# EX-ANTE ASSESSMENT OF THE OBJECTIVE 2 PROGRAMME FOR NORDJYLLAND AND LOLLAND, DENMARK, 1997-99

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## 1. SUMMARY: OBJECTIVE 2 PROGRAMME FOR NORD

## JYLLAND AND LOLLAND

This ex-ante assessment of the objective 2 programmes for North Jylland 1997-99 and for Lolland 1997-99 follows the general guidelines developed by DGXVI.

The two Regional Development Plans for North Jylland and for Lolland are of high quality, both analytically and technically. They are in general coherent, both internally and externally, with Danish and EU policies.

Both programmes refer to and have built in experiences from previous programmes. It is on this fundament and though their respective SWOT analysis they are formulating the objective, strategy, priority and measures in focus.

A) In the program for North Jylland there is a focus on what is called a strategy of "Globalisation". From this strategy follows an emphasis on competitive productions factors and on educational and infrastructural condition, to the extent that they are related to the market dimension.

In this assessment, we discuss the advanced theoretical perspective that is the basis of the Plan: a theory of Globalization. On this basis five paradoxes are outlined:

- Creation of new jobs
- The dynamics of the existing industrial complex.
- Knowledge and national educational policies
- Structural barriers
- Discrepancies between the Plan's view of industrial leadership and opinions among local industrial leaders

From the discussion of these paradoxes, the main recommendations are outlined.

B) In the program for Lolland there is a focus on a strategy which is more committed to the model of network and oriented towards developing the potentiality of the region. Following this strategy there is an emphasis on task which reduces the vulnerability of the local industries, task which produces generative effects, and task which enables a higher degree of knowledge transfer.

The present Plan appears to be an updating of previous Plans. This may also be the reason why the plan does not discuss education in relation to the dynamics of the national labour market, which is channelling skilled labour out of the region. Neither does it mention equal opportunities in the SWOT or in the priorities and measures.

We recommend the Commission to ask for additional information on three points:

- Improved ex post measurements of the efficiency of measures with long term effects
- The strategy should be discussed in relation to national educational policies and the

structure of educational institutions

- The strategy should be seen in relation to an analysis of the national labour market, in terms of migration, gender and education.

## 2. INTRODUCTION: NORD JYLLAND

The Plan comprises 16 municipalities in the North East of Jylland. The largest city in the area is Aalborg.

Previous programmes are Renewal and Objective 2 for 1990-1991, Renewal, Objective 2 and STRIDE for 1992-93 and Objective 2 for 1994-1996. The document refers to evaluations of the 1991-1993 programmes by the University of Aalborg and PLS Consult A/S. The 1994-1996 Objective 2 programme was subject to a mid-term evaluation by COWI. This evaluation was made available to the evaluators. Results from the ex-post evaluation of the 1994-1996 programme were not available to the evaluators, nor were they referred to in the program.

The size of the Plan is 221.01 MECU over the three years 1997-99 of which 53.95 MECU, or 24.4% of the total, are contributed by the Structural Funds. The contribution of the national public sector is 26,5% and of the private sector 49,1% of the total SPD. EU assistance per head is equal to 145 ECU.

## 3. OVERALL ASSESSMENT

The Regional Development Plan of Nordjylland is of a very high quality, both in the analyses and technically. It refers to experiences from previous programmes and is in general coherent both internally and externally with Danish and European policies.

### **Socioeconomic Analysis**

The socioeconomic analysis brings forward both a clear picture of structural characteristics of the Objective 2 area, in terms of population development, BNP/capita, employment, as well as a statistical description of

- Mechanical/metal industry
- Construction
- Transportation
- Tourism
- Unemployment
- Labour market
- Education
- Firm structure
- Gender in relation to labour market

The socioeconomical analysis on these objects is partly compared with both selected regions in Denmark and with the country as a whole.

Part of the analysis is statistical, focusing on employment as a major variable. However, intra-branch dynamics are also discussed. The region is dependent upon primary industries (agriculture, fishing, tourism), which have generated upstream and downstream production industries, such as mechanical industry, electrotechnical industry, food industry and services.

The highly advanced, dynamic and well known electrotechnical industry has become independent of its former basis in the primary industries. The document points out that the complex of interrelated branches is dynamical. It also points out that the level of innovation is high. On page 71, for instance, the Plan states that

"there is nothing to indicate that industry in North Jylland lags behind others in terms of introducing new products and processes." (Page 71.)

However, the Plan also sees this industrial structure as a problem. It is claimed that dependency upon primary industries is reflected in the structure of the firms, where small firms are predominant, as well as in the general socioeconomic characteristics of the area, such as educational level (low), BNP/capital (low), and labour market characteristics (high rate of unemployment).

### The SWOT analysis

Chapter 2 presents SWOTs of

- primary industries
- mechanical industries
- construction
- business services
- other factors

Experiences from previous programmes are introduced after the presentation of the SWOT. And as it is said in the program:

"Because of the positive evaluations of earlier programmes the task for the new program is rather to make some adjustment than make fundamental changes".

