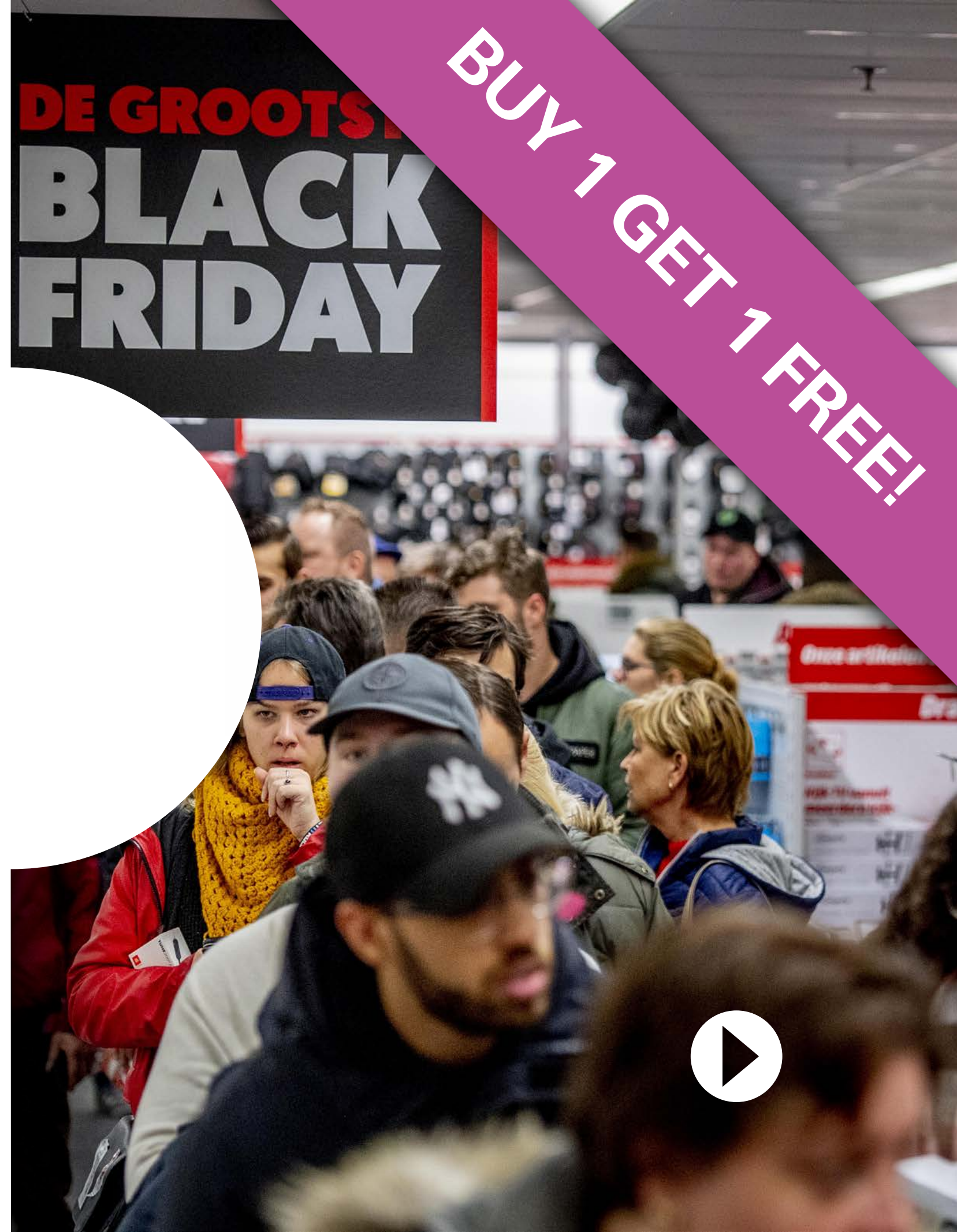


# PHASING OUT THE THROW-AWAY SOCIETY

NOVEMBER 2023



## About the Council for the Environment and Infrastructure

The Council for the Environment and Infrastructure (*Raad voor de leefomgeving en infrastructuur, Rli*) advises the Dutch government and Parliament on strategic issues concerning the sustainable development of the living and working environment. The Council is independent, and offers solicited and unsolicited advice on long-term issues of strategic importance to the Netherlands. Through its integrated approach and strategic advice, the Council strives to provide greater depth and breadth to the political and social debate, and to improve the quality of decision-making processes.

## The Council for the Environment and Infrastructure (Rli)

Bezuidenhoutseweg 30  
P.O. Box 20906  
2500 EX The Hague  
The Netherlands  
info@rli.nl  
www.rli.nl

## Composition of the Council

Jan Jaap de Graeff, Chair  
Pallas Agterberg  
Jeanet van Antwerpen  
Prof. Niels Koeman  
Jantine Kriens  
Emmy Meijers  
Jeroen Niemans  
Krijn Poppe  
Karin Sluis  
Prof. Hanna Tolsma  
Prof. Erik Verhoef  
Em. Prof. André van der Zande

## Junior members of the Council

Joris van den Boom  
Yourai Mol

## General secretary

Ron Hillebrand PhD



# CONTENTS

<b>SUMMARY</b>	5	3.2 Shortening product lifespan as a commercial strategy	26
<b>ADVICE</b>	10	3.3 Insufficient attention to the waste processing phase in product design	28
1 INTRODUCTION	10	3.4 Lack of information about products	29
1.1 Subject of this advisory report	10	4 APPROACHES FOR REVERSING THE TREND	31
1.2 Context	11	4.1 Set sustainability requirements for products and production processes	31
1.3 The main question addressed in this report	15	4.2 Make longer use and reuse of products the norm	33
1.4 Scope	16	4.3 Ensure value retention of products, components, and raw materials	35
1.5 Relationship to other Rli advisory reports	17	4.4 Encourage sustainable choices by consumers	37
1.6 Structure of this report	17	4.5 For the longer term: fundamental intervention in the economic system	39
2 THE THROW-AWAY TREND WITHIN THE DUTCH ECONOMY	18	5 CONCLUSIONS AND RECOMMENDATIONS	41
2.1 The throw-away trend in clothing, furniture, and consumer electronics	18	5.1 Conclusions	41
2.2 Cautious moves to counter the throw-away trend	21	5.2 Recommendations	43
2.3 Throwing away as an inherent part of the economy	24		
3 MECHANISMS REINFORCING THE THROW-AWAY TREND	25		
3.1 Cost of negative external effects not factored in	25		



<b>REFERENCES</b>	49
<hr/>	
<b>APPENDICES</b>	54
RESPONSIBILITY AND ACKNOWLEDGEMENT	54
OVERVIEW OF RLI PUBLICATIONS	57
<hr/>	

The Dutch version of the advisory report contains an additional analytical section.





## SUMMARY

Globally – thus including in the Netherlands – more and more stuff is being thrown away. This involves mainly cheap, non-durable goods produced in low-wage countries. Many of these products are discarded after only a brief period of use and end up in landfills around the world.

The ‘throw-away society’ poses a problem for several reasons. The production, use, and disposal phases of cheaply made goods (for example ‘fast fashion’, ‘fast furniture’ and consumer electronics) involve various negative impacts: environmental pollution, health problems, CO<sub>2</sub> emissions, depletion of natural resources, and exploitation of labour. All these effects threaten life on our planet.

