

THE AFTERMATH OF THE CLOSURE OF THE DUTCH COAL MINES IN SOUTH LIMBURG: REGIONAL ECONOMIC AND SOCIAL RECONSTRUCTION

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This case study focuses on 35 years of economic redevelopment, reconversion or restructuring after the closure of the Dutch coal mines in the South Limburg mining district. It explicates what strategic decisions and measures were taken to solve the economic and social problems that occurred in this Dutch area after the closure of the coal mines, a process that was announced on December 17, 1965, by the Dutch government.

Based on real-life experiences, this case study discusses the role and relevance of strategic planning, project management, human resource management, labor market policy, social policy, public policy and regional policy in restructuring the economic structure of an area in which a dominant player ended its activities in a rather short period. The case tackles not only the economic impact but also the social impact of the coal mine closures. The case is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation.

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1. The coal industry in the Netherlands

1.1 General overview

The production of coal originally began in the Netherlands in the 12th century on a very small scale. At the beginning of the 19th century, production began to increase, and at the beginning of the 20th century, it expanded tremendously. The Dutch coal mines were located in the southern part of the country in the province of Limburg. The Dutch mining district is a 30 × 30 kilometer area in between the coal mine areas of Nordrhein-Westfalen in Germany (Ruhrgebiet), De Kempen in Flanders (the Dutch-speaking part of Belgium) and Liège in Wallonie (the French-speaking part of Belgium). The production of Dutch coal ended in 1974. When the closure of the coal mines was announced at the end of 1965, approximately 53.000 people were employed in the Dutch coal mines. Of these, approximately 46.000 were miners and 7.000 were office workers and managers. It was also estimated that the work of approximately 30.000 people indirectly depended on the coal mines (e.g. suppliers of materials, goods and services). This industry was dominant in a small geographic area and contributed largely to the region's well-being and the regional income. How would the region survive when such a dramatic dismissal would take place? And what problems would be encountered in such a densely populated area as South Limburg (the population in this 900 km² area was 530.000 in 1960, 607.000 in 1980 and 636.000 in 2000)¹?

1.2 A brief overview of the recent history of the Dutch coal mine production

Private companies began Dutch mining activities in the early 1800s on a small scale. When the Dutch government realized it needed to secure energy supply through coal production, in 1901 Parliament passed a law indicating that all future concessions for mining would be reserved for the Dutch state. In 1902, De Staatsmijnen was founded as the Dutch state-owned mining company. Several publicly and privately owned mining companies (some of which were of Belgian, French or German origin) were active in the area for a particular period, encompassing eight privately owned pits and four publicly owned pits:

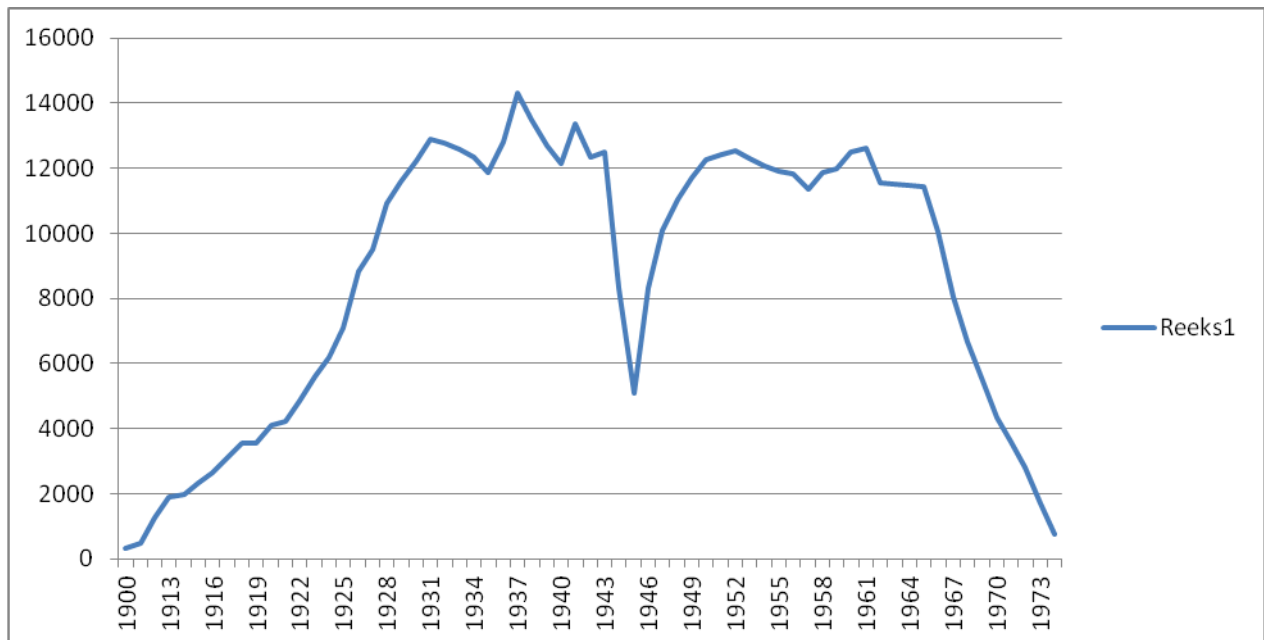
- Privately owned:
 - Domaniale in Kerkrade (1815-1969)
 - Oranje Nassau I in Heerlen Centrum (1899-1974)
 - Willem-Sophia in Kerkrade/Spekholzerheide (1902-1970)
 - Oranje Nassau II in Landgraaf/Schaesberg (1904-1971)
 - Laura in Kerkrade/Eygelshoven (1905-1968)
 - Oranje Nassau III in Heerlen Heerlerheide (1917-1973)
 - Julia in Kerkrade/Eygelshoven (1926-1974)
 - Oranje Nassau IV in Heerlen Heksenberg (1927-1966).
- Publicly owned:
 - Wilhelmina in Kerkrade/Terwinselen (1906-1969)
 - Emma in Heerlen/Hoensbroek/Treebeek (1911-1973)
 - Hendrik in Brunssum (1915-1963)
 - Maurits in Geleen (1926-1967)

In 1900, the Dutch coal mines produced 320.000 tons of coal, in 1905 487.000 tons and in 1910 1.292.000 tons. Production skyrocketed till the beginning of the Great Depression, recovered at the end of the 1930s, experienced a large dip at the end of World War II, increased in the early 1950s and remained more or less stable till the beginning of the 1960s (see Figure 1), after which it began

¹ After 2000, the population began decreasing, to approximately 608.000 in 2010. The composition of the population also changed, from less younger people to more older people. This trend will continue during the next 30 years unless new developments arise to change this trend.

to decline. Coal was the major source of energy supply for Dutch households and companies. In the 1960-1965 period, approximately 60% of coal production came from the publicly owned mines and the remaining 40% from the privately owned mines (see Appendix 1 and 2).

Figure 1 Production of coal in the Netherlands (production in 1000 tons)



Source: S. Langeweg (2011), pp. 270-277; Centraal Bureau voor de Statistiek.

At the end of the 1950s, overcapacity arose in the European coal mine industry. The European Coal and Steel Community (ECSC), which was the forerunner of the European Union, tried to control prices and production². However, several ECSC countries (except the Netherlands) did not stick to the arrangements made and offered coal at very low prices. They were able to offer these low prices, partly because of governmental subsidies to keep their own coal industry alive. Cheap US coal also came to the European market. Moreover, the Dutch coal mines ran out of the layers of coal that were easy to access. They continued to produce coal, but this coal was more difficult and costly to produce, and the subsequent costs could not be met by raising prices. The Dutch could not afford the worldwide competition. For its own energy supply, the Dutch needed to import coal. From an international perspective, the Dutch coal production was small. In 1965, the Dutch produced 11,4 million tons. In Belgium, this figure was 19,8; in France 54,0; in Germany 135,1 and in Great Britain 455,7³.

