Further proposals for a new circular economy package

The Netherlands, 30th April 2015

In response to the European Commission's announcement to publish a new and more ambitious proposal for circular economy, the Netherlands provided some initial ideas for the new package through a position paper which was shared with relevant Commission Services and Cabinets in February 2015.

The Netherlands welcomes the opportunity to play a supportive role for the Commission in its work on developing its circular economy proposal. With this paper the Netherlands would like to revisit some of the ideas and proposals that were referred to in its position paper in order to provide more concrete suggestions of how these can be tackled in the context of the new circular economy package. The Netherlands hopes this contribution is of added value for the Commission and would be pleased to further discuss and elaborate on the suggested proposals. If needed the Netherlands would also be willing to play a role in advancing some of the proposals in cooperation with the Commission, other Member States and relevant actors.

Finally, although this paper serves to support the Commission's thinking on the new circular economy package, the Netherlands reserves the right to reconsider its position once the Commission's new proposal is published, thereby taking into account the accompanying Impact Assessment and possible assessments at national level.

An integrated framework addressing the whole circle

As pointed out in the Commission's Communication Towards a Circular Economy it is estimated that resource efficiency improvements along value chains could reduce material input needs by 17%-24% by 2030 and could potentially save the European industry €630 billion per year[1]. For businesses in the EU it could represent 8 % of annual turnover, while reducing total annual greenhouse gas emissions by 2-4%[2].
In the Netherlands alone it is estimated that shifting to a circular economy could amount to EUR 7.3 billion a year in market values (or 1.4 % of GDP) and could create 54 000 jobs[3]. The Netherlands therefore attaches great value to the national and European transition to a circular economy, in which environmental, economic and social dimensions go hand in hand. Indeed, a circular economy not only attends our environmental concerns, but will also contribute to strengthening our society's resilience and the competitiveness of Europe's industry.

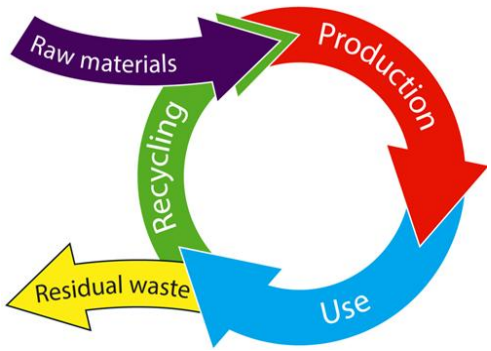
The Netherlands perceives the transition, as a key strategy for our common future and considers a new proposal by the Commission as an important opportunity to improve and strengthen EU policy by addressing aspects of the circle that are currently insufficiently addressed. The Netherlands, therefore welcomes a broader and more ambitious proposal in which key elements of the Waste Package return, which incorporates the milestones of the Roadmap to a Resource Efficient Europe and which takes a more holistic approach.

The transition towards a circular economy demands a system change of economic, technical, institutional, social and cultural transformation. Innovation and new business models play a crucial role in the transition to a circular economy. Therefore the Netherlands believes that this transition first and foremost should be approached "bottom up". The EU and Member State's role should serve to stimulate entrepreneurship and to create an investment climate in which the potential of the circular economy in terms of economic growth, job creation and societal challenges can be reaped fully.

This requires an integrated approach (e.g. finance, innovation, smart regulation etc.) within individual Member States and the European Union. A new package should provide a coherent and overarching policy framework that aims to fully exploit the potential of a circular economy in addressing key societal challenges, such as environmental degradation, climate change, employment, resource security and our changing global competitive position. Such a framework should be accompanied by concrete proposals, measures and clear and consistent legislation, to enable public and private actors and civil society across the EU to develop future-oriented strategies and commit to long-term investments that are key in realizing the desired transition. The Netherlands is therefore pleased with the Commission's new approach in which it strives to break silos and ensure involvement and cooperation of a wide range of Commission services in the development of it new proposal.

[1] COM(2014) 398, Communication Towards a circular economy: A zero waste programme for Europe
[2] The opportunities to business of improving resource efficiency (2013), AMEC et al.
[3] Opportunities for a Circular Economy in the Netherlands (2013), TNO

The Netherlands strongly feels that for a transition to a circular economy measures are needed that address the entire circle, from the extraction of raw materials to sustainable production (product policy) and consumption, waste prevention, reuse and recycling, as well as addressing the interaction with other policy fields.



Furthermore, to ensure that the necessary progress is made, a fitting and stimulating governance system, using the right dashboard of indicators, cannot be missed.

In the following the Netherlands would like to delve into 5 main elements of the circular economy, around which the elaboration of our proposals are developed:

1 Natural capital and sustainable primary resources

Natural capital provides us with raw materials (a-biotic) and agricultural commodities (biotic), improves the quality of our habitat and contributes to our health. It forms the foundation of our economic activity. Protecting our natural capital and the ecosystem services we derive from it is therefore vital to our economy. To address the entire circle the Circular Economy should include sufficient attention to optimize the sustainable use of ecosystem services and minimize the impact of resources on our natural capital.

Although circular economy (including sustainable design, sustainable use and more and better recycling) relieves the pressure on our natural capital, a certain degree of dependence on primary resources will remain. Furthermore, for many resources recycling rates are still very low. For instance, for the majority of metals the recycling rate is still below 1% (UNEP IRP, 2012). One of the major reasons for this, is that it is still cheaper to use primary resources.