In this advisory report, the Council for the Environment and Infrastructure (Rli) looks at ways to counter the throw-away trend in our economy. What government measures are needed to achieve this, at European level and in the Netherlands?

### **Building a sustainable economy requires phasing out the throw-away society**

There is an increasing focus in Dutch government policy on making the economy more sustainable and circular. There is very little policy focus, however, on countering the throw-away society. In our view, the

throw-away society is a barrier to the necessary transition to a sustainable economy, and it is therefore important that policy should also focus on phasing it out. You can't have one without the other.

### **Throwing stuff away is part of the current economic system**

The throw-away society is an inherent component of our current economic system, which revolves around competing on cost. Companies strive to sell as many goods as possible for the lowest possible price, a revenue model that ultimately leads to an economic race to the bottom.

We see examples of this in the 'fast fashion' sector, among others. That sector is extremely focused on low costs and therefore inevitably also on low product quality. Much of the cheaply produced clothing quickly starts to wear out and is discarded after only a short time.

### **Four mechanisms maintain and reinforce the throw-away trend**

We identify four mechanisms that maintain and reinforce the throw-away trend:

1. Producers of non-sustainable items choose not to factor the cost of negative impacts during production and waste processing into the price of their products. This makes buying products of throw-away quality attractive.
2. Producers' selection as regards materials and production methods means that products manufactured non-sustainably have an ever-shorter lifespan. This is sometimes even a deliberate strategy. Products then need to be replaced within a relatively short time.

3. Product design usually takes no account of what happens to the product, and the raw materials used in it, during the disposal phase.
4. Many people find it difficult to make a responsible choice from the range of products available (including online) due to the lack of clear information about the sustainability of products and because they are also exposed to temptation and deception.

### **Recommendations**

In this advisory report, we offer the Dutch government a number of policy interventions that can counter the throw-away trend in society. We focus on policy interventions for the next five years. Government intervention will need to operate along several different tracks simultaneously. The overall set of measures can counter the throw-away trend. The following is an abbreviated list of our recommended interventions.

#### *1. Enforce sustainable production processes, on the way to true product pricing*

European legislative processes are currently under way that offer an exceptional opportunity for ensuring the sustainability of products and production chains. The Dutch government will need to push hard for ambitious content and implementation of this EU legislation. It includes (a) the EU Ecodesign Regulation, which sets requirements for the reusability and reparability of products and the use of (recovered) raw materials, and (b) a number of EU transparency directives, compelling producers to provide clear information on the environmental impact and working



conditions of their production processes. This will enable governments within the EU to initiate a movement towards true product pricing.

Recommended interventions:

- At EU level, advocate ambitious content of the Ecodesign Regulation and the resulting product requirements, as well as the European Transparency Directives.
- Ensure ambitious content and implementation of the national legislation for International Responsible Business Conduct ('International RBC').
- Oblige Dutch producers to share their product data.
- Set an agenda for working towards true pricing.

## *2. Strive for longer-lasting products by focusing on reuse and repair*

Phasing out the throw-away society requires structural measures that promote the reuse and repair of products. It should be easy and affordable for consumers to purchase high-quality second-hand products and to have defective items repaired.

Recommended interventions:

- Promote a professional repair market by mandating that authorised repairers have access to spare parts from all electronics chains. Additionally, make use of the opportunities offered by the pending EU 'Right to Repair' and the Consumer Sales Directive for extending guarantee periods. Also make repair of defective items affordable for consumers by abolishing the VAT on repairs.

- Make second-hand shops and second-hand goods more accessible and visible. This can be achieved by (a) requiring larger retail chains to offer more second-hand products and (b) ensuring that a proportion (say 10%) of floor space in shopping centres is made available for the sale of second-hand products. The latter will specifically require action on the part of municipalities.

## *3. Strive for value retention through reuse, high-grade recycling, and improved EPR schemes*

To ensure value retention of products, product components and raw materials, government will need to strive for improved product design and more professional collection, sorting, reuse, and recycling of discarded products. It will need to impose more stringent requirements for these through the policy instrument of extended producer responsibility (EPR).

Recommended interventions:

- Press internationally for an urgent review of the rules regarding waste. The current rules on the use, transport, and processing of discarded products are not in line with the aim of ensuring value retention and phasing out the throw-away society.
- Strive for improved, larger-scale collection, sorting, and recycling of discarded products. To that end, support technological innovation in sorting and recycling, require retailers to introduce a doorstep return system for large products such as mattresses and washing machines, and introduce a deposit scheme for batteries.



- Ensure greater control of the content and creation of EPR schemes. Set more stringent requirements for high-grade recycling and alter the waste management contribution paid by producers so that improved product design and reuse become worthwhile. Give municipalities and municipal waste processing services a greater voice in decision-making regarding EPR schemes. If necessary set up independent chain management organisations for each product group.

#### *4. Assist consumers to make deliberate choices and protect them against manipulation*

To promote behavioural change among consumers, government will need to ensure that information on the origin and environmental impact of products is readily available and accessible. Sustainable products must also be accessible and affordable. Government will also need to ensure that people feel they are assisted in making responsible choices. They must also be protected from misleading greenwashing and from being lured into making impulsive purchases.

Recommended interventions:

- Introduce a lifespan label and a repair label with information on the expected useful life and reparability of a product.
- Assist people in making more sustainable choices, using the behavioural strategy that is being developed for this purpose (IenW, 2023). Run publicity campaigns to clarify the harmful effects that consumption has on people and the environment. Spread the idea that it helps not to purchase something.

- Ban or discourage rock-bottom pricing of products that – combined with targeted marketing campaigns – mostly encourages impulsive purchases, and prohibit the discarding and destruction of unsold stock. Draw up an agreement with retailers and the second-hand sector that includes arrangements to stop promotion of cheap bargains by means of rock-bottom pricing and encourage the donation or sale of unsold stock to the second-hand circuit.
- Explore ways to limit advertising for disposable products that have harmful effects. Start by restricting advertising in public space that urges people to purchase products whose production involves negative environmental impacts or poor working conditions.

#### *5. As government, take the lead, coordinate matters, and set a good example*

The urgent need to tackle the throw-away society is not yet sufficiently recognised either in politics or in society. The transition to a sustainable and circular economy receives insufficient attention in government policy, and the necessary phase-out of the throw-away society is not in the picture at all. It is important that there is stronger commitment to this transition at cabinet level, both in terms of the coordinating minister or state secretary and the government budget allocated for this purpose. A desire to become more sustainable is apparent among both businesses and the public at large. It is therefore crucial for central government to adopt an active, enabling, and coordinating role in this regard.





Recommended interventions:

- Assist and protect consumers. Make clear how they can contribute themselves, and create the necessary conditions for them to do so.
- Support the business community in reducing harmful impacts of their products and production chains. Establish sectoral support centres that prepare companies for national and European legislation and regulations on phasing out the disposable economy.
- Ensure more robust cross-ministry coordination and control of policy aimed at phasing out the throw-away society. Free up substantially larger funding and capacity to implement the measures set out in recommendations 1 to 4. Require public authorities to make their procurement sustainable and circular.

The above recommendations focus on the next five years. In the medium term, however, more will be needed. Government will need to bring about fundamental changes in the economic system so as to ensure (1) true pricing for products, (2) less taxation on labour and more taxation on primary raw materials, and (3) an anti-throw-away attitude in society as a whole. These changes are indispensable for (4) the transition to a sustainable economy, one in which the primary focus is no longer on structural growth of GDP but which operates within the planetary boundaries.



