

## DELFT: FROM INDUSTRIAL CITY TO KNOWLEDGE CITY

### LOCAL ECONOMIC POLICY IN DELFT, The NETHERLANDS

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Paper presented at the Urban History Conference Edinburgh  
2002

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## Introduction

After the Second World War there was a strong expansion in the industrial sector in the Netherlands. A turn can be seen about the middle of the sixties marking the beginning of the process of de-industrialisation. The topic of this paper is the policy of the local government of the city of Delft related to the drop in employment in industry in Delft. Delft is located in the Netherlands, in the province of South Holland between two large cities, The Hague and Rotterdam. Delft is a medium-sized city with a population of about one hundred thousand as of the year 2002. It has a beautiful historical city centre that attracts many tourists. Delft is an interesting example because it was not only a model industrial city, but was also home to the 160 year-old Delft University of Technology, the largest technical university in the country, as well as important research institutes, TNO for example, the Institute of Applied Geo Sciences and Delft Hydraulics. Since the beginning of the nineties, the city has been advertising itself as 'Delft, the Knowledge City', given the importance of the knowledge-intensive companies and institutions for the local economy.

This paper will attempt to answer the question of how it can be claimed that despite the decreased importance of traditional industry and the related decrease in employment evident in Delft as early as the end of the sixties/beginning of the seventies, it was not until the end of the eighties that a city policy was developed to respond to these changes in the local economy and employment. We will consider a number of general social/economic and policy developments which are important in the context of this question, as well as the specific developments in Delft. In so doing, a distinction will be made between the period starting after World War II through approximately 1975 and the period from 1975 until the present. The year 1975 will be used in a general way as the watershed given the fact that it was in that period that unemployment began to rise as a result of the continuing decrease in job opportunities in industry.

## Social/Economic developments and local economic policy before 1975<sup>1</sup>

In the years following the Second World War until about the beginning of the sixties, many Dutch municipalities followed an active policy, in keeping with the national government policy, to promote industry in their districts and in so doing, employment as well. There was a continual struggle between national and local governments about the extent to which local governments were allowed to pursue their own industrialisation policy. In some cases, municipalities built their own industrial facilities and rented them out. Some offered constructs, loans for example, to attract companies to their districts; others took steps to bring in foreign industry. In 1961 the national government formulated regulations to limit municipalities in this realm, but they turned out to have little significance due to the fact that the local governments lost their interest in social/economic activities around that time. Unemployment was low and local governments were more concerned with matters outside the economic sphere; the welfare state was being built. Full employment seemed to have become self-evident. Employment and unemployment disappeared from the political agenda. The attitude towards business became more critical, for example towards companies wishing to expand or establish new branches. Other interests were taken into account, the quality of work, for example, and the environment. Social security and government facilities were expanded considerably in the welfare state, in such sectors as education, care, welfare and culture. Prominent in the political agenda now were such topics as democratisation, town planning subsidised housing, the environment, welfare and culture.

However, as early as the end of the sixties unemployment began to a gradual rise. Lower employment was evident in particular in the industrial sector, but could be compensated to an important extent by an increase in employment in the service sector, in particular in the sixties and seventies through the expansion of the public sector.

### Delft as industrial city

Delft has a long tradition of industrial activity. Important sectors in the sixties were the metal industry, including the optical and instruments industry, the chemical industry, construction, food and drinks. Important large companies included the Gist- en Spiritusfabrieken (Yeast and Spirit Factories) now DSM-Gist (DSM-Yeast), the NKF Kabelfabriek (NKF Cable Factory) and Calvé, a prepared foods company. In many Delft families a family member can still be found who has worked for one of the large Delft industries; industry was important for Delft society.<sup>2</sup> At the same time, as we have remarked, Delft had been the home for a long time to the University of Technology and to research institutes. Tourism was and is another important economic factor.

Figures from 1960 indicate that industrial employment was an important sector.

Table 1: Employees per sector in 1960, percentage and absolute numbers

	%	number
Agricultural Sector	1.6	490
Industrial Sector	49.9	15,269
Service Sector	48.5	14,841
Total	100.0	30,600

The decline of industry in the period from 1960 –1976 is evident from the sector distribution in 1976:

Table 2: Employees per sector in 1976, percentage and absolute numbers

	%	number
Agricultural Sector	0.1	35
Industrial Sector	34.2	12,004
Service Sector	65.7	23,061
Total	100.0	35,100

In the period of 1960-1976 the share of employment in the industrial sector dropped in absolute terms by 3,265 jobs, that is to say by 21.4%. The service sector rose by 8,220 jobs, more than 55%. The government was strongly represented in 1976 (this includes the University of Technology and research institutes) with 11,500 positions, or 33%, mostly in the service sector. Places of employment to expand the most in the period were Delft University of Technology, with an increase of 1,800 positions, and TNO with an increase of 600. The growth of the government sector in the period is clear from the increase in the number of Delft functionaries, from 1,175 to 2,575.<sup>3</sup>

'Delft society' and the University of Technology can be said to have been two different worlds, two separate cultures during that time, all the more because the university buildings were moved from the city centre to an outlying area. Contacts between the two were

relatively limited. Students lived for a temporary period in the city and a significant number of the university staff lived outside Delft.

