
# Final version of the Toolbox, the databank and the guidelines for implementation

## *deliverable D12*

## *internal report from WP8*

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# PREFACE

ASI - Assess implementations in the frame of the Cities-of-tomorrow (EVG3-CT-2002-80013) – is an accompanying measure of the EC 5th Framework Program Energy, Environment and Sustainable Development in the Key Action 4: Cities of Tomorrow and Cultural Heritage. Partners from five different countries are involved in the project:

1. *FACTUM OHG, Austria*
2. *Swedish National Road and Transport Research Institute, Sweden*
3. *University of Groningen, The Netherlands*
4. *Università degli Studi Roma Tre, Italy,*
5. *Centrum dopravního výzkumu, Czech Republic*

The main objective of the project is to provide knowledge about the practice of QoL assessment by different disciplines in connection with different types of public measures in the area of town planning and design, transportation and mobility.

Transport and mobility play an important role in the concept of LQ as they are central elements of the integration in society. Due to the strong engineering focus taken in this area so far, too little action has been taken to understand, what difficulties different groups and sub-groups of people have with transport and mobility, as the need and interests of the relevant segments of the population are not considered appropriately. Solutions in the transport and mobility area developed according to the methods suggested in ASI, will be more effective and more efficient, because they meet the needs of the target groups, i.e. different groups of citizens in different parts of Europe.

ASI wants to improve the understanding of the assessment of groups of citizen's LQ by responsible politicians and experts. This will be done by the analysis how mobility policies of five implementations in the frame of LUTR (Land Use and Transport Research Cluster) viz. of the Key Action Cities of Tomorrow (CoT) affect LQ, according to the peoples who are involved in these project in responsible roles. Evaluation will be based on expert interviews, dealing with the following questions: How is LQ of different groups of citizens affected by town planning, transport and mobility conditions and how is it assessed by the responsible people. The main product of ASI will be an advice for improved assessment processes. The product will consist of a toolbox for the assessment of LQ in connection with town planning, transport and mobility, a databank concept, and guidelines for implementations. The developed instruments will be tested in a pilot study.

# Index

# 1. INTRODUCTION

In the last decade various instruments have been developed to QoL. This has mainly been in the area of health such as patient's QoL after an operation but in recent years a number of indicators have been used to also measure community QoL (See Sirgy, Rahtz and Dong-Jin Lee, 2004). However, they tend to measure all aspects of community life including education, health, economy and the environment to mention some. This means that both mobility and accessibility are disregarded or only covered by a couple of questions. A general conclusion, which applies to most of the instruments, is the lack of standardised measures and this prevents us from comparing the results from different studies. The conclusion from our ASI's literature review (Forward, 2003) was also that the field of urban development and transportation needs to take a closer look at QoL. That is how to define and measure it, only then will we be able to monitor, predict and improve QoL. This was also supported by our interviews with experts. We found that for perhaps obvious reasons many experts underline that QoL-aspects should be considered. However, many found QoL difficult to conceptualise and therefore also difficult to measure. This can be one reason why QoL is mainly considered at the start of a project and not when followed up. Therefore instruments like the ones provided by ASI are promising. The toolbox for assessing QoL and the databank will simplify research work and will improve the basis for practical work. Our expectation is the following: If the tools developed in ASI will be used regularly in the town-planning, mobility and transport area there will be a positive impact on the sustainability and on the ability of policy-makers to make effective contributions to the improvement of QoL of European citizens. So far, this expectation is still "alive". The prognosis is that the goals formulated in the ASI project proposal will be reached.

# 2. THE TOOLBOX

The aim of the toolbox, the guidelines and the databank is to improve the assessment of implementations aimed to improve citizen's QoL.

The toolbox should also fulfil the following objectives:

It should be of practical use for policy makers and to facilitate decision-making. It should be used for monitoring and evaluating development. Furthermore it could be used for benchmarking (i.e. how well or poor is one city or country doing as compared to another). Hopefully, the simplification of both research and practical work will help to increase our citizen's urban QoL.

