



# DERREG

Developing Europe's Rural  
Regions in the Era of  
Globalization



## CASE STUDY CONTEXTUAL REPORT 5



# Saarland

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# 1. Introduction

## 1.1 Location and Geography

Saarland is one of the sixteen *Länder* or federal states which make up Germany. Saarland is situated on the French-German-Luxembourgian border and has historically occupied a transitional location, with shifting territorial allegiances, until it was formally integrated into the Federal Republic of Germany in 1957 after a referendum (figure 1). The state of Saarland borders the French region of Lorraine to the south and west, Luxembourg to the west and the German state of Rheinland-Pfalz (Rhineland-Palatinate) to the north and the east.

Saarland is named after the Saar River which runs through the state from the south to the northwest. With an area of 2,568.65 km<sup>2</sup>, it is the smallest of the German states aside from the three city-states of Berlin, Bremen and Hamburg. Within this small area the region encompasses a wide variety of topography across its generally hilly landscape, ranging from the lime soil of the Bliesgau and sandy soil around Homburg, the coal mountains near Neunkirchen, thick deciduous and primeval forest only a few kilometres away from the state capital Saarbrücken, to the scenic plateaus of the Saargau with its green hills. One third of the land area of Saarland is covered by forest, one of the highest percentages in Germany.



Figure 1: Location of Saarland in Germany

In 2009, the population of Saarland was 1,024,000, of whom one-third (344,300 people) lived in the region's largest city, Saarbrücken, and its surrounding administrative district on the French border, while areas to the north of the state have retained a rural character. Saarbrücken is one of six administrative districts within the state of Saarland, with the remaining two-thirds (706,000) of the population living in the other five districts of Merzig-Wadern, Neunkirchen, Saarlouis, Saar-Pfalz-Kreis and Sankt Wendel. *In line with the DERREG project's particular focus on rural regions, where appropriate data will be provided only for the 5 more rural districts of Saarland, excluding the largely urban district of Saarbrücken. Where this is the case during the remainder of this report it will be referred to*

as the 'rural case study region', whereas data provided for 'Saarland' is based on all six administrative districts including Saarbrücken.

Saarland is categorized by Eurostat as 'predominantly urban' (only 18.5% of the regional territory is classed otherwise as 'intermediate rural')<sup>1</sup> with a population density of 407.5 persons per km<sup>2</sup>, or 357.1 persons per km<sup>2</sup> for the case study region with Saarbrücken excluded. This makes Saarland the most densely populated of the DERREG case study regions. Outside of Saarbrücken, the largest towns are the five district seats of Homburg (43,782 residents), Neunkirchen (48,452), Saarlouis (37,864), Merzig (30,839) and St. Wendel (26,663) which collectively account for just over one-quarter of the population of the case study region. Additional towns with over 20,000 residents are St. Ingbert (37,725), Blieskastel (22,488) and Dillingen/Saar (21,279), while a further 60% of the population live in towns of between 5000 and 20,000 residents. As such, only 1.6% of the population of the case study region live in settlements of fewer than 5000 people.

Saarland has a well-developed infrastructure with the highest density of motorways across the German federal states (figure 2). This contributes towards giving it a high score of 132,000 on ESPON's accessibility index; although one-third of this score is accounted for by the Saarbrücken district alone and this is the focus for major regional transport connections. The major roads are the motorways from Mannheim via Saarbrücken to Paris (A620 and the A6) which connect to the French motorway network, and the motorways to Luxembourg (A8) and into Rhineland.

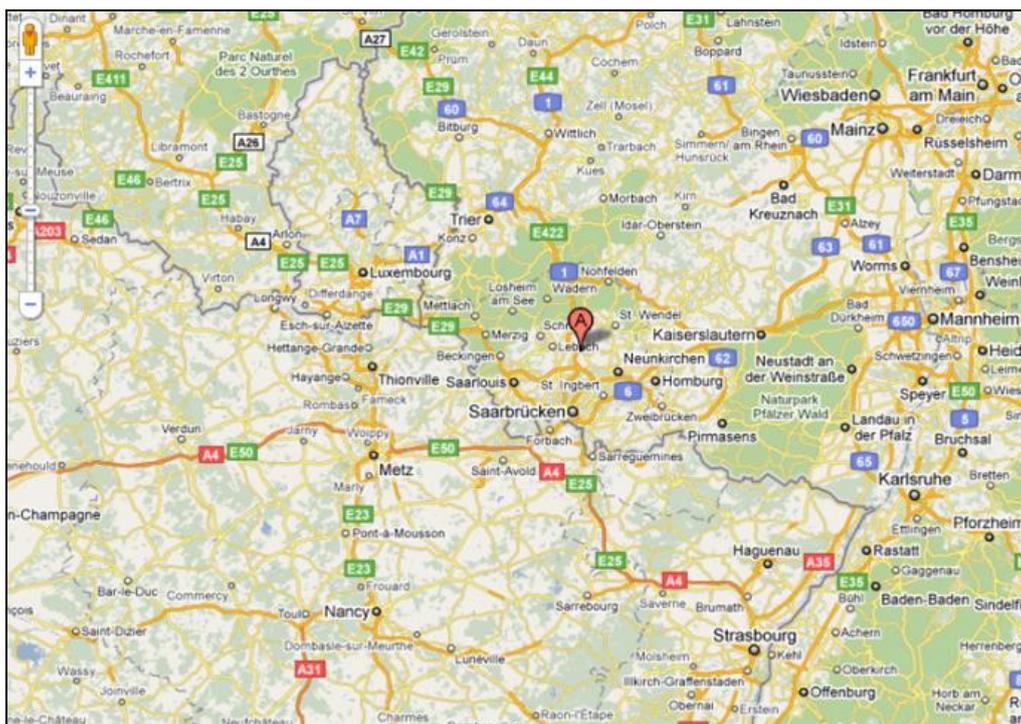


Figure 2: Major road transport connections from Saarland. Source: Google Earth

Saarland has a well developed local rail network while, both for passenger transport and freight traffic, there are numerous train routes providing an efficient connection to the intra-German and the European rail network such as the high-speed connection from Metz via Saarbrücken to Frankfurt established in 2007. Saarbrücken is also directly connected to the French rail network, with French local trains calling at Saarbrücken main station.

<sup>1</sup> Source: Eurostat 2008 Rural Development Report

Although landlocked, since 1987 the River Saar has been opened up in soon-to-be-completed stages as a major economic shipping lane, connecting Saarland via the industrial port of Saarlouis-Dillingen into the European network of inland navigation. Saarland is also home to a small regional airport in Ensheim, 10km outside the city of Saarbrücken, which provides flights to Berlin, Hamburg, Leipzig, Luxembourg and Munich for primarily business travellers, as well as flights to limited Mediterranean holiday destinations. The Air Berlin connection to the hub airport at Berlin-Tegel significantly expands the range of long-haul routes available via Saarbrücken-Ensheim.

## 1.2 Government and Politics

Saarland is one of 16 states (*Bundesländer*) comprising Germany and which are classed as NUTS1 administrative regions by Eurostat (table 1). Due to its relatively small size, Saarland is also classed as a NUTS2 government region, while some of the larger *Bundesländer* such as Saxony and Bavaria were formerly divided (prior to administrative reform) into several administrative regions called *Regierungsbezirk* which continue to form the boundaries for NUTS2 regions (of which there are 39 in total across Germany). Under the German federal system, Saarland, like other German states, is officially governed by a cabinet led by a Prime Minister (*Ministerpräsident*) and together with a legislative body known as the *Landtag* (State Parliament), sets the state's constitutional laws. The state legislatures are popularly elected for five years, and the Prime Minister then chosen by majority vote among the Landtag's members.

Each state is divided into districts (*Kreise*) and cities constituting a district in their own right (*kreisfreie Städte*), with the *Kreise* only then further subdivided into municipalities. These districts represent the primary tier of local government through elected county assemblies which are responsible for local self-administration, infrastructural maintenance and service provision. Saarland is divided into six administrative districts, Merzig-Wadern, Neunkirchen, Saarlouis, Saar-Pfalz-Kreis, Sankt Wendel and Saarbrücken, which are classified by Eurostat as NUTS3 regions (figure 3).

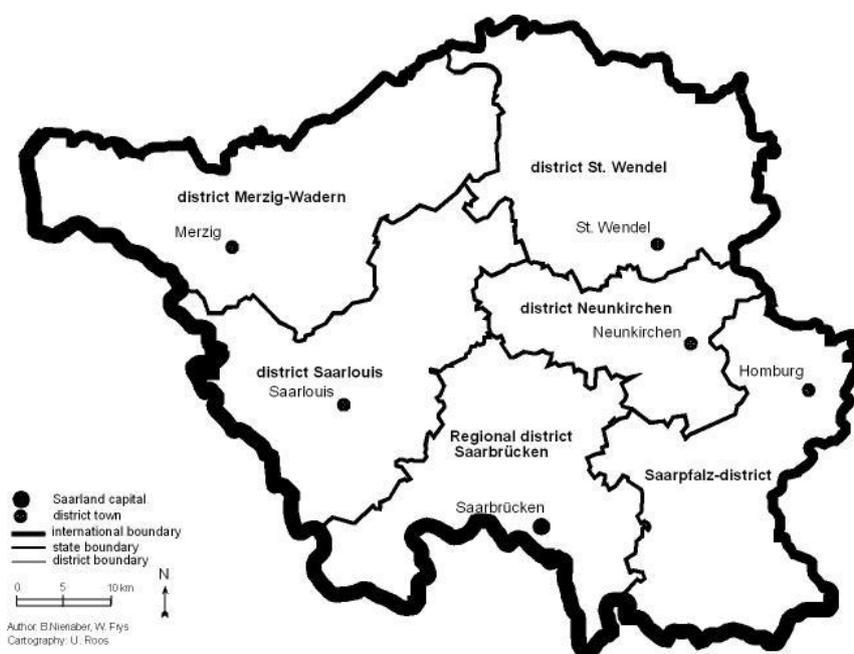


Figure 3: Districts of Saarland with major towns. Source: Universität des Saarlandes

NUTS 1	NUTS 2	NUTS 3	LAU 1	LAU 2
Saarland	Saarland	Merzig-Wadern Neunkirchen Saarlouis Saarpfalz Sankt Wendel Saarbrücken	n/a	5 municipalities 5 municipalities 10 municipalities 3 municipalities 7 municipalities 5 municipalities

Table 1: Hierarchy of administrative/statistical units for Saarland

The political complexion of Saarland throughout the first half of the twentieth century was shaped by its shifting territorial allegiance. Prior to 1920, the state was split up into several territories, however, with the coming into force of the Treaty of Versailles in 1920 a new administrative unit was created named *Saargebiet* (Saar region) or *Territoire de la Sarre* in French. The region was governed by Britain and France from 1920 to 1935 under a League of Nations mandate, before the territory was reintegrated into the German Reich under Hitler's National Socialism in 1935 after around 90% of the population declared themselves in favour. Following WWII, the Saar region became a French protectorate (where elections were held but pro-German parties banned) before a referendum held in 1955 ended French rule and saw Saarland once again re-join the Federal Republic of Germany as a state in January 1957.