## 1 INTRODUCTION

### 1.1 Subject of this advisory report

This advisory report by the Council for the Environment and Infrastructure (Rli) deals with the 'throw-away society', i.e. the phenomenon that in contemporary society, more and more goods are produced that are used only briefly and then thrown away.

This phenomenon arises from the way today's economy works. The emphasis is on selling as many goods as possible at the lowest possible price. They are therefore not designed to last. This economic system, which is coupled with high levels of resource consumption, has become a global practice with far-reaching social and environmental consequences.

In the present advisory report, we look at the factors that reinforce the throw-away society, its negative effects on people and the environment, and ways to reverse the throw-away trend. We focus in particular on consumer goods.

## 1.2 Context

### Emergence of the throw-away society

The emergence of the throw-away society is closely related to how the post-war economy was given shape. Countless developments and events influenced this, one of them being the transfer of production to low-wage countries from the 1960s onwards.<sup>1</sup> The focus of that process was primarily on economic growth and increased prosperity in western countries. Far less attention was paid to possible harmful effects on people and the environment during the production, use, and disposal phases of products. Nevertheless, those effects did make themselves felt, for example environmental and health effects resulting from raw materials extraction and poor working conditions in low-wage countries. Another effect has been the depletion of natural resources. Recognition of these negative effects has grown significantly in recent years, as is illustrated by the way such terms as 'ecological footprint' and 'planetary boundaries' have become part of public discourse.

### The situation in 2023

In 2023, we in the Netherlands are also living in a throw-away society. More products are purchased per capita than ever (CLO, 2023a). And given the low price of many products, there is a great temptation for people to simply throw an item away for the slightest reason and buy something new, for

<sup>1</sup> Other important developments include the formation of the European Union (EU) in 1992 and China's accession to the World Trade Organisation in 2001. The advent of the internet, e-commerce, and the smartphone has also had a major influence, with a large global marketplace emerging as a result.

example if the item has a defect or if it is no longer in line with the latest fashion.

The relationship between the *price level* of products and the purchasing power of consumers is an important factor here. In the early 1960s, for example, a black and white television cost more than the monthly salary of someone on a modal income, whereas today a modal income is easily enough to purchase a 'smart' colour TV with a bigger screen and better picture quality (see box).

#### Changed relationship between income and product prices

In the early 1960s, someone on a modal income earned the equivalent of around €150 a month,<sup>2</sup> while a television cost the equivalent of more than €500 (Limburgsch Dagblad, 1963).<sup>3</sup> In September 2022, a gross modal income was €3,086 per month (CPB, 2022) and a 'smart' colour TV could be bought for less than €500.

Other consumer goods such as clothing, furniture, and mobile phones have seen similar trends.

Along with falling prices, the *lifespan* of products has decreased over time, due to their lower quality. In the early 1960s, a television often lasted more

<sup>2</sup> The Netherlands Bureau for Economic Policy Analysis (CBP) began calculating the modal income in 1969, when it was 5,000 guilders a year (roughly 400 guilders a month).

<sup>3</sup> In a random 1963 advert in the Limburgsch Dagblad newspaper, the price of a television was 1,148 guilders.



than ten years; today, that is rarely the case and the average lifespan is five to nine years (De Consumentenbond, 2023).<sup>4</sup>

Another factor typifying today's throw-away society is the increasing *trend-sensitivity* of products. Products have become increasingly important to people's identity and self-image. Mobile phones, for instance, have become highly trend-sensitive, partly as a result of product innovations rapidly succeeding one another. Clothing has always been subject to fashion, but here too we see that trends are following one another at an ever-faster pace. The fact that products have a shorter lifespan or lower quality therefore matters less to many people.

### **Negative effects**

The 'throw-away society' poses a problem for several reasons. Negative impacts occur in the various life phases of products: the production phase, use phase, and disposal phase. The main negative effects are:

- *CO<sub>2</sub> emissions during the production, transport, use, and disposal phases.* Energy consumption during the manufacturing, processing, and transportation of products is often high. For many electrical appliances, energy consumption is also high during the use phase. All this energy consumption results in high CO<sub>2</sub> emissions and contributes greatly to climate change.

<sup>4</sup> Techniek Nederland refers to the UNETO-VNI table of average expectations for useful life related to prices. For televisions costing between €500 and €1,000, an average useful life of five years is assumed. For cheaper models, the useful life is three to four years and for more expensive models six years.

- *Environmental impact and health issues during production.* Extracting the raw materials needed to produce goods causes air, soil and water pollution, and affects biodiversity. Cotton cultivation for the clothing industry, for example, involves the use of toxic pesticides and toxic chemicals for dyeing the garments. These substances are harmful not only to the environment but also to workers' health. During the use phase, washing synthetic clothing also leads to the emission of microplastics. Industrial furniture production also has a large environmental footprint. Unsustainable logging takes place and toxic glues are used. In mobile phone manufacturing, the harmful effects are at least as great, for example those caused by the extraction of raw materials such as iron, aluminium, gold, cobalt, and lithium. The necessary mining activities involve high energy consumption and pollution, and the chemicals used also lead to health problems among workers.
- *Poor working conditions during production.* In low-wage countries, where most consumer goods are produced, poor working conditions often prevail (Ellen MacArthur Foundation, 2022; Gonzalez & Schipper, 2021). Many garments are made in Bangladesh, Cambodia, and Indonesia, while mobile phones come mainly from India, Thailand, and especially China. The latter country also manufactures the majority of furniture sold in the Netherlands. Because production takes place far away and through opaque supply chains, it is difficult to organise effective monitoring of working conditions. It is known, however, that people in the countries referred to are often poorly paid, work long hours, and have to work in unhealthy conditions.



- *Environmental impact and health issues during waste processing.* Environmental and health issues occur once more in the disposal phase of products. Discarded products are mostly shipped to – again – low-wage countries for reuse or processing as waste. This is frequently accompanied by environmental problems and health risks. Examples include the dangers faced by workers processing electronic waste in West African countries or the environmental consequences of clothing dumping in such countries as Ghana or Chile (see box).
- *Depletion of natural resources.* The wasteful handling of raw materials that characterises both the production process and the disposal phase leads to the depletion of natural resources. This exacerbates the scarcity of critical and strategic raw materials and increasingly leads to undesirable geopolitical dependence on countries such as China and Russia.

### Consequences of clothing dumping in Ghana and Chile

Many garments discarded in Western countries are transported to low-wage countries such as Ghana and Chile on the pretext of ‘reuse elsewhere’. However much of the clothing concerned is unsuitable for reuse and is in fact dumped as waste.

In Ghana, the unusable garments end up in the sea via the sewers, before being thrown back up onto the beach by the waves, leaving the coast littered with them. Other garments are dumped in illegal landfills, where they are burnt in the open air, releasing toxic fumes.

Chile imports more than 50,000 tonnes of discarded clothing a year from around the world. A similar ecological disaster is unfolding there.

Clothing that can no longer be used – up to 40,000 tonnes a year – ends up in the desert.

### Role of increased consumption

The negative effects of the throw-away society are directly linked to increased global consumption. Consumption has been on the rise in the Netherlands too for decades. The Environmental Data Compendium<sup>5</sup> shows that (inflation-adjusted) Dutch consumption has been growing almost continuously since 1995, increasing by 58% overall (CLO, 2023a). In the Compendium, the increase is explained mainly by population growth and the growth of the economy as such.

