Monitoring demographic change

DC NOISE
demographic change

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Introduction

This document is intended as a collection of **practical guidelines for monitoring demographic change** and how it affects our society in different policy domains. The aim is to be concise and accessible for regional organizations and institutions that experience a need to deal in a more systematic way with population change and related policy. It is recognized that most monitoring institutions do not possess a lot of specific expertise in demography.

These guidelines were written for the regional partners in the transnational DC NOISE project, based on the response to a questionnaire that was filled out earlier in the project. The questionnaire was conducted in order to determine how the demographic situation varies across the different regions, and which policy questions arise as a consequence. Additionally, it was also useful to understand which data are available to the partners, and what kind of monitoring activity had already been undertaken in the past.

It is clear that many fields of policy are somehow related to population change. In fact it is hard to imagine a policy issue that is totally non-affected. But different regional players have their own points of attention, depending on regional issues, the nature of the institution or the situation regarding data that are available to them. So designing a uniform monitoring system for all users or for all imaginable policy items is not a realistic option. Consequently we adopted a more open approach, in which different options are described and examples are given that stem mainly from the Belgian context. We hope the "Logbook" format with chronological steps and some simple examples will help to structure monitoring efforts in all partner regions.

This text is divided in two main sections: the first section gives an overview of the main steps to be taken, the second section describes a set of indicators selected for the monitor on demographic change in the province of West Flanders. Finally, as an appendix, a number of international surveys are listed that illustrate different monitoring themes and indicators.

Monitoring

In this logbook we interpret a monitor as an **instrument that follows up on change in any factor that is seen as relevant to population composition**. The monitoring goal is to **reach, inform and sensitize** a broad audience composed of policy makers, the media, local inhabitants, etc. In order to do so with authority the follow-up must be done systematically, using carefully selected and **unbiased indicators**. Usually these indicators will be quantitative (statistical), but we must keep in mind that not all domains lend themselves to quantitative measurement: either because proper data do not exist, or because numbers cannot grasp the heart of the matter. And of course, a monitor is more than a collection of indicators. To be useful to a diverse audience it should contain interpretation examples, explanations and general documentation. Finally we must stress that a monitor is a **communication tool**. Therefore it must actively try to reach its users by way of all the modern media that are available today.

Over the next sections, the main steps towards a monitoring system are listed in chronological order. Existing examples from partner regions (mainly Bremen, Dundee and Twente) are given. They are highlighted in blue throughout the text.

Step 1: Preparation: Starting point, prioritizing the goals of the monitor

In any process of some complexity, the first steps are about planning and orientation. Monitoring requires a **long-term effort**, involving infrastructure, personnel, finance, agreements and cooperation with data-providers, etc. Many partners with different backgrounds and expertise must be brought together. This means that **a network has to be built with all stakeholders**, and a number of meetings and discussions (working group) organized to define the scope and general orientation for the monitor. A briefing note setting out terms of reference would be a good starting point in order to narrow down the scope of the project and find support for it.

In the Region of Bremen, the social monitoring system was developed and designed by a working group instated after a series of decisions by the city and regional councils. Planned development of a monitor was even part of coalition agreements:

"The city council endorses the development of a monitoring system." (city council decision 9.12.2004, P.3)

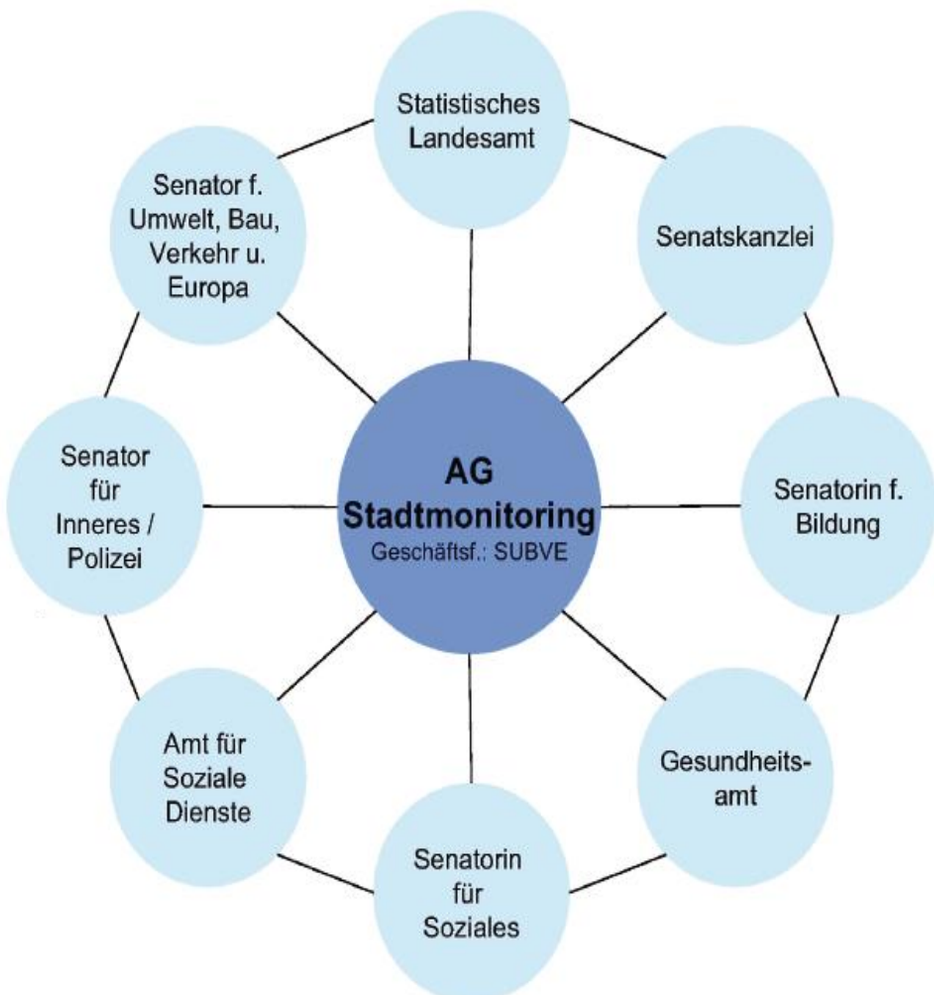
"The already well developed city monitor must be publicly accessible and become basis for the further development of the city and its quarters." (Coalition agreement for the 17. Electoral period of the citizenry 2007 - 2011; 17.6.2007, P. 34)

„… a new model concept must be developed for the internal integration of the regional state of Bremen … for this, a suitable monitoring instrument must be

developed, which goes beyond the bare collection of efforts. “ (Resolution Bremen citizenry (federal state parliament) v. 18.10.2007 2011; 17.6.2007, P. 34)

The Bremen working group on city monitoring is composed of representatives from different disciplines and authorities, covering statistical authorities as well as the major policy departments: (Figure 1)