Since this time, Saarland has been governed by the conservative Christian Democratic Union (CDU) for 37 out of 51 years. This rule was interrupted by a 14 year period between 1985 and 1999 which saw the centre-left Social Democratic Party of Germany (SPD) in charge, before the CDU were re-elected and have remained in power since. In the most recent elections in 2009, the CDU lost its absolute majority, leading to the inauguration of the first so-called "Jamaica coalition" (between the Christian Democratic Union (CDU), Free Democratic Party (FDP), and the Green Party) in Germany (table 2).

Party	Total number	Percentage
CDU ( <i>Christian Democratic Union</i> )	184537	34.5
SPD ( <i>Social Democratic Party of Germany</i> )	131241	24.5
Grüne ( <i>Alliance 90/The Greens</i> )	31516	5.9
FDP ( <i>Free Democratic Party</i> )	49064	9.2
Die Linke ( <i>The Left</i> )	113664	21.3
Familie ( <i>Family Party</i> )	10710	2.0
FBU ( <i>Free Citizens' Union</i> )	754	0.1
FW ( <i>Free Voters</i> )	4528	0.8
GUR ( <i>Health is Our Right</i> )	680	0.1
NPD ( <i>National Democratic Party of Germany, far right</i> )	8099	1.5

Table 2: Results of the Saarland state elections, August 30<sup>th</sup> 2009

The dominance of the centre-right is repeated in local government. In elections in June 2009, the CDU retained an absolute majority on the council for St Wendel kreis, and was returned as the largest party in Merzig-Wadern, Saarlouis and Saarpflaz. Only in Neunkirchen were the SPD elected as the largest party, replacing the previous CDU administration. Overall, the June 2009 local elections saw a significant shift in support from the CDU and SPD to the liberal FDP and left-wing Der Linke parties.<sup>2</sup>

## 2. The Regional Economy

### 2.1 Economic History

Saarland has experienced a period of fundamental change in its economic, social and spatial structures during the last 50 years since it rejoined the Federal Republic. However, historically another major period of economic change in the region began in the first half of the nineteenth century due to innovations in coal mining and development of a large iron and steel industry based on the region's vast coal fields. The growth of these industries led to concurrent social changes across Saarland. Industrial development was concentrated along the chief transport routes, principally along the Saar, giving rise to the development of large urban conurbations and an increasing population density.



Figure 4: Former steel factory in Neunkirchen.  
Source: U. Roos, 2010

The coal and iron/steel industries remained predominant in Saarland until the middle of the 20th century, when structural changes related to global economic pressures saw the region's heavy industries fall into a steady decline (figure 4). These pressures included a decline in export markets as the use of other energy sources increased, as well as the falling competitiveness of Saarland's coal mining industry as new global labour markets and locations opened up. In 1970, coal and steel directly provided 80,000 jobs or one-fifth of regional employment in Saarland in 1970 (Lerch, 2007, p121). However, with the increasing pressures of economic globalisation as well as the integration of former West and East German economies following reunification, Saarland's coal and steel industries fell into crisis in the 1990s. Hard coal extraction fell from 16.3 million tons in 1957 to 3.7 million tons in

<sup>2</sup> Source: <http://www.wahlrecht.de/forum/messages/40/3596.html?1244643051>

2006, alongside which the number of employees was reduced from approximately 64,000 to only 6,400. Likewise, the number of collieries went down from 18 to one single location over the same period of time (Dörrenbächer 2007, p101). The deindustrialisation of the economy of Saarland saw massive job losses in the formerly dominant coal and steel industry leading to high levels of unemployment in the 1990s.

At the same time, these losses were partly offset by the creation of new jobs in the manufacturing sector utilising modern production techniques. The 1990s saw a massive growth in the automotive industry in Saarland, with Ford having previously opened a manufacturing plant in Saarlouis in 1970. As such, the industrial sector of the rural case study region's economy grew in terms of its Gross Value Added by 21% between 1995 and 2005 (figure 5). However, since the 1990s industry has been overtaken by the expansion of the service sector as the most important part of the regional economy, with the growth of private enterprise and, in particular, hi-tech and information-communication services. Agricultural production in the whole of Saarland is limited.

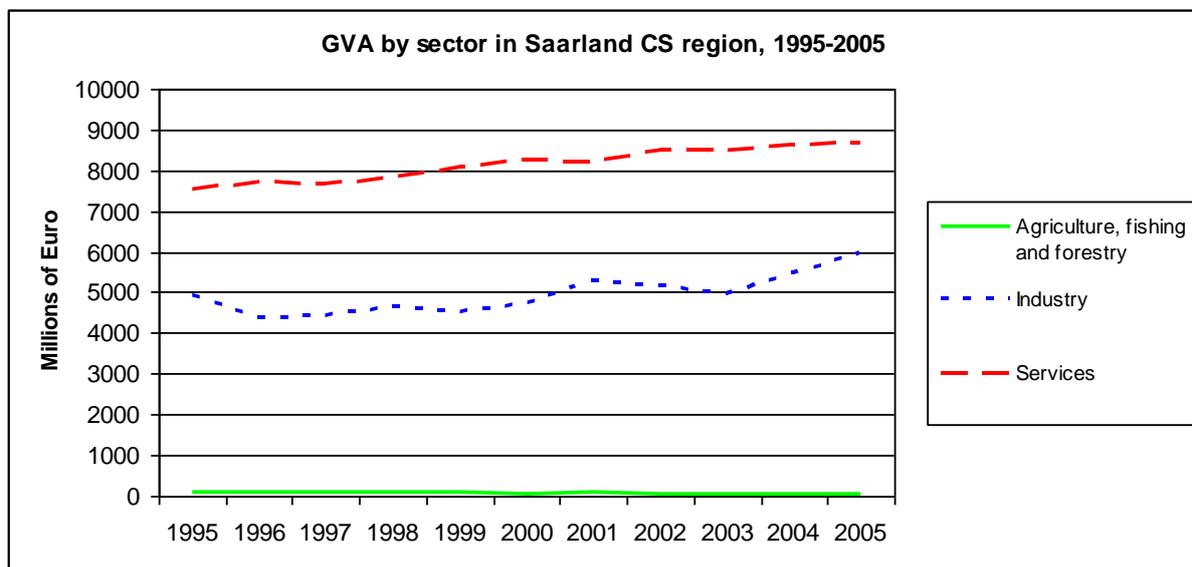


Figure 5: Gross Value Added (GVA) by sector in Saarland rural case study region, 1995-2005.  
Source: Eurostat

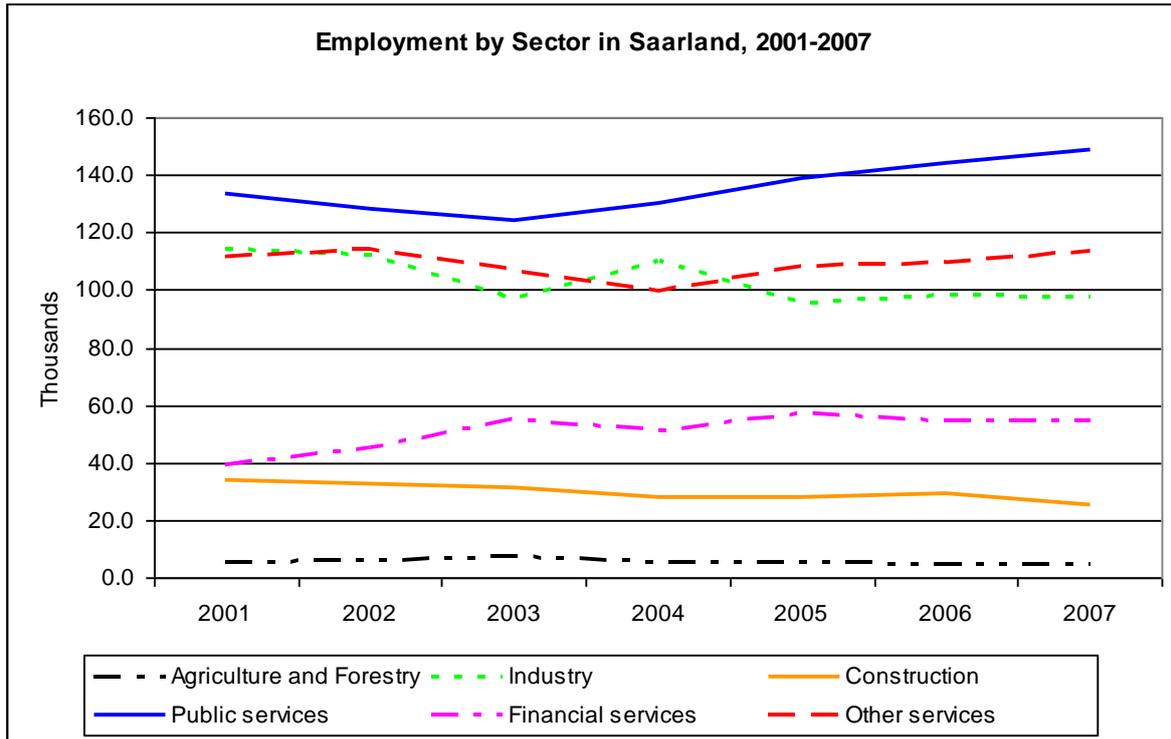


Figure 6: Employment by sector in Saarland NUTS 2 region, 2001-2007.  
Source: Eurostat.

Despite this expansion of the industrial sector in terms of GVA, the dominance of the service sector is far more pronounced in terms of employment across the whole state of Saarland (NUTS 2). As figure 6 demonstrates, industrial employment actually declined by 14% between 2001 and 2007, while service sector employment as a whole (including financial, public and other services) increased by 11% over the same period. Public services have been the largest regional employer over this period, while the strongest rate of growth has been seen in financial and business services. Following a growth peak in 2003, agricultural employment has shown a continuing trend of steady decline.<sup>3</sup>

A steady period of economic growth and diversification since the mid-1990s has seen the average GDP per capita in the Saarland rural case study region increase by 25%, from €18,660 in 1995 to €23,540 in 2006. There are, however, significant geographical variations across the case study region as figure 7 illustrates. This 2006 figure is roughly equal with the EU average (€23,600) and the fourth highest out of the DERREG case study regions. However, it is lower than the German national average of €28,200 and considerably lower than for the district of Saarbrücken where the GDP in 2006 is €34,200, suggesting much of the recent economic growth in Saarland has been concentrated in this area.<sup>4</sup>

