Local sustainable development as a factor in the perception of 'Quality of life'

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1.   Sustainable development and quality of life

In sustainable strategies 'quality of life' is used to define the goal of sustainable development or the status of being sustainable. For instance the 2001 EU strategy for sustainable development defined sustainable development as *a positive long-term vision of a society that is more prosperous and more just, and which promises a cleaner, safer, healthier environment – a society which delivers a better quality of life for us, for our children, and for our grandchildren.* Also EU nation states couple sustainable development with 'quality of life'. For instance in the Sustainability Outlooks that were published by the Netherlands Environmental Assessment Agency (Milieu- en Natuurplanbureau, MNP) in 2004 and 2007, sustainability is(roughly) defined as the '*availability and continuality of a certain quality of life*'. Some municipalities claim that their Local Agenda 21 is essentially about 'quality of life' (for instance Rushmoor Local Agenda 21) or that 'quality of life' is a term to describe its primary goal.

Much of the large literature on quality of life does not enter into concerns about sustainability (Robeyns and van der Veen, 2007). In this paper we will look into 'local sustainable development' as a factor in the perception of 'Quality of life'. We see living in a sustainable region or local community as desirable state for some individuals, perceived by them as important for their quality of life. The Brundtland definition of sustainable development as "*a development that meets the needs of the present without compromising the ability of future generations to meet their own needs*" means that sustainable development is not a synonym for quality of life. Simple because we can create a (individual) local 'quality of life' here and now for our community, but this does not have to match the needs of all individuals in the community nor people in other places or future generations.

The starting point of this paper is the empirical question how people in certain regions place 'local sustainable development' as a factor in their perception of 'quality of life'. Our main question is: *What role does local sustainable development play as a factor in the perception of 'quality of life' of their region by talents.*

Quality of life is seen as one of the most important factors in regional attractiveness. One aspect of the attractiveness of a region could be if the region is sustainable. Although sustainable development has an ecological, economic and social pillar, attractiveness is often related to the ecological dimension. The quality of our local living environment has a direct impact on the quality of our life. This is about health, but also for instance about having access to green spaces for example, and environmental risks. But 'being a sustainable community or region' can also be important element of the regional identity and branding of the region. This branding suggest than that a particular community or region is more sustainable than other regions or communities and therefore an attractive place to live.

There are many attempt to measure 'quality of life' with various categories and factors and there are various rankings of 'quality of life' in communities.

The first sub question in this paper is:

How are the categories and factors used in the various quality of life indexes relate to the dimensions of sustainable development?

We are interested in the perception of sustainable development as an attraction factor to attract or keep people in a region. There are two sides to this attraction factor 'being sustainable':

- creating a sustainable community as a place where people want to stay, including sustainable development as part of the communities local identity;
- marketing and branding a region or community as sustainable.

Regional policies to bind talents as well as regional marketing and branding strategies have to be based on the empiric knowledge and understanding of what makes a region attractive as well as on the needs and wishes of the people the region is trying to attract or retain. But these people have a specific view of what a high quality of life means for them personally. Quality of life is subjective depending on personal preferences, one's life phase and one's feeling about the regional identity. To understand the role of sustainable development in the attractiveness of a region we need qualitative information about the people´ perceptions of their living and working region. The second sub question in this paper is:

What do talents in a specific region perceive as the most important 'quality of life' factors and how do they rank sustainable development among other factors?

This paper is based on data are taken from the sub-project "Quality of Life" of the INTERREG IV C project BRAIN FLOW. The data is gathered through in-depth interviews with talents in five European regions.

2.   Sustainable development as a factor in being an attractive place to live

Why do people want to live in a community or region? And what attracts people to a certain community? Some people might have been born in a certain place and never had the opportunity to live anywhere else. For some people their personal choices are limited if they want to live close to friends or family or their job, while for other job opportunities is a matter of personal choice. Although most people have a special affinity for the place they call home, realistically not everyone lives where he ideally wants to live. But as far as the choice to live in a place is based on personal preferences, besides being close to the family and job, a catch word of other aspects that makes this place a worthwhile place to live is 'quality of life'?

In this paper we focus on 'quality of life' as an important factor to attract and bind people to a region. The sustainable of a place or community we see as one attractiveness factor within the overall perception of quality of life. Why might a sustainable community be attractive to life in? First we presume that a community that presents itself as sustainable is more sustainable than average communities. In branding and promotion communities use many labels like green city, sustainable city or climate friendly cities. Sometimes this is based on rankings that support this claim. There is an inherent problem with these claim because a clean and green city might be clean and green because of a lack of economic activity. Despite the slow growth city moved we can ask the question if a city that does not balance its economy with the ecological side of sustainable development can be really a sustainable because it cannot fulfil its (economic) needs

What is often stressed in this city promotion is the ecological side of sustainable development (like healthy environment, low pollution, etc.) Much less attention is given in city and region promotion to the social dimension of sustainable development

Why do would people find it important to live in a place that is more sustainable? Is it like with green products that it gives us a good feeling about a product, our do we maybe expect to sell our house easier?

The link between attractiveness and the ecological side of sustainable development is obvious. Nobody wants to live in a dirty and polluted place. The roots of environmental policy lay in the people well-being. But the first forms of environmental protection go back to city regulation in the Middle Ages and even earlier. What is interesting in these first forms of environmental protection is the role of local government. Environmental protection concerned the typical situations where city government interfered in the relations between individual citizens, often neighbours. If one citizen was hindering other citizens by his activities, like leather tanning or butchering animals within the city walls, city government interfered as a kind of arbitrator. Of course there were also general regulations with regard to the general interest for health and safety protection like the prohibition to throw death cattle in the city canal or for the use of open fire in the city (Coenen, 2012). A basic principle of environmental policy is to limit the negative influence of these disruptions on human health to non-harmful levels. There is also a strong relation between environmental quality and health. The World Health Organisation (WHO) definition of health emphasizes the physical, mental and social well-being: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Health is considered as an overall concept reaching beyond the absence of illness and ailments. Our health is to a considerable extent determined by the environmental quality. The relation between environment and health is extremely complex. Although many health problems are thought to be associated with environmental pollution, it is difficult to assess the seriousness, extent and causes of environment-related diseases. Besides environmental-related causes, there are other factors which can directly or indirectly lead to the same health problems. A causal connection between health effects and e.g. distribution of specific substances in the environment is often hardly or not demonstrable.