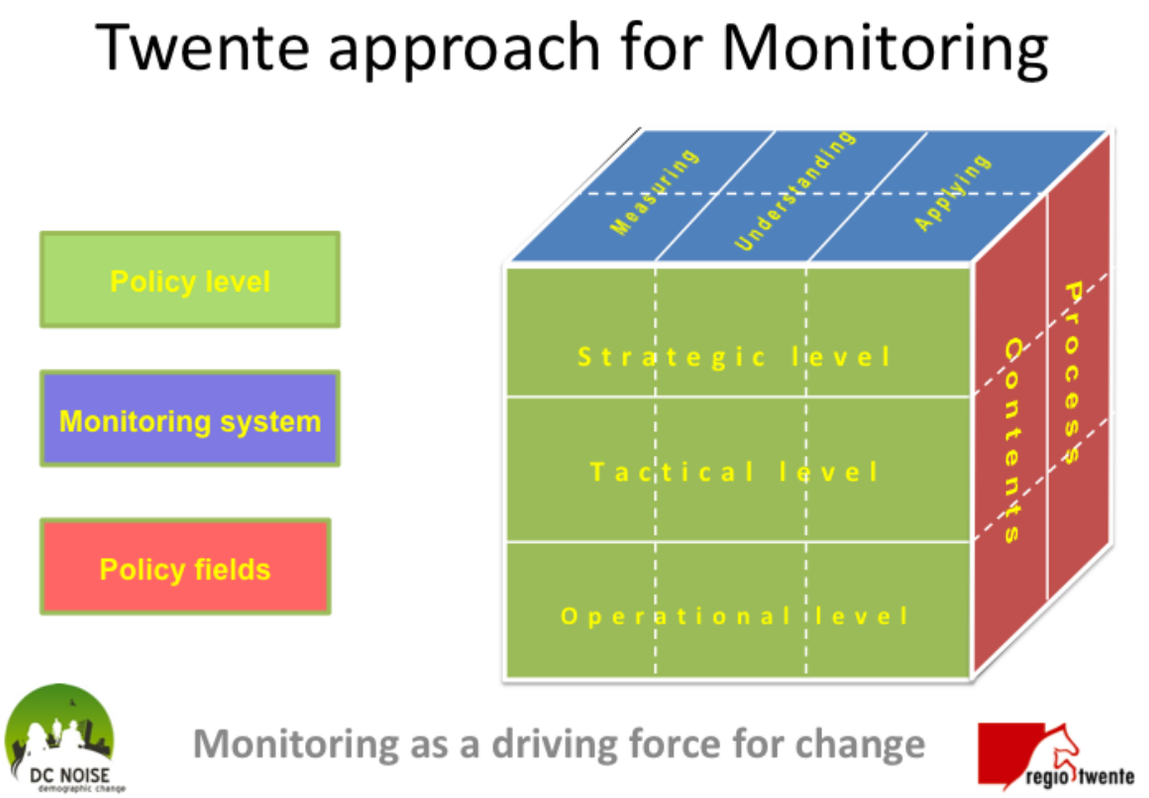
Figure 1: The Bremen social monitoring network



Twente Region on the other hand is a good example of how a monitor can be prepared conceptually. This was done after an exploratory study that investigated opportunities but also weaknesses in the existing monitoring efforts. One major conclusion – no doubt applicable to many public instances – was that monitoring was too scattered hampering efficiency; that it is used extensively on the work-floor but rarely for strategic planning; and that sectoral borderlines defined the separate monitors resulting in a lack of cross-thematic analysis.

The conceptual model represented in a cube (below) shows how each operational level (operational / tactical / strategic) has to deal with the contents of monitoring as well as with the process around it, and this for each of the monitoring steps and functions (measuring/ understanding / application). In that sense the Twente cube is a conceptual tool as well as a practical aid that helps structuring and organizing all activities related to monitoring.

Figure 2: Twente Region conceptual and tactical approach



To sum up: during the start-up phase of monitoring, crucial choices have to be made on organization, orientation and content. Below, we will address some of the possible points of discussion:

Question 1: Monitoring or evaluation?

First of all, the goals of the monitoring system need to be defined. An important distinction is the one between "**pure monitoring**" and "**policy or project evaluation**". In a lot of ways these concepts are similar, and so they often get confused with one another. But there are clear differences:

A pure monitor is:

- ✓ essentially a descriptive instrument, based on periodic observation over longer periods of time (even continuous registration)
- ✓ aimed at delivering information as input for policy makers or other concerned parties
- ✓ thematically focused, but within the borders of the main theme a pure monitor will aim to be as broad and multifunctional as possible

Policy evaluation is:

- ✓ more about "how-and-why"- questions
- ✓ usually following a strict timeline with observations selected at crucial points in policy implementation. A measurement "before" and "after" implementation and perhaps one set of observations in an environment where measures were implemented, compared to another set in an environment that did not receive those measures
- ✓ focused much more in-depth on specific policy targets and on key factors related to measures that were taken.

Both are thus very similar in the type of data that are used and how they are analyzed. But **a monitor requires a more long-term systematic effort. On the other hand it is more flexible and less focused on single issues**.

While the Bremen and Twente monitors are "pure" monitors, the Dundee monitor is much closer to an evaluation instrument[1]: it monitors the background and outcomes of the masterplan for the redevelopment of Dundee through the regeneration of Dundee Central Waterfront. This is achieved through the development of a baseline indicator set related to demographic change in Dundee.

Based on the interview results collected among the partner regions (figure 3) we must conclude that most partners consider "pure" monitoring functions more crucial than functions as an evaluation instrument. Policy evaluation was considered an important issue but sometimes judged as "too difficult". On the other hand the DC

[1] By Daniel Gilmour and David Blackwood referred to as a "Policy implementation monitoring tool"

NOISE partners put a lot of stress **on raising awareness** of changing demographic circumstances as a first step towards effective and efficient policy for housing, labour market, economy, services etc.

Figure 3: Results from the monitoring questionnaire: importance of 8 monitoring functions **today** and **in the future**.

Functions	No importance	Minor Importance	Important	Crucial
hard proof for changing circumstances		HA, TW,	AD, GR, KS, TW, EF, WF	GR, NB, HA
early warning system	HA,TW,		AD, GR, KS, EF, WF	NB, HA, TW
follow-up system for certain developments		GR, TW, HA, KS	AD, KS, EF, WF, GR, TW	NB
measuring the effects of a certain policy	WF	HA, KS	GR, NB, EF, TW, HA, WF	GR, NB
a way to justify policy actions		TW, KS	HA, NB, TW, WF	GR
as a communication tool	AD, TW	HA, KS	GR, KS, WF	NB, GR, HA, TW
as an objective view at reality			HA, NB, KS, EF, TW, WF	EF, GR, NB, HA,
A tool to base policy choices upon				EF

Legend: KS=Knutepunkt Sorlandet; WF=Province of West-Flanders; EF=Province of East-Flanders; TW=Twente Region; AD=City of Dundee; ZE=Province of Zealand; GR= Province of Groningen; NB=Niedersachsen-Bremen; HA=Hamburg

Question 2: Which functions for the monitor?

The main functions of the monitor should be listed according to priority. From the survey results we expect two types of functions to be high on the list. The first is linked to **communication**, the second to **policymaking**.

Under the header of "communication" the main point has to do with sensitizing. Perhaps the members of the DC NOISE team stressed this point so strongly because they felt that local policy makers are not yet all strongly enough aware of the magnitude of demographic change, and of the impact this change will have on local policy.

Under the header of "policy-making" the most highly rated monitoring functions (figure 3) were "anticipating on the consequences of an ageing society" expressed as "early warning system", "hard proof for changing circumstances", "an objective view at reality", "a basis for policy choices" etc. Perhaps the Twente-monitor, as it is planned so far, expresses this goal most explicitly: it clearly states its function as a tool for strategic decision-making.

Of course, other functions of monitoring can be considered important:

- measurement tool: perhaps indicators for important factors are not available, but can be constructed using the monitoring infrastructure
- understanding change: documenting regional variations, changes over time and offering explanations in short texts

The Bremen AG Stadtmonitoring explicitly states a larger set of functions and goals, in order to focus on small scale city areas. This is clearly connected to the urban Bremen context:

The monitoring "social city Bremen" serves:

- the identification and observation of small-scale areas for urban social problem situations;
- as a tool for the development of area definitions for social programs[2] ;
- as an aid in area definition for project areas of the LOT-program, theme 2;
- as support when applying for European Union means;
- and as an internal political planning basis for the control of urban Resources.

