

### The ESPON 2013 Programme

### **DEMIFER**

Demographic and migratory flows affecting European regions and cities

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Demifer Case Studies

# Challenge of decline in Eastern Germany Mecklenburg-Vorpommern (DE80)

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#### Key findings

- The study area has a very low population density.
- The process of German unification and the ensuing complete change of the economic system determine the social and economic situation of Mecklenburg-Vorpommern and the demographic response with a steep decline in fertility, an increase in life expectancy and important interregional out-migration flows.
- Internal migration flows play no role
- The results of the policy scenarios would create considerable challenges to the economic and social fabric: housing and integration of immigrants in the growing areas and adaptation to a shrinking population in the areas of population decline.

#### 1. Introduction

Mecklenburg-Vorpommern is the state covering North-Eastern Germany. Mecklenburg-Vorpommern is the most Northeastern German state bordering the Baltic sea. The state was part of the German Democratic Republic and was during these years divided into 3 Bezirke. Mecklenburg- Vorpommern was refounded in 1990 during the German reunification. Today 6 urban and 12 rural counties form the state. The capital is Schwerin, however, the Baltic seaport of Rostock, is with about 200,000 inhabitants the largest city of the state. Mecklenburg-Vorpommern is part of the Northern German plane, rich in lakes and forests and home to several national and regional parks. With a low population density and a very rural settlement structure agriculture plays in many parts of the state still an important role. The lakes and the Baltic Sea shore attract tourism. The Baltic Sea gives rise to a Maritime sector with shipping companies, ports facilities and shipyards. Rostock and Greifswald are two of the oldest German universities and should take the role as centres for future developments in the research sector. In recent years the renewable energy sector (wind energy) grew considerably in the state. Today Mecklenburg-Vorpommern has a regional GDP per inhabitant (purchasing power standard) of 20,200 €, about 18.9 % below the EU-27 average and one of the lowest in Germany after Brandenburg-Nordost with 19,000 €.

In 1989 the economy of the GDR had a dilapidated capital stock and had a personnel intensive form of production. Consequently economic productivity was low and it was estimated at 40 % of the West German productivity at the time of German unification. The modernisation of the economic structure of the Eastern German Länder was clearly hold-up. The service sector was very weak and the agricultural sector and manufacturing were predominant. With the fall of the iron curtain and the dissolving of the COMECON the demand for the East German products, which were part of the internal division of labour in the COMECON, collapsed. The immediate result of this situation was the dismissals and the increase in unemployment.

At the moment of German unification the salaries were lower than in West Germany, but they did not reflect the low level of labour productivity. This caused a fall in the competitiveness of the companies and lowered the inclination

to invest. Missing economic multiplier effects consolidated the income disparities, hampered a sustainable economic boom and caused the East West divide to become permanent.

Mecklenburg-Vorpommern is one of five new Länder going through a drastic process of economic transformation after the German unification in 1990. Large parts of Mecklenburg-Vorpommern are rural and of a low population density. The general conditions for the economic transformation were rather bad. Mecklenburg-Vorpommern has a poor position in a ranking of economic characteristics such as productivity, income level or labour market participation.

#### 1.1. Specification of the research questions and the aims

The case studies contribute to improve the knowledge on and the understanding of demographic and migratory flows at the regional and local level. They focus on internal and international migration as the component with stronger links to the regional socio-economic situation and dynamics. In addition in the case studies the output of the policy oriented activities of the DEMIFER project are translated into specific regional settings.

The specific research questions and the specific aims of the case studies are:

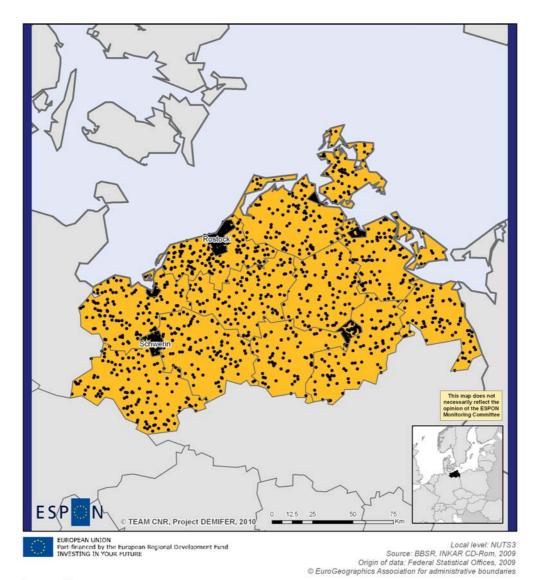
- How are demographic and migratory flows affecting the entire case study area, its regional subdivisions and its cities?
- How do demographic change and migratory movements bring about population change growth or decline -, population ageing and ageing of the working age population?
- What are the factors of attraction or the causes of interregional and international migration at the regional level?
- Is information regarding the skill level of interregional, intra EU and international migrants available?
- What are the economic and social consequences of migratory flows in the case study area, or, more in general, what are the links between 'demography' and 'economy' in the case study areas?

The interrelations between socio-economic and demographic trends are the focus of the case studies. The focus of the case studies is on the description of the socio-demographic structure, demographic and interregional and international migratory processes and their economic and social consequences. The sustainability of the demographic system and the migration process – migration gains and migration losses - at the sub-regional level will be considered in all case studies. The interdependence in the urban areas and between the urban areas and their hinterland is highlighted.

#### 1.2. Settlement structure

The study area of Mecklenburg Vorpommern has a very low population density. Population is concentrated in the larger towns of Rostock and Schwerin (the state capital) and their surrounding areas (map 1). This sparse settlement structure poses specific challenges in providing accessibility to public and private services and to the economic development of the area. Map 2 highlights the very low population density in wide parts of the study area. All independent towns appear clearly on the map. Highways and other traffic infrastructure are being built, but the possible effects are not yet clear. The port of Rostock has some importance for passenger and freight shipping in the Baltic Sea.

Map 1 Population in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 1.1.2008

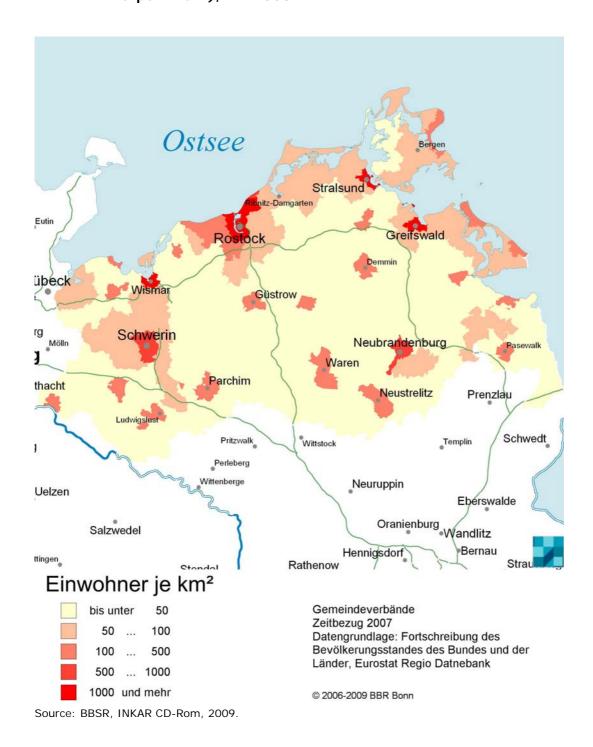


Legend

• 1 Dot = 1.000

Population 31.12.2007

Map 2 Population density in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 1.1.2008



# 2. Review of existing analysis of demographic and migratory flows in the case study

The literature regarding the demographic and economic situation of Mecklenburg-Vorpommern is abundant. Especially the demographic consequences of this upheaval are studied over the last years. The fact that the Max Planck Institute for Demographic of the German Max Planck Society was created in Rostock stimulated the creation of demographic research at the University of

Rostock and an special interest in the study of the situation in Eastern Germany and especially in Mecklenburg-Vorpommern.

