

# **A network of knowledge and technology**

**TooLS: Tools for developing comparable local surveys**

## **Summary report**

With Support from the European Union





## Foreword

Demographic change, with its challenges as well as opportunities, is undoubtedly one of the topics that will be in the spotlight of public attention for a long way to come. It is, therefore, a sign of not only great foresight, but also political responsibility that the European Commission has tendered a project to take up related issues. It should be particularly highlighted that the tender relates to an information system that is specifically suited for the local level of cities and towns in terms of information technology and content. We – the project consortium – are grateful that we were given the chance to take over this challenging and important task. We thank the European Commission for promoting the TooLS project and for the trust placed in us.

Such an extensive and complex project would not have been possible without the involvement and commitment of many individuals and organisations. This includes the cities participating in our project, which were committed to a successful implementation making considerable efforts to achieve it, and from whom we received many valuable suggestions. We hope that the results presented by us show that the substantial commitment of the cities was worth their while. The reports about the TooLS surveys compiled by the cities reveal how well our approach fits into the local context of discussion on demographic change. These reports and also the opinions of the participating cities show us the significance of developing a framework that will enable the continuation of TooLS.

We would like to extend our special thanks to the partner cities in this project, the cities of Amsterdam and Helsinki as well as Berlin and Freiburg, for hosting and contributing to the perfectly organised and stimulating international and national TooLS conferences.

The excellent productive collaboration between the project partners – “O+S” (Dienst Onderzoek en Statistiek of the city of Amsterdam), Urban Facts of the City of Helsinki, KOSIS associations DUVA and Urban Audit, Freiburg Institute for Applied Social Science (FIFAS) and the Institute of Sociology of the University of Freiburg – was encouraging and inspiring.

The cooperation with networks in the field of urban statistics and research was particularly fruitful, especially with the two working groups of the Association of German Municipal Statisticians (VDSt) on population surveys and on demography. We received many helpful suggestions from these associations, which we could apply to the development and evaluation of the citizens’ survey and the surveys of service providers and administrations.

We would especially like to thank the citizens of the 50-plus generation who participated in our survey. The findings compiled by TooLS would never have been possible without their participation. We hope that the 50-plus generation will benefit from our results and increase the chances for those who are willing to choose “active ageing” as their lifestyle.

Freiburg, 2 August 2013

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## 1. Brief summary

The objective of the EU-sponsored project “TooLS - Tools for developing comparable local surveys” is to provide European municipalities with comparable information that is essential to cope with demographic change.

The five project partners have taken on the following tasks. The KOSIS association DUVA contributes its information management system to the project, with which data can be collected, documented, and evaluated in a user-controlled manner via the Internet. The Institute of Sociology of the University of Freiburg with its associate, the Freiburger Institut für angewandte Sozialwissenschaft (FIFAS; Freiburg Institute for Applied Social Science), has organised and analysed comparative urban citizens’ surveys. The KOSIS association Urban Audit provides the relevant European statistical basic data for the project and develops approaches for an administration and service provider survey. The statistical offices of the cities of Amsterdam and Helsinki ensure the anchoring of the project in the participating European countries, the Netherlands, and Finland.

In the three participating European countries, a total of 13 municipalities have joined together in a network of cities, which serves as the organisational backbone of the project and will form the core of a later expanding infrastructure for comparative municipal surveys.

In content, the project initially focuses on the 50-plus generation and examines how the opportunities associated with demographic change are utilised at the municipal level and how to meet the challenges they pose. The opportunities consist in that the people are fit, healthy, and productive for a longer time and have the opportunity for “active ageing”. The challenges are the increasing proportion and number of those who, inter alia, by depending on care, avail themselves of the healthcare system and social benefits.

The results show that life plans focused on “active ageing” are variously distributed in the TooLS survey locations as well as in the EU countries overall. Thus, for example, the Netherlands has significantly higher rates than Germany or even Romania and Hungary. But there are also differences within countries. For instance, Amsterdam has a clearly more active 50-plus generation than the neighbouring city of Almere.

The situation of people requiring care can be studied with TooLS from different aspects. Thus, three types of care culture can be differentiated. A preference for care by the family is prevalent in countries such as Poland or Bulgaria. The Dutch, Finns or Danes want to be provided with care primarily through infrastructure and services. And a mixed type consisting of outpatient care and professional support is preferred in countries such as Germany and the UK. The TooLS survey locations reflect the tendency of the results in each country.

To supplement the findings that were obtained from existing sources and the survey of the 50-plus generation, approaches have been developed for a survey of administrative services and service providers. The concept developed in the project proved to be complex and should be developed as a feasible and robust instrument with manageable survey costs.

At the end of the TooLS project, the European municipalities have an information system that can help them to respond better to the opportunities and challenges associated with demographic changes. The European cities in the already existing network are keen to continue core areas of the project on their own. To ensure the project has a lasting impact, it would be necessary to expand and establish a continuous monitoring of the network of cities.

**TooLS: Comparable information for the municipalities to deal with demographic change**

**Contents: Opportunities and challenges of an ageing population**

**Establishment of a network of cities for continuation of the project**

**TooLS: Information on demographic change for municipalities**

## 2. Objectives and organisation of the project

The Directorate-General for Employment, Social Affairs and Inclusion of the European Commission funded the project “TooLS – Tools for developing comparable local surveys” from December 2009 to May 2013. The content is about the provision of comparable information required at various administrative levels, especially in municipalities, to cope with demographic change. Cities and municipalities are the most directly affected by the anticipated problems, and are probably in the most likely position to take the necessary targeted measures. Such information, which goes beyond the general findings on demographic change, can be obtained only in part from official national and international surveys. Therefore, the aim of the project was to obtain specific information at the local level in such a way that it can be compared and combined with the findings of other municipalities. It should contribute to a better assessment of specific local conditions in a city-wise comparison and support a collaborative learning process.

**Partnership of urban statistics and research**

### Project partner

The KOSIS<sup>1</sup> association DUVA contributes its information management system to the project, with which data can be collected, documented, and evaluated in a user-controlled manner via the Internet. DUVA has already contributed significantly in more than 50 municipal users to enhance the performance of their statistical offices. The technical tools support the agreement of content standards and contribute to the exchange of comparable information. *Section 6* reports on the use of DUVA in the TooLS project in detail.

The Institute of Sociology of the University of Freiburg, together with its associate, the Freiburg Institute for Applied Social Science (FIFAS), has covered much ground in the empirical research of demographic change. In the project it organised, inter alia, the agreed upon comparative urban citizens’ surveys and evaluated them for the project and for the participating cities. *Section 3* reports on the selected results of the analyses.

The collection of urban comparative information in the European context is the focus of performance of the KOSIS association Urban Audit. It helped the project not only by supplying a wealth of qualified basic data on more than 300 European cities, but also bringing in – like the DUVA association – its network of cities and with it important partners for project development. *Section 5* reports on the use of Urban Audit data in the TooLS project.

Similarly, approaches for a survey of administrative services and service providers have been developed by the KOSIS association Urban Audit, which will serve to supplement the findings from existing sources and the citizens’ survey. *Section 4* reports on it.

Also on board as European partners are the cities of Amsterdam and Helsinki with their offices for Urban Research and Statistics.

### Network of cities as an organisational backbone of the project

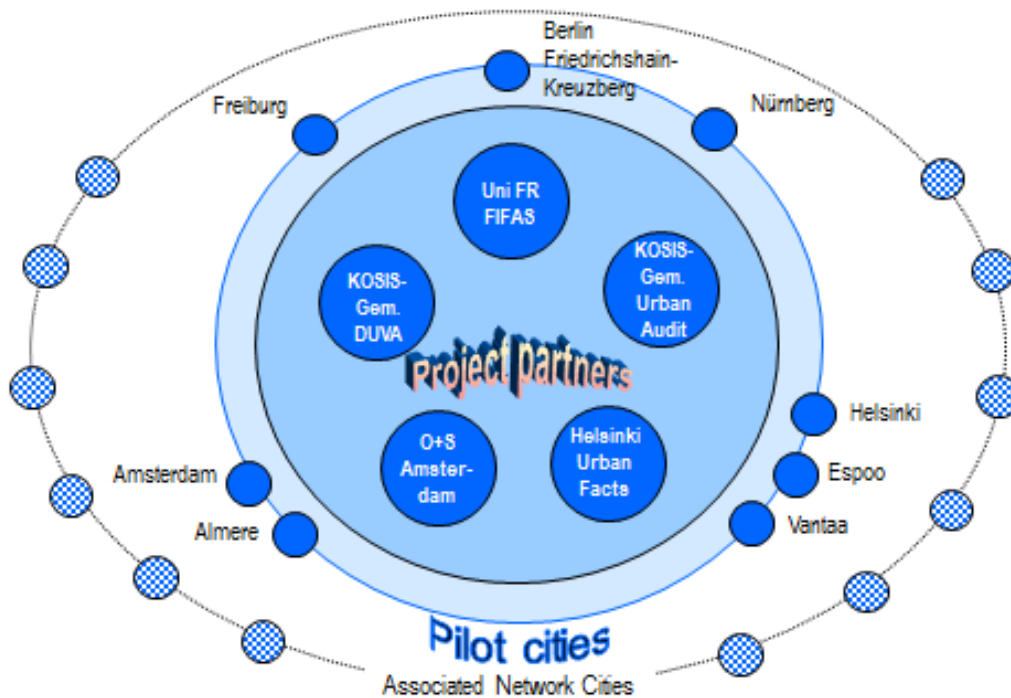
The participation of the partner institutions, “O+S” in Amsterdam<sup>2</sup> and “Urban Facts” in Helsinki,<sup>3</sup> was made possible through the European contacts of Urban Audit. Pilot cities had to be integrated in the project in the three participating European countries. Their task was to align the project development to the practical needs of the cities, to contribute to the collected information, to test the practical results, and to contribute to its dissemination among the cities. Other municipalities have also joined the TooLS project, for whom all surveys were conducted as associated cities in the network that could benefit from the conceptual and technical developments.

<sup>1</sup> KOSIS = Kommunales Statistisches Informationssystem (Municipal Statistical Information System). The KOSIS association is a municipal self-help institution which organises cooperation projects with the support of the German Association of Cities (Deutscher Städtetag) (<http://www.stadtestatistik.de/kosis.html>).

<sup>2</sup> Gemeente Amsterdam, Dienst Onderzoek en Statistiek. <http://www.os.amsterdam.nl/english/>

<sup>3</sup> <http://www.hel.fi/hki/Tieke/en/Etusivu>



**Figure 1: The ToolS Network**

Meetings where the objectives and results of the project were put up for discussion and reconciled had an essential role. Two international conferences, one at the start of the project (Amsterdam) and one at its end (Helsinki), and three national conferences were conducted.

Organisationally and legally, the project is managed by the University of Freiburg, with FIFAS as the central point of contact. FIFAS not only managed the project budget, but also took care of the necessary translations of documents into English, supported the organisation of the conferences, maintained the ToolS website,<sup>4</sup> and oversaw the management of the citizens' survey.

With this network, the project partners already fulfil a major goal of the project – to build an infrastructure for local comparative surveys and to later extend its subject content beyond demographic change.

### Substantive orientation of the ToolS project

In content, the project is based on demographic changes and focuses on the living conditions of the ageing population. In a few decades, the dependency ratio of the elderly in Europe and Germany will be more than 50%. This demographic change affects the economy, culture, and social living conditions in diverse and complex ways. It changes the availability of resources, affects the quality of life, and requires new strategies to address the problem at the national and local levels. It also enables and requires individual adaptation efforts, which are reflected in changed life concepts. Because of its far-reaching consequences, it is necessary to understand the demographic change as a comprehensive socio-cultural change.

The surveys in the ToolS project focus on the age group 50 years and older. It examines how the opportunities associated with demographic change will be exploited at the local level and how to meet the associated challenges. The *opportunities* are based on that peo-

**ToolS content: Opportunities and challenges of the demographic change at the municipal level**

<sup>4</sup> <http://tools-project.eu>

ple have a longer life expectancy and are more fit, healthy, and productive. Therefore the question of whether and how the opportunities of demographic change are used for active ageing is of central importance. *Challenges* arise from the increasing percentage and number of those who come into a “fourth” phase of life in which they need to use the healthcare system and social benefits, and rely on the solidarity of the community. Thus, the need for “close social solidarity” practised by family members grows as the requirements of “distant social solidarity” need to be fulfilled by civil society.

Data on these two key topics – active ageing and situation of people requiring care – were collected and made available as follows.

- Citizens’ surveys in 13 Dutch, Finnish, and German cities.
- Provision of published and available data from sources such as Urban Audit, EU Perception Survey, and official statistics.
- Preparation and testing of a survey of administrations and service providers.

### **A network of knowledge and technology**

The technical infrastructure of the TooLS project is provided by the DUVA information management system, which was developed to a considerable extent in the context of TooLS and by which the standardised collection, processing, and documentation of data could be implemented. The information system developed by TooLS includes software and hardware, as well as professional and appropriate survey instruments and evaluation concepts. These were transposed into appropriate technical instruments and tested together in practice with the employed technology.

### **Strengthening the ability of individual cities to act through collaboration**

In the TooLS project, existing approaches to municipal information infrastructures were further developed so that a growing number of cities can participate and make their tools and content useful. This objective goes far beyond the TooLS project, which is aligned to demographic change in content, and will improve the potential of urban comparative information.

The project will be able to make an even greater contribution to coping with the enormous challenges of demographic change the more it is used and the further it is developed beyond the period. Better quality and quantity of information and a more efficient information infrastructure initiated by the TooLS project are essential conditions to ensure that cities can adjust locally to opportunities and challenges early on and plan and act accordingly. Cities would do well to actively participate in the advancement of this self-help project, which they can hardly cope with conceptually and financially on their own.

**DUVA information system: A network of knowledge and technology**

**Information infrastructure as a self-help project of the cities**

### 3. The TooLS citizens' survey. Methods and selected results<sup>5</sup>

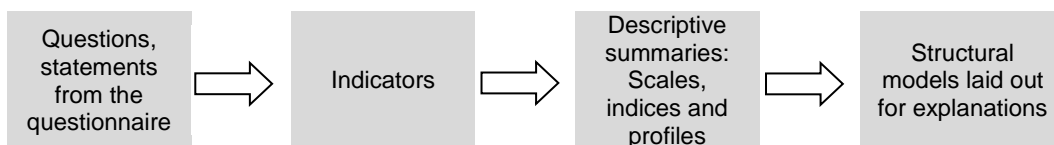
The citizens' survey was conducted as a mailed/written survey. Wherever possible, questions and statements were taken from national and European studies to compare results at the local level with regional results – taking into account, inter alia, the European Social Survey (ESS4), Eurobarometer, Survey of Health, Ageing and Retirement (SHARE), and Eurostat. In this way, it is possible to make comparisons between the survey locations as well as with results at the corresponding national level and with the overall results for the EU.

Using a questionnaire developed by the University of Freiburg, at least 300 people in the 50-plus group were interviewed in each city participating in the TooLS project. The questionnaire was discussed in the VDSt<sup>6</sup> working group “Coordinated Surveys”, and harmonised with the interested cities in Germany, the Netherlands, and Finland. The cities were free to supplement the questionnaire with their own modules as far as they did not strain the respondents too much.

The surveys were conducted in 2010/2011. The data entry with the DUVA collection tool was undertaken by FIFAS, and the analysis was done by the Institute of Sociology. Each participating city has obtained a standard evaluation together with the acquired city data for its own use.

In the survey, 7712 randomly selected people in the 50-plus age group participated – 4933 in eight German cities, 1306 in three Finnish cities, and 1473 in two cities of the Netherlands. For various evaluations, it was reasonable and necessary to consider weighted samples.

Data analysis and interpretation was done by a process of “data reduction”, where the wealth of the data becomes clear and relevant structures and regularities become evident.



It was seen time and again in interviews and at conferences that this form of concentration of data on professionally relevant knowledge was viewed by representatives of the local authorities as particularly valuable and, as a contribution of TooLS, clearly goes beyond what is possible through official statistics and local citizens' surveys. Its participating cities are therefore also provided with professional considerations about this data concentration and the necessary algorithms.

Two topics are in the foreground in the citizens' survey; one related to the opportunities associated with demographic change and the other with the challenges involved. The two subjects are active ageing and the situation of people who need care.

**Mailed citizens' survey with possibilities for comparison with national and European reference studies**

**Topics of the survey: Active ageing and the need for care**

#### 3.1. Active ageing

##### Active ageing – Concept and implementation

We are not only getting older than people in the past, but also becoming more robust and staying fit longer.<sup>7</sup> The question is what do the “fit seniors” do with the extra years? This question is of general importance because the group of 50-plus people is increasingly becoming a representative social group in our society. This is certainly one of the reasons

<sup>5</sup> A detailed report was published in book form in December 2013 (Blinkert 2013b).

<sup>6</sup> Verband Deutscher Städtestatistiker (Association of German Municipal Statisticians) (<http://www.staedtestatistik.de/vdst.html>).