<sup>3</sup> Source: Eurostat

<sup>4</sup> Source: Eurostat

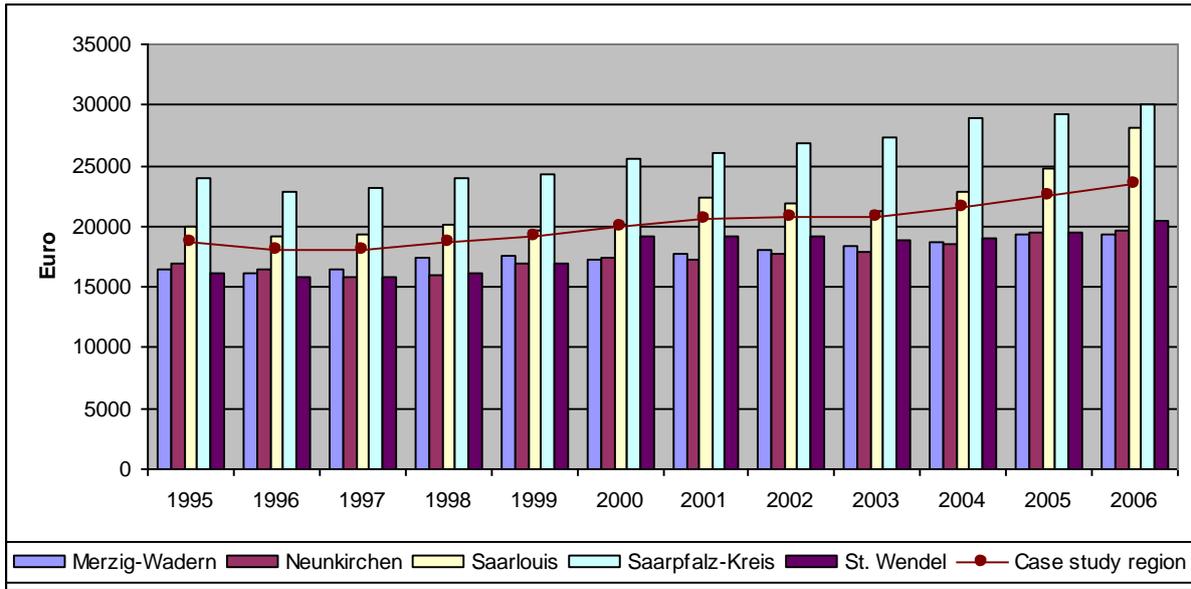


Figure 7: GDP per head in Saarland rural case study region, 1995-2006. Source: Eurostat

## 2.2 Present Economic and Employment Structure

In Saarland (NUTS 2), the service sector is the most important area of economic activity, accounting for 71% of regional employment in 2007 compared to 28% working in industry and just 1% in agriculture. In the economy of the rural case study region (without Saarbrücken), the service sector is still dominant but the industrial sector has remained a larger regional employer, with figures from 2001 census data indicating industry accounting for a 35% share of employment compared to 64% in services and again 1% in agriculture. This is the second highest level of industrial employment of the DERREG case study regions, after Jihomoravský kraj, and is the lowest level of agricultural employment of the ten case study regions.

This strong industrial sector in the case study region is also reflected in terms of contribution to GVA, accounting for 40.6% of regional GVA in 2005 compared to 59.1% from services and only 0.3% from agriculture.<sup>5</sup> This is reflective of the growth over the past decade of both a modern service economy and a modernised manufacturing sector to replace the declining coal and steel industries. This has seen the massive expansion of the automotive sector in Saarland while other important branches of industry are mechanical engineering, metal-working, the food sector and fine ceramics.

The employment rate among the active population (aged 16-64) of Saarland was 65% in 2006, which is below average compared to other western German regions and more comparable with those of the former GDR such as Saxony. Unemployment has decreased since the 1990s but remains the third highest proportion out of the DERREG NUTS 2 regions after Dresden and Galicia, at around 34,800 people or 7.3% of the economically active population in 2007. This represents a significant decrease from a peak two years earlier of 52,200 (10.8%). Yet despite the relatively small land area of Saarland, there are noticeable geographical variations in unemployment rates, with the highest rate actually in Saarbrücken (12.3%) compared to the rural case study districts of Saarpfalz-Kreis (7.3%) and Saarlouis (8.3%).<sup>6</sup>

<sup>5</sup> Source: Eurostat

<sup>6</sup> Source: Eurostat Rural Development Report 2008

Saarbrücken is the largest focus for employment (and unemployment) in Saarland, with the city and its surrounding urban conurbation home to around one-third of the regional population. This urbanisation was driven by Saarbrücken's position at the heart of the region's former industrial activity around the Saar River while outlying rural areas of Saarland are now highly prized residential and commuter locations, with a distance of only approx 60km from the rural town of Nonnweiler on Saarland's northern border to Saarbrücken in the south. Thus, for example, Saarbrücken kreis has a net influx of 37,000 commuters daily, whilst rural Merzig-Wadern kreis has a net outflow of 3,700 commuters.<sup>7</sup> In addition, a comparatively high 10% of the workforce of Saarland commutes to work in a different NUTS 2 region reflecting Saarland's small land area and good transport links to neighbouring regions in Germany, France and Luxembourg. However, net cross-border commuting into Saarland from neighbouring countries exceeded out-commuting in 2005 by a factor of more than 3:1 (Table 3).<sup>8</sup>

	Commuters into Saarland	Commuters out of Saarland
France	20,623	1,000
Luxembourg	42	5,628
Belgium	144	n/a
Total	20,809	6,628

Table 3: Cross-border commuting in and out of Saarland, 2005  
(Source: Based on Wille (2008))

Saarbrücken is the region's business, administrative and educational centre, with local and state government branches as well as the city's five public universities. However, Saarland's single largest employer (following the decline of coal mining) is the Ford plant in Saarlouis, with 6,500 employees plus a further 2,000 people employed in a neighbouring supply park.<sup>9</sup> Around 7% of the workforce in Saarland still works in the coal and steel industries, including 3,600 workers employed by RAG at the Ensdorf coal mine, 5,000 employed by Dillinger Hütte at its steelworks at Dillingen, and over 4,000 employed by steel-makers Saarstahl at plants in Vöklingen and Neunkirchen.<sup>10</sup>

Private business enterprises expanded in Saarland alongside the growth of the region's service economy, with the border location proving an attractive location for corporate headquarters as well as smaller scale enterprises. The distribution of businesses varies geographically within the state, with 35% of the 38,747 registered businesses in 2004 located in the district of Saarbrücken and the remaining 24,700 within the 5 districts of the case study region. Of these, the highest percentages were in the neighbouring districts to Saarbrücken, Saarlouis (19.5%), Saarpfalz-Kreis (15%) and Neunkirchen (12.6%), and the least in the northerly districts of Merzig-Wadern (9.2%) and St. Wendel (7.7%). The largest sectors are in business services (e.g. IT and consultancy), hotels and restaurants, and real estate.<sup>11</sup>

Of these 38,747 registered businesses in Saarland, the vast majority (88.5%) are either sole-trader enterprises or of between 1 and 9 employees. The business environment for small to medium sized enterprises (10 to 49 employees) is less developed with approximately 3,500

<sup>7</sup> Source: [http://www.saarland.de/dokumente/thema\\_statistik/staa\\_PENDLER\\_Soz\(1\).pdf](http://www.saarland.de/dokumente/thema_statistik/staa_PENDLER_Soz(1).pdf)

<sup>8</sup> Source: Wille (2008)

<sup>9</sup> Source: [http://media.ford.com/article\\_display.cfm?article\\_id=27266](http://media.ford.com/article_display.cfm?article_id=27266)

<sup>10</sup> Sources: [www.dillinger.de](http://www.dillinger.de); [www.saarstahl.com](http://www.saarstahl.com); [http://www.welt.de/wirtschaft/article1721494/10\\_000\\_Arbeitsplaetze\\_nach\\_Erdbeben\\_in\\_Gefahr.html](http://www.welt.de/wirtschaft/article1721494/10_000_Arbeitsplaetze_nach_Erdbeben_in_Gefahr.html)

<sup>11</sup> Source: Eurostat

such businesses in the region, and then a further 957 large businesses with over 50 employees (178 with 250+).

In 2008, business start-ups in the Saarland case study region exceeded business closures by around 13% with 5853 new businesses established compared to 5185 closing, resulting in a small degree of growth in the business sector (possibly reflective of the global economic downturn which manifested in 2007). Again there is a degree of geographical variation across the case study region, with start-ups and closure almost level in St. Wendel (688 and 671) and Neunkirchen (1167 and 1123), while the largest growth was seen in Merzig-Wadern with 986 start-ups compared to only 672 closures (figure 9).

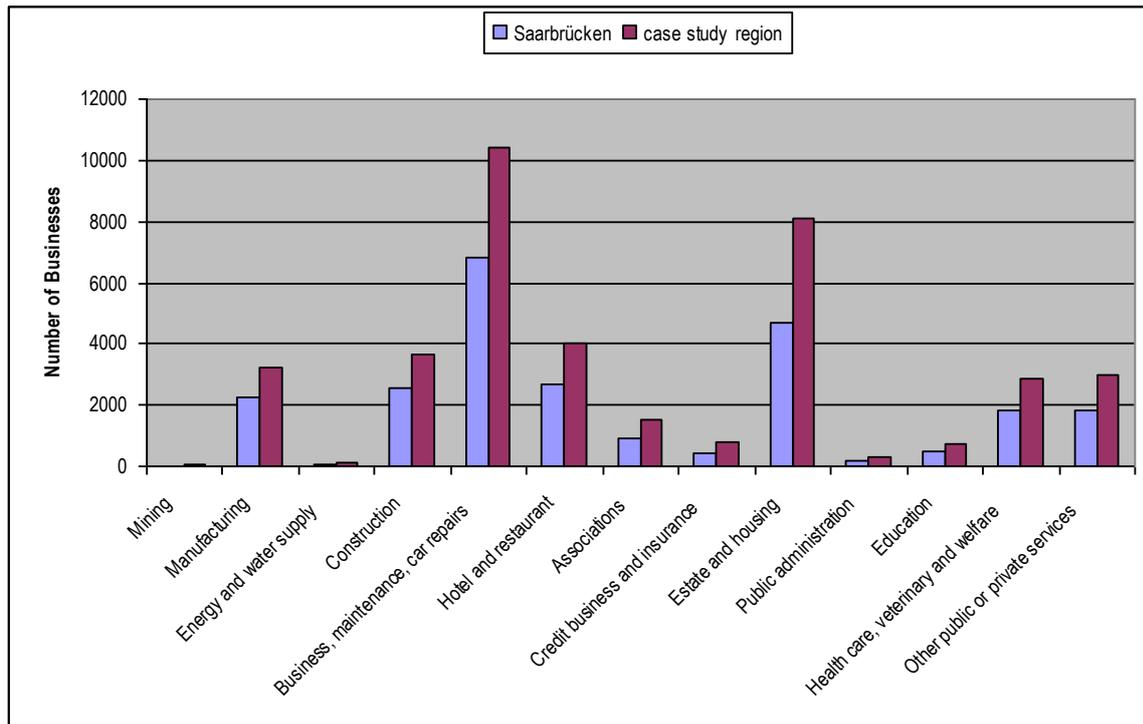


Figure 8: Registered businesses by sector in Saarland (Saarbrücken compared to the rural case Study Region), 2004. Source: <http://www.saarland.de/>

