

# Close to the wind!

## A European strategy for the (top)sectors in the Netherlands

### Background and request for advice

European policy has developed apace over the last decade. The Lisbon strategy launched in 2000 was replaced in 2010 by a new strategy, Europe 2020, in which the role of research and innovation is more pivotal than ever. That research and innovation strategy was developed as part of one of Europe's flagship initiatives, the Innovation Union. With the Innovation Union strategy the European Commission aims to stimulate and accelerate innovation in Europe and simultaneously remove barriers that are preventing the best ideas from reaching the market quickly.

The formation of a new government in the Netherlands in 2010 caused a change of wind. The government opted for topsectors to boost the competitiveness of the Dutch economy, by designing a comprehensive policy agenda for the top nine sectors, which were identified as Water, Food, Horticulture, High Tech, Life Sciences, Chemistry, Energy, Logistics and the Creative Industry. Developments in both European and Dutch policy prompted the Minister of Education and Scientific Research and the Minister of Economic Affairs, Agriculture and Innovation to ask the Dutch Advisory Council for Science and Technology Policy (AWT) to advise on "European and Dutch research and innovation policy". The two main questions in this request for advice are:

- What are the visible trends and developments in European research and innovation policy and what impact will they have on the Netherlands?
- How can the Netherlands best respond to changing policy context at European level to ensure that European research priorities and Dutch priorities keep matching?

### Structure and approach of the advice

The advice of the Council starts with an overview of key developments and trends that are relevant to Dutch and European research and innovation policy. It does so against the background of a number of important challenges such as the economic crisis, globalisation and a paucity of private investment. The new European 'Innovation Union' policy aims to tackle these challenges and to enhance the competitiveness of Europe in relation to emerging economies as those of the BRIC countries. In this context, the EU believes that research and innovation can be used not only as a means of tackling major social challenges but also as a way out of the downward spiral of the economic crisis. New to this European policy is the added emphasis on knowledge utilisation and innovation. This shift may alter the desirable approach of the Netherlands to European policy. The Council then analyses the basic principles for the Dutch position in Europe and sets out the opportunities and threats of various policies under the Innovation Union for the top (and other) sectors. From this analysis, the Council draws conclusions about the relationship between the use of Dutch and European policy to strengthen Dutch and European sectors.

### Opportunities and Threats

In the Council's view, European policy must be used to stimulate three kinds of priority areas for research and innovation at national level, namely economic (topsectors), societal and scientific.

European policy provides opportunities for these priority areas to create greater mass (by using European funding as leverage) or to gain more focus (by linking national and international priorities). But European policy not only offers opportunities, it can also pose a threat to the Netherlands. It may cause a drain of knowledge workers but also of top clusters and even major infrastructures. It is therefore important that the benefits of a particular European policy for the Netherlands are assessed properly and it is helpful to use an assessment framework to do so with consistency. Assessment of the Dutch position is one of the most important evaluation criteria.

### **Stronger and weaker profiles**

The different sectors vary in their economic structure, innovative capacity, share of the SME, geographic concentration, knowledge base and many other factors. In the Council's view, the knowledge base and innovative capacity are particularly important. The Council distinguishes between four different types of sectors with:

1. a strong knowledge base and strong innovation activities;
2. a strong knowledge base and weak innovation activities;
3. a weak knowledge base and strong innovation activities; and
4. a weak knowledge base and weak innovation activities.

The Council stresses that none of the nine topsectors would normally fall in its entirety under a single profile. Each topsector is divided into subsectors that can be qualified differently. Opportunities and threats can manifest themselves differently in subsectors with disparate sector profiles. Sectors with a strong knowledge base, for example, can benefit from strengthening the position of the European Research Council (ERC), the European Institute for Innovation and Technology (EIT) and the implementation of the ESFRI agenda for large pan-European research infrastructures. Generally speaking, European policy which focuses on human capital (free market of researchers) and the knowledge base can have a particularly positive effect on these sectors. The Smart Specialisation policy at European level is also an opportunity for these sectors, especially where there is a link to strong, regionally clustered innovation activities. A weak knowledge base makes it difficult to benefit from European policy and these sectors perform poorly in the European league tables. This is why it is crucial for effective performance in European policy and the ability to use European policy as leverage that the knowledge base is maintained at national level.

A sector with strong innovation activities can turn the increase in European policy focus on knowledge use and innovation to its advantage. A single European (innovative) tendering market, emphasis on non-R & D driven innovation and more innovation-friendly regulation provide opportunities for these sectors. Tenders in these sectors, for example, will be awarded more easily to the Netherlands. But here again, the effects of European policy vary between the different sectors. Sectors with weak innovation activities will derive significantly less benefit from either the European tendering market or from the emphasis on non-R&D driven innovation and innovation-friendly regulation.