<sup>7</sup> See, inter alia: Imhof 1988, EU-Kommission 2009, Christensen/Doblhammer/Rau/Vaupel 2009

that active ageing was made into a socio-political special subject in the EU in 2012 and taken up by the Federal Government of Germany.<sup>8</sup>

As obvious and generally accepted as this idea of active ageing is, its importance is not all that clear. In the TooLS project, we define “active ageing” as the lifestyle of people in older age groups (50 plus, 60 plus, and so on), characterised by a high degree of active participation in society.

#### 5 indicators for active ageing

Active ageing is described by five indicators in the TooLS survey. This is based on the assumption that the results for these indicators also provide information on the direction in which an adaptation to demographic change takes place – whether it is more towards a mobile and active 50-plus generation or towards a rather passive and resigned one.<sup>9</sup>

- Whether and to what extent older people are gainfully employed.
- Whether and to what extent they obtain or even expand their “cultural capital”, their willingness and ability to learn by attending courses and seminars on education and advanced training courses.
- Whether and to what extent they support their community through civic commitment.
- Whether and to what extent someone has a social contact network was also considered.
- Another indicator refers to attitudes, to the habitus, to the self-image, and thus to basic orientations – whether and to what extent orientations can be observed in the 50-plus generation, which show stagnation and passivity or point to an active lifestyle.

#### Active ageing in countries and municipalities of the European Union

A useful information system at the municipal level should show whether and to what extent a life plan focused on active ageing has become accepted by the 50-plus generation, taking into account various aspects. For this purpose, it is necessary to summarise the information on the indicators considered here.<sup>10</sup> On this basis, it can be shown how cities differ from each other and what value these cities have in relation to the countries of the European Community.

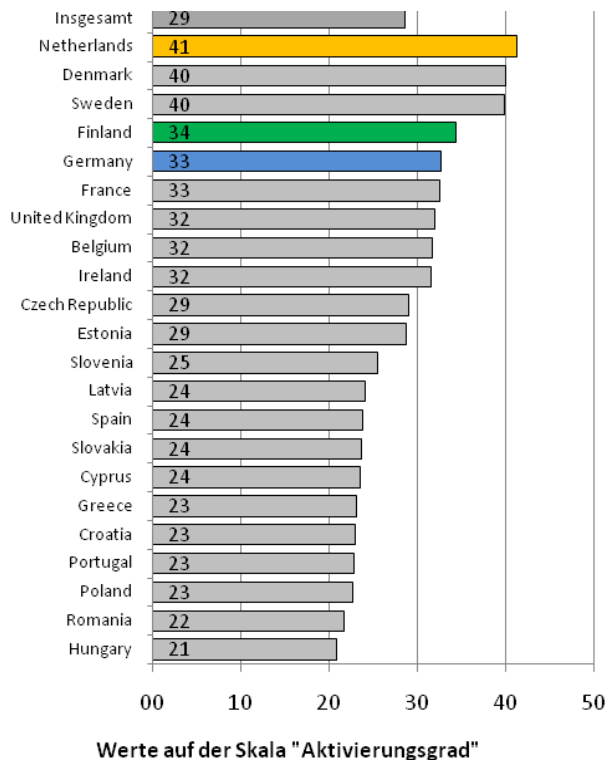
<sup>8</sup> Magazin für Soziales und Familie, 2/2012, published by Federal Government of Germany, (<http://www.bundesregierung.de/Content/DE/Magazine/01MagazinSozialesFamilie/>)

<sup>9</sup> On the topic of “activation” see, inter alia, Etzioni 1968, Schwengel 1999, Walker 2002, Schwentker/Vaupel 2011.

<sup>10</sup> A factor analysis shows that the considered indicators are located in one dimension. Behind the five indicators of “active ageing” is one factor by which 68% of the variance can be explained. The five indicators can therefore be summarised on a scale of “activation degree of the 50+ generation” (in countries and municipalities) with a value range of 0 to 100.

## “Activation degree” index for countries and municipalities

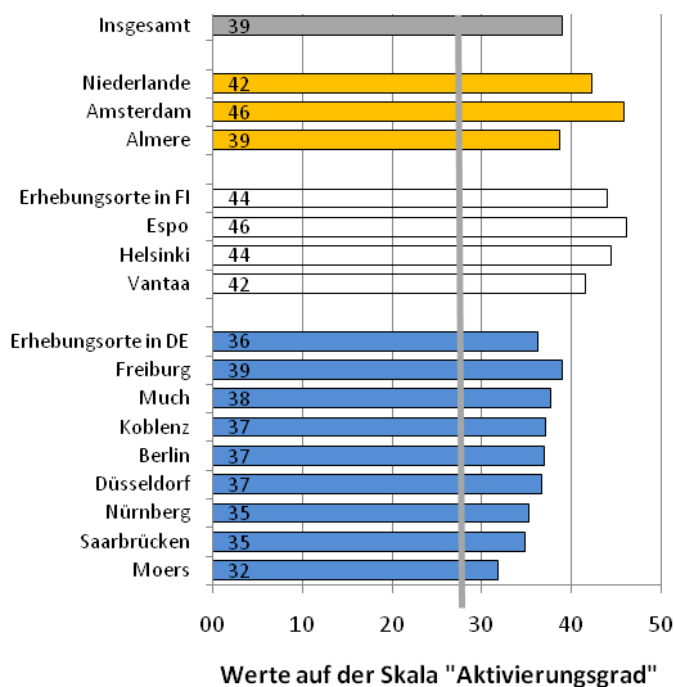
Figure 2: "Active ageing" in the EU countries



Source: Own calculations based on the ESS4

It can be seen whether there is a tendency for a more active or a more passive lifestyle in the 50-plus generation in the EU countries considered here. In the “active countries”, the proportion of gainfully employed persons in this age group is very high, training opportunities are used extensively, relatively many in the 50-plus generation are involved in civil society, the availability of a social contact network is higher than average, and people have a rather active attitude. This group includes Denmark, Sweden, and the Netherlands. In the “passive countries”, the participation in earnings of the 50-plus generation is very low, only a few make use of training opportunities, the share of persons involved in civil society is far below the average, the availability of a social contact network is below average, and people have a rather passive attitude. This group includes Portugal, Spain, Slovakia, Romania, Greece, Cyprus, Poland, Croatia, and Hungary.

Likewise, how countries differ according to the activation degree of the 50-plus generation can also be seen in the ToolS survey locations, but the differences are less pronounced in cities than in countries. Rather “active cities” are Amsterdam and, separated by some distance, Freiburg and Much. Rather “passive cities” (but still “more active” than the EU average) are Nuremberg, Saarbrücken, and Moers.

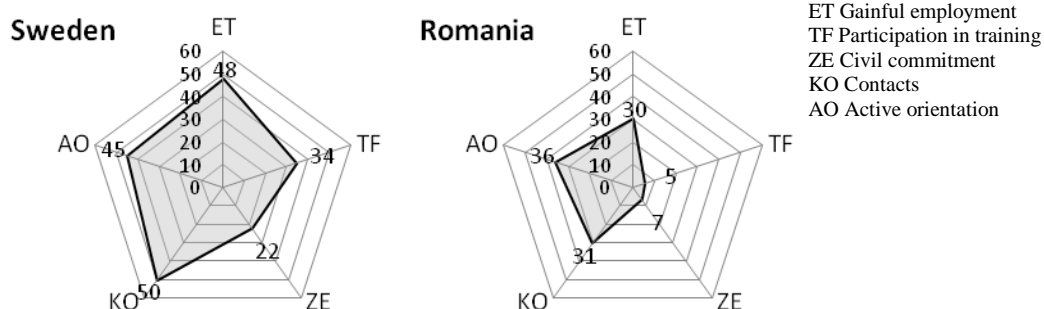
**Figure 3: "Active ageing" in the TooLS survey locations**

The Finnish survey locations cannot be compared with the Dutch and German cities and with the European average, as a different question was framed in the survey for the participation in civic activities.

#### Profiles for cities and countries

#### Profile of active ageing for countries and municipalities

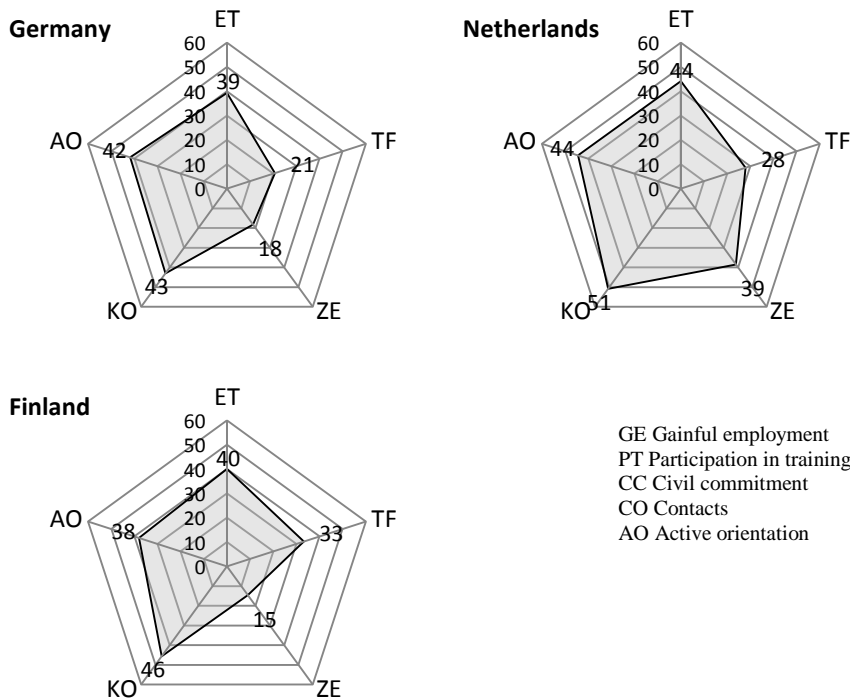
Whereas the scale of "activation degree" sums up the five indicators in a single index, a country or city profile additionally enables the representation of values for each indicator. A suitable form of representation for it is a profile or cobweb diagram. In such a diagram, the values derived from different axes encompass an area. The extent of this area is approximately equal to the scale value of "activation degree". The following figures show profile charts for two countries with very low "activation degree" (Romania: small area) and very high "activation degree" (Sweden: large area) and the profiles for the Dutch and German survey locations.<sup>11</sup>

**Figure 4: 'Active ageing' profile for EU countries and TooLS survey locations**

Source: Own calculations based on the ESS4

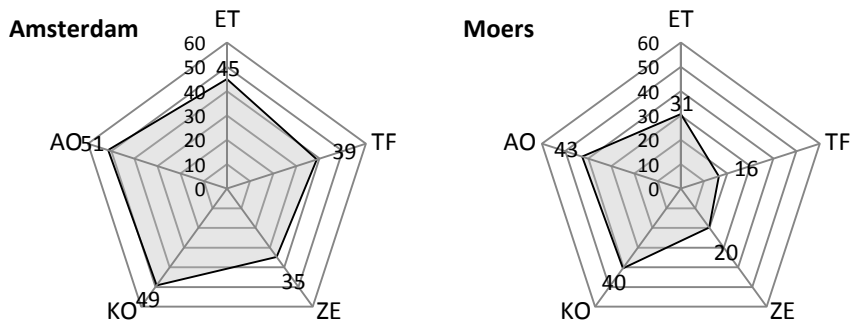
<sup>11</sup> Comparative profiles for Finnish survey locations could not be created because a different question was framed for the civic commitment.

### Profiles for countries in which the TooLS survey was conducted



Source: Own calculations based on the ESS4

### Profiles as examples of TooLS survey locations:



Source: TooLS survey

At the aggregate level – that is, for countries and municipalities – two types can be differentiated from the viewpoint of active ageing. One type refers to a rather “passive-resigned society” and the other identifies features of an “active society”.

### Proposed explanations

These and other findings prompt questions about the reasons for the observed differences. In the TooLS project, we try to answer these why questions in different ways. At the micro level of the people, it can be shown in a structural model that 73% of the variance for the willingness and ability to adapt an active lifestyle can be explained by characteristics of the biographical and social situation of the respondents.

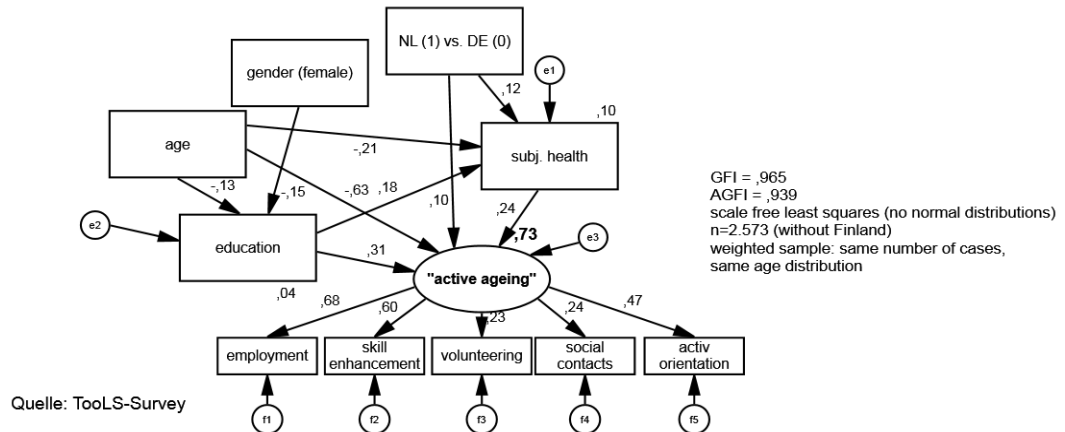
**Structural model for the explanation of an active lifestyle**

**Figure 5: Active ageing of the 50+ generation in the ToolS cities and in Germany and the Netherlands**

independent variables:

level of countries (NL vs. DE): social expenditure per capita (2008)

level of persons: age, gender (f), education, subjective health



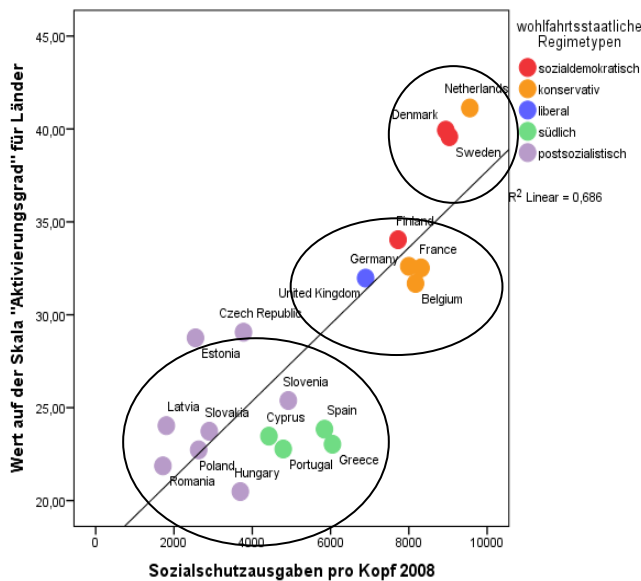
The most important relationships in this model can be summarised as follows.

- With increasing age, the opportunity and the interest in active ageing diminishes (standardised total effect<sup>12</sup>: -0.73).
- With increasing education (vocational training and general education), the interest and the opportunity for active ageing increases (0.36).
- The more positive a person assesses his or her health, the greater the interest and opportunities for active ageing (0.25).
- In the Dutch survey locations, the interest and opportunities for active ageing were more pronounced than in the German survey places (0.13).

At the macro level – the level of countries and municipalities – the extent of the welfare state is of central importance. In public discussions, the opinion that comprehensive welfare state arrangements are more likely to lead to a passive attitude is often heard. The welfare state is viewed as a kind of “hammock”, which people are only too happy to use because comfort is valued above everything else. According to this assumption, it can be expected that in countries with large welfare state services, the 50-plus generation’s interest in an active life will be particularly low. The labour force participation will, for example, be very low. A kind of “care mentality” will spread among these people with a pronounced need for order and security. And the willingness to civic commitment will also be very low because the welfare state is taking care of almost everything and civil society is not required.

<sup>12</sup> The overall impact takes into account not only the direct effects listed in the chart, but also indirect effects.



**Figure 6: Activation degree and the welfare state**

Sources: Own calculations based on the ESS4 and Eurostat

Our results show that virtually the opposite is the case. The more extensive and comprehensive welfare state arrangements are, the higher the proportion of people in the 50-plus generation who lead active lives.<sup>13</sup> It is possible to clearly distinguish three groups of countries – countries with extensive social spending, in which an active life is a characteristic of the 50-plus generation; countries with a medium social expenditure and medium average values on the active life scale; and countries with low per capita social expenditure and low average values for an active life.