The environmental effects of the extraction and sourcing (agriculture, forestry, and fishing) of primary resources can be considerable. In many cases the largest environmental effect of materials is in the first phase of the supply chain; the extraction and sourcing (agriculture, forestry, and fishing) of resources. The rapidly increasing demand for primary resources is responsible for continued conversion of ecosystems into arable land, large scale land degradation and water stress, that is seriously burdening the environment and threatening our sustained supply of resources.

Damaging our resource base, in terms of ecosystem quality and resilience, leads to economic risks, increased social instability and loss of societal welfare. A circular economy not only decreases our dependency on natural resources, but also gives natural capital the opportunity to become more robust, in order to remain valuable for the economy. Therefore, the Netherlands calls for the inclusion of natural capital in the expected Circular Economy package and looks forward to proposals that contribute to safeguarding our natural capital. To this regard the Netherlands proposes:

1.1 Natural Capital

Further development and integration of natural capital accounting can provide essential information for **the internalization of environmental costs in the production phase of both a-biotic and biotic resources**. Such internalisation of environmental cost is a win-win policy option: it stimulates more rational consumption and the use of secondary materials, and it provides intrinsic incentives to limit the claim on our natural capital and reduce the ecological footprint of raw materials. Furthermore, natural capital accounting facilitates the sustainable use of ecosystem services which can contribute to reduced use of limited conventional materials, reduced environmental degradation, reduced heat stress, better flood protection and improved air and water quality.

To achieve this member states are already actively working on gaining insight on where natural capital is located, the state it is in and its potential. The MAES (Mapping and Assessment of Ecosystems and their Services) working group is supporting the work of member states in this regard. The Netherlands aims to

ensure that by 2020 the impact and use of natural capital is fully taken into account in the decision making process of business and government. Disseminating natural capital information to local governments and the private sector is key to enable incorporating this in operations and planning and should be promoted. Presenting show-cases in which the sustainable use of ecosystem services leads to diminished need for limited natural resources and equal or improved sustainable benefits for society or business, can facilitate this further. the Netherlands would like the new circular economy package to address the issue of natural capital and asks the Commission to **introduce proposals to further facilitate development of natural capital accounting and develop tools to determine the value of natural capital.** Specifically, for the sourcing of primary materials and land conversion, the new Circular Economy package could integrate a **No Net Loss ambition for biodiversity and ecosystem services** that is consistent with the Commission's No Net Loss initiative. This should **apply the full mitigation hierarchy** and **include biodiversity offsets, preferably using the standards of the Business and Biodiversity Offsets Program (BBOP).** An approach that will aid further internalization environmental costs.

The Netherlands also encourages the Commission to **support the new OECD biomass platform in harmonizing data and methods in order to assess the availability and sustainability of (land- and water based) biomass**. This support would be in conjunction with the International Energy Agency (IEA), IEA Bioenergy and the ITC as the joint co-operation agency of UNCTAD and WTO.

1.2 Sustainable primary resources

To limit the environmental impact on ecosystems and ensure steady sustainable supply, it is essential to stimulate both the demand and supply side for primary resources at the global, EU and national level.

The EU could take a **leading and facilitating role in identifying priority primary resources** to introduce measures that promote legal, sustainable extraction and sourcing (agriculture, forestry, and fishing) and thus create markets for sustainable primary resources. To achieve this it is important to **define a long term perspective and introduce instruments that create an essential level playing field and an enabling environment** in countries, or regions, of primary production. The formulation of an aspirational target and the introduction of supporting policy instruments such as licensing schemes and minimum sustainability standards for extraction, sourcing and imports, are examples of how this could be supported. Even so, this requires a tailor fitted approach per resource stream or supply chain, taking into account vulnerabilities, economic, social and environmental considerations. Currently various functioning examples for both a-biotic and biotic resources exist, such as the Kimberley Process and the Roundtable for Sustainable Palm Oil (RSPO).

The Commission and Member-States, could play a key role in this by **assisting governments in countries or regions of primary production to comply with, international or local multi-stakeholder based legal, sustainability standards and create an enabling environment for sustainable and legal extraction and sourcing, that is based on good governance and national law enforcement.** For instance by using (bilateral) instruments such as Bilateral Coordination Mechanisms, trade agreements, voluntary partnership agreements and strategic partnerships.

Sustainable sourcing requires interest and collaboration of all stakeholders along the supply chain, including businesses, NGO's, science and governments, especially those where extraction or sourcing activities take place. European importing countries and/or countries of destination, on the other side of the supply chain, should stimulate businesses and civil society (NGO's) to define ambitious long term goals and quantitative targets to attain a 100% sustainable sourcing. The Commission could play a facilitating role in this. Various dialogues, roundtables and supply chain initiatives, for instance in the field of agricultural commodities and timber, already aim to stimulate sustainable extraction and sourcing. Examples of such multi-stakeholder approaches are the Roundtable for Sustainable Palm Oil (RSPO) and the Sustainable Trade Initiative[4], currently supported by the governments of Switzerland, Denmark and the Netherlands. The Commission could **facilitate, broaden and introduce coalitions of willing stakeholders (Member States, partner countries, supply chain actors) and initiatives such as these at the European level** to involve more actors and create greater impact.

2 A new ambition in European Product Policy

In the last years, the EU has made much work of policies towards sustainable management of resources, products, and systems of production and consumption, as reflected in the recent EU Communication on a

[4] http://www.idhsustainabletrade.com/what-we-do

Circular Economy published July 2014. The Netherlands believes that this set of policies can be brought to a next level, particularly in the context of the Circular Economy package.