In addition to this we suggest that both objective and subjective indicators of QoL are used. Previous studies have found that the relationship between these indicators are rather weak and that the latter are a better predictor of QoL than the first. However, to include objective indicators makes it possible to compare and contrast the QoL of collective groups and locate those groups within a spatial reference (e.g. nations, regions, cities and neighbourhoods). It also provides us with a standard of reference. Thus it would be wrong to conclude that objective measures are surplus to requirement (see Forward, 2004). This report mainly deals with the instrument measuring subjective indicators of urban QoL. The objective ones are clearly presented in ASI deliverable number 11.

The aim of this workpackage was to refine and thereafter finalise the toolbox.

## 2.2. Method

From the list of fourteen criteria's identified by Hagerty et al., (2001) (see Forward, 2004) the following project tested the tool in relation to the following:

1. The tool should be carefully tested
2. Each indicator should be independent from the others
3. It should be clear and reflect important issues
4. Each domain within a generic QoL instrument must have relevance for most people
5. It should include more than one domain
6. Each domain must encompass a substantial but discrete portion of the QoL construct
7. The components of the index should be reliable, valid and sensitive

In addition to this it had already been established that it fulfilled the following:

8. The index must have a clear practical purpose, i.e., a public policy purpose
9. The toolbox should include both subjective and objective indicators
10. The index should help public policymakers develop and assess programs at all levels of aggregation *(i.e. individual, family or household, community, state, country and the international level)*
11. Domains must be potentially neutral, positive, or negative in their contribution to the QoL construct

### *2.2.1 Procedure*

The steps taken to refine the instrument were done in two stages; the first step was to analyse the data from the pilot-study carried out in Italy (Umbertide). The purpose was not to determine the results from the pilot-study since this had already been done in WP7 rather to analyse its content. This exercise resulted in some changes to the questions being asked and how they were asked. This will be dealt with in more detail in section 2.3 but the overall changes meant that some questions were deleted and others were added. In the pilot study the scale measuring both satisfaction and importance was different. In the refined version both were expressed on a 7 point scale. The individuals were asked to evaluate each item and then rate the same somewhere between the two extreme positions. Due to this fairly major changes an extra pre-test in the form of an e-mail survey was required. The questionnaire was initially sent out per e-mail by partner 1 (FACTUM) in Austria, partner 2 (VTI) in Sweden and partner 3 (RUG) in the Netherlands to friends and colleagues. They were then asked to pass it on to other people. Altogether about 134 people filled in and sent back the questionnaire.

## 2.3. Results

### *2.3.1 Step 1*

This first step tried to ensure that the questions asked were independent from each other. In order to assess this all the items were tested using a correlation coefficient test. Thereafter all the items where inter-correlations exceeded .8 were excluded, to ensure that each construct were discrete from each other. For instance, the general question about street lights correlated with the one asking about the quality of the street lights (.95**) and the question about garbage correlated with the one about cleanliness (.86**).

One other important aspect of a toolbox is that it is clear and that it reflects important issues. Thus each question was analysed and some of the wordings was changed, in some cases further questions were removed. For instance, one question about "rectilinear length" was removed since the results from the pilot study showed that it was difficult to understand. The question about "view" was altered and became one about aesthetics. A question about social life was not included in the first version of the toolbox. However, this has been found to be of great importance and was therefore added to the toolbox.

The exercise carried out in step 1 resulted in twenty-five questions instead of thirty eight. The relationship between satisfaction and importance was difficult to assess since the scales differed. The scale measuring satisfaction was nominal (one and 2) and the one measuring importance ordinal (one to five). In the refined version both scales were ordinal.

### *2.3.2 Step 2*

Due to the fairly major alterations of the toolbox it was felt necessary to carry out some further testing. Thus, the refined instrument was tested in three countries (Austria, The Netherlands and Sweden). The results of the 134 questionnaires were

analysed using multiple regression, factor analyses and a correlation coefficients test.

A toolbox needs to include questions which reflect important issues. The present toolbox aims to measure QoL in the community and two analyses were carried out to see if the items in the questionnaire also reflected this. The first one analysed the relationship between the dependent variable (How satisfied are you with your neighbourhood?) and the twenty five more specific items using a correlations coefficients test. The results from this exercise are shown in Table 1.