### 3.2. Situation of people who need care

In the ToolS project, two issues are paramount. One is the opportunities associated with demographic change. This aspect was discussed in the previous section under the heading “active ageing”. The other is the new challenges. These were taken into account in the ToolS project from the viewpoint of the situation of people dependent on care. We are getting older, but we stay fit and healthy longer and increase our opportunities for active ageing. At the same time, more and more people come into a phase of life in which they are dependent on social benefits to a greater extent due to chronic diseases and the need for care.<sup>14</sup>

**Need for care as a challenge of demographic change**

#### Dependency on care across Europe

A difficulty with European studies on the issue of dependency on care is that “need for care” is not defined in the same way in the member states, and that even the manner of dealing with dependency on care in the EU area is not uniform. “Need for care” is *also* a social construct, in which the cultural concepts of normality play a role. What is considered “normal abilities” to deal with everyday problems is subject to social and cultural ideas and traditions. But “need for care” is also a phrase that refers to benefit entitlements and intervention opportunities. Depending on the arrangement of social security institutions, the health system, and also the system of social control, “need for care” is linked to entitlement to benefits, as well as to the allocation or withdrawal of privileges (for example, “incapacitation”). In the OECD report for 2011, figures for different countries are stated, but these figures give only information about beneficiaries and not the extent of the need for care. In 2009, across the OECD countries, on average, 12% of the people

<sup>13</sup> As an indicator of the extent of welfare state services, social protection expenditure per capita was considered. Source: Eurostat, Tab. tps00100

<sup>14</sup> See also Blinkert/Gräf 2009.

aged 65 and more were recipients of long-term care (LTC recipients). According to these statistics, the proportion of people with a “need for care” was highest in Austria, the Netherlands, Norway, Switzerland, Sweden, and Denmark. In contrast, the percentage of people with a “need for care” was very low in Poland, Portugal, Slovakia, Italy, Ireland, and Spain (OECD 2011). From it, of course, we cannot draw the conclusion that people in the first group of countries are more susceptible to the need for care than those of the second group. The statistics are only information on the recipients of institutional services.<sup>15</sup> In countries with less institutionalised services, the scale and proportion of those officially dependent on care reported in the statistics are correspondingly low.

Survey data could in principle be an alternative to official statistics<sup>16</sup> – that is, surveys in representative samples where the respondents are asked about their health status, or whether their ability to participate in a normal life is made impossible or limited by an illness or disability. Such surveys, however, are for various reasons less suited to obtain estimated values of the extent of the need for care because they most often include only those who live in private households. These surveys cannot tell you much about those who receive inpatient care. Moreover, those who are provided with care at homes are probably under-represented because the willingness to participate and often the participation options are very limited. Then, the information is based on “self-diagnosis” in which the respondents have to evaluate which activities they can no longer conduct independently, or whether they feel “strongly” or “less strongly” compromised. Such estimates can vary with the cultural context as well as with individual aspiration levels.

**Extent of the need for care across Europe cannot be compared**

Due to these reasons, the survey of the TooLS project could not ascertain the extent of dependency on care in the partner cities and in the EU member countries, but the focus was on issues that relate to the opportunities provided for the care of those in need of it. Thereby, vast information was collected, which is of significant interest for social planning at the municipal level. In this short summary, we can only report on a selection of questions.

- What resources are available for the 50-plus age group in case of long-term care?
- What kind of care cultures can be distinguished and explained?
- How big is the “subjective security for care” in the case of need for care?

As with all the information collected and provided by TooLS, here too these questions can be answered at the level of EU countries as well as at the level of the TooLS partner cities where the surveys were conducted.

### **Resources that can be mobilised in case of need for care**

Irrespective of how care is defined under different socio-judicial conditions, there is a consensus that a key criterion for long-term care is that a significant dependence on others for assistance arises due to limitations in performing the activities of daily life. Whether and how this dependence is recognised in an institutionalised way depends on the prevailing socio-judicial and politically negotiated framework. In any case, what is crucial is the dependence on the help of others, on their willingness to show solidarity, which in its various forms is an important resource for the people dependent on care.

The availability of the resource of solidarity could be examined in TooLS survey under two aspects.

- First, there is the question whether and to what extent someone has an informal support network. This is an important aspect of solidarity within a social circle,

<sup>15</sup> “LTC recipients are defined as persons receiving long-term care by paid providers, including nonprofessionals receiving cash payments under a social programme. They also include recipients of cash benefits such as consumer-choice programmes, care allowances or other social benefits which are granted with the primary goal of supporting people with long-term care needs. Long-term care institutions refer to nursing and residential care facilities which provide accommodation and long-term care as a package. Long-term care at home is defined as people with functional restrictions who receive most of their care at home. Home care also includes specially designed or adapted living arrangements.” (OECD 2005, p. 162)

<sup>16</sup> An example is the project SHARE (Survey of Health, Ageing and Retirement in Europe).

because the actual or potential helpers are members of the immediate social environment.

- Second, the respondents in the 50-plus generation were asked how they assessed the facilities of the local infrastructure. Here one sees a form of structural or institutionalised solidarity. The infrastructures that are of great importance to people dependent on care were considered.

### *Resources: Social support networks*

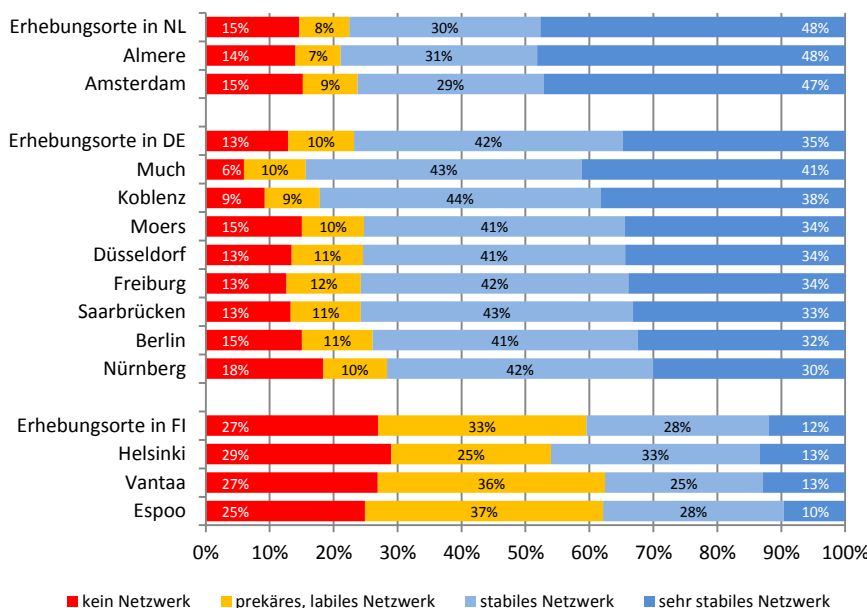
Social support networks are resources that can be used in case of severe disease or the need for long-term care. For our purposes, appropriate indicators could be endorsed only in a very limited way from representative studies in Europe. In order to describe the availability of a support network, an index was constituted in the ToolS project that can detect factual circumstances in a very differentiated manner, but is not comparable with the results of the reference studies. This index takes into account two dimensions.

1. The social proximity of members of a network: spouse/partner – children – distant relatives – friends/neighbours and
2. their dependability, that is, the estimation of the probability of help from members of the network.

Based on that, the following classification was feasible for the ToolS survey locations.

**Social networks as a resource in the need for care**

**Figure 7: Stability of support networks of the 50+ generation in the ToolS survey locations**



Source: ToolS survey, weighted samples

Around three quarters of respondents in the Dutch survey locations reported a “stable” or “very stable” support network. The situation in the German survey locations is estimated to be similar. Only 13% cannot depend on a support network, about a third see themselves in a “very stable” network, and approximately 40% can name at least one helper whom they can “very likely” rely on. The share of respondents with “stable” or “very stable” support networks in Much (84%) is especially high; this proportion (72%) is clearly lower in Nuremberg than the average in the German cities. The situation in the Finnish survey locations is estimated to be significantly different. Overall, 27% reported that they did not know anyone who could help them in case of need for care. And the proportion of respondents who have a “stable” or “very stable” support networks at 40% is significantly lower than in the Dutch and German survey locations.

### Health and nursing care services as resources for people needing care

#### Resources: Infrastructures for health and care

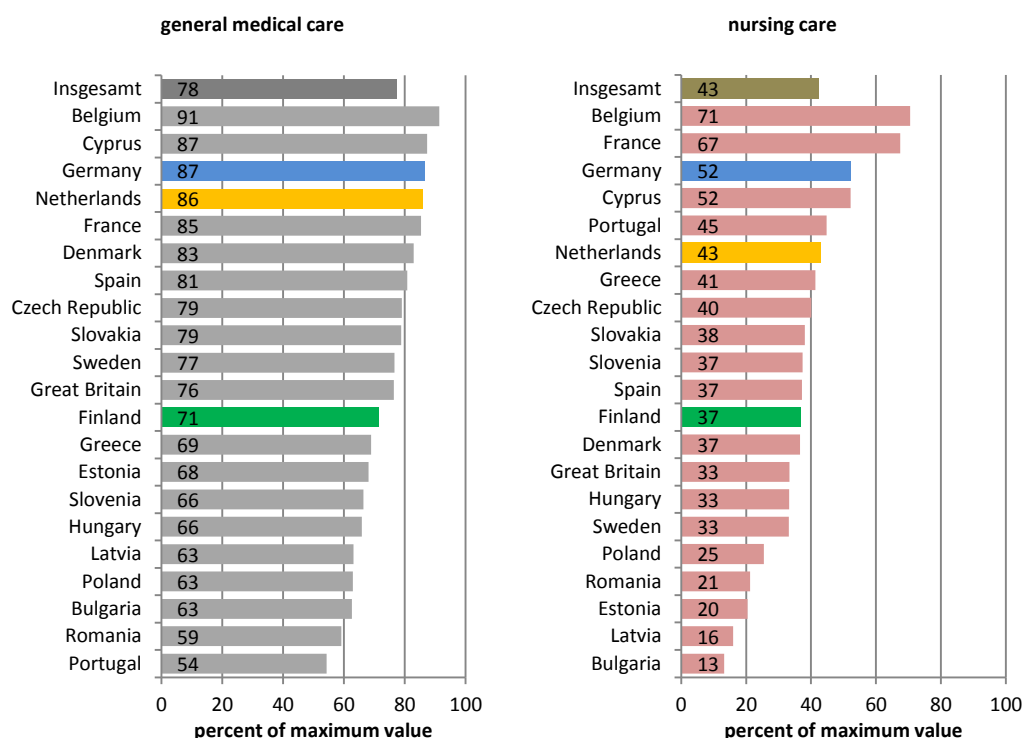
With rising longevity, infrastructures in the health sector and nursing care services in the event of long-term care are becoming increasingly important. They provide security and are also important conditions for active ageing, directly or indirectly. To enable comparisons with European representative studies, the TooLS survey asked questions in the same manner and for the same infrastructures as the Eurobarometer 2007. This involved the evaluation of services under two aspects.

- How is the quality of infrastructural facilities assessed?
- How is the availability of these infrastructural facilities assessed?

Infrastructures in the fields of health services and nursing care for the people in need of care were specified for the evaluation. The assessments in the Eurobarometer and in the TooLS survey can be summarised by various indicators, by which the extent of information and satisfaction with infrastructures for general medical care and nursing care can be described.<sup>17</sup>

Two trends emerge for the infrastructural facilities given for the evaluation. 1) Services required for general healthcare services are known to a high degree, and they are largely positively assessed (“very good” and “rather good”) in terms of quality and accessibility in the EU; 2) much less well known are services in the event of long-term care and the available services are less positively assessed than those for general healthcare.

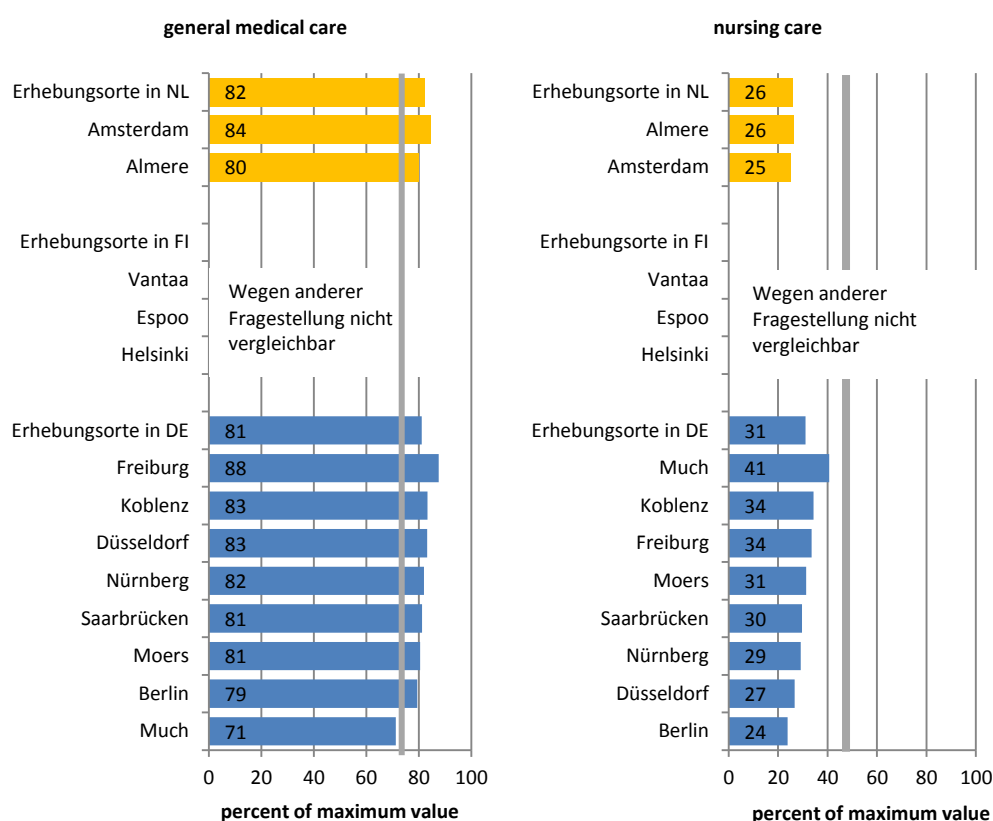
Figure 8: Satisfaction with the general medical care and nursing care for the needy



Source: Own calculations based on Eurobarometer 2007

In the TooLS survey locations, general medical care is much more positively assessed than nursing care for the needy. The differences between the survey locations and even the deviation from the average of the EU countries are low. The assessment of nursing care for the needy is significantly less positive than the EU average and the extent of variation is also considerable: 24 (Berlin) to 41 (Much).

<sup>17</sup> The maximum possible values were transformed into the value range 0 to 100. 0 = none of the offers is assessed with “very good” or “good”; 100 = all offers (100%) are assessed with “very good” or “good”. The extent to which people are informed was assessed by the frequency of responses like “unknown” and “do not know”.

**Figure 9: Satisfaction with general medical care and nursing care in the ToolS survey locations**

Source: ToolS survey, weighted sample

### Care cultures in EU countries and in the ToolS survey locations

In addition to resources – support networks and infrastructure – guidelines for the provision of care to the needy also play an important role. Expectations and desires, and preferences and willingness to take on commitments for care play important roles. Here too there are resources; one might speak of “cultural resources”. We therefore grouped together the dispositions and orientations collected in the ToolS survey under the concept of a “care culture”.

- The desires and expectations for one’s own nursing care when needed.
- The willingness to provide care to loved ones when they are in need.

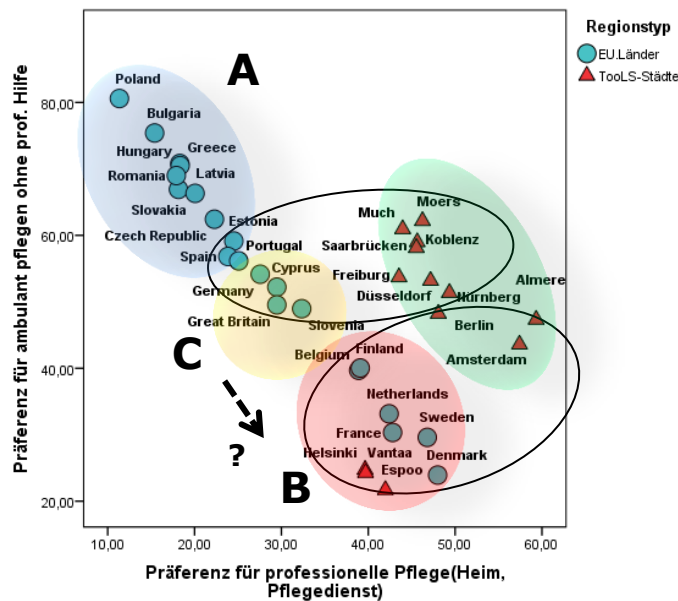
Figure 10 shows how the EU countries as well as the ToolS survey locations are distributed over two axes, by which basic preferences for dealing with care can be illustrated.

- Preference for outpatient care without professional help.
- Preference for provision of professional support (nursing services, including home care).

Thereby European care cultures show a substantial differentiation.

**Care cultures: Concepts for a provision of care for the needy and for the care of dependents**

Figure 10: Care cultures



### 3 Types of care cultures

Three types of care cultures can be very clearly distinguished.