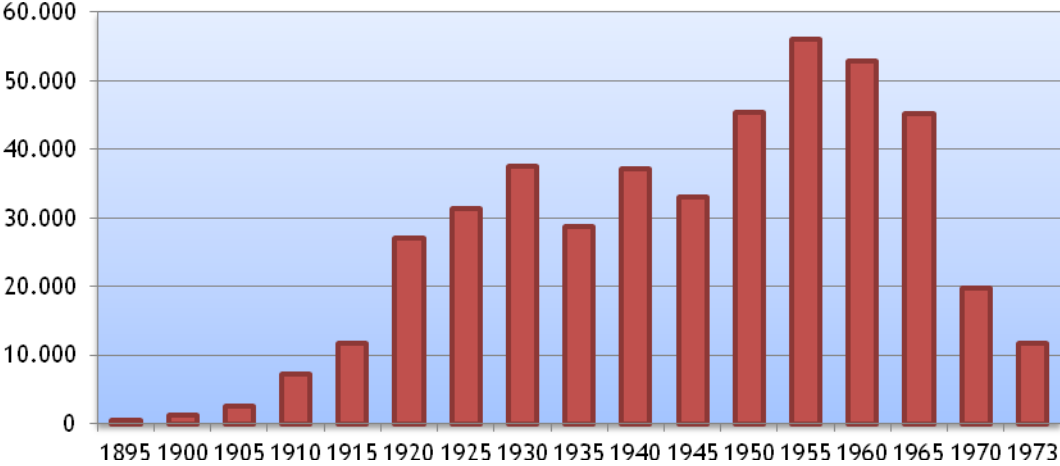
In 1965, a little more than 53.000 people were employed in the Dutch coal mines (see Appendix 1), approximately 46.000 of whom were miners (Dutch miners as well as foreigners) and 7.000 of whom were office workers (administrative people, managers and others not working underground). The privately owned mines produced a relatively larger part of the total coal production with relatively

² The ECSC was a six-nation international organization intended to unify democratic European countries during the Cold War and was the foundation for the modern-day developments of the European Union. The ECSC was the first organization to be formed on the principles of supranationalism. The ECSC was first proposed by the French foreign minister Robert Schuman on May 9, 1950, as a way to prevent further war between France and Germany. His aim was to "make war not only unthinkable but materially impossible." The means to do so, Europe's first supranational community, was formally established by the Treaty of Paris in 1951, signed not only by France and West Germany but also by Italy and the three Benelux states: Belgium, the Netherlands and Luxembourg. Among these states, the ECSC would *create a common market for coal and steel*. The ECSC was governed by a High Authority and checked by bodies representing governments, members of Parliament and an independent judiciary.

³ See Langeweg (2011), p. 286.

less people and seemed to be more efficient, on average, than the publicly owned mines. Figure 2 shows the development of the actual number of miners in the Dutch coal mine industry. In 1958, employment in the Dutch coal mines was at its peak: 56.000 full-time equivalents (FTEs) were involved of a total of 226.000 FTEs in South Limburg (24,8%). This number decreased to 44.000 of a total of 244.000 FTEs in 1965 (18,0%)⁴ and to 0 at the end of 1974 (of a total of 225.000 FTEs).

Figure 2 Number of miners working in the Dutch coal mines



Source: S. Langeweg (2008).

Coal mining is a natural resources-related industry—not only is it limited by nature, but it can also be substituted. After World War II, the energy market changed. Oil became a new source of energy substituting coal for energy supply. The Dutch port of Rotterdam was already important in the oil trade and refinery industry, and the Netherlands could benefit from that trade for its own energy supply as well. In addition, the Netherlands had discovered large amounts of natural gas in the north in 1959. After that, natural gas emerged as a good substitute for the energy provided by coal and oil. Later on, nuclear energy was added as a new, but also controversial, source of energy; it provided only a small part of the total energy consumption in the Netherlands. Coal mining is also vulnerable to economic and political developments. During a period of approximately 70 years, the life cycle of the Dutch coal mine industry started, grew, matured, declined and ended (in 1974, when the last Dutch coal mine was shuttered).

2. Before 1965

The Dutch government acknowledged the new market and production developments at the end of the 1950s and realized that the loss-producing mines had limited future opportunities. However, the government talked about closure for many years before finally making the strategic decision to end the mining activities. The decision to close the coal mines was not made until the end of 1965.

With a limited viable future for the Dutch coal mining industry, top management of De Staatsmijnen, the unions, the Coal Mine Board (Mijnraad), the province of Limburg and the members of the Dutch Parliament who represented Limburg were all in favor of closing the coal mines. However, Koos Andriessen, the Christian Democrat Minister of Economic Affairs (who was part of a coalition of the Christian Democrats and the Conservatives), and the owners of the privately owned mines that were still making a profit were against such a decision. In 1964, the Dutch government

⁴ In 1965, the 244.000 FTEs were distributed as follows: 107.000 in industry (44.000 in the mining industry and 63.000 in the rest of the industry), 77.000 in the commercial services sector, 25.000 in building and construction, 22.000 in public administration and 13.000 in agriculture. The area was typically dominated by industry, in particular the mining industry.

decided to take some actions with the intent to give some relief to the mining industry. The most important actions were:

- The plans to start a new pit were abandoned;
- A small pit would be closed;
- Two mines that were located close to each other were combined⁵;
- Import restrictions were set on coal from non-ECSC countries; and
- As a cost reduction measure, the mining companies were allowed to pay lower social welfare contributions to the state.

However, these measures provided only a temporary solution and did not solve the problems in a structural way.

After the government fell in early 1965, elections were held. The elections caused some shifts in the composition of Parliament with respect to the number of members per political party. After a while, a new majority of several parties was founded, and a new administration began.

3. The decision to close the coal mines

A week before Christmas 1965, on December 17, Joop den Uyl, the social democrat party Dutch Minister of Economic Affairs, announced in the city theater of Heerlen (a city in a coal mine area), the closure of the Dutch coal mines. Figures 3, 4 and 5 show the geographical locations of the Netherlands and the Dutch coal mines. This process would take place during the next ten years. He promised that mines would be closed only when the miners had reasonable opportunities for new jobs or when other arrangements for work could be made. He called for large companies to come to the area and employ the miners. He indicated that the whole South Limburg area would serve as the restructuring or reconversion area⁶ that would receive public funds for restructuring its economy.

At the time, it was estimated that approximately 45.000 miners would lose their jobs from the closure, with an additional loss of 30.000 jobs for employees working for suppliers to the mines. These 75.000 jobs represented more than 36% of all jobs in the region at the time. Critics speculated whether it would be possible to find or create new jobs for the miners, and if so, how, because such an increase in unemployment in the short run should be avoided⁷. These figures also show that the regional economy was largely dependent on the coal mine industry. Indeed, this dependence on and domination of one industry in the area resulted in the under-development of entrepreneurship and other domains. With the closure, not only would the “economic domination” change, but the social domination would change as well. The southern part of the province of Limburg was a Roman Catholic area, in which the church had a large influence on social life. However, secularization began to take place in this area as well, but later than in many other parts of the country. The mining companies took care of their employees ‘from the cradle to the grave’, offering jobs and support not only for the employees but also for their families. Beyond solely an employer, however, the coal mines were also an important player in creating social cohesion as a sponsor or organizer of many (social) events, parties and festivities in the region. In addition to the loss of jobs, the fear was that the social structures provided by the mining companies and the church would also be demolished. How should the social problems be tackled?

Basically, the main questions at that time were:

- How should the area be organized for 75.000 new jobs?

⁵ These were the publicly owned mines Emma and Hendrik.

⁶ The size of this geographical area implied that the coal mine areas around the cities of Sittard, Geleen, Heerlen, Kerkrade, Landgraaf and Brunssum, as well as the Maastricht area (in which no coal mines were present), would be selected as the restructuring areas. The idea was that eventual investments in the Maastricht area would also be beneficial to the other parts of the area.

⁷ In those days, the discussion rarely focused on the 30.000 indirect jobs that got lost.

- How should the (eventual) social problems coinciding with the loss of more than one-third of the jobs be solved in a small geographical area in the periphery of a country?

These questions were recently discussed during a roundtable discussion between seven former managers and politicians from the South Limburg area who were heavily involved in the process of solving the problems that emerged after the decision to close the coal mines in 1965. These men with various backgrounds were also heavily involved in the actual implementation of this decision. They reviewed the processes and decisions undertaken at the time and in the years that followed, using some of the present day commonly accepted concepts. They came together to determine what could be learned from what they had experienced, what could have been done better or differently, what should have been avoided, and so on. Such lessons could be helpful to other areas in which a major industry is in decline, and its dissolution would have a major economic and social impact. They agreed to examine the past and consider the two main questions from the following perspectives:

- How to organize for 75.000 new sustainable jobs that come to market in a rather short period of ten years.
- How to avoid social, psychological or health problems due to such an enormous layoff.

They also added a third perspective:

- How to anticipate future demographic, regulatory, economic, technological and social developments and include them in the decision-making process.

The men realized that these final factors were relevant in strategic decision making, for both companies and governmental agencies. Before their discussion, the men examined the facts, figures and processes related to what happened (and what did not) in the area to solve the economic and social problems coinciding with the closing of the Dutch coal mines. Some of them also added experiences from other coal mine districts that had also gone through a process of restructuring and reconversion.

4. The first ten years of national involvement: 1965-1974

The newly appointed Minister Joop den Uyl, who came to office in early 1965 in a new coalition of Christian Democrats and the Labor Party (Socialist Party), quickly came to the conclusion that drastic measures were needed with respect to the Dutch mining industry. He once stated that “amputation is the only solution”. This led to the government’s fall 1965 decision to close the mines. Appendix 3 presents the actual situation at the end of 1965 in terms of production and employees.

The Dutch national government considered itself responsible to both initiate and coordinate the closing of the mines and the redevelopment of the region. The government believed this huge task could not be done by the many small local authorities, which not only lacked the expertise and financial means but also had diverging interests. Moreover the province of Limburg did not have a taskforce on performing economic policy, only the national Ministry of Economic Affairs did. The Dutch government was not only the owner of De Staatsmijnen (the largest mining company in the area) but also the only institution that could bear the financial burden of the closure. The privately owned mines finally agreed to the closing of the mines when it was presented as a phased and planned process and after the Dutch government promised to subsidize the business as long as it was needed.