*Table 1. Correlation QoL (community)*

| | |
|---|---|
| Green elements | .41** |
| Social life | .40** |
| Social life | .40** |
| Public places | .34** |
| Aesthetic | .34** |
| Street lights | .32** |
| Level of noise | .30** |
| People living | .29** |
| Safety | .27** |
| Volume of traffic | .27** |
| Crossing points | .22* |
| Cleanliness | .22* |
| Cycle paths | .18* |

*p< .05; *** p < .001

The results showed that a general question about QoL in their neighbourhood significantly correlated with thirteen of the twenty five indicators in the questionnaire. Further analyses were carried out to determine how important the areas covered in the questionnaire was. The results showed that all indicators were important, although some more than others. For instance, security was seen as very important by 57 % of the participants, whereas only 11 % would argue that resting places were very important. It was therefore concluded that despite the fact that eleven of the items did not correlate with the more general question it would be a mistake to delete them.

The second test tried to determine if the items measuring QoL also were able to predict a more general one and if it accounted for a large part of the variance.

A multiple regression analysis was carried out using the general question about QoL in the neighbourhood as the dependent variable and the indicators measuring satisfaction as the independent variables. Results from this exercise can be seen in Table 2.

*Table 2. Prediction of* QoL*: Hierarchical logistic regression analysis*

| | R2 | B | p |
|---|---|---|---|
| Street lights | .18 | .36 | *** |
| Green elements | .35 | .35 | *** |
| Social life | .40 | .19 | * |
| Separation | .43 | -.29 | ** |
| Safety | .46 | .19 | * |
| Crossing | .48 | .17 | * |

*p< .05; ** p < .01; *** p < .001

The results showed that six of the indicators explained 48 % of the variance. Factors which contribute to people's satisfaction with their community include street lights, green elements (that is trees and flowers), a good social life, safety and ability to cross the street in a convenient way. Note the negative association of QoL and separation of pedestrians and cyclists. This means that respondents view their QoL as high, despite the fact that they are not satisfied with this separation. However, it would be wrong to suggest that this is not important, since 29% argued that this was very important indeed.

Another important aspect of a well functioning toolbox is that it is able to measure more than one domain.

A factor analysis was therefore carried out to determine what domains, if any, the tool box included. The result from this exercise presented seven different factors, see Table 3.

*Table 3. Results of Factor Analysis on Indicators of Urban Quality of Life*

| **Factor** | **Label** | **Indicators** |
|---|---|---|
| 1 | Opportunities | Activities, different facilities |
| 2 | Accessibility | Barriers, crossing points, separation of pedestrians and cyclist |
| 3 | Liveability | People living and working in the are, cleanliness, aesthe green areas |
| 4 | Calmness | Speed, noise, volume of traffic |
| 5 | Recreation | Resting places, public places, cycle paths |
| 6 | Protection | Security, lights, social life, safety |
| 7 | Mobility | Public transport (near and frequent) time to destination |

The results presented seven different factors and the combination of items appeared to reflect some distinct areas. The first one deals with activities for offer and is therefore labelled "opportunities". The second one is related to barriers and how easy or hard it is to move around the area and this is therefore labelled "accessibility". The third one deals with people who live and work in the area. In addition to this, it also includes items about cleanliness and aesthetics all of it which reflects that people are not only living in the area but that they are also taking care of the same. Thus this is labelled "liveability". The fourth factor includes items about noise and since satisfied people also wanted low levels of noise this is labelled "calmness". The fifth factor is labelled "recreation" although cycling could have other purposes. Nevertheless, in this instance, when it is combined with resting places and public places such as parks, it appears to describe an area for recreation. The sixth factor clearly deals with different means aimed to protect its citizens. In this instance social life can mean that the area is not deserted and other people can therefore also act as a protection. Finally, the seventh factor included items about public transport and this is therefore labelled "mobility".

Hagerty et al., (2001) also stated that each domain must encompass a substantial but discrete portion of the QoL construct. This was tested and verified since the inter-correlations between the different domains did not exceed 0.9.

The components in a toolbox should also be valid. One way to test this was to see if the known difference between the people taking part int the study also reflected their answers. The results showed that it reflected the conditions in each country and its population fairly well. The people from Sweden were most satisfied and this was also reflected in them being more pleased with their community. In the Netherlands the population was composed of were students, which also revealed them finding social activities more important than others. In Austria a large number of the participants used public transport something and this was something they valued as more important than the others.

The conclusion which could be drawn from the results were that a number of different aims have been fulfilled in the ASI project; the toolbox has been carefully tested; it was clear and reflected important components; indicators are sensitive and independent from each other; and various domains that are important for urban QoL are included.