Furthermore, the Bremen City Monitor intends to act as an early warning system:

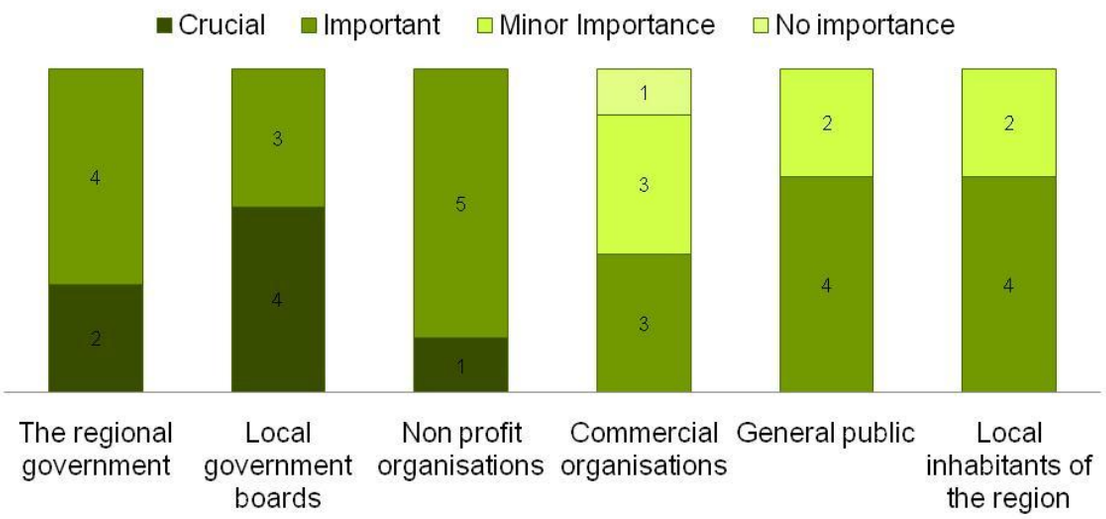
"Contrary to the general disadvantage index ("social indicators") the small-scale monitoring system functions as a kind of "Early warning system", which is not designed to produce a disadvantage-hierarchy, but to identify small-scale areas with suspected development needs. Thus, it primarily serves as an impulse to technical and political discussion and reflection." (Resolution Bremen citizenry (federal state parliament) v. 18.10.2007 2011; 17.6.2007, P. 34)

Question 3: Target users of the monitor

In our questionnaire we asked the DC NOISE partners which users the monitoring system should be designed for (Figure 4). **The results indicate clearly that regional and local policy makers and to a lesser degree non-profit organizations were seen as prime users**. Local inhabitants and the general public were perceived as secondary users who could be interested in the conclusions but not so much in the basic indicators. This also applies to the Bremen monitor: most of its main functions are directed towards the local authorities, but the council resolutions stated it should be "publicly accessible". Reading between the lines, this may indicate that the monitor is also perceived as an instrument for democratic control by the local population.

[2] WiN/ Social city and „local capital for social purposes "(LOT)

Figure 4: Results from the monitoring questionnaire: Target users of the monitor



Based on experience in Belgium, most types of users need considerable help and assistance when using published data. This is true for policy makers as well as for the press or the general public. This can partly be achieved by documenting indicators in a clear and simple language, and by presenting them visually in maps and simple types of diagrams rather than in tables and charts. We will go into this matter more deeply in a later phase.

Question 4: In-house database management?

Probably the most crucial decision in preparing a monitor is whether it will be based on raw (individual level) data that are **converted into indicators by the monitoring instance itself**. The other option boils down to either borrowing existing indicators from other instances (statistical agencies, scientific studies, …) or having a specialized intermediate instance create applications that produce those indicators.

We would strongly advise to go for the first option, even if it is the most laborious one on the short run and likely to slow down practical implementation. The main reason is that it is the only way to avoid recurring costs and efforts while at the same time enjoying the benefits of a flexible system that is needed to prevent depending on others (and paying for their services) each time new indicators need to be produced.

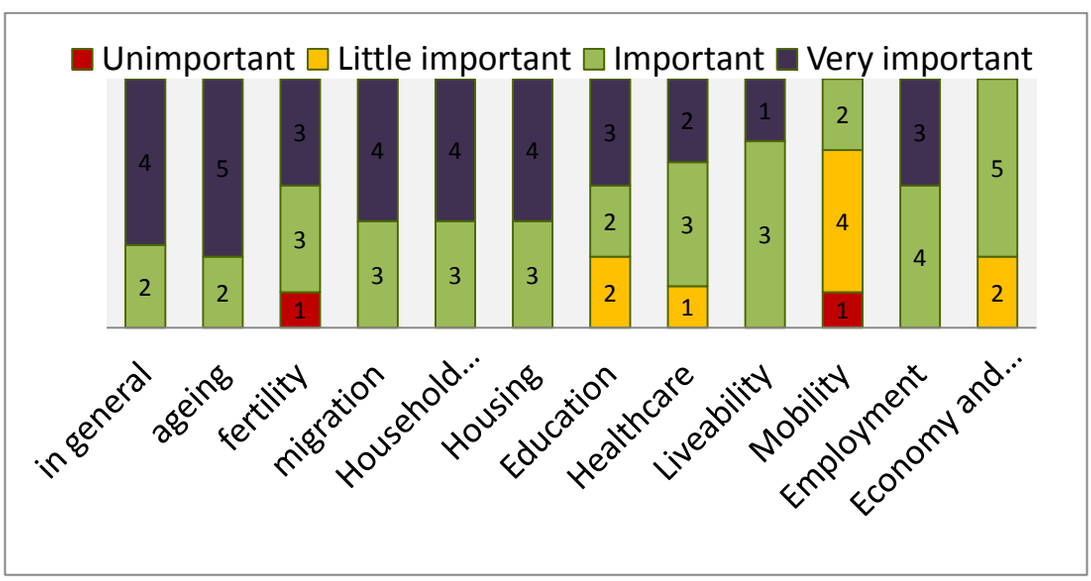
Step 2: Determining and refining the thematic content of the monitor

This text is on monitoring demographic change and its outcomes in different policy domains. Since many of these domains are linked to demography, there is a lot of freedom in deciding which themes will be developed more deeply.

First of all the monitoring authorities will have their own priorities that must be incorporated (figure 5). For instance, the Bremen city monitoring system focuses on typical urban problems. Therefore, as main themes for monitoring the social situation it elected income poverty, language acquisition and migratory background of it's population. Separately, Bremen (Kommunalverbund) has another monitor (http://www.demografie-monitoring.de/) that contains purely demographic indicators such as population figures and population movements (migration, births, deaths).

So, priorities may vary and change, and it is not always clear which themes may be high up on the agenda tomorrow. In order to expand the monitoring horizon beyond today's first priorities several sources can be consulted such as general demographic studies and publications, policy documents, the press.

Figure 5: Results from the monitoring questionnaire: Importance of monitoring themes



The aim of step 2 is **drawing a shortlist of general policy domains to be monitored in relation to demography (housing, care needs, labour market, education, population, ...)**, and refining within each domain the items to be developed. For instance, if "housing" is chosen as a monitoring theme, it has to be determined which specific elements and aspects will be documented: e.g. affordable housing, land use, quality of housing, construction and renovation as a sector of economy, vacancies and waiting lists in social housing. The more detailed the

labeling of these specific aspects is done, the easier it will be afterwards to determine the set of indicators to illustrate them.

2.1. Demographic data

All countries and regions represented in the DC NOISE project have statistical offices that publish data and studies on recent demographic trends. Some examples:

- The Netherlands: the series "Bevolkingstrends" by the "Centraal bureau voor de Statistiek"
- -Flanders: the series "SVR-Webartikel" and "SVR-Rapport' by the "Studiedienst van de Vlaamse Regering"
- Germany: the series "Demographischer Wandel in Deutschland" by the "Statistisches Bundesamt Deutschland"
- Norway: the series "This is Norway" (and several others) by "Statistisk sentralbyra"
- Statistics Belgium and Statistics Scotland offer a lot of recent demographic information that can be viewed (or downloaded) from their websites, but they do not seem to have long-term series of elaborate studies. However, useful links can be found on both those sites.