## 3. Demographic stocks and flows of the case study region and its sub-divisions

#### 3.1. Age structure of the population

Mecklenburg-Vorpommern has a very irregular age structure reflecting the past demographic processes like the fall in fertility after World War II, the baby boom followed by the decline in fertility until the pro natalist policies was introduced in the former GDR in the 1970s. With the fall of the iron curtain fertility fell precipitously. This description does not refer to the impact of migration since immigration played no role in the administrative areas forming the federal state of Mecklenburg-Vorpommen afte German unification. The migration flows toward Western Germany since German unification consist mainly of younger adults and their traces in the population pyramid are not apparent.

100+ 95-99 90-94 85-89 80-84 75-79 70-74 65-69 60-64 55-59 50-54 45-49 40-44 35-39 30-34 25-29 20-24 15-19 10-14 5-9 0 - 4

Figure 1 Population pyramid of North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 1.1.2005

Source: elaborations on ESPON Data Base, 2010

The age structure in the towns of Mecklenburg-Vorpommern is characterised by a higher share of the 18 to 24 years old, probably due to the institutions of higher education in these towns. Nordwestmecklenburg has a family imprinted age structure with a relative high share of under 18 and 20 to 39 years old.is a little bit younger. Stralsund has the highest share of elderly, probably due to its attractiveness as residence for senior citizens.

Table 1 Age structure of the population in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 31.12.2007

Counties/ Population by age groups 31.12.2007									
Regional planning regions/ Case study area	Total	Under 18	18 to 24	20 to 39	25 to 64	65 and older			
Greifswald (city)	53,845	12.3	14.9	33.1	54.1	18.7			
Neubrandenburg (city)	66,735	12.5	11.4	26.2	55.8	20.4			
Rostock (city)	200,413	11.6	11.9	29.3	54.1	22.4			
Schwerin (city)	95,855	12.4	10.1	25.5	54.7	22.7			
Stralsund (city)	58,027	11.9	10.5	26.1	53.2	24.4			
Wismar (city)	45,012	11.3	10.7	26.9	53.9	24.1			
Bad Doberan	118,677	14.5	8.9	22.9	58.5	18.1			
Demmin	83,500	13.8	8.9	22.0	55.0	22.3			
Güstrow	102,762	14.3	9.3	22.9	54.9	21.6			
Ludwigslust	126,099	14.7	9.3	24.0	56.7	19.3			
Mecklenburg-Strelitz	80,924	13.5	8.9	22.1	56.5	21.1			
Müritz	66,503	13.7	9.2	23.8	56.0	21.1			
Nordvorpommern	109,448	13.5	8.6	22.1	56.4	21.5			
Nordwestmecklenburg	118,677	15.6	8.8	24.3	57.4	18.2			
Ostvorpommern	108,138	13.3	9.2	22.5	55.6	21.9			
Parchim	99,959	13.8	8.8	22.1	56.7	20.8			
Rügen	69,716	12.7	9.5	22.3	55.8	22.0			
Uecker-Randow	75,392	13.0	9.1	22.3	55.3	22.6			
Mecklenburgische Seenplatte	297,662	13.4	9.5	23.4	55.8	21.3			
Mittleres Mecklenburg/Rostock	421,852	13.1	10.4	25.9	55.5	21.0			
Vorpommern	474,566	12.9	9.9	24.0	55.3	21.9			
Westmecklenburg	485,602	13.9	9.4	24.3	56.2	20.5			
Total	1,679,682	13.3	9.8	24.4	55.7	21.1			

Source: elaborations on BBSR, INKAR CD-Rom, 2009, and BBSR- Bevölkerungsprognose 2005-2025 data base, 2010

The DEMIFER project puts special emphasis on trends in the labour force and the working age population. The share of the working age population grew between 1990 and 2000 in Mecklenburg-Vorpommern to diminish slightly since then. In addition to the general population ageing Mecklenburg-Vorpommern experiences also the ageing of its working age population. The share of the 40 to 64 years old increased from 29.2 % in 1990 to 38.2 % in 2007 and all counties seem to be affected. The youngest working age population lives in the university towns of Greifswald and Rostock.

Table 2 Changes in the age structure of the working-age population in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 1990, 2000 and 2007

Counties/			Workir	ng-age p	opulatior	n by age	-group			
Regional planning regions/	3	1.12.199	0	3	1.12.200	00	31.12.2007			
Case study area	20 –	20 –	40 –	20 –	20 –	40 –	20 –	20 –	40 –	
	64	39	64	64	39	64	64	39	64	
Greifswald (city)	61.5	34.1	27.4	65.3	31.6	33.7	66.0	33.1	33.0	
Neubrandenburg (city)	62.5	34.7	27.7	66.0	29.2	36.8	64.0	26.2	37.8	
Rostock (city)	64.0	32.8	31.2	65.7	29.3	36.4	63.4	29.3	34.0	
Schwerin (city)	61.7	33.1	28.6	64.6	28.5	36.1	61.9	25.5	36.4	
Stralsund (city)	63.1	30.8	32.3	63.5	27.4	36.1	61.0	26.1	34.9	
Wismar (city)	62.4	30.6	31.8	63.3	27.7	35.6	61.8	26.9	34.9	
Bad Doberan	59.8	31.7	28.1	64.2	27.6	36.5	64.5	22.9	41.6	
Demmin	60.1	30.9	29.2	61.2	27.0	34.2	61.1	22.0	39.1	
Güstrow	59.9	31.5	28.4	61.6	27.6	34.0	61.2	22.9	38.3	
Ludwigslust	59.7	31.3	28.4	62.1	28.1	34.0	63.0	24.0	39.0	
Mecklenburg-Strelitz	60.6	31.1	29.4	62.6	27.3	35.3	62.5	22.1	40.3	
Müritz	60.5	31.5	29.1	62.8	27.8	35.0	62.4	23.8	38.6	
Nordvorpommern	60.8	31.4	29.4	62.6	27.0	35.6	62.1	22.1	40.1	
Nordwestmecklenburg	59.9	31.5	28.4	62.7	28.6	34.1	63.4	24.3	39.1	
Ostvorpommern	60.8	31.2	29.6	62.4	26.5	35.9	62.0	22.5	39.5	
Parchim	60.0	31.5	28.5	62.6	27.3	35.3	62.5	22.1	40.4	
Rügen	61.6	32.9	28.8	63.1	26.7	36.3	62.4	22.3	40.1	
Uecker-Randow	60.3	32.0	28.4	62.3	27.2	35.2	61.6	22.3	39.3	
Mecklenburgische Seenplatte	60.9	32.0	28.8	63.0	27.7	35.2	62.4	23.4	39.0	
Mittleres Mecklenburg/Rostock	62.1	32.2	29.8	64.2	28.4	35.8	63.2	25.9	37.2	
Vorpommern	61.2	31.9	29.3	63.0	27.4	35.6	62.3	24.0	38.4	
Westmecklenburg	60.5	31.7	28.8	63.0	28.1	34.9	62.7	24.3	38.4	
Total	61.2	32.0	29.2	63.3	27.9	35.4	62.7	24.4	38.2	

Total 61.2 32.0 29.2 63.3 27.9 35.4 62.7 24.4 38.2 Source: elaborations on BBSR, INKAR CD-Rom, 2009, and BBSR- Bevölkerungsprognose 2005-2025 data base, 2010.