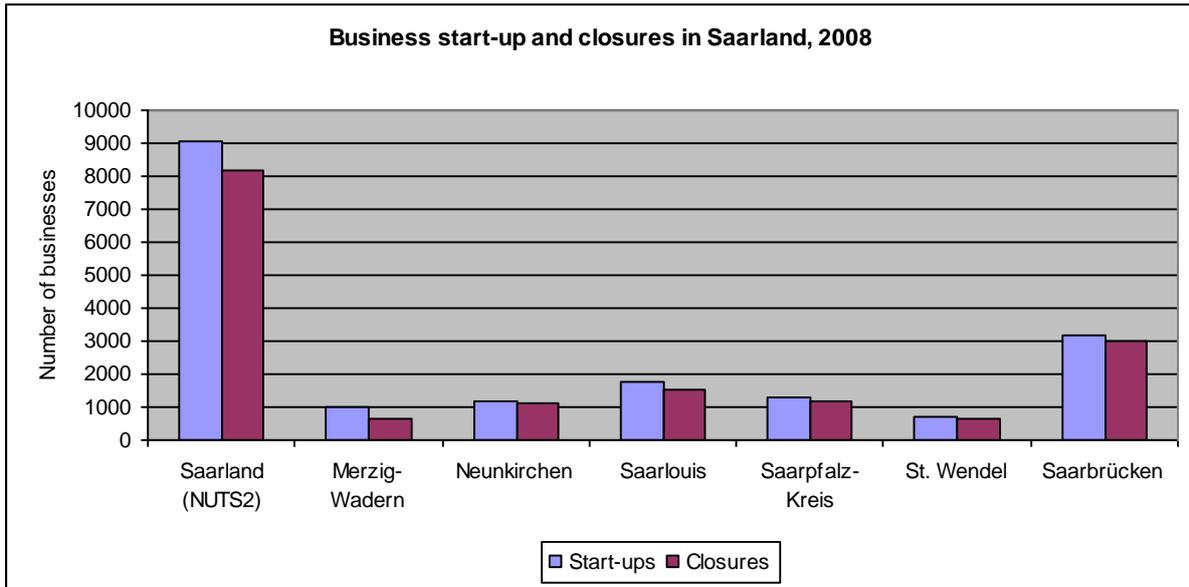


Figure 9: Business start-ups and closures in Saarland at NUTS2 and NUTS3 levels, 2008. Source: <http://www.saarland.de/>

### 2.3 Rural Primary Industries

As noted above, agriculture has only played a minor role in the regional economy of Saarland as a whole due to competing claims on the state's limited land area and this has reduced further since the 1990s. Agricultural GVA decreased from €77.2 million in 1995 to €45.7 million in 2005, which as a proportion of regional GVA represented a drop from 0.6% to 0.3%. Similarly, although there was a slight increase in the total number of agricultural employees between 2001 and 2003, the general trend over the decade has been downwards from around 5,200 full-time equivalent employees in 2001 to 4,700 in 2007, comprising just 1% of total employment in Saarland.<sup>12</sup> Even in the more rural kreise of Merzig-Wadern and St Wendel, agriculture employs less than 1.5% of the workforce.<sup>13</sup>

In 2005, there were 1690 farms in Saarland which is almost a 25% decrease from the number five years earlier. However, alongside other structural changes occurring in the economy of Saarland, agriculture is increasingly being concentrated on a fewer number of bigger farms. Around one-third of farms in 2005 therefore had land holdings of more than 50 hectares, the second highest proportion of large farms across the DERREG case study regions after Groningen, while another third of farms had holdings between 10 and 50 hectares and the final third with less than 10 hectares. This gives a mean farm size of 48.6 hectares. At the same time, as a region Saarland has traditionally had numerous small plots of agricultural land, giving a high proportion of 57.6% of farmers also having another form of gainful activity or for whom farming is a secondary activity.<sup>14</sup> Seven-eighths of farmers are men and while over 50% are between the ages of 35 and 54, Saarland has the highest proportion (19.7%) of farmers under the age of 35 across comparative DERREG NUTS2 regions.<sup>15</sup> As such, agriculture in Saarland is polarised between the development of large-scale economically competitive farm holdings and supporting the development of individual holdings by young farmers.<sup>16</sup>

<sup>12</sup> Source: Eurostat

<sup>13</sup> Source: Eurostat

<sup>14</sup> Source: Eurostat Rural Development Report 2008

<sup>15</sup> Source: Eurostat

<sup>16</sup> Source: [http://ec.europa.eu/agriculture/rur/countries/de/saar/fiche\\_en.pdf](http://ec.europa.eu/agriculture/rur/countries/de/saar/fiche_en.pdf)

Agricultural land covers approximately 50% of the territory of Saarland and in the rural case study region this proportion increases to 54%.<sup>17</sup> This land is of varied quality, with two-thirds (66.7%) classified as 'less favoured areas' and consequently agricultural production is a mixture of cereal and fruit crops, and a large livestock sector focused on dairy and beef products. Nearly 80% of farm holdings in Saarland in 2005 incorporated some form of livestock farming and 65% had arable land for cultivation, with figures for 2001 also showing roughly equal proportions of arable land use and permanent grassland for animal grazing.<sup>18</sup> Important agricultural areas include the Saargau in Western Saarland, along the French border, and the Bliesgau in the south-east, where there are fertile chalky soils.

Forests and woodland comprise just under a third (32.5%) of the territory of the Saarland case study region, with particular concentrations in the higher elevations of Merzig-Wadern district to the north of the state. The district of Saarbrücken actually has the highest proportion of forest in Saarland covering 43.8% of its land area, with the primeval forest of the Saar valley lying just outside the city. More than 41% of forested land in Saarland is owned by the state, 30% by municipalities or other public bodies, and 29% by private landowners, including the church. There are more than 15,000 privately owned forest properties in Saarland, with an average size of just 1.8 hectares.<sup>19</sup> As such, opportunities for commercial exploitation are limited, and the majority of woodland in Saarland is deciduous, rather than the coniferous plantations associated with industrial forestry.

Coal mining in the Saarland has been recorded for centuries and expanded rapidly with industrialisation in the nineteenth century, reaching its zenith in the early twentieth century. In 1913, the mining industry in Saarland produced 14 million tonnes of coal and employed over 56,000 people. The industry shaped the landscape of the region, with the characteristic mining region pattern of small mining and industrial towns and expanses of agricultural land at surface level. Political uncertainties contributed to a contraction of the industry in the post-war period, which accelerated during the 1960s, 70s and 80s owing to falling demand and global competition. During the 1960s, the number of working coal-mines in Saarland fell from 18 to 6, falling to 4 by the end of the 1980s, with 18,000 employees. Camphausen mine closed in 1990, followed by Luisenthal in 1994. In 1997, the Saarland government sold the remaining two mines – with 14,000 employees – to RAG. Göttelborn/Speeches mine was closed in 2000, leaving just one operating mine in Saarland at Ensdorf, with 3,600 employees in 2008. The mine was temporarily closed following a deep-mining related earthquake in 2008, and RAG subsequently announced that operations at the mine would cease in 2012, prompted by the decision of the German government to phase out its subsidy of the eight remaining German coal-mines (totalling €160 billion).<sup>20</sup>

## 2.4 Tourism

With the collapse of the region's heavy industry, continuing efforts are being made to promote and further enhance Saarland's attractiveness as a tourist destination emphasising the region's natural environment and cultural heritage. Figures for the whole of Saarland indicate that tourist numbers increased by more than 20% between 1994 and 2007, from 599,181 to 735,876 visitors (Figure 10). The vast majority of visitors are domestic tourists from Germany, as further indicated by the preponderance of short stays. The average length of visit in 2007 was 2.9 days, and the majority of income from tourism in Saarland is generated by day-trips. International visitors account for only 17% tourists to Saarland, with many of these coming from neighbouring France and Luxembourg. Although the volume of international visitors increased by 12% between 2004 and 2007, the regions has yet to develop the international reputation of neighbouring tourist destinations such as the Mosel valley.

<sup>17</sup> Source: Eurostat Rural Development Report 2008

<sup>18</sup> Source: Eurostat

<sup>19</sup> Source: Regionaler Waldbericht 2003

<sup>20</sup> Source: [http://de.wikipedia.org/wiki/Bergbau\\_im\\_Saarland](http://de.wikipedia.org/wiki/Bergbau_im_Saarland)

Efforts to develop tourism have focused on the more rural districts of Saarland, with opportunities for outdoor recreation, and on valorising the industrial heritage of communities such as Bexbach, location of the Saarland Museum of Mining. As such, the total number of tourist bed places available in the rural case study region increased by 20% between 2000 and 2006, compared to an increase of only 3% in Saarbrücken district.<sup>21</sup> The most significant development of tourism has been in the rural northern district of Merzig-Wadern, where tourism has been particularly associated with outdoor pursuits. Three-quarters of available bed places in Merzig-Wadern in 2007 – the year that Saarland hosted the German ‘National Hiking Day’ – were in non-hotel establishments such as camp sites or self-catering apartments. With this emphasis on recreational activity, the region has relatively few large tourist attractions, most notably the Europäischer Kulturpark Rheinheim-Bliesbruck, an archaeological park on the French border.

In 2007, the gross turnover of tourism in Saarland amounted to €1.32 billion, with about 32,000 jobs linked directly (63%) or indirectly (37%) to tourism.<sup>22</sup>



Figure 10: Tourist numbers (international and total) visiting Saarland NUTS 2 region, 1994-2007. Source: Eurostat

## 2.5 International Integration

Saarland’s border location has traditionally produced close trade relation with its European neighbours, in particular France, and these cross-border interconnections have been more formally acknowledge through its involvement in the ‘Saar-Lor-Lux’ Euroregion. The term was originally coined in the 1960s in reference to the close historical and economic ties among the coal mines and steelworks of Saarland, the Lorraine region of France and the country of Luxembourg. This has since expanded to include Belgium’s Wallonia, comprising the French and German speaking parts of Belgium, and the German federal state of Rhineland-Palatinate, with the five different municipalities of this so-called ‘Greater Region’ entering into various treaties of economic, social and cultural cross-border co-operation as well as benefiting from European Interreg funding (figure 11).<sup>23</sup>

<sup>21</sup> Source: Eurostat Rural Development Report 2008

<sup>22</sup> Source: Ministerium für Wirtschaft und Wissenschaft des Saarlandes (2009): Tourismusstrategie Saarland 2015.