2.1 Streamlining Product Policy

The EU already has a long history of developing policies in the field of products, resources and systems of production and consumption. A key element of the 6th Environmental Action Programme was the Integrated Product Policy (IPP) framework. It announced a new approach to environmental policy by seeking to reduce the environmental impact of products throughout their life cycle by taking action where it is most effective. IPP covers a broad range of policy instruments that address products from both the supply and the demand side. This was further enforced through measures for products, technologies and consumption that were introduced in the 2008 Action Plan on Sustainable Consumption and Production (SCP) and the Sustainable Industrial Policy (SIP). Later relevant policy documents included the Resource Efficiency Roadmap of September 2011 and the Circular Economy Communication of 2014.

Such developments and initiatives have led to a range of instruments that aim to make products and services more sustainable and resource-efficient. For instance the Ecodesign Directive and the Ecolabelling Directive. To effectively realize change in the market for more sustainable products these instruments have to be aligned.

In view of the above, the Netherlands sees potential in enhancing, streamlining and optimizing the current set of instruments for environmental product policy at EU level and repackaging these under a **'Circular Products Initiative'**. Various studies have categorized and evaluated the policy instruments, or conceptualized how they could be integrated into effective packages. The Netherlands urges the Commission to look into **options for a renewed, coherent and integrated European Product Policy aimed at minimizing the environmental footprint and the waste residue of products and using a Toprunner-approach**. To this regard, the Netherlands commissioned experts from the Technical University (TU) Delft, the Erasmus University and Leiden University to initiate research on this. The results of this study will be available later this year and shared with the Commission and interested parties in order to advance thoughts on this.

2.2 Sustainable product design

The Netherlands strongly believes that the European Commission's new circular economy proposal offers an excellent opportunity to strengthen the focus on product design in the European approach to product policy. The Ecodesign Directive is a key instrument that can accelerate the transition towards a circular economy.

By providing a clear framework with performance requirements, the Ecodesign regulation provides a powerful mechanism to reduce the environmental impact of products on the European market. In principle, the current Ecodesign Directive can address almost any resource-efficiency parameter of an energy-related product, provided that the parameter can be measured and that there is significant impact and potential for improvement. However, until now, implementation requirements have primarily targeted energy use in the consumption phase.

The EU should urgently **start setting requirements on incorporating circular design principles to increase the resource efficiency of products using the Ecodesign framework**. A strong framework for product design should include, at least the following general objectives:

- extending the longevity of products through designs that take account of upgradability, durability and reparability, by stimulating the availability of spare parts at reasonable prices, and by countering phenomena like planned obsolescence;
- increasing the reuse, refurbishment and remanufacture potential of products;
- increasing the recovery potential of key components and materials to facilitate reuse, remanufacturing and refurbishment.
- improving product design in the context of new business models that aim for a shift from ownership models to service models, thereby reducing the quantity of materials needed.

A lot of effort is still needed to develop resource-efficiency criteria and standards for Ecodesign and work needs to start as soon as possible. Therefore, the Netherlands urges the Commission to **look into a Toprunner-approach (public-private standards setting) in which it is possible to dynamically develop criteria which stimulate mainstreaming circular innovations ('a race to the top').** The Netherlands invites the Commission to **initiate this work in the context of a trans-European partnership**.

The **Ecodesign Directive should be a joint product of several Commission DG's** in which priority should be given to **incorporate circular design principles including environmentally friendly trade-offs.** Furthermore the Netherlands urges the Commission in the coming review of the Ecodesign Directive,

to **broaden the scope of the Ecodesign Directive to cover all main product groups**. The introduction of environmental criteria for all new product groups can gradually be introduced over a certain period of time, starting with the most relevant product groups in terms of environmental pressure.

Resource Efficiency Requirements in Ecodesign: a Review of Practical and Legal Implications
To help formulate optimal criteria for the Ecodesign measures, the Netherlands commissioned a study on 'Resource Efficiency Requirements in Ecodesign: a Review of Practical and Legal Implications'. This study explores the potential role of material resource efficiency in the Ecodesign regulation and identifies legal, practical and political barriers for implementation. The Netherlands hopes this study will contribute to further development of resource-efficiency criteria for Ecodesign

The main recommendations of the study include:
- To build and expand on areas already covered by the Ecodesign measures, such as:
  - regulation of the consumption of direct and indirect resources, beyond just energy efficiency, during product use;
  - extending product life, e.g. by enabling repair and re-use and ensuring availability of spare parts.
- To explore parameters related to:
  - product weight as an indication of resource use, focusing on areas like light weighting, miniaturisation and critical raw materials;
  - physical and chemical characteristics like purity, surface quality and recycled content.
- To focus more R&D on how to use the Ecodesign regulation for parameters that cannot be measured directly, like reusability, recyclability and recoverability.

2.3 Transparency and Sustainable Consumption

Consumers are key to a socio-economic transition. The Circular Economy Package should also strive to enable consumers and producers to make better choices, resulting in a higher demand for sustainable products, an increase in sustainable lifestyles and sustainable diets, and consequently a race-to-the-top in the supply side of the market. Furthermore, public authorities also play an important part through sustainable procurement. Assessment of consumption patterns in relation to sustainability should therefore be stimulated and harmonized.

The Netherlands supports the development of the Environmental Footprint for Products (PEF) and for organisations (OEF) and will continue to contribute to the three year pilot leading to conclusions on the harmonisation of methodologies for valid environmental footprinting. A common method and harmonized standard will simplify application of Life Cycle Analysis (LCA) make application more efficient. This method should be consistent with the methods developed by the Sustainability Consortium. Furthermore, **special attention should be paid to the parameter for biodiversity**. It is our experience that this parameter does not have a solid scientific basis and is vulnerable to diverse interpretations and discussions. Therefore more clarification and stronger foundation are needed.

