

Towards ideal growing conditions for the BioEconomy

Briefing paper for the Dutch EU Presidency

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1. Introduction: Think big and act soon

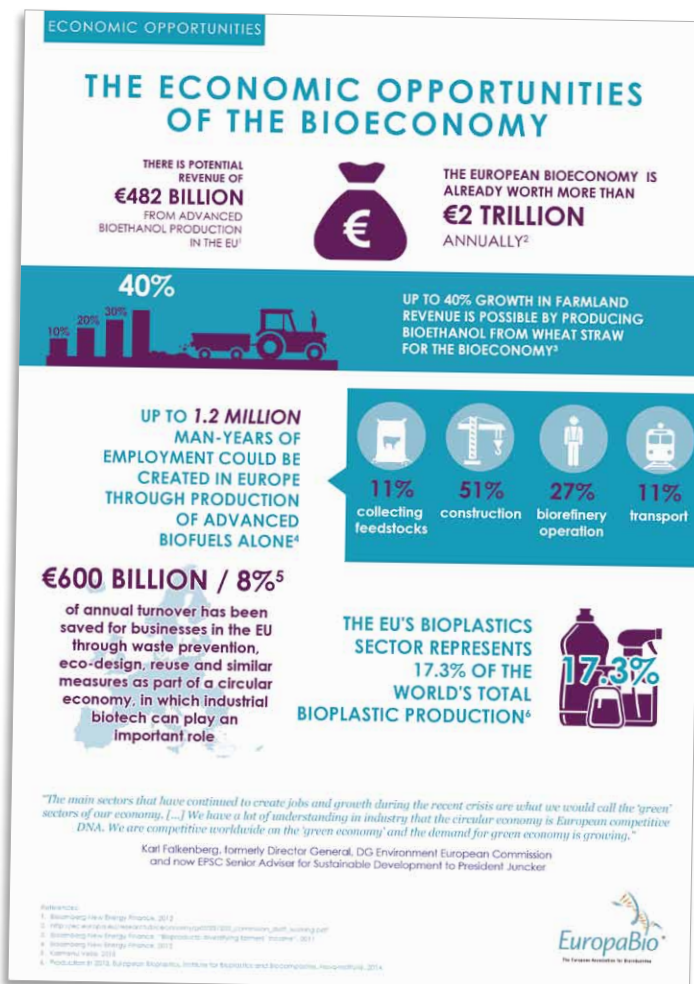
“The world’s current economic model is an environmental “global suicide pact” that will result in disaster if it isn’t reformed. We need Economic Innovation”, United Nations Secretary General Ban-Ki-Moon already said in 2011 during the World Economic Forum in 2011. But only innovation is not enough. We need new business models to sustain economic growth while reducing the impact on the environment. Since the industrial revolution, the rise of the global economy has been dependent on the extraction and use of increasing amounts of fossil fuels. But with the threat of climate change, the growing needs of an expanding global population and pressure on all the earth’s resources, the time to think big and act soon is upon us.

One of these new models is the Biobased economy. To be precise: The BioEconomy encompasses the production of renewable biological resources and their conversion into food, feed, Biobased products and Bioenergy. It includes agriculture, forestry, fisheries, food and pulp and paper production, as well as parts of chemical, biotechnological and energy industries. Its sectors have a strong innovation potential due to their use of a wide range of sciences (life sciences, agronomy, ecology, food science and social sciences), enabling and industrial technologies (biotechnology, nanotechnology, information and communication technologies (ICT) and engineering), and local and tacit knowledge.

This new economic model evolves around how to efficiently use natural resources and biomass for the production for multiple uses. The BioEconomy holds great promise, not only through its potential to make numerous leading EU sectors more sustainable and competitive in a worldwide market place but also for its potential to create jobs. However, for the successful development of an EU BioEconomy, it is of utmost importance to add value and efficiently use renewable raw materials in order to avoid their depletion. Developing the BioEconomy will contribute directly to our transition towards ‘closing the loop’ of resource use and making the transition away from the linear economic model of extraction, use and disposal to a circular economy.

The analysis of the current economic situation shows that the BioEconomy represents a significant share of the overall European GDP and Employment. The BioEconomy is currently worth €2 trillion in annual turnover and accounts for more than 22 million jobs and approximately 9% of the workforce. Despite the importance of the sector at European level, the 28 Member States apply different rules to the use of biomass (crops, agricultural residues, by-products) which is the starting point of the BioEconomy value chains. Similarly many of the BioEconomy end products, such as biofuels or bioplastics, are treated differently in the various EU Member States. More importantly, their fossil equivalents

are not subject to the same levels of scrutiny and control as Biobased value chains. Some essential industrial materials such as plastics currently have market shares of 1% or less. The fossil industry enjoys advantages of scale, infrastructure and habit. While growth rates for Biobased products are steady they remain slow and with the absence of the right political support and measures, markets shares could remain in low single digits in 15-20 years from now, leaving the full potential of the bioEconomy untapped. We need to give the BioEconomy more space in the existing economic models so that its market share and societal impact can increase even further. This would be a welcome development for tackling some of the modern day global societal challenges, such as climate change and dependence on dwindling fossil resources. In light of the aims and binding rules in the fight against climate change set forth in the Paris Agreement that was agreed on 12 December 2015 and the strategy for a wider circular economy that has been presented by the European Commission in December 2015, developing the BioEconomy will be fundamental towards achieving a more sustainable society.



To create new, competitive markets for sustainable renewable Biobased products within the BioEconomy we need:

- to raise awareness of the added value and (sustainability) advantages of Biobased products
- new local, regional and cross border approaches between diverse sectors and stakeholders in the EU (a Biobased Economy ecosystem).
- a legislative and fiscal framework and policy predictability to make the BioEconomy more attractive for private investments and to rebalance the competitive environment in its favour.