And what about increasing the attractiveness of a town or region by make it more sustainable as a factor within 'quality of life"? Creating a more sustainable community as a place where people want to stay, including sustainable development as part of the local identity, fits within the purpose of a Local Agenda 21 (LA21). There are cases documented of LA21 that aim at creating as a place where people really want to live, and also attracting people with a certain attitude towards sustainable development (Holm, 1999). Sustainable development becomes as part of the local identity, and maybe even the feeling that we can contribute to sustainable development is already a settlement factor. Here Local Agenda 21 is the process that aims to involve local people and communities in the design of a certain way of life.

LA21refers to the general goal set for local communities by Chapter 28 of the 'action plan for sustainable development' adopted at the Earth Summit in Rio in 1992. Chapter 28 is an appeal to 'local authorities' to engage in a dialogue for sustainable development with the members of their constituencies. Because LA21 is a supra-national initiative it leaves considerable room for cross-national variation as to how, when and why the LA21 idea becomes salient. The substance of any particular 'Local Agenda 21' will be relative to the specific nature of the local community in question (its geography, demography, economics, society and culture (Lafferty, Coenen and Eckerberg,). LA21 is a process that aims to integrate the social, environmental and economic aspects of development. But also the 'quality of life' concept integrates social, environmental and economic aspects. In the next section we discuss the dimensions of sustainable development and confront them in section 4 with the aspects of quality of life.
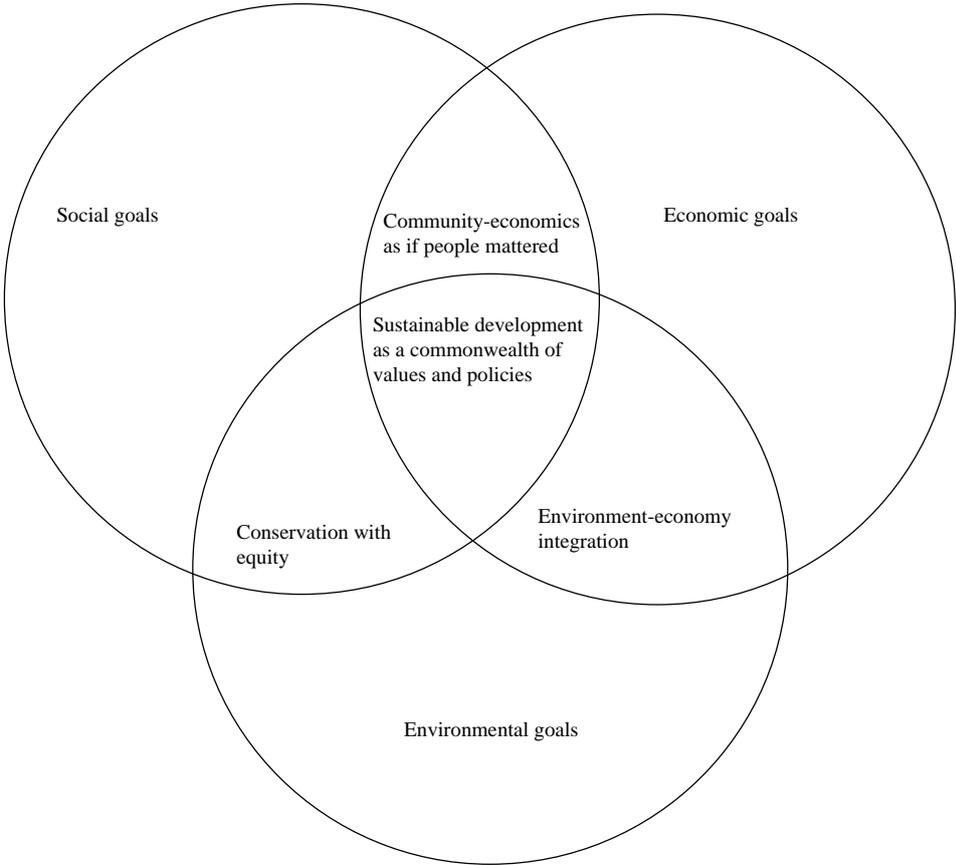
3.   Dimensions of sustainable development

The concept of sustainable development tries to comprise environmental, economic and social interests. The economic interests involve the development of national economies and aspects associated with it, such as economic growth and development of employment. Social interests are for

example sufficient job opportunities, a 'just' distribution of resources, safety, concern for human rights and democracy. The concept of sustainable development is used to advocate a well-balanced equilibrium between the environmental, economic and social dimension (World Commission on Environment and Development, 1987).

The concept of sustainable development is also widely applied as a basis for empirical models to conceptualize the causality of the relationship between the environmental, economic and social dimension. The roots of the basic model lie forty years back in Firey's (1960) theory of resource use that acknowledges a close relationship between environmental, economic and social development. Afterwards more sophisticated models were developed by economists, environmental scientists and sociologists. An overview of 29 variants on Firey's 'tree-part-model' is published by Hodge (1997). In the Bruntland interpretation the tree-parts-model depicts environment, economy and social wellbeing as mutual dependent dimensions of sustainable development. Variants add three elements to this model. In the first place the tree dimensions of sustainable development are unravelled. For example a distinction is made between the societal reality and government policies or policy targets for each of the tree dimensions. Second intersections between the three dimensions are denominated. Saddler (1990) calls the intersection between environmental and social goals 'conservation with equity' and the intersection between environmental en economic goals 'environment-economy integration.' The social-economy intersection is denominated 'community-economics.' The intersection between the three dimensions is known as sustainable development (see also figure 1).

Figure 1: The three part model of sustainable development (Saddler, 1990)

The dimensions of sustainable development are used, in normative sense, as criteria for decision making and assessment of interests. This can lead to the claim that public decision making should take into account the effects of decisions on all three dimensions. (Coenen and Van der Peppel, 2000).