Besides the national or regional statistical offices, demographic societies and institutes also offer interesting short articles and series focusing on recent demographic trends:

Some interesting examples are:
- "Demos" by NIDI, the Dutch Interdisciplinary Demographic Institute (Dutch and English version). For instance, in September 2010 Demos published a special issue dedicated to "Population decline and policy) on the occasion of the European Population Conference 2010 (http://www.nidi.nl/Content/NIDI/demos/2010/demos-26-epc-wprb.pdf) .
- "Demographische Forschung" by the Max Planck Institut für Demografische Forschung also features an English version "Demographic Research". It is a scientific journal aimed at demographers and social scientists all over the world, but a subseries "Demografische Forschung: Aus Erster Hand" contains interesting short newsletters aimed at a broader audience. For instance, the 2011 nr.1 edition (http://www.demografische-forschung.org/archiv/defo1101.pdf) contains a one page article on the accuracy of German population projections, and the demographic shifts that caused projection errors.

With some exceptions (Statistics Norway publications, "Demos", "Demographic Research") most material is only available in the national language. Nevertheless, even taking into account differences in regional demographic trends, it must be stressed that literature from most countries and regions is perfectly relevant for others. In other words, even if the literature or the data are not specifically focused on smaller regions, they can still be used as a source of inspiration.

The Bremen Kommunalverbund demographic monitor (http://www.demografie-monitoring.de/) is a good example in the sense that it covers the major demographic themes in a flexible online tool. All indicators can be downloaded, viewed and compared down to the lowest geographical level and data are available for recent years as well as for the projected future. The software application by Geo-Wise is fast and intuitive, and very helpful to users interested in maps as well as users who want access to the raw data.

2.2. Domains of public policy

It can be taken for granted that monitoring instances in all partner regions are well aware of the major policy debates in their own regional setting. But developing "a feel" for how they are linked to demography is another matter. Luckily, there is no shortage of relevant literature, but different types of sources will differ in how they treat the matter. For instance, going through the daily press may give good indications of the popular view and the amount of attention paid to different policy issues. Therefore it is a useful source of information. But the daily press often tends to focus on hot issues and "exotic" cases rather than on slow ongoing trends. Furthermore, as it targets the general public, the amount of analysis is usually quite limited. On the other hand, newspapers and the media are strong communicators and often show good examples of translating and visualizing complex information to a non-specialized audience.

On the other extreme, scientific studies will offer plenty of analysis, explanation and in-depth information. But from a monitoring point of view they may have drawbacks too. The content of scientific research is much less influenced by the political agenda, and scientific debate is sometimes too academic to raise public attention. Furthermore, scientists often lack the communication skills that are needed to convince policy makers as well as the general public.

A good balance between communication value and content is usually found in reports and studies commissioned by public instances and executed by a team of field experts and scientists. Ministries, departments, local authorities, planning offices etc. that commission studies will generally publish the reports on their websites.

In the field of ageing, health and care, a very inspiring report entitled "Ouderen nu en in de toekomst"[3] [4]was found. It resulted from cooperation between the Dutch "Rijksinstituut voor Gezondheid en Milieu" and the "Sociaal en Cultureel Planbureau" SCP (Federal Institute for Health and Environment, and, Social and

[3] Can be translated as: "The elderly, today and in the future"

4 Berg Jeths A van den, Timmermans JM, Hoeymans N, Woittiez IB. Ouderen nu en in de toekomst. Gezondheid, verpleging en verzorging 2000-2020. Bilthoven: Rijksinstituut Voor Volksgezondheid en Milieu, 2004.

Cultural Planning Office). It treats the major issues in public health and ageing in a way that is open and interesting to scientists, but also to politicians as well as the general audience. The report can be downloaded from: http://www.rivm.nl/bibliotheek/rapporten/270502001.html .

Furthermore, Table 1 on the next page gives some more recommended publications by our DC NOISE partners.

Partner	Name/ Title	Type of publication	Web link	(First) Publication date	Periodicity	Author	Language
Bremen	Demografie Gemeinden	Interactive interface	www.kommunalverbund.de/projekte/demografie_gemeinden.html	2009		Kommunalverbund	German
Bremen	Demografie Kreise	Interactive interface	www.kommunalverbund.de/projekte/demografie_kreise.html	2009		Kommunalverbund	German
Bremen	Bremen im demographischen Wandel 1984-2005	Report	http://www.bauumwelt.bremen.de/sixcms/media.php/13/Bremen%20im%20demographischen%20Wandel1.pdf	2007		SUBVE	German
Bremen	Bremen im demographischen Wandel 2006-2020	Report	http://www.statistik.bremen.de/sixcms/media.php/13/BidW%20Modellrechnung%202006%20bis%202020.pdf	2008		SUBVE	German
Hamburg	Wachsende Städte, schrumpfende Quartiere. Kleinräumige Analyse	Article (Journal)	http://www.tu-harburg.de/stadtplanung/html/service/doksteile/Literatur/Pohlan_2008_014.pdf	2008		Kaiser, A. / Pohlan, J.	German
Hamburg	Reurbanisierung als Trend? Folgen des Wandels der raum-zeitlichen	Chapter / Part of book		2009		Pohl, T.	German
Hamburg	Die fragmentierte Region. Eine kritische Kommentierung des planerischen Wachs-	Article (Journal)		2005		Thaler, A. / Winkler, M.	German
Knutepunkt Sørlandet	Fakta om Kristiansand, befolkning og prognose	website	www.kristiansand.kommune.no		Yearly update	Per Gunnar Uberg	Norvegian
Knutepunkt Sørlandet	Regionstatistikk Knutepunkt	website	www.knutepunktsorlandet.no		Yearly update	Per Gunnar Uberg	Norvegian
Province of East-Flanders	Sociale Situatieschets van Oost-Vlaanderen	Report	http://www.oost-vlaanderen.be/docs/nl/jx/2642sociale%20situatieschets%2008-12-06%20lr.pdf	2003	Every 3 years	Steunpunt Sociale Planning Oost-Vlaanderen (SSP)	Dutch
Province of East-Flanders	Ouderencahier	Report	http://www.oost-vlaanderen.be/docs/nl/c/5465oost-vlaams%20ouderencahier.pdf	2007		Steunpunt Sociale Planning Oost-Vlaanderen	Dutch
Province of East-Flanders	Sociaal-economische situatieschets van Oost-Vlaanderen	Report	http://www.oost-vlaanderen.be/docs/nl/sy/5744ses%202009.pdf	2009	Yearly	Huis van de Economie – studiedienst	Dutch
Province of West-Flanders	Regionale Omgevingsanalyse	Report	www.west-vlaanderen.be/NL/CultuurVrijeTijd/socialeplanning/Documents/regionale_omgevingsanalyse.pdf	2009		Steunpunt Sociale Planning West-Vlaanderen(SSP)	
Province of West-Flanders	Sociale Situatieschets	Report	www.west-vlaanderen.be/NL/CultuurVrijeTijd/socialeplanning/Documents/welzijn_zorg/sociale_planning/publicaties/sociale_situatieschets2007.	2007		Steunpunt Sociale Planning West-Vlaanderen(SSP)	Dutch
Province of West-Flanders	Feiten en Cijfers	Report	www.west-vlaanderen.be/economie	2009	Yearly	Province of West-Flanders: department of economics	Dutch
Twente	Twente index	Monitor, Report and general overview: state of the region	www.twente-index.nl	2005	yearly	University of Twente, Saxion Hogeschoolen, Regio Twente, Kamer van Koophandel,	Dutch
Twente	Twentse Woningmarkt Monitor	Monitor, Report about the state and development of the housing market	stories/publicaties/99399_twentse_woningmarktmonitor_2008_regio_twente_09-13-11.pdf	2006	yearly	I&O Research Enschede	Dutch
Twente	De krimp van de groei	Report	http://www.regiotwente.nl/images/stories/leefomgeving/wonen/de_krimp_van_de_groei.pdf		once		
Twente	Trendverkenning Demografie	Website	www.provincie.overijssel.nl/beleid/trendbureau	2008	once	Province of Overijssel	Dutch
University of Abertay Dundee	Demographic Change	Report	http://www.dundeecity.gov.uk/dundeecity/uploaded_publications/publication_991.pdf	2007		Dundee City Council	English
University of Abertay Dundee	Population Matter	Report	http://www.dundeecity.gov.uk/dundeecity/uploaded_publications/publication_85.pdf	2004		Dundee City Council	English
Zeeland	Bevolkingsprognose 2004	Population forecast	http://kreeft.zeeland.nl/zeesterdoc/ZRU-O/ZEE/ZEE0/4004/400491_1.pdf	2004			Dutch
Zeeland	Onverkende Paden, Uitdagingen voor de provincie Zeeland door de	Monitor on effects of demographic change	http://kreeft.zeeland.nl/zeesterdoc/ZBI-O/ZEE/ZEE0/8004/800494_1.pdf	2008			Dutch
	Mainstreaming Ageing: Indicators to Monitor Sustainable Progress and Policies		http://www.euro.centre.org/data/1192809590_39180.pdf			Bernd Marin and Asghar Zaidi (Eds.)	
	Aging and Demographic Change in European Societies: Main		http://www.monitoringris.org/documents/tools_reg/agingdemochange.pdf	2007		Rainer Muenz	
	Misverstanden over vergrijzing	Article (Journal)	http://www.nidi.knaw.nl/en/output/demos/2005/demos-21-05-beets.pdf	2005		G. Beets, T. Fokkema	Dutch
	Demos themanummer: krimp	Theme- Issue	http://www.nvdemografie.nl/activiteiten/congres/2008/demos_jrg_25_nr_1.pdf	2008			Dutch
	Handleiding beleidsevaluatie. Deel 2: Monitoring van beleid	report	http://soc.kuleuven.be/sbov/ned/publicaties/detail/sn020521.htm	2006		De Peuter Bart, De Smedt Joris & Bouckaert Geert	Dutch
	Krimp als kans	website	http://www.krimpalskans.nl/	2006		Parkstad Limburg	
Bremen	Sociale Stadt Monitoring	Monitoring report	http://www.bauumwelt.bremen.de/sixcms/media.php/13/Bericht%20Monitoring%20Soziale%20Stadt%20Bremen%202008.pdf				
Parkstad Limburg		Interactive monitoring	http://parkstad-limburg.buurtmonitor.nl/				
Parkstad Limburg	Burgeronderzoek	Survey Report	http://parkstad-limburg.buurtmonitor.nl/report/bo-parkstad07.pdf				
Zeeland	Nieuw!Zeeland	Website	http://www.nieuwzeeland.nu/				
Zeeland	Op Pad!	Report	http://www.nieuwzeeland.nu/topics/nieuwzeeland/index/oppad.pdf				
	Monitoring Demoghraphic Change: Theoretical	Chapter / Part of book	http://depot.knaw.nl/2464/1/18947.pdf	1999		F. Willekens	
	Demographic Trends, Socio-Economic Impacts and Policy Implications in the European Union - 2008	Monitoring report	http://www.nidi.knaw.nl/en/output/2009/demography-monitor-2008.pdf/demography-monitor-2008.pdf		Yearly	European Observatory on the Social Situation - Demography Network	
	Health Status and Living Conditions in an Enlarged Europe - 2007	Monitoring report	http://ec.europa.eu/employment_social/spsi/docs/social_situation/2007_mon_rep_health.pdf		Yearly	European Observatory on the Social Situation - Health Status and Living Conditions Network	