When the decision to close the Dutch coal mines was made in 1965, the First Policy document on the closure of the Dutch coal mines⁸ served as a basis for this decision. This document contained an

⁸ In Dutch, de Eerste Mijnnota.

analysis of the problems and the expectations for the Dutch and international coal industry. It also revealed the goals of the national government's policy to close the mines:

1. Limiting coal production through closure of some of the mines (and later adjusted to the closure of all the mines),
2. Supporting measures for the mines that were still operating during this process, and
3. Industrial restructuring of the area of South Limburg.

The combination of the first and third goal was essential. A new industrial economic structure needed to be developed to avoid lengthy unemployment among the miners, which was considered economically and socially undesirable. New companies that would come to the area would not only offer new jobs but also contribute to an improved industrial structure. The automobile factory of DAF was one such company. An important sub-goal that Joop den Uyl voiced was that a mine could be closed only if a reasonable opportunity arose for the miners to obtain new jobs or another way of earning money.

Special measures the Dutch government took included:

- Subsidies on the price of buying land by existing and new industrial firms or by service firms that promote/drive new employment (e.g. when new activities for at least 25 former miners would be developed that also contributed to improving the industrial structure);
- Guarantees for loans to companies when a (new) company met the criteria of the restructuring of the area and its equity was a reasonable part of total assets;
- Establishment of offices for national public services (e.g. taxes, statistics, pension funds; more than 25 larger and smaller institutions came to the area);
- Establishment of the DAF automobile factory in Born (which took place in 1967);
- Arrangements with privately owned mining companies. The contracts specified that these companies should invest the resources that were present at the moment of closure in principle in new industrial activities in the Netherlands, preferably in South Limburg; and
- Information, advice and education on jobs, schooling and employment finding.

Measures were also taken to improve the infrastructure (e.g. highways, railways, waterways, airport) to enable better accessibility to the area. The hilly environment of South Limburg and its beautiful landscape constitute an important tourist area, and tourism could be stimulated in times of increasing welfare.

All these initiatives were meant to create new jobs for the dismissed miners. However, not every miner of the 45,000 who lost their jobs needed a new job right away. The process was planned to last ten years, and the following mines would be closed gradually:

- The Maurits between 1965 and 1969.
- The Wilhelmina between 1970 and 1972.
- The smaller Domaniale or Willem-Sophia mines before 1970.
- The other private and publicly owned mines would be supported financially to stay operational.

In reality, a shortage of labor in the booming economy of the 1960s was present when the closure of the mines started. The miners, especially the younger ones, could easily find new jobs in Limburg or in the nearby German building, construction and industrial sectors. Other miners could be transferred to the mines scheduled to keep producing for the next few years or could get a job in other business units of De Staatsmijnen. Older miners had more difficulty finding jobs, and special arrangements were made for them. Miners who were within five years of retirement received a financial arrangement to leave earlier (pre-pension arrangement). Many of the other older miners who were not within five years of retirement received financial allowances because they were declared partially or fully disabled to work. Many also received jobs in sheltered workshops. This process all resulted in the closing of mines way ahead of schedule. The booming economy also meant that miners who were scheduled to be dismissed later already found jobs earlier than "officially planned". This led to a shortage of miners in some mines that were scheduled to close, for example, in the 1970s. To keep producing, these mines needed to hire new miners, finding them

mostly in the Mediterranean area. These facts also resulted in the need to develop the Second Policy document on the closure of the Dutch coal mines in 1969⁹. This document contained a rather flexible plan for the closure of all the mines at the end of 1975. The final mine closed at the end of 1974 was the privately owned Oranje Nassau I.

The miners did not need to find work on their own, but rather were supported by the government. A socially responsible dismissal system was developed in which employment finding and schooling were offered, especially for the older miners. An employment-finding agency was founded for each mine that was closed. Appendix 4 provides examples of the transitions of 39.500 employees after the mines were closed. Between 1965 and 1972, a little more than half found other jobs in another business unit of De Staatsmijnen or elsewhere. Almost one-third received a particular kind of pension arrangement. A little more than 10% went back to their home country, and 7% found employment in a sheltered workshop. As mentioned, so many miners found new jobs quickly that approximately 4.700 new miners needed to be hired in the same period.

Two special funds from the government were established to create new jobs: SIOL and IPR¹⁰. Approximately 147 million Dutch guilders were spent from these two funds to create 14.610 new jobs between 1965 and 1972. Of the 9.545 new jobs created, 3.461 were occupied by former mining employees.

In the early 1970s, unemployment was not a major concern in the area (see Figures 6 and 7); it resembled national figures in 1970-1972. The slight increase in 1967-1968 was caused by a small dip in economic growth.

Between 1965 and 1972, the employment-finding agencies placed approximately 6.200 workers at other firms. Schooling was needed because the miners were only equipped to work in the mines, so their knowledge and experience were barely applicable to other industries. Approximately 6.000 miners and 800 office workers and managers were retrained/schooled. Most of them were retrained for jobs in the metal, textile, chemical and woodwork/carpentry industries. Working in industries other than the mines, however, required a different work ethos. Because work in the mines was dangerous, miners very much depended on one another and fostered feelings of solidarity and fellowship; other types of businesses did not induce such sentiment and values.

The closing of the mines took place at a time when the labor force of people between the ages of 15 and 64 grew tremendously. This was a typical consequence of the baby boom generation. Many younger people were also looking for jobs. Thus, a wide reservoir of new workers became available.

Miners who lost their jobs also lost status in society. Their self-esteem deteriorated, and social isolation occurred—the mines were no longer guiding the social infrastructure of society. Together with the upcoming secularization, the closing of the mines caused insecurity among the miners and unrest in families. Although this problematic situation was acknowledged, the government did not take large-scale action to avoid and solve the problems. Little money was invested in solving the social problems; rather, creating new jobs was the highest priority.

Many people at the end of the 1960s and the beginning of the 1970s agreed that the first seven years of the restructuring (1965-1972) were successful. In the short run, 20.500 miners found other jobs (see Appendix 4), and unemployment was not as high as some people had surmised. The financial figures in Appendix 5 reveal that most of the money (approximately 70% of 1.400 million guilders, or approximately 635 million euros today) was invested in supporting the activities of the remaining mines that had no future but could not yet be closed. Less money was invested in restructuring and improving the industrial structure of the area and in solving the social problems.

⁹ In Dutch, de Tweede Mijnota.

¹⁰ In Dutch, SIOL stands for stimuleringsregeling industriële omschakeling Limburg (arrangement to promote the industrial reconversion of Limburg), and IPR stands for investerings premie regeling (arrangement to subsidize investments).

Still, the government acknowledged that major social problems needed to be solved. The whole process of closing the mines would not be completed until the last mine closed.

Therefore, for the long-term reconversion, a new memo would be drafted in the following years. The PNL memo on the perspectives for South Limburg¹¹ would be the result of an interactive process, in which regional (and local) governments and actors would also be involved.

5. 1972-1978 Economic recession and no clear national policy

The drafting of the PNL memo took longer than expected. Until the process of drafting the PNL memo was finished, no real new policy emerged. Although a policy document titled *Herstructureren Zuid-Limburg* (Restructuring South Limburg) was issued in the meantime, it was really a continuation of the *Eerste en Tweede Mijnota*, with more emphasis put on solving social problems (11 million guilders were reserved for that in 1977). The remaining mines were closed, with the last one, *Oranje Nassau I*, shuttered on December 31, 1974. Creating new jobs was the highest priority, with 5.250 of the remaining 10.200 miners needing jobs. In addition, 200 people would lose their jobs in agriculture, while the labor force in general would increase with approximately 2.000 people. Many of the former miners employed in other firms would retire between 1975 and 1985. For that period, it was expected that an additional 15.000 jobs would need to be created. However, because the economy was doing well, there was optimism that these goals would be met.

In 1975, the Limburg Investment and Development Fund (LIOF) was created to actively support the economic transformation and attract new companies. Preparations were made to open a new medical faculty in Maastricht and to turn the hospital in Maastricht into a university hospital. New jobs were created by moving public services and granting subsidies and loans to companies in need. In total, 2.000 new jobs were planned in the short run and approximately 3.000 in the long run for administrative public services in the eastern part of the region. These jobs would mainly come from transferring public bodies from the The Hague area (the government and all the ministries are located in The Hague) to this area. The eastern part of the mining district (Heerlen, Kerkrade) had a less positive outlook for the future than the western part of the mining district (Sittard, Geleen) where the *De Staatsmijnen* plant was. This company was transforming from a coal producer to a chemical plant and was newly named as DSM.

In reality, however, plans turned out differently. An economic recession occurred and would prove that the actions undertaken by the Dutch government between 1965 and 1972 had not been as effective and sustainable as planned. Furthermore, a drawn-out public policy, which created a vacuum, resulted in no clear actions that suited the needs of the region during the economic downturn. The recession caused many former miners who had found employment in Germany to lose their jobs (and consequently unemployment increased). In addition, a large number of companies attracted to the region with government funds proved financially unhealthy and unstable.