# 3. THE FINAL INSTRUMENT FOR ASSESSING URBAN QOL

The final instrument for assessing subjective urban QoL includes four different parts; The first part focuses on the context in which the interviews take place. In the second part the respondents are asked how satisfied or dissatisfied they are with a number of conditions (i.e., QoL indicators). In the third part the respondents are asked to judge the same, according to how important it is for them. Finally, in the fourth part general information about the interviewees are collected. The survey also included a question measuring general QoL. Ideally this toolbox should be used before and after an implementation is carried out. However, this is not always possible so in addition to the above instrument a stand alone tool which could be used in an after study was developed. To avoid confusion the first toolbox is called toolbox 1 and the second one toolbox 2 since the layout is different at contains slightly different questions, see appendix 1.

In addition to the questions included in the toolbox it is suggested that further questions are added which concern specific conditions . Preferably the selection of additional indicators should be carried out together with the inhabitants. The reason for this was clearly formulated by Grunkemeyer and Moss (2004):

> *"Quality of life is not created by local professional staff acting as experts in implementation of a community's vision and action plans. Instead, community* QoL *is decided each day through the individual actions of a community's residents. Therefore, these very residents are the only persons who can clearly articulate and implement the community ethos. It is the residents who must be empowered with the responsibility and luxury to frame the planning discussion"*

Thereafter experts can be called upon to translate the indicators into something which can be measured. In addition to the subjective parameters, the experts are also advised to collect objective ones, as stated in ASI deliverable 11. We suggest that the team for implementing and evaluating the toolbox is done by two persons with different background. A person with a technical background evaluates the objective parameters and the one responsible for the more subjective part has a social psychological background.

## 3.1 Guidelines for implementation

First of all it is necessary to define the target population and which is the aim we want to reach with our tool. Following which the problems need to be identified.

**Identification**

- Send out an invitation to residents to take part in a public meeting. To ensure that the information is reached by everyone concerned, various forums could be used such as: internet, adverts in the local supermarket, local newspaper and in schools.
- Identify and discuss the problems at a public meeting. Make sure that it is done in a positive spirit and that it really is an open dialogue

**Planning**

- Planning
- Feedback is given at a public meeting but also through the use of printed information.
- If possible give alternative solutions
- Revise the plan
- Extend Tool box 1. The final instruments comprise a key set of indicators to be used in every context. This set can be enriched by including specific questions and if needed delete inappropriate ones. However, since the results from the study also can be used for benchmarking we suggest that all the questions are included in the study.

**Before the implementation**

Use Tool-box 1 in a before study

Method:

- Alt 1) residential area – give out the survey to a representative number of residents and ask them to send it back in a pre-stamped envelope. Preferably the sample size should be not less than 50, but definitely not less than 30.
- Alt 2) public area – same as above.

**After the implementation**

Use toolbox 1

Method:

- Alt 1) residential area – send the survey to the same residents as in the before study or carry out door-to door interviews
- Alt 2) public area – interview people in the area
- Analyse the results
- Data elaboration and comparison between the subjective and objective assessments.

**At the end of the project**

- Discuss the results at a public meeting
- Present the results in writing. Ensure that it reaches the target population.
- Involve the public in future programmes.

**Toolbox 2**

- Use if a before study is not feasible
- Alt 1) residential area – give out the survey to a representative number of residents and ask them to send it back in a pre-stamped envelope
- Alt 2) public area – same as above.
- Analyse the results
- Data elaboration and comparison between the subjective and objective assessments.

Finally the toolbox is an instrument that can be used in connection with different tasks of QoL-assessment: qualitative verbal instruments, standardised procedures for assessing needs and interests, and instruments to analyse satisfaction (priority rankings, scales, etc.) and to identify short-comings.

# 4. DATABANK CONCEPT

In addition to the toolbox and its guidelines, a database was developed. The main aim of the databank is that whenever a QoL study should be carried out it will be possible to examine how the same or comparable questions could have been dealt with in the past. The data bank, once running, should make it possible to find out if, when, to whom, how, in what country, etc., certain questions have been asked in earlier studies, viz. at earlier occasions, what answers have been received, what consequences have been drawn, etc. Thus avoiding starting from zero and in the spirit of science enriching our understanding by adding knowledge to previous knowledge.