The alternative to thinking about sustainable development in terms of dimensions or pillars is the so-called capitals approach to sustainable development. The capitals approach takes as a starting point the idea that sustainable development can be defined by reference to changes in the stock of different forms of capital. We can distinguish different forms of capital like:
- economic (manufactured or human made) capital;
- human capital (individual skills and resources);
- social capital (relating to norms and social relationships);
- natural (or environmental) capital.

A way of looking on sustainable development is that the sum of these four capitals, per capita, should not decline over time. This is than seen in terms of the total stock, so the decline of one form of capital can be compensated for by an increase in another, such that total stock per capita is maintained. Substitution would only be acceptable for the maintenance of sustainable development as long as the loss of capital doesn't represent a critical threshold beyond which the level of capital stock is deemed to be unacceptable. These acceptance would then be based on costs or social norms. For natural capital it is easy to image the type of threshold. For human and social capital it is much more difficult to image such a threshold.

It is not too difficult to image the economic and environmental and natural capital in a town or region. It is much more difficult to operationalize the concepts of human and social capital. The concept human capital is frequently used in contemporary sociology and economics. It has numerous definitions. In economics the roots of the concept can be traced back to Adam Smith. In socio-economic sciences it was introduced in the sixties. Human capital was defined as the resources at the disposal of individuals and social communities. A relation was made with economic development. Baker emphasized the role of healthy and well-educated people who work actively and thus make decisions on human capital and economic development (Baker 1964). More recently Richard Florida popularized the human capital factor in economic development. According to Florida economic growth appears where well-educated people are present, as they are advocates of creative capital (Florida 2004).

The OECD (1998) defines human capital as the knowledge, abilities, competencies and other attributes embodied in individuals who are suitable for the economic activity required of them. This is a broad definition of human capital which does not include formal education received in the course of their learning but includes other skills learned by the individual during training courses (life-long learning; job training) and at work (learning by doing). These concepts play an important role in the Lisbon strategy.

Social capital is a related concept and often discussed together with human capital. Putnam (2000: 19) writes "*whereas physical capital refers to physical objects and human capital refers to the properties of individuals, social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them*. And '*interaction enables people to build communities, to commit themselves to each other, and to knit the social fabric. A sense of belonging and the concrete experience of social networks (and the relationships of trust and tolerance that can be involved) can, it is argued, bring great benefits to people*'. There is an increasing interest among academics and policy makers in the concept of social capital especially in social capital as an important factor in explaining economic success. Although the concept may be highly appealing it is hard to measure empirically. As a consequence empirically the question is still not answered if social capital in terms of generalised trust and association activity influences economic growth (Beugelsdijk and Van Schaik, 2003). If this relation is unclear it offers little possibilities for developing policies to stimulate social capital in a way that it would have a positive impact on economic growth.

## 4.	Dimensions of quality of life

In literature we find a great numbers of factors for 'quality of life' , including ecological, social and environment-related aspects. We are not going to discuss in-depth definitions and factors of what is called quality of life in literature. Because our question is how people rank aspects of sustainable development within all factors of quality of life. Our thesis is that we expect that many aspect of quality of life would be ranked high by nearly everyone, while other factors largely depend on personal perceived priorities. So although people perceive many different things when they speak of quality of life, most individuals would find the same things undesirable like a high crime rate or polluted air. The personal weighing of 'quality of live' factors reflects differences in age, gender social position, etc. of the person.

What does this mean for a 'sustainable community' as a attractiveness factor within quality of life. Like sustainable development quality of life is based on needs. But 'quality of life' irrespectively of how this concept is worked out in detail, is an inherently desirable state for individuals, whereas sustainability is concerned with securing a viable and fair distribution of this desirable state of affairs for individuals across time and space (Robeyns and van der Veen, 2007).

We expect that given the basic needs of people would rank the same factors as being important for their 'quality of life' although they might be weighted differently at a given moment or in certain situations. This means that ranking 'quality of life' factors involves a subjective assessment or opinion, person's emotional state and personal life. One may live in the highest ranked city in terms of quality of living and still have a very bad quality of life because of unfortunate personal circumstances (illness, unemployment or loneliness, etc.).

Many rankings of cities, regions and countries start with the idea that although the personal perception of quality of life differs according to levels of income, social status, health and/or weather conditions we can define something as a potential standard of living in a certain place. In table 1 we describe the categories that are used various quality of life indexes. In appendix A we describe the indicators used in the various indexes by category.

Our first question is; how are the categories and factors used in the various quality of life indexes relate to the dimensions of sustainable development? Some categories are used by almost all quality of life indexes: economy, employment, housing, health, education, safety, leisure, and environment. The social connectedness, family and life satisfaction related indicators have little overlap between indexes. While work, housing, education, health, infrastructure and natural environment related indicators are grouped in the same way by most indexes. Sustainable development is not separate category in these indexes. Sustainable development is not something that easy can be measured in one dimension, so all the indexes address categories and factors that fit in the categories of sustainable development we distinguished in the previous section.

Table 1: Categories used in Quality of Life indexes.

New Zealand[1]	Wikipedia[2]	Economist[3]	Mercer[4]	OECD[5]	EurLIFE[6]	International Living[7]
CITIES	-	*COUNTRIES*	*CITIES*	*COUNTRIES*	*COUNTRIES*	*COUNTRIES*
People	Wealth and Employment	Healthiness	Political and social environment	Housing	Health	Cost of living
Knowledge and Skills	Built Environment	Family life	Economic environment	Income	Employment	Culture and leisure
Economic Standard of Living	Physical and Mental Health	Community life	Social cultural environment	Jobs	Income deprivation	Economy
Economic Development	Education	Material well-being	Health and sanitation	Community	Education	Environment
Housing	Recreation and leisure time	Political stability and security	Schools and education	Education	Family	Freedom
Health	Social Belonging	Climate and geography	Public services and transportation	Environment	Social participation	Health
Natural Environment		Job security	Recreation	Civic Engagement	Housing	Infrastructure
Safety		Political freedom	Consumer goods	Health	Environment	Safety and Risk
Social Connectedness		Gender equality	Housing	Life satisfaction	Transport	Climate
Civil and Political rights			Natural environment	Safety	Safety	
				Work-life Balance	Leisure	
					Life satisfaction	