At the time, the province of Limburg and many companies were awaiting the promised PNL memo, which never came. Limburg did not and could not take (many) new initiatives to fight the new deteriorating situation because the local and regional administration had little authority to take such economic measures. Fear of losing even more jobs dominated, which is the main reason many companies that ran into trouble were helped. This also fit the spirit of the time—that is, keeping employment was important, even when it cost a lot of money. The government and politicians were more interested in keeping jobs than in building sustainable new jobs. Many local authorities and municipalities were competing against each other, and the province of Limburg did not have the legal authority to play a role by developing its own economic policy (that would come later).

¹¹ In Dutch, *De Perspectieven Nota voor Zuid-Limburg*.

The national government had created approximately 12.300 direct jobs between 1972 and 1978 because of its policies and funding: transfer of public services (3.900), foundation of institutions (e.g. DAF, Rijksuniversiteit Limburg, Casino Valkenburg, Eurocontrol and Afcent; in total 4.500) and creation of jobs in sheltered workshops (2.900). The privately owned mines were estimated to have created approximately 2.300 new jobs, while more than 10.000 jobs were lost as a result of mine closings. Consequently, unemployment rose, as did the number of people benefiting from pre-pension, social security and sheltered workshops. In 1977, unemployment (approximately 27.000 people) was 2.3 percentage points higher in South Limburg than the national average (see also Figures 6 and 7), even though approximately 1.700 million guilders of government investment had been given between 1973 and 1977 (see Appendix 5; €762 million, 2002 exchange rate). Moreover, it became apparent that the former miners could not adapt to their new life situation of sitting at home or working in an unfulfilling job. Social problems remained; an increase in divorces and substance abuse is often attributed to this. Thus, the area was in need of new and innovative actions.

6. 1978-1990 More decentralized policy making by the province of Limburg

The PNL memo, which introduced a new approach, was finally published in 1977. The national government gave more freedom and responsibility to provincial governments to develop and execute their own regional policy. For example, the province of Limburg established its own department for economic policy for the first time in history. In 1977, the newly appointed Limburg governor Sjeng Kremers and one of his deputies, Werner Buck, took the lead and put pressure on the national government in The Hague. Kremers, a former miner's son, set clear goals with respect to the number of jobs that needed to be created between 1978 and 1985. When it appeared that these goals would not be met, Kremers set his own goal that the regional component in unemployment would disappear in 1990¹². If this goal was met, he would consider his job finished and look for another challenge.

Sjeng Kremers was a good friend of Prime Minister Dries van Agt. Ruud Lubbers succeeded van Agt in the early 1980s. Kremers, van Agt and Ruud Lubbers were all members of the Christian Democratic party, the largest party in the province of Limburg. Later, Gijs van Aardenne (Conservatives) became minister of Economic Affairs, when Ruud Lubbers was prime minister. He initiated a far more pro-active innovative and technology-oriented restructuring policy.

The regional government of the province of Limburg took the lead in developing projects that were intended not only to create jobs in the short run but also to provide long-term benefits because of the economic restructuring. The main objective was to reduce the difference in unemployment rates between the South Limburg region and the Dutch national average before 1986. It was initially estimated that by 1981, 11.000 to 16.000 jobs would be created, and by 1985 an additional 10.000 to 13.000. Later, a third period needed to be added—namely, from 1986 to 1990—because these initial goals were not yet accomplished. The figures were adjusted: in the time frame from 1978 to 1990, at least 24.000 to 34.000 jobs needed to be created. For the Queens commissioner personally, an additional goal was set after 1986 because the regional component in the unemployment rate was very high in South Limburg: this regional component was 5.2 percentage points in 1978 and had decreased only to 3.4 percentage points by 1985. Therefore, it was concluded that the regional component should be 0 in 1990 (meaning that the percentage of unemployed in South Limburg would be equal to the national average). To achieve this, several strategies were developed:

- All efforts were geared toward creating a durable and stable new economic infrastructure, with long term-benefits for the entire region. In addition, more attention was given to the social and personal welfare of the people in the region. Attention was also aimed at projects to further

¹² The regional component in unemployment is the difference between the percentage of unemployed in the region and the national percentage.

improve the physical infrastructure (e.g. highways, railways, bridges, conference and exhibition center).

- The change in national policy from a defensive policy to protect and keep employment (even in companies that were not viable in the long run) to an offensive, technology policy guided the new regional restructuring policy. Minister van Aardenne believed that it was better to take a long-term perspective and focus on stimulating innovations in successful firms than to support weak and unsuccessful companies in the short run. This shift occurred also in the LIOF activities. The unions approved this approach, and their representative on the board of LIOF (Wiel Friedrichs) also fully agreed when subsidies or grants were provided to companies (though not all workers were happy with this shift).
- Governor Kremers and Deputy Buck took care to lead in the development of the new regional policy for South Limburg. They arranged and set the agenda for an annual meeting with the national government to discuss progress. They also convinced the various (small) municipalities in South Limburg to have the province of Limburg negotiate with the government in The Hague and to voice one opinion.
- A crucial role was given to the Provincial government: it was charged with selecting and initiating projects and, through both formal meetings (annual budget talks) with the national government and informal routes (lobbying), ensuring that these projects received the necessary funding.
- A more focused approach on economic redevelopment was taken. Four different sub-regions were distinguished within the entire region of South Limburg—the Sittard/Geleen region was geared to the automotive and chemical industry, and the Heerlen/Kerkrade region focused on housing offices for (public) services. Next, the city of Maastricht (not directly in the mining area) was charged with focusing on international institutes and higher education, and the countryside between Maastricht and the mining area would serve as a tourist attraction.
- Members of Parliament with different political backgrounds, including Bremen, Van der Linden, Van Rey, Wöltgens, Van der Ven, Tripels, Konings, Noteboom, Wolters, Oomen-Ruyten and Hummel, who all came from the Limburg area, joined forces to lobby for Limburg interests and took initiatives in Parliament to allocate specific financial means and institutions to the region.
- The LIOF now acted as an investor for companies that showed potential but were in need of (venture) capital. In the previous period, LIOF had been responsible for granting funds to nearly bankrupt companies to keep them alive and secure employment. From the late 1970s onward, the LIOF would no longer support these suffering organizations, only those that were innovative and had the potential for growth.

The PNL memo contained many requirements the projects had to meet. For example, the projects should have a clear plan for solving the problems of the area and improving the economic structure (not only the industrial structure), but they should also not be detrimental to the environment. Moreover, these projects needed to be co-financed by the local and regional authorities and by companies. Projects involved the strengthening of the market sector (industry and services sector), the economic infrastructure (e.g. airport Maastricht, highways, railways, waterways, landscape), and the building sector (additional programs for building houses and schools) and included additional measures for the labor market and welfare projects. Appendix 6 shows the money invested in the region between 1978 and 1990. Some of the money was provided from the PNL program; other financial means were provided through various ministries. The PNL memo intended to create 11.000-16.000 new jobs between 1978 and 1981; however, only 10.275 were created, 1.800 of which were considered sustainable jobs. The goal for 1982-1985 was to create another 13.000-18.000 new jobs; again, however, a little more than 3.000 new jobs were created, though the vast majority were sustainable. No exact target was set for the 1986-1990 period in terms of the number of new jobs to be created. Approximately 900 new sustainable jobs were perhaps created. These figures show that in the 1978-1990 period, only 6.000 new sustainable jobs were created. As Figure 6 shows, unemployment rose and declined during those hectic economic times.

As Appendix 6 reveals, the specific 1978-1990 PNL means (530 million guilders) were just one-seventh the additional means from the ministries (3.806 million guilders). A shift in the allocation of these means took place. In the final period, more money was allocated to developing the knowledge infrastructure through founding universities (Maastricht University and Open University) and to attracting many international institutions.

Regarding the social problems to be solved, more initiatives than before were undertaken. The public social and welfare systems needed to be built up in the region almost from scratch. Municipalities were responsible for accomplishing this. Much work was coordinated through a provincial body because the cities had limited experience in this field. Educational support for families was provided after helping the young unemployed find jobs or take part in programs to eliminate illiteracy. These programs were especially needed in the eastern part of the mining district. Investments in culture (e.g. theaters, museums) were limited because these institutions were not considered important factors in those days.

The industrial areas that became obsolete after the closing of the mines were restructured and re-allocated by private firms; the provincial or local government did not have much influence in that process. As a result, many landmarks referring to the mining past were destroyed. The visibility of the buildings from the successful and wealthy past¹³ and its industrial heritage vanished¹⁴. With the limited number of companies to be hosted, the industrial areas were used for housing, and many new houses were built. This construction was justified given the expected growth of the population.

Many former miners were settled in their areas and were not inclined to take other jobs farther away. This mobility was much less than expected and also due to the Dutch social security system at the time, in which it was not common practice to force people to accept jobs elsewhere. However, their allowance was not withdrawn even when they rejected a job that was offered to them.

Although it took five more years than anticipated in 1978, by 1990 (not 1985) the goal of having an unemployment level in South Limburg (the region as a whole) equal to the Dutch average was finally accomplished. The 1990 statistics even showed that the regional component in unemployment was 0. Thus, Kremers considered his job finished.