The former strategy to strengthen businesses through internationalisation and integration is developed further by the introduction of a strategy of globalization. This strategy is, however, formulated at a "horizontal" level, with no specific policy for particular production industries. The only specification is the distinction between production industries and tourism.

The regional production system, which is analysed in the SWOT, where the interlinkages between primary industries and up and downstream industrial branches are considered, is not regarded as a basis for the strategy.

### **Objective and Strategy**

The objective of the program is to strengthen:

".....the conditions for increased growth in the businesses of the region, and thereby maintain and increase the number of jobs in the objective 2 area in general. Growth generated by the program will take place in a sustainable way, by supporting economically healthy activities, as well as activities promoting environment and equal opportunities."

The Strategy for reaching this Objective is Globalization, which is defined as:

"Strengthening of the firms ability to compete internationally, by innovation, capacity for reorganisation and restructuring ("omstillingsevne") and increased competence, and by strengthening educational- and infrastructural conditions"

The "conditions for increased growth" which are mentioned in the formulation of the objective are specified as "the firms ability to compete internationally" in the definition of the strategy of globalization.

This strategy is specified further through a discussion, where it is made clear that a number of different measures may contribute to globalization. However, it is obvious from the definition and the discussion that globalization is a highly dynamic strategy, with an emphasis on innovation, change ("omstilling") and increased competitiveness. Thus, globalization is presented as a radical program of innovation and change. It is, therefore, not surprising that barriers to the realisation of the strategy are not only economical, but are also at the level of knowledge and leadership in private industry (page 91).

What is excluded from this focus is obviously a more conservative approach, for instance support to capacity adjustments with a given technology and product.

Like the analysis of the SWOT, so has also the strategy of the programm its main focus on small and medium size enterprises.

To which degree the strategy concentrated on the worst affected areas is difficult to say, because the statistical material does not differentiate between different geographical areas.

#### **Priorities and Measures**

The program has two priorities and four measures within each priority. The actions are formulated as 15 sub-priorities.

This is a rather unfamiliar structure, compared to other SPDs. If one wants to rearrange the Plan, the two priorities can be named *strategies* (as they actually are) and the four measures can be called priorities. This would allow the 15 sub-priorities to be renamed as *measures*.

Such a change would also mean a need for more specific information on the planned use of

resources and the expected outcome, as quantitative figures are given on measure level. For the North Jylland Plan this implies that indicators are given on a rather aggregate level.

	Priority 1: globalization of production and service industries	Priority 2: Globalization of the regions tourist industry
Measure 1 Knowledge - enhancing projects in private and public firms/ organisations	<ul><li>1.1.1 Innovation and competence</li><li>1.1.2 Reorganisation and cooperation</li><li>1.1.3 Environmentally oriented development</li></ul>	2.1.1 Product development and marketing
Measure 2 Physical investments in private firms	<ul><li>1.2.1 Product/ process</li><li>development</li><li>1.2.2 Environmentally</li><li>friendly production</li></ul>	2.2.1 Experience facilities and improvement of quality
Measure 3 Public/semi public infrastructures	<ul><li>1.3.1 transportation/</li><li>communication</li><li>1.3.2 Business services/</li><li>educational institutions</li></ul>	2.3.1 Tourist infrastructure (attractions)
Measure 4 Education of employees and unemployed	<ul><li>1.4.1 Human resources</li><li>1.4.2 Educational planning</li><li>1.4.3 Equal opportunities</li></ul>	<ul><li>2.4.1 Training and service mindedness</li><li>2.4.2 Equal opportunities</li></ul>

The chosen structure of the Plan is, however, the same as in the SPDs for the previous periods.

To a certain degree the measures are consistent with the strategies formulated in the program. But because of its aggregated level, the measures are formulated in a rather general manner. This may affect the degree of goal-fulfilment and bring the relation between measures and strategy into a stage of uncertainty.

### Environment

The environmental situation is discussed in chapter 9. Here,

nature areas special ecological habitats agriculture raw material extraction water pollution sewage storing surface water ground water traffic future industrial areas

are described in section 9.1

Laws and regulations on physical planning, nature and environment are referred to in section 9.2.

The relation between the program and environment is discussed in the concluding section of 9.2. Environmental considerations are taken into consideration in each of the priorities. The main parts of the program will not have any significant environmental effect. Environmental authorities are directly involved in the decision process of the program implementation. Procedures laid down for evaluation of the projects in terms of environmental effects follow standard Danish procedures for national projects. The Plan is satisfactory on this point.

### **Equal Opportunities**

Equal opportunities are regulated by law i Denmark and have especially been in focus in the politics of workers' conditions/relations and the politics of unemployment. This fact indeed gives the program the possibility to formulate the issue of "equal opportunities" as an horizontal aspect. But the program has also in its own right produced background data on the question of equal opportunities. On the basis of these data the program presents activities to cope with unequal opportunities on the labour market.