In the research this paper takes it data (see hereafter) from the starting point was that quality of life should not be measured with objective criteria that are supposed to be relevant for all people in a region, but with criteria that reflect subjective perception of quality of life as people personally perceive it. In the research project 'quality of life' for talents a set of factors was used that relate to what might be attraction factors for talents. From the thesis that talents in a region have a specific personal view of what a high quality of life means for them personally, quantitative parameters of quality of life for talents perceived with usual statistical analysis can´t give concrete answers to who important sustainable development or dimensions of sustainable development as for them because quality of life is subjective depending on personal preferences, one's life phase and one's feeling about the regional identity. To understand what „quality of life" in general meant to our respondents personally they were asked to arrange a number factors of quality of life according to their importance

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[1] Quality of Life in New Zealand's cities
[2] Wikipedia mentions for Quality of Life
[3] The Economist Intelligence Unit's quality-of-life index, 2005
[4] Mercer Quality of Living Survey, 2011
[5] OECD Better Life Index
[6] EurLIFE, database on quality of life statistics
[7] International Living (magazine) World's best places to live

which they have personally for the respondent in the categories: a) very important b) important c) less important d) not important. These factors focus on the personal attarctiveness.

Table 2 Factors of quality of life

• good supply of work (jobs & orders) • attractive housing market • good supply of tertiary education (universities, further education etc.) • good supply of child care and education (day-care/kindergarten/schools) • good healthcare system • high security (low criminality) • good accessibility and mobility (intraregional, interregional, international)	• attractive supply of art- and cultural amenities • attractive events (sports, markets etc.) • attractive recreational possibilities • attractive gastronomy • openness of the local population against people from outside the region • integration of foreigners • sustainable treatment of resources • low noise burden and emission • good shopping possibilities	• attractive inner city • family and children friendly city • attractive neighbourhood • attractive conditions for entrepreneurs • pool of well-educated people • friends or family members in the region • weather conditions in the region • atmosphere of the city/region • mentality of the people

In table 3 we confront our factors with the well known factors from the different quality of life indexes.

Table 3: Comparing our factors with the different Quality of Life indexes.

Showcard	New Zealand	Mercer	EurLIFE	International Living
1. Good supply of work	Economic development	-	Employment	Economy
2. Attractive housing market	Housing	Housing	Housing	-
3. Good supply of tertiary education	Knowledge and skills	Schools and education	Education	Culture and leisure
4. Good supply of child care and education	Knowledge and skills	Schools and education	Education	Culture and leisure
5. Good healthcare system	Health	Health and sanitation	Health	Health
6. High security (low criminality)	Safety	Political and social environment	Safety	-
7. Good accessibility and mobility	-	Public services and transportation	Transport	Infrastructure
8. Attractive supply of art- and cultural amenities	Health	Recreation	Environment	Culture and leisure
9. Attractive events	Health	Recreation	Leisure	-
10. Attractive gastronomy	Health	Recreation	-	-
11. Openness of the local population to outsiders	Social connectedness	-	Social participation	-

12. Integration of foreigners	Social connectedness	-	Life satisfaction	-
13. Sustainable treatment of resources	Natural environment	Health and sanitation	-	-
14. Low noise burden and emission	Natural environment	Health and sanitation	Environment	Environment
15. Good shopping possibilities	Economic development	Consumer goods	Environment	Costs of living
16. Attractive inner city	Economic development	Recreation	Environment	-
17. Family and children friendly city	Safety	-	-	-
18. Attractive neighborhood	Safety	-	Social participation	-
19. Attractive conditions for entrepreneurs	Economic development	Economic environment	-	Economy
20. Pool of well-educated people	Knowledge and skills	-	Education	-
21. Friend or family members in the region	Social connectedness	-	Family	-
22. Weather conditions in the region	-	Natural environment	-	Climate
23. Atmosphere of the city/region	Social connectedness	-	Life satisfaction	-
24. Mentality of the people	Social connectedness	-	Life satisfaction	-

So how are the categories and factors used in the various quality of life indexes relate to sustainable development? Sustainable development is not a synonym for quality of life. Being a sustainable community' might be an attractiveness factor within quality of life. But it is not a factor we can measure directly. We need to look for dimensions of sustainable development that overlap with factors of quality of life. In table 4 we confront our factors with the economic, social and ecological dimension of sustainable development. In table 5 we attempted the same for the different capitals within sustainable development.

Table 4 Factors organized according to the dimensions of sustainable development

Economy	Social	Ecology
Good supply of work (jobs & orders)	good supply of tertiary education	attractive recreational possibilities
attractive housing market	good supply of child care and education	sustainable treatment of resources
good accessibility and mobility	good healthcare system	low noise burden and emission
attractive events (markets)	high security	weather conditions in the region
attractive gastronomy	attractive supply of art- and cultural amenities	
good shopping possibilities	Openness of the local population against people from outside the region	

attractive inner city	Integration of foreigners	
attractive conditions for entrepreneurs	family and children friendly city attractive neighbourhood	
pool of well-educated people	friends or family members in the region	

Table 5 Factors organized according to the capitals within sustainable development

Economic	Human	Social	Natural
good supply of work (jobs & orders)	good supply of tertiary education	good supply of child care and education	attractive recreational possibilities
attractive housing market	attractive supply of art- and cultural amenities	good healthcare system	sustainable treatment of resources
good accessibility and mobility	pool of well-educated people	high security	low noise burden and emission
attractive events markets		attractive events sports	weather conditions in the region
attractive gastronomy		Openness of the local population against people from outside the region	
good shopping possibilities		Integration of foreigners	
attractive inner city		family and children friendly city	
attractive conditions for entrepreneurs		attractive neighbourhood	
		friends or family members in the region	
		atmosphere of the city/region	
		mentality of the people	

5. Data and research design

The empirical data are taken from the INTERREG IVC *Mini*-Programme "Brain Flow" sub-project „Quality of Life for Talents". The project "Quality of Life" aims at gaining insights for regional policies and strategies from quantitative and qualitative findings on the wishes and needs on 'quality of life' of talents that already live in the region. Due to demographic change and the resulting shortage in highly skilled labour, it becomes more and more important for local and regional economies to bind their high-potentials to the region. This retention of highly-skilled workers is crucial to create innovation and to make use of all the economic and technological potential in a region. Good marketing campaigns can help the regions to attract talents. This is best done with a specific consciousness of regional identity and the advertisement of the specific quality of life of the marketed region.