### **Recommendations**

The Council attaches great value to investment in knowledge and research. If the Netherlands is stronger it will contribute to a stronger Europe. Excellent Dutch knowledge and innovations in European networks will strengthen European competitiveness. Deploying these strengths will also give the Netherlands the best chance of attaining a good position in European league tables and European policy will in turn contribute to bolstering Dutch strengths. It acts as leverage. However, success in and with Europe is not always easy; each of its 27 member states has its own priorities. But with some skilful navigation, the Netherlands can benefit greatly from European policy. The Council has made five recommendations to the Dutch government on how to gain the most advantage from the leverage of European research and innovation.

### *1. Strengthen Europe's position in the global arena.*

Contribute fully to strengthening the position of Europe as a whole. The Netherlands will benefit. Knowledge and innovation are the way to reverse the downward spiral of the economic crisis, restore European competitiveness, thereby enabling Europe to withstand global competition. The first requirement is an increase in European funds for research and innovation. In addition, the position of Europe must continue to be strengthened by increasing focus and mass at European level. Europe must develop sectors that are world-class and the Netherlands can best contribute to this by bringing its own strengths in respect of knowledge and/or innovation into European policy.

### *2. Use European resources strategically as leverage for national policy*

The Dutch government must be more strategic in its approach to EU policy.

The three most important principles:

1. Use European policy as a lever to create more focus and mass at national level. In this context, national priority areas must be propounded forcefully in European discussions. European policy will offer opportunities if our priority areas are well represented on the EU agenda.
2. Take advantage of the opportunities offered by the European policy focus on knowledge utilisation and innovation. This will mean forgetting the traditional principle that basic research is most eligible for European cooperation and that applied research must be funded and encouraged nationally, or even regionally.
3. Speak with one voice and bundle Dutch forces: invest in a strategic domestic dialogue on Europe. As a result the government will be better and more informed of progress in developments within the EU and of the requirements of the industry.

### *3. Align with European societal priorities*

Align with European policy guidelines, namely the societal challenges. The societal significance of research is the ticket needed to acquire European funds. The main focus of Dutch top sector policy is to strengthen competitiveness. Alignment with the societal challenges will be essential if we are to benefit from European funding and expertise and consequently it is important that we define societal priority areas in the Netherlands and make the transition from those challenges that are established at European level to plans for the top sectors. Where possible, use European policy to tackle societal challenges at national level.

### *4. Develop a strategic plan for employing European and Dutch policy in each priority area*

Develop a strategic vision of European research and innovation policy for each policy area and each top sector and all of its parts, with a clear analysis of strengths and weaknesses in the knowledge base and innovation activities. Be aware of the opportunities, but be aware too of the threats. Be mindful that something that might not be good for the Netherlands might still be beneficial for European priority areas. These effects must also be incorporated in the strategic plan.

In addition to setting out a vision for the use of European policy, the plan must also clarify the role of Dutch policy. It must define which areas of European policy the Netherlands should be focusing on and what needs to be tackled within the Netherlands in order to give the top sector or the priority area the best chance of success.

This will mean the following for the four sector profiles:

- EU policy offers the greatest opportunities to sectors with a strong knowledge base and strong innovation activities: For them Europe is a springboard for the global arena. Make sure that these sectors feature prominently on the European agenda, to facilitate their progress.
- EU policy will not be beneficial for the sectors with a strong knowledge base but weak innovation activities. We will have to cast our net wide and manoeuvre carefully. Utilise

Dutch policy to guarantee continued alignment with European policy; it is essential that Dutch and European policy priorities are coordinated. European networking offers opportunities for attracting innovation activities and investment from other countries. However, it is still crucial that generic policies in the Netherlands are also used to strengthen innovation activities.

- The opportunities offered by EU policy are limited for sectors with a weak knowledge base and strong innovation activities. While these sectors can take the 'European' route to further strengthen their knowledge base, Europe is merely an auxiliary engine. Use of Dutch generic policies for the knowledge base is essential if we are to be seen as a stronger competitor in Europe.
- EU policy offers scant opportunities for sectors that are weak on both fronts to reach the top in Europe. Do not prioritise strengthening these sectors at national level. The absorptive power of the Dutch knowledge base and Dutch innovation activities must, however, be maintained. Innovation can often come from the most unlikely places and with the wind at their back, these sectors can continue to grow.

*5. Develop the basic principles of the strategic plan for each individual policy and implement them consistently.*

The strategy proposed here will have implications for Dutch policy and the Dutch position in Europe. It is important that the chosen course of action is implemented consistently in Dutch and European policy, and for each individual policy. The most important basic principles of the strategy for various individual policies are set out below:

- Take advantage of the opportunities of a free market of researchers but protect knowledge effectively if necessary. Create an attractive and accessible climate for knowledge workers from home and abroad.
- Be pragmatic when participating in large infrastructure projects.
- Use the Structural Funds for Smart Specialisation and promote prominent Dutch innovation regions and innovation clusters in EU policy.
- Create complementarity between the Netherlands Organization for Scientific Research (NWO) and the European Research Council (ERC) and avoid duplication of procedures.
- Safeguard the possibilities for co-financing of European programmes. Develop a co-financing fund to guarantee and promote future participation, by businesses or otherwise, in European programmes.
- Ensure that government tendering is specifically targeted, in order to take greater advantage of the dynamics of the sector.