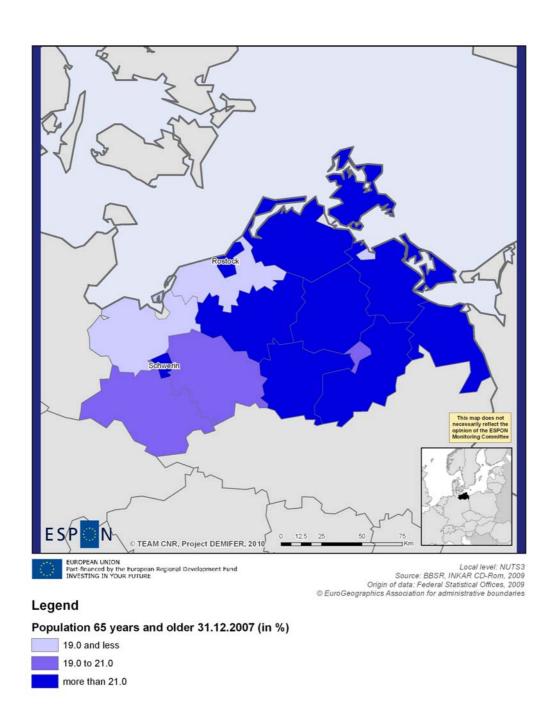
Table 3 Changes in the age structure of the elderly population in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 1990, 2000 and 2007

2007			Elde	rly popu	ılation b	y age-gro	oup			
Counties/	3	1.12.19	90	3.	1.12.20	00	31.12.2007			
Regional planning regions/ Case study area	65+	75+	Women 65+ in %	65+	75+	Women 65+ in %	65+	75+	Women 65+ in %	
Greifswald (city)	8.9	4.2	70.8	14.2	5.5	65.0	18.7	7.5	60.5	
Neubrandenburg (city)	6.0	2.5	67.0	12.9	4.2	60.9	20.4	7.1	58.8	
Rostock (city)	9.1	4.2	68.0	15.8	5.6	62.1	22.4	8.0	58.9	
Schwerin (city)	9.9	4.5	70.6	16.1	6.3	64.2	22.7	9.2	60.4	
Stralsund (city)	10.7	4.8	69.9	17.6	6.2	62.4	24.4	9.0	59.3	
Wismar (city)	12.1	5.5	67.5	18.3	6.8	63.2	24.1	9.6	60.1	
Bad Doberan	11.3	5.5	69.4	12.6	4.7	62.0	18.1	6.5	57.0	
Demmin	12.4	5.8	69.7	16.5	5.7	63.6	22.3	8.8	60.4	
Güstrow	11.5	5.4	69.6	15.5	5.6	62.8	21.6	8.4	59.5	
Ludwigslust	12.9	6.1	68.9	14.8	5.7	63.2	19.3	7.6	59.5	
Mecklenburg-Strelitz	12.0	5.8	69.1	15.1	5.4	62.8	21.1	8.0	58.9	
Müritz	11.3	5.1	68.7	15.3	5.5	62.7	21.1	8.0	59.6	
Nordvorpommern	11.7	5.5	69.9	15.3	5.5	62.6	21.5	7.8	58.3	
Nordwestmecklenburg	12.0	5.6	68.7	13.8	5.2	62.5	18.2	7.0	58.3	
Ostvorpommern	11.7	5.6	68.8	16.0	5.6	62.2	21.9	8.2	58.2	
Parchim	11.9	5.5	69.4	14.9	5.5	62.9	20.8	7.9	59.2	
Rügen	9.7	4.6	70.3	15.3	5.0	62.5	22.0	8.0	58.6	
Uecker-Randow	11.2	5.4	69.5	16.2	5.6	62.5	22.6	8.9	59.6	
Mecklenburgische Seenplatte	10.5	4.8	68.9	15.1	5.3	62.7	21.3	8.0	59.5	
Mittleres Mecklenburg/Rostock	10.2	4.8	68.8	14.9	5.3	62.3	21.0	7.7	58.6	
Vorpommern	10.9	5.1	69.7	15.7	5.6	62.7	21.9	8.2	58.9	
Westmecklenburg	11.7	5.4	69.2	15.2	5.7	63.2	20.5	8.0	59.4	
Total	10.9	5.1	69.2	15.2	5.5	62.7	21.1	8.0	59.1	

Source: elaborations on BBSR, INKAR CD-Rom, 2009, and BBSR- Bevölkerungsprognose 2005-2025 data base, 2010.

The share of the elderly increased between 1990 and 2007 by more than 10 percentage points from 10.9 to 21.1 %, due to the precipitous fall in fertility after German unification. The share of women among the elderly is 2 percentage points higher than in the Western German case studies, probably due to the differences in mortality between men and women.

Map 3 Population 65 and older in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 31.12.2007



#### 3.2. Population change and its components

Since 1990 the population of Mecklenburg-Vorpommern declined consistently. Only the suburban county of Rostock (Bad Doberan) and the North-Western area, like Nordwestmecklenburg lying close to the agglomeration of Hamburg, received suburban in-flows. Table 4 shows the consistent losses due to both components – natural growth and migration – in all counties of Mecklenburg-Vorpommern.

Vorpommern), 1990-2005 140 Greifswald (city) Neubrandenburg (city) Rostock (city) Population change (31.12.1990 = 100) 130 Schwerin (city) Stralsund (city) Wismar (city) 120 Bad Doberan Demmin Güstrow 110 Ludwigslust Mecklenburg-Strelitz Müritz 100 Nordvorpommern . Nordwestmecklenburg Ostvorpommern Parchim. 90 Rügen Uecker-Randow 80 1990 1995 2000 2005 Year

Figure 2 Population change in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 1990-2005

Source: elaborations on BBSR- Bevölkerungsprognose 2005-2025 data base, 2010.

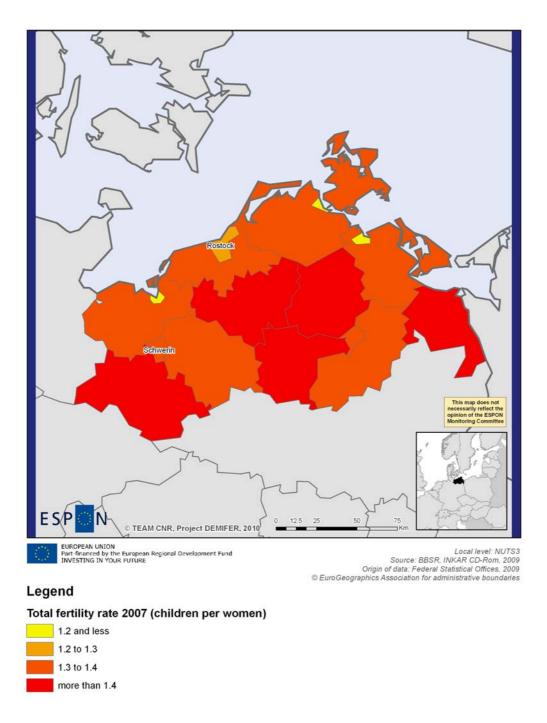
Table 4 Population change and its components in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2000-2008