<sup>23</sup> Source: <http://www.saarlorlux.biz/cgi-bin/cms>

Whilst the Saar-Lor-Lux+ region aims to develop trade and coordination between Saarland and adjacent regions in France, Belgium and Luxembourg, the second largest source of foreign direct investment in Saarland (after France) is the United States, and the U.S. is also Saarland's largest international trading partner. In 2007, exports from Saarland to the United States totalled €480 million in value, primarily from automotive parts and steel wire.<sup>24</sup> Saarland's major exports are both the raw materials and finished goods from the region's iron and steel industries, with France, the UK and Italy also amongst the major customers for these exports.<sup>25</sup> In 2009, foreign exports from Saarland exceeded imports by €11.2 billion to €9.7 billion, although the volume of both exports and imports was down on 2008.<sup>26</sup>

Saarland's largest employer is the American-owned Ford car plant at Saarlouis. More than 80% of the 405,000 Ford Focus and C-Max cars manufactured at Saarlouis are exported, going to more than 70 countries. Great Britain, Italy, Spain, France, Belgium, the Netherlands, Sweden and Poland are the most important foreign markets, with other notable customers including Australia, New Zealand, Mexico, South Africa and the United Arab Emirates. The Saarlouis plant also supplies vehicle parts to assembly plants in St Petersburg, Russia, and Turin, Italy.<sup>27</sup>

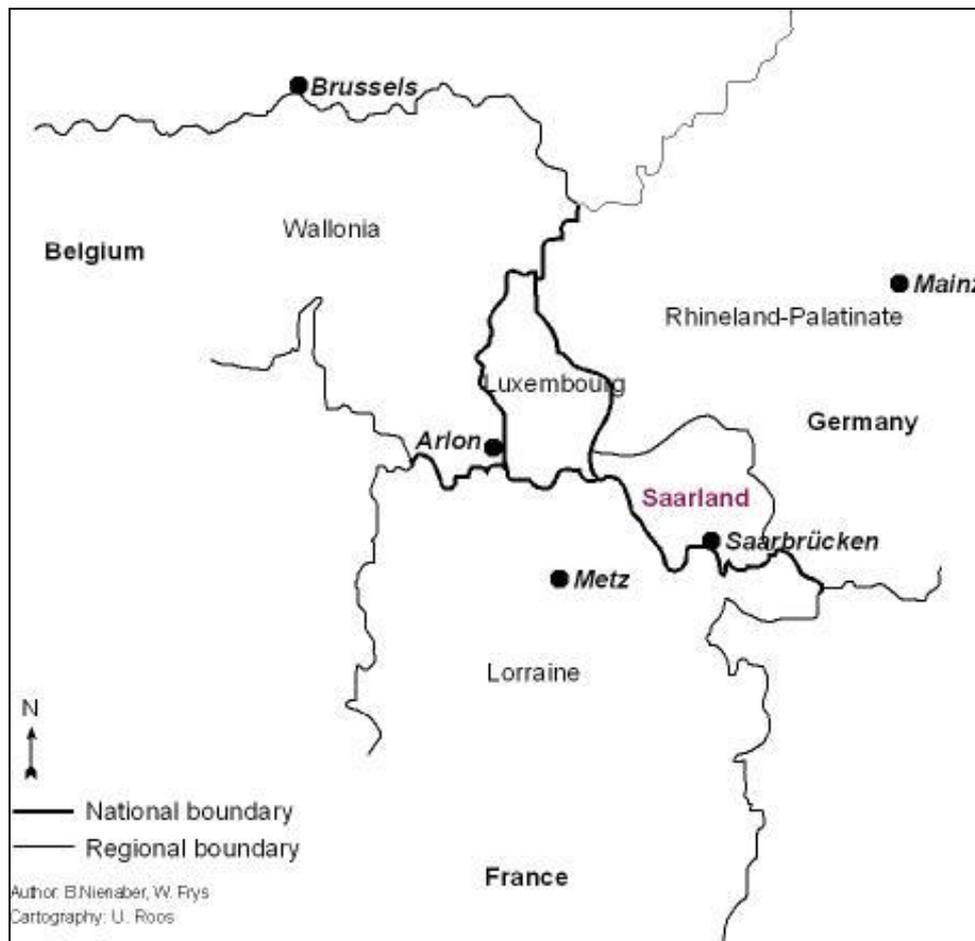


Figure 11: Saar-Lor-Lux Euroregion. Source: Universität des Saarlandes

<sup>24</sup> Source: [http://germany.usembassy.gov/root/pdfs/policy/benchmarks1\\_eng.pdf](http://germany.usembassy.gov/root/pdfs/policy/benchmarks1_eng.pdf)

<sup>25</sup> Source: Statistisches Amt Saarland (Hrsg.) (2009): Statistisches Jahrbuch Saarland. Saarbrücken, p. 151-152.

<sup>26</sup> Source: [http://www.saarland.de/dokumente/thema\\_statistik/staa\\_AUSSJAHR\(3\).pdf](http://www.saarland.de/dokumente/thema_statistik/staa_AUSSJAHR(3).pdf)

<sup>27</sup> Source: [http://media.ford.com/article\\_display.cfm?article\\_id=27266](http://media.ford.com/article_display.cfm?article_id=27266)

Other major employers including steel-makers Dillinger Hütte and Saarstahl are German-owned, but are equally integrated into international trading networks. In 2009, 61% of Dillinger Hütte's sales were exports, including 21.3% in France (including from its subsidiary plant in Dunkirk), 17.3% elsewhere in the European Union, and 22.4% to the rest of the world.<sup>28</sup> Saarstahl, meanwhile, has trading subsidiaries or sales representations in twelve countries, including France, Belgium, Switzerland, Italy, USA, China, India, Malaysia, Turkey and the Czech Republic.<sup>29</sup> The core industries of steel, coal and automobile manufacture have spawned secondary industries, many of which have developed international activities. For example, Saarland is home to a number of mining technology and services companies that have moved into international markets as the Saarland mining industry has declined. These include Beeker Mining Services, founded in 1964, which employs 180 people at its headquarters in Friedrichstahl and operates joint ventures in France, Poland, South Africa, Russia, China, Chile, Canada, Australia and the United States.<sup>30</sup>

### 3. Population and Migration

#### 3.1 Population Development

In terms of demography, Saarland occupies a unique position between the new (former Eastern-) and the West German federal states, with the extensive economic changes experienced in Saarland over the past few decades closely impacting on the state's demographic development. For instance, while the residential population in West Germany grew in the period of 1961 to 2004 by more than 20 percent, the population in Saarland stayed approximately the same during this period. Saarland thus more closely resembles an 'East German' federal state in terms of its demographic profile, being the only West German state to have reported a decrease in population for the period of 1990 to 2004 (Hohnhorst 2007, p69).

Since 1980, there has been an overall trend of population decrease for the whole state of Saarland, with the population having fallen by of 3% or 32,000 people by 2008. Yet within this downwards trend there have been fluctuations, with a period of population growth between 1990 and 1998 before numbers resumed their decline. Similarly, in the case study region there was a period of minor population growth between 1990 and 1996 when the population increased by 13,200 people (2%), before steadily decreasing back to 0.5% below 1990 population levels by 2008 (table 4).

	1980	1985	1990	1995	2000	2002	2004	2006	2008
Saarland	1,068,600	1,050,800	1,064,907	1,084,201	1,071,501	1,066,470	1,061,376	1,050,300	1,036,598
Case study region			709,600	725700	718600	715900	713000	706000	706,000

Table 4: Population of Saarland (NUTS 2) and the rural case study region, 1980-2008  
Source: Eurostat

<sup>28</sup> Source: Dillinger Hütte Annual Report 2009

<sup>29</sup> Source: [www.saarstahl.com](http://www.saarstahl.com)

<sup>30</sup> Source: 'Saarland Mining', [www.zpt.de](http://www.zpt.de)

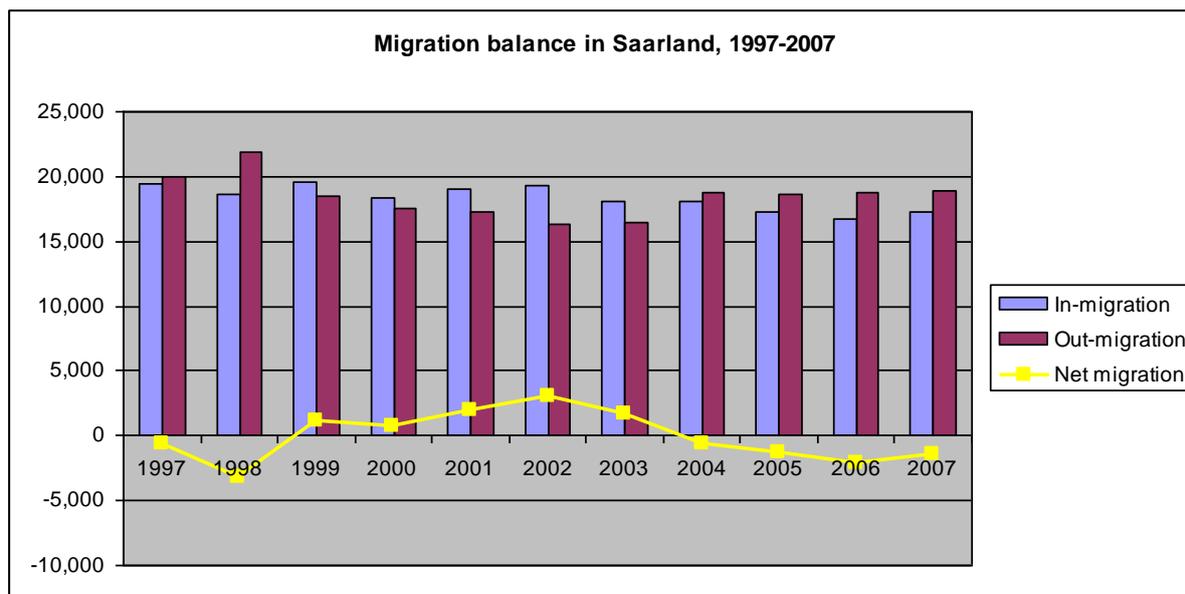


Figure 12: In-migration and Out-migration to/from Saarland (NUTS 2), 1997-2007.

Source: Statistisches Jahrbuch Saarland.

The decrease in Saarland's population has resulted from a combination of a natural population deficit and net out-migration. The crude birth rate in the case study region fell from 10.8 per thousand in 1990 to 6.8 per thousand in 2007, whilst the crude death rate remained fairly stable at between 11.0 and 12.0 per thousand.<sup>31</sup> At the same time, migration from Saarland between 1997 and 2007 exceeded in-migration by 970 people. The closeness of this figure reflects a short period of net in-migration between 1999 and 2003 which ran counter to the long-term trend (figure 12). In the years from 2004 to 2006 the balance of out-migration over in-migration widened, before narrowing slightly in 2007.

The vast majority (78%) of migration into the rural case study region in 2007 was from within Germany, with 58.0% coming from within Saarland itself suggesting the urban to rural migration of people from Saarbrücken to the state's outlying districts. At the same time, there is evidence that international migration is making an increasing contribution. While the overall number of in-migrants to Saarland has been decreasing in recent years, the proportion coming from outside Germany has increased from 18% in 2003 to 22% in 2007. This increase was entirely accounted for by migrants from other EU countries, numbers of whom increased from 2,302 in 2003 to 4,619 in 2007, reflecting EU enlargement in 2004 and increasing flows of migrant workers.<sup>32</sup> At the same time, the number of out-migrants moving from Saarland to other EU countries has also increased from 2,727 persons in 2003 to 4,356 in 2007.

### 3.2 Demographic and Household Characteristics

The median age of residents in the Saarland rural case study region is 37, which is the third highest across the DERREG case study areas after Dresden and Ourense in Galicia. Over a quarter of residents are aged over 60, reflecting an ageing population, whilst only 16% of residents are aged between 15 and 29, suggesting that many younger people are migrating out of the region for further education or employment (figure 13).

