

Minutes of the Workshop on Precycling and Extended User Responsibility in The Hague, 3 March 2015

Ministry of Infrastructure and the Environment, Koningskade 4, The Hague, The Netherlands

All views expressed in these minutes are of the participants of this workshop and not of the Ministry of Infrastructure and the Environment. Questions and remarks of the participants are presented in italic font. Comments from IMSA and BlindSpot that could not be raised during the meeting are given as endnotes in Appendix 2.

Time: 13:30 – 17:00 hours

Moderator: Ellen Hoog Antink, Netherlands Enterprise Agency (RVO)

Participants: see Annex 1

Welcome – Tjeerd Meester, Ministry of Infrastructure and the Environment

The Dutch Ministry of Infrastructure & Environment has organised the workshop in cooperation with IMSA to see what the concept of a ‘Precycling Premium’ entails and to explore whether it could be a useful instrument for the Netherlands and the European Union. The core question of the workshop is how the policy instrument of extended producer responsibility can be developed further by using the idea of precycling to mainstream the circular economy. This is the first expert workshop on the topic. It offers the opportunity to open up a discussion and to share and shape opinions. Very few of the participants had heard of the precycling premium concept before the workshop.

Introduction to the Precycling Premium – Arthur ten Wolde, IMSA Amsterdam

- The concept of precycling premiums has been first proposed by BlindSpot Think Tank in 2006, was extended in a NATO publication in 2008, submitted at the Rio+20 conference in 2012 and presented at several international occasions such as the EU Green Week and the Disruptive Innovation Festival hosted by the Ellen MacArthur Foundation in 2014.
- The precycling premium is a small mandatory insurance premium paid by producers, according to the risk of their products leading to waste in ecosystems. The premiums would then be spent on “precycling” actions that cut waste-risk throughout society. This extended producer responsibility (EPR) scheme can mainstream the circular economy by providing incentives and funding to preventing waste from all resource flows, including carbon.
- *The precycling premium is based on the quantification of a waste risk. Has a methodology already been developed or is there a route to get tot this methodology?* James Greyson has had contact with insurance professionals who suggest that waste-risk is comparable to their existing risk calculations. Compared to calculation of carbon externalities, which depend on unpredictable future impacts, calculating waste-risk is relatively straightforward. The further development of a waste-risk calculation methodology is one of the issues to address in a feasibility study.
- *How is the waste-risk calculated for a certain product? The recycling rate of cars in the Netherlands, for instance, is 96%. Would the waste-risk then be 4%?* The definition of waste in the precycling premium scheme differs from the usual notion of waste: the waste risk is defined as the percentage of non-nutrient products ending up in air, land or water ecosystems. That is what is relevant in the circular economy. In this case, the waste-risk is indeed 4%. For most other products the waste risk is higher.

- *How do you calculate the waste risk of products ending up in ecosystems entirely, such as wearing brake liners in cars?* For these products, unless the material is biodegradable, the waste-risk is 100%. The premiums would incentivise solutions with lower or no waste-risk.
- *Is the premium calculated per producer or per product? To what extent will there be differentiated?* The precycling premium is calculated per product. Producers can use sector data and also take account of their product-specific plans. If a producer can show the waste-risk of his product is lower than the market average his premium can be reduced.
- *The waste-risk depends on the collection and the recycling rate. Producers are dependent of the collection rate.* Indeed, that is, for products that are recycled at end of life, and noting that collection and take back rates can also be incentivised.

Live video presentation Precycling Premiums as a policy instrument to mainstream the circular economy – James Greyson, BlindSpot Think Tank, UK
(see the Powerpoint presentation sent along with these minutes)

