THE DUTCH WEEE FLOWS

WHERE DO
WEEE GO
FROM HERE

2011 DUTCH E-WASTE QUANTIFICATION

Speaker: Eelco Smit

*** Alleen de uitgesproken tekst geldt ***

Good morning ladies and gentlemen,

Today, we want to welcome you into the wondrous world of collecting and recycling electronic waste also known as e-Waste or WEEE. It's a world in which different parties are active collecting and recycling e-Waste but where not all of the parties are equally visible to the public or held accountable for their results. We discovered this world in the late nineteen nineties, when we were setting up the first Dutch system for the collection and recycling of e-waste. There was no information whatsoever about the quantity of electrical appliances that was disposed of every year. Processing costs, logistics, and optimum recycling processes were well-kept secrets. All we knew was that we, the Dutch Electronics Industry, had to make a start in closing the materials loop.

Today, thirteen years down the line, we – now organised through Wecycle– are very familiar with the collection and recycling of e-waste. On our behalf Wecycle organises, monitors and registers the collection and recycling of our electronic waste and they communicate the results to all our stakeholders. Through these actions, we have shaped and mapped out a part of the world of e-waste.

However, our system manages only 40% of all eWaste generated in the Netherlands. Over 60% of all e-waste is still not collected and recycled by us. This is where numerous parties are active who are not always as transparent about their recycling results as one would expect. Many of these are professional companies that mean well and are reaching great recycling results without causing negative effects on the environment. However, we have also observed a considerably grey area with actors employing dubious working methods, poor recycling results and little respect for the environment. Unfortunately, we also know that a part of the e-waste still ends up in the dustbin which means it will be incinerated and valuable

raw materials are lost and the environment is damaged.

E-waste becomes an environmental problem if it is not carefully recycled. It is therefore quite logical, that the authorities set targets and minimum requirements on collection and treatment. However, the government does not have a complete picture of the market. There was no picture in 1999, when the Dutch government drew up its first set of rules. There was an unclear picture in 2002, when the European Union drew up its first e-waste Directive (or WEEE Directive). And still today, there is only a partial picture, even though this Directive has been radically revised this year.

Lack of understanding of this complicated market will result in failure to realise the ambitious objectives of the revised WEEE directive. If we want to recycle in a responsible manner and optimise the recovery of raw materials, we will need to continue to improve our Wecycle system, but more importantly, we need to get a grip on this 60% of the WEEE market which is unknown, unquantifiable, and uncontrolled. We will have to know where things go right or wrong, so we can focus on making improvements where necessary.

We have invited you today to attend a presentation of a giant increase of our understanding of the e-waste market. In 2007 and 2008, NVMP and ICT Milieu carried out a first exploration of the total market for e-waste, including investigations into the amount of products sold and complementary e-waste flows in the Netherlands. The follow-up study, which Jaco Huisman of United Nations University will present to you in a few moments, has gone further in-depth into this market. It has mapped 80% of the e-waste flows, including the Wecycle flow and for the first time will give a quite clear overview of the total market.

The researchers were assisted by the Statistics Netherlands, the Inspectorate of the Ministry of I&M, municipalities and recycling companies, the professionals of Wecycle, ICT Milieu, and the NVMP. They have developed an advanced model that combines qualitative and quantitative market information. Today, we will present to you a tool with which we can take up the challenges of the new European WEEE

directive; a tool that will also prove its worth outside of the Netherlands. We trust the governments will use the tool to create complete pictures of their WEEE flows, so we are able to design the right strategies to manage all these flows. As the old saying goes: you can't manage what you don't measure!

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The study by UN University gives us a lot of new knowledge and insights about the WEEE flows in the Netherlands. It does however also raise additional questions which I want to explore with you.

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The **<u>first</u> question** that remains is: who is actually responsible for the illegal export of e-waste to Ghana, China, Vietnam and other developing countries. Studies provide a first indication of the quantities originating from the Netherlands. Recycling in those countries is causing a lot of damage to the environment and the health of the people involved in these processes. However, the persons who get rich from shipping e-waste to low-wage and poorly regulated countries are hard to trace and even harder to hold accountable.

We would argue for a mandatory handover of all e-waste to approved collection schemes and putting illegal exporters out of business. This means that municipalities and shopkeepers are obliged to deliver all collected e-waste to approved systems, such as ours.

Furthermore, we need strict and harmonised enforcement of the export rules in the EU to fight illegal trade. We have built up an excellent relationship with the Inspectorate of the Ministry of Infrastructure & the Environment, the Customs Administration, and the Police Force. We need to expand that cooperation to all EU member states and put an end to the endless procedures before a seized container of e-waste can finally be sent back to its source.

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My **second question** is closer to home: how can we recover more critical raw materials from our e-waste flows and truly close the materials loop back into new electronic products. Driven by scarcity and trade barriers, the supply of precious metals, rare-earth metals, and other critical materials has become an important concern for Europe. The EU Roadmap for a Resource Efficient Europe is challenging us all to recover more waste and recycling will play an important role in the solution. However, many critical materials only occur in very small fractions in our appliances and lamps. And as a study at NVMP and Wecycle revealed, it is uncertain whether all critical materials can be technically recovered and, if so, at what cost.

Secondly we need to focus our attention to the consumer and create a recycling culture so we can truly close the materials loop for all valuable resources. Wecycle spends almost three million Euros on an annual basis to demonstrate to the consumer that it pays to separate waste. We believe that we should look beyond communication efforts on a single waste stream but should instead combine our efforts with other recycling initiatives such as packaging and batteries to name a few. It is of great importance that consumers understand that they need to separate and recycle all of their waste, not only e-waste. Therefore, we call upon the other industry sectors to join efforts into a single communication platform instead of spreading our financial resources across multiple platforms.

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At the same time, a lot can be improved at the other end of a product's life cycle: the design phase. And that's what my **third question** is aimed at: Can we improve recycling results by making changes to our product designs?

The dilemma with 'Design for recycling' is that efforts will only pay off years later when the product is recycled - which can be ten or fifteen years later. And by that time, recycling requirements may well have changed again.

For example, at the beginning of this century, we talked about the desirability of click connections over screwed connections and about the marking of plastic parts. Today, recyclers are no longer concerned about these connectors. What used to be

important, has turned out to be rather insignificant and has no great impact on the recycling processes today.

This does not mean we should not do anything at all. WeCycle has ordered a study into product design that should result in recommendations that are not dependent on time or technology, but which are aimed at improving or simplifying the recovery of critical materials or the avoidance of their use altogether.

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Ladies and gentlemen,
We are happy to share the results of our research efforts with you and all parties involved in finding solutions for the e-waste problem. We are also very interested to better understand your ideas and insights. Later on, we will see what we can learn from international experiences, when Jason Linnell and Hiroyuki Furukawa discuss the developments in the US and Japan. And Stephane Arditi will offer his insights in how we could be more effective in the eyes of the European Environmental Bureau.

Together, we are facing a great challenge. There is a growing ambition to prevent toxic substances from entering the environment and to recover increasing amounts of raw materials. In Europe, we are aiming high with the revised WEEE Directive, whereby the Netherlands is taking on the commitment to double the volume of the registered and monitored WEEE collection over the next seven years. And, like I said, we want to recuperate more raw materials – especially the critical ones – from this doubled volume.

A fair task awaits us! Let all stakeholders join forces to make this into a success. We are very happy to have you as our guests today, and hope that these presentations will inspire you.