Counties/			Рори	ılation, natu	ral ch	ange ai	nd net migra	ation		
Regional planning regions/	1.1.		95 –	1.1.		00 –	1.1.		05 –	31.12.
Case study area	1995	19	999	2000	2004		2005	2007		2007
	Pop	Nat	Mig	Pop	Nat	Mig	Pop	Nat	Mig	Pop
Greifswald (city)	62,318	-1.5	-22.9	55,252	-0.3	-9.4	52,673	-0.6	7.9	51,691
Neubrandenburg (city)	82,638	-0.6	-20.3	74,530	0.3	-17.6	68,458	-0.4	-8.1	65,531
Rostock (city)	232,639	-3.1	-24.3	203,277	-1.9	-2.4	198,994	-1.2	3.5	195,764
Schwerin (city)	118,290	-3.0	-25.3	102,878	-2.3	-9.3	97,114	-2.5	-1.6	94,081
Stralsund (city)	67,622	-4.6	-15.1	61,341	-3.7	-4.8	58,843	-4.6	-0.2	57,319
Wismar (city)	51,381	-5.3	-10.9	47,402	-4.2	-4.4	45,442	-4.9	1.7	44,335
Bad Doberan	96,495	-2.8	39.7	116,462	-1.4	7.2	119,890	-1.7	-1.8	120,043
Demmin	99,510	-5.1	-2.4	95,867	-4.1	-12.5	88,281	-4.5	-14.3	83,437
Güstrow	116,704	-3.7	-1.5	113,743	-2.6	-9.2	107,285	-3.2	-11.3	102,591
Ludwigslust	125,668	-3.7	13.5	131,975	-2.1	-1.8	129,420	-2.9	-5.8	126,171
Mecklenburg-Strelitz	85,547	-4.4	11.1	88,499	-3.1	-6.0	84,556	-3.8	-10.9	81,320
Müritz	70,680	-3.8	2.1	70,082	-2.7	-2.8	68,205	-3.1	-5.4	66,250
Nordvorpommern	117,833	-4.7	7.6	119,516	-3.6	-6.2	113,838	-3.9	-9.3	109,476
Nordwestmecklenburg	111,879	-2.7	18.6	121,233	-1.2	0.5	120,647	-1.5	-4.0	119,353
Ostvorpommern	114,981	-4.7	4.9	115,129	-3.4	-3.8	111,064	-3.8	-4.9	108,125
Parchim	106,627	-3.8	9.2	109,528	-2.9	-7.5	103,969	-3.6	-9.7	99,918
Rügen	80,467	-4.1	-6.8	76,214	-3.3	-7.7	72,172	-3.5	-8.1	69,362
Uecker-Randow	91,031	-4.6	-5.8	86,398	-4.4	-14.2	78,787	-4.7	-10.4	74,079
Mecklenburgische Seenpl	338,375	-3.6	-2.1	328,978	-2.6	-9.8	309,500	-3.1	-10.0	296,538
Mittleres Mecklenburg/R	445,838	-3.2	-2.5	433,482	-2.0	-1.5	426,169	-1.8	-1.6	418,398
Vorpommern	534,252	-4.2	-3.6	513,850	-3.3	-7.4	487,377	-3.7	-5.3	470,052
Westmecklenburg	513,845	-3.5	3.2	513,016	-2.3	-4.2	496,592	-2.8	-4.7	483,858
Total	1,832,310	-3.7	-1.3	1,789,326	-2.5	-5.5	1,719,638	-2.9	-5.1	1,668,846

Source: BBSR, INKAR CD-Rom, 2009.

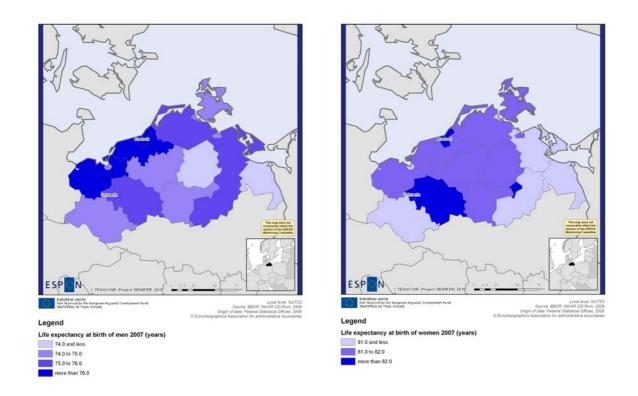
#### 3.3. Natural change - fertility and mortality

### Map 4 TFR in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2007



Fertility in Mecklenburg-Vorpommern is very low. After unification it declined propitiously, but since then increased constantly. In the city counties a lower fertility is observed. Over the last decade the total fertility rate increased, but it remains on relative low levels.

Map 5 Life expectancy for men and women in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2007



The differences in life expectancy that existed at the moment of German reunification shrank considerably since 1990. Even with a considerable rise in male life expectancy the important gender differences did not disappear. Women have reached already Western German standards.

#### 3.4. Net migration

Table 5 Interregional- and international migration in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2000-2008

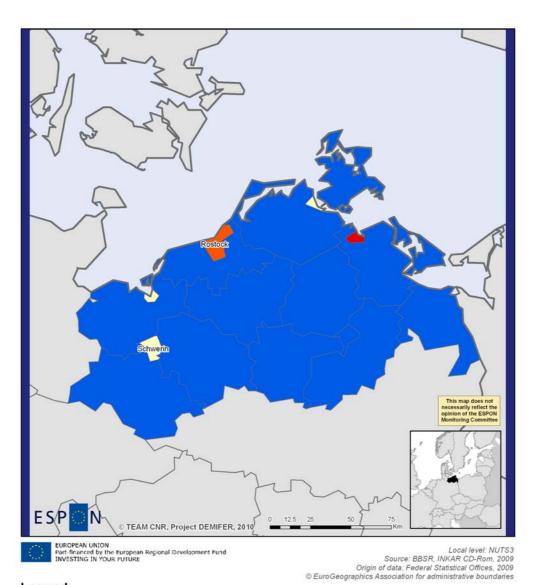
(DEGG MICORIO	Out- and in-migration, net internal- and international migration rates (per 1,000)											
Counties/		20	000 – 20	004	VI 1	, , ,	20	005 – 20	07			
Regional planning regions/ Case study area	Out-	In-	Net inter- nal	Net inter- natio- nal	Net total	Out-	In-	Net inter- nal	Net inter- natio- nal	Net total		
Greifswald (city)	68.4	59.0	-10.8	1.5	-9.4	63.3	71.3	6.7	1.2	7.9		
Neubrandenburg (city)	57.7	40.2	-16.9	-0.7	-17.6	50.6	42.5	-7.5	-0.7	-8.1		
Rostock (city)	51.9	49.5	-2.6	0.2	-2.4	48.1	51.6	2.8	0.7	3.5		
Schwerin (city)	56.5	47.2	-11.4	2.1	-9.3	48.5	46.9	-1.8	0.2	-1.6		
Stralsund (city)	52.9	48.1	-4.7	-0.2	-4.8	48.6	48.4	-0.2	0.0	-0.2		
Wismar (city)	55.8	51.4	-6.0	1.7	-4.4	52.2	53.9	-0.9	2.6	1.7		
Bad Doberan	42.4	49.6	7.3	-0.1	7.2	43.0	41.2	-2.0	0.2	-1.8		
Demmin	35.7	23.2	-11.8	-0.7	-12.5	35.0	20.8	-13.8	-0.4	-14.3		
Güstrow	34.3	25.1	-8.8	-0.4	-9.2	34.9	23.7	-10.9	-0.3	-11.3		
Ludwigslust	48.9	47.1	-15.8	13.9	-1.8	37.4	31.6	-8.8	3.0	-5.8		
Mecklenburg-Strelitz	39.7	33.7	-5.6	-0.4	-6.0	39.5	28.5	-10.0	-1.0	-10.9		
Müritz	31.9	29.1	-2.2	-0.5	-2.8	32.4	26.9	-5.4	0.0	-5.4		
Nordvorpommern	36.5	30.3	-5.4	-0.7	-6.2	37.5	28.2	-9.1	-0.2	-9.3		
Nordwestmecklenburg	50.6	51.1	-1.5	1.9	0.5	38.8	34.8	-4.4	0.3	-4.0		
Ostvorpommern	34.3	30.4	-4.0	0.2	-3.8	33.4	28.4	-5.6	0.7	-4.9		
Parchim	37.9	30.3	-7.0	-0.6	-7.5	37.4	27.7	-9.8	0.1	-9.7		
Rügen	35.8	28.0	-7.4	-0.4	-7.7	36.0	27.9	-8.3	0.2	-8.1		
Uecker-Randow	36.7	22.5	-14.5	0.3	-14.2	35.3	24.9	-11.9	1.5	-10.4		
Mecklenburgische Seenplatte	40.8	31.1	-9.2	-0.6	-9.8	39.1	29.1	-9.5	-0.5	-10.0		
Mittleres Mecklenburg/Rostock	44.7	43.3	-1.4	0.0	-1.5	43.4	41.8	-1.9	0.3	-1.6		
Vorpommern	41.3	33.9	-7.4	0.0	-7.4	40.2	35.0	-5.8	0.5	-5.3		
Westmecklenburg	49.1	44.9	-8.7	4.5	-4.2	41.3	36.6	-5.8	1.2	-4.7		
Total	44.3	38.9	-6.7	1.2	-5.5	41.1	36.0	-5.5	0.5	-5.1		

Source: elaborations on BBSR, INKAR CD-Rom, 2009.