Starting at the end of the sixties, a number of industrial companies in Delft experienced difficulties resulting in the loss of jobs. In 1973 the city council discussed the changes in the local economy. The question was asked whether the city should not concentrate more on the future of employment opportunities. One of the council members asked: *"How must we see future employment opportunities in Delft? Should we perhaps – I hesitate to say it aloud, because we have not been allowed to say it aloud for a number of years, it almost seems – consider a certain level of expansion? (-) Should we see to alternative employment? Should we undertake a more active policy to attract new business? Should we attempt a certain level of acquisition?"*<sup>4</sup> The discussion did not lead to concrete policy measures on the part of the council. Other topics dominated the local political agenda, such as welfare policy, education, subsidised housing and urban renewal. The objective of urban renewal in the city centre concentrated in that period on the improvement of housing. Companies were seen as detrimental elements in this context. They were only allowed to stay if they were not seen as disturbing elements.<sup>5</sup>

### Social/Economic developments and local economic policy after 1975<sup>6</sup>

Social/economic policy changed as of the middle of the seventies. International economic developments and specific Dutch problems resulted in a sharp increase in unemployment which reached its high point in 1983; after that it receded gradually, but remained at a high level until long into the nineties.

Table 3 Unemployment in the Netherlands in absolute figures and percentage of the labour force<sup>7</sup>

Year	number	%
1973	110,000	2.3
1978	201,000	4.1
1983	612,000	11.7
1987	456,000	7.9

Unemployment was a source of great concern. The national government tried at first to maintain jobs as much as possible through financial support, to the traditional industries in particular. At the same time, huge budget deficits developed at the national level. Starting at the beginning of the eighties, the government began an intensive recovery policy which included substantial cutbacks in state expenditures. The topics central to the welfare state came under discussion. 'Market thinking' came more into the foreground. Decentralisation resulted in more policy freedom for local governments, in economic matters as well. Halfway through the eighties, the central government gradually abandoned the massive support of (many) industrial companies which found themselves in difficulty. Policy focussed more on the use of policy instruments to promote innovation in business.

Sharply increasing unemployment influenced local policy as well. Experts argued for a more local and regional approach. In the Netherlands, but elsewhere in Western Europe as well, numerous local initiatives were undertaken to stimulate the local economy.<sup>8</sup> Gradually, a more positive attitude towards business came into being, at the local level as well, resulting in new forms of joint ventures. The promotion of employment and the elimination of unemployment were again high on the agenda. Local governments began an active promotion and acquisition policy, improved the infrastructure and provided sufficient space

for industry; permit procedures were sped up and in some cases companies received financial support to prevent lay-offs.

At the end of the eighties, local governments chose a broader approach. The city as a whole with all of its economic potential was placed more firmly in the limelight: city marketing became a popular concept. The culture of the city organisation structure also changed: it worked more like business and left more to the market: 'city government as business'.



## The answer of the city of Delft: a phased policy

The way in which the local government of Delft responded to the decline in employment opportunities can be distinguished in three phases.

### *Phase 1: Not really a problem*

The developments we have sketched had their effect in Delft as well, needless to say. The local government responded in a rather ambivalent manner. This can be seen in the memorandum on employment published in 1978.<sup>9</sup> The local government concluded that, compared to developments in other places, Delft was doing all right. There was a certain concern to be perceived in developments in the industrial sector. For the rest, the ambitions of the local government were quite modest, partially due to the limited availability of industrial and commercial space. The objective was to maintain the number of jobs. Given the decrease in industry, the local government was of the opinion that an active policy was necessary, although without translating this into concrete policy measures. The memorandum did briefly treat the possibilities that the University of Technology and TNO might offer business in Delft. The presence of those institutions could be a positive factor in attracting business. The local government had already been in contact with the Technical University and TNO to ask what possibilities existed to provide knowledge to new or existing companies. In contrast, the local government decided in 1980<sup>10</sup>, in imitation of a number of other city governments, to institute a social policy when it came to for businesses wishing to establish themselves in the city; requirements concerning the social character were stipulated for potential new businesses. This city policy met with a great deal of opposition from employers. They found it outside the authority of city government, as it would scare companies off from settling in Delft.<sup>11</sup>