The databank is structured as a relational database containing all the relevant information concerning the toolbox applications. It is constituted by elements that describe the context of the project and the results. The following structure is suggested:

**General information**

- Project reference name
- City/location of application
    - name/state
    - population density
    - geographical zone (i.e. North Europe, Central Europe, Mediterranean Countries, etc. zones that have more or less homogeneous socio cultural characteristics)
    - economic growth index (or other economical wellbeing index)
- Short description of the project
- Main aspects involved (within the "enquiry fields list" defined in the toolbox).

**Toolbox Application**

- number and profile of the experts involved
- number and background information describing the participants (i.e. gender, age, etc.)
- main results of the study using the toolbox
- objective parameters and its results
- problems that occurred during the project (a short description).

### Additional Use

In the future, when the Databank contains a large number of cases the data can be, used to:

- make further improvements to the tool by adding or deleting questions

The ratio "perceived improvement/objective changes" can be investigated in more detail. The results can be used to choose the most cost effective way of solving a problem (i.e. objective parameters whose small changes result in large perceived improvement, or whose changes result in improvement in many fields).

# 5. SUMMARY

The purpose of the toolbox, the guidelines and the databank was to improve the assessment of QoL in connection with town planning, transport and mobility. Hopefully, the simplification of both research and practical work will help to increase our citizen's urban QoL.

Before the toolbox could be finalised it underwent some further refinements and the aim was that it should fulfil a number of important criteria's. Two different steps were required. The first one ensured that the items in the questionnaire were independent from each other. Items that were not clear and reflected important issues were deleted. The result from this first step was a slightly modified toolbox. Thereafter, a second step, a validation step, was taken. The revised tool was sent out to people in Austria, The Netherlands and Sweden. Subsequently the results were carefully analysed. Altogether about 134 people filled in and sent back the questionnaire. The results showed that a large number of the indicators correlated with the general QoL question about their community. All of the indicators were found to be important thus it could be said to be relevant to most people. The indicators also formed more than one domain. The results from a test using factor analysis presented seven different factors all reflecting discrete portions of the Qol construct. The tool appeared to be valid. The conclusion that could be drawn from this exercise was that the toolbox was able to fulfil some very important criteria's and could therefore be said to measure relevant aspects of urban QoL.

In this deliverable a number of guidelines were also provided on how to use the toolbox. To collect valid data, compare results of different toolbox applications, learn from previous experiences and to forecast possible effects of implementations, it is important to measure at least the key set of QoL indicators and to follow the general guidelines as indicated at several occasions. Therefore, in addition to the other work a databank concept was presented that can help to further improve the basis for practical work. The data bank, once running, should make it possible to learn from previous experiences. Thus avoiding starting from zero and in the spirit of science enriching our understanding by adding knowledge to previous knowledge.

# 6. REFERENCES


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# 7. APPENDIX 1 – TOOLBOX 1 BEFORE STUDY

A short introduction

**The following questions refer to the (insert the area)**

**1. How often do you visit this place?**

| | Not at all | Less than once a month | About once a month | About two or three times a month | About once a week | About one or two times a week | Three or more times a week |
|---|---|---|---|---|---|---|---|
| | 1* | 2 | 3 | 4 | 5 | 6 | 7 |

**2. Are you a resident of this area?** Yes ☐ No ☐ **(please go to question 4)**

**3. How long have you lived in the area?**

| Less than 1 year | > 1 and < 5 yrs | > 5 and < 10 yrs | > 10 and < 20 yrs | More than 20 yrs |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**How satisfied are you with the following?**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | **Vicinity** of the **public transport network**? (Do you think it is near enough?) | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 5 | **Availability** of the **public transport network**? (Is it frequent enough?) | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 6 | **Pavements**? (Thinking about elements like steps, barriers, narrow passages and quality of the surface) | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 7 | **Separation** of pedestrians and cyclists? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 8 | **Crossing points**? (Are they near enough or do you have to make de-tours?) | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 9 | **Time** it takes for you to reach your destination (thinking about one of your daily trips)? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 10 | **Safety**? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 11 | Speed of the **traffic**? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 12 | **Level of noise** (is there too much noise, is it too loud?)? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 13 | Volume of **traffic**? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 14 | Number of **street lights**? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 15 | Range of **activities** open in the evening? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 16 | Number of **people** living in the area? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 17 | Number of **people** working in the area? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | **Security**? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 19 | **Cleanliness**? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 20 | **Aesthetics**? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 21 | Presence of **green elements**? (trees, flowers etc.) | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 22 | Range of **services** provided (i.e. post office, pharmacy, etc.) in the area? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 23 | Range of **shops** provided in this area? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 24 | Range of other forms of **facilities** (bar, coffee shop, restaurants, kiosks, etc.)? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 25 | Number of **resting places** (benches, stools, sitting walls, balustrades, rails, columns? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 26 | Number of **public places** like squares and parks? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 27 | Supply of **cycle paths** in this area? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 28 | The sense of **community** (i.e. a community which works together and its people support each other) | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| 29 | People's power to **influence** council decision making? | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |

