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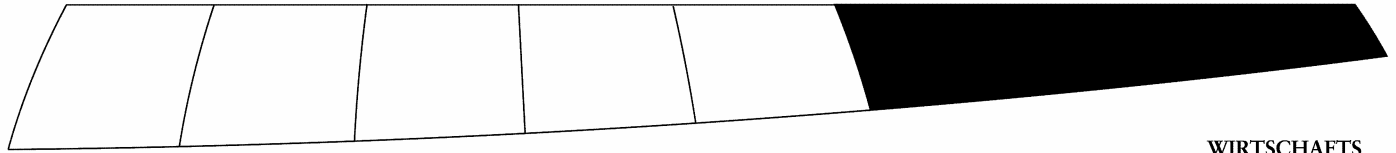
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Institut für Regional- und Umweltwirtschaft
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Breaking the vicious cycle in peripheral rural regions:
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Abstract
Loss of population is a well-known phenomenon in peripheral rural regions. The most identified problems are based on structural weaknesses in terms of decreasing business activities and a lack of public infrastructure. In such regions population is mainly older causing major changes in social infrastructure. For instance many schools and kindergartens close down for lack of demand, which hinders young families to migrate to such regions. The result is typically a negative cumulative process of loss of population, loss of jobs, loss of infrastructure, further out migration. It is an enormous challenge for such regions to overcome this vicious circle.

A more detailed look often shows a more differentiated picture and offers opportunities for policy action. First, although people are moving out of these locations new in-migrants are interested in such peripheral regions and their strengths, such as silence, a beautiful natural landscape without urban character etc. Second, new technologies enable skilled personnel to work without urban infrastructure and face-to-face networks. Third, there is an enormous potential in people who moved but do have permanent contact with their home region in terms of regaining them after retiring.

The region under study „Waldviertler Wohlviertel Thaya-Taffa-Wild" consists of nine communities in the Austrian province of "Lower Austria". Since 2002 the region aims to develop a joint strategy for improving the regional conditions. The most pressing problem is the loss of population in the region which is accompanied by a loss of business activity and public infrastructure. Based on a detailed analysis of the situation, the study aims at identifying opportunities and strategies for counter action.

The paper will present our empirical results focussing on regional identity coming out of a qualitative data analysis and a postal survey. We designed a regional identity index, which measures the intensity of personal and social relationships of both in-migrants and out-migrants.

1. Introduction

Regional development theory as well as regional development policy provides arguments that regional identity in a population is favourable for regional development. As argued by Roca and Oliveira-Roca (2002), the "strengthening of the identity of the peripheral and lagging rural regions" is a major aim in the European Union and is seen as "the key to their competitiveness on the global market of goods, services and ideas" (p. 434). In the EU's Regional Programmes for Innovative Actions 2000-2006, "regional identity and sustainable development" was one of the three broad themes. In the theoretical discussion, identity is embedded in various regional economic and economic geography concepts of development such as milieu (Aydalot and Keeble 1988, Camagni 1991, Crevoisier 1993, Maillat 1991, Ratti et al. 1997), endogenous development (Andersson 1985, Goldstein 1991, Stöhr 1987, Tödtling 1990), social capital (Putnam 1993 and 2001, Schuller 2007, van Staveren and Knorringa 2007) and new regionalism (Amin 1999 and 2002, Deas and Lord 2006, Lovering 1999, Storper 1997). These concepts have widespread foci and are in a certain manner not well defined. For instance, Ann Markusen (1999) criticised some of them as '*fuzzy conceptualization*'. What they have in common is a qualitative approach focussing on soft factors of regional development. Additionally all these concepts state a high importance of regional stakeholders and their ability to cope with specific regional circumstances. Table 1 summarises the general characteristics and arguments of each concept that underline the importance of regional identity. In terms of their main focus, the concepts are quite similar and refer to each other. The concepts of milieu and endogenous development focus mainly on specific institutional prerequisites which support the regional development process. The social capital concept underlines the importance of social relations between actors and their skills and competences. In contrast to these economic and individual based views, new regionalism stresses the question of governance and empowerment which puts emphasis on the decision making process. Their main argument is territorial re-organisation and rescaling of governance (Deas and Lord 2006).

Regional stakeholders are the key-element in all these concepts. There is a broad correspondence concerning the importance of networks and collective actions. Personal relationship between the regional stakeholders is argued to be an important success factor underpinned in the four approaches. As Schuller (2007) pointed out *"social capital is sometimes treated as an individual asset……but is most powerfully applied to the relationships that exist within and between social networks"*. At the regional level a comprehensive analysis of social capital is the most effective way to value particular skills and competences (Schuller 2007). This broader focus on network relationships between social networks is unique in the social capital approach. The other concepts concentrate on the relationships within the networks.

The approaches agree in terms of considering region specific knowledge as a key-factor for innovation-based regional development. That a specific regional consciousness or identity could support the regional development process is implicit in each of the four concepts. The milieu approach refers to weaknesses in problem regions. Aydalot (1986) argued that specific regional social links are preventing migration, an argument that stresses the actor's solidarity with the region. Solidarity is one elementary aspect of regional identity. Tödtling (1990) pointed out that a specific cultural, psychological and political background supports innovation, an argument of endogenous development that perfectly fits into the regional identity approach. Edwards and Foley (1997) are stating an embeddedness of cultural factors, such as identities and aspirations, within the social capital discussion. Finally, there are strong arguments coming from the new regionalism debate, where social structures and cultural factors form a specific "*regional culture*" (Amin and Thrift 1992). The regional planning and human geography literature provides different interpretations of regional identity (for an

overview see ARL 2005) which will be further discussed in the following section. One is regional consciousness which covers the arguments collected above.