As mentioned, German unification led to important migration flows from Eastern to Western Germany. Mecklenburg-Vorpommern with its weak economic structure is especially concerned by this population loss. International migration plays a very minor role, with the exception of the county of Ludwigslust, where an establishment of welcoming ethnic German immigrants is located.

In addition, the migration patterns of the counties reflect also the small-scale suburban moves that increased after unification. Sub-urbanisation took hold in Eastern Germany after unification and lead to an increased population loss of the town centres, which already are loosing population moving to Western Germany. However, today the university towns of Rostock and Greifswald are the only counties in Mecklenburg-Vorpommern with an interregional migration gain (map 6). International migration depends on local specific situations: in the Eastern parts the closeness to the border with Poland, the presence of nationals from Eastern Europe, who lived in the area before unification or ethnic Germans who settled after unification, the collocation of the state establishment to 'process' ethnic Germans immigrating in Germany (Ludwigslust).

Map 6 Net interregional migration in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2007

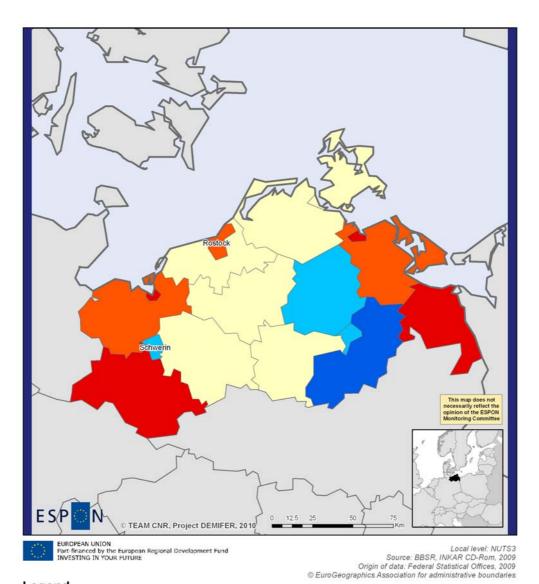


#### Legend

Net interregional migration 2007 (in ‰)



Map 7 Net international migration in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2007

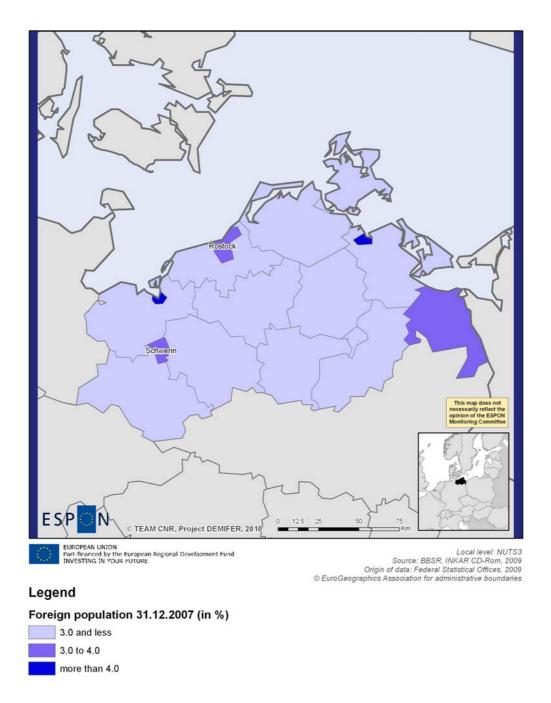


#### Legend

Net international migration 2007 (in ‰)



Map 8 Foreign population in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 1.1.2007



Few foreigners are living in Mecklenburg Vorpommern and their share is close to 2 %. The foreign population is concentrated in the twns or city counties of the state and in the county nearest to the Polish-German border.

#### 3.5. Age composition of migrants

Table 6 Interregional- and international age-specific migration rates in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2007

		Inter	nal net	migration	on rates	for age	-groups	(per 1,	000)		
Counties/		20	00 - 20	04	2005 - 2007						
Regional planning regions/ Case study area	18 - 24	25 - 29	–18, 30 - 49	50 - 64	65+	18 - 24	25 - 29	– 18, 30 - 49	50 - 64	65+	
Greifswald (city)	24.4	-35.1	-22.2	-7.9	2.2	100.1	-22.2	-15.6	-3.7	6.4	
Neubrandenburg (city)	-22.4	-49.9	-19.0	-10.0	-1.3	3.7	-35.1	-12.3	-4.2	2.7	
Rostock (city)	39.5	-1.8	-14.6	-3.5	2.2	53.9	-15.8	-5.6	-0.3	-0.3	
Schwerin (city)	-14.2	-38.2	-15.1	-6.2	2.5	1.4	-16.6	-4.2	0.5	3.5	
Stralsund (city)	9.5	-20.9	-8.5	-3.7	0.9	9.2	-25.5	-1.6	3.5	2.8	
Wismar (city)	-2.8	-23.8	-9.4	-1.4	0.4	16.9	-28.0	-3.8	2.4	1.3	
Bad Doberan	-63.9	-11.6	18.2	13.8	11.6	-80.3	-10.6	6.9	5.9	7.8	
Demmin	-70.8	-38.5	-5.6	-0.2	-2.5	-89.4	-32.7	-6.5	-1.2	-4.2	
Güstrow	-62.0	-31.8	-3.1	0.9	1.1	-70.7	-30.1	-4.9	-0.6	-1.2	
Ludwigslust	-84.2	-79.4	-9.4	3.0	3.0	-63.3	-22.3	-4.9	1.2	2.0	
Mecklenburg-Strelitz	-66.5	-25.8	0.6	5.5	3.6	-84.3	-31.3	-1.7	0.9	-0.4	
Müritz	-42.2	-20.3	1.5	6.3	6.0	-55.7	-21.9	-0.3	3.0	3.0	
Nordvorpommern	-70.7	-27.0	2.0	5.7	1.1	-80.1	-24.3	-2.6	2.3	-0.8	
Nordwestmecklenburg	-53.3	-3.4	5.0	4.8	0.3	-64.3	-7.8	2.0	3.4	1.2	
Ostvorpommern	-55.1	-31.4	1.5	7.5	3.3	-58.3	-27.7	-0.2	5.1	1.5	
Parchim	-75.8	-27.6	0.3	4.7	1.1	-85.9	-28.4	-2.2	1.0	0.3	
Rügen	-56.4	-28.1	-3.1	4.0	1.0	-58.8	-26.8	-3.8	2.5	0.1	
Uecker-Randow	-68.8	-49.8	-11.3	0.1	0.6	-74.5	-43.2	-6.7	1.1	0.1	
Mecklenburgische Seenplatte	-51.3	-34.4	-5.2	0.4	1.2	-56.1	-30.6	-5.0	-0.4	-0.1	
Mittleres Mecklenburg/Rostock	-11.7	-10.8	-1.6	2.2	4.2	-6.4	-17.5	-1.6	1.5	1.5	
Vorpommern	-41.8	-32.2	-4.7	2.4	1.6	-30.8	-27.9	-4.1	2.3	1.2	
Westmecklenburg	-52.2	-36.8	-4.6	1.4	1.6	-45.8	-19.3	-2.3	1.7	1.7	

Source: elaborations on BBSR, INKAR CD-Rom, 2009, and BBSR, Regional Data Base, 2010.

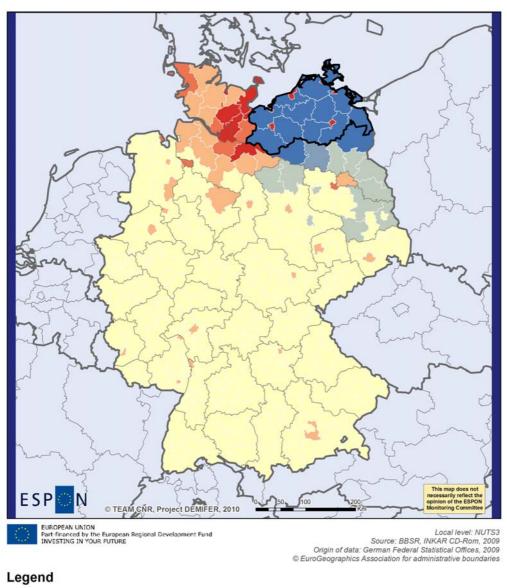
Net migration rates for young adults are highly negative. Only the Greifswald and Rostock as university towns have high migration gains in this age group. Family oriented migrants and continue to leave most of the counties – especially the urban centres – of the study area. The county of Bad Doberan , which surrounds the town of Rostock, has the typical age pattern of a suburban area with migration gains for children and older adults.