<sup>31</sup> Source: Eurostat

<sup>32</sup> Source: Statistisches Jahrbuch Saarland 1999-2008

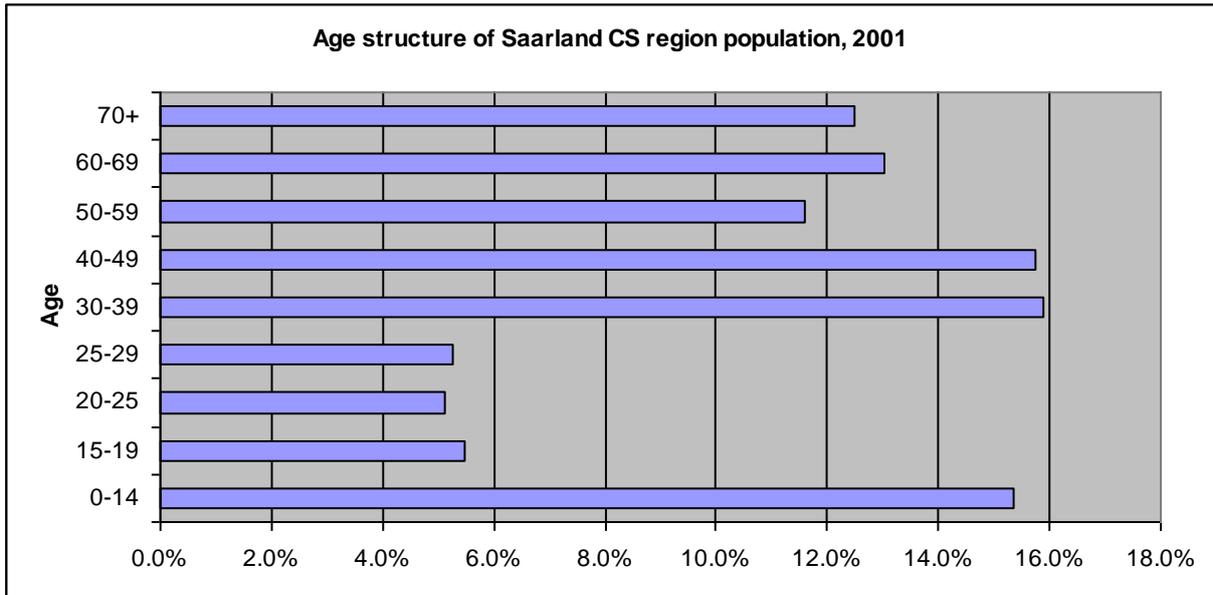


Figure 13: Age structure of the Saarland case study region population, 2001.  
Source: Eurostat

The balance of male to female populations in Saarland has remained fairly constant between 2000 and 2008, with a ratio of 1.06 women to every man. However, there are geographical variations where in the rural case study region this gender imbalance is slightly lessened with a ratio of 1.05, while in Saarburcken district it increases to 1.08 women to men based on Eurostat data from 2006. Typical household structure in Saarland is weighted towards smaller sized households, with 38.2% of private households single occupancy, 34.6% two-person, 14.4% three-person and the remaining 12.8% four-person plus.<sup>33</sup> These percentages may, however, vary between urban and rural areas. Real estate prices in Saarland have fluctuated over the past decade, with the price of building ground increasing by over 300% between 1997 and 2001 (from 856.6 €/m<sup>2</sup> to 2,895.1 €/m<sup>2</sup>), before decreasing (although not consistently) by 40% to 1734.8 €/m<sup>2</sup> in 2006.<sup>34</sup>

### 3.3 Non-national residents

While the majority of Saarland's population are of German nationality, the historical connections between Saarland and France mean that the influence of French culture is strongly felt in the region; with the French the first foreign language to be learned at school as opposed to English. The number of foreign nationals resident in Saarland has decreased slightly since a peak in 2003, but has remained fairly stable at around 77-78,000 people (approx. 7-8% of the population). Among these there were 29,188 registered migrant workers in 2006, down from 36,103 in 2001.<sup>35</sup>

The largest national group by far amongst Saarland's resident non-German population are Italians, with around 18,000 individuals recorded in 2009, followed by Turkish (12,457) French (6,430), Polish (3,526) and Luxembourgian (2,384) citizens.<sup>36</sup> There were also 8,800 non-national residents from Asia, 3,000 from Africa, and 1,900 from the Americas. Saarland's northern border with Luxembourg has in recent times seen a number of migrant moving into the district of Merzig-Wadern to live while continuing to work in Luxembourg, due to the lower living costs in Germany (figure 14). Nearly a quarter (23.6% in 2008) of the

<sup>33</sup> Source: [http://www.saarland.de/dokumente/thema\\_statistik/staa\\_Wohntab6\(1\).pdf](http://www.saarland.de/dokumente/thema_statistik/staa_Wohntab6(1).pdf)

<sup>34</sup> Source: Statistisches Jahrbuch Saarland 1999-2008

<sup>35</sup> Statistisches Jahrbuch Saarland 1999-2008

<sup>36</sup> Source: Statistisches Amt Saarland (Hrsg.) (2010): Ausländer im Saarland am 31. Dezember nach der Staatsangehörigkeit. Available at: [www.saarland.de/dokumente/thema\\_statistik/staa\\_BEVSTAAT%28%29.pdf](http://www.saarland.de/dokumente/thema_statistik/staa_BEVSTAAT%28%29.pdf)

population of Perl, the community adjacent to the Luxembourg border, are foreign citizens, the highest proportion in Saarland. In spite of this, there has been a net out-migration of people across Saarland's national borders since 2004.<sup>37</sup> Away from the Luxembourg border, non-national populations are more significant in industrial towns such as Völklingen (15.1% of the population), Dillingen (14.1%), Neunkirchen (12%) and Saarlouis (11.7%), than in more rural communities such as Oberthal (4.1%), Tholey (3.4%), Weiskirchen (3.0%), Nonnweiler (2.7%) and Nohfelden (2.4%).<sup>38</sup>



Figure 14: Houses of foreign home owners from Luxembourg in the Merzig-Wadern district of Saarland. Source: W. Frys, 2009

## 4. Environment and Sustainable Development

### 4.1 The Regional Environment

The environment of Saarland is characterised by a variety of topography within its small land area, incorporating large tracts of mixed deciduous forest just outside the urban conurbation of Saarbrücken, which rises to green plateaus in the Saargau to the west and gently mountainous areas of around 600 metres above sea level. Saarland is also traversed by fertile rivers valleys, with the longest being the Saar River which has its middle and lower reaches in Saarland. Saarland is situated in one of the warmest regions of Germany, with a moderate oceanic climate and average amounts of precipitation of around 800 millimetres a year.

According to Eurostat data for 2004, around 30% of Saarland's territory (NUTS 2) is utilized agricultural area (UAA; although Eurostat's rural development report suggests 50% of total land area is 'agricultural land'). Of the 77,200 hectares of UAA, 37,300 ha is arable land, 39,500 ha are under permanent grassland and just 100 ha are vineyards. Forests and woodlands cover 85,800 ha, or 33% of the total land area, whilst over 38,500 ha (15%) is artificial/built-up land. This distribution of land use has remained fairly consistent since 1991, but with additional 8,000 hectares of agricultural area dedicated to permanent grassland.

Most of the rural case study region is classified by the European Environment Agency as primarily a composite landscape, combining areas of non-irrigated agricultural land, arable land, mixed forests and built-up settlements, whereas the area around Saarbrücken has an artificial dominance. The case study region has secondary landscapes of forested areas and rural mosaic/pastureland reflecting the mix of land uses within Saarland's relatively small geographical area.

<sup>37</sup> [http://www.saarland.de/dokumente/thema\\_statistik/AIII1-J.pdf](http://www.saarland.de/dokumente/thema_statistik/AIII1-J.pdf)

<sup>38</sup> Source: [www.saarland.de/statistik.htm](http://www.saarland.de/statistik.htm)

## 4.2 Protected Areas

Despite Saarland's relatively small size, it encompasses a significant number of areas afforded protection by national and international designations based on their environmental and/or cultural importance.

On May 26th, 2009, the biosphere reserve "Biosphäre Bliesgau" was admitted to the global network of UNESCO biosphere reserves. Located close to the city of Saarbrücken, the biosphere links two contrasting landscapes with densely populated, old industrialized and urbanized areas around the towns of St. Ingbert and Bieskastel in the north and sparsely populated, rural areas in the south (figures 15 and 16). The close integration of people and nature means that the biosphere supports ongoing research on ecological changes in its urban, suburban and rural areas in the context of global climate change, and promotes sustainable development initiatives. The biosphere is Saarland's second UNESCO protected site after the designation of the Völklingen Ironworks as a world cultural and industrial heritage site in 1994. The now non-functioning ironworks, located in the city of Völklingen, cover an area of 6 hectares and are the only example of their kind intact in the whole of western Europe and North America.

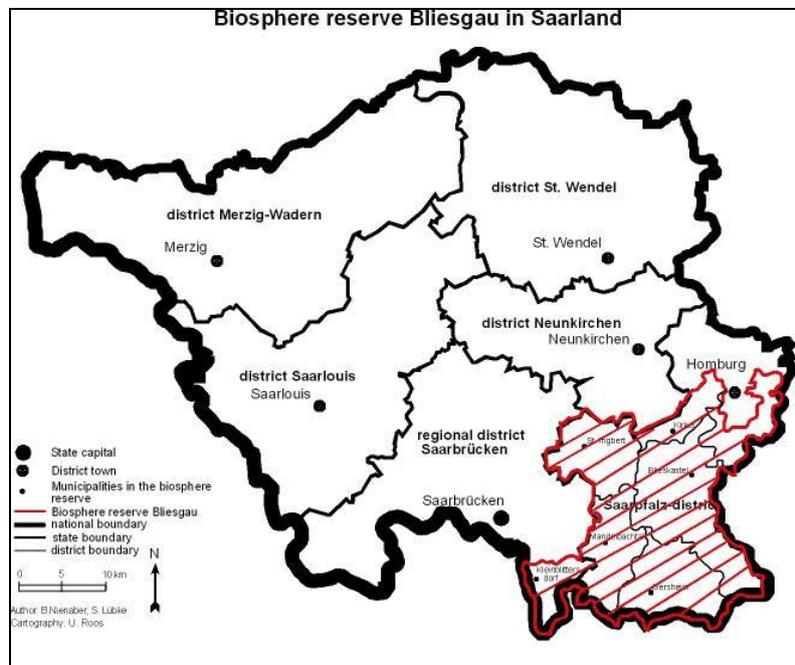


Figure 15: Location of the UNESCO biosphere reserve Bliesgau in Saarland.  
Source: Universität des Saarlandes



Figure 16: Landscape of the Bliesgau biosphere region in south-east Saarland  
Source: B. Nienaber, 2009