This paper is based on the assumption that regional identity is an important factor to overcome regional crises in problem areas such as peripheral regions. Consequently, the main goal of this paper is to identify whether and to what extent regional identity exists in the population of our study region, a peripheral rural area in Austria. Moreover, we want to find out whether there are particular groups in the population who show a higher level of regional identity than others.

The paper is organised along four sections. Section 2 provides the theoretical background of regional identity. It clarifies the term "identity" and its regional implications. In section 3 we present and discuss empirical evidence coming from a survey based research in a peripheral rural region in Austria that suffers from loss of population and is caught in a negative cumulative process. The final section summarises the main findings and draws some conclusions.

	Milieu	Endogenous development	Social capital	New regionalism
Main focus	• Historical development of a region, social and economic organisation, localised pool of qualified labour (Aydalot and Keeble 1988) • Informal social relationships that foster a collective learning process (Camagni 1991) • Regional institutional prerequisites (Fromhold-Eisebith 2004)	• Selfgenerated growth and development (Goldstein 1991); • "creative" and "dynamic" regions (Andersson 1985, Malecki 1987); • support services (e.g. research parks) as seedbed of creativity (Goldstein 1991); • local conditions (strengths and weaknesses) determine development strategies (Goldstein 1991)	• the degree to which a community or society collaborates and co-operates to achieve mutual benefits (Putnam 2001) • "the set of social relations that enable actors to gain, maintain or expand access to economic resources that may lead to the reinforcement of the productivity of these economic resources" (van Staveren and Knorringa 2007); • skills and competences within a social and occupational context (Schuller 2007); • informal norm that promotes co-operation between two or more individuals (Fukuyama 2000); • social capital and high level of trust as a favourable asset of a society (Fromhold-Eisebith 2004)	• Territorial re-organisation and rescaling of governance (Deas and Lord 2006), • glocalisation (Roberston 1992), • territorial flux (Brenner 2001), • conceptualising geographical scale in different terms depending on the research context and power relations (Paasi 2004); • critical view: 'policy-led approach' (Lovering 1999)
Stakeholder-view	• collective behaviour (Aydalot and Keeble 1988), • complex network with informal links (Camagni 1991), • shared know-how (Crevoisier 1993)	• Stakeholders know each other (Stöhr 1987, Tödtling 1990); • networks as seedbeds for creativity (Goldstein 1991); • long-term commitment (Goldstein 1991)	• Patterns of relations between agents, social units and institutions (Baron et al. 2000); • relationships within and between social networks (Schuller 2007)	• Networks of regionally based institutions (Deas and Lord 2006), • Socio-spatial framework and social power relations (Brenner 2001)
Regional identity	• Social links which prevent migration (Aydalot 1986), • technical culture, collective learning (Camagni 1991)	• Cultural, psychological and political background supporting innovation (Tödtling 1990)	• Embeddedness of cultural factors (identities, aspirations) (Edwards and Foley 1997); • positive effects (information flows, lower transaction costs) of the embeddedness (Fromhold-Eisebith 2004)	• Economic action embedded in social structures and in culture (Di Maggio 1990, Hess 2004), • concept of em-beddedness (local networks, localized social relationships), • regional cultures and 'institutional thickness' (Amin and Thrift 1992),

Table 1: Identity based concepts

2. Theoretical background of regional identity

The roots of the concept of regional identity are in human geography and were further developed in regional planning. Particularly German speaking geographers of the 1980s dealt with regional identity in a broader context and developed a conceptual framework (see Blotevogel et al. 1989, Derenbach 1988, Ipsen 1993, Weichart 1990). In this literature regional identity is discussed in close connection with "regional consciousness" ("Regionalbewußtsein"). Outside the German speaking community Anssi Paasi (1991) needs to be emphasised. He linked the institutionalisation process of a region with its regional identity.

In general the concept of regional identity is not well defined. Paasi (1991), for example refers to regional identity as *"the collective work of individuals for the region"*. One problematic element is that of the region. On the other side the sociological approach of identity is manifold and fuzzy as well.

The German handbook of spatial planning (ARL 2005) provides an overview of the holistic concept of regional identity that relates regional consciousness and identity of a region (see figure 1).
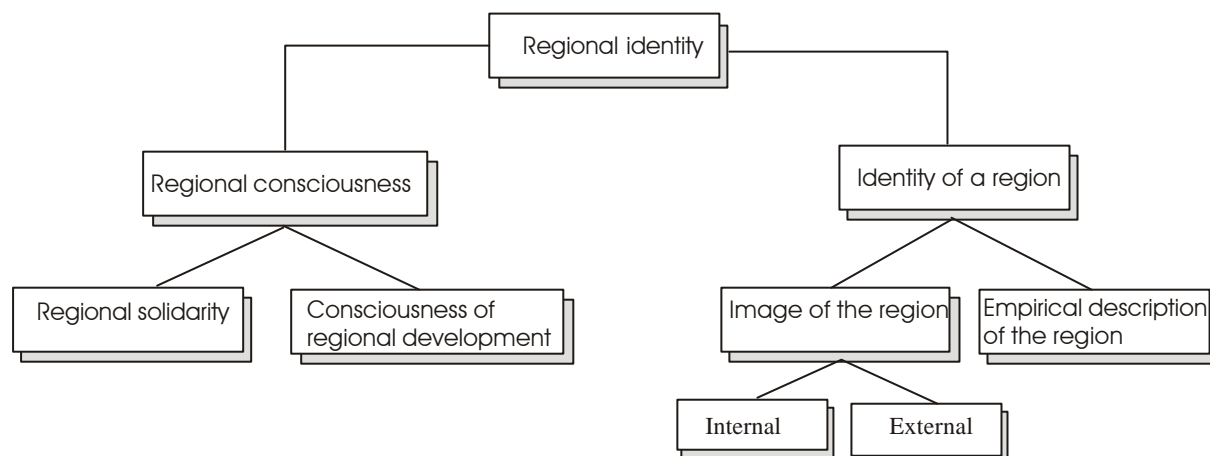

Figure 1: Regional identity (Source: ARL 2005)

The term identity of a region (see figure 1) covers two implicit aspects. On the one side it relates to the image of a region which is subdivided in internal and external image. Internal image is directly connected with regional consciousness. On the other side the empirical description of a region characterises the region's economy, society and the environment. According to this classification a region is the sum of functional relations and social interactions without strict borders.