#### **Estimation of Effects**

The estimated effects of the program are indicated in table 6.2.1, based on measured effects of previous programmes (unnumbered table, page 138). Our analysis indicates that the calculation of the estimated effects are generally acceptable and follow the standard procedures for these calculations.

There is a problem, however, connected to the validity of the effect and efficiency indicators in relation to the Strategy. This problem is referred to in the program, where it is stated that:

"It may be difficult to transfer the quantitative experiences directly, as the projects change character compared to previous programmes, where "soft" qualifications are given a higher priority in the industry related projects, where the achieved results in terms of employment are not directly traceable." (section 6.2, page 143).

We lack measurements of effects which are valid in terms of the long term objectives of the globalization Strategy. In the absence of these measurements of long term effects, we do agree that the basis of estimations is weak.

This problem will be elaborated in point 5 below.

## 4. KEY STRENGTHS OF THE PLAN

The planning document is based on experiences from previous Plans and evaluations. The Strategy is based on a theory of globalization. This theory is discussed in an explicit way, and the relation between analysis, objectives and measures are made clear and transparent. With certain exceptions, which we will return to below, the programming document has a fairly high level of internal and external consistency. This consistency is explicit, and presented within a transparent and clear text. The Plan integrates sustainability and equal opportunities.

In short, the Plan appears to be a highly professional, well documented piece of work, based on extensive experience. In particular, we would like to point out that the attempt to develop a coherent strategy for the region, based on a single theoretical concept of "globalization", is ambitious, and should be encouraged.

However, this strength is also a weakness, as the high level of theoretical explicitness leads to exposure of inconsistencies.

## 5. KEY WEAKNESSES OF THE PLAN

We would like to point out five paradoxes which are revealed by the document. These paradoxes do not necessarily indicate failures in the planning document as such. However, they point in the direction of dilemmas encountered in the planning process.

- 1 The creation of new jobs runs into a number of contradictions
- 2 The dynamics of the existing industrial complex is not considered a basis for local development
- 3 Knowledge is a major priority, but consistency with educational policies is not taken into consideration
- 4 Structural barriers to globalization are not considered
- 5 Leadership in local industries is considered a problem, but leaders of local industry do not agree.

Paradox no 1: Creation of new jobs

The classification of measures roughly corresponds to the classification in previous programmes. These measures are evaluated, according to their efficiency in terms of production, export and employment. The average improvement per mill DKK public moneys is as follows (page 138):

	Private infrastructure investments	Knowledge	Strategic infrastructure	Total
Production increase	9.1 mill. DKK	6.9 mill. DKK	0.1 mill. DKK	3.6 mill. DKK
Export increase	4.9 mill. DKK	5.2 mill. DKK	0 mill. DKK	2.3 mill. DKK
Employment increase	9.5 persons	5.4 persons	0.3 persons	3.4 persons

These results may be seen in relation to the priorities of the present programme, compared to previous programmes (page 105):

	Production industries/ services	Tourism
Knowledge	+5%	+/- 0
Physical investments	-9%	+2%
Strategic infrastructure	+10%	+1%
Education	+1%	+/-0%
Technical assistance	-	-
	-3%	+3%

These priorities are consistent with national policies.

However, it is worth noticing that this also means that the measure with the highest efficiency in terms of employment (physical investments) has been given a lower priority than in previous programmes, whereas the measure with the lowest impact on employment (infrastructure), has a higher priority.

Does this imply that generation of new jobs has been given lower priority than before?

Not necessarily.

In the first place, it may be argued that job creation appear as the first selection criteria within each measure. Perhaps the low rating of some of the measures in the evaluations is due to a wrong selection of projects and can be be improved?

This hypothesis can not be verified through the mid term evaluation results however.

Furthermore, these priorities may be seen as an attempt to overcome what is perceived as

long term regional problems, rather than contribute to short term job creation through investments in existing technologies and markets. Maybe these priorities have a long term efficiency which is not reflected in the indicator referred to above? The basis of the priorities is qualitative references to evaluations, where problems connected to knowledge and leadership frequently are focussed. However, beyond these qualitative references, indicating a positive effect of knowledge and leadership training on job creation, no documentation is referred to in the program of the alleged long term efficiency of these measures compared to other measures.

The only reference to this problem in the mid-term evaluation is a statement that

"..investment projects give their full effect over a short term, while knowledge projects have a longer time horizon. Whether or not it is realistic to expect the same efficiency (effect pr invested crown) is not to be discussed further here." (Cowi, october 1996, page 23 in the Danish version).

This long term efficiency of knowledge projects is, however, one of the basic assumptions of the globalization Strategy. It should definitely be discussed further, through the development of indicators which measure long term effects of different measures, allowing for a new analysis of efficiency. Measurement of long term effects would imply new and improved ex post evaluation designs.