In preparation of this booklet, several working sessions have been held with experts and stakeholders in the area of BioEconomy. The ideas, comments and proposals presented by stakeholders during these sessions have been included in the book. Please find the programs of the various working sessions in the annex.

The ideas presented in the paper are meant as a briefing for the Dutch Presidency of the EU that will take place in the first half of 2016. With the circular economy and sustainability as one of the priorities, there will be a good opportunity for the Netherlands to showcase a successful region like the Biobased Delta in order to show the opportunities of the BioEconomy to other European regions.

This booklet discusses how we can work towards ideal growing conditions for the BioEconomy and how we can overcome obstacles in the internal market for the BioEconomy. It also provides recommendations and concrete actions to be taken in order to stimulate the development of the BioEconomy.

2. Ideal growing Conditions for the BioEconomy

Condition 1: Awareness Strategy

The BioEconomy is in need of a boost and in order for that to happen, awareness is necessary. Currently, the level of awareness of Biobased products is rather poor. Along the entire value chain, consumers and producers are unfamiliar with the advantages Biobased products have to offer. Whereas stakeholders are familiar with concepts like recycling and sustainability, “Biobased” does not ring a bell. Besides this, the costs of Biobased raw materials and products compared to fossil fuel based products are typically higher, in large part as a result of low economies of scale. This, in combination with the lack of awareness puts Biobased products into a competitiveness challenge. When considered in the context of the vast subsidies still received annually by the fossil fuel industry and the lack of a need for such industries to meet or demonstrate sustainability criteria, the prospects for emerging Biobased products and markets become even slimmer. This combination of factors causes hesitation to shift the production process from fossil based to Biobased. One example of a project faced with the lack of awareness is the Flemish Coordination Centre for Manure processing and Nutrient recycling. The recovery of nutrients from manure can have both environmental and economic advantages. This is all the more important in light of the rising awareness of the depletion of natural resources and the increasing prices for natural resources and energy. In this context a lack of awareness by farmers of potential for nutrient recycling was experienced. (source: http://ec.europa.eu/research/bioeconomy/pdf/13-case-studies-0809102014_en.pdf)

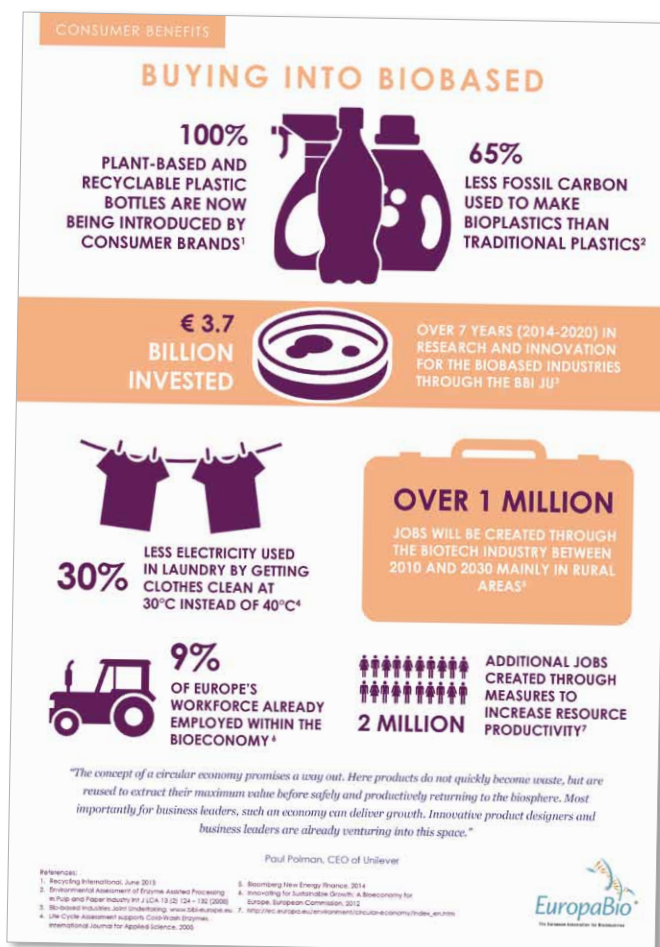
Recommendation

One of the essential steps to boost for the BioEconomy is to work on improving the public perception and awareness of industrial Biotechnology and Biobased products. For a strategy in this regard we are in need of a holistic approach in which all stakeholders along the entire value chain of the BioEconomy are taken into account, since we live in a more and more connected world in which the lines between consumers and producers are disappearing. What is required is a different mind-set of stakeholders. This can be achieved by informing them about the Biobased Industries through for example an EU wide campaign. The aim should be that all stakeholders know about the advantages and additional functionalities of Biobased products, stimulating increased supply and demand for such products, which eventually has a potential positive impact on the cost-effectiveness of Biobased products, thanks to economies of scale.

The process of awareness raising could be improved by the use of showcase examples that can convince stakeholders, but especially future developers

and producers, of the advantages and often local added value of the BioEconomy. In the end developers and producers need commercially successful and competitive industries, so there is no better way of convincing them to shift from fossil based to Biobased than showing them what success the Biobased Economy is capable of delivering. Critically here also, creating trust and transparency at all levels will be key to the success of these initiatives.

In addition to an EU-wide campaign focusing on all stakeholders, there could be specific campaigns focusing on different stages of the value chain. One example would be to have a campaign focusing on encouraging the inclusion of biobased criteria at the stage of public procurement. This could focus on the development of an information kit for procurers to use, containing information on the benefits, sustainability profiles and suppliers of Biobased products and materials on the market.