30. Overall, how satisfied are you with the quality of life in the area?

| Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very dissatisfied |
|---|---|---|---|---|---|---|---|---|

How important are the following:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 31 | A public transport network which is easy to get to | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 32 | A public transport network which is frequent | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 33 | Being able to move freely on the pavement | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 34 | Pavements separating pedestrians and cyclists | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 35 | Enough places where you can cross the road | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 36 | Time needed to reach your destination is short | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 37 | A safe place | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 38 | That drivers obey speed limits | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 39 | That the level of noise does not disturb you | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 40 | A low level of traffic | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 41 | A good supply of street lights | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 42 | A wide range of activities are open in the evening | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 43 | People are living in the area | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 44 | People are working in the area | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 45 | Security | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 46 | That the area is clean and well looked after | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 47 | An aesthetically pleasing area | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 48 | Many green elements (trees, flowers etc.) | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 49 | A wide range of services (i.e. post office, pharmacy, etc.) | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 50 | A wide range of shops | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 51 | A wide range of other forms of facilities (bar, coffee shop, restaurants, kiosks, etc.) | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 52 | Large numbers of resting places (benches, stools, sitting walls, balustrades, rails, columns? | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 53 | Public places like parks and squares | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 54 | Special paths for bicycles | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 55 | A sense of community (i.e. a community which work together and its people support each other) | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 56 | That people have the power to influence council decision making | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |

**We would now like some background information about yourself**

57. Please state your age in years: ☐☐

58. Please state your sex: ☐ Male ☐
Female

59. Please state how many hours a week you work (approximately): ☐☐

60. In which of the following categories does your total annual household income before taxes fall? 

more than _____

xxxx - xxxxx _____

xxxx - xxxxx _____

less than _____

61. How frequently do you use the following modes of transport?

| | Not at all | Less than once a month | About once a month | About two or three times a month | About once a week | About one or two times a week | Three or more times a week |
|---|---|---|---|---|---|---|---|
| **On foot** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **By bike** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **Public transport** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **Private transport (car, motorbike)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |

62. How satisfied are you with the preconditions for the following modes of transport?

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Walking | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| Cycling | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| Public transport | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| Private transport (car, motorbike) | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |

63. Finally how would you rate your own quality of life?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Extremely poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely good |

# THANK YOU FOR PARTICIPATING IN OUR SURVEY

## ASI questionnaire – after study

A short introduction describing the area and the changes which have taken place. End this by including: In this survey we would like to get your view about these changes.

### 1. How often in the last year have you visited this area?

| Not at all | Less than once a month | About once a month | About two or three times a month | About once a week | About one or two times a week | Three or more times a week |
|---|---|---|---|---|---|---|
| 1* | 2 | 3 | 4 | 5 | 6 | 7 |

*Terminate

**2. Are you a resident of this area?** Yes ☐ No ☐ **(please go to question 4)**

### 3. How long have you lived in the area?

| Less than 1 year | > 1 and < 5 yrs | > 5 and < 10 yrs | > 10 and < 20 yrs | More than 20 yrs |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**SECTION ONE**