Regional consciousness (see figure 1) covers two important aspects. Regional solidarity is one aspect functioning as a landmark of a particular region which implies a specific relationship with the region. Inhabitants are proud to be part of the region and have a strong territorial connection. In a certain way it is synonymous with native land and was intensively analysed in the German human geography community of the nineteen eighties. The more development oriented aspect is subsumed under consciousness of regional development ("regionales Entwicklungsbewußtsein", see figure 1).

Blotevogel et al. (1989) argue that regional consciousness is the amount of spatial attitudes and identifications. Concerning space and/or region and attitudes three different dimensions are evident (Blotevogel et al. 1989, p. 71f.):

The **cognitive dimension** defined as the attitude towards the region (physical and spatial elements, borders, culture, organisations, etc.).

The **affective dimension** refers to regional solidarity and native land *("Heimat")*. This dimension covers personal and emotional needs and satisfaction.

The **conative dimension** focuses on specific stakeholder actions. In this context social integration such as active participation in regional institutions or organisations (church, political parties, associations, etc.) and active commitment and engagement provide arguments for regional consciousness. The main argument is that an intensive participation reduces the probability of out-migration.

Weichart (1989) amplified these dimensions and developed three basic dimensions of territorial identity (*"raumbezogene Identität"*):

Identity of a place: can be summarised as individual identity focussing on the cognitive-emotional knowledge. Sociology defines it as the specific stock of knowledge ("Wissensvorrat").

Identification with a place: is the result of a self-reflective process of an individual and is manifested in specific roles and the relationship with a particular region.

Social spatial identification ("soziale räumliche Identifikation"): covers social systems such as groups, organisations and classes with a joint consciousness. The spectrum ranges from diffuse connections to active commitment. The spatial relations within such social systems are manifold. Firstly, it is relevant for the territorial delimitation, for instance neighbourhood, municipality, and nation. Secondly, it refers to the physical elements of landscape, for instance mountains, rivers, monuments. Thirdly, it is relevant via organisations with a concrete spatial connection, for instance regional planning associations or natural protection associations.

3. Regional Identity – an empirical analysis

The empirical analysis of regional identity is based on the research project "Menschen+", which aimed at developing regional policy strategies for the shrinking region[1] "Waldviertler Wohlviertel Thaya-Taffa-Wild". We followed a step-by-step research design covering a quantitative data analysis, a postal survey and face-to-face in depth interviews. The empirical basis for the paper at hand is coming out of the survey.

3.1. The case study region

The LEADER+ region under study "Waldviertler Wohlviertel Thaya-Taffa-Wild" is located in the north eastern part of Austria and belongs to the NUTS3 region "Waldviertel" in the province of Lower Austria. The region consists of nine municipalities (Brunn/Wild, Drosendorf-Zissersdorf, Geras, Irnfritz-Messern, Japons, Langau, Pernegg, St. Bernhard-Frauenhofen, Weitersfeld) in the district Horn (see figure 2). The region covers 10,367 inhabitants (VZ 2001, ÖSTAT) with a surface area of 414 km^2. The Waldviertler Wohviertel is a typical rural peripheral border region (Drosendorf-Zissersdorf and Langau share the border with the Czech Republic). About 64% of the surface area is agricultural land. Population density is extremely low (between 20 and 45). In terms of infrastructure and supply of goods and services the region shows major lacks. This is mainly caused by a lack of regional centres within the region. The nearest regional centre in the political district is Horn (6,300 inhabitants, VZ 2001) located next to the case study region (St. Bernhard-Frauenhofen shares a border with Horn). The regional centre Horn shows a positive trend in terms of population (+2.3% 1991 - 2001) and economic growth (+22% jobs and +33% employment 1991 - 2001) caused by a positive migration balance (+4.5% between 1991 and 2001). Due to

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[1] Shrinking regions are defined as regions with a major loss of population, jobs and infrastructure.