Actions:

- Decide on how to create a campaign or action plan to raise awareness.
- Generate examples of 'easy to grasp' advantages of Biobased products.
- Generate examples to show that the quality of Biobased products is of a similar standard as fossil based products or in case of higher prices for Biobased products, generate examples showing that the quality of Biobased products may be better.
- Create a story that can be used to engage citizens. Designers and creative thinkers could play a role in this. Storytelling has been a very effective and often used design methodology.
- Create one European label that communicates all components used in the production process of Biobased products. This is a way of gaining the trust of the consumer: knowing what you buy. The Biobased content really present in the final product should be transparent. Additionally, such a European label will positively affect the free movement of Biobased products.
The second step after creation of the label would be to stimulate the uptake and widespread application of the label by manufacturers.
- Maintain a high energy advocacy programme.

**Good Example: Tomatoes Plant Waste Recycling**

This project employed various communication strategies to raise awareness of the initiative and its products, including conferences, workshops and the production of newsletters. However, the difference in languages and cultures across industries did present a challenge in terms of establishing value chains.

(Source: http://ec.europa.eu/research/bioeconomy/pdf/13-case-studies-0809102014_en.pdf, p. 25)

Condition 2: Increase product cost-competitiveness

Product cost-competitiveness is one of the main hurdles for the development of the Biobased Economy and the accompanying Biotechnology Industry.

The high production costs of Biobased products cause the retail price of the products to increase, reducing the competitive capabilities of Biobased products. This is also interlinked with the lack of consumer awareness about the advantages and (additional) functionalities of Biobased products as well as the accompanying technologies for the production process.

An important element of high Biobased products prices derives from feedstock supply. Costs of feedstock are high in Europe, mainly due to the fact that we do not optimally collect, transport and use what we have. This has negative implications for the cost-competitiveness of feedstocks. Additionally, producers working with by-products face the difficulty that feedstock quality varies.

Recommendation

In light of improving cost-competitiveness it is important to ensure that sufficient financing possibilities are available for the further development of the Biobased technologies and Biobased products. If technologies for the production process are improved they are expected to positively impact on lowering the costs of the production process and eventually lowering the prices of the Biobased products. This goes hand in hand with the need for raising awareness on the advantages and (additional) functionalities of Biobased products. Important to keep in mind is that product cost competitiveness can be easier reached if there is a change on both the demand side and the supply side.

In relation to the feedstock example the main message and eventual aim is to ensure reliable access to sustainable, competitively priced feedstocks. In that context, it is recommended to improve opportunities for feedstock producers within the BioEconomy. It is necessary to inform producers about what can be done with their by-products (bio-waste). Synergies should therefore be developed between those stakeholders involved in producing by-products and those stakeholders involved in reusing by-products for their conversion into new Biobased products. By-products producers should be aware of the opportunities they have for using their product for bioprocessing and of the local benefits in terms of jobs and economic growth creation in rural areas. Concluding, it is recommended to develop a system whereby all stakeholders learn to better use what we have: use all resources, improve logistics and use abandoned land with the support of rural and regional development funds.

Actions:

- Ensure sufficient financing possibilities are available for all stages of the development of the BioEconomy through mobilising EU rural and regional funding.
- Decide on how to communicate higher costs for Biobased products to consumers in the context of local and environmental benefits that they provide. This is also related to enhancing consumers' trust and awareness raising.
- Industry and producers often are hesitant to produce Biobased products because of the higher costs of by-products and the production process; therefore it needs to be decided how you can communicate higher costs of by-products and a more costly production process to industry/producers.
- Realise that land use for the production of Biobased products should be seen more as an opportunity for development rather than a threat. Therefore a discussion should be held in the context of land use for meat production and possible alternatives to this.

Good example: Novamont Italian Case Study on Bioplastics

One sector affected by the lack of competitiveness is the chemical industry in Italy. Plastic producing plants were in decline due to competition from plastic producers from for example France and Germany. The shift towards a biobased production process was a necessary approach to boost competitiveness in the sector in which virtuous innovations led by the Bioeconomy were applied. (source: http://ec.europa.eu/research/bioeconomy/pdf/13-case-studies-0809102014_en.pdf, page 31)

Condition 3: Create a coherent framework of legislation for the BioEconomy

Although the internal market is not fully completed yet, generally it is felt that the internal market is reasonably open and there are reasonable conditions for cross-border trade. However, mutual recognition of Biobased products and biomaterials can be problematic from time to time. Custom rules are not the same for residues, by-products and Biobased (end-) products in all Member States.

Currently, one can argue that if a legislative framework for the BioEconomy is in place at all, it is certainly a fragmented framework of rules. There is not a cross sectoral harmonised (legislative) approach towards the development of the BioEconomy and in relevant pieces of legislation sometimes a specific reference to BioEconomy is even missing. Consequently, the main problem is that there is a lack of coherence of legislation. A 'top down' BioEconomy policy approach together with

a clear framework is necessary, either through umbrella legislation or through clear references to the BioEconomy in relevant pieces of legislation. Another aspect is that compared to the US and Canada, there is very few national legislation in the area of BioEconomy, causing that it is very challenging for European businesses to compete at an international level. If European or national legislation exists there is a risk of non-implementation and even if implementation exists, there is insufficient control and monitoring of this.

One example of problems relating to this this incoherent framework of legislation is the situation in Italy where at least 30% of single use bags in the market are falsely marketed as being biodegradable. Even though they claim to be and are labelled as such, they are not in compliance with EN13432 (the norm for biodegradable and compostable packaging). Consumers then purchase the bags believing they are in compliance with standards when in fact they are simple polythene which when used to collect and dispose of organic waste fail to biodegrade contaminating organic matter. It is therefore necessary for local authorities to undertake controls and checks on products claiming to be biodegradable to eliminate counterfeits from the system. (source: http://ec.europa.eu/research/bioeconomy/pdf/13-case-studies-0809102014_en.pdf)

In light of the legislative framework for the BioEconomy, improvements can also be made in developing public procurement initiatives and land use rules.

Public procurement

Public procurement is one of the stages in which awareness of the BioEconomy is rather poor and concrete



legislation is lacking. Therefore, when it comes to public procurement, a number of aspects can still be improved in light of the BioEconomy.