**In this section we would like you to think about how the area was before the changes took place and then tell us if the modification has made the following better or worse, or if it has remained the same?**

| | | | | | | | | | | | No change |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | **Vicinity** of the **public transport network** is now? (Is it nearer to you?) | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 5 | **Availability** of the **public transport network** is now? (Has it become more frequent?) | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 6 | **Pavements** are now ? (Thinking about elements like steps, barriers, narrow passages and quality of the surface) | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 7 | **Separation** of pedestrians and cyclists is now? | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 8 | **Crossing points** are now? (Are they nearer and do you have to make less de-tours?) | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 9 | **Safety** is now? | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 10 | Speed of the **traffic** is now? | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 11 | **Level of noise** is now (is it less noise or is it more?) | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 12 | Volume of **traffic** is now? | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 13 | The sense of **community** is now (i.e. a community which works together and its people support each other) | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 14 | **Cleanliness** is now ? | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 15 | **Aesthetics** is now? | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | No change |
| 16 | **Security** is now? | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |
| 17 | People's power to **influence** council decision making? | Much worse | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much better | 8 |

**We are still talking about the same area but wonder if the following has increased or decreased?**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | No change |
| 18 | Number of **street lights** is now? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 19 | Range of **activities** open in the evening is now? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 20 | Number of **people** living in the area is now? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 21 | **Time** it takes for you to reach your destination is now (thinking about one of your daily trips)? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 22 | Number of **people** working in the area is now? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 23 | Presence of **green elements** is now? (trees, flowers etc.) | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 24 | Range of **services** provided is now? (i.e. post office, pharmacy, etc.) | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 25 | Range of **shops** provided in this area is now? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 26 | Range of other forms of **facilities** is now (bar, coffee shop, restaurants, kiosks, etc.)? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | No change |
| 27 | Number of **resting places** is now (benches, stools, sitting walls, balustrades, rails, columns? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 28 | Number of **public places** like squares and parks is now? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |
| 29 | Supply of **cycle paths** in this area is now? | Much less | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Much more | 8 |

**30. Overall, how satisfied are you with the quality of life in the area?**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 Very dissatisfied |

**31. How much have you been able to influence the above implementation?**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Very little | 1 | 2 | 3 | 4 | 5 | 6 | 7 Very much |

**SECTION TWO**

In this section we would like you to tell us how important the following are in more general terms:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 32 | A public transport network which is easy to get to | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 33 | A public transport network which is frequent | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 34 | Being able to move freely on the pavement | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 35 | Pavements separating pedestrians and cyclists | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 36 | Enough places where you can cross the road | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 37 | That the time needed to reach your destination is short (thinking about one of your daily trips) | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 38 | A safe place | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 39 | That drivers obey speed limits | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 40 | That the level of noise does not disturb you | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 41 | A low level of traffic | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 42 | A good supply of street lights | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 43 | A wide range of activities that are open in the evening | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 44 | People are living in the area | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 45 | People are working in the area | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 46 | Security | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 47 | That the area is clean and well looked after | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 48 | An aesthetically pleasing place | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 49 | Many green elements (trees, flowers etc.) | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 50 | A wide range of services (i.e. post office, pharmacy, etc.) | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 51 | A wide range of shops | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 52 | A wide range of other forms of facilities (bar, coffee shop, restaurants, kiosks, etc.) | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 53 | Large numbers of resting places (benches, stools, sitting walls, balustrades, rails, columns? | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 54 | Public places like parks and squares | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 55 | Special paths for bicycles | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 56 | A sense of community (i.e. a community which work together and its people support each other) | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |
| 57. | That people have the power to influence council decision making | Not important at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very important |

**SECTION THREE**

**In this section we would like you to give us some background information about yourself**

58. Please state your age in years: ☐☐

59. Please state your sex: ☐ Male ☐
Female

60. Please state how many hours a week you work (approximately): ☐☐

61. In which of the following categories does your total annual household income before taxes fall?

more than _____

xxxx – xxxxx _____

xxxx – xxxxx _____

less than _____

62. How frequently do you use the following modes of transport?

| | Not at all | Less than once a month | About once a month | About two or three times a month | About once a week | About one or two times a week | Three or more times a week |
|---|---|---|---|---|---|---|---|
| **On foot** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **By bike** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **Public transport** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| **Private transport (car, motorbike)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |

63. How satisfied are you with preconditions for using the following modes of transport?

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Walking | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| Cycling | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| Public transport | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |
| Private transport (car, motorbike) | Very dissatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very satisfied |

64. Finally how would you rate your own quality of life?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Extremely poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely good |

# THANK YOU FOR PARTICIPATING IN OUR SURVEY