- The circular economy does not only require changes in product design, business models and infrastructure, but requires full systemic change, according to The European Commission's 2014 circular economy Communication.
- Precycling is all you can do before products and resources are discarded. It focuses on the possibilities you have before the point of disposal. The precycling premium is based on the risk of ecological waste, the point where material enters an ecosystem and accumulates. The largest opportunities in the waste hierarchy lie in the pre-waste stages, which get the least attention and funding.
- The Precycling Premium is immediately spent on cutting waste-risks. Waste-risk is a new indicator, describing the likelihood of a product ending up as ecological waste in future. It can be derived of existing indicators and data.
- *Is energy recovery considered as causing ecological waste? Existing regulation acknowledges it a waste handling option.* The precycling premium is focused on products to make it tangible. Burning of biofuels would not cause ecological waste if reabsorbed by growing ecosystems. The burning of fossil fuels results in ecological waste in air driving climate change.
- *How do you deal with the concept of measuring future waste?* The precycling premium covers a financial responsibility of producers for the waste-risk of their products. If products can really end up as new resources, then the waste risk is low. If there is only a technical recyclability, but no market, customer or infrastructure, then the waste risk is still high. It is a whole-system instrument, with no need to dictate to producers what they should do.
- *Is cascading of materials taken into account? Products should be available for a second life, but will lose value in each next life cycle. It does not always make sense to use the highest quality.* Yes, this is taken into account; it is part of the market dynamics of the system in operation. You will have competition for different ways to handle waste. The precycling premium does not tell you to recycle 100% of paper as paper. It only incentivises opportunities to create new resources (rather than wastes) and builds a level playing field for all producers.
- Insurance is a tool to manage risks. Precycling premiums extend the existing instrument of recycling insurance, which is part of the EU Waste Electrical and Electronic Equipment (WEEE) Directive since 2002. Producers can insure the risk of non-recycling by an EPR scheme to fulfil their financial obligation for end of life.
- The role of government is not to handle the money, but to regulate and create a fair market system. The producers are made financially responsible. It is a choice of each producer to take physical responsibility for their waste or not. Unlike conventional insurance, which

typically deals with risk at points of impacts by spending the premiums on damages, the money is spent on preventing damage by precycling.

- *How to get support for this scheme and involve companies from the broader business community, beyond green frontrunners? Maybe by spending the funds on sector innovation? How would they be spent and what are the benefits and incentives for sectors?* For frontrunners, which are gaining advantage by higher level of efficiency and innovation even in a linear economy, precycling premiums will create an extra advantage because lagging producers will be paying the premium. For some sectors such as the fossil fuel business, the business incentive is to sell less fuels with high waste-risks and more with low waste-risks. So the precycling premium also points to sustainability routes for companies that cause most problems at the moment.
- *How will spending of premiums be managed?* Funds could be organised as EU, national, sector or resource stream schemes. These options will be explored in the feasibility study.
- *How do we design the precycling premium system to make sure it is fair and to avoid tricking and cheating?* If a producer claims it is running a recycling or repair scheme, the public will be able to report any shortcomings, which can be investigated and used to assess penalties and new premium levels.
- *How to advance and implement precycling? How to build it in international agreement?* We would need more discussion and debate that considers this option. We need more expert meetings (like this one), a feasibility study and sector case studies. A pilot of the concept can be set up and tested in a limited business environment to prepare it for broad introduction.
- *Is durability a part of the waste risk? Suppose two products are equally recyclable, but one would last longer.* Durability is not included in the premium. However a producer who sells ten short-lived kettles to a consumer per ten years pays the premium ten times while a producer selling only one long lasting kettle pays it only once.
- *Don't you stimulate products that last forever and you slow down innovation?* Producers can still choose how often to refresh a design. Customers may often prefer products that last longer, but you can leave these decisions to producers and markets. When they operate efficiently it will play out. It is not up to regulators to decide how long products should last.
- *What about social sustainability?* The precycling premium is not directly related to social unfairness. Indirectly, it can alleviate the current situation where for example poor people are more or less forced to buy products of poor quality that don't last and must be replaced.

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Discussion & Interaction with participants - Ellen Hoog Antink, RVO

Challenges and opportunities

The participants are first asked to identify the main opportunities and the main challenges of the precycling premium and come up with the following.

Challenges¹

How to organise the fund governance?

- How to define the role of the government?
- How to develop a methodology to calculate waste risk?
- How to calculate the level of the premium? Who decides how high it should be? If the premium is low there is no real economical incentive. Producers really need to “feel” the

premium costs before they start changing their products. The level of premium should also depend on the level of impact and related external costs.