Land use rules

Large areas of land are necessary for BioEconomy-related use of crops; more or less 5 to 10 million hectares is seen as a reasonable ball park estimate. The current decrease in meat production means that land becomes available. This land could then be used for the BioEconomy. The current focus on resource efficiency should eventually also lead to reserves of land becoming available. One may argue that “the land is there, now we need the rules” for its optimal use. However, we should not forget to pay attention to biodiversity. A balance should be found between enhancing the BioEconomy and recovering and preserving biodiversity as much as possible. For Europe this means, working towards healthy food production and greater use of more environmentally-friendly Biobased rather than fossil based products in surroundings where recovery and preservation of biodiversity is ensured.

Recommendations

Public Procurement

Firstly, it is recommended that on an EU level standards for Biobased products are developed and applied. Such standards should contain requirements regarding the characteristics of Biobased products; they should seek to address the question of “when is a product considered to be a Biobased product”? Connected to this, it is recommended to promote the development and convergence of commonly accepted labels. Manufactures should be supported to apply these labels to the Biobased products, so that consumers can be aware of which products are and which products are not Biobased. The eventual aim in light of this is to work towards the creation of one European label for Biobased products.

The creation of public procurement rules and standards can be supported by raising awareness. In that context one could think of having a campaign focusing on encouraging the inclusion and adoption of “Biobased” as procurement criteria. Such a campaign should focus on the benefits of Biobased products and materials in terms of properties, local jobs and growth and sustainability benefits. Rather than focusing only on the public procurers, the campaign could also address stakeholders involved in the production process of such products and materials.

Land use

In light of the hectares of land that are necessary for the development of the BioEconomy and the number of hectares that will become available, rules or standards need

to be in place for the distribution of land, the use of land and also on mutual recognition of Biobased products produced on a certain soil.

Actions:

- Scan legislative activities for the coming years; what is in the pipeline? What are the hooks? Where can we try to include references to the Biobased economy?
- A decision has to be made on what is preferred: one piece of legislation for BioEconomy or references to BioEconomy in various pieces of legislation? Creating umbrella legislation could be a long-term aim. A top down approach to BioEconomy policy development and initiatives has proven very successful in other nations such as the US and Brazil and is recommended for the EU as well.
- Develop Biobased public procurement rules and standards. This can be supported by an awareness raising campaign focused on the uptake of Biobased criteria in the public procurement process. In light of public procurement specifically, a review of upcoming legislative activities can be performed.
- Develop land use rules.
- Creating a regulation prohibiting the use of non-biobased, biodegradable or compostable plastic bags as stimulation for the BioEconomy and a way of setting an example for future BioEconomy legislation.
- Create one European label that communicates all components used in the production process of Biobased products. This will positively affect the free movement and mutual recognition of residues, by-products and Biobased (end-) products in all Member States.

Condition 4: create synergies between policies

Despite the fact that the European Commission adopted a strategy on the BioEconomy in 2012, a number of policies and funding mechanisms which could support its development still exist in isolation from one another. Examples of other strategies (in)directly related to the BioEconomy are the Circular Economy Strategy and the (Digital) Single Market Strategy. There is a need for links between these strategies to be strengthened in order to tackle policy fragmentation and improve coherence of strategy.

Actions

- It is necessary to introduce a long-term, stable and transparent policy and incentive framework to promote the BioEconomy. This means that synergies

should be created between the various (European) policies that have been created and will be created in the coming years. One of the tools could be cross referencing various policies against each other in a top down political approach

- A first step for this, like the manifesto that was created by entrepreneurs and civil society in the Netherlands. National manifestos could be used as a starting point for this.

Condition 5: Improve science education

A lot of improvements can be made in the area of education on all levels, starting from primary school. For instance, the chemical industry and biotech industries should be made attractive again for young people to work in. Additionally, specialised knowledge on the Biobased Industry is necessary.

Actions:

- Discuss and develop strategies on integrating the BioEconomy in various study programmes that are linked to the industries involved in the BioEconomy value chain.
- Decide on how courses can be set up that are accessible to those active in the BioEconomy or wanting to become active in the BioEconomy.

Good example: Novamont Italian Case Study on Bioplastics.

This project proves that the existence of a skilled workforce in Italy was of benefit for the development of the Biobased project.

(source: http://ec.europa.eu/research/bioeconomy/pdf/13-case-studies-0809102014_en.pdf, page 31)

Condition 6: Improve access to finance

Access to finance is particularly a problem for spin-offs, start-ups and SMEs. This is in part due to the high capital costs of developing pilot and demonstration lines and is also due to high costs for patenting inventions and new products as well as the lack of harmonised Intellectual Property legislation. All this occurs within the context of a risk-adverse European Investment climate. One of the problematic aspects is a lack of information about financing possibilities. In addition, even where there is knowledge of financing possibilities, SMEs experience difficulties in the technical side of applying for it. Part of the problem lies with the national banks. Often these banks are unaware of the wide range of European funding possibilities. This is for example the case with the



Learning about the BioEconomy during the LandArt Diessen workshops “design thinking”, “export thinking”, and “financial thinking”

European Fund for Strategic Investments (EFSI). Where funding for Research & Development is sufficiently available, obtaining funding for demonstration and flagship initiatives is difficult. This has to do with the 5/10 million euro mind-set for such projects that the Commission has, rather than a more realistic 500 million euro per project mind-set necessary to create new markets. The European Fund for Strategic Investments has been created to counter the risk-adverse financing climate, but the question remains as to how big this risk may be. One example is the Novamont Bioplastics case study. Novamont experienced difficulties in accessing finance for high risk investments that are necessary for the construction of demonstration and flagship biorefineries. This worked against the development of sustainable and competitive initiatives within the EU Bioeconomy sector. (source: http://ec.europa.eu/research/bioeconomy/pdf/13-case-studies-0809102014_en.pdf, page 34)



Jean-Claude Juncker, President of the European Commission, responsible for EFSI

Recommendation

In light of the current risk-adverse financing climate in the EU, the European Fund for Strategic Investments has been set up and has been operational since September 2015.