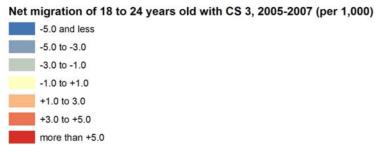
#### 3.6. The regional pattern of internal migration

The maps 9 to 11 show the interregional migration fields of the single case study areas. They show how each German county is related in the case of different age groups to the case study area. Inside the case study area it is shown, which county gains or looses population inside the study area.

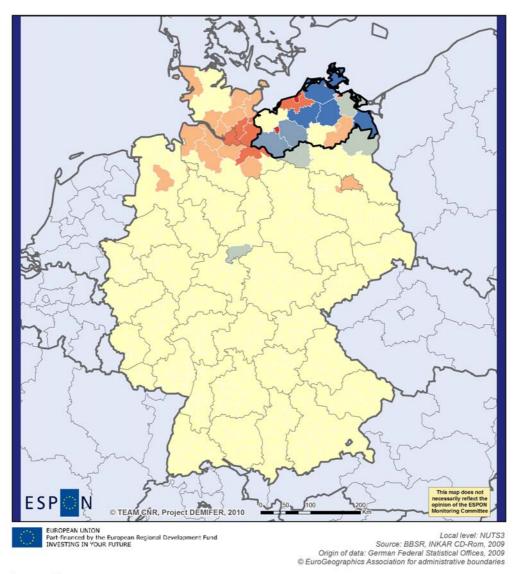
Especially the Hamburg agglomeration has a positive net migration balance with Mecklenburg-Vorpommern in the younger age groups. And inside the study area the moves from the rural area to the (university) towns are shown.

Map 9 Net internal migration of the 18 to 24 years old population with North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2005-2007





Map 10 Net internal migration of the 25 to 29 years old population with North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2005-2007

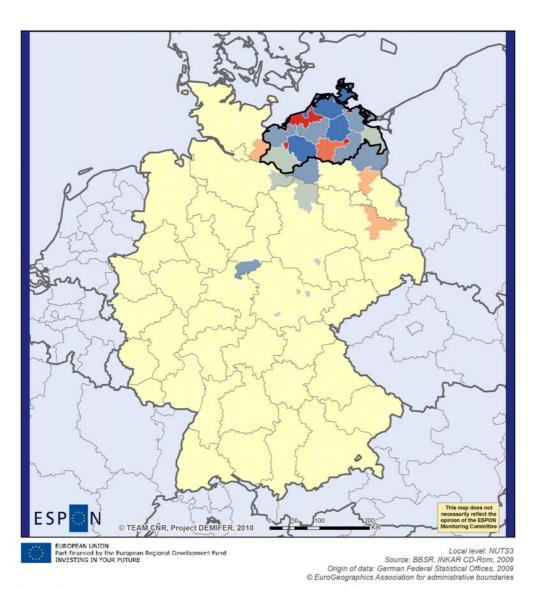


#### Legend

#### Net migration of 25 to 29 years old with CS 3, 2005-2007 (per 1,000)

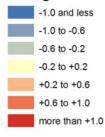


Map 11 Net internal migration of the population 65 years and older with North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2005-2007



#### Legend

Net migration of 65 years and older with CS 3, 2005-2007 (per 1,000)



#### 3.7. The foreign population by nationality

Table 7 Foreign population by nationality in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 1.1.2006

Counties/ Regional planning regions/ Case study area	Foreign population 31.12.2005  By country of citizenship (in % of the total										
<u>-</u>	Tota	I	Вус	otal							
	abs	in %	Europe	Turkey	Poland	Russia	Ucraina	Viet- nam			
Greifswald (city)	1,637	3.1	53.5	3.1	8.7	8.4	2.7	6.8			
Neubrandenburg (city)	1,129	1.7	51.1	9.7	7.0	10.9	2.0	13.3			
Rostock (city)	6,808	3.4	59.5	4.3	4.0	14.5	13.9	11.9			
Schwerin (city)	4,415	4.6	66.4	1.8	2.5	17.8	28.0	6.5			
Stralsund (city)	942	1.6	62.2	5.3	9.0	8.4	1.5	9.1			
Wismar (city)	1,837	4.0	58.4	4.6	5.1	8.7	14.6	9.4			
Bad Doberan	1,563	1.3	61.4	9.0	7.4	6.7	1.5	10.3			
Demmin	960	1.1	53.6	7.4	3.5	8.6	1.8	6.5			
Güstrow	1,187	1.1	46.2	6.1	3.5	9.2	2.5	8.9			
Ludwigslust	1,627	1.3	60.4	4.4	20.6	9.8	2.5	6.0			
Mecklenburg-Strelitz	797	1.0	60.5	8.0	6.6	11.4	2.3	4.3			
Müritz	913	1.4	64.6	7.7	4.2	9.5	2.7	5.7			
Nordvorpommern	857	0.8	53.9	7.2	7.4	9.9	2.6	7.6			
Nordwestmecklenburg	1,327	1.1	70.1	7.7	11.3	7.7	2.5	2.7			
Ostvorpommern	1,785	1.6	60.8	2.7	19.0	6.1	3.1	18.4			
Parchim	1,001	1.0	56.4	12.3	4.7	11.4	3.0	7.4			
Rügen	825	1.2	62.9	6.7	5.9	10.3	2.7	10.1			
Uecker-Randow	891	1.2	75.2	5.2	39.1	13.6	2.4	7.1			
Mecklenburgische Seenplatte	3,799	1.2	57.0	8.3	5.4	10.1	2.2	7.8			
Mittleres Mecklenburg/Rostock	9,558	2.2	58.2	5.3	4.5	12.6	10.5	11.3			
Vorpommern	6,937	1.4	60.5	4.5	14.8	8.9	2.6	10.6			
Westmecklenburg	10,207	2.1	63.5	4.5	7.2	12.9	15.8	6.6			
Total	30,501	1.8	60.3	5.2	7.8	11.5	9.4	9.1			

Source: elaborations on BBSR, INKAR CD-Rom, 2009, and BBSR, Regional Data Base, 2010.

The table 'Population by migratory status in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2005-2008' is not available.

# 4. Economic change and population: the labour market of the case study region and its sub-divisions

#### 4.1. Economic characteristics

In 1989 the economy of the GDR had a dilapidated capital stock and had a personnel intensive form of production. Consequently economic productivity was low and it was estimated at 40 % of the West German productivity at the time of German unification. The economic structure of the Eastern German Länder was clearly hold-up. The service sector was very weak and the agricultural sector and manufacturing were predominant. With the fall of the iron curtain and the

dissolving of the COMECON the demand for the East German products, which were part of the internal division of labour in the COMECON, collapsed. The immediate result of this situation was the dismissals and the increase in unemployment.

At the moment of German unification the salaries were lower than in West Germany, but they did not reflect the low level of labour productivity. This caused a fall in the competitiveness of the companies and lowered the inclination to invest. Missing economic multiplier effects consolidated the income disparities, hampered a sustainable economic boom and caused the East West divide to become permanent.