Much of the effort influencing consumer behaviour is aimed at labelling of products (including quality schemes to indicate the sustainability level of products). Unfortunately, labelling is currently not always effective: the limited amount of information on a label not sufficient to adequately judge the production and transport process and consequently for the consumer to make an informed choice for the most sustainable product. Furthermore, it also entices unfair competition between producers when labelling is used to present the product more favourably (green claims and green washing).

However, only increasing information requirements for labels makes labelling more complicated and burdensome for producers and retailers. The Commission should therefore focus on streamlining existing requirements in order to eliminate requirements that provide the opportunity for unsubstantiated green claims. Moreover, the Commission should focus on other effective measures to inform consumers, taking behavioural economics into account. Influencing consumer behaviour requires a realistic and better understanding of consumers, consumer behaviour and purchasing decisions. A future programme should include **an approach to increase consumer awareness** of the shortage of resources and the environmental, social and economic impacts of our way of life in terms of a throw-away culture.

For influencing consumer behaviour it is necessary that environmental friendly (green) products are available. To increase availability of green products for consumers, retailers should be encouraged to promote these products and phase out less environmental friendly products. Producers should also be encouraged to phase out unsustainable or less sustainable products from the retail stream in favour of sustainable products and services.

New business models enticing consumers to consume more sustainably are needed to achieve this. **The Commission should play an encouraging and facilitating role for European retailers and producers to set ambitious targets regarding the availability of sustainable products**.

The development of tools for sustainable consumption hasn't been a strong pillar of SCP until now. The Retail forum, and the Food SCP Roundtable have been set up to develop ideas in this area resulting in interesting ideas, but with no concrete policy objectives yet. In order to achieve concrete results in this area, The Netherlands asks the Commission to **evaluate market progress of sustainable products and the willingness of retailers to take steps in this area** for instance by looking at the percentage of sustainable goods in total retail turnover, or on display in shops.

Possibly the Commission could also address the use of misleading and unreliable green claims by **considering amendment of the Unfair Commercial Practices Directive (UCPD) to introduce specific requirements for green claims and green washing**. Preferably any green claim should be substantiated by business and approved by an independent body before being used on a product.

2.4 Repair and refurbishment of products

A new circular economy package should introduce measures that aim at preventing waste by stimulating high value reuse (HVR) of products (repair, reuse, refurbishment, reuse of parts etc). After all, prevention is always better than cure. HVR includes amongst other remanufacturing, reuse, and refurbishing of products. By composing products from reused and refurbished resources higher economic value is generated at lower environmental cost. Furthermore, HVR can lead to substantial low and high skilled labor potential.

The Netherlands believes HVR can be promoted through the new circular economy package by:

- **Amending directive 99/44/EG** on certain aspects of the sale of consumer goods and associated guarantees offers possibilities to materialize this ambition by:
  - **enlarging the minimal warrantee period of products** would create an incentive for producers to ensure the durability of their products.
  - Also, the offering **more flexibility in the way repair activities can be performed without loss of warrantee** can stimulate demand for reused and refurbished products.
- Also **increasing transparency in the composition of products** can facilitate HVR.
- Re-use and refurbishment can also be stimulated through careful product design. As mentioned previously **broadening the Ecodesign Directive** would be an appropriate instrument to promote this further.
- Finally, **amending Article 4(5) of directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment** (RoHS) to allow for the reuse of valuable components recovered from medical and industrial equipment that was newly included in the scope of the directive in 2008. Currently the exemption 31 in Annex IV seeks to repair the current omission in Article 4(5). From a legal perspective, however, amending Art.4(5) is a more sound solution.

2.5 Extended Producer Responsibility

Currently extended producer responsibility (EPR) implies that producers are responsible for collecting or taking back used goods and for sorting, managing their waste residue and eventually recycling. Such responsibility may merely be financial, but can be organizational as well.

EPR could be more than a waste collection scheme. It can be a major instrument in supporting implementation of the waste hierarchy. To ensure this, the Netherlands suggests the Commission to further **develop EPR taking in account the whole circle including waste prevention, reuse and recycling**, thereby taking into consideration possible market effects and costs of implementation. This could integrate circular design principles to facilitate new business models, minimize the environmental footprint of products, minimize the waste residue and optimize waste treatment. To this extent, **further development of EPR would be more appropriate in the context of a renewed European Product Policy** instead of within the Waste Framework Directive.

3 Waste management

The Netherlands was generally pleased with the proposals in the Commission's Waste Package which was published July 2014. Specifically the Netherlands supported raising the ambition level, encourage more reuse and 'upcycling' instead of 'downcycling' and incineration, phasing out the land filling of recyclable materials, harmonizing definitions (e.g. municipal waste), improving monitoring and reporting and the initiative for extended producer responsibility.

The Netherlands would like to see these positive aspects of the Waste Package returned in the new proposal for a circular economy. High value recycling can be achieved through a combination of binding and non-binding measures which ensure a minimum degree of recycling on the one hand, and which stimulates and challenges business to innovate and close supply chains on the other.

A new approach to the concept of 'waste' is needed to facilitate private initiatives to operation using the philosophy 'from waste to resource'. For various waste streams end-of-waste criteria should be developed and production residues should in some cases be qualified as by-products or as a resource for new products instead of waste (e.g. animal by-products).