Projects within the BioEconomy sector could be enabled to request funding from this Fund. In that way EFSI can better contribute to the development of the BioEconomy. (On the last page of this document an overview of the EU funding possibilities is included.)

Actions

- The setting up of the EFSI fund may be a step in the right direction. The precondition for it being a good step in light of demonstration & flagship initiatives in the area of the BioEconomy is that the Commission's mind-set is changed from a 5/10 million euro mind-set to a 500 million euro mind-set, which is the more realistic amount that is necessary for such projects. Discussion here should focus on how greater financial risks could be taken by the Commission and the EIB.
- It is necessary to introduce a long-term, stable and transparent policy, which provides greater security for investors which would help attract further investors in Biobased projects.
- Inform stakeholders about funding opportunities. Stakeholders should be better informed about funding opportunities and how and where they can apply for them. The EU institutions responsible for distributing the funds should also work together to ensure simplification and harmonisation of mechanisms. In addition, national banks, funds, fund managers and venture capitalists should increasingly be involved.

Condition 7: increase cooperation between the different actors

Insufficient links exist between decision makers and stakeholders from the BioEconomy. Additionally a lack of leadership causes that even when a platform for discussion exists, a certain push for getting things done is missing.

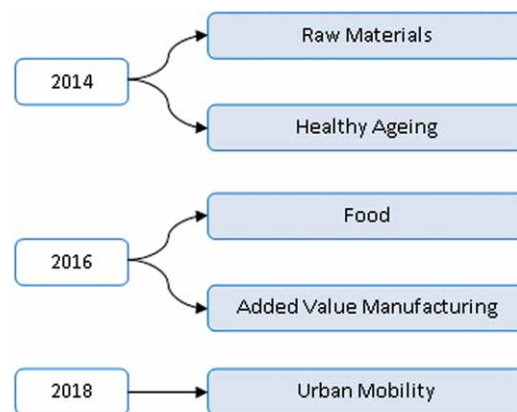
Moreover, it should be noted that the value chain of the Biobased Industries is complex and diverse and differs from the value chains of other industries. A large number of varying businesses are active within the industry, amongst others, the chemical industry, farmers, pharmaceutical businesses and the energy sector. The most problematic aspect of the value chain is that the consumer is often not part of the dialogue meaning that when products do get to market they are often not identified.

Recommendation

Develop stronger relationships between conventional and non-conventional players. This can be coupled with public perception and awareness raising: consumers

need to know about Biobased products and what makes them attractive. Another interesting concept to keep in mind is the triple helix approach: industry, academia and government working together. This also links to incorporating different disciplines, like ICT.

Important is also to support BioClusters and Knowledge and Innovation Communities (KICs) to work together with the private sector, also in light of enhancing the possibilities for receiving funding. Partners across borders should be stimulated to work together; one incentive being that some types of European funding are granted only when cross border cooperation exists.



BioEconomy is included in the KIC Raw Materials

Concerning the value chain of the BioEconomy, it is important that all those involved know which other actors are involved. This will help in developing new and novel partnerships. However, most importantly, consumers need to be made part of the value chain. We need a bottom-up approach where consumers are actively involved in the process and are aware of local actors and initiatives, so as to effectively engage them, demonstrate the benefits and deal with possible concerns at an early stage in the process. Good communication between all stakeholders at all stages of the process is key.

Actions:

- Decide on how to create a platform for discussion between all players, so that legislation is not "a slap in the face" for some players in the end.
- Explore how we can overcome possible conflicts of interests.
- Identify top-down political leaders that can make decisions and deliver results.
- Decide on how consumers can be actively involved in the value chain of the BioEconomy, in order to engage their interest and to address any concerns at an early stage.

3. The way forward

On 2 December 2015 the European Commission presented its Circular Economy Package. The European Commission wants, amongst others, to ensure that products are made more sustainable and more easily identified as 'green' products through labelling. In addition, it aims to ensure that less waste is produced and that more is recycled. The strategy has a special role in place for the BioEconomy. It is unfortunate though that there is only one specific measure proposed in this package which focuses specifically on the BioEconomy. Member States and the European Parliament must seek to ensure that the role of BioEconomy is better emphasised and supported through the circular economy package. A review and a revision of the strategy is of particular importance as part of the circular economy action plan - even more so since the Commission is not currently considering the inclusion of the BioEconomy in its 2016-2017 working programme.

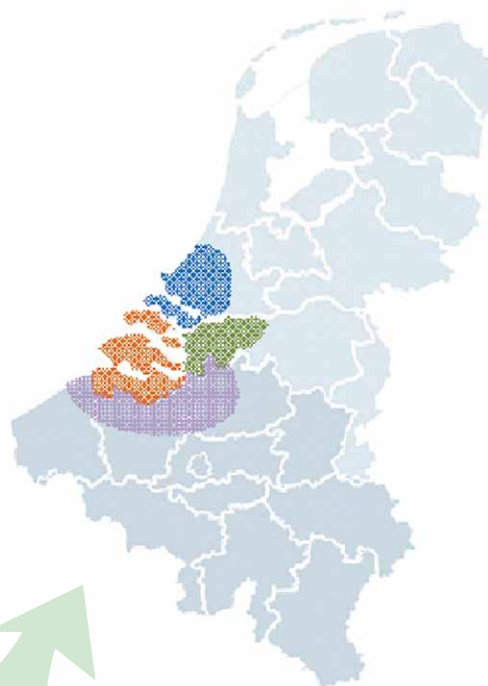
With this package in mind and the proposals that are to come of this, the question is 'what is the way forward'? It is regarded that a focus on regionalisation and Smart Specialisation is essential for a boost for the BioEconomy. What can be the role of the Dutch presidency in achieving this boost?