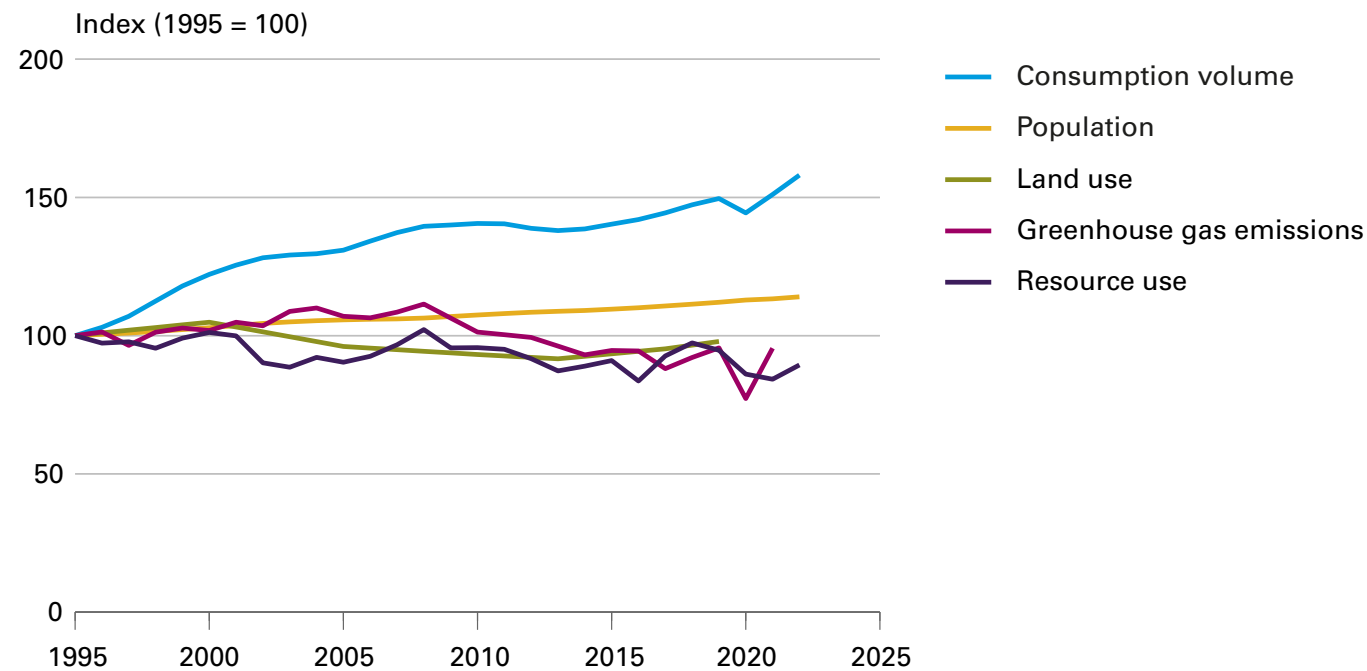
As Figure 1 shows, Dutch consumption volume has increased steadily since 1995. Thanks to efficiency improvements in production chains and product design, pressure on the environment has simultaneously decreased in relative terms.<sup>6</sup> Many appliances, for example, have become more energy-efficient. As a result, energy consumption in the Netherlands has decreased since 2010, even though the total number of appliances sold has increased substantially (CLO, 2023b).

<sup>5</sup> The Environmental Data Compendium [*Compendium voor de Leefomgeving*] is a website with facts and figures on the environment, nature, and space in the Netherlands. It is published by Statistics Netherlands (CBS), the Netherlands Environmental Assessment Agency (PBL), the National Institute for Public Health and the Environment (RIVM), and Wageningen University & Research.

<sup>6</sup> Pressure on the environment was calculated based on the indicators for land use, greenhouse gas emissions and consumption of resources. For the land use and emissions indicators (CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O), effects outside the Netherlands were also included. The indicator for consumption of resources is slightly less reliable because consumption in the pre-production chain is not included.



Figure 1: Environmental pressure of Dutch consumption



Source: CLO, 2023a

Nevertheless, as a number of studies show, pressure on the environment due to consumption is far too high. For example, the international Earth Commission group has shown that planetary boundaries for climate, biodiversity, water, fertilisers, and air quality are greatly exceeded (Rockström et al., 2023; Duintjer Tebbens, 2023). According to the Global Footprint Network, global demand for natural resources exceeds the Earth's available supply. In 2023, the day when humanity has collectively consumed more of nature than the planet can renew in one year ('earth overshoot day'), fell on August 2. This means that from that day until 31 December, we are 'in the red' as regards the planet. We are rushing through our 'annual

ecological budget' too quickly. To permanently meet current global demand for natural resources, we would need 1.7 earths (Earth Overshoot Day, 2023a).

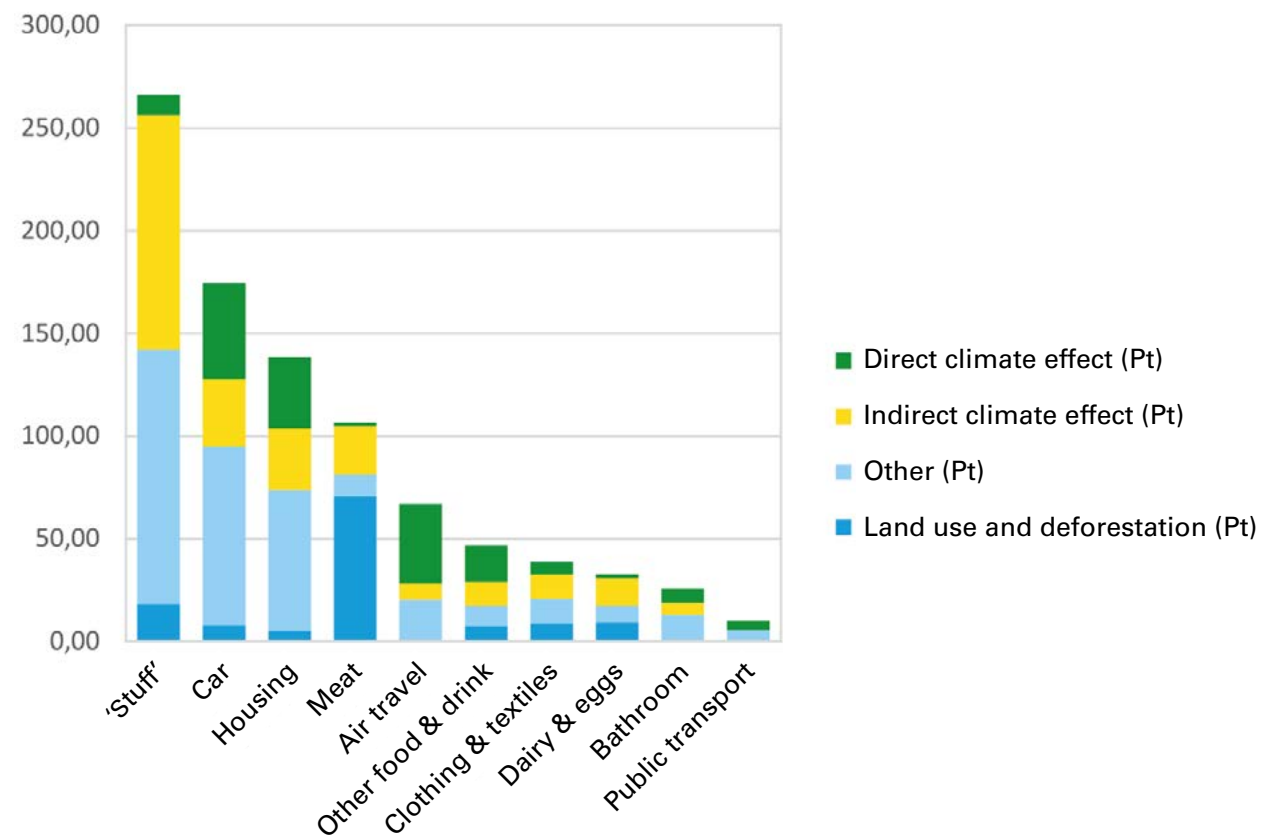
The Dutch share in this over-demand on nature's stocks of resources is substantial. For the year 2023, for example, *overshoot day* for the Netherlands has been calculated as 12 April (Earth Overshoot Day, 2023b). On that date, the Netherlands had already consumed the per capita biocapacity available for 2023. For the rest of the year, the country is therefore draining the earth's reserves. Put differently, if everyone lived like a Dutch person, 3.5 earths would be needed (Global Footprint Network, 2023).<sup>7</sup>