Some of the projects improve the efficiency of the firm, and thus lead to reduced employment. It may be assumed that improved efficiency and reduced employment may improve the competitive situation of the firm in the short term, which may then lead to growth in employment.

However, these long term effects are not measured. Thus, another basic assumption behind the Globalization Strategy is not tested empirically. We are instead asked to accept the Strategy by disregarding the results of the evaluations.

These problems indicate that the ex post evaluation indicators may be invalid as a basis for assessing the Strategy. In other words, there may be an inconsistency between the ex post evaluation and the analysis of the new program. This calls for a new design of ex post evaluations. The Globalization Strategy should be tested by evaluations which measure long term effects by valid indicators.

Paradox no 2: The dynamics of the existing industrial complex is not considered a basis for local development.

The focus on "globalization" is specified in a direction where the knowledge basis of local industries is formulated as a main problem. Thus, the Strategy opens the agenda of the interrelation between knowledge in institutions of education, science, and consultancy on one hand - and knowledge in industry on the other.

At the same time, however, the analysis does point out that existing industries are both innovative and have demonstrated a remarkable industrial dynamism, through the dynamic interrelations between different industrial branches. This perspective, which is introduced

and discussed in the SWOT, and forgotten in the formulation of the Strategy, indicates that local exchange of knowledge between industries is an important source of innovation. It is also documented in the SWOT that industries in the area do not lag behind other industries as far as capacity to innovate and change is concerned (page 71), despite the fact that the private industries do not buy external consultancy and research in the same degree as others.

In the section where the Strategy of Globalization is presented, however, the main barrier to innovation and change is claimed to be in the lack of contact between research, education and consultancy on one side, versus production industries on the other. It is the formulation of this Strategy that is the basis of the measures. With the Plan's focus on globalization, does it overlook a local growth potential? Is there a possible source of innovation and growth embedded in the dynamism of the local relations between existing industries, which is not taken into due consideration as a positive basis of growth and new job creation in the programme?

In the SWOT, it is pointed out that primary industries were historically an important basis for innovation and development in mechanical and electrotechnical industries. Are these dynamic local or regional interrelations between industries just a thing of the past?

In the mid - term evaluation (Cowi, Mid-tern Evaluation of the Objective 2 Program, final report draft, October 1996), it is pointed out that export to other parts of EU is growing at an impressive rate, with 90% from 1988 to 1994. Surely, this is a strong argument for the Strategy of globalization. But perhaps there are local preconditions to this impressive result which are overlooked.

If dynamism of regional inter-industry relations were to be taken into consideration, that would imply an emphasis on the strengthening of the regional industrial market, through for instance, support to regional user-producer relations. In the present formulation of the Strategy and the measures, 1.1 is relevant in this respect. Consistent with the Strategy of globalization, the only reference to user-producer relations is found in the sub-priority of "strengthening of change (omstilling) and cooperation", where "development of customer - supplier relations - also with foreign partners" is mentioned (page 108). This is consistent with the main theme of the Plan, which is to break with limitations to local markets and go for markets with international competition. However, in the literature on user-producer - relations, certain qualities of regional relations are mentioned, which perhaps are not completely obsolete, even in a globalized world where relations increasingly do become international.

For instance, it may be argued that successful export firms may rely on a local network of suppliers. It may be to the advantage of the exporting firm if one of its suppliers develops export activity of its own, if that implies that the services and products improve in quality. But perhaps the impressive achievements of local industry in developing more export to other EU countries to some extent is a result of cost efficient local suppliers? Perhaps this cost efficiency is a part of a business strategy which excludes export as a strategic option for these suppliers to export firms? The impressive export results may in other words be seen as achievements of a regional economic system which includes a number of businesses which focus only on their local markets. If so, promoting export among more local firms is a well founded strategy. But trying to promote export from every single firm, may, we fear, in

some cases prove to be killing the goose, in this case the local, low cost supplier, which lays the golden eggs. We do not find any data or analysis in the mid term evaluation which contradicts such an objection. The central argument in the mid-term evaluation indicating that export should be seen as a general strategy, is a reference to Eirik Vatne (NordREFO 1994:7, referred by COWI, page 28 in the Danish version of the mid-term evaluation). On a closer reading of Vatne, there is nothing substantial in his article to indicate that local, cost efficient user - producer relations supporting export industries are a thing of the past.

Trying to be competitive in a local market through cost efficiency is not necessarily a choice of action which indicates a leadership problem; it may simply in some cases be a well founded strategy for the firm in question, as well as beneficial to the region's export potential.

What we would like to ask for is a somewhat more diversified approach. It might be a good idea to regard local user-producer relations as an integrated part of the main Strategy of Globalization, and, hence, to support projects where these relations are developed.

Paradox no 3: Knowledge is a major priority, but consistency with educational policies is not taken into consideration.