6. After 1990 European funds and the province of Limburg

Perhaps it was a little too optimistic to conclude that the region would also be future proof in 1990. After 1990, unemployment rose again from the economic conditions and then decreased again in 1995 (see Figure 6). The regional component in unemployment may have disappeared in 1990, but it soon returned. Not only did unemployment rise, but the regional component also rose in South Limburg (see Figure 7). Apparently, the economic trends seriously affect the economic structure.

In the late 1980s, some European funds became available to promote new developments (e.g. European Social Fund, European Fund for Regional Development). These funds were intended to

- create jobs in the poorest areas of Europe (to which South Limburg did not really belong but still managed to receive money from, but now through the Cohesion fund);
- increase a region's competitive strengths and employment; and
- enhance cooperation across national borders. This was a unique chance for South Limburg to begin cooperating with firms, institutions and governments in nearby Germany and Belgium (the Euregion Maas-Rhine).

¹³ The salaries of miners in the Netherlands were quite high, higher than those in many other traditional industrial areas.

¹⁴ In the Belgian Kempen, cultural heritage is still visible today. In the mining districts in Japan, hardly any cultural heritage remains.

Although the restructuring of the region ended in 1990, as a former mining area, South Limburg was still eligible for funding from the European Union. Projects intended to create jobs, involving several partners (e.g. national or regional governments, businesses, research institutes), would receive a grant. This helped create new jobs and led to new networks and partnerships for future benefits.

During this period, the province of Limburg further developed its own economic policy. The province applied for and received European funds but also developed its own labor market policy, technology policy, and, together with the bureaus of tourism, tourism policy for the area. More attention was subsequently given to the promotion of life sciences. In 2005, an Acceleration Agenda¹⁵ was published with a regional focus on three important sectors:

- Health, cure and life sciences;
- High-tech systems, chemicals and materials, and new energy; and
- Agro, food and nutrition.

In 2011, a project called Brainport 2020 was developed to set the goals and provide the guidelines for developing the whole area of the south of the Netherlands—the neighboring provinces of both Noord-Brabant and Limburg (an area with 3.5 million inhabitants in which these three industries are very important).

Although the 1960s witnessed the need to find jobs for the dismissed miners and the growth of the baby boomers, since 2004 the total population has decreased, due to less births and more deaths, while the balance of migration is around 0. This population decline has caused new challenges for the future to maintain and create jobs as well as to maintain and create business. Structural developments and trends in economics, demographic developments and trends, and temporary changes all help determine the future of the area.

Roundtable discussion¹⁶

In the summer of 2012, seven men who had been heavily involved in the processes after the closing of the Dutch coal mines, met together in a Maastricht hotel with a view of the river Maas. They met one another again after so many years to discuss what has happened in the area from 1965 to 2010, to reflect on what had been decided, and to determine what lessons could be learned from their experiences. All seven were provided the opportunity to reflect from their own perspectives.

Sjeng Kremers, the former governor in the province of Limburg, who always took initiatives, began by saying, “Well folks, it is great to see you all again after so many years. You know, I was very disappointed when I started my job in 1977 and found an area over here where people were very sad, disappointed, thrown back and showed a great lack of initiative and entrepreneurship. Sitting back and lamenting, that is not my stand. I knew how proud miners were, and all that pride had disappeared. People were waiting as if every hope and money should come from the government in The Hague. Awake, and take the future in your own hands; shape it; come up with breakthrough innovations. During my job in the financial world after I left Limburg because my personal goal of getting rid of the regional component in unemployment in 1990 was met, I did realize that a forward-thinking strategy as proposed by Hamel and Prahalad in their 1996 book *Competing for the Future* could have been beneficial to the Limburg restructuring process when the actors at that time would have taken the notion to seize the future rather than to maintain the status in the present to a greater extent into account than what they had done now.”

¹⁵ In Dutch, Versnellingsagenda.

¹⁶ During the research for this case study, we interviewed these respondents in face-to-face interviews. We combined the information from the interviews into this fictitious roundtable discussion. Presenting the results in this way offers a more structured way to present the views of these respondents on what has happened (and what has not) in the area.

Wiel Friedriechs, the former local representative of the unions, replied by saying that it was wise to take into account the spirit of the times when the mines were closed. This affects the economic and social situation of the time, but also what solutions were considered socially acceptable and how they were implemented. Wiel was very clear in his opinion of the first ten years of the process of re-industrialization and improving the economic structure of the region: "Between 1965 and 1975 the national government gave a lump sum to companies that came to the area or to companies that promised to invest or maintain jobs in their already present company. But there was no control whatsoever on what and how it was spent. It seemed as if the government trusted them fully and unconditionally. Many of them thought they could survive with their marginal business with the financial support of the government. The [social and political] spirit of that time was that it was important to save jobs even if it would cost a lot of money: that was part of social responsibility at that time. However, many firms failed, but just a few years later, and did not contribute to improving the economic structure of the area in the short run, let alone in the long run. When the economy collapsed, so did they. A lot of money has been 'invested' in keeping companies operational, that would eventually go bankrupt anyway: much money has been thrown in a bottomless pit. In fact, these companies caused a lot of trouble to their workers and the former miners: they maintained insecurity and caused tension in families about the job perspective, weakening their self-esteem once they were fired again."

As Wiel made clear, however, two important differences emerge when comparing the situation in South Limburg with other mining areas in France, Germany, Belgium and the United Kingdom. "First of all, in the Dutch area as well as in Flanders in Belgium, there was no steel industry next to the coal mining industry. In the Ruhrgebiet and in Walloon, for instance, jobs disappeared in both the steel industry and the coal mine industry. They were both very interrelated, and we did not have that interdependence. Secondly, the role of the unions differs; we were very cooperative." He referred to Frans Dohmen, one of his predecessors who worked in the area in the 1960s: "Frans knew that working in the coal mines was a dangerous and unhealthy job. And he was in favor of closing the mines because they had no future due to their inefficiency and the emergence of new and cheaper sources of energy supply. Moreover, when miners recommended their own children to get a job outside the mines because of the unhealthy and dangerous work, why should this kind of work be continued under these circumstances to benefit shareholders? I still get angry when I do realize that the private mining company shareholders did not invest that much in our area and used the subsidies also to pay their shareholders a dividend, as became clear later. As unions we teamed up with the politicians and employers. We wanted the best for our members/workers given that closure was inevitable and desirable. Therefore, we did not fight a typical class struggle as in the UK between Neil McKinnock and the Thatcher administration; the Japanese unions were quite cooperative after their long 1960 strike had been broken. In the Belgian Kempen in Flanders, unions first were fighting against closure, later their view changed and they were fighting for good arrangements for the miners who left the mines." Kremers agreed with Friedriechs that when Kremers negotiated with the Dutch government, Friedriechs organized some demonstrations in The Hague to put more pressure on the negotiations: "It helped indeed."

Bart Joosten, who was responsible for attracting new ventures at LIOF in 1975, acknowledged Friedriechs's view and added other points for reflection: "Indeed, in the early days, it was a lump sum of money given to the problem area. It was invested in many companies that were almost dead, and only in a few that were really promising. We needed to have more accountability on that—that is one of the main lessons I have learned. But next to that I realized we invested too much in the traditional industry [production] and did not see the trend in society towards a bigger service industry [profit and non-profit]. We also forgot to look at innovation. We were too much awaiting/reactive/defensive instead of taking actively the initiative to develop innovative industries and companies for the future. Luckily, after 1980 the philosophy changed with the new policy of minister Gijs van Aardenne. I think it was quite strange to think of how the government allowed their money to be spent by the privately owned mining companies to even pay dividends to keep the mines open [so the 'foreign' shareholders benefited]. We also did not know at that time that these

mining companies did not always invest in the area, but in other areas and industries, even in offshoring. I must say this is a very unique way of trusting people.”

René van der Linden, a Christian Democratic member of Parliament, reflected on the role of the Limburg squad in Parliament. These members were actively promoting the Limburg interests, regardless of their political background (conservatives, social democrats and Christian democrats), and joined forces in the common interest. Indeed, at first the national government needed to take the lead to solve the problems of the area. Coal production was of national interest because it provided companies and households with energy. The cost of the restructuring was too high a burden for the region to solve all the problems itself. “Apart from the financial factors, it might indeed be questioned whether the region had the knowledge and skills to run such a huge project. Many small municipalities lacked the skills and knowledge needed; moreover, because not all municipalities had mines within their borders, they did not have the same interests. They could be played off against one another, for example, by the ministry of economic affairs. That is why it was so important that Kremers managed to have them think and act the same way, while he was the main spokesman on behalf of Limburg to the national government in The Hague. The decision of the Dutch government to allow the provinces to play a more important role in regional economic policy was very effective. In addition, the provincial commitment to solving the problems increased and became committed problem owners.”