### *Phase 2: Delft sets a new course*

Policy in Delft in the eighties was varied. Unemployment increased considerably in the beginning of the eighties. The level of unemployment for men was 3.8% in 1980 and for women 4.7%. In 1983 this percentage had increased to 15.0% (2,826) for men and 17.4% (1,421) for women.<sup>12</sup> Increasing unemployment received attention. Given the difficult conditions for many unemployed, a great deal of attention was devoted to social and cultural activities for them. In addition, the city made money available for such things as starting

businesses. As part of city renewal more attention was also devoted to the importance of employment.<sup>13</sup>

At the end of the eighties, the local government was aware that it was desirable for the city to have a clear vision for the future. The local government realised that intensive co-operation with other key parties in the private sector was important if problems were to be solved. In the meantime, the city organisational structure had undertaken significant changes, deciding to make use of a more business-like and customer-oriented approach.

The project known as 'View of Delft', named after the famous painting of the 17<sup>th</sup> century painter Vermeer, marked a new direction for the local government. Delft as a modern centre of knowledge was considered to be one of the strong points for future development. Co-operative ventures between the city, the University of Technology and TNO was to be intensified and focus on:

- *the promotion of the technical know-how existent in Delft.*
- *the further internationalisation of the University of Technology and TNO.*
- *the development of activities that would further strengthen the image of Delft as a 'city of technology': conferences, events, recreational developments, etc.*
- *the attraction of companies that would be comfortable in this environment. Continued development of the University of Technology area as business centre annex research park could have a stimulating effect.*<sup>14</sup>

One positive aspect of this period was that the relations between (local) business and universities intensified, partly as a result of their mutual interest in the exchange of information.<sup>15</sup> Universities found themselves forced as a result of government policy to carry out more contract research: the university as business enterprise.

### *Phase 3: The development of Delft, the Knowledge City*

The turning point came with the external report of TNO-INRO 'Delft, the Knowledge City'.<sup>16</sup> This study, carried out on request of the city, offered a thorough analysis of the strengths and weaknesses of the Delft economy. The tremendous drop in employment in Delft industry required a new approach. The conclusion was that knowledge was the strongest point of Delft economy. A distinction was made between knowledge-intensive employment in business and research institutes and other employment. Part of (traditional) industry, that of DSM-Gist for example, is now in the knowledge-intensive sector. About one-third of jobs in Delft is knowledge-intensive. According to the report, it is the responsibility of the local government to take the initiative to make Delft a knowledge city through the promotion of networks linking local business, the university, research institutions and the local government as partners. More is involved, however. A change in culture is needed to bridge the division between 'traditional Delft' and the knowledge sector. The local government must actively involve citizens, companies and social organisations in the achievement of this cultural shift. Housing policy has concentrated too much on the traditional industrial population, with much subsidised housing. According to the study, a large share of employees in the knowledge sector live outside of Delft because there are no houses available in the higher price classes; as a consequence, these people are not part of Delft society outside of their work. Policy must focus on the construction of suitable housing for this category to attract high salaried knowledge workers. Both the local economy and the integration of 'traditional Delft' and the knowledge sector will profit from this.

The report was well received. In 1992 the Foundation 'Delft, the Knowledge City' was created in which the local government, University of Technology, research institutions

and business work together. Starting in 1995 'Delft, the Knowledge City' became the core local strategy.

In the year 2002, alongside of the attraction of the centre of the city for tourists, 'Delft, the Knowledge City', is still the calling card for Delft. The share of knowledge-intensive jobs has increased. Spearheads for the coming years include: Environmental Technology, Information and Communication Technology (ICT), Water & Soil, Design & Architecture and Innovative Transport Systems.<sup>17</sup> Recently, a plan was drawn up to develop a 'Research and Development Park' for high tech companies at the Technical University campus. Unemployment is at the Dutch average level, albeit with a high percentage of unskilled or low-skilled workers. Little has come of the plans to build more housing in the higher price classes. Delft has few possibilities for construction within its own city boundaries; more expensive housing has been and continues to be built in neighbouring municipalities.

## Conclusion

Delft has a long history as an industrial city with, alongside of this, research institutions and the University of Technology which exists almost in a separate world, certainly since the university has moved out of the centre of the city. This image is changing. The two worlds have come closer together. 'Delft, the Knowledge City' is the symbol and emblem of the co-operation between business, research and educational institutions and local government. Local government documents make a distinction in the Delft economy between knowledge-intensive businesses and institutions and non-knowledge-intensive ones. Co-operation has got off the ground. The proposed 'cultural integration' of the knowledge sector in Delft society will not be an easy matter. The policy structure of local governments in the Netherlands offers only limited room for them to act.