A central problem in the formulation of the Strategy is the relation between industry and institutions of education, research and consultancy.

The contemporary disembedding of knowledge in institutions of education and science from industry may be seen as a result of educational policies removing training and craft education from industry into separate educational institutions. If so, the Strategy should relate not only to the incapability of industry to utilise knowledge from the educational system, but also to possible failures in the national educational policy, reflected in the present limitations of these institutions in serving the needs of industry.

Education is discussed in the SWOT (page 59-62). However, threats and opportunities emphasized here are primarily those of the industries' relation to education. An alternative approach would be to discuss possible needs to reform the educational system, providing a greater degree of integration between work, on-the-job training and education. However, possible inconsistencies between national educational policies and the strategy of the Plan are not discussed.

Paradox no 4: Structural barriers to the strategy of globalization are not considered.

The "horizontal" focus chosen in the definition of the Strategy leaves a number of questions opened by the "vertical" analysis in the SWOT unanswered. A deepening of the vertical approach of the SWOT may have contributed to the identification of structural limitations to the realisation of the Strategy.

One example: There are structural barriers in the European food market, preventing the development of fish processing industries through innovation and restructuring. These limitations are made explicit through interviews carried out by our institute with local industrial leaders, indicating that they are stuck in their present market and

technological position by structural barriers, not lack of knowledge or leadership resources, as the Strategy of globalization implies.

Paradox no 5: Leadership in existing industries is considered a problem in the Plan, but leaders of local industry do not agree.

Improvement of leadership as a means to obtain innovation and change and thereby globalization, is introduced as a theme in the SWOT, and followed through the Strategy discussion into measure 1.1. The documentation backing the alleged need for better leadership is several qualitative evaluations.

However, in an attachment to the SWOT, there is a table 3 referring to answers from industrial leaders on the question

"In order to get your firms assessment of what kind of initiatives may have a positive effect on employment and production development, you are asked to indicate 3 measures which may strengthen the development of your firm"

"Leadership development" was the category of measure which got the lowest score (page 79). The second and third lowest were also priorities in the Plan, "improved export" and "market development".

In table 4, the respondents are asked to indicate

"What kind of business development will be particularly beneficial to your firm?"

Here, the three categories with lowest score are "administrative assistance", "consultancy" and "leadership development".

It may be argued that the inability of industrial leaders to see the problems defined by the Strategy, may indicate that the problem of leadership addressed in the program is really deep.

This is a third generation program. The partnership is well organized and developed. There is no reason to question partnership support behind this Plan. However, despite partnership support, these results may seem to question the degree of support for the Strategy among local industry leaders in general.

One might ask how this is taken into consideration in the implementation of the Plan?

In summing up our critical comments, which by no means contradict the main focus of the Globalization Strategy, we would like to ask for a somewhat more "grounded" approach, where the rationale of local industrial leaders are taken into consideration. Several of the local industrial leaders who follow cost efficiency strategies in local markets and perceive structural barriers in export markets as high, may simply be right in doing so. What is more, they may contribute in a valuable way to the functioning of a regional production system which explains the success in export growth.

## 6. NEED FOR ADDITIONAL INFORMATION

Following the points we made above, the Commission could request additional data on the following subjects:

- 1 Empirical quantitative analysis (ex post evaluations) comparing long term efficiency of knowledge, infrastructure and physical investments in creating new jobs.
- 2 The potential of supporting the dynamics of the existing industrial complex should be reexamined, in light of the vertical analysis hinted at in the SWOT, and the lack of support from local business leaders.
- 3 The interrelation between the Strategy of Globalization and national educational policies should be discussed. How can educational policies and institutions be reformed in order to enhance the achievement of the objectives of the Plan?
- 4 Analysis of possible structural barriers to globalization in the main regional industries, such as food industry, electrotechnical industry etc should be made. Possible implications of these structural barriers to the Strategy of the Plan should be addressed.
- 5 If the four measures are called priorities and the 15 sub-priorities are called measures, there is a need for more specified financial data, quantified indicators and expected data for each measure level.

## 7 MAIN RECOMMENDATIONS

The Plan should be reexamined in the light of the additional information requested above.

Pending on the result of such a reexamination, the Plan should be accepted as an opportunity to test an elaborated theory of Globalization. Due to the advanced theoretical level of the Plan, the result of this test may have a potential general interest, outside North Jylland itself. This test should be the focus of the ex post evaluation.

## 8. INTRODUCTION: LOLLAND

The Regional Development Plan comprises 9 municipalities with a total of 67.000 inhabitants on the island of Lolland, which is a part of the Storstrøm region in the southern part of Denmark.

Previous programmes are two START programmes 1988-92, RENAVAL 1990-93, STRIDE, INTERREG 1992-93, INTERREG II 1995-99 and three Objective 2 programmes, for 1989-91, 1992-93 and 1994-96.

The Plan refers to evaluations of the programmes START, RENAVAL and Objective 2

1989-91. Because of the very limited time available for this assessment, we have not yet received the evaluation reports from the Commission.