3.1 The concept of 'waste'

By applying by-products and end-of-waste, as mentioned in the Waste Framework Directive (WFD), production residues and waste can be qualified as a resource for new products in order to stimulate the transition to a circular economy. To this end the WFD should be more clear on the qualification of materials as waste or non-waste.

The definition of 'waste' should be better aligned with the objectives of the waste legislation, as expressed in WFD recital 6:

"To minimize the negative effects of the generation and management of waste on human health and the environment. Waste policy should also aim at reducing the use of resources, and favour the practical application of the waste hierarchy."

To this end, **an explanation of phrase 'to discard' would be helpful** – the key element in the waste definition; transaction of a material to be applied in an economically and environmentally advantageous manner is not an act of discarding. So far, a definition of 'to discard' is missing, which causes normal industrial practices applied to well-characterized materials in practice to be considered as acts of recovery of a waste material, even when there is no environmental or economic reason for a qualification as waste. Legal clarity is needed with regard to the above mentioned initiatives on product policy, product design and high value reuse, which are aimed at waste *prevention*, and therefore imply that the legal framework on regulating the disposal and recovery of *waste* should not apply.

Furthermore, the Netherlands believes that **the Waste Framework Directive should more effectively promote the concepts of by-product and end-of-waste**, by:

- **Aligning and merging the articles concerning by-products and end-of-waste (articles 5 and 6) in the WFD** in order to create a single set of conditions, that reflects the essence of the waste legislation, and to clarify how these conditions can be used by the Commission and by Member States in order to establish criteria for qualifying as a by-product or an end-of-waste product.
- **Establish an indicative list of possible by-products and an indicative list of possible end-of-waste products** (e.g. as an Annex to the WFD, a Commission decision and/or on the EC website; to be updated regularly with new materials).
- **Establish a data base of specific by-product criteria and end-of-waste criteria** that have been defined at EU, regional and national level.

3.2 Food loss and food waste

One-third of the food globally produced for human consumption is lost or wasted. This amounts to about 1.3 billion tons per year. Food is lost or wasted throughout the supply chain, from initial agricultural production down to final consumption. The substantial waste of resources used in food production, such as land, water, nutrients, energy and ecosystem services, represents avoidable impact on climate and ecosystems. Given the considerable amount, food loss is a serious problem.

The Netherland believes that, first of all, the new package **should focus on preventing loss of food** (edible or not). Prevention of losses from the food supply chain should be the priority.

The losses that do occur should be regarded as secondary resource, and valorised at the highest possible level, with (ingredients for) new food, animal feed, bio-based materials and chemicals as the highest level. To realize valorisation at the highest level possible, it is important that these **secondary resources are not considered waste in relation to the Waste Framework Directive**, but rather in food related legal framework (e.g. the General food law), provided there is no risk for human or animal health or the environment.

The Netherlands invites the Commission to support national policies by introducing an EU level **uniform framework to monitor all flows within and lost from the food supply chain** (a mass balance for food streams in line with the FUSIONS model)[5]. To ensure uniformity this would require an assisting manual on how to fill in such a mass balance.

4 Policy instruments

Through its package for the Circular Economy, the EU can stimulate frontrunners. A front-runner approach should incorporate the dynamic of pro-active market actors and use this to develop ambitious efficiency standards in the future. A regulatory concept as such should include incentives (e.g. market advantages) for those companies that develop and sell highly efficient products and should encourage mainstream adoption of best available practices and business models.

4.1 Stimulating investments, innovation and new business models

Innovation is the driving force behind sustainable economic growth, jobs and prosperity. Innovative entrepreneurs create new business models for new products and services and solutions for societal challenges like climate change, food security and resource efficiency. The circular economy gives many opportunities for innovative business. The EU does have a lot of instruments and programs stimulating knowledge and innovation and providing finance for new business. To realise a "win-win" situation combining economic growth and societal challenges an integrated approach is needed in which opportunities for the circular economy are facilitated by instruments for knowledge, innovation and finance.

4.1.1 Green Deals

Stimulating frontrunners and stepping up innovation requires defining a long term perspective (ambitious goals and quantitative targets for the long term), facilitating coalitions of willing stakeholders, offering room for experimentation, eliminating obstacles and regulatory barriers that hamper progress, and eventually the realization of a level playing field, by effectively discouraging laggards and free riders.

In the Netherlands the Green Deal approach has proven to be a very useful instrument to promote frontrunners and to encourage multi-stakeholder alliances that are aimed at economic growth and at improving the environment.

A Green Deal is a mutual agreement under private law (covenant) between a coalition of businesses, civil society organizations and public administrations. The agreement defines the innovative initiative and the actions by the parties involved as concretely as possible (if possible in quantitative goals or output) and defines the input by the public administrations as concretely as possible. This is the most important differentiation between a Green Deal and other types of covenants such as an MOU (memory of understanding) and LOI (letter of intent). Green Deals have an average timeframe of three years.

All Green Deals in the Netherlands contain an article that states that the parties agree that the fulfillment of the commitments of the Green Deal is not legally enforceable. Nevertheless, our evaluations show that commitments in the Green Deals have still been kept. This is partly due to the Dutch culture in which policy making greatly relies on a consensus based approach ('*Polder model*'). But also, because the Green Deal approach includes checks and balances in the system, such as a monitoring Green Deal Board. Most importantly however, Green Deals are made public and continuously receive public attention, the involved partners therefore feel a moral obligation to meet the commitments set in the agreement.