Piet Philipsen and Andre Peters, who were active in the welfare sector, were responsible for solving the societal problems that occurred from the closing of the mines. They fully acknowledged that the highest priority was given to creating jobs and fully supported the conclusion that the social dimension received too less attention in the whole process. As Philipsen said, “Just imagine, there were relatively small amounts of money available, and policy makers hardly saw the necessity to consider this as a fundamental problem that needed its own solutions in the short and long run. It is not realistic to believe these problems would be solved once the miners found another job. This is a very mechanistic way of thinking way beyond reality. In the Japanese situation, you could see that the number of visits to doctors as well as health care cost were substantially higher in the Sorachi mining district than in other parts of the Hokkaido island. The secularization of society in the 1960s and 1970s meant that not only social structures disappeared but also authority [be it by the dominant Roman Catholic Church in this area, politicians or the other dignitaries in the city]. People got lost and missed security. Also remember the disappearance of the industrial landmarks of the mining industry. To me, that contributed largely to losing self-esteem. There were only problems left and nothing to be proud of anymore. Moreover, secularization took place in an era in which the traditional economic sectors of agriculture and production were losing importance in terms of sales and employees, while the profit and not-for-profit services sector were growing. This structural shift in society caused some challenges and many problems. Here, in South Limburg the two came together in a rather short period of time.” As Peters said, “I do realize South Limburg can be seen as the periphery of our country, being more than 200 kilometers away from The Hague and Amsterdam. I would prefer to say that it is centrally located in Europe. But do you recognize that many of the coal mine districts are located quite in the periphery of countries and not very close to the cities where the government is located?”

Fernand Jadoul, who was involved in the 1970s and 1980s in the personnel department of ABP, a large Dutch pension fund that was transferred to the region in 1973 because of the relocation policy of the Dutch government, mentioned the demographic trend as the next fundamental shift in society. “I do know many personnel managers at that time helped miners and other employees to get another job. However, that was not a coordinated effort between all the mines and other companies. There was not anything like a ‘joint job mobility center in the region that purposely guided people from a job at the mines to another job [as is a popular means today]’. Next, the baby boomers of the 1950s and 1960s now came to the labor market and were looking for a job. Luckily only 300 ABP employees moved from The Hague to Heerlen, so that we could employ 900 people from our area in the newly created administrative jobs in our company. From the mining companies,

we could appoint some of their administrative employees; for the rest, we could provide jobs for the young baby boomers. In 2010, ABP had about 2.600 employees; it seems as if this implies quite a sustainable character of these new jobs in the financial services sector, but who knows what will happen to them with the current economic and financial crisis.”

Bart Joosten responded to Jadoul’s last remark: “You are right, Fernand, about the impact of the economic upswings and downturns. Did you notice that much of the money invested in the region was in industries that were very vulnerable to changing economic situations, be it the positive upswing or the negative downward trend. In many areas in Germany, France, Belgium and the UK, the car manufacturing industry was seen as the industry of the future responding to the needs of an increasing wealthy population. But it is also an industry that is very vulnerable to economic trends, as we can see today. Let me give you the example of the DAF automobile factory that was founded in 1967 in Born. It is a very modern assembly factory, partly robotized, in which teams of employees are responsible for making a larger part of a car [and not performing just one small piece of work per employee, as Charley Chaplin showed in his famous movie *Modern Times*]. This way of working was new at the time of its introduction; later, the whole production process was further structured, automatized and computerized while maintaining the team philosophy meaning. It led to a unique and innovative situation in which various brands and types could be made simultaneously on one production line. The plant was renowned for those innovations. Production went according to plan until the first oil crisis in 1973: almost 100.000 cars were assembled in 1973. In 1974, however, production fell [by] a third, and a lot of employees had to be fired [again]. This cyclical nature was present until today in this plant that was owned by many other firms since 1972: Volvo, Mitsubishi, Daimler Benz. Would such cyclical, risky industries really improve the economic structure of an area? But, let us not be that negative. Please do not forget what happened at DSM. They played a major role in changing the economic structure of the region in two ways: firstly by actively participating in the policy discussions and lobbying at the national government in the 1960s and 1970s, and secondly, by changing their own company. It first was a typical mining company. The cokes produced led to the production of artificial fertilizer as from 1929. This production increased tremendously after World War II. In the 1960s, the chemical activities became so important that they could balance the losses in the coal production. Diversification was a main theme of their strategy then. Later on they did focus less on mass production of chemicals and diversification and focused more on specialties, and today they are very active in the life sciences industry, new materials and food additives. They really detected the market trends, market niches and adjusted to them successfully. So, both DAF and DSM are innovative and active in cyclical industries, but DSM seems to master it better than DAF. And in Japan, you could see that innovations in space technology were initiated but lasted only for about 20 years. So, in what way does this contribute to improving the economic structure of the region and creating sustainable new jobs? Or, is it not realistic to aim for such a goal? What do you think? Is society and the economy makeable: to what extent can social change be effected by government policies?”

Van der Linden and Kremers took up the invitation. As Van der Linden said, “That is why it is so important to invest in the services sector, not only in tourism and recreation for inland tourism as the Japanese did, but especially in the knowledge economy. We were convinced that a new university would be beneficial to the area. You see it also in other areas where new universities are founded: for instance in Valenciennes and Daoui in France, in Hasselt/Diepenbeek (Flanders) and Louvain la Neuve (Walloon) in Belgium, in Düsseldorf and Essen in Germany or Birmingham in the UK¹⁷. Not that all miners would now get a job as university professors, but it will promote the knowledge base in the area, it will be an incubator for innovations. It will attract highly educated people to the area offering also new jobs for the people from the area. There is always a need for more knowledge, so universities will always grow. Here, in South Limburg we started Maastricht University as a new medical school; later other schools followed. An important distinguishing

¹⁷ In Japan, no university was founded in the Sorachi and Yubari coal mine districts; the miners and younger people left the area, and the older inhabitants stayed. The area did not become innovative.

feature of this university is its learning philosophy, which is called 'Problem-Based Learning'. That is a unique, innovative and very effective way of learning and teaching.”

Philipsen and Peters also emphasized how important it was to invest in people, educate them and create self-confidence and pride. In their opinion, the founding of Open University was also important because it offered educational programs to people in the whole country, not only in the South Limburg area. Although these two men were especially involved in solving the social problems, they also emphasized the importance of the new infrastructural projects that were realized. As Philipsen said, “They not only provided work for the construction and building companies in the area but also improved the accessibility of the area. Investing in both stones and skills is critical: in roads, railways, waterways, airport as well as in education, self-confidence, resilience, etc. This combination is critical to meet the challenges of the future and being able to adapt to those changes. Change is the only constant in life; there are always transitions to new situations and you may wonder whether an everlasting equilibrium might come true. By the way, if that would occur, it would mean that no innovations or progress will take place. I know I sketch a dilemma, but would you like to live in such a situation of no progress?”

All agreed that closing the Dutch mines could have been accomplished in a ten-year time frame. In the beginning, it went faster than planned but became more difficult over time as a result of changing economic conditions. However, solving all the economic and social problems linked to this closure would take much more time than ten years. Problems should have been solved in an integrated way, with a clear plan in mind. History shows that some goals were set, but they were not always really clear and operational. Joosten added, “Yes, you may wonder whether a real project management structure would have helped us to do it better. In preparing our discussion, it was great to make the distinction between the four periods of time since 1965, but could we have foreseen that in 1965?” Jadoul added, “To me it appears as if there was no plan B or different scenarios in the 60s. Maybe we were blinded by the economic upswing after World War II and did not even think about economic downturns. Well, the oil crisis and the monetary crisis of the early 1970s were an unexpected wake-up call. Apparently, we also did not recognize to a full extent the structural changes that were taking place in society.” Joosten again said, “Yes, and we attracted primarily large industrial companies and large service organizations. That makes us dependent on a few big firms again. OK, they were smaller than the mines, but any way, depending on a few important players was still the case. I think we should have focused more on attracting successful and innovative small and medium-sized businesses as they did in the reconversion of the mining district in Flanders, where such an entrepreneurial spirit was present. How come that it was present in Flanders but lacking here? The two neighboring regions are, geographically speaking, so close by, but their culture is so different, according to Geert Hofstede, a famous Maastricht University professor.”

Friedriechs addressed an additional topic. He reflected on the unemployment statistics and linked them to the social problems: “Indeed, unemployment was rather low in the period until 1972. But please remember that this cannot be ascribed fully to the positive economic conditions of that time. A lot of people could [have used] special social arrangements or got a new job in sheltered workshops. In fact, this was a huge hidden unemployment that was not visible in the official statistics on unemployment. And we also saw that when economic conditions were very positive, the role of the unions was rather small; when economic conditions got worse, our role became more important to safeguard the employees’ interests. Since 1973, the unemployment rate in the region skyrocketed far above the national average, as if there had never been any attempts to soften the blow of the closure of the coal mines. How strong was the new economic structure, and how well was it capable to meet new challenges in a globalizing world? In fact, the years between 1972 and 1978 are lost years that have cost a lot of money, but resulted in only few lasting successes. With proper policy guidelines lacking, hardly any new initiatives came out successfully, with the exception of infrastructure projects and the opening of Maastricht University. And you know how much lobbying at ministries and in Parliament was needed by Limburg politicians and companies.”