The Plan has a budget of 41.85 MECU for the period 1997-99. Of this, 11.05 MECU, or 26.4% of the total, is contributed by the Structural Funds. The national public sector contributes 26,5% and the private sector 47,1% of the total SPD. EU assistance per head is equal to 165 ECU.

This appraisal was started on October 15., when we received the Plan in Danish. We have been responsible for the translation into English.

## 9. OVERALL ASSESSMENT

This is a third generation Objective 2 Plan. The Regional Development Plan for Lolland is of high quality, both analytically and technically. It is based on previous programmes and evaluations. The document has a clear and simple structure, with priorities and measures well adjusted to the SWOT. The Plan is internally coherent, and there are indicators and quantified expected outcomes for all measures. However, only general statements have been made on coherence with Danish and European policies. The version of the Plan we received contains no discussion on additionality, only a statement that data from the previous Objective 2 programme will be updated.

#### **Socioeconomic Analysis**

The socioeconomic analysis clearly illustrates the structural characteristics of the Objective 2 area in terms of population development (decrease), industrial structure (including historicaties to agriculture and ship-building), the unemployment rate (higher than the Danish average), the level education (lower than the Danish average) and level of income (13% lower than the Danish average). Lolland is compared to Storstrøms Amt and Denmark. Employment/ unemployment is discussed in relation to gender. Physical and "soft" (knowledge) infrastructure is reviewed.

### The SWOT analysis

The SWOT analysis discusses strengths and weaknesses:

- The strong elements are Lolland's well organised and stable labour force, a well developed consultancy system for businesses, a strong industrial tradition in the metal industry, good conditions for agriculture and tourism, good strategic location, and a well developed transport infrastructure.
- Weaknesses are the dependency on industries in traditional sectors, on-going structural changes, a large number of SMEs without tradition for developing activities, lack of highly skilled labour, and the lack of R&D activities and institutions.

There is no systematic discussion of opportunities and threats. However, potentials are

identified in three parts of the processing industries: in the metal industry where there are a number of strong sides, in electronics, and in the food processing industries.

An *additional threat* may be mentioned: Because of the major changes in the transport networks in Denmark, Lolland's place in the transport corridor between Scandinavia and Germany may be changed. Today, a large part of the freight and passenger traffic by rail and road goes over the Rødby-Puttgarden ferry connection. With the development of the Storebælt-connection, Lolland's position can suddenly change and the island coming to lie outside the main traffic streams. This will certainly have negative impacts on the service sector. It will probably also lead to a need for change in the strategy for developing tourism.

It may be argued that this threat is outside the time horizon of the Plan.

#### Environment

The Plan offers a satisfactory review over the environmental situation in Lolland. The quality of the water is said to be crucial for the development of tourism in Lolland. This quality varies. The sea and subsoil water are of satisfactory quality, but the rivers and lakes are of poor quality because of the waste water from the surrounding industries. Methods for improving the quality of the water are not discussed.

The Plan also mentions the existence of a national/international environmentally protected area in Storstroem and in Lolland. The regulations for the environment in the Objective 2 area are reviewed. Environmental administration and organisation in Denmark are also discussed, with the focus on physical planning.

The Plan is satisfactory on this point.

#### **Objective and Strategy**

The objective of the program is:

".....to enhance the region's development potential, to widen the basis for business development, to maintain and increase the number of jobs in short and long term, and to increase the income of the region."

#### The strategy is:

"... to develop and utilise the potential of the region and to develop the interplay between the industries of the region and their national and international surroundings."

This strategy is a continuation of the previous Objective 2 programmes. It is directed towards producing both industries and the service sector, especially tourism.

There is a focus on growth, innovation and qualifications in order to heighten the potential for

business development in the region, and the aim is to create motivation for change, so new ideas for development may emerge.

The terms for obtaining support through the objective 2 program are stated. With some exceptions, priority will be given to SMBs.

This list corresponds satisfactorily with EU's demands for the program focus.

### **Priorities and Measures**

The programme has one priority and six measures:

Priority

Business development through the region's potentials.

Measures

Productive	Product	Advice and	Analyses	Strategic	Professional
46% of Plan,	15% of Plan,	4% of Plan,	10% of Plan,	12% of Plan,	10% of Plan,

The Plan has a straightforward four layer structure, with a high level of internal coherence.

The measures lack a quantitative set of indicators related to each measure in particular. At the same time job creation is quantified. The calculation of effects is made according to standard methods.

The measures have the character of a list of priorities for applications.

A review of the 6 measures follows.

### Productive investment

This is necessary because of the special situation for business life in Lolland, which is still characterised by low income, thereby preventing them from making investments themselves. The purpose is to support businesses already in the area and those wishing to establish themselves in Lolland. In the tourist industry, investment is necessary to modernize and raise the standard.

