WETENSCHAPPELIJK BUREAU GROENLINKS

GREEN EUROPEAN FOUNDATION

Report expert meeting Green Industrial Policy

Videoconference, May 29, 2020 – 10:00-12:00

Organised by Wetenschappelijk Bureau GroenLinks and the Green European Foundation

Moderated by Robbert Bodegraven (director of Wetenschappelijk Bureau GroenLinks)

Contact:

Evert Nieuwenhuis, project leader Green Industrial Policy

enieuwenhuis@groenlinks.nl / 06-18098831

Bram van de Glind, intern Green Industrial Policy

bvdglind@groenlinks.nl

For more information on the GEF project Climate Emergency Economy, visit

www.gef.eu/project/climate-emergency-economy/

For more information about the project Green Industrial Policy, visit
www.wetenschappelijkbureaugroenlinks.nl/onderzoek/groene-industriepolitiek

Key outcomes

- Becoming 100% CO2 neutral is regarded as theoretically possible. For the scenario's that include CCS and CCU it is a major challenge to get these technologies cost efficient early enough.
- Reaching complete circularity is regarded as a more complex and more challenging objective. There is a lack of available quantitative data on circularity. Green innovation and related policy frameworks are only marginally focused on circularity, all focus goes to cost reduction and scaling.
- The panel was hesitant on whether the government should actively promote certain technologies. Instead, it might be better to help upcoming technologies by creating a market for such new technologies. For example by pricing 'old' technologies.
- Infrastructure development is key for the transition and the government has a role here. For industry to change production processes it requires the government to make certain infrastructural choices first.
- Industrial symbiosis involving the steel, chemistry and building sectors has a lot of potential in reducing emissions and becoming more circular. It would require strong government intervention and investments to make such a project happen, the step is too big for industry alone.
- Looking at current Dutch climate policy, the government leaves too much power and responsibility to industry. The government should be more dominant and take a more prominent role in setting the goals and envisioning what the industry should like.
- Coordination between the different policy levels from regional to national to the EU level is essential.
- A successful regional industrial cooperation with Germany and Belgium could serve as a key example for the rest of Europe and perhaps the rest of the world. Hydrogen and carbon infrastructure could be an important part of this cooperation.

Setting the context

On May 29th, 2020, the Green European Foundation (GEF) with the support of Wetenschappelijk Bureau GroenLinks (WBGL) organised an expert meeting on green industrial policy in the Dutch context. The expert meeting took place as part of the GEF transnational project Climate Emergency Economy and a comprehensive project by WBGL on green industrial policy. A group of thirty participants, among which researchers from various disciplines and research institutes, as well as politicians from the national and European level engaged in a fruitful discussion about the potential of green industrial policy in the Netherlands. The Chatham House Rules applied.

To give the discussion a head start, a discussion paper was distributed among the participants in advance, describing the context more specifically and outlining a vision for the future of the Dutch industrial sector. In this setting, the focus is on the 300 companies and installations falling under the European emissions trading system (EU-ETS). The main objective is to transform the industry towards being CO2 neutral and 75 percent circular by 2040, and reaching complete circularity in 2050. Such an industry should contribute to broad prosperity and therefore respect planetary boundaries and create jobs, income and useful products.

The discussion was led by WBGL director Robbert Bodegraven and evolved around three themes; (1) which industries have a future in the Netherlands? (2) the role of the government and (3) from regional, to national to European approach.[1] For each of the themes a related statement served as the starting point of discussion (the statements don't necessarily reflect the opinion of WBGL or GEF). The remainder of this report will summarise the outcomes of the discussion along the four themes.

1. Which industries have a future in the Netherlands?

The discussion on which industries might have a future in the Netherlands, evolved around the following statement: *"With the exception of the petroleum sector (refineries), the entire Dutch industry can be 100 percent neutral and circular by 2050. This is possible both in theory and in practice."*

Climate neutrality

In terms of becoming 100 percent climate neutral, there was to a large extent consensus that this is possible in theory, since the technologies are there. However, the panel pointed at several severe challenges when considering the practical implications. In the first place the inclusion of carbon capture and storage (CCS) and direct air capture (DAC) in various future scenarios was perceived as challenging. Doubts were raised on whether these technologies become cost effective early enough given the long-time scales such innovation processes generally take. In addition, the panel pointed out that public acceptance is a crucial precondition for these technologies to even be considered part of the solution. Given these uncertainties, a strategy that relies on CCS involves serious risks.

Second, several participants pointed out that it remains unclear who is going to pay for the transition, who will make the required investments and who is going to bear the financial risks. One participant

[1] This outline slightly differs from the one sent in advance to the participants, since it was adjusted during the meeting to match the development of the discussion properly.

highlighted this by saying that ‘it is always more costly to invest in a new installation, than it is to keep the old one’. In order to make a transition happen, a more concrete idea on how to deal with the economic and investment dimensions is considered as key.