- How to differentiate within a sector? How to make it workable at the product level? France tried to differentiate the disposal charge of electronic devices, but they could not work it out. There were 4.500-5000 products for this supply chain alone.
- How to deal with refurbishment?
- How to deal with importers? They put 90% of the products on the market.²
- How to implement this without creating market distortion of a sector or country towards others? (but is similar for VAT)
- Should the precycling premium apply to all markets, otherwise you get all kinds of market distortions and adverse effects?
- Consumer awareness and behaviour are crucial to reduce the waste risk. Are consumer campaigns paid by the precycling premium funds?³
- This model is strongly built on consumer ratio. To what extent is buying behaviour affected by economic factors?⁴
- Producers are not always product owner in the waste phase. Consumers do not always make the most optimal waste management options. You need to address this in a circular economy. Leasing and sharing models do not inherently result in optimal waste management, e.g. cars from a car sharing company are probably sold once they are worn out.
- The lack of collection infrastructure in many countries. This also provides an incentive for companies to think about reverse logistics systems.
- Higher expected initial premiums for countries without waste infrastructure. Will prices be higher in Greece then in the Netherlands?⁵
- Products can be recyclable without being recycled. Can you make a company responsible when infrastructure is lacking?
- How to organise the governance of this fund? Billions of euros will be available and the fund must serve public objectives.
- The role of the government needs to be formulated.
- Service providers would be no part of the system, e.g. the Philips pay per lux concept.⁶



Opportunities

- The premium generates huge funds to put in the market.
- Creates employment.
- Stimulates sustainable business and companies.
- Creates an economic incentive for producers to rethink their product and product design.
- Creates an incentive for new business models, e.g. lease instead of purchase.
- Could be developed in parallel with other EPR and policy instruments to enforce each other.
- Elegant way to internalise environmental impacts.
- Stimulates innovation. A precycling premium is not prescriptive regulation but an economic incentive. To what extent is the premium coupled to governmental regulations and targets?
- It is a market incentive resulting in additional economic activity that is reflected in the gross domestic product (GDP).
- If successful the premium would be a temporary measure or scheme.
- Offers opportunities to connect to systemic change and to the Circular Economy package of the European Commission
- One could also investigate the possibility of an insurance for resource scarcity⁷.

Statements

Next, the participants are asked agree or disagree with a series of statements.

Statement 1: A precycling premium should be obligatory to be effective

(90% agrees, 10% disagrees)

- Agrees: Good recycling percentages follow from legal obligations.
- Agrees: We are still fighting against free riders.
- Agrees: Importers are more influenced by self-interest than producers.
- Disagrees: Producers are faced with growing risks related to waste, e.g. limited cost transfer to consumers, and alternatives are needed.⁸
- Disagrees: With a non-obligatory insurance the risks are placed with companies. With a product interaction both producer and consumer are responsible for the management of products and waste. The demand for transparency will have a major impact on markets. Image and economical damage risks are affected by the available product information in the market. Producers can think for themselves how they would like to organise the precycling premium.⁹

Statement 2: To introduce a precycling premium in the Netherlands alone is not an option; it should be EU wide from the start¹⁰

(50% agrees, 25% disagrees in part, 25% disagrees)

- Agrees: A level playing field is very important.
- Agrees: The Netherlands is a small country with only limited influence on other EU member states.
- Disagrees in part: A pilot offers opportunities to see if and how introduction in the Netherlands is possible. It is quite possible to start with products that are less sensitive to competition with international markets, e.g. roads.
- Disagrees: Within the current system there are also different levels of EPR.
- Disagrees: There are examples of policies that started in the Netherlands and became EU directives after some years, e.g. the Dutch Regulation for removal of electrical household

appliances and audio-visual equipment¹. You can partly introduce the instrument and then gradually expand the functioning of the scheme.

- Disagrees: The Netherlands could cooperate with other likeminded member states.

Statement 3: A precycling premium would lead to leakage: companies shifting their investments outside of the EU to avoid the premium

(100% disagrees)

What happens when European producers want to export their products to non-EU countries? Exporters are not obliged to pay premium. The precycling premium is only intended for the European market.

- Disagrees: The premium can easily be designed in such a way that producers targeting non-domestic markets are exempted. This is already common practice in existing EPR schemes. As a result, leakage does not occur. If this requirement was not met, producers would be against the precycling premium.

Statement 4: It would be much easier to prevent waste in ecosystems using legal minimum requirements in the National Waste Management Plan (LAP, Landelijk Afval Plan)

(25% disagrees, 50% does not know, 25% agrees; with a shift to disagreement after the argumentation below)

- Disagrees: The LAP is less suitable since it uses non-binding policies only. The current NWMP mainly focuses on how to process waste streams.
- Disagrees: There is special legislation for EPR and this is not the LAP.
- Agrees: If the LAP requires higher recycling percentages recycling will be more feasible. The precycling premium could then be used to invest in waste processing channels that can treat the waste efficiently. So rather than replace the precycling premium, the LAP might reinforce it.