Despite the increased efficiency of production chains discussed above, continued growth in consumption of products in the Netherlands leads to a high burden on natural resources, which is non-sustainable in the longer term.

<sup>7</sup> The available global biocapacity was set at 1.6 global hectares per person for 2018. The Dutch ecological footprint averages 5.7 global hectares per person. A global hectare is a unit of measurement referring to biologically productive hectares with a global average yield for the given year.



**Figure 2: Top 10 environmental impacts of average annual consumption by one person in the Netherlands in 2020**



Source: CE Delft, 2020

If we then look at how the Dutch share in the over-demand on the earth's capacity is made up, it becomes clear that the impact of consumption is substantial. In particular, buying 'stuff'<sup>8</sup> appears to have a major environmental impact (Porcelijn, 2020). Figure 2 shows this using

<sup>8</sup> The category 'stuff' includes electronics, furniture, household items, books, plants, and cleaning supplies. The figures also include the environmental impact of the use phase of items, such as the impact of a fridge's consumption of electricity and the impact of a washing machine's use of water.

the environmental impact of average consumption per person in the Netherlands.

### 1.3 The main question addressed in this report

Policy initiatives adopted in recent years by the Dutch government and the EU to reduce consumption of resources and to make the economy more sustainable have so far had only limited effect. In its *Integral Circular Economy Report 2023*, the Netherlands Environmental Assessment Agency (PBL) notes that consumption of resources in the Netherlands is continuing to rise. The PBL points out in this context that the Dutch government currently relies mainly on policy instruments of a voluntary nature, such as sector agreements and innovation subsidies. There is a lack of 'pressure and compulsion' to take substantial steps towards a sustainable and circular economy (PBL, 2023a).

To this PBL observation, we would add that there is also a lack of attention in policy-making to phasing out non-sustainable economic practices and countering the throw-away trend in society. It is important for this to change, because the government's efforts towards a sustainable and circular economy will remain merely an illusion as long as the main revenue model in our economy is to sell as many goods as possible at the lowest possible price.

In the present advisory report, we look for measures that the Dutch government could put in place over the next five years – within the frameworks of EU policy – to address the throw-away problem; in other



words to slow down and reverse the trend of steadily growing consumption of resources combined with only brief use of products. We are therefore seeking measures that encourage a development towards manufacturing products that are of better quality and last longer, and have more options for efficient use of raw materials, reuse, or repair. Against this background, the main question addressed in this advisory report is:

*How can the Netherlands, both nationally and in a European context, ensure phasing out of the throw-away society, as part of the transition to the production and use of sustainable consumer goods? What interventions are needed to make this possible?*

In answering this question, we consider primarily consumer goods. That allows us to include both producer and consumer behaviour in our analysis. This is important because the features of both product supply and people's purchasing behaviour play a role in the throw-away problem.

Within the consumer goods category, we focus on three product groups: clothing, furniture, and consumer electronics. We chose these product groups because they comprise goods that exemplify the widespread trend towards production and consumption of large quantities of low-cost items with a limited lifespan. 'Fast fashion' and 'fast furniture', for example, are characterised by rapid manufacturing lines, often using low-quality materials. The garments and furniture produced are not meant to last.

A similar situation applies in the case of electronic devices, which often have a limited lifespan and are difficult to repair or make reusable. Within this product group, batteries are a growing problem because they are found in more and more products and contain seriously worrying substances that often end up in residual waste or (outside Europe) in the environment.

These three product groups also receive specific attention in the government policy included in the *National Circular Economy Programme* (IenW, 2023a).

Based on our insights regarding consumer goods, this advisory report presents a number of more general statements about interventions that are needed to phase out the throw-away trend. Our focus is on policy interventions *for the next five years*. We consider these interventions to represent what is needed to commence phasing out the throw-away society. We realise that doing so will in the medium term require more fundamental government interventions. Our recommendations are therefore intended to indicate the initial steps that government can take.

#### 1.4 Scope

This advisory report focuses on the necessity of phasing out non-sustainable economic practices and of reversing the throw-away trend within society. Encouraging the transition to a circular economy is in line with this, but that transition is not itself the theme of this report. The transition to a circular economy can be viewed as the broader context





within which tackling the throw-away issue will take place in the coming decades. Beyond this, there is the even broader movement towards a sustainable economy, which is not only circular but also climate-neutral and nature-inclusive, and operates within the planetary boundaries. In short, reversing the throw-away trend constitutes one of the actions intended to contribute to building a circular and sustainable economy.

When discussing the transition to the circular economy, reference is often made to the 'R ladder'. This provides an overview of circularity strategies that can be deployed to reduce consumption of resources and the associated pressure on the environment. From the perspective of tackling the throw-away problem, it is above all strategies that are *higher* on the R ladder that are relevant (see box).

#### Higher strategies on the R ladder

The strategies on the R ladder that are the most relevant to this advisory report are:

- *Refuse and rethink*: avoid buying products or share them.
- *Reduce*: use raw materials more efficiently during production processes.
- *Re-use*: use products and product components for longer by re-using them.
- *Repair, refurbish, remanufacture, and repurpose*: repair, refurbish, recondition, and repurpose products (PBL, 2023a).

### 1.5 Relationship to other Rli advisory reports

The Council has released a number of publications in the past few years that share common ground with the subject of the present advisory report: *Circular economy: From wish to practice* (2015), *Towards a sustainable economy: The governance of transitions* (2019), *Investing in sustainable growth* (2021a), and *Farmers with a future* (2021b). The Rli's Work Programme 2023–2024 (2022) also envisages publication of an advisory report on sustainable building.

### 1.6 Structure of this report

This advisory report is structured as follows. In Section 2, using figures on clothing, furniture and consumer electronics, we show how consumption and discarding of goods has steadily increased within the Dutch economy in recent decades, and what features of the economic system explain this. In Section 3, we identify four mechanisms that maintain and reinforce the throw-away problem. In Section 4, we outline solutions that can reverse the throw-away trend in our society. Finally, in Section 5, we articulate these solutions in the form of specific policy measures that the Dutch government can put in place in the short term.

The Dutch version of the report includes a second part that explains a number of matters in greater detail. This has been omitted from the English version.