Step 3: Selecting and constructing indicators

Once the thematic focus of the monitor is clear, the practical issue of selecting and constructing useful indicators arises. As Daniel Gilmour and David Blackwood describe it in their report: **"an indicator is something that tells us where we are, which way we are going and how far we are from where we want to be"**. Of course, this last element (the benchmark) is linked to the evaluation aspect of the Dundee monitor and may not be applicable to the other regions.

3.1. Selection

A monitor depends on good indicators. They should be just what the term says: an indicator of for instance poverty should provide a meaningful indication of the state of poverty of the population or part of it. To be more precise: **indicators should meet the criteria of both validity and reliability**. Validity[5] stresses the point of knowing what exactly is measured by the indicator, how close that content is to what it intends or states to measure, and how it will be understood or interpreted by the users. If these three elements fall together the indicator is valid[6]. Validity can only be assessed after proper definition of the indicator. Reliability is the demand that if measurement would be repeated in identical circumstances, the outcome should always remain identical too. In other words, we want to be sure that different values of our indicators over time or between regions indicate a real trend change or a genuine regional effect rather than measurement bias. And of course, we need to know and communicate what exactly is measured, and describe the results accordingly.

But however valid and reliable an indicator may be, it should be kept in mind that a single indicator can seldom grasp the full complexity of any social reality. Intuitively a concept such as poverty may be clear but it has many forms and dimensions: "income poverty" is different from general "deprivation". Social "vulnerability" is yet another expression of the same general concept. Also, the distribution of wealth and poverty may tell a different story from the average or absolute level: this is the problem of "relative poverty". So, if we would want to capture all aspects of even a single issue, an enormous set of indicators would be needed. Obviously, that is not what we suggest to do. Instead we need to think carefully which aspects are crucial and need to be documented, given the information that is available and the limits of space in the publication, website or whatever medium is used for publishing the monitor.

Interestingly, this discussion on multi-dimensionality and measurement of social reality is very relevant to preference for quantitative data versus qualitative sources of information.

Qualitative data is often preferred when:

[5] D. Gilmour and D. Blackwood use the term "materiality"
[6] Sometimes a distinction is made between "internal" and "external" validity. We refer to internal validity.

- ✓ the subject is too multidimensional and intrinsically complex to be measured and expressed in a limited set of numbers
- ✓ the numerical expression would be too far off from the experienced reality to be relevant
- ✓ the outcome of the research has a format that cannot be efficiently expressed in numbers (outcome of a group discussion)

Quantitative data is preferred when:

- ✓ indicators with a satisfactory level of reliability and validity are obtainable
- ✓ a strict framework for comparison is needed

Evidently, indicators have to meet quality requirements. But their selection depends first of all on content. If the shortlist of monitoring subjects (step 2) was executed with enough detail, finding a range of indicators should not be too difficult. Many websites and publications provide inspiration for potential monitoring indicators. For the Flemish Region, a 400-page indicator report is issued every year (VRIND: Flemish Regional Indicators). It is estimated to present well over a thousand indicators, all in tables and charts, classified according to policy domain, properly documented and with a brief discussion as an aid to correct interpretation.

Similar publications (statistical yearbooks, results from targeted surveys, general ones as well as thematic ones) are widely available to all DC NOISE partners. Appendix A lists a number of examples. So, the matter of defining a set of indicators boils down to reducing a much more extensive list that can easily be compiled by consulting relevant media. Reduction of the long-list can be achieved by scoring each candidate-indicator against a set of questions as proposed below and eliminating the indicators with the lowest scores:

1) Is the indicator a core element or representation of one of the chosen policy domains? Is it a valid element?
2) Can the indicator be computed for your own region? Are data available and will they be representative for your regional situation? Is it defined clearly enough for it to be duplicated?[7]
3) Can time series be built for this indicator in your region, stretching from the past to the future? [8]
4) Is it clear how it relates to demographic change: is it cause or consequence?
5) Do policy documents refer to this indicator as a policy variable: one for which change is desired, or is to be avoided, or for which any specific policy goals are set (e.g. the Lisbon goals, the Dundee Urban Regeneration strategy)?
6) Is the indicator built in such a way that it can easily be compared to other regions or other countries?
7) Do international standards exist for this indicator, and does the indicator comply with them (for instance UNECE, Eurostat or ILO-definitions)? If needed, can it be converted to comply with international standards?
8) Does the indicator complement rather than duplicate other useful indicators relating to the same policy domain?

[7] This criterion was called "practicability" in the Dundee paper on indicator development
[8] This criterion was called "tractability" in the Dundee paper on indicator development

There is no rule to tell how many indicators would be needed for a monitor, but it must be remembered that **one of the common pitfalls in building a monitor is to start of too ambitiously with a huge set of indicators, only to realize afterwards that there are insufficient means or skills to update the monitor systematically**.

In the Dundee policy implementation monitoring tool, indicators were selected through literature review (mainly policy documents), but care was taken to align them as closely as possible to Scottish Government indicators.