#### *Type A: Care provided by family*

This type corresponds to countries where a preference for the professional care of parents – either through a service or care at home – is rarely expressed and where professional care is seldom desired or expected even in their own need for care. This type corresponds to Poland, Bulgaria, Romania, Hungary, Greece, Lithuania, Estonia, Slovakia, and the Czech Republic, and a little less significantly, to Spain and Portugal.

#### *Type B: Care through infrastructural facilities and services*

This type is the counterpart. For the provision of care for parents and for oneself when needed, alternatives such as relatives providing care without professional assistance are relatively rarely selected. One decides very often for a provision of care through professional service providers and infrastructures. These countries primarily include Denmark, Sweden, the Netherlands, and France, and somewhat less significantly, Finland and Belgium.

#### *Type C: Mixed type – Care culture in transition?*

In this type, the percentage of those who prefer professional care for themselves or for family members is relatively high, but at the same time a clear preference for outpatient care without professional assistance is also observable. This type mainly includes Germany, Cyprus, and the UK. In the “care culture in transition”, a change is conceivable in the direction of type A or type B. But it is most likely a shift towards type B, that is, a reduction in the proportion of those who want to provide care or be cared for without professional help and an increase in the importance of care arrangements with professional support. The direction in which a change in the care culture will take place also depends on how the influencing factors acting on care culture evolve – especially socio-judicial regulations defining the extent and nature of the welfare state and the socio-cultural changes that can be described as mobilisation, including the social definition of women’s roles and lifestyles in terms of active ageing.

The preference for professional care is much more pronounced in the ToolS survey locations than in the corresponding EU countries. This is true both for outpatient care with nursing staff, and for care in a nursing home. This has several reasons. The ToolS survey was conducted in cities, that is, urban orientations and lifestyles are also reflected in the care preferences. The Eurobarometer was carried out in 2007, and the ToolS survey in

2010. It is therefore possible that orientations have changed in the meantime, and that preferences for professional care have gained more importance in 2010.

The Finnish survey locations, Helsinki, Espoo, and Vantaa, conform to type B. So there is a clear preference for care arrangements with professional support and the rejection of care options without professional help. The same also applies to the Dutch ToolS locations, Amsterdam and Almere, but here preferences for outpatient care without nursing have a somewhat greater importance.

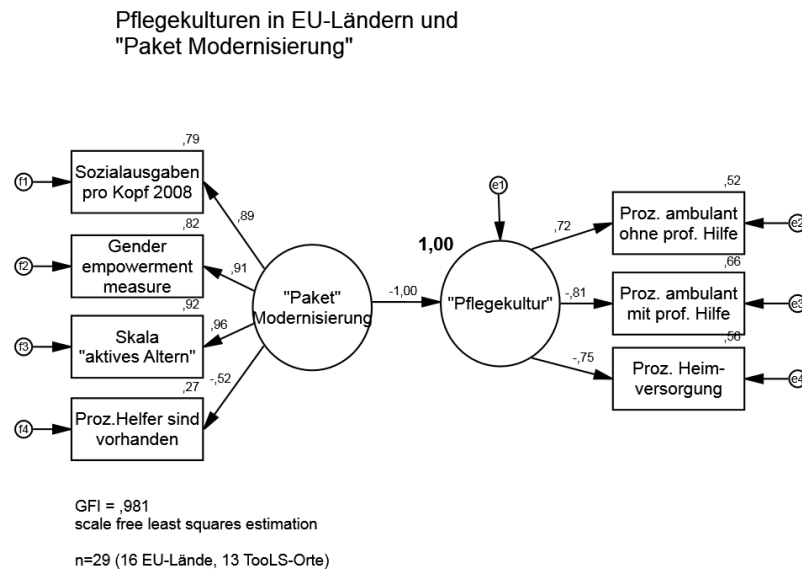
The German survey locations differ significantly from this pattern. They correspond most closely to type C, with relatively great importance for professional care, but at the same time also a clear preference for outpatient care through family members without professional help. It seems plausible to us to talk of a care culture in transition in the German survey locations. The still very high proportion of people in need of care who are not provided care at home and without nursing (around 60%)<sup>18</sup> is likely to decrease significantly due to the demographic and social change. There is significant differentiation within the group of German ToolS locations. Extremes are Much and Moers on one hand and Nuremberg and Berlin-Friedrichshain on the other. While in Much and Moers the percentage of those who prefer outpatient care without professional support is relatively high, this proportion is significantly lower in the cities of Nuremberg and Berlin-Friedrichshain. It may be assumed that these differences can be explained by differences in urbanisation, which are also related to differences in the availability of support networks and to differences in lifestyles.

### **Proposals for explaining the features of care cultures in European countries and ToolS survey locations**

Several correlations are offered for the explanation of the characteristics of care cultures in European countries and municipalities. First, the resources people in need of care can expect on an average in the EU countries and ToolS locations is significant. Resources are mainly infrastructures to provide long-term care for the needy and social support networks. Infrastructures in countries and cities in turn refer to the welfare state context that determines the extent to which infrastructural facilities and public resources are available for the people in need for care. A second group of factors has to do with mobilisation processes. The indicators considered for this are, first, the social situation of women, which, inter alia, can be described by the Gender Empowerment Measure (GEM) of the Human Development Report, and second, the interest and the opportunity for a lifestyle in terms of active ageing. In a structural model, these four conditions can be summed up in a “socio-cultural modernisation package” and can fully explain the existing diversity of care cultures.

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<sup>18</sup> Care statistics, Germany.

**Figure 11: Structural model for explaining the dimensions of care cultures**

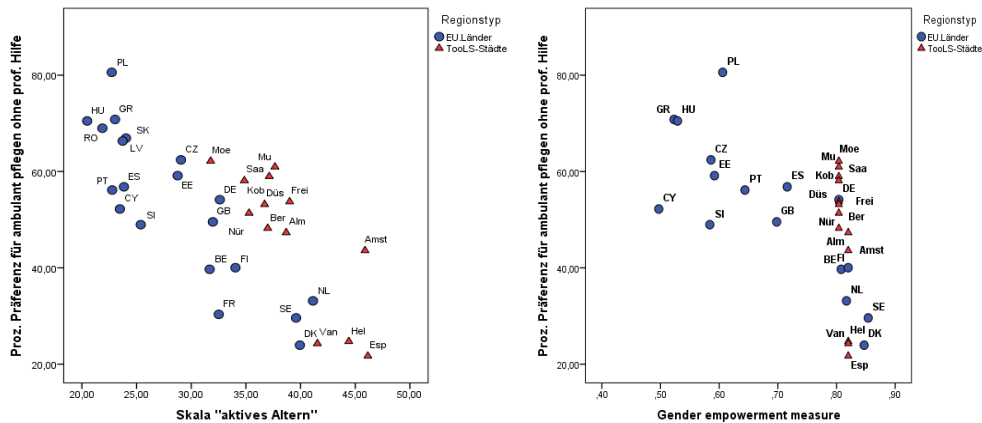
The structural model describes the following relations.

- The higher the social spending,
  - the lower the probability that outpatient care without professional help is preferred (standardised total effect: -0.64);<sup>19</sup>
  - the greater the likelihood that outpatient care with professional help (0.72) is preferred; and
  - the greater the likelihood that home care (0.67) is preferred.
- The better the opportunities of women in gainful employment and in the public sphere (GEM) are,
  - the lower the probability that outpatient care without professional help is preferred (-0.65);
  - the greater the likelihood that outpatient care with professional help is preferred (0.73); and
  - the greater the likelihood that home care (0.68) is preferred.
- The greater the importance of the active ageing lifestyle is,
  - the lower the probability that outpatient care without professional help is preferred (-0.69);
  - the greater the likelihood that outpatient care with professional help (0.78) is preferred; and
  - the greater the likelihood that home care (0.72) is preferred.
- The more stable the support networks on average are,
  - the greater the probability that outpatient care without professional help is preferred (0.37);
  - the lower the likelihood that outpatient care with professional help is preferred (-0.42); and
  - the greater the likelihood that home care (-0.39) is preferred.

Perhaps, it is not surprising that social spending and the availability of infrastructural facilities are of great importance for the design of care cultures. The great importance of social mobilisation processes that have been taken into account by the Gender Empowerment Measure and the active ageing index in the model, however, requires comment.

<sup>19</sup> The overall effect results from the multiplication of the individual effects - e.g.  $0.89 \times -1.00 \times 0.72 = -0.64$



**Figure 12: Preference for outpatient care, active ageing and GEM**

For the organisation of the care cultures, the two indicators have a very similar meaning. Both – increasing opportunities for women and active ageing – are associated with a gain of options<sup>20</sup> and thus also with decision-making options. This also affects the preferences for care types in case of the need for long-term care. Thereby so-called “opportunity costs” play an important role. The decision for one option can be associated with restrictions on other options. Regarding the situation of women, this means that favourable opportunities for gainful employment and a public role are associated with high opportunity costs if commitments for the provision of care are undertaken. At least that is the case if the care of relatives stands in the way of an occupation. The same applies to active ageing. If such a lifestyle is highly desirable and if it also provides attractive opportunities, then the assumption of commitments for care can be connected with opportunity costs, that is, the waiver of such opportunities. Therefore, both indicators correlate very highly with preferences for professional care in case of the need for care.

### Subjective security for care

An important question is how securely the provision for care is assessed in case of need. For this, indicators could be defined and profiles created for the ToolS survey locations. The indicators and profiles describe from different viewpoints the “security for care” when in need of long-term care. It is not about the “objective” security for care, but the “subjective” security for care, which is based on estimates, as they could be determined on the basis of the ToolS survey.

**Indicators and profiles for the assessment of one's own security for care in case of need**

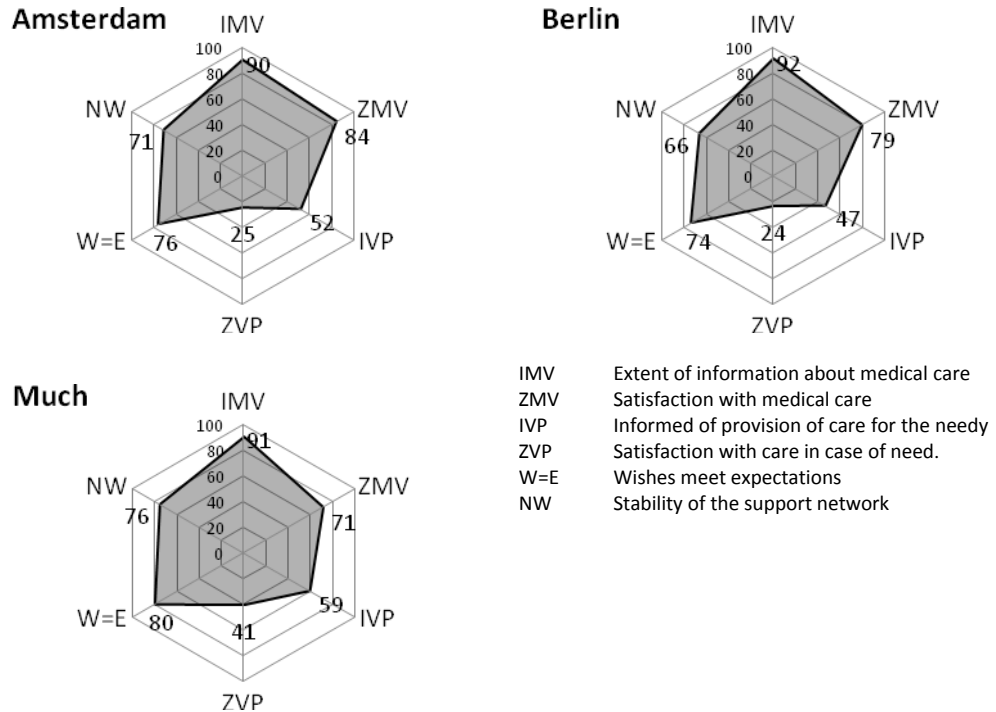
The indicators and profiles are based on the following assumptions.

- The subjectively perceived security for care is greater if the wish for a particular type of care differs less from the expectation – or the less what is “worth considering in any case” differs from what “is very likely to happen”.
- Security for care is perceived in the extent to which one has a stable support network.
- Security for care also depends on how well one is informed about infrastructural facilities and services for the provision of care for the needy.
- The subjectively perceived security for care will be greater the higher the assessment of the quality of infrastructural facilities and services.
- The subjectively perceived security for care is greater the better one is informed about infrastructural facilities and services offered for medical care.
- The perceived security for care is greater the higher the estimation of the quality of infrastructural facilities for medical care.

<sup>20</sup> See also Gross 1994

The profiles of Amsterdam, Berlin-Friedrichshain, and Much shown as examples reveal that both similarities and differences can be observed in terms of the subjective security for care in the TooLS survey locations.

Figure 13: "Security for care" profiles in the TooLS survey locations



For the Dutch and German survey locations, the following is clear.

- 1) The provision of care is secure for a majority under the aspects of information on and satisfaction with infrastructural facilities and general medical care.
- 2) A relatively high degree of security for care is also achieved from the viewpoint of compliance of wishes and expectations as well as the availability of a support network.
- 3) The conditions in terms of infrastructure for the provision of care for the needy are significantly less favourable. Only about half are informed. The least secured is the provision of care when it comes to satisfaction with care infrastructures in terms of quality and accessibility. Only about a quarter to a third make positive assessments. For this indicator, we observe a considerable range of variation, which extends from just 24% satisfied people (Berlin) to 41% (Much) in the German survey locations. In both Dutch survey locations, only about a quarter is satisfied with the infrastructures for care.

### 3.3. Provision of care for people in need and active ageing

#### Relationship between active ageing and the provision of care for people in need

The TooLS project deals with two subject areas that are of great importance for how demographic change is managed and how its opportunities are used – it is about the provision of care for people in need of care and the possibilities for older people to lead an active life. The two topics are closely correlated. On the one hand, it can be assumed that active ageing is associated with an increased willingness to participate in civil society. It is questionable, however, whether this commitment will also be manifested in an increasing willingness to participate in “close social solidarity”, that is, a willingness to care for a close family member if he or she needs it. Active ageing is also connected to a gain in opportunities to shape one’s own life situation. The acceptance of commitments to provide care to a needy person, however, is related to opportunity costs, which means that one has to forego some of these opportunities to a certain and not inconsiderable extent.

The EU countries and the ToolS survey locations show a very clear correlation between the degree of activation of the 50-plus generation and the willingness to have its own care without professional assistance. In countries with a high degree of activation this willingness is much lower than in countries with a low degree of activation.

Here it becomes clear that demographic and socio-cultural change must be seen as a package. The traditional healthcare structures essentially secured by the family are increasingly losing their effectiveness. At the same time, the attitudes and lifestyles of people change towards greater demands for a self-determined and active life, which in turn is not very compatible with the solidarity practised in the immediate social environment.<sup>21</sup> Due to a developed welfare state and outpatient care through appropriate infrastructure, institutionalised forms of solidarity present themselves as a functional equivalent for modernised societies. Under these conditions, the proportion of those who are willing to provide care at home does not generally decrease with the degree of activation of the 50-plus generation in the ToolS sampling locations, but one can observe a significant increase in this willingness if there are possibilities for professional support for care (see also the relationships in the structure model, Figure 11). It would not be appropriate to speak of an “end of solidarity”. However, forms of solidarity have changed and the solidarity towards needy relatives does not disappear if it is institutionally supported in a manner that matches social development.

Measured against the criteria defined in the ToolS project, the subjectively perceived security for care is “moderate” in the sampling locations. In a value range of 0 to 100, the ToolS locations have an average value. The trend shows that the subjective security for care is larger in smaller places such as Munich than in big cities like Berlin-Friedrichshagen or Amsterdam. Assumptions about future development can be made for the five indicators considered with different perceptions of security and plausibility. The proportion of those who feel secure because of a stable support network (indicator: *helper is available*) may potentially drop if assumptions about the development of informal care potential prove to be accurate.<sup>22</sup> A decreasing number of people in the age group of 30 to 65 and an increasing number of childless, elderly people living alone are expected and thus a decreasing number of older people who can count on a stable support network. It is hard to estimate how the other indicators for the assessment of subjective security for care might develop. They relate to infrastructures and services – the extent of information about them, the satisfaction with services, and the correlation of wishes with expectations. Two aspects always play a role here. First, the security for care depends on what information options, offers, and services are actually available and the degree of their quality. Second, subjective services are significant. What efforts are being made to be informed? What are the requirements on which the assessments are based? How do requirements for care change? Whether the subjectively perceived security for care increases or decreases depends, on the one hand, on the care policy context and on changes at the local level – whether there are sufficient and good information services, whether care infrastructures are available in good quality and sufficiently, and whether these services also consider the changing requirements for care and care options. On the other hand, the subjective security for care also depends on whether one actively engages in the topic of care, utilises the offered information, and tries to estimate the quality of services. Subjective security for care is also dependent on the fact that one becomes an “active consumer”.<sup>23</sup> This also means that one actively takes a stand for one’s own care needs and, for example, joins an initiative that wants to realise the most frequently expressed desire for a facility close to home and similar to a living group. It would also include the participation in groups that advocate quality assurance in the provision of care at the local level. These are just a few examples of how the prevalence of the active ageing lifestyle could contribute to an increase in subjective security for care.