## 2 THE THROW-AWAY TREND WITHIN THE DUTCH ECONOMY

**In recent decades, the Netherlands has seen a steady increase in the volume of products sold and – often soon after – thrown away again. The throw-away problem has increased considerably, particularly in the new millennium. This is apparent from the production and disposal figures for clothing, furniture, and consumer electronics since the year 2000. There are also examples of entrepreneurs who attempt – against the trend – to manufacture products in a sustainable manner. Under current economic conditions, however, that is proving very difficult. In recent years, the rapid discarding of products has become an inherent feature of our economic system.**

### **2.1 The throw-away trend in clothing, furniture, and consumer electronics**

In each of the three product groups that we investigate in this advisory report – clothing, furniture, and consumer electronics – a growing throw-away trend is apparent. More and more products are being purchased in the Netherlands, and they are being discarded more and more quickly. There is

therefore (a) an increase in production and consumption and (b) a decrease in the useful life per product. We will describe the development of this trend according to each product group, also shedding light on the production and disposal figures.

### **Fast fashion**

Clothing is the product group most frequently mentioned in critical observations about wasted raw materials, environmental pollution, and social exploitation. More specifically, criticism focuses on 'fast fashion'. A characteristic feature of fast fashion is its high turnover rate. A clothing line is designed and produced within only a short time and is in the shops within just a few weeks. This allows frequent changes in the range on offer. In the 1990s, C&A presented around four clothing collections a year, limited by the time it took to manufacture them. Today, however, fast fashion chains such as Primark and Zara launch dozens of collections each year, tailored to the latest fashion trends. It should be noted, moreover, that fashion trends are influenced by the fast fashion chains themselves, both through advertising and with the help of online influencers.

Fast fashion is created cheaply, often under poor working conditions and with negative effects on the environment. The products tend to be of lower quality than traditionally produced clothing. In addition, fast fashion often involves built-in scarcity. Collections tend to be limited and one-off, encouraging customers to purchase immediately. Short-term use is also built into the revenue model. What is fashionable today may already be

out of date next month. Unsold collections are often discarded ready for destruction.

The quantity of rapidly produced clothing that enters the market each year and ends up as waste after only short-term use – or right away – has increased sharply over recent decades (see box).

#### **Clothing: production and waste figures**

Each year, 900 million garments enter the Dutch market (KplusV, 2020). About 6.5% of them remain unsold at the producers, wholesalers, and clothing companies (MVO Netherlands & Wageningen University, 2016). The rest end up in people's wardrobes. However, a third of the garments purchased are either not worn at all or hardly worn (Maldini et al., 2017). This phenomenon is only increasing, including outside the Netherlands. Globally, the number of times a garment is worn has decreased by 36% over the past 15 years (KplusV, 2020).

This means that more and more garments are being thrown away. Research by KplusV shows that the quantity of discarded clothing in the Netherlands has more than doubled in the past 25 years. In 1993, for example, there were 125 kilotonnes of discarded clothing; by 2017, this had risen to almost 260 kilotonnes (687 million items). This represents an increase from about 8 kilos to 15 kilos per inhabitant. Of the discarded garments, around 50% end up as residual waste, meaning that they cannot be reused or recycled and end up in the incinerator.



## Fast furniture

The European furniture industry, traditionally focused on manufacturing high-quality products, has been increasingly crowded out in recent decades by the booming 'fast furniture' industry. This cheaper furniture – on sale at shops such as Ikea, Kwantum, Leen Bakker, and Trendhopper – is mostly made of low-quality boards and panels and (fossil-based) plastics. Fast furniture now accounts for 60% of the furniture sold in the Netherlands. It is produced in Southeast Asia, primarily in China.

Like fast fashion, fast furniture is usually sold in the form of rapidly changing collections. And the production of fast furniture is also often at the expense of the environment and of fair and healthy working conditions. The quality and therefore the useful life of the products is generally low. Much of the furniture produced also contains such substances as formaldehyde, polyether and cold foam, which cause health risks for factory workers and are also difficult to recover through recycling. It should also be noted that these substances can also cause health problems in consumers.

Fast furniture is still a policy blind spot in the Netherlands and the EU, even though it has a large ecological footprint (The ReUse Alliance, 2023). That applies not only to the production phase but definitely also to the disposal phase (see box).

## Furniture: production and waste figures

Household spending on home furnishings and decoration increased by 22.8% between 2000 and 2022. The main reason is that furniture now has a shorter lifespan. It is becoming increasingly subject to trends, and to cater for this, more and more cheap furniture is being produced, often of inferior quality. The useful life of a fashionable sofa is currently about 7 years, which is lower than the average economic life of 11.7 years allocated to sofas for insurance purposes. It is estimated that some 80 kilotonnes of seating furniture is discarded annually, largely ending up as bulky refuse (TAUW, 2022).

## Consumer electronics

The quantity of consumer electronics has increased dramatically in recent years. Many of the devices concerned have a battery (Stibat, 2022). Products that were previously not electrically powered now also increasingly contain batteries, for example shoe soles that light up, wireless earphones, or incontinence pads with absorption sensors. Because these batteries contain harmful substances, scrapping products that contain them poses a significant problem from the environmental point of view. Moreover, batteries in residual waste regularly cause fires in refuse trucks and waste treatment plants.

Innovations in the electronics sector provide a constant stream of new electronic products and new versions of them. New mobile phones are launched regularly, for example, with additional features and improved



performance. This encourages people to use them for only a short time (and quickly dispose of them). The supreme example of this phenomenon is 'single-use electronics': battery-operated devices intended to be used just once – such as single-use e-cigarettes or electronic pregnancy tests – and with batteries that are neither rechargeable nor replaceable. After use, these products frequently end up not as chemical waste but as residual waste – often because people are hardly aware that the device concerned is in fact electronic.

The enormous growth in consumer electronics production in recent decades has led to a sharp increase in the quantity of discarded appliances (see box).

#### **Consumer electronics: production and waste figures**

Between 2005 and 2022, the quantity of consumer electronics sold in the Netherlands increased by 49% (CBS, 2023). In 2000, a total of some 473 million kilos of electronic and electrical appliances were brought onto the market (more than 29 kilos per inhabitant); by 2019, this had increased by over 35% to almost 640 million kilos (36 kilos per inhabitant) (CLO, 2023c).

This huge increase can be partly explained by the energy transition, which is leading to people owning more and more electrical appliances, such as solar panels and inverters. Another part of the increase can be explained by the fact that as appliances become cheaper and more economical, people tend to buy more of them. This is known as the Jevons paradox.

Like clothing and furniture, the lifespan of many electronic devices has declined in recent decades. As a result, the volume of discarded electronic and electrical products has grown significantly. In 2000, the quantity of electrical and electronic waste, including exports of used appliances, was 234 million kilos (14.7 kilos per inhabitant). In 2019, this had increased to 411 million kilos (23.7 kilos per inhabitant). Of this, 40.7% were consumer appliances (CLO, 2023c).

## **2.2 Cautious moves to counter the throw-away trend**

The developments and figures discussed above paint a bleak picture: the mountains of waste resulting from the throw-away society are simply increasing. However, we have also come across some examples of a hopeful contrary trend. For some years now, design programmes at vocational schools and in higher education have focused on thinking and working in a sustainable and circular manner. Ample knowledge and expertise is therefore available. And there are various producers (often start-ups) that aim to make products that are of higher quality and last longer, in a more responsible and environmentally friendly way.