a lack of jobs and infrastructure out-migrants of the Waldviertler Wohlviertel often migrate to Horn.
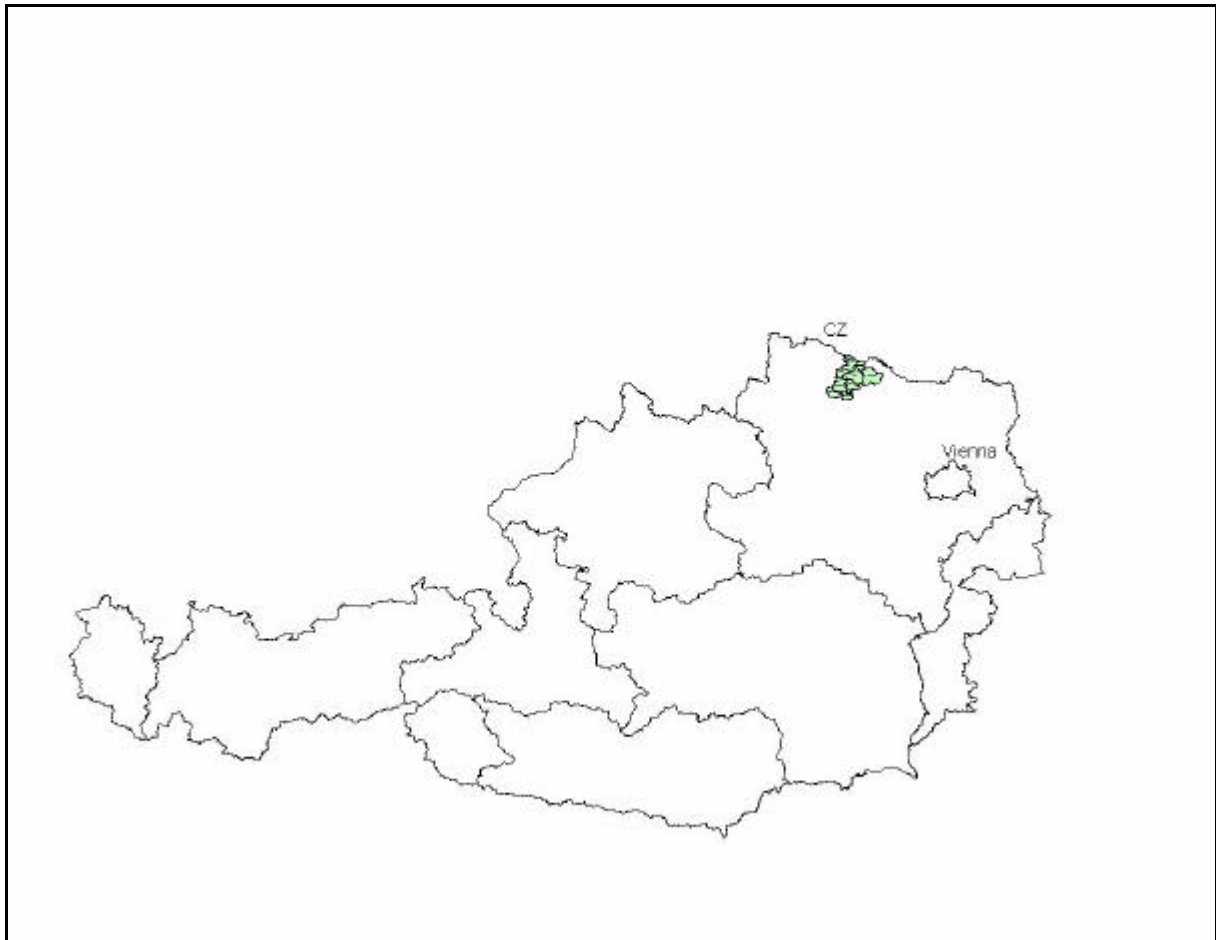

Figure 2: The case study region "Waldviertler Wohlviertel"

The case study region is a shrinking region due to a major loss of population, employment, and infrastructure. Out-migration (migration balance: -1.5% 1991-2001) and a negative birth balance (-2.9% 1991-2001) are the most pressing problems in the Waldviertler Wohlviertel. The dynamic development of Horn (pull factors) and the permanent negative trend in the case study region causes a negative cumulative process driven by a loss of population, loss of jobs, loss of infrastructure and further out migration (push factors) in the Waldviertler Wohlviertel (vicious circle). Despite this negative cumulative process the region attracts in-migrants, people who are in search of silence, an intact natural landscape and a kind of slowness and relaxation. The case study analysis aims at identifying opportunities and strategies for counter action.

3.2. Major aspects of regional identity

In order to find out and analyse motives for in- and out-migration we conducted a questionnaire based survey. We focused on in-migrants and out-migrants during the period 1995 and 2005 (full survey). Table 2 shows the details of the survey.

The reason for interviewing both in-migrants and out-migrants is the proposition that both target groups are aware of the strengths and weaknesses in the region. On the one side people who move out often stay in close contacts with their former home regions. They have family and/or friends there. These social contacts build up a kind of regional identity which can be

strengthened by criteria like natural landscape and silence. On the other side people who moved in provide an insight of the specific attractiveness and/or other specific reasons which have influenced their decision to choose this particular region.

questionnaire	in-migration	out-migration
sent	1,369	1,345
undeliverable	18	409
returned (filled in)	261	152
Rate of return	19.32%	16.24%

Table 2: The questionnaire based survey (source: survey)

We developed target group specific questionnaires (for in-migrants and out-migrants) with a common base line especially for regional identity aspects. The following table 3 provides an overview of the general results for both in-migration and out-migration.

	in-migration	out-migration
gender	• 59.6% female (n=152) • 40.4% male (n=103)	• 59.5% female (n=91) • 40.5% male (n=62)
age	• 20-29 years: male 50%, female 50% (n=38) • 30-54 male 21%, female 79% (n=142) • 55+ : male 41.5%, female 58.5% (n=76)	• 20-29 years: male 50%, female 50% (n=4) • 30-54 male 26%, female 74% (n=39) • 55+ : male 44%, female56% (n=84)
education	• male: apprentice training scheme 37.3%; academics 13.7% • female: apprentice training scheme 21.3%; academics 14.7%	• male: apprentice training scheme 22.6%; academics 17.7% • female: apprentice training scheme 15.7%; academics 11%
employment status	• 56% employees; • 28% retired	• 68% employees; • 16% retired
family status	• 65% married • 16% single • 15% common household	• 50% married • 31% single • 16% common household
children	• 2 children: 38% • 1 child: 20% • without children: ~28%	• 2 children: 29% • 1 child: 22% • without children: 36%
commuting	44%	44%

Table 3: Survey results

In order to find out in-migrants' and out-migrants' attitudes towards the case study region, we designed positive and negative statements and asked for the target groups' assessment (see table 4). Table 4 shows a rather similar distribution with an outstanding positive character for both in- and out-migrants. The region has a positive image and people living there (in-migrants) rapidly seem to develop a regional identity based on several characteristics. First of all the physical landscape and soft factors defining quality of life like recreation and silence (1.8) are estimated as clear strengths of the region. Secondly, the atmosphere for specific demographic groups (elderly people 2.8 and families with children 2.6) is estimated rather

positively. Our provocative statements defining the Waldviertler Wohlviertel as a "looser" region (S4: 5.0 and S5: 4.1) met no approval.