<sup>21</sup> See also Blinkert 2009.

<sup>22</sup> See also Blinkert/Gräf 2009; Blinkert/Klie 2004.

<sup>23</sup> See also Gartner/Riessmann 1978.

**Comparing services of administrative agencies and service providers in the communities**

## 4. Results of the administration and service provider survey

The TooLS project is meant to help cities in particular to better cope with the challenges of an ageing population through comparison with other municipalities. In addition to the analysis of the demand situation, a comparison of the range of services is also required. To supplement the findings obtained from existing sources and the survey of the over 50-year-olds, options had to be tested in the project to survey urban administrative agencies and service providers in the cities.

The starting point was the complementary objectives to create conditions that enable an ageing population (1) to lead an independent life in their familiar environment as long as possible, which is particularly supported by the aim (2) of promoting active ageing, and on the other side, (3) to ensure that seniors receive the necessary assistance, support, and care at home or in institutions if they need it.

Given the great diversity and complexity of public and private services that can be used by seniors, an attempt was made to categorise these services according to the areas of need, not according to the services on offer, so that they could be later assigned to the demand situation explored by the citizens' survey. The following categories were created, and as it turned out, they can more or less also be found in the information related to seniors offered by the cities.

- Livelihood
- Housing
- Legal security
- Health, care
- Practical care in daily life
- Mobility (physical mobility, footpaths, and public transport)
- Protection against assaults
- Participation (volunteer work, education, recreation, and sports)

Among the many senior-related offers and services, those that are important can be especially influenced by municipal administrations by initiating and coordinating them, making them (more easily) accessible, giving them a framework, or designing them.

**No quantification of service offers possible**

When a first attempt failed to quantify the range of services by the number of staff employed due to the complexity of combined services, a second attempt was made reducing the question to who was active in which areas,

- the municipal administration
- the state
- charities
- private service providers,

and in each case by assigning the prevailing category of activities “counselling”, “practical help for individuals”, or “comprehensive planning and coordination”.

The result arranged in the form of an indicator board gives a good overview of the specific service spectrum of a city compared with others.

During consultations with the test cities of Freiburg, Nuremberg, Amsterdam, and Helsinki, the information policy of the cities turned out to be an additional area of interest. Does the city publish an overview of service offered, and what information do these provide?

**Online survey of service providers' performance profiles?**

A questionnaire on the performance profile of selected services, such as job centres, the public health department, training centres, and the housing agency, was met with a positive response by institutions surveyed in Nuremberg on a trial basis. It is useful to develop an online survey of this and summarise the findings to offer comprehensive online information to citizens.

The importance of voluntary work obvious in the citizens' survey led to the proposal of a questionnaire module that involves on the one hand the promotion of the city for seniors-

related volunteer activities, and on the other for volunteer activities by the seniors themselves. However, this could not be tested before the end of the funded project.

Two other modules were related to the planning and coordinating function of the city administration itself. First, this concerned the planning and coordinating bodies and institutions themselves and second, the availability of quantitative information for seniors-related planning and policy. The list of competent authorities and bodies is useful as an overview and as contact details from where all the information can be requested, which in all its diversity would have exceeded the scope of the project.

Quite obviously, the surveyed central offices for services for the seniors have more or less current basic statistical information at their disposal. But the test surveys gave rise to the hypothesis that this information sheds light on the different sectors with varying intensity and topicality and generally does not result in an overall planning concept. At least in the participating test cities, there was an administrative body for seniors' issues, but it usually lacked the capacity for a comprehensive concept, coordination, and planning for this important area of demographic change. This may also explain why in the test cities the patchy planning information was often not (yet) perceived as a serious weakness by these bodies. Accordingly, an attempt failed to get from the respondents an estimate of the expected trend of demand and supply for the individual areas of need.

In the course of the TooLS project it became apparent that the concepts and tools developed in this part of the project must be regarded as a preliminary study in which the possibilities and limitations of such a comprehensive survey are made clear. The options are to collect objectifiable information on the infrastructural and service facilities in addition to the citizens' survey. The limits have to be recognised in that such a survey involves a considerable amount of work for the participating municipalities. Other limits became apparent in the conceptual area. The terms for describing services and offers are not always clear and consistent. Distinctions in the definitions are also difficult. The service offers of sports clubs or cultural activities can, for instance, be of great importance to active ageing, but cannot be assigned specifically to a "senior-friendly infrastructure". Difficulties with the differentiation of services can be also observed in the municipal administration, where – particularly in smaller municipalities – tasks related to seniors are handled in conjunction with other activities.

For future surveys it will be important to develop a concept that is both sufficiently differentiated and also sturdy enough to compensate for the clarity lacking in practice. Here, care should be taken that the survey does not cause too much of a burden to the local authorities and that surveys can be carried out at a local level, ideally within the framework of an already planned assessment of the infrastructure for seniors. Experiences from the TooLS project and the concepts developed may be helpful in the development of a general purpose survey or at least a partially standardised survey facilitating comparisons also between municipalities.

The modules of the questionnaire developed for the test surveys and their results can be viewed at <http://tools-project.eu>.

**TooLS provides important experiences with the survey of services of administrations and service providers**

**Revision of the concept necessary for future surveys**

**Urban Audit as a source of European urban-related basic data and background information**

## 5. Use of statistical data (Urban Audit)

The Urban Audit is almost the only source that provides comparable information on the quality of life in the cities all over Europe covering nearly all spheres of life. As part of the TooLS project, this information was taken to reveal the differences in the demographic, economic, ecological, social and cultural situation and to assess the respective conditions of the demographic change in the cities.

The relevant characteristics of the pilot cities of TooLS were selected from a range of more than 300 indicators of over 600 European cities and transferred to the database of the project. As the Urban Audit did not cover all pilot cities of the project, their characteristics were provided by these cities themselves or replaced by data from other comparable cities. In addition to the detailed age structure of the population, household composition and the labour market, relevant aspects were the safety in the city, public transport as well as cultural facilities. The data of the Urban Audit can be downloaded free of charge from Eurostat's database. They are also made available for the German cities via <http://www.urbanaudit.de>.

The surveys on the subjective assessment of the quality of life conducted by the Directorate General for Regional Policy and Urban Affairs of the EU every three years are an important addition to the "objective" secondary statistics of the Urban Audit. Unfortunately, they are only available for a sub-sample of cities – in Germany at least for 26 large cities that were included in either the perception surveys of the EU or in coordinated surveys of the German urban community. As the micro data were exchanged with the EU, specific statements are possible here according to demographic groups, particularly for the age group of over 50-year-olds.

This way, the data provide a factual basis for the assessment of the (growing) need for services for the seniors as well as useful background information for the analysis of the TooLS citizens' survey and the survey on administrative and non-governmental service providers. At present, the data refer to years up to 2010, as more up-to-date results will not be available before the end of the project.

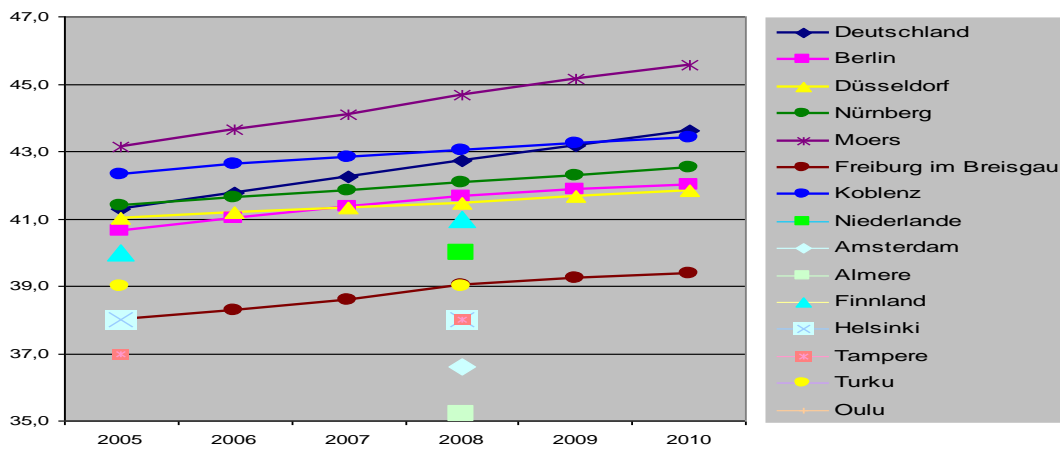
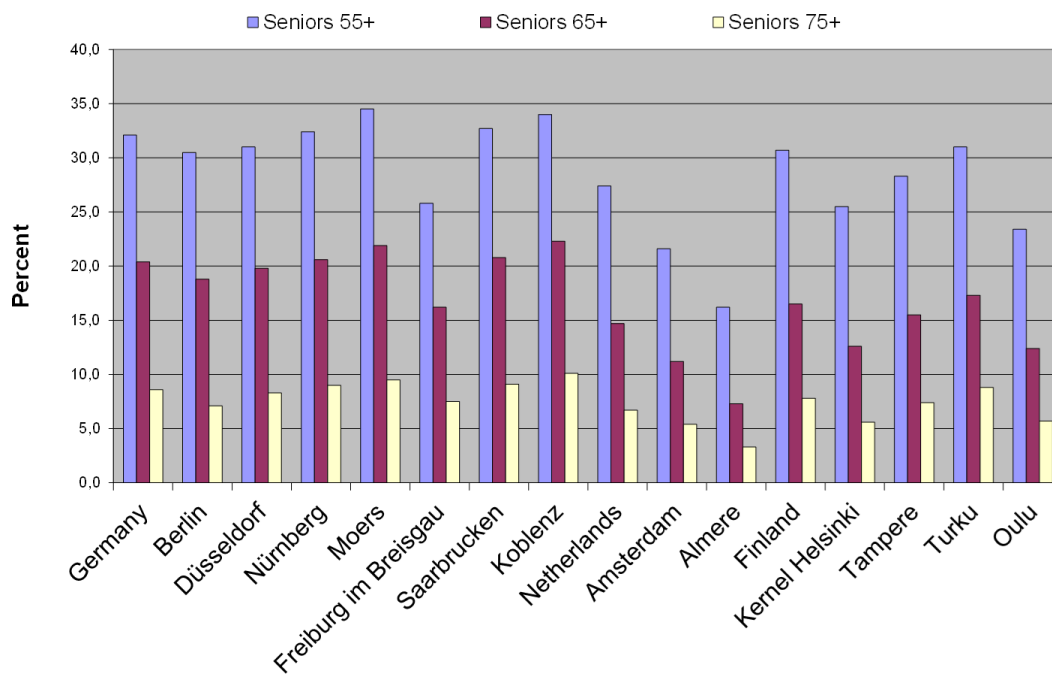
From a purely quantitative point of view, the ageing population poses challenges to the cities in different magnitudes. In 2008, people over 55 made up between one third and one sixth of the total population. In university cities and centres with a high proportion of mobile, mostly younger people, like Freiburg, Amsterdam or Helsinki, the proportion of seniors is relatively smaller than in cities located in the catchment area of this kind of centres or are possibly chosen as places for retirement.

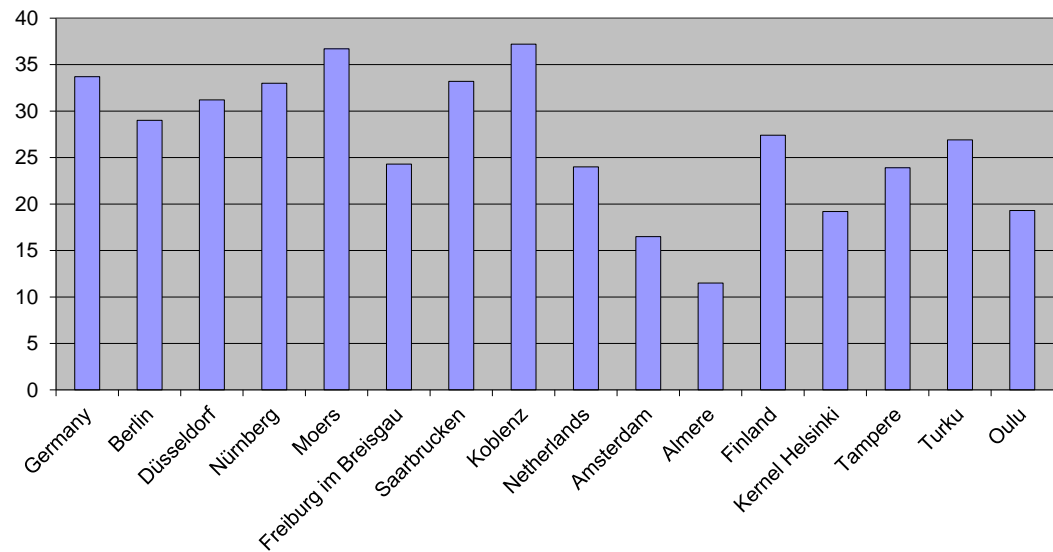
In contrast, the new city of Almere in the Netherlands has a very young population. The percentage of older people in cities is mostly below the national average, but it is discernibly above it in the German cities of Koblenz, Saarbrücken and Moers.

**Increase of average age in German cities since 2005**

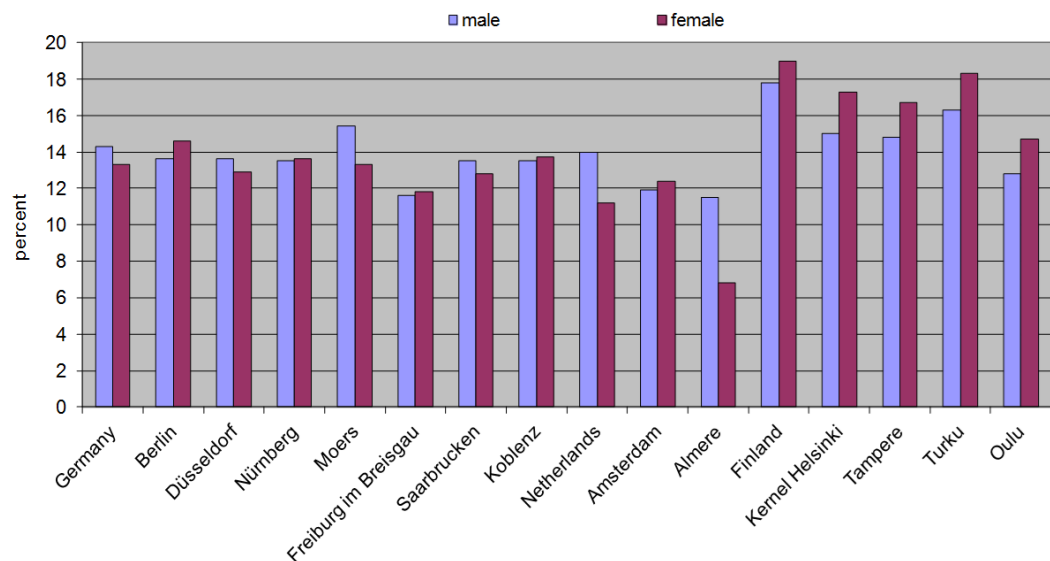
In all German cities, the median age of the population has increased considerable between 2005 and 2010, except in Moers, but less rapidly than in Germany as a whole. Thus, even Saarbrücken's median age of the population has reached the national average now. The median age shows the same inter-city differences in the age structure. Freiburg, in 2010, is on average by two years younger than the other German cities included in the comparison. The general upward trend indicates the growing pressure of the problems, advising the cities to seriously take account of this challenge.

The economic performance required to tackle this challenge has to be provided by the population of working age. The old-age dependency ratio measures the purely numerical load and expresses how many people of retirement age (> 64 years) need to be "taken care of" by 100 persons of working age (20-64 years).