Support can be given to a) new businesses, b) new production initiatives, and c) increase in capacity. Special conditions apply for this last point.

The users of these measures are businesses in the private sector.

Conditions for support are listed later in this report. The main aim is costs connected to change in production relations or new investments. The highest supportive rate can be given to projects which have a developmental potential beyond the project in question. In the tourist industry only modernisation projects can gain support.

Investments in environmental protection beyond governmental demands will be given priority.

These measures are to be financed in the manner stated above.

The goal is to create 150 new jobs during the program period and 350 on a longer term, with 35 enterprises receiving support.

There are expectations regarding environmentally friendly investments.

There is a range of non-quantified aims which will be followed throughout the program period.

### Product development and R&D

There is little or no tradition of R & D activities in Lollands businesses with regard to development and the integration of R & D results in their development strategy. This makes the businesses vulnerable to change in their surroundings and to technological development. The aim is to reduce this vulnerability. There is a need to start activities which aim at achieving a higher level of skill, increase in the number of products, and widen markets.

In tourism, there is also a need for new development based on the area's potential.

In order to achieve the goals, there is a focus on improving relations between institutions and businesses in Lolland and R&D institutions elsewhere in Denmark. The two centres Green Centre and SYD-TEK will play a central role in building and maintaining these relations. The Centres will contribute towards creating projects aimed at using R&D results, promoting co-operation between businesses in Lolland and research institutions elsewhere, and promoting Lolland as an investment area. Priority will be given to increasing the interest for Lolland as an investment area. There is also a list over examples of activities for increasing sales for even very small businesses.

Priority will be given to projects aimed at increasing business skill, to development projects and to establishing co-operation networks.

The users of these measures are private businesses and public institutions in the area.

Conditions for gaining support from Objective 2 measures are mentioned.

The aim is that these measures will produce 25 new or sustained jobs during the period, and 125 new jobs on a longer term, with 30 projects receiving support.

As a result of these measures, one should be able to expect some quantifying of R&D relations, etc.

### Advice and information

The introduction mentions the advisory service in general terms. The general advisory service is adequate in Lolland and has been a priority in later programs. Now it is a part of the established advisory-net. This also applies to the general marketing services, which have been a part of the latest programs in order to encourage new investments in Lolland.

The aim is to make it easier for each company to gain information about new development concerning technology, management, production, etc. The task is to develop the advisory services so that they can meet the individual company's particular needs, such as the need for information of extraordinary character. Support can also be given to strengthen a company's specialised skills for a certain period.

Users are expected to be private companies, public institutions, etc.

Priority will be given to activities which are different to the activities of the advisory centres.

The activities must have a clear and visible goal.

The conditions for receiving support from the Objective 2 program are mentioned.

The aim is to create 10 new/ maintained jobs during the program period and 50 jobs on a longer term, with 12 projects receiving support. There is no aim to produce any environmental effect.

There is no reference to the needs of the users of these measures. This can be a weak point as we know little about the realism in the priorities. The general advisory services are claimed to be a success, but the need for advisory services directed towards companies should be mentioned. *Analyses* 

Companies in Lolland are traditionally bound to the firms that buy their products. There is a lot of sub-delivery. This is the reason why very few firms have any experience in export related activities. This includes analyses of new markets and analyses of the profitability of any new products. In earlier programs, several market analyses and feasibility analyses have been

carried out which have revealed new markets and the potential for new products. There is still a need for analysing activities, both with regard to single firms and business sectors.

There have also been analysing projects concerning the tourist industry that have led to development in this sector, even though activity has been rather low. This is expected to increase during the period of this program.

The aim of this measure is to reveal the potential in companies for gaining access to new markets, and to help them to judge the profitability of introducing a new product. The support will be concentrated on market analyses and feasibility analyses for single firms, and broader analyses for business sectors.

The intention is to achieve a better situation for starting developmental activities. The measure is meant to increase knowledge, lead to a broader spectre of products, and expanding markets for firms in Lolland.

Also mentioned are a lot of examples of activities which can gain support from the program. Among these are co-operation between the public and private sectors, and pre-studies of the possibilities for bringing new activities to old industrial areas.

The measure is directed towards private firms, public institutions, etc.

Priority will be given to the analyses mentioned above, but projects which are a part of a larger restructuring program will be given specially high priority. In the tourist industry, support will be given to projects aimed at lengthening the season.

Conditions for receiving support from Objective 2 measures are mentioned.

The effect of this measure is stipulated to 15 new or saved jobs during the period, and 35 jobs on a longer term, with 30 projects receiving support. Some of the projects are expected to be directed towards matters with a positive environmental effect. There will be continual supervision of a lot of aspects during the program period.

## Strategic infra-structure

This measure is established because of the need for the modernization of old decayed industrial areas, to bring new firm and production to Lolland. There is also a need for new localities among the firms already in Lolland, and for raising the standard of the tourist industry.