 Quality of life is one of the most important factors to attract and bind talents, i.e. high qualified employees. However, regional policies to bind talents as well as regional marketing and branding strategies have to be based on the empiric knowledge and understanding of what makes a region attractive as well as on the needs and wishes of the workers the region is trying to retain.

The project expects that talents have a specific personal view of what a high quality of life means for them personally. Quantitative parameters of quality of life for talents perceived with usual statistical analysis can´t give concrete answers for regional planning actions to improve the regional

attractiveness. Quality of life is subjective depending on personal preferences, one's life phase and one's feeling about the regional identity.

The quantitative data is based on secondary analysis of existing primary and secondary data. The qualitative data is gathered through in-depth interviews with talents. The study areas in the project were the region Basiliensis (Switzerland), Southern Westphalia (Germany), Hamar region (Norway), Navarra region (Spain), Achterhoek (Netherlands) and Northwest Overijssel (Netherlands).

The interviews were conducted in each of the participating regions with approximately 20 talents. Talents are defined as entrepreneurs in a wider sense (including also artists and people which are initiating cultural projects). Talents were selected according to the following four criteria:

1. „moved into the region" or „native resident of the region", whereas it doesn't make any difference if the person moved into the region from another region of the same country or fromelsewhere;
2. profession or business area, in which the person is active:
   – creative occupations (e.g. architects, advertiser, gallery owners, actors, sportsmen, communication professionals, poets).
   – other occupation (e.g. natural scientists, managers, executive advisers, merchants etc.).
3. persons with children or without (families/singles)
4. persons who are living in the city (center) of the region or in the wider region.

The respondents were purposeful selected based on these criteria. After some general questions about the respondents living situation they were asked:

   – What „quality of life" in general meant to them personally
   – To arrange a number factors of Quality of life according to their importance (which they have personally for the respondent in the categories: a) very important b) important c) less important d) not important
   – To describe in detail the reasons to choose 3-5 most important cards who detail creates a good quality of life for you?
   – Tell the most important advantages and disadvantges of the region the respondent lives in,
      o for the respondent himself
      o for people around the respondent (friends, colleagues etc.)!
   – Which three measures that the region should implement in order to augment the quality of life in your region

The respondents were allowed to drop some factors and had the possibility to add factors. In table 2 we give the original factors we started with.

5   The cases and their results

In this section we discuss what talents in the study regions perceive as the most important 'quality of life' factors , and how they rank sustainable development among other factors.

Region Southern Westphalia, Germany

In 2007 t the five districts - Soest, Olpe, Siegen- Wittgenstein, Märkischer Kreis and Hochsauerlandkreis – united to form the region of Südwestfalen (Southern Westphalia). With an area of approximately 6,200 km2, he proportion of the forest area is 60 %. Südwestfalen can in general be described as a rural region. Südwestfalen has approximately 1.5 million inhabitants who are living in 59 towns and communities. The identifying feature of the economy is a structure of small and medium-sized companies with focus on manufacturing trade. Südwestfalen is particularly strong in the

German growing branches: metal industry, electrical engineering, engineering and plastics industry. Of high relevance are the automotive industry and building technology; materials engineering, forestry industry and health care economy have importance as well.

The respondents were asked to arrange a number factors of quality of life according to their importance (which they have personally for the respondent) in the categories. In the following table the factors that are seen as very important (compared to b) important c) less important d) not important) are listed vertically and the frequency of times mentioned as very important by the respondents are listed horizontally.