3.2. Computation

Computation of a variable (indicator) from raw data is often quite straightforward, but it can get quite technical and complicated in other cases. Several issues could arise, depending on the structure and content of the basic dataset. It might be necessary to extract data from other basic file formats by converting, matching, reweighing etc (Acces, person-period files, statistical software packages,…). More information on these topics can be found in the statistical literature.

Step 4: Metadata, documentation, interpretation examples

As was mentioned in the introduction, a monitor is more than a set of indicators presented to the public. After all, the intention is to communicate information on policy and demographic change to a mixed audience. Indicators are a very dense representation of that information, in a shape that lends itself to comparisons, extrapolations etc. but they have **little meaning on their own and they require help for correct interpretation**. Otherwise, they can even be very misleading.

That is why it is important to give a **clear label** to each indicator, and to explain to what degree this label is warranted by the data-collection and by subsequent calculations on the data. For instance, an indicator named “health status” with a number of discrete categories ranging from “very good” to “very poor” should be properly described and documented. The label can be further specified: “self-perceived health” or “ADL-functional health”. Such labels refer to standardized methods of measuring health status according to for instance the WHO (World Health Organization). It will immediately be clear to users that such an indicator was carefully constructed, that it is widely considered as a useful (valid and reliable) one, and that it’s value can in principle be compared to other regions and other countries, even across the world. Such standardized indicators exist in most fields, but not in all.

However, in some cases it may be preferred not to adhere to international standardized definitions. A classic example is the “dependency ratio”. According to Eurostat, it is computed as the ratio of the non-active population and the active population defined as the total of age groups 0-14 and 65+ divided by the population aged 15-65. Clearly, in today’s Europe it is very questionable whether 15 to 20 year olds should be considered part of the active population. Furthermore, this

may depend heavily on the importance of young adults in systems of combined work and schooling (VET: Vocational education and training): “leercontract” and ”Deeltijds Beroeps Secundair Onderwijs in Belgium, “Beroepsbegeleidende leerweg” in the Netherlands, “Fachschule” in Germany, “Yrkesopplaering” in Norway and “Apprenticeship” in the UK. Even within vocational education and training young adults will not always be considered as actives. All this indicates that even the activity rate, a standard indicator crucial to one of Europe’s most important political strategies (the Lisbon strategy) may be internationally comparable by definition, but not by interpretation. To translate this in the quality norms we mentioned earlier: the activity rate may be a very “reliable” indicator for the concept it measures, but it is not a very “valid” one.

Next, the data source should be described: does it stem from an enumerated census, complete administrative data, or a survey sample? In case it was a sample, what was the sample size and the response rate? What sampling frame was adopted: sampling by individuals or households, proportionate or disproportionate? Were any corrections undertaken to correct for distortions caused by response bias or by the sampling design? **In short, all known factors that could influence correct measurement or extrapolation of that measurement to the total population should be logged. If any real influence can be expected, this should be mentioned in the publication or website**.

Finally, if the monitor does not contain a full discussion of all the tables and indicators, at least a few **interpretation examples should be provided for each type of indicator, table or chart**. This serves several purposes. Obviously it is first of all good courtesy to the reader. Furthermore, it helps avoiding misunderstanding of what is actually measured. In addition, it provides some space for discussing exceptional events that have nothing to do with measurement, and are limited to specific subgroups or timeframes. For instance, German reunification caused a sudden shift in all kinds of time series of data. Similarly, changes in legislation, political events, economic and stock-market shocks should be mentioned and discussed whenever they are likely to influence reported trends.

Step 5: Presentation

Presenting information in a way that is visually attractive and clear is a huge bonus. But map design and visualization of data is a large subject that we cannot treat extensively in this text. However, guidelines, publications and interactive tools can easily be found in various websites:

http://www.juiceanalytics.com/chart-chooser/ is an interactive tool to choose charts types and download as Excel or PowerPoint templates;

http://www.personal.psu.edu/cab38/ColorSch/Schhome.html and http://colorbrewer2.org helps choosing color schemes for different types of charts and maps.

There is also plenty of literature on the subject. Edward R. Tufte and Robert L. Harris are a few of the renowned classic authors in the field.

Finally, we would like to recommend that if the monitor is web-based, the opportunity should be taken to incorporate not only static images and charts, but to **use the dynamic capacities of modern informatics**. Moving images in short videos or PowerPoint presentations are very well suited to pass on complex information on change to a broader audience. A very skillful and inspiring example of presentation of statistical data can be watched in the video clip on: http://sixminutes.dlugan.com/six-simple-techniques-for-presenting-data-hans-rosling-ted-2006/ . Even if the techniques that were shown in the clip relate to a live powerpoint based presentation, most of them would also apply to a web-based monitoring instrument.

Step 6: Updating and follow-up

Keeping a website up-to-date or publishing a new paper or electronic edition of a monitor mainly consists of repeating the steps described previously. But **updating is so crucial to monitoring** that it certainly merits being treated as a separate step. After all, monitoring is about comparing: first over time, but also between regional entities, between subgroups or between institutional settings. To put it simply; **the main challenge in monitoring is often more about managing long-term sustainability of the system than about collection, treatment and documentation of data.**

Most elements of the monitor are subject to updating. Indicators should be updated, which involves recalculating but also checking for changes in the basic dataset. Indicators are often based on databases (land register, social security register, population register, educational database, …) that were set up originally for purely administrative reasons. It is very common for nomenclatures in these databanks to change as a result of new legislation. If this happens, metadata must be adapted, and the change should be highlighted in the monitor.

Routinely it is advisable to compare all indicators before and after updating, and find explanations for any change. It must be excluded that changing indicator values are related to measurement and data issues before they can be properly used for social analysis.

A round of updating is also a good occasion to review priorities and monitoring domains, on the look for new subjects. Maybe opportunities arise when new data become available, for instance through a population census (as most European countries organize in 2011), the launch of a large-scale survey, publication a study results etcetera.

Just like other media, a monitor can benefit greatly if it can manage to consistently be among the first to inform its audience of any relevant change. This is true for qualitative information and new publications (e.g. “yearly ageing reports”), as well as for quantitative data. A web-based monitor can put special focus on all this by keeping a “What’s new?”- buton and a related page, by updating all links to other websites on a regular basis, and by keeping an updated list of users and spreading newsletters or newsflashes among them.

Section II: Indicator development for the West-Flanders demographic monitor

Introduction

Over the last ten years, the province of West Flanders developed an infrastructure for data-management and analysis. Although not always under that label, it has done quite a lot of monitoring work. The provinces Social Planning Interface (SSP: Steunpunt Sociale Planning), founded in 2002, manages a social planning database which it is still continuously being expanded. The database contains information on many policy domains: housing, labour market, education, health and disability, demography, poverty, income, etc. Most of this information is available in great detail: by municipality or even by building block. A GIS-system allows most indicators to be presented in detailed maps.

Clearly, developing a demographic monitor for West-Flanders does not start from scratch. The Social Planning Interface already acquired most of the raw data as well as the expertise to turn these data into documented indicators. Many indicators on demographic change are already available. This exercise can therefore be limited to reviewing existing applications and checking the data-inventory for new possibilities. However, recommendations will be made for some relevant indicators that are beyond the reach of the current database.