Statements	Means in-migrants	Means out-migrants
S1: The region offers a high recreational value.	1.8	1.7
S2: The region is culturally appealing.	2.6	2.9
S3: In recent years one can feel a sense of optimism in the region.	3.1	3.0
S4: You are fortunate when you have a chance to leave the region.	5.0	4.8
S5: Progress is hampered in the region rather than encouraged.	4.1	4.2
S6: The region offers good opportunities for building an existence.	3.9	4.2
S7: The region is well suited for families with children.	2.6	2.5
S8: The region is well suited for elderly people.	2.8	3.0
S9: Proximity to the border is advantageous for the region.	3.6	3.6

1= „fully agree", 2= „agree", 3= „partly agree", 4= „partly disagree", 5= „disagree", 6= „fully disagree"

Table 4: Comparison of in-migrants' and out-migrants' means

The results of the out-migrants' attitudes show a similar picture. People who left the region emphasise its relaxing potential more than in-migrants (out-migrants: 1.7 and in-migrants: 1.8, see table 4). 54% of the respondents estimated this question with 1, which stands for full agreement. The second aspect of a slightly more optimistic estimation is the atmosphere for families with children (out-migrants: 2.5 and in-migrants: 2.6, see table 4), which can be interpreted as the regions' intact social and natural landscape. Many out-migrants are currently living in agglomeration areas with a comparatively anonymous image. A rather surprising result is the absolute negative position of out-migrants via the provocative statements (S4: 4.8 and S5: 4.2). There is strong evidence that people who left the region had not accumulated negative feelings towards the region. 41% of the respondents (out-migrants) estimated statement 4 ("it is the best to leave…") with 6, which stands for fully disagreement. We checked the personal ties to another section of the questionnaire and the results confirm the out-migrants positive attitude. Many of the out-migrants do have rather strong personal ties in their former home region, families and friends are still living there and they have intensive contacts to the region (~ 40% visit the region more than 1 time per month). More than 90% of the respondents do have a strong solidarity sense. The concrete question of a request to return into the former home region shows a potential of about 40% of the respondents but only 26% are concretely planning their return. A detailed analysis of age groups shows an interesting aspect. The group of the 30-54 years old out-migrants can be seen as the potential returnees (30.8% of this age group are planning to return). In comparison the elderly people (age group 55+) are more sceptical concerning a potential return (only 20% are planning to return). These

results strengthen the picture of a calm atmosphere for families with children estimated positive both from in-migrants and out-migrants.

In order to receive a clear picture of the strengths and weaknesses we designed a list of basic demands and needs and asked the respondents to define them as strength or weakness. Additionally we conducted open questions to complete and clarify these aspects. The region shows one major weakness - a lack of jobs. 80.6% of the in-migrants and 90% of the out-migrants defined a lack of available jobs as the major weakness. Out-migrants identified pupils' after school care (>50%) and local retailing (>40%) as existing weaknesses. The open questions delivered additional problems, e.g. public transport. Looking at the strengths the region shows a broad range of positive aspects – housing (~70%), kindergartens (in-migrants: >67%, out-migrants: >50%), schools (in-migrants: ~60%, out-migrants: ~50%), leisure (~50%), recreation (~90%) and community (~60%). The open questions completed this positive picture, mainly including a wide range of identity based factors, like for instance intact nature, silence, organic farming combined with tourism and recreation (sustainable tourism).

3.3. A regional identity index

The assessment statements that we have discussed in the previous section characterize various aspects of regional identity. In this section we use them to generate an index of regional identity and a score of this index for every respondent. In the following section we will compare the average index scores – the "regional identity" – of various groups in the population.

We use a principal component factor analysis for deriving the index. Since one of the aims of this step is to be able to compare the regional identity levels of in- and out-migrants, we merge the two subgroups for this step of the analysis. As a consequence, the factor loadings and factor scores reflect the assessment of both, in- and out-migrants.

When we apply a principal component factor analysis to the nine assessment statements and use the standard cut-off criterion (Eigenvalue > 1), we get two components. The respective factor loadings are shown in table 5.

	component 1	component 2
variance explained	33.25%	13.16%
S1	0.550	0.523
S2	0.541	0.632
S3	0.576	0.343
S4	-0.552	0.181
S5	-0.531	0.249
S6	0.642	-0.322
S7	0.735	-0.134
S8	0.540	-0.383
S9	0.485	-0.172

Table 5: Factor loadings, principal component factor analysis

The analysis raises the usual problem of how to interpret the resulting components. More specifically, in our context we need to find out which of the two components comes closest to measuring "regional identity". When we look at the assessment questions we find that statements 1-3 and 6-9 are stated positively, whereas statements 4 and 5 are negatively formulated. So, for individuals with high levels of regional identity we would expect high agreement (low values) for the first group of statements, but low agreement (high values) for the second group of statements. Consequently, a component measuring regional identity

would need to have factor loadings with reverse signs for the two groups of questions. This is exactly the sign pattern that we find for the first component. Therefore, we interpret this component as "regional identity" and use the factor scores of the respondents as their measure of regional identity. The first component captures approximately one third of the variance in the dataset. We do not interpret or use the second component. We only note that its factor loadings seem unrelated to any type of regional identity.