Circularity

Although the panel to some extent supported the possibility of becoming 100 percent CO2 neutral, much more scepticism was expressed with regards to becoming circular. A first identified problem is the lack of available quantitative analysis on the issue. Second, when it comes to green innovation, there is little attention to circularity, ‘all focus goes to cost reduction and scaling’. This might pose a future challenge for technologies such as electrolysis which require rare materials such as iridium and platinum. Third, the feasibility of 100% circularity in a growing economy was questioned. With this in mind, a participant pointed at the need to embed a plan for a circular industry in a broader economic strategy which also addresses the consumer demand side. Bringing these issues together, there were severe doubts on whether a 100% circular industry is a realistic goal for 2050.

At last, the panel pointed at a few important considerations. First, the crucial role the government has in developing infrastructure. For new technologies to scale up, infrastructure is required. Companies are hardly able to provide this themselves, so there is an important role for governments. Second, a suggestion was made to measure the success of a green industrial strategy by measuring the share of green industry as a part of all industry in the Netherlands.

New technologies

The following statement was central in the second part of the discussion around the future of the Dutch industry: ‘*The Netherlands must not only phase out industry that is not sustainable and convert existing industry, but also build new, sustainable industry. The best candidates for this are electrolysers (which split water into oxygen and hydrogen, using electricity) and biotechnology.’*

The panel discussed the extent to which the government should choose for specific technologies. The panel was hesitant to back a strategy supporting specific technologies. One panellist argued that a strategy going for a specific technology such as electrolysis carries a severe risk of being outcompeted by another country such as Germany. A better strategy is to focus on changing the demand side and creating markets for emerging technologies. By doing so you create incentives for Dutch industry to deliver these products. In addition, it was emphasised that electrolysis is not just one project, but that the approximately 300 Dutch companies working on electrolyzing technology together should be regarded as an ecosystem. Each company plays its role. Supporting this ecosystem, for example through stimulating demand, is regarded as key.

Some panellists made arguments for more generic measures. One panellist emphasised the importance of a generically attractive investment climate in order increase the chance that the electrolysis industry lands significantly in the Netherlands. A second panellist stated that it is far too demanding to ask a government to already give a clear vision on what industry should look like in 2050. Instead the government should only set the target, give the conditions by instruments and then let the industry figuring out how to do it.

Old industry

In terms of phasing out and converting existing industry, several important points were raised. At first one panellist pointed out that electrolysis and biotechnology are no alternatives to chemistry and steel. Supporting the development of such new technologies does not automatically solve the problem of the chemistry and steel sectors. A panellist acknowledged that an easy solution is to simply phase out polluting industries, much more challenging is to make these industries sustainable. Again, an emphasis was put on the importance of a good investment climate. In addition, infrastructure was put forward as crucial.

Strategic choices

One panellist stated that it is important to realise that choices regarding infrastructure investment depend on strategic industrial choices that need to be made first. For example, reducing emissions from fertiliser production can be done in different ways; each requiring a different type of infrastructure. A strategic choice for continued use of natural gas as an energy source for production, but in combination with CCS, requires carbon infrastructure. a strategic choice for production with green hydrogen powered by offshore wind energy requires hydrogen infrastructure. Finally, a strategic choice for relying on foreign hydrogen production requires at least ammonia infrastructure, since hydrogen transformed into ammonia is a safe and efficient option for transport and storage. It was debated whether both industry and the government are already in a position to make such choices. A plea was made to initiate this dialogue between government and industry to start the decision-making process for these choices. Again, the international dimension was put forward: ‘The question should be: which role can the Dutch industry play in a future global material system that should be more green and more circular’.

Industrial symbiosis

Perhaps the most concrete green industrial policy proposal that was brought forward in the discussion, is a combined strategy for the steel, chemistry and building sectors in the form industrial symbiosis. Several panellists agreed that this approach has a lot of potential: ‘If you put the three of them together around the area where now Tata steel is, you can make that without emissions.’ There was to a large extent agreement that such an approach is possible, and that the Netherlands has the capacity to make it happen. However, it would require large investments and risk taking from the government. Nationalising Tata steel, or at least having stronger government intervention, was put on the table.

In a response, questions were raised on the economic viability of this specific industrial symbiosis suggestion. ‘You can actually reach a lot, and you can also be there fairly economically viable, but it needs breakthroughs as well… there’s a need for support for that.’ The problem of a lack of economic viability and too much risk prevent companies from taking such big steps, so there might be a role for the government there. One panellist questioned whether IJmuiden is capable of successful industrial symbiosis, when as long as other European steel factories are not doing it, they risk being outcompeted. In addition, another panellist warned against the risks of a lock-in and path dependency. Finally, there was some discussion in the panel on whether full nationalisation is really needed and perhaps other less rigorous plans might be more desirable.