Figure 1: Quality of life factors ranked as very important by respondents South Westphalia
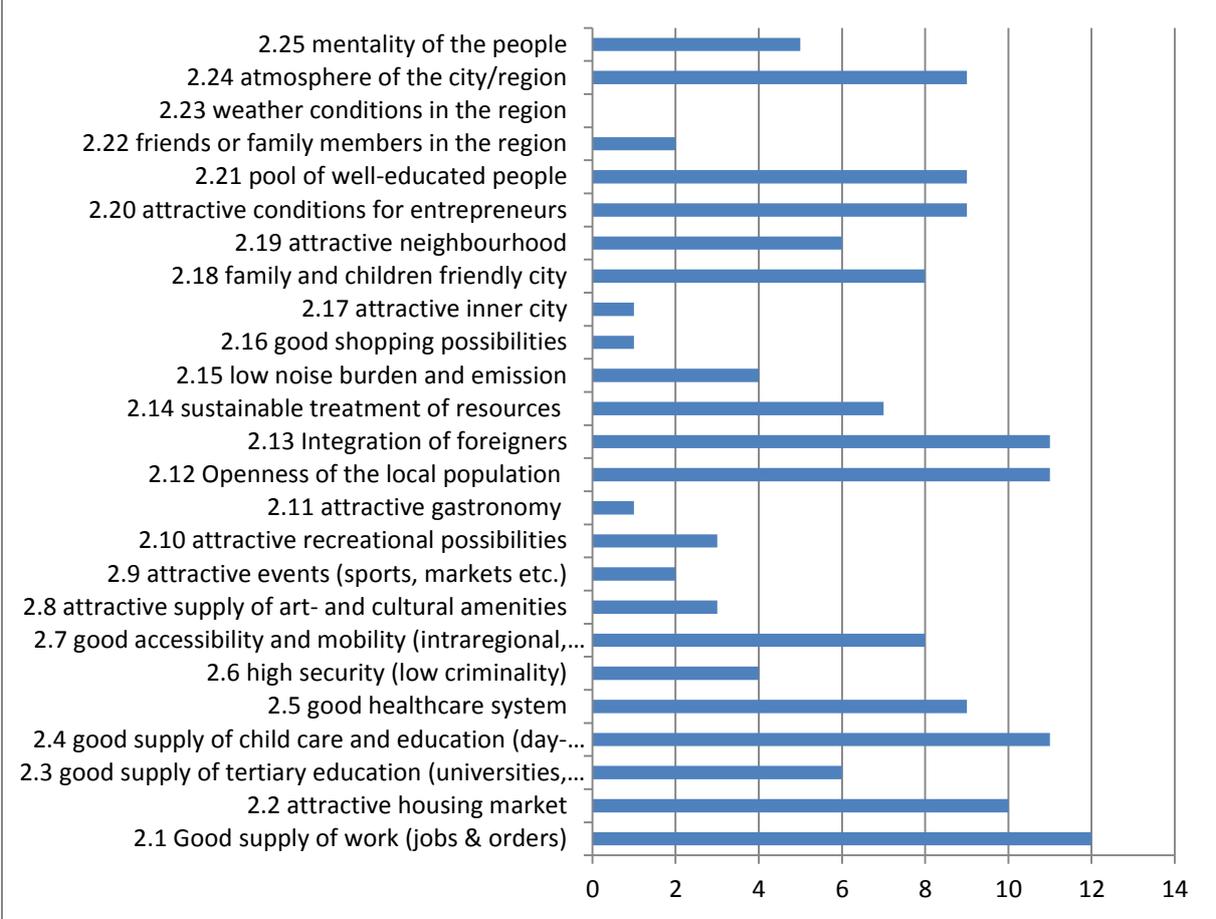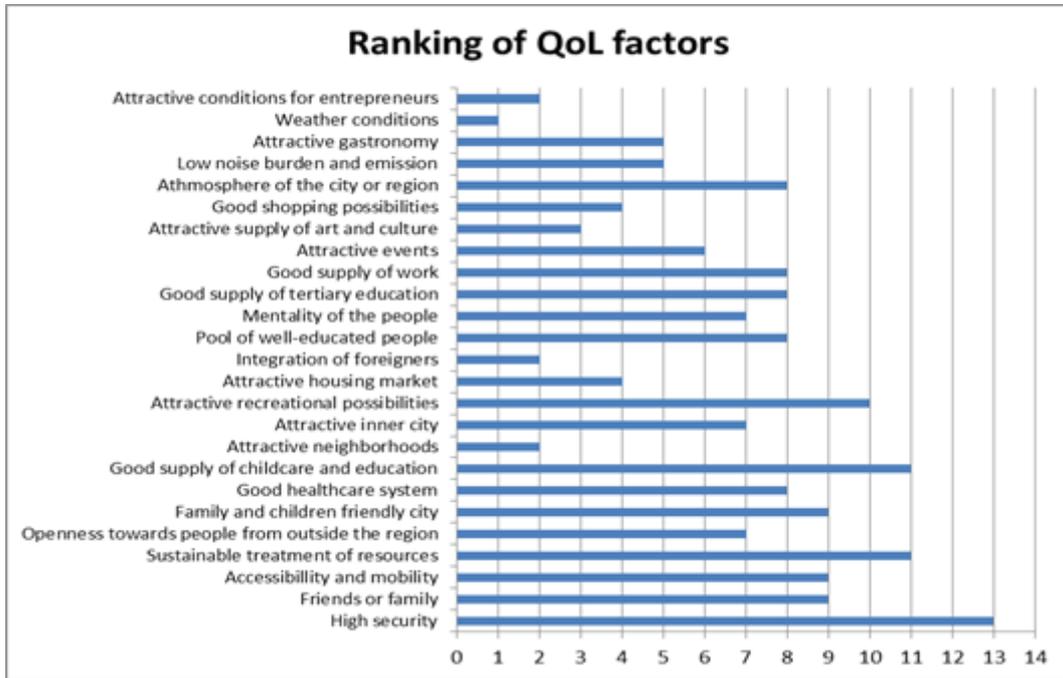
In terms of the dimensions of sustainable development the **ecological** factors (sustainable treatment of resources, low noise burden and emission and attractive recreational possibilities) score relatively modestly. The **economic market** factors 'good supply of work' and 'attractive conditions for entrepreneurs' and 'pool of well-educated score relatively high''. Some of the **service** factor within the **social** dimensions (healthcare, day-care, education) are valued high. In terms of **social relation network social factors** the openness to outsiders and integration of foreigners score high.

Hamar region

The Hamar region consists of 4 municipalities within the county of Hedmark: Hamar, Stange, Ringsaker and Løten. The total population of the region is 88 903 (December of 2011) dispersed between a geographical area of roughly 2 726 km². Hedmark has a long tradition of agriculture and forestry which are important parts of the economic structure in the Hamar region as well. There is a

high level of expertise within the fields of biotechnology and wood processing technologies in the region

