. The presence of an objective and neutral moderator should keep the meeting from 28 drifting away from the core of the matter and avoid the dominance of a certain party and thus 29 30 prevent biased results.

1 Simultaneously, a situational sketch of the city and the local administration will be drawn 2 up. This is achieved by means of a questionnaire containing standardized indicators on general situational and specific road-safety related issues. This second questionnaire, combined with the 3 4 results of the stakeholders' consultation, allows the coordinating team to suggest immediate and longer term points of action. Additionally, policymakers' attention can be drawn towards best 5 6 practices in which comparable situations or challenges have been addressed. The identification of these 'best practices' may result from the application of this tool by other administrations. 7 8 Policy recommendations can then be formulated both for general road safety management and 9 for specific action fields (modules).

- 10
- 11 Illustration
- 12

13 Table 3 illustrates the process of constructing the statements that will be used. Here, the aspect 'data collection' within the module 'user needs' is discussed. The aspect 'data collection' 14 consists of four sub-criteria which are directly connected to the different levels of quality: the 15 frequency and regularity of the data collection, the source that is addressed, the body that 16 executes the data collection and the background of the collected data. These sub-criteria have 17 been identified based on the benchmark of quality instruments mentioned before. For each of 18 these sub-criteria, it has been defined which activities and initiatives the administration must 19 20 undertake in order to attain a certain level of development (indicated values 1-4 refer to quality levels as described in table 2; a baseline level has been introduced with value '0'). E.g. if a data 21 collection is organized on a regular basis, quality level 3 is assigned; if data collection is only 22 held in case of a critical situation, the quality ladder is only mounted to the first rung. Based on 23 these interpretations, actual statements have been built up. 24

25

26 **TABLE 3 Illustration Generation Statements**

Module 1: User needs

"Data collection"

Source
4 locally adjusted scientific methods or indicators
3 self-composed databases
2 from nearby or similar entities
1 from higher administration
0 none
Background
4 general policy
3 mobility policy
2 road safety policy
1 individual projects
0 none

31 32

1 VALIDATION

2

In order to make sure this instrument is applicable and acceptable for practitioners, a thorough validation check is carried out. This embraces two major issues: a validation of the methodology and a content-oriented validation.

6 7

8

Methodology

9 The instrument presented in this paper bridges a gap in Flemish mobility policy aspirations. It not only ties in with the Flemish Mobility Plan (2001), moreover it covers the needs expressed in 10 a recent regional decree issued by the Flemish Government (March 11, 2009), stating the 11 necessity of the development of a monitoring system that allows for collecting, managing and 12 analyzing data on the state of local mobility policymaking and that permits to verify whether the 13 operational goals in mobility policy plans are being met in a cost-efficient manner. The 14 conceptual model of this instrument was presented to and approved by the administration of the 15 Flemish Minister of Mobility. Furthermore, the instrument covers up for the drawbacks of the 16 17 Quick Check-methodology which is currently used. On top, the instrument is designed keeping the methodology of the widely recognized EFQM-approach closely in mind and it takes the 18 specific background of public (mobility) management into account. In addition, several 19 practitioners and experts in the domain of mobility management have been consulted. The 20 necessity and potential for this instrument was generally agreed upon, on condition that the 21 workload for local officials is not significantly increased and the necessary budgets (incentives) 22 23 for implementing the tool are foreseen.

- 24
- 25 *Content*
- 26

27 With respect to a content-oriented validation, local policymakers and other stakeholders are being addressed in a consultation programme. To ensure that the statements are appropriate, 28 29 relevant and capable of assigning an administration to a corresponding and preset quality-level, several researchers and practitioners in the field of local policymaking are being approached. For 30 this programme, a Delphi-procedure is applied. Respecting this methodology, several 31 32 consultation rounds are organized in which the approached persons express their opinion on the accurateness of the statements. In between two consultation rounds, the statements are adjusted 33 to the remarks that are made and thereupon, a new consultation is started. This procedure is 34 carried out repeatedly, eventually resulting in a shortlist of statements that is acceptable to all 35 experts. (44) 36 37

38 FUTURE RESEARCH

- 39
- 40 Weighting
- 41

It is clear that not every sub-criterion within an aspect, an aspect within a module or a module within the policymaking process is as important as another. Therefore, a suitable weighting

44 methodology has to be applied. The Analytical Hierarchy Process (AHP) will be applied for this

44 methodology has to be applied. The Analytical Hierarchy Process (AHP) will be applied for this 45 sake. In this case, experts will compare modules and aspects in pairs on a scale representing

resemblance. This results in a matrix out of which accurate weights can be derived. (45)

1

2 Miscellaneous

3

4 Other points of attention that are worked upon consist of identifying a suitable technique to 5 model local mobility management (Business Process Modelling), deciding on a workable 6 visualization methodology, fine-tuning the statements and background questionnaire and 7 implementing test cases of the instrument in cooperation with volunteering administrations. A 8 major challenge consists of incorporating this tool into the Flemish regional mobility policy 9 framework and relating it to ongoing research in the domain of indicator development for road 10 safety management practices.

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