### **Sustainable initiatives by Auping, MUD Jeans, and Fairphone**

Frequently cited examples of Dutch businesses that have managed to set up a sustainable revenue model are Auping, MUD Jeans, and Fairphone.



### Sustainably produced mattresses, jeans, and mobile phones

- *Auping* has been marketing circular mattresses since 2022. These are mattresses whose materials can be reused over and over in new mattresses. This involves high-grade recycling and reuse of materials. The company thus prevents discarded mattresses from ending up in the incinerator, with a great deal of material then being lost and with a large quantity of CO<sub>2</sub> being emitted.
- *MUD Jeans* makes jeans that currently consist for at least 40% of recycled jeans, supplemented by organically grown cotton. The company is aiming to produce denim fabric made of 100% recycled jeans, and it also reduces water consumption by means of innovative techniques. Moreover, chemicals are excluded from the production process, with only non-harmful, biodegradable substances being used.
- *Fairphone* introduced a mobile phone a decade ago that is easy to repair due to its modular design. The materials used are of traceable origin. Only metals mined under (relatively) fair conditions are used. In addition, the company only works with parties that can demonstrate that their employees work under good working conditions. The phones are also made from recycled materials as much as possible. The company aims to update and upgrade the phones for a period of ten years,<sup>9</sup> which is two to five times longer than other smartphone manufacturers.

<sup>9</sup> During a working visit that we paid to Fairphone, it became clear that the company's aim of supporting phones for ten years is restricted by chipset manufacturers such as Qualcomm, TSMC and Intel. These manufacturers – which collectively control almost the entire chipset market – support their products for a maximum of eight years (but more often for less).

As hopeful as these successful initiatives may be, there are not many of them. It is indicative of the lack of momentum in the circular economy that the same examples are cited repeatedly – including by us. By far the majority of entrepreneurs working sustainably fail to achieve lasting success. Under current economic conditions, it is proving difficult to create value from knowledge and expertise regarding sustainability.

With the exception of Auping, companies that take the plunge operate within a small niche and are only able to survive with difficulty and persistence. The main reason for this is that sustainable and circular products quite simply cannot compete on price with non-sustainable products (see also below).

### Sale of refurbished and second-hand items

There is a large group of companies, however, that restrict themselves to taking certain initial steps towards sustainability and circularity. They focus, for example, on selling refurbished furniture or electronics and second-hand items. In the clothing sector in particular, there is a growing second-hand range on offer, especially in the higher-end segment, through platforms such as Vinted. But there is also ReBuy, which specialises in selling refurbished electronics. The Dutch online *Marktplaats* [marketplace] is also a successful example of second-hand sales.

It should be noted that thrift shops and other second-hand platforms not only counter the throw-away trend; they also partly run on it. After all, some of the second-hand trade involves products purchased on a whim that turn



out not to be satisfactory. Although selling them on prevents them from being discarded prematurely, it contributes just as much to increasing the number of garments per capita (Jansen, Van Paassen & Zegers, 2023).

### **Quest for a competitive revenue model**

An obstacle for companies pursuing sustainable and circular ways to produce and operate is that in many cases it is not possible to develop a revenue model that can compete with non-sustainable revenue models. Sustainable and circular products are often more expensive than non-sustainable products because the latter do not factor the cost of negative external effects – such as environmental pollution, poor working conditions, and depletion of natural resources – into the price. In addition, sustainable products are often more expensive because they are produced on only a small scale. The higher price deters many people from purchasing sustainable products (PBL, 2023b).

However, a number of start-ups have in recent years been exploring sustainable business models that may well be viable. In the circular economy literature (KPMG et al., 2019; Jonker et al., 2021), the ‘product-as-a-service model’ for consumer goods is viewed as a promising alternative to the mainstream revenue model.

In the product-as-a-service model, selling as many products as possible is no longer the focus. The consumer concludes a usage contract with the supplier of, for example, a phone, an electric scooter, or a washing machine. The supplier retains ownership of the product and provides maintenance.

As a result, the supplier’s revenues are no longer dependent solely on sales figures. Maintenance, repair, and refurbishment of products are becoming new sources of income and also a new way of retaining customers. Because they retain ownership of the product, suppliers can be expected to be more critical as regards the design, use of materials, and reparability of their products. The ability to adapt products to new requirements during the usage phase (i.e. updating and upgrading) is also becoming interesting for the supplier. The product-as-a-service model therefore includes incentives for pursuing strategies that are high on the R ladder.

In actual practice, however, few people are as yet opting for the contract models just described, which in many cases turn out to be more expensive than owning the relevant product.<sup>10</sup> One reason for this is that many people have little or no idea of the negative impact of products.

In the business world, however, the product-as-a-service model is increasingly being adopted. The office furniture supplier Ahrend, for example, is developing a revenue model whereby the company sells less office furniture but its financial revenue flow can remain more or less the same thanks to provision of services.

<sup>10</sup> The exception to the rule is private car leasing. In 2022, 24% of the total number of leased cars fell into the private lease category (VNA, 2023).



### 2.3 Throwing away as an inherent part of the economy

The growing volume of products brought onto the market and – in line with this – the growth in the volume of discarded products is inherently linked to the current economic system. Within that system, the dominant revenue model, after all, is to maximise sales of the cheapest possible products. We highlight three key features of the prevailing economic system below.

#### *Competition on cost efficiency*

Competition on price – and by extension on cost efficiency – is a basic feature of the current economic system. This is apparent in the three product groups that are the focus of this advisory report: clothing, furniture, and electronics. In all three sectors, big international companies compete to achieve high turnover at the lowest possible production cost. In the quest for maximum cost efficiency, long production chains with a variety of suppliers and subcontractors are created, competing among themselves for the lowest possible price. Competition forces companies to search for the cheapest possible raw materials and product components and to achieve ever-increasing turnover by selling more and more products.

#### *Scaling up and concentration of market power*

Competition on cost efficiency is accompanied by scaling up and concentration of market power. This is apparent in both the clothing and electronics sectors and – albeit to a lesser extent at present – in the furniture sector. Both manufacturers (which are increasingly international) and retail chains engage in scaling up. This has advantages for big manufacturers and retail chains, allowing them to further reduce costs and to be (even) more

competitive than smaller market players, thus strengthening their market position, for example in negotiations with suppliers. The competitiveness of big producers helps explain why new entrants, such as circular economy businesses, are having such a hard time gaining a place on the market.

#### *Race to the bottom*

The fact that there is no lower limit within the economic system as regards competition on cost efficiency, margin and revenue results in a ‘race to the bottom’. Examples can be found particularly in the fast fashion sector. This production chain is extremely focused on low costs and therefore unavoidably also on low product quality. The negative side-effects of this have already been referred to in Section 1: soil, air and water pollution, depletion of resources, high CO<sub>2</sub> emissions and poor working conditions in both the production and disposal phases. Similar negative effects can be identified in the fast furniture and electronics sectors.

It is difficult for producers to evade this race to the bottom, because otherwise they would lose market share and thus sales to producers that do in fact operate on the basis of this business strategy.

#### *The result: cheap, throw-away products*

The three characteristics of the current economic system just outlined have resulted in the throw-away trend becoming an inherent component of the Dutch economy. The race to the bottom means that many products are of mediocre or poor quality, become defective more quickly, and – partly influenced by the marketing emphasis on new trends – are discarded faster.