Regionalisation and Smart Specialisation

As discussed in the previous chapter, awareness raising, increased cooperation between various actors, a coherent framework of legislation and policies and improved science education are conditions that are required for the growth of the BioEconomy. Key in achieving growth of the BioEconomy is a focus on regionalisation and Smart Specialisation. Regional policy can be used to complement the European policy.

Smart Specialisation helps regions identify the priorities they would like to focus on and excel in. In essence - it provides support enabling them to play to their strengths whilst meeting societal, economic and environmental needs. Smart Specialisation is a way of preventing that every region reinvents the wheel on the road to sustainable economic growth and more jobs. Regions should choose their focus wisely: the golden rule being to specialise in what you are good at and work together with other regions in areas that they succeed in. The BioEconomy is one of the upcoming clusters within the smart specialisation strategies.

Certain regions in Europe are already champions in BioEconomy and some regions have declared an interest or ambition to become a champion region. Within the framework of Smart Specialisation current champion regions should be connected with regions that aspire, also, to become a BioEconomy regional champion.



Good example: Biobased Delta, the Netherlands

A good example of a region that is already a champion region for the BioEconomy is the Biobased Delta in the Netherlands. The Biobased Delta is part of the Strategic Board Delta Region, a network organisation for the Flemish-Dutch Delta region focused on the smart specialisation clusters: Biobased, Logistics and Maintenance. The Biobased delta is a triple helix cooperation where industry, government and knowledge institutions work together in strengthening position of the Biobased Delta region as a frontrunner in this new Biobased Economy. The focus of the Biobased Delta is on three pillars: green raw materials, green building blocks and making the process industry more sustainable.

The Dutch Presidency

From January to June 2016 the Netherlands holds the Presidency of the Council of the European Union. One of the priorities of the Netherlands will be supporting the transition to a circular economy following the Circular Economy Package presented by the Commission in December 2015.

The Netherlands is the most progressive country in the EU when it comes to the BioEconomy. With this in mind, the Netherlands could use the months of its presidency to showcase one of the most successful regions in Europe in the field of Biobased Economy, the Biobased Delta, in order to show the opportunities of the BioEconomy to other European regions that aspire to become a champion region for BioEconomy. The Dutch Government could organise an event hosted by the Biobased

Delta and invite regions that aspire to become champions in order to show them the potential of specialising in BioEconomy.

In addition to organising such an event to attract attention to the success of a region specialised in BioEconomy, the Netherlands could consider to conclude the presidency with the presentation of a manifesto or pact on BioEconomy at its Stakeholder Conference in early April in Utrecht. The manifesto or pact should focus on applying a bottom-up approach, via stakeholders, civil society and citizens, and a top down approach, via senior policy leaders in the Commission and Member States, to achieve growth for the BioEconomy. Such a manifesto or pact would be an effective tool enabling stakeholders to commit towards developing their region into a champion region for the BioEconomy and as such regions should be considered as cosignatories of such a pact or manifesto.

Upcoming event under the auspices of the Dutch Presidency

- Fourth BioEconomy Stakeholders' Conference, 12 and 13 April, Utrecht, The Netherlands
For questions please contact Jan van Esch:
BioEconomyUtrecht2016@minez.nl