Factor scores resulting from principal components factor analysis are always standardized to mean zero and variance one. Therefore, the regional identity index cannot be used to measure the level of regional identity of the overall sample. It can only be used to compare the regional identity of various groups of respondents. For the most important socio-economic groups this will be done in the following section of the paper.

3.4. Differences in regional identity

As pointed out above the regional identity index does not measure levels of identity in absolute terms, but allows us to compare the regional identity of various socio-economic groups. A first comparison is that between in- and out-migrants. In–migrants (0.05) do have a slightly more positive identity compared to out-migrants (-0.08), which is not surprising due to the fact that in-migrants did actively decide for the region. It is considerable that out-migrants feel relatively close to the region. The descriptive analysis (see 3.2) has shown some evidence for close contacts to family and/or friends in the case study region or concrete plans to return to the Waldviertler Wohlviertel. The descriptive analysis does not provide specific information about the cause-effects of e.g. close contacts to the region and regional identity.
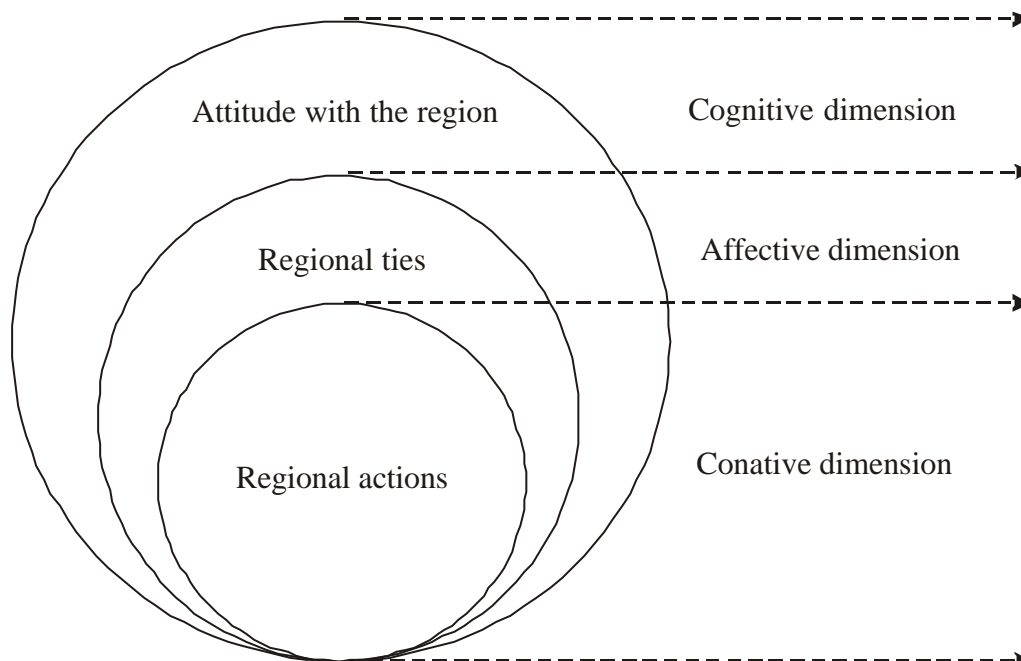
Figure 3: Dimensions of regional identity (source: Werthmöller 1995, p. 66)

The profiles of the nine assessment statements each for in- and out-migrants cover information about the suitability of the region for specific socio-economic groups. This refers to the "cognitive dimension" (Blotevogel et al. 1989, Werthmöller 1995, see section 2), which is defined as the attitude towards the region. Our proposition is that specific socio-economic groups have different attitudes towards the region. There is some evidence that the region is

particularly suitable for families with children and for retired people who are mobile, which covers aspects of regional ties (see "affective dimension" (Blotevogel et al. 1989, Werthmöller 1995, see section 2). The most intensive component of regional identity is covered by the "conative dimension" (Blotevogel et al. 1989, Werthmöller 1995, see section 2), which is manifested in active participation. In our survey we have included questions referring to participation in e.g. associations. We will analyse regional identity of various groups of respondents following the three dimensions of regional identity (see figure 3). The bases of our identity index are the nine assessment statements that cover the cognitive dimension. In order to collect information about the other two dimensions we selected different socio-economic groups.

The affective dimension of regional identity
The following analysis will focus on regional identity of selected socio-economic groups, which are listed in table 6.

	In-migration	Out-migration
(1) sex	• male • female	• male • female
(2) age classes	• age class 1: 15-19 years • age class 2: 20-29 years • age class 3: 30-54 years • age class 4: 55+ years	• age class 1: 15-19 years • age class 2: 20-29 years • age class 3: 30-54 years • age class 4: 55+ years
(3) educational levels	• primary education: elementary schools, apprentice training scheme, vocational school • secondary schools • tertiary education: University, college	• primary education: elementary schools, apprentice training scheme, vocational school • secondary schools • tertiary education: University, college
(4) employment status	• employed • unemployed • retired • housewife /-men • school	• employed • unemployed • retired • housewife /-men • school
(5) children	• with children • without children	• with children • without children
(6) commuting	• after in-migration	• before out-migration
(7) closeness to the region	• ------	• without or low • high

Table 6: Socio-economic groups

(1)   Sex

Sex	Means out-migrants*	Means in-migrants*
male	-0,2074	0,0057
female	0,0142	0,0772
All respondents	-0,0784	0,0483
* not significant between the groups		

Table 7: Regional identity of male and female

Comparing male and female respondents it is evident that women show in both respondent groups a higher degree of regional identity than men. There are several possible reasons for that. 21% of the female respondents of the in-migrants sample are housewife and therefore spend most of their daily life in the region, which could be an indicator for developing closer ties to their neighbourhood in the region (closer contact with neighbours and other families with children, etc.). A closer look at the analysis below across the employment status (see table 10) supports this proposition. Housewives (there are no housemen in the sample) have relatively high regional identity (0.31).