**Figure 14: Median age of population from 2005 to 2010 in selected cities****Figure 15: Percentage of older people in the total population in selected cities in 2008**

**Figure 16: Old-age dependency ratio: people over 64 per 100 people from 20 – 64 years in 2008**

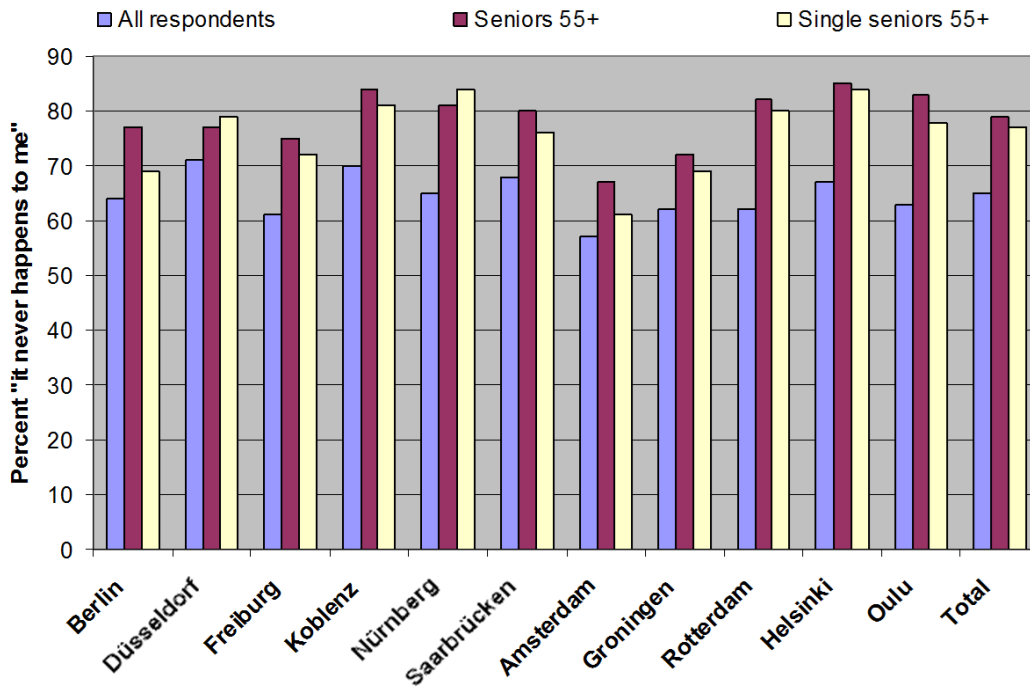
A part of the over 55-year-olds still participate in working life, though in Germany and the Netherlands at a slightly lower proportion than in Finland. There, the share of over 54-year-old women who are still working is higher than the corresponding proportion of men who are still part of the labour force.

**Figure 17: Percentage of older working people (> 55 years) in selected cities in 2008**

Unemployment rates among the over 54-year-olds differ even more significantly among the countries and the compared cities than the overall employment rates, with it being high in Berlin, but also in the Finnish cities, where women are more affected than men (see <http://tools-project.eu>). As the survey on the quality of life connected to the Urban Audit shows, the elderly had on average lower economic concerns than the adult population. This may be due to lower demands, and partially also because they are ashamed of being poor. Anyway, they indicated more frequently (> 75%) than the overall respondents (65%) that they never had problems to pay their bills at the end of the month.



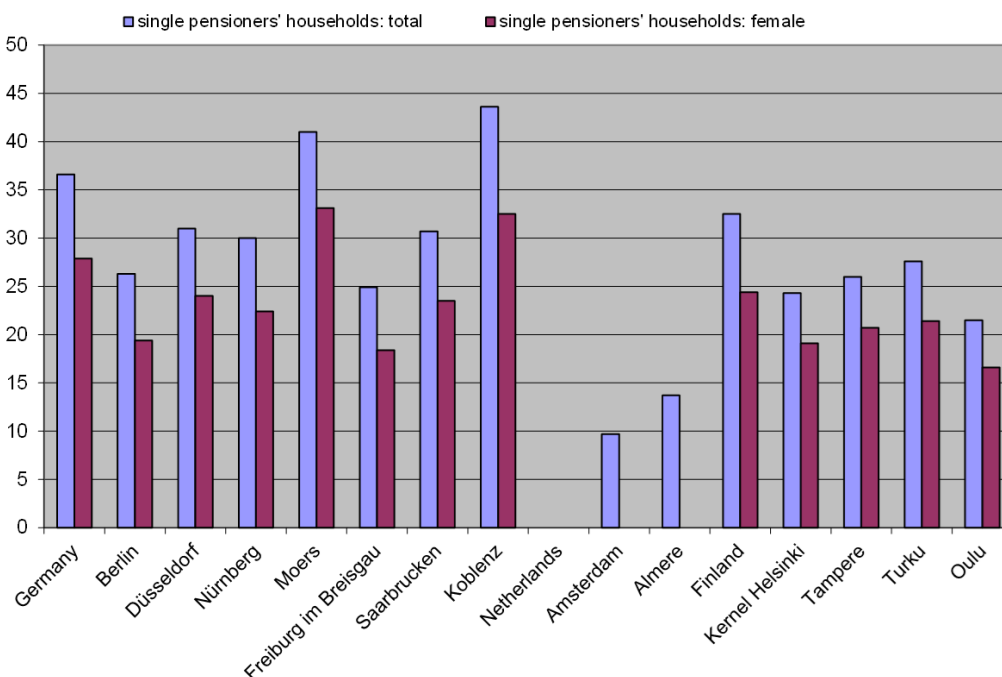
**Figure 18: “It is difficult to pay my bills”. EU Perception Survey and Coordinated Survey in selected cities, Nov/Dec 2009**



Whether one needs to worry about the everyday care of seniors also depends on whether they are living alone or together with one or more persons in a household. Information from the micro census shows not only a growing number of people living alone, but also that these people are to a large extent the elderly. They will most likely be increasingly dependent on the “distant care” of society described in the citizens’ survey, which will be difficult to finance from the decreasing resources of the pension system.

**Growing proportion of elderly people living alone to a considerable extent**

**Figure 19: Percentage of single pensioners’ households in all single households in selected cities in 2008**

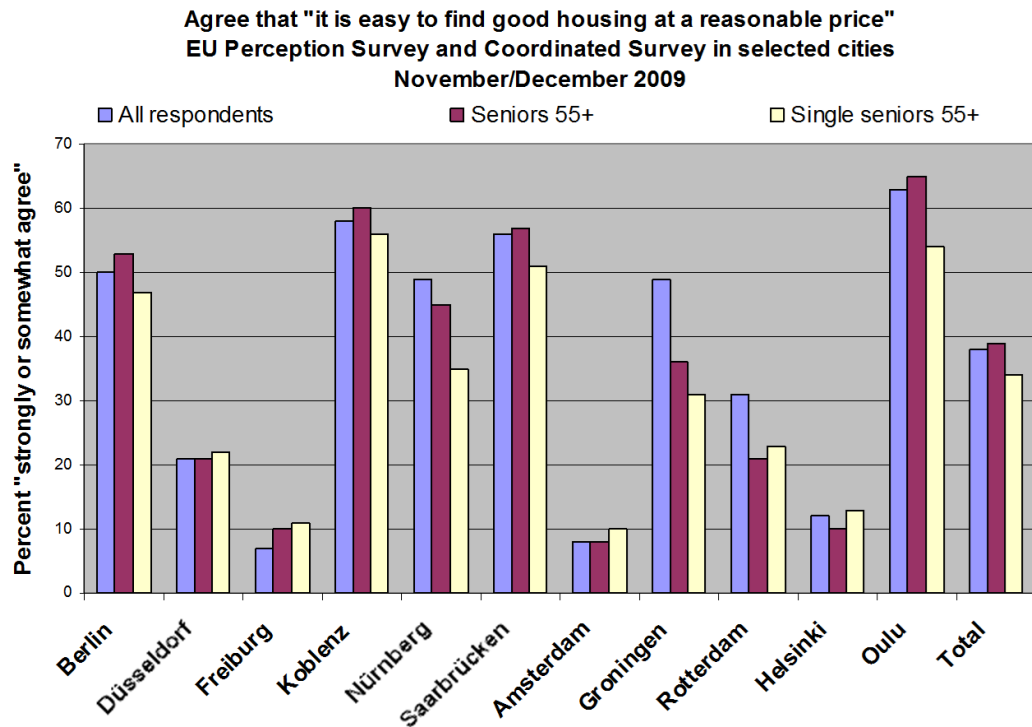


In the German cities compared, 30% of single-person households are mostly those of people of retirement age. Three-quarters of these single-pensioner households are those of

single women. In the Finnish cities, where the share of single households is generally lower, this ratio is even four-fifths.

While more than three-quarters of all respondents and of the seniors in the German and Finnish cities declared in the EU survey that one can trust people, that affirmation is significantly less, at only 50-60%, among seniors living alone in Amsterdam and Rotterdam.

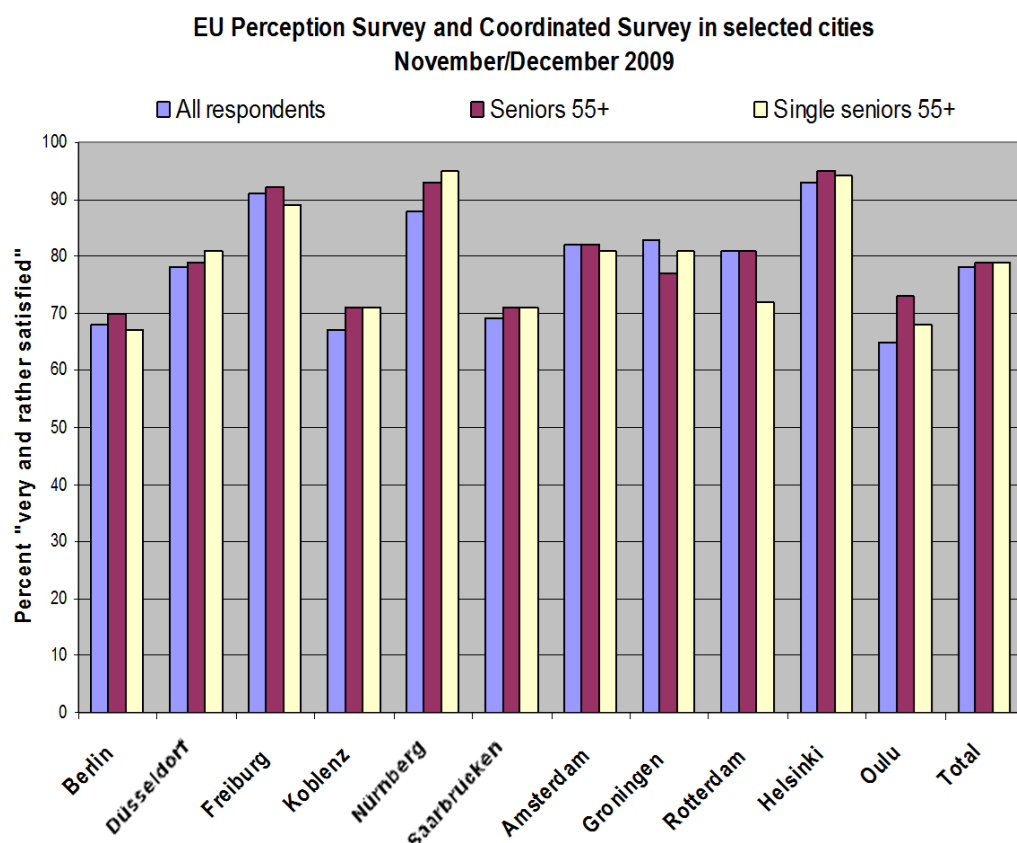
**Figure 20: Difficulties to find good housing**



#### **Help required by seniors when changing residence**

Although seniors voluntarily move house much less frequently than younger persons in training or people who work, the loss of a partner or the amount of rent can still enforce a change of residence. The serious differences between cities in the statement "it is easy to find an apartment here at moderate prices", indicate a significant challenge to local social services to help the elderly to find an adequate residence. This support is particularly advisable given that this way larger residences are vacated for younger families. Cities such as Düsseldorf, Freiburg, Amsterdam, and Helsinki face special challenges in this respect.

Due to decreasing mobility of the elderly, the location of the residence plays an important role. Although satisfaction with the provision of public transport is quite high (usually > 80% of the respondents and also of the elderly), there are also noticeable differences between cities. Berlin, Koblenz, and Saarbrücken are judged worse by their citizens than the other cities, judgements that may also be due to prices or quality of service.

**Figure 21: Satisfaction with public transport**

The collection of “objective” comparative data in Urban Audit, as well as the survey on the quality of life in European cities, is regularly repeated. This potential of comparable data across Europe is intended to be made available continuously for seniors-related planning and policy in the cities – provided that enough cities get involved. In future, the respective current data shall be automatically transferred to the TooLS database on the ageing population for the cities participating in the Urban Audit, thus helping to create the intended specific information pool.

The information service can be expanded, well beyond the current range of data, at least in the data pool on the German cities. Here, the population and household projections of the German municipal statisticians could be integrated, thus creating a methodologically certified basis for urban development planning. Following Baldo Blinkert’s methodological concepts, the cities of Cologne and Freiburg have already merged survey results and objective data in scenarios on the evolution of the need for care and thereby provided examples for further planning support by the instruments developed in TooLS.

**Integration of regularly updated Urban Audit data in the TooLS information system**

## 6. Further development and deployment of DUVA as a technical information management system of TooLS

### The KOSIS association DUVA<sup>24</sup>

**The DUVA network: 63 cities and institutions - a jointly developed information management system.**

DUVA is a voluntary association of German municipalities and other public institutions. DUVA's purpose is to develop and offer an information management system of the same name on the basis of metadata for self-use. Since its inception in 1989 as a non-commercial community project, DUVA has programmed various individual technical applications and integrated them in a technical system based on uniform principles. All work steps of information management (collection, processing, analysis, and presentation) are covered by the DUVA system. The practicality of the offered features is maintained through the principle of "by users for users". The focus of the mainly municipal users is the local level, that is, information that is collected and used by cities and towns at different aggregate levels. The aim is to make available information of any provenance to the widest possible range of users and prospective users, without neglecting existing scientific, technical, and safety standards.

DUVA is funded by contributions of the associated cities and institutions as a self-help association. The city of Freiburg represents the DUVA association to the outside. DUVA currently has 63 members. Among these are mainly municipalities of different sizes, but also local data centres, federal and state institutions, and universities. The DUVA association is part of the self-help structure in German municipal statistics and is professionally represented by the Association of German Municipal Statisticians and thus is linked to a firmly established network of local cooperation.

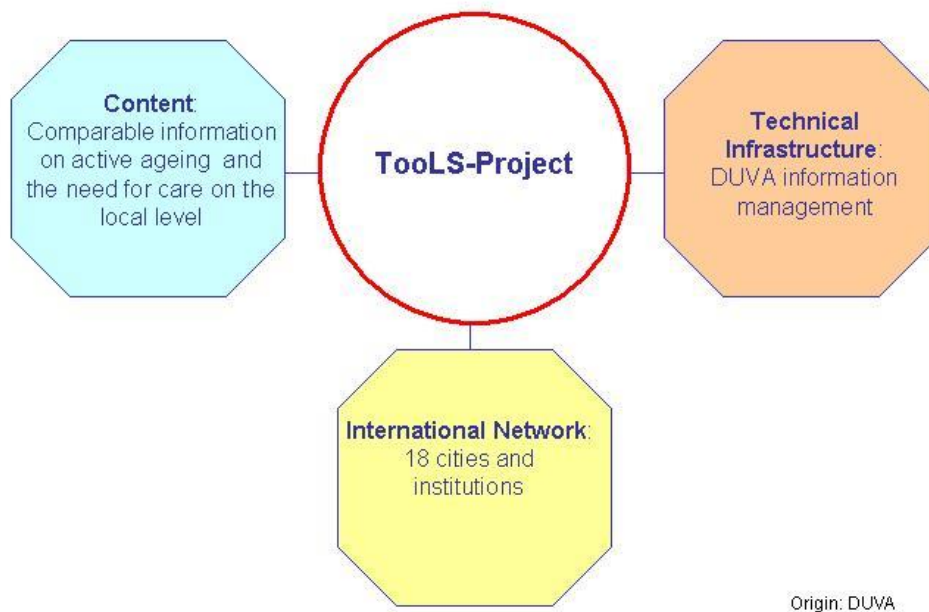
DUVA participates as a project partner in the EU-funded project TooLS. The funds obtained thereby directly benefited new and further development as well as the testing of our information management system. All new and further developments realised with the support of the EU are fully available to our user network.

### The technical infrastructure of the TooLS project, the surveys conducted, and the TooLS information portal

**5 European project partners, 13 European cities, one technical system – a single network of knowledge and technology.**

In addition to software and hardware, the tools of a statistician also consist of professional and appropriate survey instruments and evaluation concepts. These have to be implemented in appropriate technical instruments and, together with the technology used, require practical testing. The objective of the EU for providing primarily technical means for the development of comparable surveys at a local level has therefore been extended by the TooLS project team to include the design and cross-border implementation of standardised surveys and data collection.

<sup>24</sup> <http://www.duva.de>

**Figure 22: Overview of the ToolS project**

Active ageing of the population in the 50-plus age group as well as their experiences with and expectations of provisions and old age care were addressed as partial aspects of demographic change. In addition to this, the citizens' survey data with appropriate content from the stock of Urban Audit was incorporated into the data collection of the ToolS project. The data collection was completed by surveys on administrative departments and service providers with the target group of the 50-plus generation.

The key technical element of the ToolS project was an information portal accessible on the Internet for retrieving the information gained at the local level and the access to the required software. The necessary technical infrastructure was provided by the KOSIS association DUVA in the form of its information management system by the same name and further developed during the project period. DUVA has its own dedicated server on which the technical infrastructure of the ToolS project is provided. The technical infrastructure thus illustrates the international network of the ToolS project.

As a research tool for the citizens' survey, a standardised questionnaire was developed in cooperation with the project partners and under the leadership of Baldo Blinkert (Institute of Sociology of the Albert-Ludwigs-University Freiburg), which was used in the participating cities in the respective national language. For the data acquisition with the DUVA Internet-Acquisition module, corresponding German or English language survey forms were used. Local additions and adaptations of the acquisition forms to national practices were made in the local language. All survey forms could be used for remote data acquisition over the Internet.