Saarland has 118 zones of the FFH-Directive (Flora-Fauna-Habitat-Directive) and 41 bird sanctuaries which are designated as Natura 2000 areas. Due to the fact that some of these areas partly overlap, the Natura 2000 network in Saarland consists in total of 127 zones with an area of 29,940 hectares, which corresponds to 11.6% of the state's territory. Additionally, Saarland has 107 nationally designated nature reserves which cover a total area of 9,632 hectares (3.75 % of the state's territory) and include, for example, the areas of Wolferskopf, the forest reserve of Steinbachtal/Netzbachtal and the Ostertal between Herchweiler and Marth. Saarland also has several Landscape Protection Areas (*Landschaftsschutzgebiete*) designated by Germany's Federal Nature Conservation Act (BNatSchG). These include the "Saarschleife" (bend in the river Saar; figure 17) or the conservation area Feilbachaue-Höcherwald at Bexbach



Figure 17: The protected area of *Saarschleife* (Saar River loop)  
Source: B. Nienaber, 2008

### 4.3 Sustainable Development

Improving the competitiveness of the agriculture and forestry sectors and improving the quality of the environment are both major tenets of regional development initiatives in Saarland. As such, organic cultivation is strongly promoted as part of sustainable agricultural objectives and currently accounts for 8.5% of agricultural land in Saarland. This is more than the German national average and the highest proportion of organically cultivated land across the DERREG case study regions. Yet, whilst the area of organic farmland in Saarland increased by nearly 5% between 1997 and 2007, the number of agricultural holdings involved in organic farming actually fell from 609 in 1998 to 374 in 2007, indicating the concentration of organic agriculture on a smaller number of larger farms, possibly as part of a process of conventionalisation.<sup>39</sup>

The development and implementation of renewable energies is a central pillar of regional and national sustainability policy, with the German federal government's objective to provide 12.5% of gross electricity consumption with renewables by 2010 having already been exceeded with 14% achieved in 2007. In Saarland, the structural economic change away from coal and steel has seen the renewable energy sector experience strong growth in recent years, providing around 10% of Saarland's final energy consumption. In 1994, the first wind energy turbine in Saarland was established on the site of what would later become "WindPark Saar" on the Freisener Höhe. This site now has 16 turbines and an output of about 13 MW, making it one of the state's most powerful wind farms and with plans for further expansion. However, Saarland's industrial past is still evident alongside the growth of renewables with a number of fossil fuel power stations which export electricity to other German federal states. For example, the town of Göttelborn (12 km from Saarbrücken) is home to one of the world's biggest photovoltaic energy production stations, with 50,000 solar modules producing 8.2 megawatts electricity on an area of the size of 20 football pitches. Close by is the 680 MW capacity Weiher coal-fired power station, which was built in 1918 in

<sup>39</sup> Source: <http://www.saarland.de/statistik.htm>

the immediate vicinity of the now decommissioned Göttelborn Coal Mine, while the larger Bexbach coal-fired power station in Neunkirchen district has an output capacity of 773 MW.

There has also been an expansion in biofuel cultivation. In 2007, 749 hectares were used from the cultivation of renewable raw materials, and 547 hectares expressly for the cultivation of energy crops.

In 2008, the “Saarland Climate Protection Concept 2008-2013” (*Saarländisches Klimaschutzkonzept*) was published by the Ministry of the Environment emphasising the continued development of renewable energies, as well as improving energy efficiency and energy saving.

#### **4.4 Environmental Issues**

Given the region’s industrial past, a major focus for environmental campaigns in Saarland has been on reducing the state’s greenhouse gas emissions and mitigating the impacts of climate change, as well as the sustainable development of old heavy industry sites. Problems with air and water pollution which resulted from the region’s former heavy industry have now largely been successfully dealt with, but soil pollution continues to be a problem with 5,600 sites experiencing some form of contamination.<sup>40</sup>

In recent years, plans for the building of a number of new generation, lower CO<sub>2</sub> emitting coal-fired power stations across Germany have led to the mobilisation of local and national environmental campaigns. In Saarland, the proposed expansion of the Ensdorf Power Station in 2006 encountered strong local opposition which led power company, RWE, to withdraw its planning application.<sup>41</sup>

Balancing the Saarland’s high population density with the protection of its natural landscapes is also a high priority. Initiatives such as the aforementioned Bliesgau Biosphere Reserve are active in promoting the sustainable interfacing of humans, society and the environment. Other environmental NGOs and associations active in Saarland include BUND (*German Friends of the Earth*), Naturschutzbund Deutschland (NABU-Saar) (*Nature and Biodiversity Conservation Union*), Landschaft der Industriekultur Nord (*Landscape of industrial culture*) and Naturlandstiftung Saar (*Naturland Foundation*).

## **5. Regional Development and Innovation**

### **5.1 Regional Development Programmes**

Since the impact of deindustrialisation in the 1970s, Saarland has attempted to restructure its economy towards the service sector and new industries, such as biotechnology and nanotechnology. Initially, the Saarland government followed a strategy based supporting core industries and encouraging large scale industrial investment to provide jobs for workers laid off in the contraction of traditional industries. Examples of this included investment by the automotive industry in the 1960s and 1970s, attracted by the availability of relatively cheap labour from former coal-mining workers, and direct government investment in the two largest steel-producers, Dillinger Hütte and Saarstahl in the 1980s.<sup>42</sup> A change in direction was signalled by the Saarland government selling the state-owned mines in 1997 and its stakes in Dillinger Hütte and Saarstahl in 2001. More emphasis has since been placed on supporting innovation and economic diversification, including coordinated initiatives through the Saar-Lor-Lux region.

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<sup>40</sup> Source: Ministerium für Umwelt (2009): Landschaftsprogramm 2009.

<sup>41</sup> Source: [http://www.sourcewatch.org/index.php?title=Ensdorf\\_Power\\_Station\\_Expansion](http://www.sourcewatch.org/index.php?title=Ensdorf_Power_Station_Expansion)

<sup>42</sup> Source: Trippel and Otto (2009)

Saarland qualified as an Objective 2 region requiring transitional support during the 2000 to 2006 cycle of Structural Funds and received around €300 million from the European Union, of which €136.6 million was targeted in programmes through the ERDF (*European Regional Development Fund*) and €42 million through the ESF (*European Social Fund*). Target areas for this funding were particularly those former industrial areas most affected by the region's restructuring and the development of modern economic alternatives to coal and steel, as well as investments in training and employment programmes, cross-border projects and improving the urban environment in parts of Saarbrücken city.

Saarland continued to be eligible for EU support during the 2007-2013 funding cycle under the 'Regional Competitiveness and Employment' objective, receiving around €197 million from the ERDF for the 'Saarland Operational Programme' as well as €86 million from the ESF. The three main priority objectives for the ERDF operational programme in Saarland are,

- Promoting competitiveness through growth and entrepreneurial measures to reinforce the enterprise base
- Stimulating structural change through knowledge-based business, innovation and development of specific strengths
- Sustainable urban and regional development and resources protection

Funding from the ESF will be used during the 2007-2013 funding period to support projects in the fields of 'Improvement of human capital' (priority axis B) e.g. providing of employment training, information and support to adolescents and young adults, and 'Improvement of labour market opportunities and integration of disadvantaged individuals' (priority axis C) e.g. assisting the integration of migrant workers and women following maternity leave into the regional labour market. €28 million of funding is also available for rural development from EAFRD (*European Agricultural Fund for Rural Development*) which, together with national co-financing, is to be invested in the realisation of agri-environment measures (table 5). Within this funding framework of the EAFRD, three Leader regions (Bliesgau, Warndt, St. Wendeler Land) are supported in Saarland in which development processes are planned, implemented and promoted self-dependently by local action groups. For example, In the Leader region St. Wendeler Land, €2.48 million euros were available prior to 2006 for the realisation of the "Lokalwarenmarkt (local goods market) – St. Wendeler Land".

Main emphasis	Total funds (€) EU + national co-financing	Percentage
1. Competitiveness of agriculture and forestry	9 501 000	16%
2. Improvement of environment and landscape	20 393 600	36%
3. Quality of life in rural regions and diversification of rural economy	17 400 000	31%
4. LEADER	8 250 400	15%
Technical support	1 004 000	2%
Sum	56 549 000	100%

Table 5: Development plan for rural regions in Saarland (2007-2013)  
Source: Saarland Ministry for Environment.

A further state-led rural development initiative involves the hosting of consultation events in with rural communities by the state government agency "Agentur Ländlicher Raum" (Agency for Rural Region), part of the Saarland ministry of economy and science. In addition to these events, village inspections are carried out to examine the specific strengths and weaknesses

inside the locality. The agency also initiates village discussions and supervises work groups which are made up during the discussions. Furthermore, it offers its competence and cooperation for concepts, organisation and supervision of further training and seminars for the respective participants concerning village development and life in rural regions.

## 5.2 Regional Skills-base and Infrastructure

Saarland has a reasonably strong infrastructure for research and development, including five university institutions (Saarland University (founded in 1948), the Saar University of Music (1947), University of Applied Sciences (1971), University for Applied Public Administration, and the Saar University of Visual Arts (1989)), two private higher educational institutions (the University of Cooperative Education (1991) and the University of Applied Sciences in Prevention and Health Management (2001)), large companies with capacity for private R&D, and several small research institutions and companies. Collectively these comprise a 'regional innovation system' described in Tripl and Otto (2009) in table 6.

However linkages between research and business varies between industrial sectors. Tripl and Otto (2009) report that although steelworks in Saarland have "established technological leadership in global niche markets" (p. 1227), this has largely come from internal reform and investment, and "the metal and steel firms are actually only weakly linked to the regional knowledge infrastructure" (p. 1228). Neither of the two main steelworks were engaged in research and development cooperations with local research organizations in 2007. Similarly, Tripl and Otto (2009) found that regional inter-firm networks in the Saarland automotive industry were weakly developed, and noted that,

"The results of a telephone survey with seventeen out of twenty medium-sized and large automotive cluster firms (those with more than 300 employees) suggest that only two of them were running R&D cooperations with local research organisations in 2007. In addition, an expert in Saarland's automotive sector stated that the small automotive firms do not cooperate with local research institutions. These findings are not surprising if we take into account that the centres of excellence of the [automobile corporations] are situated outside Saarland."

(Tripl and Otto, 2009, p. 1229)

In effect, regional networks of technological innovation in Saarland have bypassed the traditional industries such as steel and vehicle-manufacturing, and have focused instead on developing new high-tech clusters in ICT, biotechnology and nanotechnology. For example, there were 836 ICT firms operating in Saarland in 2006, with 10,400 employees, including three large technology spin-off companies.<sup>43</sup> The development of the sector has relied on an excellent knowledge infrastructure in the region, centred on the world-class computer science department at Saarland University (*Universität des Saarlandes*), complemented by a number of leading research institutes including the German Research Centre for Artificial Intelligence and the Max Planck Institute for Computer Science. Tripl and Otto (2009) observe that,

"Several centres of excellence for information technology have been established since the mid-1980s. The knowledge infrastructure has given birth to about eighty ICT spin-offs in the last fifteen years and provides qualified human capital; in addition, its institutions are available as partners for R&D cooperations."

(Tripl and Otto, 2009, p. 1230).