(2)   Age classes:

Age class	Means out-migrants**	Means in-migrants*
age class 1 (15-19 years)	0,0202	-0,0718
age class 2 (20-29 years)	0,0007	0,1545
age class 3 (30-54 years)	-0,4496	-0,0788
age class 4 (55+ years)	0,2663	0,0710
All respondents	-0,0838	0,0462
* not significant between the groups ** significant between the groups		

Table 8: Regional identity of age classes

Following the results of the descriptive analysis respondents belonging to different age classes do have a differentiated relationship with the region. In fact the regional identity varies between the age classes. The results for the out-migrants are significant between the groups, whereas the results for the in-migrants are not. Looking at the out-migrants, elderly people belonging to the age class 55+ show the strongest identity. This could be interpreted as the result of a long relationship with the region. People belonging to this age class often were born in the region and left the region in later periods of their lives. There is also a strong relationship indicated in the youngest age classes 1 and 2 (15 – 29 years) covering people who left the region after school for tertiary education outside the region. Looking at the different age classes of in-migrants two age classes show a stronger identity than the other. On the one side the 20-29 years old in-migrants do have the strongest relationship with the region. On the other side similar to the out-migrants also people belonging to the age class 55+, who are often retired but relatively mobile.

(3)   Educational levels

Educational levels	Means out-migrants*	Means in-migrants*
primary	-0,1189	0,1299
secondary	0,0570	-0,0158
tertiary	-0,3051	-0,1358
All respondents	-0,0846	0,0419
* not significant between the groups		

Table 9: Regional identity of different educational levels

Looking at the educational levels the hypothesis is that highly skilled people are extremely aware of the strengths and weaknesses in the region. These people are often more mobile and more flexible in terms of their housing locations. People with low skills belonging to the primary educational level are often forced to change their home location because of missing job opportunities. This might influence their level of regional identity. The analysis of regional identity of different levels of education confirms somehow the above mentioned hypothesis that out-migrants with higher education skills are more sceptical although the results are not statistically significant. Also respondents with low skills belonging to the primary educational level show a lower regional identity than those who have completed a secondary school. The picture of regional identity varieties in the in-migrants' sample is different. Regional identity is decreasing with increasing educational skills. People with the lowest education do have a higher regional identity. There are several reasons responsible for these results. Most of the in-migrants are employed (male: 64%; female: 51%) and are not commuters (male: 53%; female: 57%). They are mainly part of the primary educational level (apprentice training scheme male: 37%; female: 21%). Additionally 21% of the female respondents are housewives and immigrated because of marriage. Last but not least 36% of male and 21% of female respondents are retired. These respondents do not suffer under the lack of jobs.

(4)   Employment status

Employment status	Means out-migrants*	Means in-migrants*
employed	-0,1606	-0,0340
unemployed	-0,5367	-0,0421
retired	0,1583	0,0528
Housewife/-men	-0,0402	0,3090
school	-0,1133	0,3720
All respondents	-0,1011	0,0427
* not significant between the groups		

Table 10: Regional identity of respondents with different employment status

The analysis of the employment status correlates with the age classes (see table 8). The results are not statistically significant, however. Retired out-migrants have a higher regional identity than all other groups. Looking at the in-migrants, three groups have a relatively high regional identity compared to the average of the out-migrants sample. Housewives, pupils and students are the socio-economic groups with the highest regional identity. They are potential target groups for political stakeholders in terms of active participation (see conative dimension) and need to be taken into account for developing target groups specific regional strategies.

Additionally the level of regional identity of retired people lies slightly above the average of the out-migrants' sample. Referring back to the assessment statements, which are the basis for defining the attitude towards the region (cognitive dimension, see section 3.2, table 4), the region seems to provide a good atmosphere for both stakeholder groups (young people and elderly people) and exactly these groups have a relatively high regional identity. This result strengthens the potential of the region for strategies supporting specific demographic groups.

(5)   Children

Children	Means out-migrants*	Means in-migrants*
No	-0,1443	-0,0104
Yes	-0,0451	0,0676
All respondents	-0,0784	0,0475
* not significant between the groups		

Table 11: Regional identity of respondents with and without children

The results of the descriptive analysis strengthen the assumption that regional identity correlates positively with the socio-economic criterion children, which means that people with children must have a stronger regional identity than those without. It is again a supporting argument for the suitability of the region for families with children (see section 3.2, table 4). Regional strategies should take into account these demographic groups. The results are not statistically significant, however.

(6)   Commuting

Commuting	Means out-migrants**	Means in-migrants*
yes	-0,1232	0,1060
no	-0,2289	0,0197
All respondents	-0,1824	0,0463
* not significant between the groups		
** significant between the groups		

Table 12: Commuting as indicator for regional identity

The results of the analysis of the socio-economic criterion commuting are surprising, because those out-migrants who commuted before they left the region do have a slightly higher regional identity. The results are statistically significant. In-migrants show a completely inverted picture, those who are commuting have a higher regional identity than those who are not commuting. These results support the proposition that the region covers positive aspects that are not influenced by daily working organising aspects like being dependent on cars, although the results are not statistically significant. The intact landscape, silence and other physical elements seem to be stronger than the fact that many of the in-migrants need to commute.