The Green Deal approach has proven to be a strong and useful instrument for applying the principles of better regulation: it facilitates the process of improving existing regulation, the process of introducing effective new regulating and in some cases can be an alternative instrument for regulation. Innovative actors often encounter barriers because regulation does not necessarily take in account new developments and innovation. In a Green Deal these obstacles in existing regulation are identified and are addressed by governments involved. At the same time, through Green Deals proven technologies with a positive business case can be identified, which can then serve to support the development of new legislation and a system of dynamic standard-setting.

[5] FUSIONS (Food Use for Social Innovation by Optimising Waste Prevention Strategies) is a 4 year-project, (**August 2012 - July 2016)** funded by the 7th Framework Programme, aimed at a more resource efficient Europe by significantly reducing food waste.

The Netherlands invites the Commission to consider support for the Green Deal approach at EU-level in order to stimulate innovation, sustainable growth and better regulation. **EU-support to a (national and international) Green Deal approach** would contribute to the transition to a circular economy by addressing EU level legislative aspects and generating a greater impact. Such support would involve **1) space for experimentation** prior to introducing new and better regulation; **2) flexibility and willingness to adjust existing EU instruments** when appropriate and necessary; and **3) consideration of a new system of dynamic standard-setting** that is regularly adapted to proven best practices for products and processes, in order to avoid lock-ins at previous performance levels (see further elaboration 4.1.2).

4.1.2 Dynamic standard setting

Standard-setting is a recognized instrument to ensure minimal environmental performance. Moreover, standards trigger innovation. An common side-effect however, is that at the same time, standard-setting may imply limitations to innovations in cases where frontrunner products and processes proof to perform better; frontrunners may be hampered by the preference of the market for existing performance standards.

Progressive adaptation of standards to innovation is also necessary in the light of rebound effects. The implementation of a top runner approach and measures to limit rebound effects should incorporate the dynamics of a market for pro-active actors and make use of this to develop ambitious efficiency standards in the future.

The Netherlands proposes the Commission to d**evelop an EU top-runner approach which introduces dynamically evolving standards** with timelines promoting adoption of frontrunner innovation by mainstream parties. The development of such dynamic performance standards for products, processes and services could be accelerated by **setting a joint vision on technical innovation, changing market opportunities**, and advancing social acceptability and desirability.

4.1.3 Finance for circular innovation

The Netherlands would like the new circular economy package to include proposals that adjust existing EU instruments, such as funds and subsidies, in order to boost investment in R&D, sustainable innovation and new business models. This could be achieved by combining instruments and subsidies, simplifying eligibility and prioritizing and earmarking funding for initiatives that are aimed at the transition towards a circular economy.

As a first step in this regards, instruments should be explored that already exist, such as the EIB InnovFin programme. 'InnovFin' is recognized as a powerful financial instrument of the European Investment Bank. It is an instrument that combines advisory services and finance, and enables innovative projects to obtain capital. It is also an instrument that is flexible, and that supports equity and debt.

To stimulate innovative investments that will contribute to the transition to a circular economy the EU measures for enhancing the access to finance for SME's and midcaps, such as InnovFin, are appropriate instruments to activate the market potential for circular economy. Their current capacity, however, is insufficient. To really exploit investments and the market potential for circular economy, **the level of capacity and resources invested** in instruments such as Innovfin **should be increased substantially** and their **acceptance criteria should be sufficiently flexible to accommodate SME's**. In this way, the Netherlands invites the Commission to introduce proposals that **boost the access to financing for initiatives that contribute to the transition towards a circular economy**.

4.2 Removing EU-wide barriers and regulatory obstacles

The current EU regulatory framework does not always take into account innovations and new developments. Frontrunners and circular business cases are sometimes hampered by regulatory constraints. By identifying and addressing these obstacles, by developing smart and result-oriented regulation and by creating room for experimentation, a more enabling environment is created for innovative companies. Modernization and simplification of EU regulations is needed that ensures the initial objectives of the legislation and the objectives of a circular economy.

4.2.1 REACH

Recycling is an essential element for the transition to a circular economy which the EU is aiming for. Increased recycling and innovation may lead to a greater variety of combined and blended materials and substances that are derived from increasingly varying sources. Given these developments the Netherlands would like to call attention to the structural tension this may cause in the interaction of the REACH and waste legislation.

The substitution of substances of very high concern (SVHCs) and controlling their risks are important conditions to allow safe recycling of materials. An instrument in REACH to achieve this is authorisation

(permission to use a substance), which in some situations also applies to substances that are being recycled and placed on the market (as substances or in mixtures). The risk that authorisation is not granted and the task of preparing an authorisation dossier are bottlenecks for recycling companies and companies that use recycled materials. When a substance is defined as waste, REACH does not apply, but the waste status has drawbacks for companies as well.

It is necessary to develop **European policy for SVHCs and recycling that combines both policy goals: maximize recycling, while minimizing SVHCs in production chains** at the same time. A way forward could be a risk-based approach: continued recycling SVHCs for applications without any risk for workers, consumers and the environment (possibly time-limited) could be considered acceptable. Options to materialize this approach exist in waste legislation and/or chemicals legislation.

For instance, by **integrating and promoting design for disassembly within the Ecodesign directive** (as elaborated in 2.2). By **rewarding a higher level of disassembly with lower risk profiles and incentives related to for instance REACH** (substitution of SVHCs with less harmful alternatives and easy removal of components containing such substances).