Fixed applications

Although the Social Planning Interface specializes in tailor-made analyses as a service to the municipalities and other regional instances, it has also developed a good number of fixed applications. These recurrent exercises constitute a strong basis for a monitoring system:

- West-Vlaanderen Ontcijferd ("West Flanders in numbers"): Themes:
    - Demography, housing and spatial planning, welfare and education, economic activity by sector.
    - Data available by municipality.
    - Yearly publication since 2001, last edition 2011.
    - Weblink: http://www.west-vlaanderen.be/ondernemen/eco_onderzoek/sociaaleconomischedatabank/Documents/West-VlaanderenOntcijferd2011_Deel1.pdf

- Gemeentelijke Steekkaarten ("Municipality index cards"): Themes:
    - Demography, household composition, welfare support, (social) housing, land use, labour market, education, economic activity
    - Data available by municipality.
    - Yearly publication

- Weblink: http://www.west-vlaanderen.be/ondernemen/eco_onderzoek/sociaaleconomischedatabank/Documents/ec_onderzoek_Steekkaart2009.pdf

- Resoc[9] Dataset: Themes:
  - Demography, housing and spatial planning, welfare and education, labour market, economic activity by sector.
  - Data available by district (public data downloads possible).
  - Yearly publication
  - Weblink: http://www.west-vlaanderen.be/ondernemen/eco_onderzoek/sociaaleconomischedatabank/Documents/20091008-ST-Dataset2009_Annex.pdf

- Sociale Situatieschets ("Social Situation overview"): 2007: Themes:
  - Demography, household composition, welfare support, (social) housing, land use, labour market, education, economic activity
  - Data available by municipality.
  - Yearly publication
  - Weblink: http://www.west-vlaanderen.be/kwaliteit/Welzijn/socialeplanning/Documents/welzijn_zorg/sociale_planning/publicaties/sociale_situatieschets2007.pdf

- Regionale Omgevingsanalyse (Regional Enviroment Analysis) 2008: Themes:
  - Demography, household composition, welfare support, (social) housing, land use, labour market, education, economic activity
  - Indicators focusing on social policy
  - Data available by region (6 regions within West Flanders province)
  - Last edition 2008 (will not be updated in the future)
  - Weblink: http://www.west-vlaanderen.be/kwaliteit/Welzijn/socialeplanning/Documents/regionale_omgevingsanalyse.pdf

- Gemeentelijke woonfiches (municipality housing index): Themes:
  - Demography, land use, typology and affordability of dwellings, social housing, housing premiums (subsidies)
  - Data available by municipality
  - No weblink

- Seniorenbehoeftenonderzoek ("Elderly needs survey"): Themes:
  - Demography, housing, community-involvement, loneliness, (in)security, mobility, health, care provisions, information, participation and volunteering, experiencing old age, labour market retirement, media use, daily activities, …
  - Data available by municipality. Municipalities are free to participate in the survey. Coverage is approaching 50% of municipalities

[9] Resoc is an intermediate geographical level between municipalities and provinces. Formally, it is a regional platform were social partners and local policy makers meet to discuss matters related to economy and the labour market

    - No central weblink, but an example can be viewed on: http://www.west-vlaanderen.be/kwaliteit/Welzijn/socialeplanning/Documents/Zwevegem.pdf

- Kustkompas ("Coastal compass") 2007 : Themes:
    - Trafic, housing and environment, tourism and recreation, economic activity, climate and sea level
    - In total 31 indicators on sustainable development in the coastal region
    - Data for entire region only
    - Public downloads possible
    - Continuous updating
    - Website: http://www.vliz.be/projects/indicatoren/db.php?year=2007

- Vergelijkend Wijkenonderzoek ("Comparative neighborhood survey"): Themes:
    - Neighborhood profiles using about 20 social indicators on demographic composition, labour market status, housing profile, education etc.
    - Data by neighborhood as defined by the municipality
    - Municipalities are free to participate
    - An example can be viewed on: http://www.zwevegem.be/over-zwevegem/info/onderzoeken/wijkenonderzoek/objectieve-gegevens-2008

- Kansarmoede-atlas ("Poverty atlas") 2011: Themes:
    - 6 poverty dimensions with threshold values: Demography, housing, education, unemployment, vulnerable elderly, vulnerable youth
    - Data by census tract (neighborhood)
    - 2-yearly update
    - An example can be viewed on: http://www.west-vlaanderen.be/kwaliteit/Welzijn/socialeplanning/Documents/Tielt%20Gemeentelijke%20steekkaart.pdf

- Grensoverschrijdende Atlas 2006 Opaalregio (Transnational atlas Opaal region): Themes:
    - Ageing, unemployment, tourism, economic activity and location
    - Maps by municipality, covering the Flanders and Northern France coastal region.
    - Results can be viewed on: http://www.gogis.eu/Observatorium/Presentatie.pdf

Data inventory

In most cases, the fixed applications cited above were created by the Social planning interface, using own data that were processed in-house. Below is an overview of raw data that currently serve as a basis for all these exercises. Data are grouped by subject, by source and by statistical (data query) application:

AVAILABLE DATA (Update 08/02/2010)

1) <u>Demography</u>

A) Population cube: down to building block level, 2002-2009, INDIVIDUAL

- Age
- Sex
- Nationality
- Nationality at birth
- Stability of dwelling address
- Marital status
- Relation to household reference person (head of family/household)
- Register (resident population, asylum seeker waiting list and foreigner register)

B) Household cube: down to building block level, 2002-2009,

- Age
- Sex
- Nationality
- Stability of dwelling address
- Household seize
- Number of children
- Marital status
- Register (resident population, asylum seeker waiting list and foreigner register)
- Single parent households
- Unemployed job-seeker
- Dwelling ownership

C) Disk storage:

- Official Population projections (2007-2060, arrondissement level)
- Population projections municipality level (to 2030) using Janus II-program
- Household projections (to 2025, municipality level) Flemish Region Edition
- Migration profiles by age (2007, municipality level)

D) PLS:

- Births and deaths
- Migration
- Marriage and divorce

2) <u>Finance data</u>

A) Disk storage:
- Declared income fiscal data (1993-2007) (municipality level and census-tract level)

3) <u>Housing</u>

A) Population Census 2001 (municipality level and census-tract level)
Disk storage

B) Kadaster cube: down to building block level, 2003-2008
- Property title (does owner reside on property?)
- Type of ownership
- Dwelling type (appartment/individual dwelling)
- Inhabited
- Year of construction

C) APS (Flemish government data):
- Price of dwellings

D) Disk storage
- Social renting inventory, 2008
- Data social housing corporations, 2007
- Building permits 1996-2007 (municipality level)
- Applications social housing, municipality level, 2003-2007
- Subsidies (issued premiums)

4) <u>Social-economic data</u>

A. Disk storage
- RESOC-file cards, 2008
- Tables from "Facts and figures" publication, Department Economy, 2008 (labour market indicators, employment sectors, social employment)
- Labour market evolution: WAV- and WSE-files, GOM_POM

B. Job-seeker cube: down to building block level, 2003-2009
- Age
- Sex
- Education
- Category
- Duration of unemployment
- Nationality
- Unemployed due to fysical handicap
- Household information: head of household, family seize, single parent household

5) <u>Education</u>

A) Education cube: down to building block level, school year 2004-2005 up to school year 2008-2009
- grade
- study field (full-time or part-time and specific field of study)
- type (normal school or special school adapted to limitations)
- school orientation(General, technical, professional, arts)
- School denomination
- School adress
- Students year of birth
- Students sex
- Students nationality
- Students adress

6) <u>Poverty</u>

A) Flemish statistical institute:
- GIB/IGO low pension income supplement (up to 2007, municipality level)
- Health insurance precarity status (up to 2007, municipality level)

B) Disk storage:
- Minimum income supplement, 2002-2008, by age and sex
- Consumer credits, 2007-2008

7) <u>Persons with a handicap</u>

A) Disk storage:
- Numbers by age, handicap, type of care, 2006,
  also students in special education

B) Flemish statistical institute:
- Entitlements to support (tem 2008)

8) <u>Other</u>

A) Child and mothercare-cube: down to building block level, 2001-2008
- Births (poverty-risk)
- Labour market position (poverty-risk)
- Health (poverty-risk)
- Housing (poverty-risk)
- Income (poverty-risk)
- Development (poverty-risk)
- Education (poverty-risk)
- Number of children
- Single parent household
- Nationality

B) Disk storage:

- People entitled to government care insurance (tem 2007)
- Programmation and approval of home care, short stay centers, day care centers, residential elderly care centers and service-flats
- Health: simulations of use of pharmaceuticals
- Child day care capacity 2007, 2008, 2009
- Poverty-atlas
- Elderly needs survey
- Social Situation overview
- Comparative neighborhood survey

9) MAPS

All available data can be put in maps, including all service provisions.