(7)   Closeness

Closeness	Means out-migrants**
yes	-0,0123
no	-0,2960
All respondents	-0,1629
** significant between the groups	

Table 13: Closeness as indicator for regional identity

We asked the out-migrants, if they feel close to the region they left. Thus 46% of the out-migrants do feel close to the region they left. Many of the respondents (~40%) have close contacts to friends and family living in the case study region, which might be an indicator of feeling close with the region. The results of closeness as an indicator for regional identity fit to the results of the descriptive analysis and are statistically significant.

The conative dimension of regional identity

The questionnaire has included some participation oriented questions, which could provide information about the degree of participation. Those questions aiming at particular activities of the LEADER+ region did not provide valid results, because respondents did have different knowledge and understandings of the activities asked for. Therefore we only used two socio-economic groups for the conative dimension – (1) the year of migration and (2) active participation in associations.

(1) Year of migration

Year	Means out-migrants*	Means in-migrants*
1999 and earlier	-0,2184	0,0925
2000 and later	-0,0368	0,0107
All respondents	-0,1297	0,0482
* not significant between the groups		

Table 14: Regional identity and year of migration

The year of migration might have an influence on the identification level of migrants with the region. We decided to cut the sample at the migration year 2000. This was the year the LEADER+ region was founded (starting point of the former EU funding period) and regional participation activities have started. Therefore the year of migration gives information about both the affective and the conative dimension. The results for out-migrants are relatively clear, although they are statistically not significant. Those respondents who migrated before 2000 have a lower regional identity than those who left the region later. There are two reasons responsible for this result. Firstly the longer the respondents are out of the region the more their regional identity deteriorated. Secondly, people who left the region after 2000 did recognise the regional activities started with the foundation of the LEADER+ region in the year 2000. Looking at the in-migrants a completely different picture arises. It must be taken into account that the results are statistically not significant. The longer in-migrants are in the region, the stronger is the regional identity. In-migrants need some years to integrate, which is a pre-condition of developing regional identity.

(2) Active participation in associations

association	Means out-migrants**	Means in-migrants*
yes	-0,2805	0,1060
no	0,0178	0,0197
All respondents	-0,0753	0,0463
* not significant between the groups		
** significant between the groups		

Table 15: Active participation in associations as indicator for regional identity

Active participation in associations is a well known indicator for being integrated in a region. It is also stated that people who are part of an association feel close to the region because of

many personal ties and interests. The results of the out-migrants do not fit into that picture but are statistically significant. Respondents who were member of a regional association do have a significant negative regional identity. Those who had no membership have a higher level of identification with the region. In-migrants who are members of regional associations have a higher regional identity, because they are integrated in regional activities and feel close with the region. These results are statistically not significant.

4. Conclusions

The aim of the paper was to study regional identity as one important criterion for regional political stakeholders to overcome negative cumulative developments. Especially peripheral rural regions suffer from permanent loss of population, loss of jobs and loss of infrastructure which strengthens the trend of out-migration.

Regional identity is not well defined but it is used in several regional economic as well as economic geography concepts. The roots of regional identity are in human geography and here mainly in the German speaking community. Originally the human geographers dealt with regional consciousness which is the amount of spatial attitudes and identifications. Blotevogel et al. (1989) designed three dimensions of regional identity (cognitive, affective and conative) which can be understood as three interdependent levels defined as regional attitudes, regional ties and regional actions (see figure 3).

The results of our descriptive analysis based on a postal survey strengthened the proposition that regional identity is one of the key-factors for overcoming the negative cumulative process in our case study region. In order to get a detailed picture about the various aspects of regional identity we generated an index. The index helps to identify differences in regional identity. It was used to compare the regional identity of various groups of respondents along specific socio-economic criteria. In order to embed this analysis into the analytical framework of regional identity, we have designed it along the three dimension of regional identity mentioned above.

The cognitive dimension was embedded in our assessment statements which were the baseline for the regional identity index. The affective dimension was included in most of our questions as far as we have designed the questionnaire to find out motives of in- and out-migration. The results of the descriptive analysis provided a detailed view on positive aspects for specific socio-economic groups in the region as long as our hypotheses focused on specific demographic groups. We stated that regional identity must vary across different age classes or different levels of education. The descriptive analysis confirmed most of our hypotheses but does not allow to measure different levels of regional identity. Among others the region seems to provide a positive atmosphere especially for families with children and elderly people, which was an important anchor for the detailed analysis of regional identity of selected socio-economic groups. We analysed seven socio-economic groups for the affective dimension and two for the conative dimension.

The results of the socio-economic groups support several of our hypotheses although in many cases the results are statistically not significant between the groups. Starting with the key statements referring to the suitability of the region for families with children and elderly people, we found out that there is indeed a strong identification level in the disconcerted socio-economic groups. Looking at the in-migrants sample exactly these age classes (55+ and 20-29 years) have higher regional identities than other classes. In the out-migrants' sample elderly people and those belonging to the youngest age class (15-19 years) show the highest identity values. This result seems extremely important for the implementation of regional strategies which need to be tailor-made for these specific demographic groups. There is a huge potential in focusing on such groups in order to reduce the risks of further out-migration. Additionally the higher level of regional identity of the youngest out-migrants who left the

region for tertiary education seems to be enormous important for the region. These out-migrants are the potential returnees. The focus on elderly people should take into account that the age class 55+ is getting more and more active and mobile.

The correlation between regional identity and educational level supports the socio-economic structure of the sample. Many of the in-migrants do belong to the lowest educational level and are therefore relatively satisfied. Those with higher educational skills are more sceptical. In order to provide a better atmosphere for skilled people regional political stakeholders need to define niche strategies taking into account new developments in the ICT sectors and general needs for the aging society subsequently arising from general demographic developments.

To sum up the analysis of the differences of regional identity across several socio-economic groups can be stated as an effective starting point for counter action on the regional level. In order to strengthen the conative dimension in-migrants need to be integrated in such processes.

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