**Figure 23: Excerpt from the Finnish survey form of the TooLS citizens' survey**

x42. Jos jostain syystä tarvitsisitte yhtäkkiä rahaa selvittäksenne ylimääräisistä menoistanne, niin onko teillä joku (tuttava tai sukulainen) jonka puoleen voitte kääntyä ja lainata 500 euroa.

9 Missing

x43. Onko asunto, jossa nyt asutte?

9 Missing

x44. Käytättekö internetiä esimerkiksi tiedon hakemiseen, sähköpostin lukemiseen, asioiden hoitamiseen tai tavaroiden ja palveluiden tilaamiseen?

9 Missing

Part of the provided technical infrastructure is the information portal implemented with the DUVA Web-Catalogue module.<sup>25</sup> Through the information portal, important documents of the TooLS project are kept ready for delivery on demand. The survey forms of the citizens' survey can be called up via integrated links. Over 700 analysed tables were predefined for the data of the citizens' survey and made searchable and callable using a geographical or content-wise structure. The DUVA Internet-Assistant module is integrated in the information portal. This application is used for the dynamic generation of the predefined analyses. Moreover, individual files of the citizens' survey can be specifically called up in the TooLS information portal and individually evaluated with the Internet-Assistant.

The information portal has been set up in a fully bilingual (German/English) format. By linking data collection instruments, data supply, and analysis options with data obtained at the local level in the citizens' survey, Urban Audit, and the service provider survey, the information portal corresponds to the technical tool for the development, implementation, and provision of comparable surveys at the local level desired by the EU. The functionality offered through the DUVA system even exceeds the EU's demands in terms of the possibilities for information research and analysis. Its scope corresponds to the data inventory FR.ITZ of the City of Freiburg also implemented with the DUVA Web-Catalogue and Internet-Assistant modules, which was named as one of 10 international best practice examples for open data portals in the context of a study conducted by the Fraunhofer Institute on behalf of the German Federal Ministry of the Interior.<sup>26</sup>

<sup>25</sup> <http://www.duva-server.de/webkatalog/tools/index.php?&lang=en>

<sup>26</sup> <http://wiki.stadt.freiburg.de/webkatalog/> and [http://www.bmi.bund.de/SharedDocs/Downloads/DE-/Themen/OED\\_Verwaltung/ModerneVerwaltung/opengovernment.html](http://www.bmi.bund.de/SharedDocs/Downloads/DE-/Themen/OED_Verwaltung/ModerneVerwaltung/opengovernment.html)

**Figure 24: The ToolS Web-Catalogue**

## The further development of the DUVA survey modules

The Internet-Assistant and Web-Catalogue modules as well as the used survey modules are part of the DUVA system's inventory. Their testing and development was an essential contribution to the development of tools for comparable surveys at the local level. The testing of the survey modules took place by entering the data from the German citizens' surveys. The Finnish project partners did not participate in this part of the project, but the Dutch project partners did with the input of a part of the data collected in Amsterdam and Almere. During the ToolS project period (December 2009-May 2013), over 30 functional extensions of the survey modules were implemented by the KOSIS association DUVA and co-financed through EU funds. Many of the implemented enhancements are directly based on the experience gained in ToolS. A lot of functional extensions implemented during the ToolS project period have already been used for the activities carried out within the scope of ToolS.

## The DUVA Web-Catalogue and its new development

The version of the DUVA Web-Catalogue used in the ToolS context supports multiple languages since 2010 and was implemented as an English language information portal (see above) for this project. Thereby this module underwent a minor extension in terms of the functionality, but a very crucial extension with regard to its use within the ToolS project. According to the works planned during the ToolS project period, the DUVA Web-Catalogue used for the ToolS project has been replaced by a reprogrammed version. In deviation from the original plan, the implementation of this measure takes place in cooperation with the State of Berlin. The necessary funds come from the programme for the modernisation of administration of the State of Berlin, which also is in charge of the project management. DUVA has brought to this community project the source code of the Metadata Navigator module and participates in the new development via a joint working group. Only one functionality separately desired by DUVA as part of the new development (conversion of client technology to a pure browser solution with HTML/JavaScript and/or AJAX, by which the new application is available for portables)

**The data collection in the scope of the ToolS citizens' survey and concrete results of the gained experiences: use and development of the DUVA survey modules.**

**The information portal: adaptation of the underlying software and its cooperative new development in collaboration with the State of Berlin. Co-operation beyond ToolS.**



had to be separately ordered and billed accordingly. This part of the new development was ordered and completed in 2012. The technical and functional requirements placed on the application to be newly programmed are significantly based on experiences that derive from the TooLS project.

At the time of the deadline on 30 May 2013, the new application was largely completed and already in application as a prototype within the Berlin PRISMA project (planning-related information system for monitoring and analysis). In PRISMA, a powerful and yet easy-to-use information system is implemented, which is used especially as an information technology tool for independent compilation, processing, and analysis of spatial data. The aim is to use it in the broadest possible way, and in the longer term it is also intended for public access. PRISMA allows for more effective data management and easier accessibility and linking of data from different backgrounds, including relevant geo-information<sup>27</sup>. DUVA is implemented here as a system software. Besides the new Web-Catalogue, the new Mapping Tool co-financed by TooLS funds is used.

### The further development of the DUVA Internet- Assistant module

In the course of implementing the TooLS information portal, special attention was given to options for display and analysis of data using tables and graphs in connection with the Internet-Assistant module. The result of the works carried out in this module, predominantly during 2010 to 2012, is a list comprising around 25 functional extensions, including in particular significantly improved options for the tabular display of data and for the generation of predefined evaluations that can be dynamically accessed via the Web-Catalogue. Both the new tabular options and the predefined evaluations are intensely used in the scope of the TooLS information portal (see above). During the third national conference of the TooLS project (Berlin, 05-06 June 2012) and the second international conference of the TooLS project (Helsinki, 09-10 August 2012) the new information tabulation options were presented in detail, together with the usage of the Web-Catalogue.

**Use and expansion of the DUVA functionalities for data analysis and presentation: the Internet-Assistant module in the scope of the TooLS project.**

**Figure 25: Table from the TooLS information portal, created dynamically with the Internet-Assistant**

TooLS survey Index Active Ageing •• 01.12.2009 - 30.11.2012 •				
Number of Elderly people aged 50 years or older, Index active ageing, Index active ageing weight by age distribution By Country, City				
48. Gender				
Age groups (7 categories)				
Age groups (3 categories)				
Highest level of education (GE, NL, FL comparable)				
subjective assessment of health				
Country	City	Number of Elderly people aged 50 years or older	Index active ageing	Index active ageing weight by age distribution
Finland	Helsinki	406	41,4	41,8
	Espoo	448	45,1	43,2
	Vantaa	418	40,2	37,9
	Sum	1.272	42,3	41,0
Germany	Freiburg	397	36,7	36,9
	Nuremberg	324	30,7	32,4
	Much	283	36,2	36,0
	Koblenz	444	33,9	34,8
	Dusseldorf	1.790	33,5	34,4
	Moers	439	28,6	29,5
	Saarbrücken	735	30,7	32,2
	Berlin (Friedrichshain-Kreuzberg)	379	36,4	34,5
	Sum	4.791	33,1	33,3
The Netherlands	Amsterdam	867	45,6	43,4
	Almere	554	38,4	36,5
	Sum	1.421	42,8	40,7
Total		7.484	36,5	36,4

<sup>27</sup> [http://www.stadtentwicklung.berlin.de/soziale\\_stadt/sozialraumorientierung/de/prisma.shtml](http://www.stadtentwicklung.berlin.de/soziale_stadt/sozialraumorientierung/de/prisma.shtml)



## The DUVA Verification System in the scope of the ToolS project

DUVA is based on a comprehensive use of verbal descriptions of the existing data through metadata. Thereby, the information is not only clearly and uniformly defined, but also comprehensively documented, developed, and utilised for the user. In DUVA, both factual data up to individual characteristics and complex processing routines are described verbally. If data or processing routines are to be searched, called up, or applied, research, calling up, or application take place solely through the existing verbal descriptions. In the evaluation of data, the stored descriptions are displayed as labels or legends. Survey forms, whose captions are also generated from the existing metadata, can be created from existing descriptions without any intermediate steps. The metadata are systematised and structured in such a way that any information sources with the same method and in one system can be exclusively compiled, made accessible, organised, analysed, presented, and passed on through verbal descriptions.

The central application of the DUVA system for generating and managing metadata is the so-called Verification System. This module has been used in the context of ToolS to create the sentence structures and file descriptions that are the basis of the ToolS survey forms and the evaluations of the Internet-Assistant. In future, the metadata of the Web-Catalogue and the geometries of the new Mapping Tool will be managed and maintained in the Verification System.

Continuous bug fixes and minor functional changes were made in the DUVA Verification System during the ToolS project. The related expenses (personnel, equipment) are not included in the settlement of accounts with ToolS. Nonetheless the recognition of faulty functions was, among others, due to the intensive use of the Verification System in the ToolS project and in turn the work in the ToolS project benefited from the bug fixes and functional changes.

## The new development of the DUVA Metadata Navigator

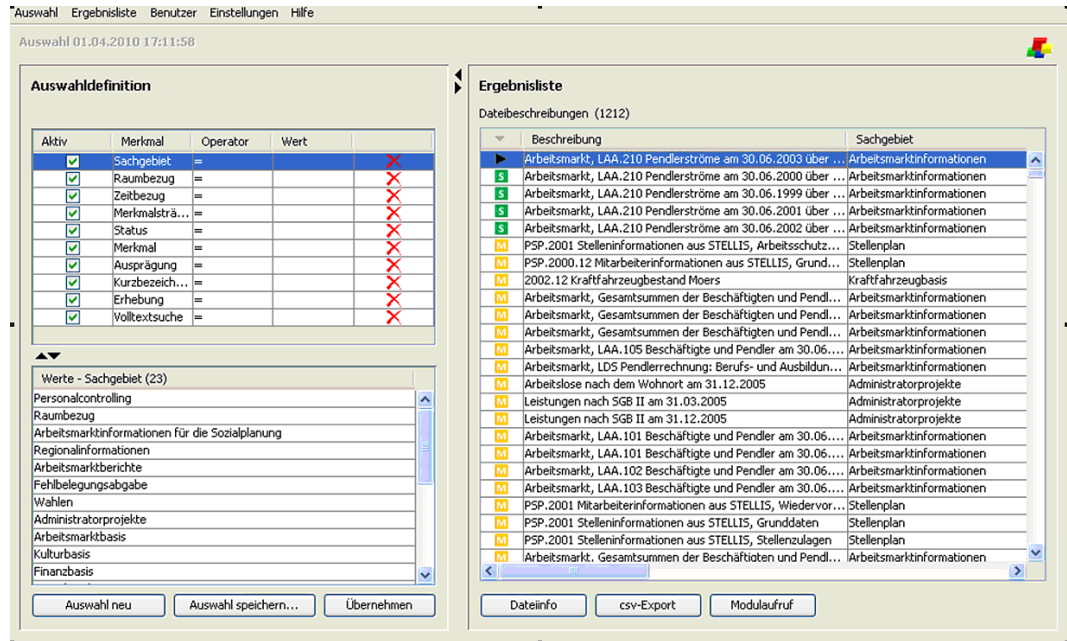
With its information management system, the KOSIS association DUVA adopts the approach to integrate the handling of information and technology through the use of metadata. A new web-based application was programmed with the Metadata Navigator for researching data and files in the metadata inventory of the DUVA system and for transferring found files to further processing applications (that is, the DUVA Internet-Assistant).

The reprogramming was assigned on the basis of specifications through a tendering process. JAVA as a development environment was used for the first time. Both in terms of the technology used and in terms of the organisational implementation, the KOSIS association DUVA was thus breaking new ground with this project. Due to the decision to generally realise more future developments in JAVA, with corresponding requirement and/or functional specifications and through tendering procedures, the experiences from the ToolS project will shape the further development of DUVA far into the future.

The Metadata Navigator allows the user to set various and freely combinable filters. The application dynamically provides the user with those files present in the DUVA system that match the set filter conditions. A desired file from this list can be called up directly for evaluation in the Internet-Assistant. The Metadata Navigator replaces the previous selection of the Internet-Assistant that only consists of an alphabetical list of existing files. In very large databases, the Metadata Navigator offers the user an option for targeted research and file selection. Once created, search specifications can be stored and used at a later time. Through user management and appropriate configuration settings, access to the module and the customised functionalities available for the user can be specified in detail.

**The core of the DUVA system based on metadata: role and usage of the DUVA Verification System.**

**New possibilities of data mining on a new technological basis: new development of the Metadata Navigator module. Testing new forms of project implementation.**

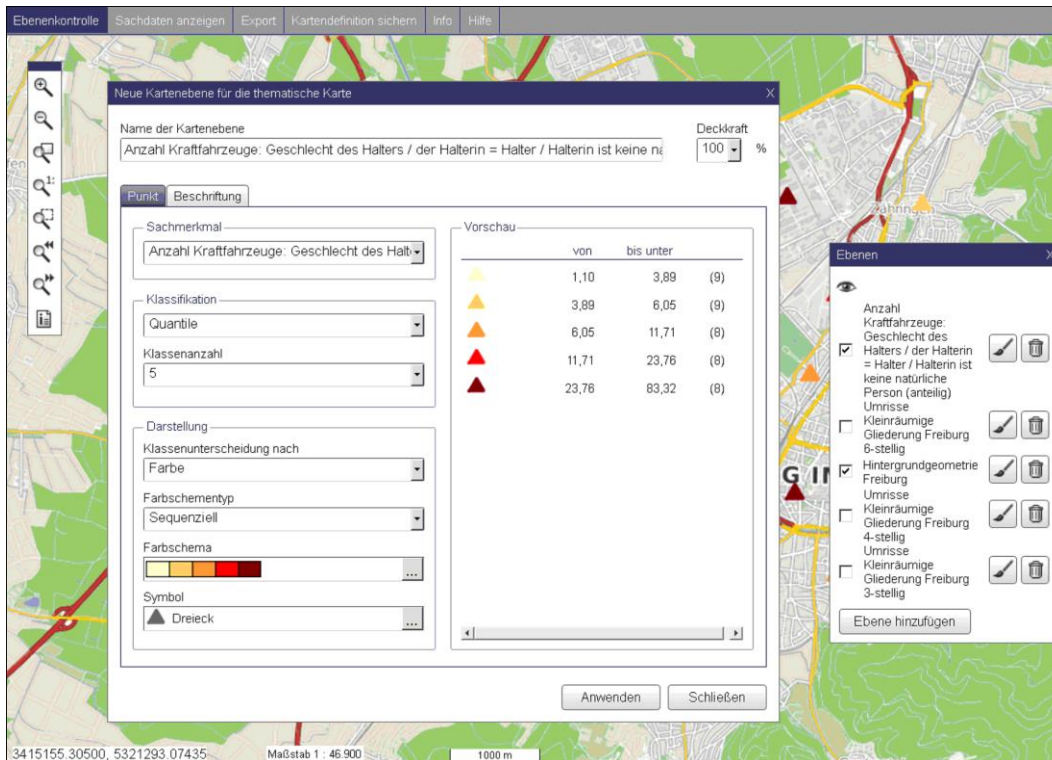
**Figure 26: The new DUVA Metadata Navigator**

The new Metadata Navigator was implemented in 2011; in 2012 and early 2013 the test run of the new application, including various technical adjustments and corrections to the accompanying manuals, took place. In June 2013, DUVA was in possession of a deployable metadata navigator. The initial provision for DUVA users, together with an appropriate Verification System and a customised Internet-Assistant, will follow in the short term.

### The new development of the DUVA Mapping Tool

The new development of a web-based mapping tool benefited from the technical and organisational experiences gained by the Metadata Navigator even while the TooLS project was running. The new Mapping Tool replaces the previously offered rudimentary mapping function in the Internet-Assistant module. The new application is called up by the Internet-Assistant and provided with the necessary information via an XML interface. The new Mapping Tool can thus be installed centrally and used locally as a web service; on the client side, only a commercial Web browser is required. The required geometries are listed in the DUVA Verification System and are automatically transferred or accessed. In the process, geometries in suitable formats provided by third-party providers can also be used. For this purpose, the geodata interface of the new application is designed for OGC compliance; formats WFS and WMS are used to access the geodata. The new Mapping Tool thus complies with the guidelines set by the European Commission through the INSPIRE initiative. In future, information existing in the DUVA system can be interactively implemented in cartographic representations. It provides the user with a variety of ways to create maps and style sheets. Analogous to the tables and graphs created with the Internet-Assistant module, maps generated with the new Mapping Tool can be saved as solid evaluations, recorded accordingly in the Web-Catalogue, and dynamically accessed through this module.