Mecklenburg-Vorpommern is one of five new Länder going through a drastic process of economic transformation after the German unification in 1990. Large parts of Mecklenburg-Vorpommern are rural and of a low population density. The general conditions for the economic transformation were rather bad. Mecklenburg-Vorpommern has a poor position in a ranking of economic characteristics such as productivity, income level or labour market participation. Using gross domestic product (GDP) as an indicator for economic output and GDP's change in time as an indicator for economic growth, we may characterise the basic economic position of the case studies regions within their countries and the slope between the counties within their regions. Germany's GDP was - in the average of the last decade - about a quarter higher than that of the EU-27. But since the year 2000 the growth of German GDP was weaker than in Europe. In 2007 the GDP per capita in Purchasing Power Parities of Mecklenburg-Vorpommern amounted to 21,000 €. It was about two third of the German average. This is the lowest value in Germany, but still close to the other new Länder of Brandenburg, Sachsen-Anhalt and Thüringen.

Within Mecklenburg-Vorpommern the range of GDP is enormous. The gradient between the counties shows a strong relationship to the settlement system. The 6, rather small, cities are leading the ranking. All have a GDP per capita above the average of the region, three even reach level above the national average. The counties with the lowest GDP per capita concentrate in the North-East, near to the Baltic Sea and the border to Poland. This part is characterised by a very weak economic structure and slow structural change towards the service sector resulting in very high unemployment.

Due to the massive shocks of the economic transformation process with the loss of large parts of the established industries, Mecklenburg-Vorpommern started the 1990s with a low level of production and income. This very low level at the start causes high rates of growth when comparing the actual situation with the situation of the mid 1990s. Over the last years economic dynamics have diminished again. Only few counties show an economic development of a dimension that could lead to the closing of the East West gap in the long run.

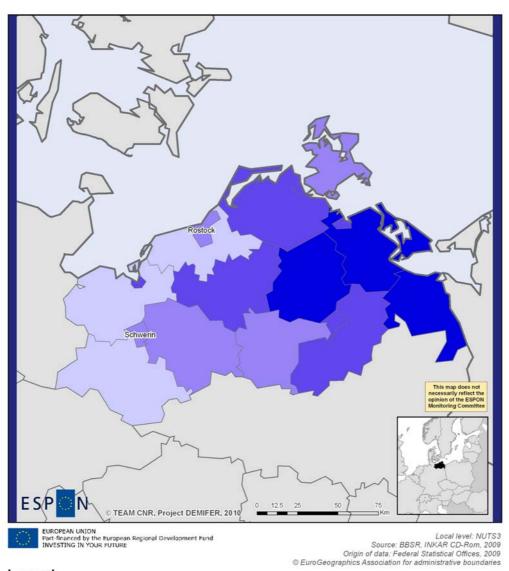
The unemployment rate of Mecklenburg-Vorpommern is high, due to long-term effects of German unification and the economic transformation and restructuring process that is still far from being accomplished. The average unemployment rate of EU-27 amounted 7.2 % in 2007. Germany's national rate is about 10 % in 20007, whereas Mecklenburg-Vorpommern reached an unemployment rate of 18.1 %, although it is decreasing in the last years. Within Mecklenburg-Vorpommern the disparities are large between the counties – with a maximum of about 24 % in Demmin and Uecker-Randow in the North-East and a minimum of 12 to 14 % in the Western part that are part of the suburban area of Lübeck and Hamburg.

Table 8 The economic situation in North-Eastern Germany (DE80 Mecklenburg-Vorpommern)

Counties/	GDP	2008	Ch	ange in G	DP		loyment 1007
Regional planning regions/ Case study area	€ per capita	Case study = 100	1995 to 2000	2000 to 2005	2005 to 2008	in %	Case study = 100
Greifswald (city)	26,121	122.4	16.8	23.6	13.4	18.7	103.3
Neubrandenburg (city)	32,910	154.2	11.5	11.8	12.6	19.5	107.7
Rostock (city)	28,102	131.7	22.7	7.0	10.8	17.4	96.1
Schwerin (city)	31,623	148.2	15.9	17.0	2.8	17.6	97.2
Stralsund (city)	29,420	137.8	14.3	14.2	24.4	20.7	114.4
Wismar (city)	26,966	126.3	34.6	25.6	7.3	19.3	106.6
Bad Doberan	19,856	93.0	8.9	7.2	16.3	12.9	71.3
Demmin	18,325	85.9	18.8	24.6	8.9	24.2	133.7
Güstrow	19,607	91.9	14.7	7.5	14.1	20.4	112.7
Ludwigslust	19,446	91.1	4.3	14.6	18.7	12.4	68.5
Mecklenburg-Strelitz	14,638	68.6	14.3	1.7	7.2	20.8	114.9
Müritz	20,553	96.3	8.9	14.1	13.0	17.9	98.9
Nordvorpommern	16,104	75.4	8.2	11.0	18.6	20.2	111.6
Nordwestmecklenburg	15,905	74.5	7.6	8.0	19.3	14.3	79.0
Ostvorpommern	16,400	76.8	15.6	6.6	19.6	21.5	118.8
Parchim	16,322	76.5	13.9	8.2	9.0	16.3	90.1
Rügen	19,781	92.7	14.2	22.6	11.7	17.6	97.2
Uecker-Randow	17,351	81.3	7.9	1.5	18.7	23.6	130.4
Mecklenburg-Vorpommern	21,345	100.0	12.7	11.6	13.4	18.1	100.0

Source: elaborations on AGL, 2010, and BBSR, INKAR CD-Rom, 2009.

Map 12 Unemployment in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2007



#### Legend

Unemployment rate 2007 (in %)

15.0 and less 15.0 to 18.0 18.0 to 21.0 more than 21.0

#### 4.2. Changes in the working age population

Table 9 Working age population and its dynamic in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2000-2007

		-	<u> </u>		rking a	age po	pulat	ion				
Counties/	31	.12.2	007		;	31.12	1990		31.12.2023			
Regional planning regions/						(31.12.2007=100			, ,			
Case study area	Total	15- 29	30- 44	45- 64	15- 29	30- 44	45- 64	15-	15- 29	30- 44		15- 64
Greifswald (city)	36,407		27.6	37.7	120	158	102	124	49	66	76	64
Neubrandenburg (city)	45,535		26.6	43.8	150	188	95	136	47	67	67	61
Rostock (city)	132,978		28.2	39.2	127	147	121	130	59	92	79	76
Schwerin (city)	63,005	28.6	28.7	42.7	154	164	107	137	57	73	79	71
Stralsund (city)	37,657	30.6	28.1	41.3	131	146	126	133	56	79	81	73
Wismar (city)	29,474	29.9	28.6	41.5	129	141	118	128	62	86	85	78
Bad Doberan	84,998	24.6	30.2	45.2	97	79	56	73	63	85	108	90
Demmin	56,097	25.8	29.2	45.0	150	128	101	121	47	60	85	68
Güstrow	69,158	26.7	29.6	43.6	145	120	95	116	52	67	92	74
Ludwigslust	87,140	26.3	30.4	43.3	123	103	81	99	58	74	100	81
Mecklenburg-Strelitz	55,838	25.4	29.1	45.5	133	113	86	106	49	67	91	73
Müritz	45,171	26.5	29.4	44.1	133	117	88	109	54	72	95	77
Nordvorpommern	74,523	24.8	29.7	45.5	142	112	88	109	53	70	95	77
Nordwestmecklenburg	83,154	25.9	31.5	42.6	110	88	71	87	64	80	108	87
Ostvorpommern	73,128	25.9	28.5	45.6	134	120	89	110	55	76	93	78
Parchim	68,812	24.9	29.3	45.8	134	113	80	103	52	67	91	74
Rügen	47,310	26.0	28.0	46.0	154	139	93	122	53	75	88	75
Uecker-Randow	49,927	25.6	28.0	46.4	168	154	103	134	46	61	80	66
Mecklenburgische Seenplatte	202,641	26.7	28.6	44.6	142	134	93	118	49	66	85	70
Mittleres Mecklenburg/Rostock	287,134	28.8	29.1	42.0	123	119	94	110	58	84	92	80
Vorpommern	318,952	27.2	28.5	44.4	141	133	97	119	53	71	87	73
Westmecklenburg	331,585	26.7	30.0	43.4	129	115	87	106	58	75	95	79
Total	1,140,312	27.4	29.1	43.5	133	125	93	113	55	75	90	76

Source: elaborations on BBSR- Bevölkerungsprognose 2005-2025 data base, 2010.