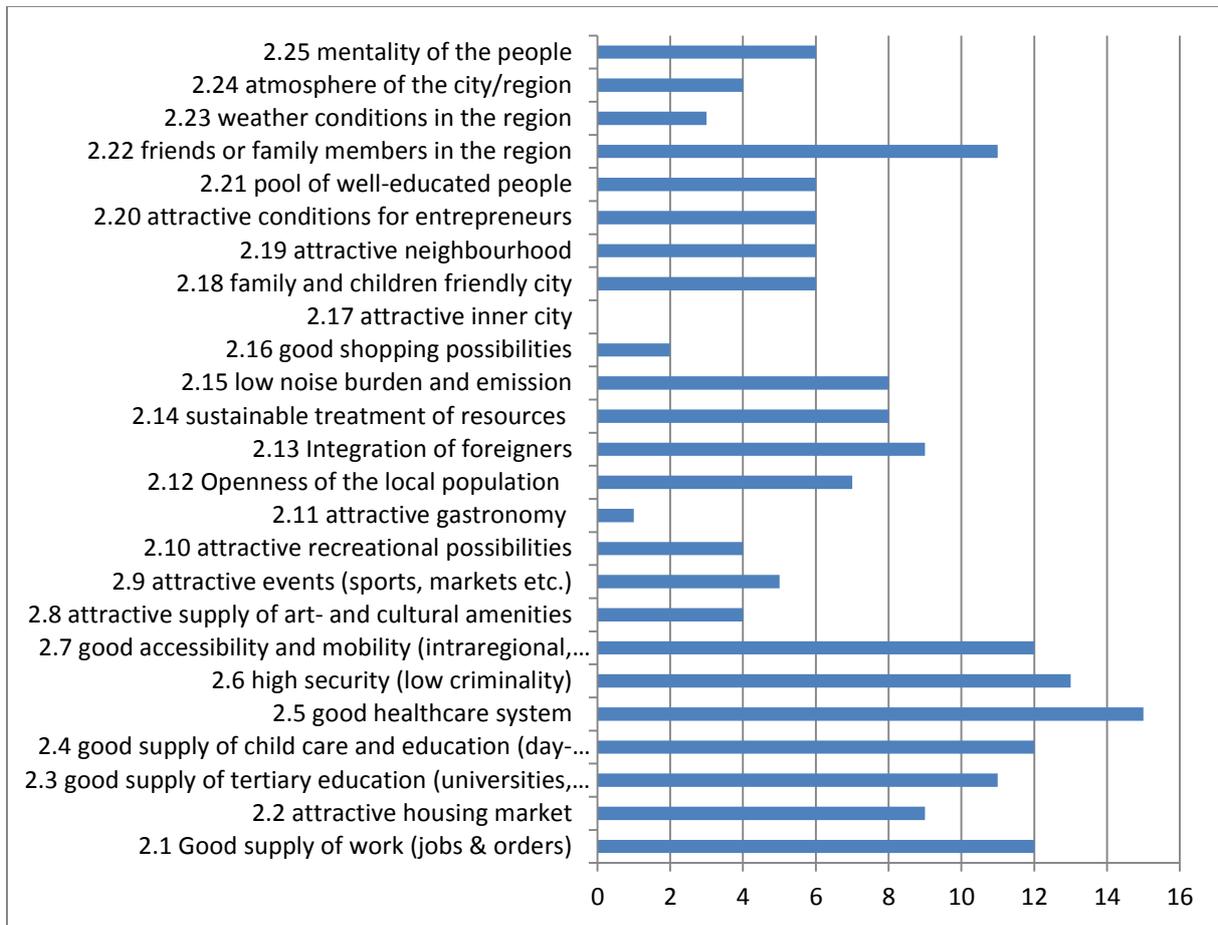*Figure 2: Quality of life factors ranked as very important by respondents Hedmark*

In terms of the dimensions of sustainable development the **ecological** factor sustainable treatment of resources scores high, but , and emission and attractive recreational possibilities but not low noise and emission burden. There are no **economic market** factors in the top 7 factors (> 8) with the exception of 'accessibility and mobility'. Some of the **service** factor within the **social** dimensions (healthcare, day-care, education) are valued high. In terms of **social relation network social factors** friends and family and atmosphere seem important. Remarkable is the high sore on the factor 'high security' together with 'family and children friendly city'

According to the casereport type of quality of life the respondents were looking for was summarized as : *having an active social life, recreational and leisure activities, enjoying nature, self-determination, contentment, having an interesting job and good health.*

Region Navarra, Spain

Navarra, the Comunidad Foral de Navarra is a region of 10.421 km2 located in Northern Spain, at the western end of the Pyrenees, where it shares a 163-kilometre stretch of frontier with France.

Table 3: Quality of life factors ranked as very important by respondents in Navarra

| Factor	Value
2.25 mentality of the people	6
2.24 atmosphere of the city/region	4
2.23 weather conditions in the region	3
2.22 friends or family members in the region	11
2.21 pool of well-educated people	6
2.20 attractive conditions for entrepreneurs	6
2.19 attractive neighbourhood	6
2.18 family and children friendly city	6
2.17 attractive inner city	0
2.16 good shopping possibilities	2
2.15 low noise burden and emission	8
2.14 sustainable treatment of resources	8
2.13 Integration of foreigners	9
2.12 Openness of the local population	7
2.11 attractive gastronomy	1
2.10 attractive recreational possibilities	4
2.9 attractive events (sports, markets etc.)	5
2.8 attractive supply of art- and cultural amenities	4
2.7 good accessibility and mobility (intraregional,…)	12
2.6 high security (low criminality)	13
2.5 good healthcare system	15
2.4 good supply of child care and education (day-…)	12
2.3 good supply of tertiary education (universities,…)	11
2.2 attractive housing market	9
2.1 Good supply of work (jobs & orders)	12

In terms of the dimensions of sustainable development the **ecological factor** (sustainable treatment of resources, attractive recreational possibilities, low noise and emission burden) score very modest. The economic market factor 'good supply of work' and 'good accessibility and mobility' score high (top 5, factors (> 8). Some of the service factor within the social dimensions (healthcare, day-care, education) are valued high, particular healthcare stands out. In terms of **social relation network actors** closeness to friends and family seem important and 'high security' .

According to the case report the type of quality of life the respondents were looking can be summarized as : *family closeness with a good balance between work and leisure time*. This type of talent searches a good balance between work and leisure time for friends, hobbies, family; they are very sensitive to the availability of good services; he/she likes short distances between work, home and leisure activities, also for having enough time left for other activities; he/she likes nature like mountains and the seaside for a high quality of leisure activities and has very close ties to family, friends and neighbours. They like about the region the high quality of life of the region and the possibilities offered: nature and environment, location (proximity to beaches and mountains), access to sporting activities without a cost too high, small town without too much pollution or crowds, the urbanism of Pamplona, clean parks and streets, employment and peaceful region.

The region Achterhoek

The region Achterhoek is a rural area in the Dutch province of Gelderland consisting of 8 municipalities and covering 1220 Km2 with 11,67km2 waterways. The population is about 300.000 The region holds about 27700 companies employing 139.000 people. Health care, industry and retail are the biggest sectors in terms of number of companies and in terms of number of employees. Agricultural activities are still significant and construction is a significant part of industry.