4.2.2 Sustainable market for materials from renewable resources

The Renewable energy directive (RED establishes a common framework for the production of energy from renewable sources and the promotion of its use. Yet, technology has reached a point where plastics and all sorts of other materials such as coating, lubricants, solvents and chemicals can similarly be produced from biomass. An **assessment is needed of obstacles created by existing regulation** (such as certain sectoral legislation), besides waste regulation, which cause entry barriers for new products and applications. For this, the evaluation of the RED could be used to see if the internal market for renewable resources can be strengthened.

4.2.3 Harmonized market for nutrients, recovered from organic waste

Producing high quality products from waste has the potential for reduction of environmental impact. For example, phosphorus is a vital resource for food production, but it has significant security-of-supply risks and its current use involves waste and losses at every stage of its lifecycle. Innovative technologies enable the reduction of these losses by recovering phosphates from waste streams such as sewage sludge, waste water and livestock manure. As such, high quality fertilizers from renewable sources could substitute fossil and industrial fertilizers. Furthermore, the agronomical and environmental efficiency of the absorption of nutrients by plants could be raised by setting clear quality parameters for these fertilizers.

Given this potential, the Netherlands would like the new package to improve market conditions for new business cases and innovative investments, by recognizing recovered nutrients and harmonizing the trade in these products. In this regard, the Netherlands asks the Commission to look into:

- **Extending the scope of Regulation (EC) nr. 2003/2003 to include more fertilisers and fertilising materials**, amongst which organic fertilisers, growing media, soil improvers and possibly biostimulants.

- **Creating end-of-livestock manure- criteria for fertilizer materials in the Regulation (EC) nr. 2003/2003 or Directive nr. 91/676/EEC**, in order to enable further innovation and trade in high value products made from animal manure.

4.2.4 Insects as a sustainable resource for food, feed and pharma

With a growing human world population, an increasing demand for animal proteins and a serious environmental impact of current animal production, the need for alternative protein sources becomes more urgent. Insects have a potential in contributing to global food security. The use of insects for food and feed are rapidly growing worldwide. Researchers and innovative entrepreneurs are revealing the potential more applications of insects and their products, including in health care and the non-food sectors.

European legislation on food and feed safety is primarily aimed at controlling the health and environmental risks related to the farming of mammals, fish and birds. The farming of insects may also impose risks, but the related contaminants or pathogens may be different. These developments require either a new legislative approach or a revision of the European transmissable spongiform encephalopathies (No. 999/2001) and animal by-products (No. 1069/2009) regulations in order to appropriately reflect the characteristics of insect farming.

To facilitate these developments the Netherlands asks the Commission to **extend and adapt the European regulatory framework for feed and food**, where appropriate (e.g. in regulations (EC) No. 999/2001, 1069/2009 and 767/2009), in order **to include the use of processed insect protein**, that has shown to meet standards for quality, safety and biodiversity.

4.3 (Price) Incentives

To incentivize sustainable investments it is important to incorporate external costs into the economic system. Environmental costs should be internalized in primary production and reuse and recycling (the secondary materials market) should be stimulated through market based instruments.

Currently, in many markets, reuse and recycling does not offer a viable business case. The market price of primary resources and products in many cases does not reflect the true social costs of production, consumption and waste. This hampers incentives for reuse and refurbishment of products, and for recycling waste back to high value resources. The circular economy package should **address external costs**. Incentives can be introduced at different stages in the value chain and at various levels (mostly at national and local level).

Currently, most incentives can be found at the end of the value chain. Lower prices for repair and recycling and higher prices for landfill and incineration of waste stimulate circularity. However, in many cases, incentives at the beginning of the chain are more efficient. Moreover, incentives for the more efficient use of primary resources would have a positive impact on circularity.

Ultimately, incentives should be introduced at the global level, with all countries and supply chains monitoring and enforcing due compliance. In the context of the circular economy proposal, the Commission could take the lead in **researching and facilitating Member States in developing stronger incentives for the upstream value chain**. As scarcity, environmental impact and market share of resources varies a lot, appropriate incentives must take these aspects into account. Furthermore, different legal and other institutional means of monitoring and enforcing compliance need to be taken into account. The Commission could additionally play a facilitative role in the **exchange of best practice and a joint investigation of new options for (price) incentives to stimulate the circular economy and encourage Member States.** Best practices include public and private schemes, for instance initiatives by, or targeted at, businesses in order to report on social, environmental and economic performance.

4.4 Phasing out environmentally harmful subsidies

EU and national policies should be coherent and effective to stimulate a transition. The Roadmap 'Resource Efficient Europe' already proposed the phasing out of environmentally harmful subsidies[6] and the Netherlands would like this issue to receive further necessary attention in the new package.

In order to address this, as stated in our national reform programme of 2012, **a common EU definition of 'environmental harmful subsidies'** is needed[7]. A clear definition for this concept is key to facilitate action by Member States. The Netherlands asks the Commission to initiate work on such a common definition in the context of the new circular economy package.

Furthermore, once defined, it is important that environmentally harmful subsidies are addressed and that a phase-out is promoted through joint action in order to avoid border effects and ensure a level playing field. To this regard, the Netherlands asks the Commission to stimulate Member States to **develop a plan and timetable to phase out environmentally harmful subsidies**. This should be based on a common definition, and should assess each case individually in order to ensure safeguarding of the initial objectives of the subsidy, which in most cases are not (primarily) focused on the environment. The EU should also continue to promote phasing out environmental harmful subsidies outside the EU.