Kremers responded, “It was great that we got the government to accept the idea of an annual meeting between the provincial and national government and that we set the agenda for those annual meetings. It was great that we could realize a lot of important projects in the period of the PNL funds since 1977. So, I really was glad to conclude that my job was done in 1990 when the regional component in unemployment was zero.” Other people around the table challenged Kremers opinion by asking whether that conclusion was not drawn too quickly. As one of them voiced, “For the whole year 1990, this regional component was estimated to be in South Limburg 0.7 percentage point above the national average [and not zero]. Next to that, in the sub-region most affected by the closure of the mines [the eastern part in which new offices for public services were created], the unemployment level was much higher than the national average [but much lower than it was at the end of the 1970s]. You know in 1990, still 31.600 persons were unemployed in the South Limburg area, including a regional component of 1.900 persons. That is still a lot, although we do realize it is less than the regional component of 12.000 in 1977 [of a total unemployment of 26.900]. Much money has been invested in the region: almost seven billion guilders between 1965 and 1990 and about 18.000 new jobs have been created in the end. Do you consider that as a reasonable social balance worth the investment? As we discuss it now, it all seems quite simple to restructure such a region as our mining district. But do you remember that we always had to make tradeoffs between results in the short versus long run; between an offensive or a defensive approach; between innovations and keeping traditional industries and jobs alive; between a short or long period of restructuring; between giving most attention to finding a job for the individual miner or strengthening the economic structure of the region; between a reconversion process controlled by the national or regional government; between a similar or different policy with respect to the private mining companies and the publicly owned one? And do you remember that we had long discussions in which not only rational arguments were used but also emotional or political arguments? Indeed, focussing on new jobs was important, but the figures [see Figure 8] show the number of jobs changed over time: it increased and decreased as well. Could we have been able to avoid or diminish the downturns in employment to a greater extent those days? I doubt it.”

This personal touch indicates the many dilemmas that were at stake during the closing of the mines. After this, Kremers took the lead again and said, “What could we have done better, or, in other words, what would you have done when they asked us [to give] advice to help other regions in the world when a dominant player in their regional economy [was about to] collapse? Would you solve all the dilemmas you [met] over there similarly or differently as we did here in South Limburg to create sustainable new jobs and solve the social problems adequately?”

Figure 3 Western Europe and the Netherlands



Figure 4 The Netherlands



Figure 5 South Limburg, area of the Dutch coal mines and restructuring area

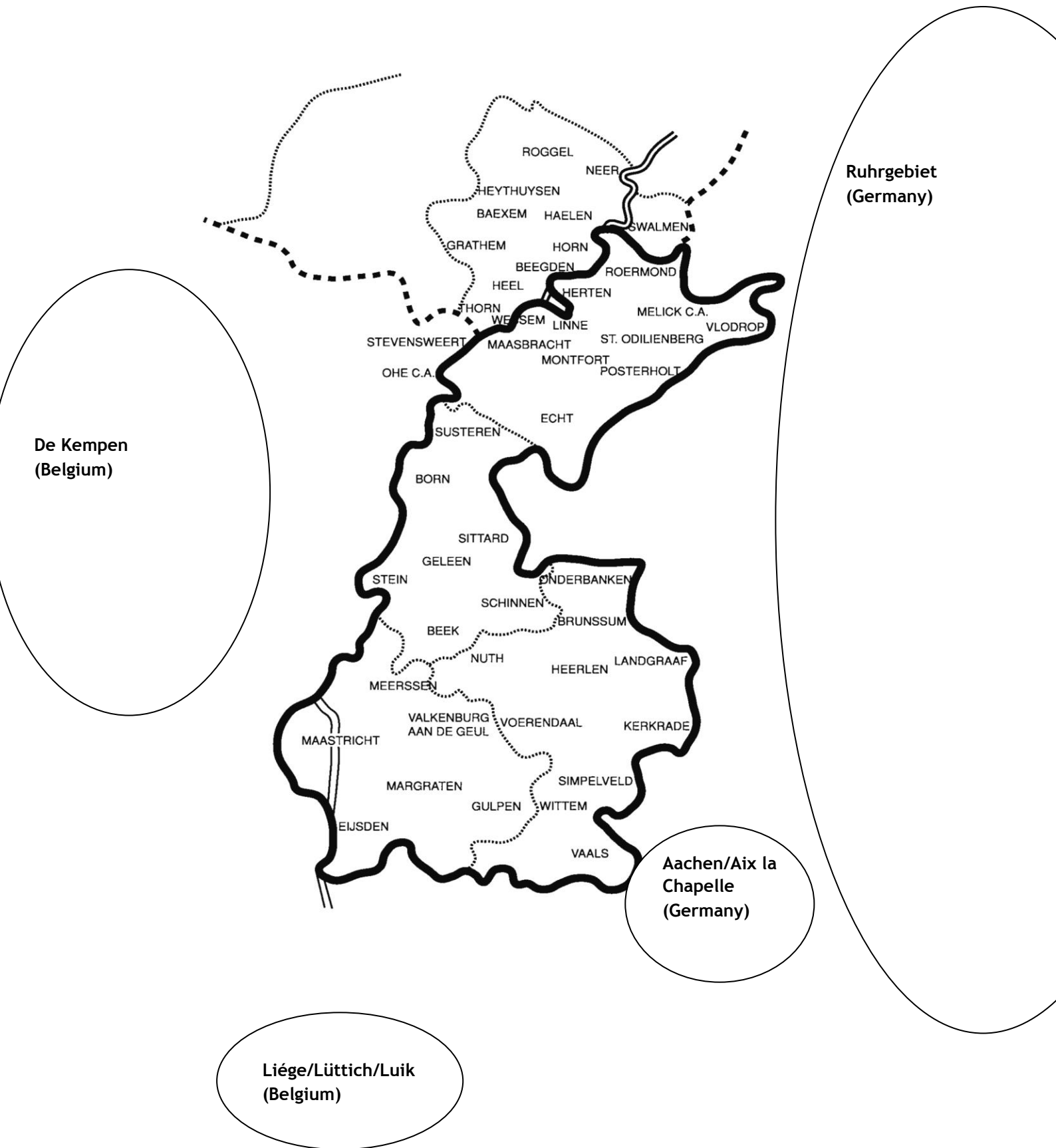
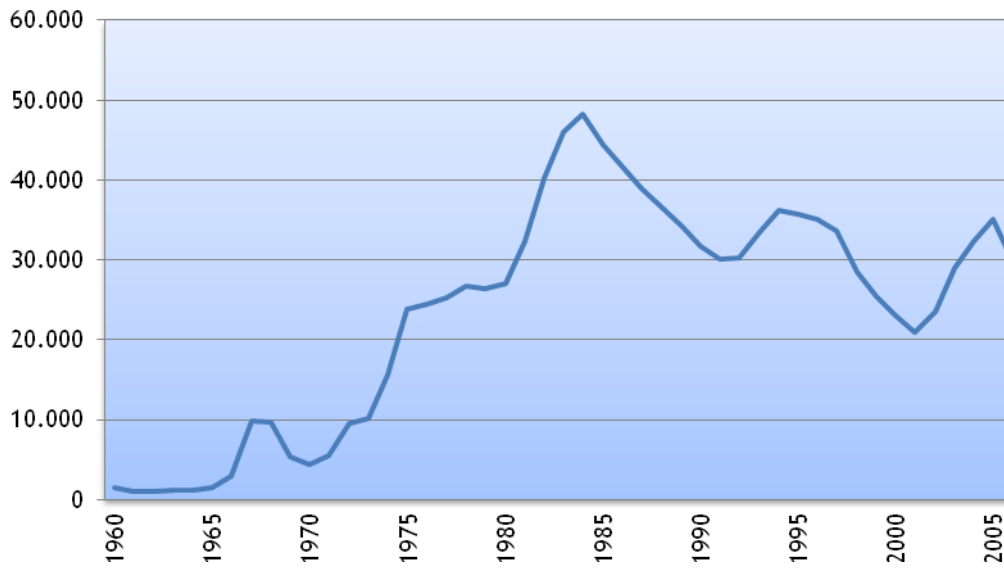
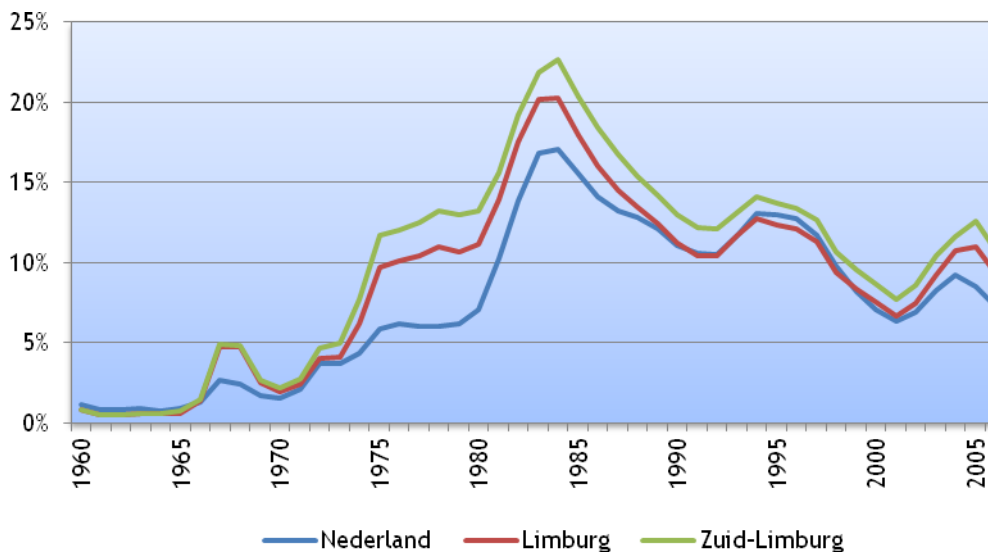