Structure of the monitor

Many existing fixed applications in the SSP data warehouse contain demographic indicators, but these were not the central theme. Instead, the demographic indicators often function as a general introduction, or as a single aspect of another central issue. The monitor discussed here is specifically focused on demographic change. All themes and topics should reflect this focus, and the general structure of the monitor should best be built around population movements. Thematic structure could then be as follows:

1. Population stocks and flows
    a. Resident population
    b. Births
    c. Deaths
    d. Internal migration (inside national borders)
    e. External migration (over national borders)
    f. Administrative flows in and out of population register and its 3 sub-registers
2. Households
    a. Number of households
    b. Household types (preferably LIPRO, but position by marital state and presence of children is another option)
    c. Family seize
    d. Marriage and divorce
3. Demography and housing (+ spatial planning)
    a. Type of dwelling
    b. Ownership/rental type status
    c. Dwelling and occupancy status by inhabitants characteristics
4. Demography health and care
    a. Provisions (type, location, capacity)
    b. Indicators on present population by health status and care type
    c. Future care needs
5. Demography and social poverty
    a. Receivers minimum income, minimum pension, health care cost supplements
6. Demography and the labour market
    a. Local labour market structure
    b. Position of local population on the labour market
    c. Labour market and ageing
7. Demography and education
    a. Schools by type, location and capacity
    b. Schools and commuting: where do local youth go to school, where do students in local schools live

Selection and computation of indicators

As a general rule, indicators can best be computed on the lowest possible geographical level. However, neighborhoods (census tracts) are sufficiently fine for almost all standard applications especially if results are intended to be publically accessible. Obviously, some indicators can only be computed for larger units, either because proper data do not exists, or because they risk becoming unstable due to small sample seize.

Below, a tentative list of indicators is made up. The list was compiled by cross-checking population-related indicators found in demographic and socio-economic studies and reports against the contents of the SSP-database. In principle, the large majority of these indicators can be computed using SSP data. However developing a monitor is the start of a long-time effort and ambitions should best be limited to a model that can realistically be maintained far into the future. Considering that keeping it up-to-date, properly documented and user friendly takes a considerable investment, a subset of the indicators below is selected for the final monitoring proposal. These indicators are marked in green text.

1. Population stocks and flows:
    a. Resident population:
        i. Total population by sex and age (age average)
        ii. Population density
        iii. Total population by nationality (group)
        iv. Total population by position regarding population register
        v. Population increase last year/over 5 years (index100), total population + age groups
        vi. Population increase last year/over 5 years (index100), nationality and position regarding population register
        vii. Population projection outcomes
        viii. Comparison to higher geographical levels (municipality, region, province)
    b. Births
        i. Number of births
        ii. Estimated fertility rate (indirect TFR estimate[10]), municipality level
    c. Deaths
        i. Number of deaths
    d. Internal and external migration
        i. Number of people coming in (by origin) and moving out (by destination or death) of municipality during last year, age groups

[10] Correct calculation of the Total Fertility Rate (life time total number of children for women) requires data that are usually not available for small populations or single municipalities. However, simple techniques exist for estimating a reasonably accurate value. An example for Belgium can be downloaded from: http://www.vub.ac.be/SOCO/demo/papersonline/SD2000-7.pdf

e. Administrative flows in and out of population register and its 3 sub-registers
    i. Number of people changing between population subregisters (asylum seekers, eradications,..)= all people who where not in main population register at t0 and t1, but reside in municipality

2. Households
    a. Population by marital status
    b. Number of households
    c. Household types (preferably LIPRO, but position by marital state and presence of children is another option)
    d. Household (family) seize
    e. Average number of children by household type
    f. Marriage and divorce (Total numbers)
    g. All previous indicators compared to higher geographical levels (municipality, region, province), Index100-system
    h. Evolution: Number of households, percentage distribution household types, compared to previous year
    i. Household projection outcomes

3. Demography and housing (+ spatial planning)
    a. Type of dwelling
        i. Number of dwellings
        ii. Dwellings by type (house, apartment,…) using kadaster data
        iii. Dwellings by occupancy status (vacant?)
        iv. Dwellings by year of construction
        v. Number of building permits issued by number of dwellings (residential building sector only, ADSEI- data)
        vi. Number of unbuilt ground parcels with residential destination
    b. Ownership/rental type status
        i. Ownership and rental (%), by age group head of household
        ii. Volume and share of social rental sector
        iii. Candidates (waiting list) social rental sector (SHW)
        iv. Cost of living APS
    c. Dwelling and occupancy status by inhabitants characteristics
        i. Stability of address by age head of household + household type
        ii. Owner/tenant status by age group, household type, nationality group (HDI-typologie)
        iii. Pre-war/post-war dwelling by age group, household type, nationality group (HDI-typologie)
        iv. Dwelling type population 65+ and 80+: owner, tenant, institution
        v. Traveling distance home address to care provision centers (types of provisions to be further specified)

4. Demography health and care
    a. Provisions (type, location, capacity)
    b. Indicators on present population by health status and care type

i. Deaths below age 35, below age 50, + % in total number of deaths
ii. Child care (K&G) indication of social health risks

c. Future care needs programmation

5. Demography and social poverty (precarity)
   a. Receivers minimum income, minimum pension, social health care precarity status owners
   b. Newborns in socially vulnerable households (K&G)
   c. Other precarity indicators from "Precarity Atlas"-project

6. Demography and the labour market
   a. Local labour market structure
      i. Employment by sector (residents + non-residents)
   b. Position of local population on the labour market
      i. Labour market participation of local population + evolution recent years
      ii. Share of unemployed, by household position (all/head of household/head of household with children)
      iii. Average duration of spells of unemployment + evolution
   c. Labour market and ageing
      i. Percentage 50+ by sex and employment status
      ii. Labour market simulations as published in "Facet"-magazine
      iii. Using data from social security database (KSZ), projections by sector of employment could be made

7. Demography and education
   a. Schools by type, location and capacity
   b. Student population
      i. Children aged 6-12 by type of school (local children/all children)
      ii. Students aged 12-18 by type of school and field of study (Local students/all students)
      iii. Percentage of students with school failure
   c. Schools and commuting: where do local youth go to school, where do students in local schools live?
      i. All local students by location of their school
      ii. All local schools by origin of their students
      iii. Estimated future school population, based on school (level) participation rates (as in exercise Rebecca Verhaeghe)
      iv. School commuters: percentage of children going to school in own neighborhood, in own municipality, further away.
      v. Distance between dwelling and school (GIS-estimation)

User access to data

As a way of presenting information in a dense and yet attractive way, maps are very well suited for most users. Often maps are presented as an opener in the website, while more detailed tables are only accessible for downloading. Depending on the type of data, the level of detail and the sensitivity of the subject it might be considered to limit public access to data (e.g. by making downloads possible for registered users only, or even for a limited group of inside users).

Appendix: International Surveys relevant to demographic change:

- GGS-GGP : Gender and Generations Programme and the Gender and Generations Survey are a panel study containing a lot of information on partnerschip, parenthood and general demographic situation. It is organized by UNECE. More information can be found on http://live.unece.org/pau/ggp/welcome.html

- EU-SILC: Statistics on Income and Living Conditions is a EUROSTAT survey that focuses on poverty, exclusion, living conditions and other income-related aspects. It is conducted in all the countries represented in DC NOISE since 2004. Micro-data are available for scientific use. Web: http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/eu_silc

- ECHP: European Community Household Panel is a broader panel survey that covers income, working life, housing, social relations, health and biographical information. It was the predecessor of GGS-GGP until 2001 (last edition). Web: http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/echp

- EU-LFS: European Union Labour Force Survey is a large-scale sample survey going on since 1983 covering the labour market situation in the European Union (Norway not represented). Web: http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/lfs

- World Health Survey is a detailed survey on health status. Most data are available online. Web: http://www.who.int/healthinfo/survey/whsresults/en/index.html

Colophon

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