5 Governance, indicators and intelligence

5.1 Governance

A successful transition towards a circular economy will be the cumulative result of ongoing initiatives of society as whole, including all levels governments, civil society and business. Its completion will benefit from appropriate governance provisions that enables assessment of the contribution of existing and future policies, measures and actions to circular economy and monitor the process in the EU as a whole in terms of whether the (intermediate) objectives are being achieved.

Recalling the governance system announced in the Commission communication: "A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy", The Netherlands asks the Commission to propose an outline for a fit for purpose governance and monitoring process, to ensure that all policies and

[6] http://ec.europa.eu/food/safety/food_waste/library/docs/com2011_571_en.pdf
[7] http://ec.europa.eu/europe2020/pdf/nd/nrp2012_netherlands_en.pdf

measures at European, regional, national and local level contribute to the set objectives for the transition to a circular economy. For a well-functioning future governance system , the following elements can be taken into account:

- **A requirement for Member States to draw up action plans setting out their policy measures and actions** (national, regional and local) including multi-stakeholder involvement. These could be adjusted on a regular basis.
- Monitoring progress by **streamlining existing and new reporting obligations through** the use of an appropriate and comprehensive dashboard of indicators (see 5.2) whilst at the same time reduce the administrative burden to the extent possible.
- A **register for green deals** and an instrument that enables exchange of best practices and lessons learned between Member States.
- **Guidelines to guide SME's** how they can contribute to a circular economy
- Secure delivery on existing and improved targets for recycling and other aspects that facilitate the transition to a circular economy by:
    - Including **regular country reviews carried out by EU review teams** reflecting made progress against predefined **national action plans**
- ensuring that circular economy is a **yearly, fixture on the agenda** of the Environment Council **and, when appropriate, a subject for discussion on** the Competitiveness Council and the Economic and Financial Affairs Council. **A system to identify and assess resource vulnerabilities** (metals and minerals as well as biotic resources) and establish appropriate options to ensure sustainable resource security (see 5.3).

5.2 Indicators

To facilitate the monitoring of progress on circular economy and in order to set quantitative objectives it is important to develop a dashboard (set) of indicators that reflects the true environmental impact of the resources used.

The Netherlands asks the Commission to **take steps in developing such a dashboard of indicators** that would be used to support an appropriate governance mechanism. These indicators should reflect all relevant aspects of a circular economy, such as material- and consumption efficiency, the decoupling of economic growth from resource consumption, the progress in greening the economy including the availability of natural capital and biodiversity protection. Furthermore, **Indicators should measure the related impact of resource consumption in terms of land, water and CO_2 emissions both in and outside the EU**. Finally applicability is an important condition. For the indicators to be applied in a feasible manner it is important to base them as much as possible on existing data and measurement frameworks. Development of a dashboard should therefore start by determining the right combination of existing indicators that are already applied and monitored in the EU or global context (for instance methods already applied and collected by Eurostat).

Taking a forward looking view, the EU should also **develop more advanced and input related indicators** for circular economy These could for instance reflect reparability, high value reuse and the economic gains of the circular economy. Such indicators would reflect the circular concept in a better way and could eventually replace the initial set. **The Netherlands is prepared to contribute to the further development of the existing set of indicators**.

5.3 Intelligence on resource security

The different (societal) challenges and opportunities that can be addressed by a Circular and Bio-based Economy, require a more sophisticated approach to developing intelligence. In order to exploit the potential of a circular economy to address the challenges, the Netherlands **invites the Commission to develop state of the art European intelligence on resources by integrating available data and knowledge of the relevant domains.**

The Netherlands is currently already working on developing a resource intelligence infrastructure that integrates resource security, resource efficiency and circular economy. This system has the potential to be scaled at the European level (including initiatives such as the bio-economy observatory panel) and would not only facilitate exploiting the potential of the circular economy, but can also play an important strategic role in strengthening the EU's competitive position. **The Netherlands would welcome the opportunity to play a constructive role in supporting the Commission to develop and introduce options for a similar intelligence system at the European level.**

The Netherland's resource intelligence infrastructure integrates resource security, resource efficiency and circular economy using five main building blocks:

1. **The material flows monitor (MFM) within the framework of National Account of Statistics which** includes a) the physical and monetary flows of (a)biotic resources, b) connecting resources with emissions, energy and water, c) tracking the development of the biobased economy with established protocol and monitoring methods d) developing a new conceptual framework that is i.a. meant to facilitate the monitoring of resource efficiency/ substitution/ dematerialization.
2. **Advanced quantitative 'linking-matrix' that links (critical) materials and components to final products and services of the National Account System.** Enabling a) development of quantitative dependency assessments on a sector and national level (for raw materials, components and final products) , b) reconstruction of global value chains (starting with 500) and c) providing in-depth analyses of intra-European material and biomass flows, to develop regional circular hotspots.
3. **State-of-the-art vulnerability assessment** (64 a-biotic materials with future biotic materials) with a) 13 vulnerability indicators (instead of the current 6 European vulnerability indicators), b) a regional component to vulnerability assessment, c) backward- and forward looking information and d) integrating information about environmental- and social effects of products.
4. **Quantify improvement potential** (a-biotic materials with future biotic materials) by a) matching modes of actions (e.g. resource efficiency options and circular concepts) to specific risks expressed by the 13 vulnerability indicators, b) Quantifying improvement potential on a sectoral and national level through modelling.
5. **Knowledge platform 'resource dependency and circular economy',** which is comprised of a) a portal information on themes and topics from the field of resource dependency as well as the circular economy and b) a Self-assessment tool (IT based) a personalized self-assessment to evaluate vulnerabilities and possible modes of action.