Figure 6 Unemployment in South Limburg: 1960-2010



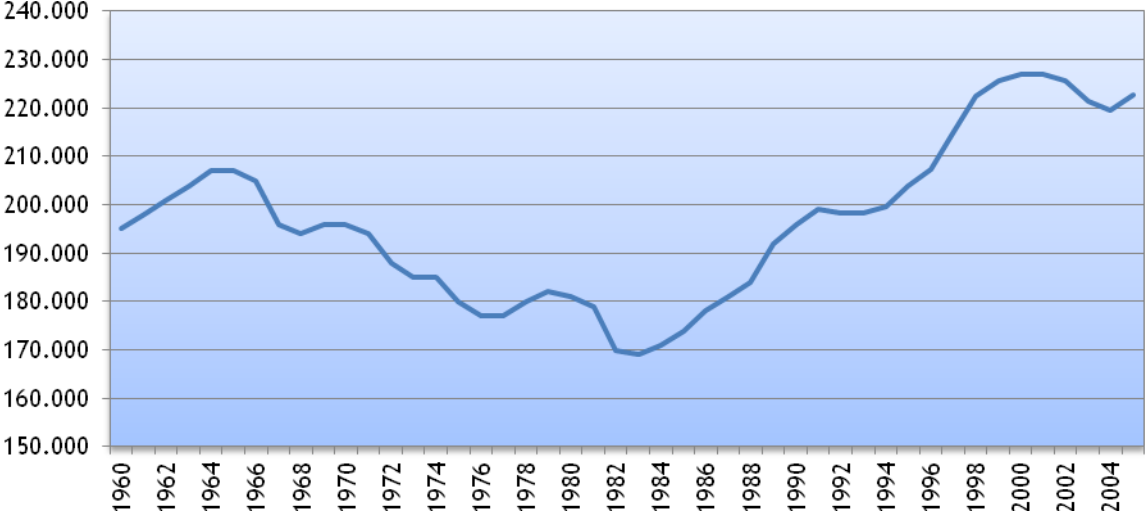
Source: UWV, CBS, Etil.

Figure 7 Unemployment rate comparison: 1960-2010



Source: UWV, CBS, Etil.

Figure 8 Actual number of jobs in South Limburg (in FTEs): 1965-2005



Source: CBS.

Appendix 1 Production of coal and number of employees in publicly owned and privately owned Dutch mines: 1900-1965*

	Production of coal in 1000 tons			Number of employees at the end of the year (miners and others [part timers and full timers])		
	Privately owned mines	Publicly owned mines	Total	Privately owned mines	Publicly owned mines	Total
1900	320	0	320	1.390	0	
1905	486	0	486	2.207	213	2.420
1910	1.100	192	1.292	5.136	1.479	6.615
1915	1.476	784	2.260	6.399	5.720	12.119
1920	2.189	1.772	3.961	12.115	14.643	26.758
1925	3.087	3.805	6.892	13.690	17.986	31.676
1930	5.223	6.988	12.211	17.225	21.819	39.044
1935	4.287	7.591	11.878	10.494	19.913	30.407
1940	4.849	7.296	12.145	15.550	27.162	42.712
1945	1.799	3.298	5.097	12.669	25.458	38.127
1950	4.547	7.700	12.247	17.764	34.028	51.792
1955	4.418	7.477	11.895	19.686	40.217	59.903
1960	4.738	7.760	12.498	19.349	38.098	57.447
1961	4.852	7.769	12.621	18.758	37.052	55.810
1962	4.575	6.998	11.573	18.891	37.273	56.164
1963	4.585	6.924	11.509	19.083	36.379	55.462
1964	4.679	6.801	11.480	19.253	35.886	55.139
1965	4.718	6.728	11.446	18.888	34.417	53.305

*Based on S. Langeweg (2011), Mijnbouw en arbeidsmarkt in Nederlands-Limburg, Verloren, Hilversum, Bijlagen 1, 2 and 3.

Appendix 2 Production of coal and number of employees in publicly owned and privately owned Dutch mines: 1965-1973*

	Production of coal in 1000 tons			Number of employees at the end of the year (miners and others [part timers and full timers])		
	Privately owned mines	Publicly owned mines	Total	Privately owned mines	Publicly owned mines	Total
1965	4.718	6.728	11.446	18.888	34.417	53.305
1966	4.572	5.480	10.052	17.562	29.632	47.194
1967	4.265	3.800	8.065	15.368	23.710	39.078
1968	3.875	2.788	6.663	13.320	20.249	33.569
1969	3.376	2.188	5.564	10.863	17.858	28.721
1970	2.650	1.684	4.334	8.557	17.292	25.849
1971	2.037	1.572	3.609	6.770	15.682	22.452
1972	1.713	1.099	2.812	5.530	10.552	16.082
1973	1.261	461	1.722			
1974				0	0	0

*Based on S. Langeweg (2011), Mijnbouw en arbeidsmarkt in Nederlands-Limburg, Verloren, Hilversum, Bijlagen 1, 2 and 3.

Appendix 3 Coal production and employees in 1965

	Coal production in 100 tons			Number of employees		
	Per mine	Sub total	Total	Miners	Others	Total
<i>Privately owned mines</i>						
Oranje Nassau I	691					
Oranje Nassau II	670					
Oranje Nassau III	834					
Oranje Nassau IV	347					
Total Oranje Nassau		2.542		8.351	1.088	9.439
Laura	490					
Julia	716					
Total Laura and Julia		1.206		4.428	566	4.994
Domaniale	537			2.535	229	2.764
Willem-Sophia	433			1.513	178	1.691
Total privately owned mines			4.718	16.827	2.061	18.888
<i>Publicly owned mines</i>						
Wilhelmina	1.050					
Emma	3.327					
Maurits	2.353					
Total publicly owned mines			6.728	29.609	4.808	34.417
Total			11.446	46.436 ¹⁸	6.869	53.305

Source: S. Langeweg (2011), *Mijnbouw en arbeidsmarkt in Nederlands-Limburg*, Verloren, Hilversum, Bijlagen 1, 2 and 3.

Appendix 4 Dismissal of employees (miners and others) and their new situation: 1965-1972

	Number of employees
New job at firm other than DSM	17.545
Pension (age, inability to work)	6.945
Pre-pension	5.310
Repatriation of foreigners	4.170
Job in sheltered workshops	2.635
New job at DSM	2.900
Total dismissed workers	39.505
Influx of temporary new workers	4.705
Balance of dismissal and influx	34.800
-miners	31.015
-others	3.785

Source: Etil (1990), *Zuid-Limburg, 25 jaar herstructurering*. Maastricht.
(So, $17.545 + 2.635 + 2.900 = 23.080$ new jobs were created in this period.)

¹⁸ In our description of the decisions made in 1965, the decision makers at the time estimated this number to be approximately 45.000. However, the number of office workers and managers was not taken into account in the number of people who needed new jobs.

Appendix 5 Financial means to the South Limburg restructuring area in million guilders

	1965-1972		1973-1977	
Direct support to the mining industry from the national government		1.008		656
Other support from the national government				
-SIOL and IPR arrangement	147		96	
-Improving industrial infrastructure	103		35	
-Infrastructure	72		151	
-Subsidy to additional employment programs	42		289	
-Additional subsidy Ministry of Social Affairs with regard to social welfare	17			
-Investment with regard to sheltered workshops	10			
-Support to individual companies			451	
-Total		391		1.022
Total		1.398		1.678

Source: Etil (1990), Zuid-Limburg, 25 jaar herstructurering. Maastricht.

Appendix 6 Financial means invested in the South Limburg region: 1978-1990 (in million guilders)*

	Specific PNL means 1978-1990			Additional means from various ministries 1978-1990			
	1978- 1981	1982- 1985	1986- 1990		1978- 1981	1982- 1985	1986- 1990
Strengthening of the market sector <i>-stimulation of industry and services</i> <i>-knowledge infrastructure and education**</i>	25 10 15	45 39 6	72 10 62	Strengthening of the market sector (various investment premiums)	615	565	501
Economic infrastructure <i>-Airport Maastricht</i> <i>-Infrastructure (roads, railways, waterways)</i> <i>-City renovation, relocating of firms</i> <i>-Touristic infrastructure</i> <i>-Others</i>	68 15 28 11 10 4	109 21 18 30 37 3	108 7 26 51 24 -	Economic infrastructure	54	70	82
Building and labor market	42	21	25	Building and labor market <i>-pre-pension for former miners</i> <i>-others</i>	502 65 437	667 283 384	624 404 220
Welfare projects	7	5	-		-	-	-
Open University Heerlen					11	116	-
Other co-financing European projects	-	-	2				
Total	142	180	206		1.182	1.418	1.206

*Some differences may occur due to rounding off.

** This includes, among other things, the founding of Maastricht University.

Source: Etil (1990), Zuid-Limburg, 25 jaar herstructurering. Maastricht.