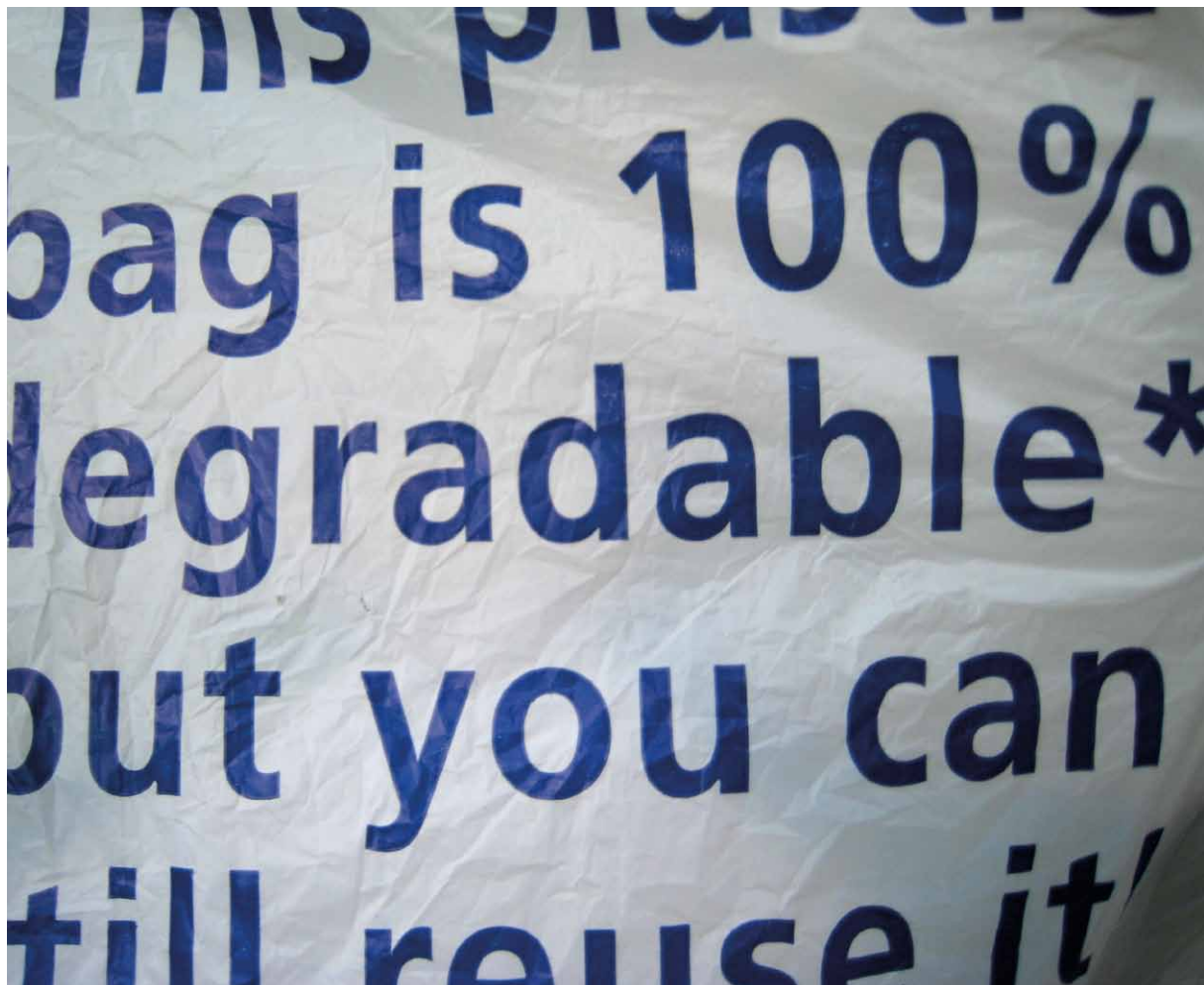
4. Conclusion

The main message to be taken from the discussed conditions, recommendations and concrete actions is *'Think big and act soon'*. The following example clearly shows this: "Let's say Europe accounts for 20 percent of the world economy and that the Union uses 200 million tons per year of fossil derived materials, and let's say we want the BioEconomy to account for 10 percent of Europe's materials needs by 2025. That comes to about 20 million tons per year of biomaterials. Thinking big means recognising that this will require about 20 billion euro of capital investment in factories, i.e. 40 industrial projects of 500 million each. It will require about 5 to 10 million hectares of good quality land to assure secure supply of home-grown biomass. It will require mandates, bans and incentives in order that the industrialists, farming communities and regional development agencies that commit can be assured of 10-15 years market advantage in order to survive in the face of fossil material competition. Consequently, we need to start thinking on a 10 or 100 times bigger scale than we are doing today."

One important condition for the growth of the

BioEconomy is that the availability of industrial development financing needs to be ensured. EFSI may be the key way forward at this stage, if the EIB and the European Commission will be able to think big. Part of the money should be used for awareness raising to make sure that Biobased Products will be bought, since awareness raising is intrinsically linked to all growing conditions and market creation within the BioEconomy. An enhanced BioEconomy will also be able to positively improve the cost-competitiveness situation. With a bottom-up approach we need to create a demand for Biobased products through marketing and advertising and with a top-down approach we need to create a legislative framework that enables those active in the Biobased Industry.

It is now up to the Dutch presidency to give a boost to the growth of the BioEconomy, by focusing on regionalisation, showcasing the successful Biobased Delta region and working on a manifesto or pact in which stakeholders and regions commit themselves to achieving a shift from fossil based to an EU Biobased circular future.



5. EU funding possibilities for the BioEconomy

1. *Horizon 2020*
 - a. More than **€70 billion** will be invested in research and innovation through the centrally managed calls of the European Commission
2. *European Structural and Investment Funds (ESIF)*
 - a. Between **€80 – €100 billion (European Regional Development Fund / ERDF)** will be invested in innovation-drivers, infrastructures and logistics.
3. *European Social Fund (ESF)*
 - a. **€70 billion** investments in skills, life-long learning, social integration,
 - b. employment services, capacity building entrepreneurship and social innovation;
4. *European Agricultural Fund for Rural Development (EAFRD), Maritime Investments and Fisheries (European Maritime and Fisheries Fund);*
 - a. More than **€ 100 billion** will go into funding for Rural Development
5. *Trans-European transport connections and environmental projects*
 - a. **€66 billion**
6. *European Fund for Strategic Investments (EFSI)*
 - a. **€315 billion**



6. Essential European BioEconomy references

- BIO TIC Roadmap (2015): “The Bioeconomy enabled - a roadmap to a thriving industrial biotechnology sector in Europe”
- <http://biconsortium.eu/sites/biconsortium.eu/files/publications/Guidelines-BBI-H2020.pdf>
- Bioeconomy Strategy (2012) - Commission Communication: Innovating for Sustainable Growth: A BioEconomy for Europe
- Joint Technology Initiative for Biobased Industries - Public Private Partnership
- BBI Joint Undertaking - Public Private Partnership
- Practical Guide - Combining BBI (H2020) and European Structural and Investment Funds (ESIF) to deploy the European BioEconomy
- Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, ‘Closing the loop - An EU action plan for the Circular Economy’, December 2015
- Draft Final Report and Recommendations of the Public Procurement Working Group of Commission Expert Group for Bio-based Products, December 2015
- United Nations, Framework Convention on Climate Change, Conference of Parties, Adoption of the Paris Agreement, 12 December 2015





Annex: working sessions BioEconomy



Roundtable "Removing barriers within the internal market for the BioEconomy" - 20 April 2015:

Roundtable
Removing barriers within the internal market for the BioEconomy

When: Monday 20 April, 12h00-14h45

Where: European Parliament, room: 6Q1



Draft agenda

12h00-12h15: Welcome

MEP Lambert van Nistelrooij, Member of REGI and IMCO Committees and rapporteur for the Biobased Industries JTI

12h15-13:00: Speeches

1. Facilitating logistics and cross-border transport of biomass
Speaker: Max Schulman, Farmer and forest owner, Copa-Cogeca.
2. Tackling fragmentation of financial support between regional, national and EU funding programmes
Speaker: Dirk Carrez, Executive Director, Biobased Industries Consortium
3. Creating new market for Biobased products through public procurement
Speaker: James Cogan, Business and Policy Analyst, PNO Innovation Brussels
4. Developing measures to boost EU competitiveness within the BioEconomy
Speaker: Luc Tholoniati, Member of Jean-Claude Juncker's Cabinet, European Commission (TBC)

13h00-13h45 Debate with the audience

Moderated by Ward Mosmuller, Director Global Public Affairs, DSM

13h45-14h00 Closing remarks

Lambert van Nistelrooij, member of REGI and IMCO committees and rapporteur for the Biobased Industries JTI

14h00-14h45: Walking sandwich lunch will be served outside the room.