2. The role of the government

The second part of the discussion concerned the role of the government; should the government act purely as a facilitator, or should it be more active by supporting specific industries and technologies? The following statement was debated: '*Dutch industry has too much of a voice in making itself sustainable. The government must define both the goals and the roadmap, the industry only has to follow them. The current role of the top sectors is far too great.*'

Defining goals and finding solutions

The specific roles for government and industry were central to the debate. Several panellists agreed that the government should take more responsibility in terms of setting the objectives. Currently, industry is too dominant in route mapping frameworks such as the Topsectors approach for finding solutions. The government should have the ownership of defining goals and envisioning how the industry should look like in 2050, 'not how we get there, but what should it look like'. In addition, a panellist stated that the Topsector approach puts too much emphasis on innovation, instead 'we really should start implementing stuff we already know'. Then, many different actors together can come up with knowledge and solutions to reach such objectives.

In addition, the importance of democratic legitimation was brought forward. The risks and choices involved should be debated in parliament, according to one panellist. And perhaps more efforts should be made to involve the broader public, and make the discussion around these choices more of a public concern.

Technological choices

Some argued that in order to get to solutions earlier, the government should make certain technological choices. Examples of such choices that were mentioned are CCS, hydrogen and reinforcing electricity grids. By making these choices the government could significantly reduce uncertainty for industry and provide a more stable investment climate. The panellists in favour of technological choices by government argue that we should be willing to take the risks that are involved.

Costs, risks and ideology

The strategy of the current government can be seen as a 'least cost strategy' according to a panellist. The ministry of economic affairs seems to be simply looking for those policies that are the most cost effective. Instead of purely following the market, the government should have a strategy and possibly favour subsidies for certain technologies and infrastructures.

Following up on the notion of a least cost strategy, another panellist pointed at a current divide in ideology across the political spectrum. The question at the heart of this ideological divide is: who pays the costs? Should society as a whole bear the costs, or should it be put on the shoulders of market players? And in addition to that, to what extent should economic sacrifices be made in order to reach environmental objectives? Lastly, it was emphasised that we should, just like now with COVID-19, treat it as a crisis. Instead of just focusing on costs, we should dare to take the bold measures that are required.

3. From regional, to national to European approach

The final section of the expert meeting discussed the various roles and responsibilities for regional, national and European policy levels along the following statement: *'Green industrial policy will only succeed if European policy is in order. National and regional policies are secondary to European, green industrial policy.'* In general, the panel emphasised that coordination between the different policy levels is key.

Possibilities and limitations of EU policy

At first, it was recognised that the scale of the EU as a policy level presents opportunities, for example in dealing with competition issues, but also comes with limitations as it is restricted in the use of certain instruments. A major limitation for the European Commission is that it does not have the power to implement instruments based on taxation. For example, a European carbon tax is not an option at this moment. Therefore, such taxation instruments might need to be implemented at the national level. However, resulting problems of competitiveness were acknowledged. In response, one panellist pointed at a potential role for the EU: 'Making more room within the competition framework in Brussels would be very important'. It might be beneficial for environmental objectives to give national governments more policy space to support and protect certain domestic industries.

A panellist pointed out that the EU might be the accurate level to implement an instrument which targets circularity. The instrument could to some extent be similar to the ETS scheme. A suggestion was made to regulate energy use in the same way as greenhouse gas emissions are currently regulated under ETS.

Cooperation with Belgium and Germany

There was broad agreement among the panel that more strategic industrial cooperation with Belgium and Germany would be highly beneficial. Precisely because certain processes go very slow at the EU level, it would be desired to have a smaller group of countries that show the way forward. There was enthusiasm in the panel for a comprehensive strategy for the combined industries of the Netherlands, Belgium and Germany (for Germany, more specifically the province North Rhine-Westphalia). A successful regional cooperation with Germany and Belgium could serve as a key example for the rest of Europe and perhaps the rest of the world. A suggestion was made for a bilateral strategy with Germany on chemical recycling. In addition, one panellist suggested to form a coalition on carbon pricing. An industrial carbon tax applying on a scale broader than just the Netherlands might reduce the risk of companies moving activities abroad. Lastly, a regional strategy could contain cooperation on infrastructure projects. Cross-border hydrogen and carbon infrastructure could foster innovation and help the required scaling of existing technologies.

On a critical note, some panellists expressed scepticism of such an approach. By pointing at other international infrastructure projects such as rail infrastructure, one panellist warned for the long time scale and coordination problems that are often involved.

Although there was still plenty to discuss, the moderator had to end the meeting since time was up. He thanked all the participants for their contribution to answering the urgent question: how to green the Dutch industry.