It has taken a long time for the city council to develop a policy that responds to the de-industrialisation of Delft. The following reasons for this can be elicited from the preceding argument and are related to more general developments as well as to specific Delft parties.

1. The local government of Delft was alerted to the changes in industry, but they were not interpreted as a problem for the economy of Delft. The decrease in jobs in industry was compensated to a great extent in the sixties and partially in the seventies by an increase in employment opportunities in the government sector in Delft.
2. The priorities of the local political agenda in the sixties and seventies were such issues as welfare, education, housing, the environment, etc. Dutch society was completely in the grasp of the welfare state. This was the case for Delft as well. This can be seen in the limited initial interest in urban renewal for effects to employment and in the policy requiring social relevance for businesses wishing to establish themselves in Delft. It takes time to change political priorities.
3. At the end of the seventies/ beginning of the eighties, local governments became more interested in economic policy. This 'new' policy field had to be built up again. The questions were complex. It took time and energy to develop the local economic policy. In addition, policy freedom had to be 'wrested from' the national government.
4. Only at the end of the eighties did more local governments begin to take a greater interest in their own economic potentials and their own identity. In Delft that was clearly seen in the 'View of Delft' project. An external study in the nineties was responsible for the breakthrough: the local government of Delft took the decision to follow the course of: 'Delft, the Knowledge City'.

- <sup>1</sup> See for an overview of local social/economic policy in the Netherlands: Kraaijestein, M, Gemeentelijk werkgelegenheidsbeleid en het Rijk: 1945-1990. Een beleidshistorische studie over decentralisatie en gemeentelijk beleidsvrijheid (Hilversum 1995)
- <sup>2</sup> Archives City of Delft: Bijlagen bij de Handelingen van de gemeenteraad, 1992, stuk 99 II, Delft Kennisstad. *Het economisch perspectief van de gemeente Delft*, p.5
- <sup>3</sup> Gemeente Delft, *Discussienota inzake de werkgelegenheid*, (Delft 1978) p. 4
- <sup>4</sup> Archives City of Delft: Handelingen van de gemeenteraad, vergadering 31 oktober 1973, no.393, p. 237
- <sup>5</sup> Ham, C. van den, *Stadsvernieuwing in Delft: effecten en perspectieven voor bedrijven en werkgelegenheid*, (Delft 1986), p.1
- <sup>6</sup> Kraaijestein, M, *Gemeentelijk werkgelegenheidsbeleid en het Rijk: 1945-1990*
- <sup>7</sup> CBS, *1899-1994. Vijfennegentig jaren statistiek in tijdreeksen* ('s-Gravenhage 1994), p.49
- <sup>8</sup> Kuenstler, P, Local employment initiatives in Western Europe, in: Mayer, J. (ed), *Bringing jobs to people. Employment promotion at regional and local levels*, ILO (Geneva 1988) 199-211
- <sup>9</sup> Gemeente Delft, *Discussienota inzake de werkgelegenheid*
- <sup>10</sup> Archives City of Delft: Handelingen van de gemeenteraad, vergadering 28 augustus 1980 no. 356
- <sup>11</sup> Kraaijestein, M, *Gemeentelijk werkgelegenheidsbeleid en het Rijk: 1945-1990*, p.139-149
- <sup>12</sup> Gemeente Delft, *Structuurplan voor de gemeente Delft* (Delft 1983) p. 23
- <sup>13</sup> Ham, C. van den, *Stadsvernieuwing in Delft: effecten en perspectieven voor bedrijven en werkgelegenheid*, p. 1 and 19-31
- <sup>14</sup> Gemeente Delft, *Zicht op Delft. Scenario voor de ontwikkeling van de stad tussen 1989 en 2000*, (Delft 1988), p.11
- <sup>15</sup> See for a theoretical and empirical exploration of the role of the university and other local actors in Delft: Geenhuizen, M. van (ed), *Universities and knowledge-based economic growth: the case of Delft (NL)*, *GeoJournal*, 1997 no. 4, 369-378
- <sup>16</sup> TNO-INRO(Instituut voor Ruimtelijke organisatie) , *Delft Kennisstad, concept*, (Delft 1990). See also: Knight, Richard V. (the author of the TNO-INRO report), *Knowledge-based Development: Policy and Planning Implications for Cities*, *Urban Studies*, 1995 no. 2, 225-260, p.243-245
- <sup>17</sup> Gemeente Delft, *Nota; Evaluatie Delft Kennisstad*, 30 augustus 2001 (<http://www.raad.delft.nl>)