For questions please contact eba@bioeconomyalliance.eu or lambert.vannistelrooij@ep.europa.eu

LandArt Diessen: Inspirational Day Biobased



Economy - 4 September:

Just as in previous years, LandArt Diessen offers a stage for the Biobased Economy. You are welcome on Friday 4 September from 13.00 at Molenstraat 17a in Diessen. The theme is 'barriers gone': taking down obstacles in the European internal market for the Biobased Economy. Registration is possible via lambert.vannistelrooij@europarl.europa.eu.



Pe Verhoeven, European Investment Bank, explains financing possibilities BioEconomy

Program

13h00: Welcome

Opening and welcome by **Lambert van Nistelrooij, Member of the European Parliament**, negotiator and rapporteur for regional EU funds and the Biobased Industries package. The participants will receive the study "**Barriers on the internal market for the BioEconomy**", which is put together by experts for the inspirational day. The study concerns three themes that correspond with the workshops. Co-hosts of the afternoon are **Members of the European Parliament Maria Spyraiki and Franc Bogovic** and **chairwoman of LandArt Diessen, Lia Stravens**.

13h30: three times offered parallel sessions, each 45 minutes:

- *Export Thinking* **Ward Mosmuller director Public Affairs DSM**: The export chances for entrepreneurs in the Biobased Economy. Together we will explore the possibilities to take down the barriers in the internal market.
- *Financial Thinking* **Daan Dijk managing director Sustainable Business Development Rabobank Nederland**: In 2017 the sugar quatum will be released. Sugars could serve as raw material for Biobased products. Which financial arrangements are available from the European funds and how do banks finance sustainable economic initiatives? The EFSI (Juncker fund) is operational since 1 September 2015.
- *Desing Thinking* **Danielle Arets, CLICKNL**: LandArt Diessen connects the creative sector with the agro-food sector. Design Thinking is an important instrument for innovation and game changer for the coming years. The vision of artists helps entrepreneurs in the challenges they are facing.

16h00: Official opening LandArt Diessen. Mayor R. Palmen of Hilvarenveek will together with the entrepreneurs and artists start with the making of a 'master falsification' of a Van Gogh. Small paintings on bio-based materials will together form the beginning of a 10 * 10 meter Van Gogh painting. After that you can (together with the artists) make a walk along the many artworks.

About the location:

LandArt Diessen is an event in which artists find inspiration in the natural environment. It connects people to the country side. Lia Stravens, chairwoman of LandArt Diessen, offers you the possibility to view the newest applications of Biobased materials in the pavilion at the start of the walking route. This year the 20 artists will make use of Biobased raw materials from Dutch companies for the creation of their pieces of art. Art as a catalyst for the BioEconomy.



Working Session

"Barriers on the internal market for the BioEconomy - 16 October:



Working Session

Barriers on the internal market for the BioEconomy

European Biotech Week

Initiative of: MEP Lambert van Nistelrooij, EPP Group

When: Friday 16 October 2015 - BioTech week

Where: Duc de Brabant,
Westelbeersedijk 6,
Diessen, The Netherlands



Agenda

Morning session - 11h00 to 12h30

The conclusions on the paper 'Barriers on the internal market for the BioEconomy' (outcome conference 4 September 2015)

A discussion on 'financial thinking' and 'export thinking', with external contributions of:

1. James Cogan, Senior Advisor at PNO Consultants
2. Joanna Dupont, EuropaBio

Participants will receive the documents with the outcome of the conference of 4 September and the draft paper in advance of the meeting.

Lunch session - 12h30 to 13h30

Networking lunch to discuss upcoming initiatives in cooperation in the EU, like Interreg.

Afternoon session - 13h30 to 16h00

Follow-up on LandArt Inspirational Day for BioEconomy on the subject of 'Design Thinking'

There will be external presentations on matching Biobased materials, art and design. What initiatives can be taken in 2016-2020? How to continue with LandArt Diessen?

External contribution of Danielle Arets, ClickNL

Registration is possible via lambert.vannistelrooij@ep.europa.eu.



About Lambert van Nistelrooij

Lambert van Nistelrooij (1953, Nuland) has been a Member of the European Parliament for the EPP Group/ CDA Delegation since 2004.

Within the EPP Group - the largest political group in the European Parliament - he coordinates the positions on Regional Policy. In this area he was chosen as 'Member of the European Parliament of the Year' in 2011, 2012 and 2015. Since 2014 he is also a Member of the Parliamentary Committee for the Internal Market and Consumer Protection.

Previously Van Nistelrooij was member of the council of the municipality of Nuland, member and later executive of the province of Noord-Brabant.

He is President of Knowledge4Innovation (K4I), Vice-President of the Parliamentary Intergroup for Ageing and Intergenerational Solidarity (AGE Intergroup) and of the Parliamentary Intergroup for Urban Affairs (URBAN Intergroup). In Brussels Van Nistelrooij is treasurer of the CDA-Delegation and board member of the European Internet Foundation (EIF).

In the Netherlands Lambert van Nistelrooij is President of the supervisory board of Prisma (service provider to people with disabilities) and member of the supervisory board of Valkenhof (centre for care and nursing in Valkenswaard).



Colophon

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Towards ideal growing conditions for the BioEconomy

Briefing paper for the Dutch EU Presidency

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