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<sup>43</sup> Source: Tripl and Otto (2009)

<b>Contract research</b>	<b>Science/university education</b>	<b>Technical colleges</b>
Fraunhofer-Institute of Nondestructive Testing Technology-Centre Automotive Quality Saar Leibniz Institute of New Materials Max Planck Institute for Computer Science Max Planck Institute for Software Systems German Research Centre for Artificial Intelligence Fraunhofer Institute for Biomedical Engineering	University of Saarland: Law Economics Medicine History and civilisation studies Languages, literature and cultural studies Social and applied human sciences Mathematics Computer science Physics Mechatronics engineering Chemistry and pharmacy Biosciences Materials science and technology	University of Applied Sciences, 19 degrees: Architecture Civil and structural engineering Biomedical engineering Electrical and electronic engineering Computer science and communications engineering Mechanical engineering Mechatronics/sensor technology Applied informatics Business administration International business administration International tourism management Industrial engineering Healthcare management Social work
<b>Cooperative R&amp;D institutions at universities</b>	<b>Companies cluster services</b>	<b>Vocational training</b>
Institute of Information Systems Institute for Applied Information Research Institute for Vehicle Technology and Environmental Technology Institute for Systems of Production and Logistics International Conference and Research Centre for Computer Science (Dagstuhl)	Coal and mining industries Metal industry Automobile industry Energy sector Information and communication technology Biotechnology and nanotechnology	A lot of training providers offer courses for vocational training and vocational schools provide vocational education.
<b>Technology transfer</b>	<b>Technology centres / business incubators</b>	<b>Public support / finance</b>
Liaison office of the universities Bureau of Productivity and Technology Saar	13 technology centres and business incubators (3 of them for academic spin-offs)	GIU Association for Innovation and Business Support SHS Structural Saar Holding Regional Chamber of Industry and Commerce Ministry of Economic Affairs

Table 6: The regional innovation system in the Saar region  
Source: Tripl and Otto (2009), p. 1226

Other collaborative research centres at Saarland University have been established in the areas of biomedicine and materials research. In order to encourage and develop the exchange of knowledge between academic and commercial sectors, Saarland University established the Contact Centre for Technology Transfer, and the Centre for Innovative Production (jointly with Saarland University of Applied Sciences). Saarland University also seeks to promote innovation and entrepreneurship by running specialist young enterprise seminars and a successful start-up centre for spin-off companies.

The imbalanced approach to research and development across sectors explains an apparent contradiction in the statistical evidence on regional innovation and development. Saarland has one of the highest levels of employment in hi-tech industries of the ten DERREG case study regions, with 5.6% of the workforce employed in the sector in 2007. Yet, it has the lowest levels of research and development activity, with investment in R&D totalling only €288 million in 2005, and with only 1.2% of the regional workforce employed in R&D activity.<sup>44</sup>

Moreover, the new technologies tend at present to be concentrated in the city of Saarbrücken. Just over half of the 1,399 ICT enterprises in Saarland in 2009 were based in the district of Saarbrücken, with just 71 based in Merzig-Wadern district and 70 in Sankt-Wendel district.<sup>45</sup> However, given the high rate of commuting in Saarland, ICT firms in Saarbrücken are nonetheless likely to employ residents of the more rural case study region.

Furthermore, the industrial legacy has left a population of current and former manual workers with technical skills but limited formal education. Only 15% of adults in Saarland held a tertiary level qualification in 2007, which is considerably lower than the German national average of 24%. This proportion is likely to increase, however, with the ongoing diversification of Saarland's economy.<sup>46</sup> The proportion of adults in Saarland recorded as participating in education or training was 7.6% in 2006, which was comparable with the Dresden NUTS 2 region. The technological infrastructure in Saarland is generally well-developed with over 95% broadband coverage across the majority of the state (variations from map), although those areas with lesser coverage (75-95%) are northerly rural regions in Merzig-Wadern and Sankt Wendel districts as well as parts of Saarpfalz in the south-east (figure 18).

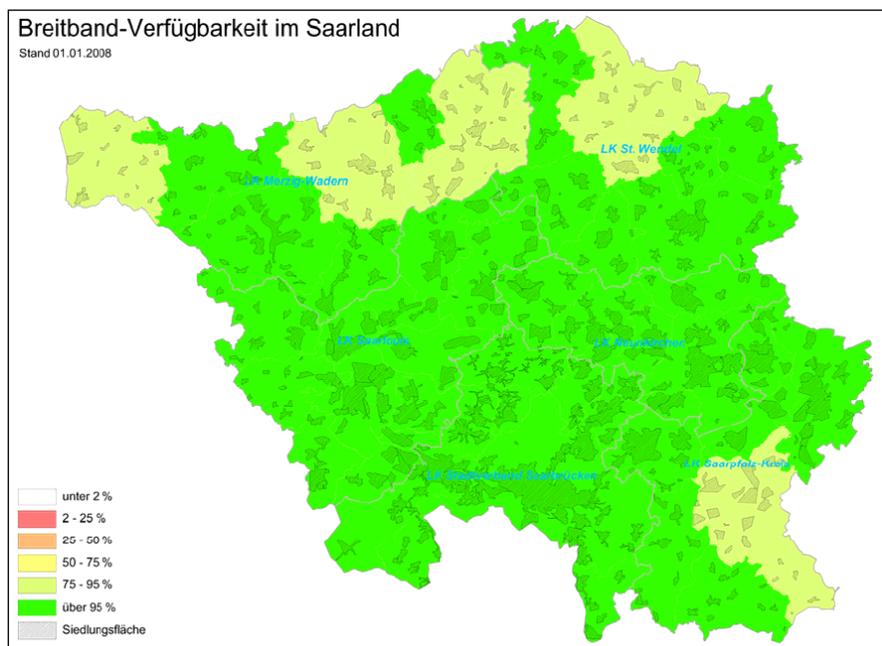


Figure 18: Broadband coverage in Saarland, 2008.

<sup>44</sup> Source: Eurostat

<sup>45</sup> Source: [http://www.saarland.de/dokumente/thema\\_statistik/staa\\_URS\\_Unter.pdf](http://www.saarland.de/dokumente/thema_statistik/staa_URS_Unter.pdf)

<sup>46</sup> Statistische Ämter des Bundes und der Länder (2009): Internationale Bildungsindikatoren im Ländervergleich. Available at: [www.statistik.rlp.de/verlag/gesamt/sonstiges/Bildungsindikatoren\\_2009.pdf](http://www.statistik.rlp.de/verlag/gesamt/sonstiges/Bildungsindikatoren_2009.pdf) [17.06.2010] p. 10

## 6. Summative Analysis

The contemporary economic, social and environmental situation of Saarland is characterised by:

- A relatively high population density, with a structure of small and medium-sized towns in close proximity to a major city, a low number of residents living in very small settlements, but a fairly extensive area of rural land use.
- A location with two international borders and a history of switching national control, and, more recently transnational regional cooperation.
- A legacy of dominance by heavy industry, notably coal and steel, followed by severe deindustrialisation resulting in a relatively high level of unemployed, but also economic diversification into services and high-technology industries, supporting a recent economic recovery.
- A very small agricultural sector, employing only around 1% of the workforce, which is polarised between increasing large commercial farms and a significant number of small holdings worked by part-time farmers, many of whom are relatively young. There is also a relatively high presence of organic farming.
- The continuing significance of a handful of large industrial employers, notably in steel-making and car production, which remain the single largest workplaces in the region.
- Long-term dominance by centre-right politics, but with a fairly interventionist approach to regional economic management, declining more recently with a rise in support for the far left.

Saarland is the most urbanised of the DERREG case study regions, but significant areas exhibiting a rural aspect. It is typical of a 'post-industrial rural region', where extractive industries and manufacturing have always been more important than agriculture economically in the modern era, and where deindustrialisation in the late twentieth century has presented major social and economic challenges. Although Saarland shares some similarities with Övre Norrland (in terms of the economic significance of mining and steel-making) and Jihomoravský kraj (high industrial employment and inclusion of a large urban area), it differs from both these region with respect to geography, accessibility, population density and political culture. Of the other DERREG case studies it is closest in character to Direktionsbezirk Dresden. More broadly, as a 'post-industrial rural region', Saarland might be grouped with other German regions such as Karlsruhe and Detmold, the neighbouring French region of Alsace, and, further afield, with the East Midlands of England, West Flanders, the Nord *département* of France, and Piedmont.

The engagement of Saarland with globalisation has been shaped by two dominant factors: its industrial base and its border location. Whilst the latter has linked the region into networks that stretch around the globe, the latter has fostered a web of more local-scale transnational connections. As such, notable aspects of globalisation evident in Saarland from our initial analysis include:

- The contribution of global competition, market forces and economic restructuring to deindustrialisation, in particular the decline of the mining and steel industries and their associated sectors.

- The importance of foreign capital to Saarland industry, exemplified by the Ford car factory, and the integration of the region's major industrial employers into international trading networks, with the majority of their output exported.
- The increasing significance of cross-border ties in the 'Saar-Lor-Lux+' Great Region, with cooperation in areas ranging from economic development to policing.
- Fluidity of movement across international borders with France and Luxembourg in both directions for work and residential relocation, including the settlement of Luxembourg citizens in the Perl community of Merzig-Wadern district.
- The long-term presence of foreign migrant workers, especially from southern Europe and Turkey, particularly concentrated in Saarbrücken city and the smaller industrial and mining towns.

The nature of these global or transnational relations, together with the distinctive socio-economic character of the region, creates both opportunities and vulnerabilities for future regional development. The opportunities are presented by:

- The growth of the ICT, biotechnology and nanotechnology sectors, supported by a strong regional knowledge economy and research infrastructure, with the potential to develop international markets.
- The redirection of the region's specialist expertise in fields such as mining technology into booming resource regions in China, Russia, North America and Australia by Saarland-based companies.
- The reorientation of the region's energy sector away from coal to renewable energy sources, including wind and biofuels, supporting energy self-sufficiency and with a prospective capacity to export energy to neighbouring countries.
- The consolidation and expansion of cross-border markets, supply chains and industrial networks within the 'Saar-Lor-Lux+' region.
- The potential to expand international tourism from a low base, replicating recent increases in the number of domestic visitors, especially in the rural north of the region which can build on the existing appeal of the neighbouring Mosel valley.

At the same time, however, our initial analysis suggests that regional development in Saarland is vulnerable to both global and endogenous pressures and challenges in a number of ways. These include:

- The vulnerability of the region's major industrial employers to global markets and fluctuations in demand, and by extension to decision-making by transnational corporations and foreign governments.
- Global competition to traditional heavy industries in the region, including steel-making and vehicle manufacture, especially from south east Asia.
- The challenge of spreading the benefits of economic growth, especially in new technologies, within the region, tackling the long-term problem of high unemployment.

- The risk that increased ease of movement across national borders and heightened cooperation with neighbouring regions in France, Belgium and Luxembourg may result in a net out-flow of people and income.
- Tensions associated with the non-integration of relocating Luxembourg nationals and commuters in rural communities in north-west Saarland.

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The list below includes academic papers reporting on relevant research in the Saarland region published since 2000, as well as other reports and articles containing information about the region. Not all items listed in the bibliography have been cited in the text of this paper.

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