Statement 5: Companies will pay the precycling premium to cover the waste risk but this will not lead to any change

(Less clear division of opinions)

- Agrees: If the precycling premium is based on sector averages this would be like an indulgence. Premiums need to be differentiated according to waste-risk to be effective.
- Agrees: The ability to stimulate precycling depends on the level of premium. If producers have to pay a high-enough premium their business case and pricing will be affected. In that case they will feel it. A high premium, however, is only feasible if there would be enough societal support.
- Disagrees: In case of a low premium it is not an indulgence either. If it does not affect the business case and pricing, producers are still able to compete on quality and price.
- Does the precycling premium apply to materials, parts and intermediates? E.g. what happens in case of disassembly or refurbishment? We need to develop to a system where suppliers have to pay for the end product.
- Does the precycling premium take cascading into account? Insuring only for the waste risk of the final cascade would not make it an effective systems instrument.
- Who owns the money and decides on the fund investment programme?

¹ Wit- en bruingoed

- The success of the precycling premium system depends on the ability to use the funds to improve the efficiency of the company.¹¹

Breakout sessions

Finally, the participants meet in smaller groups to discuss several issues.

Group 1. Case

What could be an interesting case to test the precycling premium? It proves difficult to decide on the spot which product groups are most promising. For some products it will be difficult to show the potential of a precycling premium to stimulate innovations in the early product life cycle in a Dutch pilot, e.g. for batteries. The group has defined some criteria for a national or multinational pilot: the product is produced in the Netherlands, waste is preferably processed in the Netherlands and sufficient improvement is possible. Potential products to start with are bicycles, office furniture or fire extinguishers.

Group 2. Waste streams

- Which waste do we want to reduce? There are two major waste streams: 1) waste that is processed within the supply chain and 2) waste that is not collected and leaking out of the system.
- The first waste stream is regulated. New policy targets can be set and the organisation of these waste streams is easier.
- The second waste stream is circumventing regulations and depending on consumer behaviour. It is more difficult to control this waste stream. Non-controlled waste is the biggest risk. How is this waste stream treated in the precycling premium system?

Group 3. System characteristics, definitions, preconditions

- What are the system boundaries, the feedback loops and dependencies? What are the definitions, e.g. ecological waste? What are the preconditions for measurability? What data need to be provided by companies?
- The precycling premium requires a complex methodology to understand the emissions and environmental impacts of products. Some participant think the entire footprint should be included.¹²
- Do not restrict the concept to waste. The environmental impacts of recycling should also be taken into account, e.g. energy and CO₂-emissions.
- Focus on materials instead of products, e.g. carpet tiles can be recycled into car bumpers and then into carpet tiles again.¹³
- You could also connect the precycling premium concept to the idea of a circular economy by working with resource extraction risk instead of a waste risk.

Group 4. Economy

- The premium needs to be coupled to the amount of waste and the impact of the waste.
- Is the precycling premium an economic driver for producers and consumers?
- What is the required height of the premium? What kind of cost increase is needed to change the behaviour or producers? To be able to change producer behaviour the premium needs to be significant and huge funds of billions of euros will be generated.

- Is the precycling premium also intended to affect consumer behaviour? Producers have very little influence on consumer behaviour. To change consumer purchasing behaviour, prices need to go up with at least 10%.
- It would be interesting to have a better view of the size of the precycling premium money-flow in the Netherlands, to be able to think about the impact of closing supply chains.
- The premium needs to relate to those activities that can be influenced by the producer.
- A part of the fund could be used to change consumer behaviour.
- Is the precycling premium integrated in our current financial system or could we use other currencies, like the eco-coins, to avoid major impact on the world market?
- Is seed capital needed to build infrastructure in countries lagging behind in recycling?

Conclusions – Tjeerd Meester & Arthur ten Wolde

- For most participants this workshop has been a useful way to explore the concept of precycling premium. The discussion about the opportunities and challenges of the precycling premium was constructive and many interesting insights and perspectives have emerged. There are answers to many of the questions that have been raised, but they could not be discussed in the available time.
- The Ministry of Infrastructure and Environment is going to reflect on further development of the concept of a precycling premium within the framework of EPR during the next few months. It could potentially be introduced in the VANG programme and the RACE coalition.
- The precycling premium could also be put on the agenda of the European Commission. The Circular Economy package will be published by the end of this year. If the Dutch government supports the instrument, we could propose to include the precycling premium instrument in the EU communication.
- To be able to introduce the precycling premium as a promising European instrument, a feasibility study is needed and a pilot to test the concept in practice, e.g. on bikes.