The measure is also expected to support the establishment of modern information and communication systems that will secure development in Lolland's businesses. It is also expected to lead to increased interest in Lolland as a place for establishing new production and development of the tourist industry.

There are five sorts of infra-structural investments which can gain support. Two are directed towards tourism, and two are directed towards new and existing production firms. This includes projects concerning general conditions and concrete projects. The last is directed towards R&D infra-structure projects that will strengthen communications and information systems.

The users are public authorities, independent institutions and semi-public institutions.

Priority will be given to projects directed towards tourism, and which have an effect for the whole area as such. The projects must also have a positive effect on settlement in the area.

Financing is mentioned.

The effect is stipulated to 20 new/ saved jobs during the period and 30 new jobs on a longer term, with 20 projects receiving support. No environmental effect is expected. A range of aspects will be supervised.

## **Professional education**

The aim is to strengthen business development by securing and developing human resources. This can be done through co-operation with outside partners such as universities and their research departments. During the last program period the effort towards professional education supported the strategic restructuring in single firms. Projects must be directed oriented towards single firms and their needs.

There are several activities which can gain support; 10 are mentioned, including various initiatives regarding up-grading and further education also directed towards leaders and teachers. It also includes various uses of knowledge and special projects for leaders.

The users are educational institutions, independent institutions, private institutions etc. Educational activities may be carried out for workers, leaders, unemployed workers, and workers threatened by unemployment.

The target group is employers in industry and the service sector (ca 27 000) and the unemployed (ca 5.300).

Priority will be given to projects which aim at expanding the basis for business development, and thereby create or save jobs. Demand oriented projects directed towards continued development of qualifications will have priority.

Activities for 400 people are expected to be carried out. There will also be supervision of the development of several other conditions. *Technical support* 

The aim is to secure the accomplishment of the program. Technical support includes: secretariat for support groups and the ongoing administration of the program, information and brochures, etc, the purchase of external support, evaluation tasks, and conferences.

All measures will run throughout the program period 1997-1999.

All measures except technical support mention responsible authorities.

## 10. KEY STRENGTHS OF THE PLAN

This is a third generation Objective 2 Plan. It is based on previous Plans and evaluations. The document has a clear focus (SME development) and a simple structure with good internal coherence. Priorities and measures are well adjusted to the SWOT. There are quantified indicators for the expected outcomes for each measure. The computation of estimated effects follow standard procedures.

## 11. KEY WEAKNESSES OF THE PLAN

Priorities made in this Plan compared to the previous one, are not substantiated by reference to quantitative measures of **efficiency** made through evaluations. Instead, reference to evaluations is made in terms of **effects**, which are discussed qualitatively. In that way, the Plan does not open itself for assessment of its priorities in relation to the objective to create new jobs.

- A priority is made of knowledge development. At the same time, it is pointed out that the existing educational level is low in the industrial sector. One gets the impression that there must be a national labour market dynamics at work here, which channels people with education out of Lolland to more central parts of Denmark. The focus on knowledge is to a large extent directed towards existing industries. Thus, we expect that these measures may benefit segments of the population with relatively low geographically mobility. Even so, attempts to improve knowledge may have an unintended consequence: if people who benefit from measures to increase knowledge qualify and move to jobs in central regions, educational measures may speed up out-migration. To what extent does knowledge development actually benefit Lolland? A somewhat more sophisticated set of ex post evaluation indicators is needed to answer this question.
- This is a third generation Objective 2 Plan. We expect that the partnership is well organized, and that the Plan has local support. However, several measures depend on

cooperation with private industry. The Plan does not refer views of business leaders to substantiate their support (nor to any partnership discussion). In fact, the Plan says that most applications in the previous programme period were for productive investments, suggesting that the businesses themselves did not acknowledge their need for knowledge and new technology.

- We miss an analysis of the relation between the Plan's focus on knowledge and educational policies, and the structure of the institutions for education in Lolland. Is there any need for reforms in these institutions, to improve their business contacts?
- It may be argued that possible consequences of the changing transport patterns in Denmark following the opening of the new Storebælt connection are well beyond the time horizon of this Plan. However, we miss some reflexions on long term perspectives on this change, and its implications to tourism and services in general.
- The analysis of gender, in terms of equal opportunities, is not backed by any analysis of the labour market. Gender impacts of the program remain in the dark.

## 12. NEED FOR ADDITIONAL INFORMATION

Following the points we have made above, the Commission could request additional data on:

- 1. Empirical quantitative analysis comparing **long term** efficiency of knowledge, infrastructure and physical investments in creating new jobs. Is knowledge and infrastructure really more effective in creating new jobs than physical investments in the long run? The ex post evaluation should address that question.
- 2. The interrelation between the Strategy and national educational policies should be explicated. How may educational policies and institutions be reformed in order to enhance the achievement of the objectives of the Plan?
- 3. The Strategy should be seen in relation to a deeper analysis of the national labour market in terms of migration, gender and education.