**The DUVA highlight: Conception, tendering and implementation of a new web-based application for creating thematic maps taking into account international standards.**

**Figure 27: The new DUVA Mapping Tool**

The implementation of the new Mapping Tool was started in spring 2012 after an intense internal preparation. The tender and preparation of the underlying requirement specification was completed in June 2012. The multi-stage tendering procedure to award the programming of the new application took place from July to October 2012. The reprogramming itself was started in November 2012 and completed in May 2013. The new application was presented for the first time publicly and with great success at the annual DUVA user conference in June 2013. If the technical approval of the new application, not fully completed at the end of June 2013, takes place without complications, the new Mapping Tool will also be provided to DUVA users shortly.

In terms of technology and organisational implementation, the development of the Mapping Tool is by far the most complex and demanding project that DUVA has implemented to date. Particularly in 2012, the work necessary for this at DUVA represented a large part of the working time procured for the ToolS project. Including the total cost of around € 130,000 without including personnel expenses (specification, programming, adjustment of the Internet-Assistent), this new development also marks a new dimension in terms of expenses for DUVA.

Without the support of EU funding, such a project and the associated expansion of the possibilities offered for information analysis and presentation would not have been possible for DUVA, or possible only in several steps.

### English language versions of the DUVA modules

The KOSIS association DUVA provides its members with all new and further developments at no additional cost under the existing licences. Since no commercial interests are pursued, DUVA is an alternative to commercially available products, not only in functional terms. The comprehensive use of metadata is a unique characteristic of DUVA. All applications made available by DUVA are enabled for multiple languages and can thus be used outside the circle of still purely German users. For the information portal of the ToolS project, English language versions of the survey modules, the Web-Catalogue, and the Internet-Assistent were supplied and used.

**Usage of the English language versions of the DUVA modules in the context of the ToolS project. Completion of the work on current English-language manuals and online help after the ToolS project.**

**Figure 28: Selection of features in the Internet-Assistant, English language version**

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Attribute	Pos.	Selection	Sorting
Id-Number	<input type="checkbox"/>	<input type="checkbox"/> Selectable key <input type="button" value="Determine keys"/>	
Country	<input type="checkbox"/>	<input type="checkbox"/> Key table Country (D, NL, FIN) <input type="text" value="- all -"/>	<input type="button" value="C"/> <input type="button" value="a,b,c"/> <input type="button" value="1..n"/>
City (TooLS)	<input type="checkbox"/>	<input type="checkbox"/> Key table City (88,99) <input type="text" value="- all -"/>	<input type="button" value="C"/> <input type="button" value="a,b,c"/> <input type="button" value="1..n"/>
1. In the last month have you done any paid work? What applies to you?	<input type="checkbox"/>	<input type="checkbox"/> Key table Paid work during last month <input type="text" value="- all -"/>	<input type="button" value="C"/> <input type="button" value="a,b,c"/> <input type="button" value="1..n"/>
3. During the last twelve months have you taken any course or attended any lecture od conference ...	<input type="checkbox"/>	<input type="checkbox"/> Key table No (0) / Yes (1) / Does not apply (8) / Missing (9) <input type="text" value="- all -"/>	<input type="button" value="C"/> <input type="button" value="a,b,c"/> <input type="button" value="1..n"/>
5. Are you at present serving in an honorary capacity, i. e. are you engaged in voluntary work a...	<input type="checkbox"/>	<input type="checkbox"/> Key table No (0) / Yes (1) / Missing (9) <input type="text" value="- all -"/>	<input type="button" value="C"/> <input type="button" value="a,b,c"/> <input type="button" value="1..n"/>

At the end of the TooLS project, English versions of the parts of the DUVA system used in the project are available, including the related manuals and online help. Since the necessary translation work can be started only after completion and approval of the corresponding programming, this work with regard to the entire DUVA system has not yet been completed in the term of TooLS. DUVA, however, will continue and conclude this work after the term of TooLS.

### Interfaces for data exchange

Networking requires the establishment of mandatory formats for data exchange. So far, the DUVA system has a proprietary XML interface for exchanging metadata as well as interfaces with Excel, SPSS and an output option of factual data in csv format. Therefore there was a plan to implement the exchange format SDMX<sup>28</sup> supported by Eurostat via a new interface to be programmed into the DUVA system. Early on, this would have made available an officially set standard to exchange data and metadata in the DUVA system. However, it was not possible to obtain reliable definitions of the SDMX standard during the TooLS project. Thus a new interface would have been possibly implemented in the DUVA system at high organisational and financial effort, which would not have met the expectations placed on it.

Against this background, the DUVA steering group decided not to implement the planned interface for the time being. Nevertheless, the subject of standardised data exchange remains part of the agenda pursued by DUVA. Appropriate opportunities may arise in the context of the newly applied EU-funded project “Merging statistics and geospatial information”, in which the KOSIS association Urban Audit seeks to participate with DUVA, among others. One of the work packages proposed here would deal with the possibilities of automated provisioning of originally proprietarily stored statistical data, and, for this purpose, examine in particular the standards set by INSPIRE and SDMX. With regard to the integration of DUVA with the statistical data exchange, an appropriate SDMX interface needs to be conclusively designed as a prototype. If the consortium led by Urban Audit is awarded EU funding, the above-mentioned steps would be implemented in 2014/2015. Then it would be DUVA’s aim to implement the interface initially only developed in prototype as a fully functional application and to make it available. This results in a medium-term perspective for the further integration of different data sources and to further develop a Europe-wide statistical network. In parallel, DUVA will deal with CKAN and the topic Open Data.<sup>29</sup> Building on the already existing options in DUVA (see above) and in addition to the standardised data exchange, the question of disclosure of information, high on the political agenda, is also on DUVA’s agenda.

**Dispensation with a new data interface. New realisation attempt on a new technical basis in 2014/2015. Open Data as a new challenge for the future.**

<sup>28</sup> <http://www.sdmx.org>

<sup>29</sup> <http://www.ckan.org/>

## Data protection and privacy

The operation of an information portal accessible over the Internet automatically brings up questions about security and privacy. In addition to servers and Internet connections used, the applications can be upgraded accordingly. The internationally recognised Common Criteria security catalogue seems appropriate as a safety standard for Web modules<sup>30</sup>; the compliance with respective standards can be certified, among others, by the Federal Office for Information Security (BSI). On this basis, a safety certification of the DUVA system by the BSI was included as a sub-project pursued under the ToolS agenda.

The starting point of the respective DUVA activities was a safety analysis of the corresponding modules. Subsequently, the Web modules of the DUVA system were adjusted to the safety requirements set by Common Criteria. In addition, compliance with the security standards prescribed by Common Criteria was added to the list of requirements for reprogramming and also implemented with regard to the new Web-Catalogue, the Metadata Navigator, and the new Mapping Tool. The organisational and financial effort for certification turned out to be enormous. At the same time, the expected benefit had to be classified as rather low, since an interest in a security certification by the BSI was expressed by a minority of DUVA users only. The originally intended safety certification of the DUVA modules by the BSI was therefore not pursued further.

Viable alternatives to a safety certification by the BSI were sought. It was noted that several member cities of the DUVA community perform safety and data protection audits of new software before implementation. On request, the City of Dusseldorf assured that a successfully carried out test procedure of the DUVA system could be confirmed in writing. Such a confirmation would not rank equal to a certificate awarded by BSI, but de facto, it documents that the DUVA system corresponds to current safety standards and can be safely used without data protection concerns.

With this pragmatic solution, the users of the DUVA system gained in a number of ways. The DUVA system complies with the accepted applicable safety and data protection requirements. At the same time, unnecessary spending was avoided and use of the funds originally reserved for the BSI certification could be utilised otherwise. The idea of a developer community organised in a network, whose members are mutually supportive when needed, has been proven in this particular case.

## The brief review of the EU-funded project ToolS and a look to the future

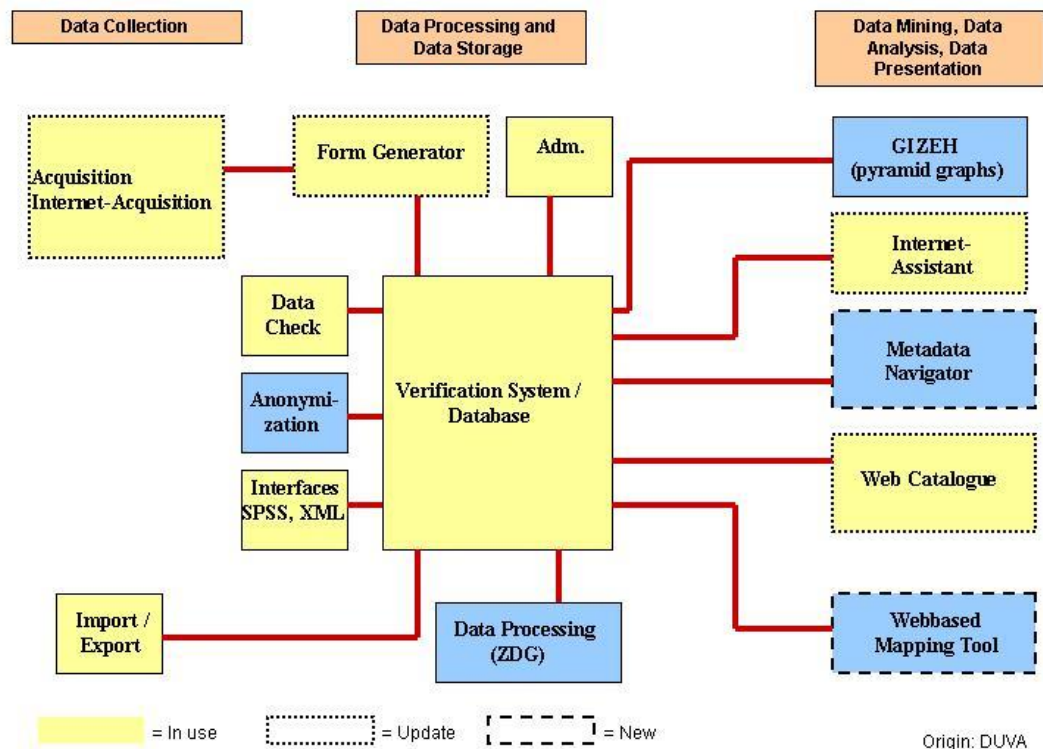
Since its establishment in 1989, the KOSIS association DUVA has operated for the continuous general advancement of its information management system by the same name. Over the years, functional turning points were made with various new and further developments. In parallel, the organisation of the DUVA project was adapted to new requirements. DUVA is currently used by 62 German municipalities and other public institutions. Thus DUVA was able to meet the wishes expressed by the European Commission in 2009 with an already largely rounded off technical system and with relevant experiences in the field of information management and of working in networks.

**Meeting internationally agreed security standards. New ways of security certification.**

**Successful completion of the ToolS project as a milestone for development of the DUVA community and the DUVA system. ToolS as the starting point of in-depth national and international cooperation at the municipal level.**

<sup>30</sup> <http://www.commoncriteriaportal.org/>



**Figure 29: The DUVA system in the ToolS project**

In the context of the three and a half year duration of the ToolS project, important steps forward have been taken by DUVA. Compared to 2009, the software architecture used by DUVA for reprogramming is clearly much more modern and up to date. The functions newly programmed under ToolS directly benefit the users of our software as well as the citizens of the communities concerned. In particular, with regard to the new Web-Catalogue and the new Mapping Tool, a new state of affairs could be reached, which would not have been possible with only self-funding. Organisationally, the requirements and experiences associated with the ToolS project have professionalised the work of the DUVA association. Conversely, thanks to DUVA, a technical infrastructure could be provided for the ToolS project that has enabled and promoted network activities of the project partners.

It is understood that in the future DUVA will remain a non-commercial user community of public institutions, where users work for users. The aim of the EU indirectly pursued through the ToolS project of establishing networks working in partnership finds its natural counterpart in such an organisation and thus points of contacts as well. The KOSIS association DUVA assesses the participation of the EU-funded ToolS project as a big win, especially from this perspective. We expressly thank all participants for the confidence placed in us and for the cooperation.

Given appropriate interest of the EU, the DUVA therefore would like to participate in a follow-up project and a practical implementation of the ToolS information portal by the EU. If the ToolS citizens' survey will continue as planned by a group of German municipalities and as part of a KOSIS association to be newly founded, DUVA will actively involve itself in this project. DUVA would welcome and also support within its means a continuation of the comparative urban citizens' survey in an international network.

## 7. Effect, dissemination, utilisation

Networking and collaborative learning are the communicative core of the TooLS project. It is about bringing together the knowledge from existing sources and surveys and to make it universally available for municipal planning. This is to create jointly produced and usable practical knowledge that will help cities to cope with the challenges of demographic change more effectively and make better use of the opportunities arising from this change.

**Networking and collaborative learning as the core aim of the TooLS project.**

Primarily, cooperatively organised urban statistics with the methodological support of the University of Freiburg has taken the necessary steps to achieve the project objectives.

- With the information management system DUVA it has created a thematically oriented information portal through which participants can enter their contributions and obtain results. DUVA has further developed the existing technical instruments to satisfy the requirements of the project in such a way that there is now a much more powerful tool available, in German and in English, that can be applied all across Europe.
- Through its urban comparative collection of objective data, the Urban Audit has thematically developed potentially available knowledge and complemented it by subjective data on the elderly in the EU Perception Survey and the coordinated German survey on quality of life in cities.
- In the citizens' survey, the University of Freiburg has unearthed important insights on subjective attitudes to active ageing and care for the elderly that demonstrate to cities where to put the focus in their senior-related policy.

The relevant specialist services for seniors' issues of the pilot cities showed interest in the project from the beginning and supported the test surveys at administrative bodies and service providers to their best ability. It turned out however that the increasing work loads of daily operations usually leave little scope for comprehensive planning for the elderly. It will therefore be even more important to demonstrate, after the presentation of the project results, how the jointly generated knowledge can be used for one's own work and to show that it pays to further pursue the approaches initiated in TooLS.

The national conferences in Germany, the Netherlands, and Finland, as well as the two international conferences in Amsterdam and Helsinki, were organised by the statistical agencies cooperating within the network of the KOSIS association and were received with interest by the participating specialists of the service centres for seniors' issues. Further participation is to be hoped for, if this is possible without significantly increasing the burden on their already low capacities.

So, cooperatively organised statistical agencies have undertaken to report on the project in their responsible administrative bodies. In Helsinki, the TooLS was presented at the international anniversary celebration of the local statistics and urban development organisation, and most recently put up for discussion in several papers by the German Municipal Statistics together with the University of Freiburg during the International Statistical Week 2012 in Vienna. TooLS was presented at numerous meetings of the German Municipal Statisticians where a further involvement in the planned repetition of the citizens' survey was particularly promoted. Many cities have already published their results of the citizens' survey.<sup>31</sup>

Cooperation with the Working Group on Coordinated Surveys and the Demographics Working Group of the Association of German Municipal Statisticians proved to be effective. The Working Group on Coordinated Surveys discussed the concept of the citizens' survey and dealt with its results. It subsequently suggested a separate module for active ageing in the coordinated survey on quality of life, which, however, has been adopted by only a few cities with regard to a repetition of the broader citizens' survey. In addition, several cities are planning to include the recommended module in their own population

<sup>31</sup> Among them the cities of Duesseldorf, Nuremberg, Freiburg, Moers and Koblenz (see bibliography).

surveys. The Working Group on Demography discusses a monitoring concept for population development, which includes the area of “ageing population”. Additional knowledge relevant for planning will be gained if the projections on population and households of the German Municipal Statistics will also be utilised for TooLS.

The high investments in further development of the DUVA system will become fully effective only after the end of the funded project. Provisions are made to further maintain the seniors-related information pool and to thereby create a knowledge base that inevitably becomes more important as the pressure of the problems increases. The English version consistently developed in the project makes it possible now to use this instrument for TooLS throughout Europe.

**Further development of the information system by own initiative of the cities.**

With TooLS, municipalities have an information system that will help them to respond in a creative way to the opportunities and challenges associated with demographic change. The components of the project, the advanced information system based on DUVA, the citizens’ survey designed for continuity and comparability, the information provided to municipalities by the citizens’ survey, and the review of available secondary statistics, serve this purpose. Motivated by TooLS, quite a number of municipalities are interested in continuing the surveys. The potential of TooLS was presented at conferences and through publications, and there exist favourable conditions to expand the existing network of European municipal authorities.

It has become obvious that TooLS is not just about the development of technical and professional knowledge instruments. Rather, it would be necessary to pursue an educational drive that, however, goes beyond the powers of the project partners. Although they have gratefully accepted the opportunity offered by the European Commission’s funding and put it to use, there is as much regret that the EU does not see a chance to financially support the necessary dissemination beyond the circle of statistics, thereby securing the sustainability of the project for policy making.

Within the limits of their own capacities, however, the project partners aim for a repetition of the citizens’ survey, they wish to provide for an automatic transfer of relevant data from the European urban comparisons, the Urban Audit and the Perception Survey, and they hope to help the responsible administrative departments and agencies to gain a clearly improved knowledge base for their activities through monitoring the changes and developing additional scenarios. With publications and service offers on the Internet, they will endeavour to promote an awareness for this increasingly important part of urban development and thus hope to help to create an understanding that sufficient planning capacities are needed to meet the challenges of the demographic change.



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