Exit poll

The participants are asked to score on the outcome of this workshop:

1. The usefulness of EPR/precycling premium: positive: 7 , neutral: 6, negative: 4
2. The usefulness of the workshop: positive: 14, neutral: 2, negative: 0

Attachment 1 – List of participants

Name	Organisation
Freek van Eijk	Acceleratio
Joris van der Meulen	Afvalfonds Verpakkingen
Cees de Mol van Otterloo	Afvalfonds Verpakkingen
Arie de Jong	Auto Recycling Nederland
James Greyson	BlindSpot Think Tank (videolink presentation)
Maurits Hekking	De Groene Zaak
Rudi Daelmans	Desso
Marion Braks	EZ
Tjeerd Meester	lenM
Wyske van der Mei	lenM - Afdelingshoofd
Sander Broers	lenM - Afval Autorecycling
Sharon van der Spek	lenM - Afval CN
Renee Sondervan	lenM - Afval WEEE
Inge Smits-Vossen	lenM - Coördinator Afval LAP
Arnoud Passenier	lenM - Coördinator Ketens
Hester de Boer	lenM - International research and innovation
Hans Spiegeler	lenM - Ketens producthergebruik en EU beleid
Tjeerd Meester	lenM - VANG
Kees Veerman	lenM - VANG
Marc Pruijn	lenM - VANG coördinator
Janneke Pors	IMSA
Arthur ten Wolde	IMSA
Douwe Jan Joustra	IMSA
Ellen Hoog Antink	RVO (moderator)
Marlou Gerrekens	RWS
Marco Kraakman	RWS
Laurens ten Horn	Stibat
Jan Bartels	Stibat
Jan Vlak	Wecycle

Appendix 2: Additional comments from IMSA and BlindSpot regarding some of the questions and challenges raised during the meeting

- ¹ We see the “challenges” raised as questions for further clarification.
- ² Importers are charged as well, just like as producers.
- ³ Precycling premium fund managers may indeed decide to invest in consumer awareness campaigns to reduce the waste risk for the products they insure.
- ⁴ The precycling premium scheme is built on producer’s ratio. As far as producers pass on the premium in price, consumer’s ratio plays indeed an indirect a role. Price is an important purchasing factor for a large group of customers that are focusing less on quality.
- ⁵ Premiums in Greece might initially indeed be higher than in the Netherlands due to lacking waste management infrastructure. However, the current financial crisis in Greece should be dealt with separately.
- ⁶ The product-as-a-service business model would in fact be stimulated by a precycling premium since companies would have to pay a lower (or no) premium for it, so this seems an opportunity rather than a challenge.
- ⁷ Acute factors such as scarcity of a material and climate insecurity can be included in calculation of premiums, so no new insurance would be needed
- ⁸ Precycling premiums are specifically designed to reduce the risks related to waste, and hence the costs for producers. South African Producer Responsibility Organisation REDISA states that “as long as everybody pays, everybody wins (Brussels, 5 March 2015).”
- ⁹ It is unclear if the risks are placed with companies in case of a non-obligatory insurance. However, voluntary insurance means waste-risks can be shrugged off by companies. Without EPR only the consumer is responsible for waste management; the company can ignore it. The need for transparency does not apply to everything, just to the waste-risk and producer’s ‘circularity plan’ for the product. This is vital market information that should not be hidden.
- ¹⁰ National options for implementing aspects of a precycling premium include obligatory reporting of waste-risk without premiums; token premiums; or premiums on selected products.
- ¹¹ Precycling premiums are not returned to the companies that pay them – there would be no incentive. Companies who invest to cut their waste-risk pay lower premiums next year. Companies who choose not to invest pay higher premiums, which are spent throughout society. So the success of the precycling premium system does not depend on the ability to use the funds to improve the efficiency of each individual company. It rather depends on the ability of the fund managers to invest in effective measures to reduce the waste risk for the products of the companies paying the premiums, and of individual companies implementing additional investments in order to further reduce their own premiums.
- ¹² Precycling premiums do not require a complex methodology, nor calculation of environmental impacts/footprints. Waste-risk is used as a proxy for impacts, which are otherwise not easily quantified. Impacts of recycling/emissions/energy are accounted by premiums on fuels.
- ¹³ Carpet tiles and car bumpers are products. Most material flows are products. Non-product material flows, e.g. mining wastes, are regulated separately.