Table 3: Quality of life factors ranked as very important by respondents in the Achterhoek region
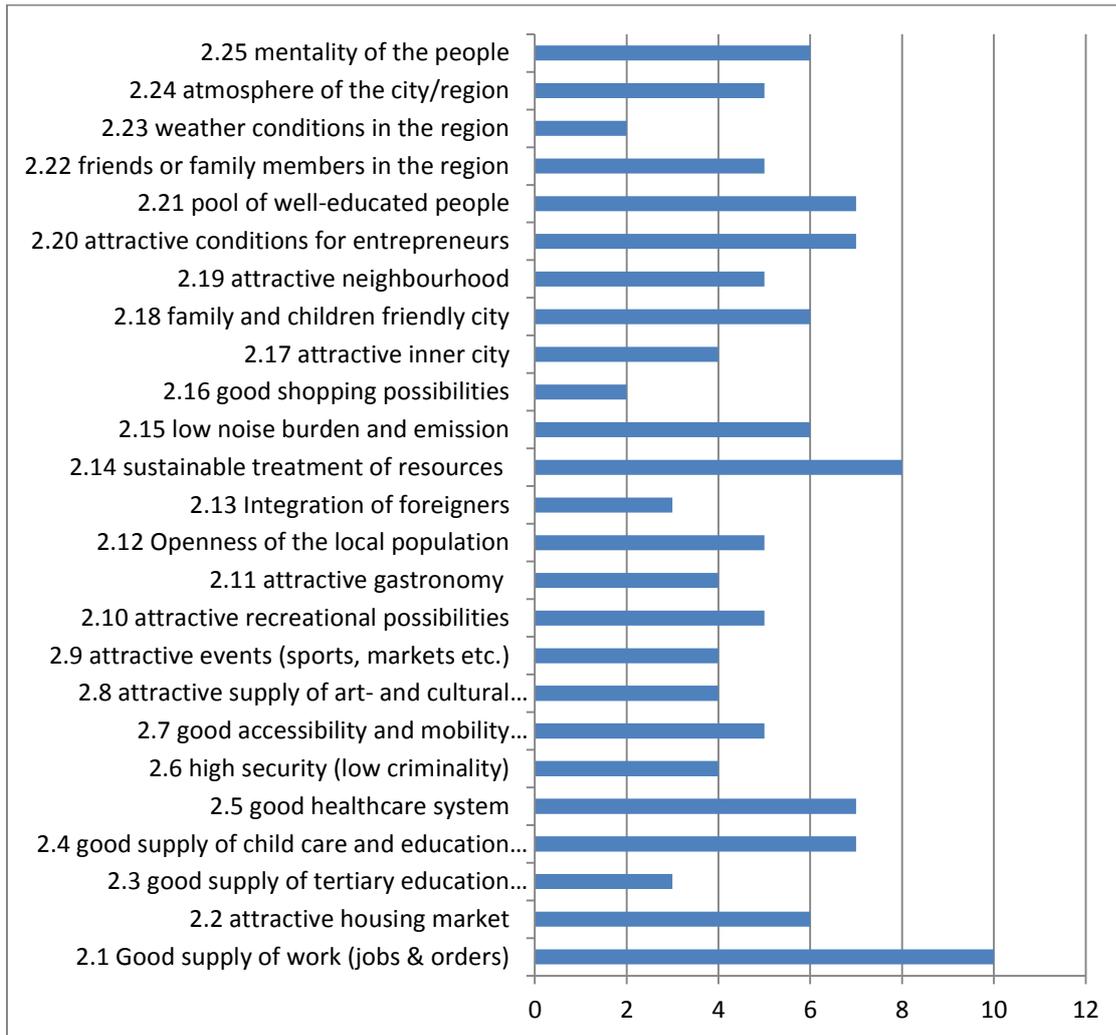
In terms of the dimensions of sustainable development the ecological factor (sustainable treatment of resources, attractive recreational possibilities, low noise and emission burden) score relatively high compared with the other regions. The economic market factor 'good supply of work' scores high but also the other economic factors (pool of well–educated and 'conditions for entrepreneurs'. Some of the **service factor** within the **social dimension** (healthcare, day-care, education) are valued high with the exception of tertiary education. In terms of **social relation network** factors most factors score relatively modest .

According to the case report the type of quality of life the respondents were looking can be summarized as looking for a mixture of a nice house in a nice natural environment, good provisions

and a rewarding social network. They emphasizes a strong social culture and a high social quality, meaning that people trust each other, are embedded in a functioning social network

6. Conclusions

What role does local sustainable development play as a factor in the perception of 'quality of life' of their region by talents?

Sustainable development is not a synonym for quality of life. The wish to live in a 'sustainable community' can be an attractiveness factor within quality of life. We looked into the categories and factors used in the various quality of life indexes and how they relate to the dimensions of sustainable development. Sustainable development is not separate category in these indexes. Sustainable development is not something that easy can be measured in one dimension, so all the indexes address categories and factors that fit in the categories of sustainable development we distinguished in the paper.

The answer to the question *what do talents in a specific region perceive as the most important 'quality of life' factors and how do they rank sustainable development among other factors* was based on data from a study about the perception of quality of life of talents in a number of regions.   A central part of the study was the ranking of specific quality of life-factors. The respondents were given a set of factors and asked to place them on a scale ranging from very important to important, less important and not important according to the factor's significance for their quality of life.

The importance of sustainable development was not a separate factor, but we looked for the overlap between the dimensions of sustainable development and factors of quality of life. Although the link between attractiveness and the ecological side of sustainable development is obvious, the scores on the ecological dimensions factors are modest. The scores on the social and economic factors were very diverse. Scores on certain services in the region (healthcare. education, day-care) were always above average of the factors. But what really came out was the importance of the social network relation as a quality aspect of the region. Of all capital the social capital seems to be the most valuable for the respondents. The value very much their social network and the possibility to engage in social network. So it seems that branding 'sustainable community' as a attractiveness factor within quality of life is to general. Because the link between attractiveness and the ecological side of sustainable development are so obvious, a sustainable community might better brand its social and economic dimension of sustainable development instead of labelling itself as a green or clean city. Being an attractive sustainable place for people is more about the balance between the social, economic and ecological dimension of sustainable development.

In the further analysis we should need to be able to split up between the various groups. Do artist, entrepreneurs, parent, and newcomers given their background think differently about the ranking of factors. None of the described region made 'being a sustainable community or region' an important element of the regional identity and branding of the region but did give attention to the ecological dimension in terms of being a green region.

A further question is what factors can be manipulated by the region. It is much easier to image that a region works on his ecological dimension. But can communities really build their social dimension? If strong social network originate from the agricultural history of the region, where it was necessary to rely on each other, you van not easily build these values and traditions.

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