#### 4.3. The role of migration

Table 10 Foreigners employed and unemployed in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2007

		•	
Counties/ Regional planning regions/ Case study area	Foreigners - employed (social inscurance)	Foreigners - employed as share of total employed	Foreigners - unemployed
Greifswald (city)	126.5	1.2	66.5
Neubrandenburg (city)	141.0	0.5	124.4
Rostock (city)	151.9	1.3	154.1
Schwerin (city)	131.4	0.7	319.5
Stralsund (city)	148.6	0.6	126.9
Wismar (city)	84.8	0.9	108.0
Bad Doberan	110.9	0.7	74.7
Demmin	70.2	0.4	76.6

Güstrow	93.7	0.4	105.4
Ludwigslust	157.6	1.0	50.7
Mecklenburg-Strelitz	101.2	0.6	84.2
Müritz	90.2	0.4	100.2
Nordvorpommern	120.8	0.5	83.2
Nordwestmecklenburg	165.2	0.9	85.3
Ostvorpommern	131.4	0.9	90.1
Parchim	85.4	0.5	80.5
Rügen	190.9	1.1	53.1
Uecker-Randow	37.5	0.4	54.5
Mecklenburgische Seenplatte	102.2	0.5	97.2
Mittleres Mecklenburg/Rostock	135.9	1.0	131.6
Vorpommern	117.5	0.8	74.4
Westmecklenburg	127.2	0.8	144.4
Total	·	_	

Source: BBSR, INKAR CD-Rom, 2009.

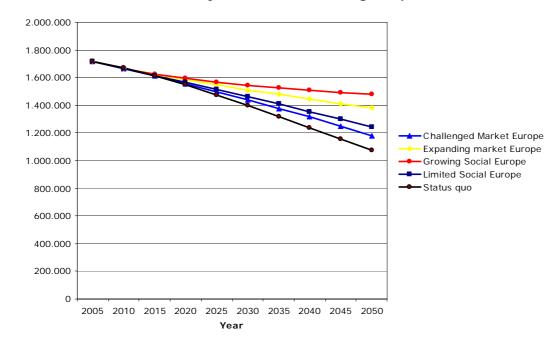
# 5. Economic change and population: other aspects of the case study region and its sub-divisions

The German unification process and its effects: the results of a field study "Über Leben im Umbruch" (http://www.ueberlebenimumbruch.de/) conducted by a project group examining social transformation in the town of Wittenberge, situated in Brandenburg just South of Mecklenburg-Vorpommern.

# 6. Economic and social consequences of demographic change in the case study region and its sub-divisions

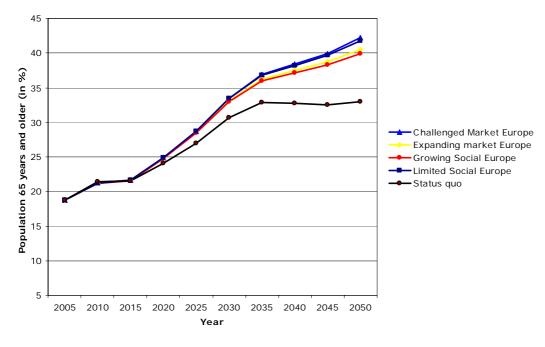
### 7. Population ageing at the regional level and the DEMIFER scenarios

Figure 3 Population change according to the DEMIFER scenarios in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2005-2050



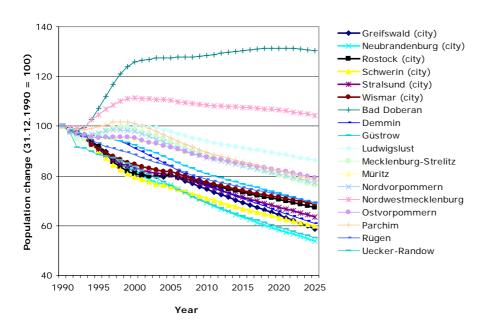
Source: DEMIFER Scenarios, 2010.

Figure 4 Population ageing according to the DEMIFER scenarios in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2005-2050



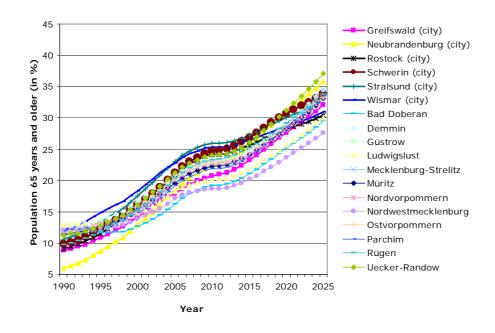
Source: DEMIFER Scenarios, 2010.

Figure 5 Population change according to the BBSR status-quo projection in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2005-2025



Source: BBSR- Bevölkerungsprognose 2005-2025 data base, 2010.

Figure 6 Population ageing according to the BBSR status-quo projection in North-Eastern Germany (DE80 Mecklenburg-Vorpommern), 2005-2025



Source: BBSR- Bevölkerungsprognose 2005-2025 data base, 2010.

Compared to the DEMIFER Status Quo scenario all the DEMIFER policy scenarios the population of Mecklenburg-Vorpommern indicate a slowing of population decline. By 2050 a steeper population loss is expected in the case of the

Challenged Market Europe (-31.3 %) and the Limited Social Europe (-27.9 %) compared to the Expanding Market Europe scenario (-19.8 %) and the Growing Social Europe (-14.0 %). In all the policy DEMIFER scenarios a continuous ageing of the population of Mecklenburg-Vorpommern is expected with a share of the population 65 years and older in the total population above 40 %.

The BBSR population projections are more pessimistic regarding demographic trends until 2025 with an estimated total population even lower than the DEMIFER Status Quo scenario. The ageing of the population of Mecklenburg-Vorpommern is confirmed. Only for the suburban area of Rostock a constant or slightly increasing population is expected. Most other counties, with the exception of Nordwestmecklenburg, follow the general trend for the study area. Nordwestmecklenburg will be also the county with the lowest share of elderly in 2025, but still close to 27 %. In general future demographic trends are similar in all sub-areas of Mecklenburg-Vorpommern.

# 8. Conclusions and the policy implications of demographic challenges in the case study region

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### 10. Annex: Data reported in tables, graphs and maps

Table 11 NUTS 3 regions of North-Eastern Germany (DE80 Mecklenburg-Vorpommern)

Id NUTS3	Id County	Name	Regional planning region		
DE801	13001000	KS Greifswald, Hansestadt	Vorpommern		
DE802	13002000	KS Neubrandenburg, Stadt	Mecklenburgische Seenplatte		
DE803	13003000	KS Rostock, Hansestadt	Mittleres Mecklenburg/Rostock		
DE804	13004000	KS Schwerin, Landeshauptstadt	Westmecklenburg		
DE805	13005000	KS Stralsund, Hansestadt	Vorpommern		
DE806	13006000	KS Wismar, Hansestadt	Westmecklenburg		
DE807	13051000	Bad Doberan	Mittleres Mecklenburg/Rostock		
DE808	13052000	Demmin	Mecklenburgische Seenplatte		
DE809	13053000	Güstrow	Mittleres Mecklenburg/Rostock		
DE80A	13054000	Ludwigslust	Westmecklenburg		
DE80B	13055000	Mecklenburg-Strelitz	Mecklenburgische Seenplatte		
DE80C	13056000	Müritz	Mecklenburgische Seenplatte		
DE80D	13057000	Nordvorpommern	Vorpommern		
DE80E	13058000	Nordwestmecklenburg	Westmecklenburg		
DE80F	13059000	Ostvorpommern	Vorpommern		
DE80G	13060000	Parchim	Westmecklenburg		
DE80H	13061000	Rügen	Vorpommern		
DE80I	13062000	Uecker-Randow	Vorpommern		

Please see separate MS Excel file.