### 3 MECHANISMS REINFORCING THE THROW-AWAY TREND

**In this section, we describe four mechanisms that maintain and reinforce the throw-away trend in society. It is important to recognise these mechanisms because they provide a starting point for finding solutions and policy measures that can reverse that trend.**

#### 3.1 Cost of negative external effects not factored in

The first mechanism that maintains and reinforces the throw-away trend involves the decision by producers of non-sustainable items *not* to factor into the product price the cost of negative effects that occur during production and waste processing (namely effects on the environment, climate, biodiversity, and working conditions). This enables them to keep the price of the items low. It therefore becomes very tempting for people to purchase fast fashion, fast furniture, and cheaply made consumer electronics. Most Dutch consumers who purchase non-sustainable products are hardly aware (if at all) that they are thereby maintaining a mechanism by which the cost of such harmful effects is passed on to the populations of the producing and waste-processing countries. These are

effects that largely escape public notice because they occur elsewhere in the world.

If producers were to factor the negative effects during the production and disposal phases into the price of their products, they could use the mark-up to offset the negative effects in the countries concerned. However, most producers deliberately choose not to do this. Various studies show that even when the costs of external effects are relatively low, businesses generally do not choose to offset them.<sup>11</sup> Governments within and beyond Europe have so far failed to take action against this. Regulation and enforcement are poor. This means that governments – indirectly – create conditions and opportunities for producers to pass on the cost of external effects to third parties with impunity.

Without government intervention, it cannot be expected that this pattern – which, as we have seen, maintains and reinforces the throw-away society – will change anytime soon. Government's failure to act so far is also because public finances benefit from perpetuating the throw-away society. After all, the public purse benefits from an economy that produces and consumes a great deal, thus generating more tax revenue.

<sup>11</sup> See for example Do (2023). Similar sentiments were expressed at some of the expert meetings that we organised and during a working visit that we made to Fairphone.

### 3.2 Shortening product lifespan as a commercial strategy

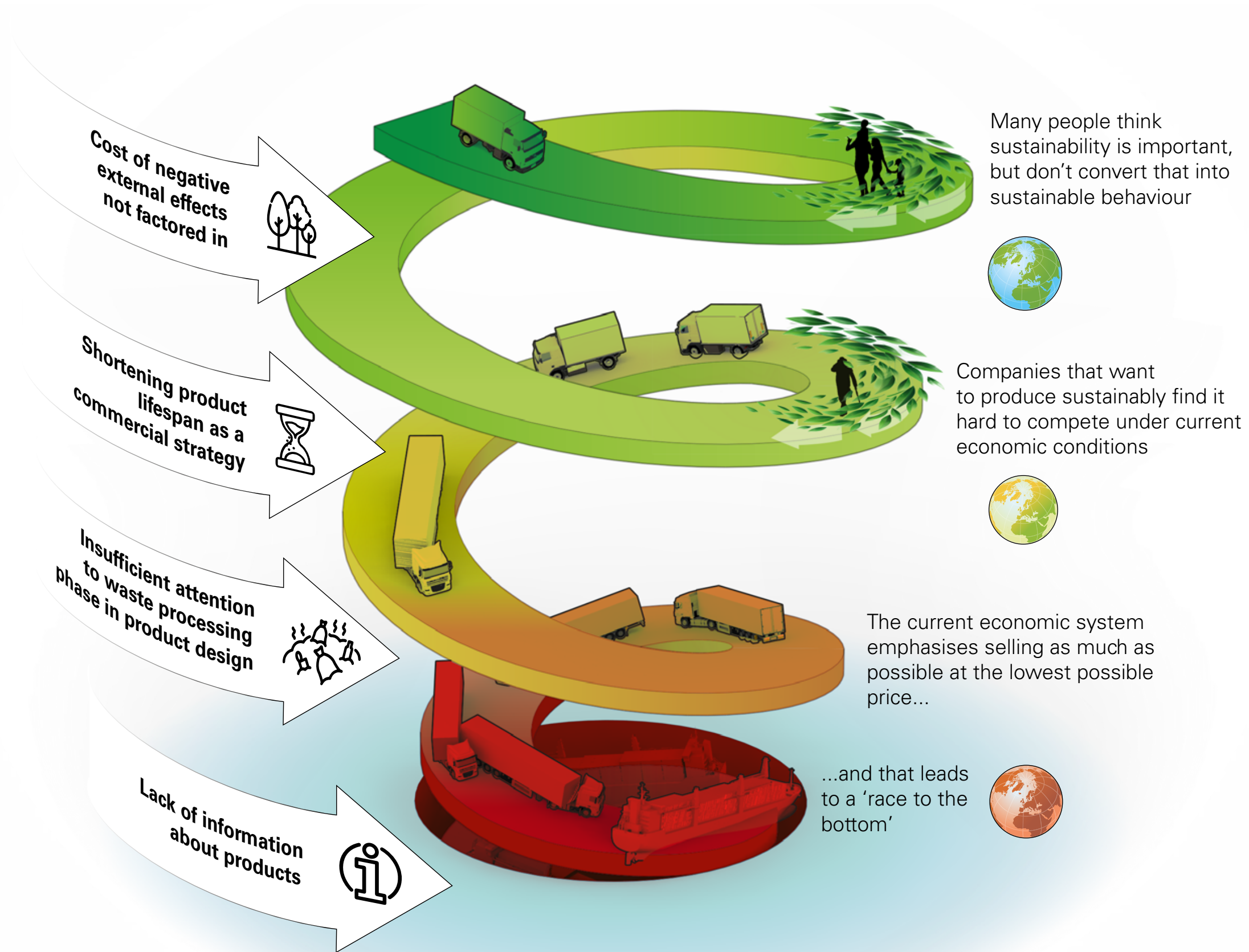
A second mechanism that maintains and reinforces the throw-away trend is the short lifespan of many non-sustainably produced goods. As we discussed in Section 2, this short lifespan can be the result of rapid manufacturing and working with low-quality materials and product components. Items therefore deteriorate faster and are discarded faster. To save on labour costs, manufacturers in the electronics and furniture sectors are also increasingly choosing to bond parts together with glue. This also shortens the lifespan of a product because glued parts are very difficult, or indeed impossible, to replace or repair.

The limited options for repair of consumer electronics are also linked to the fact that electronics manufacturers often design their devices in such a way that it is only their own brand of replacement parts that can be fitted. As a result, companies licensed to replace these types of expensive branded parts have a monopoly on the repair market (Stil, 2023). And since many devices are nowadays linked to a digital ID, reselling devices on the second-hand market is also sometimes possible to only a limited extent.<sup>12</sup>

<sup>12</sup> As a result of privacy and data protection regulations, producers and sellers have hardly any options for removing digital IDs.



## The throw-away society and the four reinforcing mechanisms



But there are also other factors at play. In many cases, the short lifespan of products is in fact the result of a deliberate choice on the part of the manufacturer. This phenomenon is referred to as ‘planned obsolescence’, i.e. programmed ageing (Jonker et al., 2018; Repsol, 2023). One well-known case is that of the electric light bulb, which originally lasted so long that it was not commercially interesting to produce it. In 1925, the world’s eight largest light bulb manufacturers jointly decided to halve the lifespan. That approach has become the foundation of many companies’ operations. Products are deliberately developed so that they will need to be replaced within a relatively short time. A recent example of programmed obsolescence is mobile phones that are supported by the manufacturer with software updates for only two years after the final sale of the specific type, and after that can no longer be used properly. The EU intends putting a stop to this from 2025 by introducing a legal Right to Repair and legal requirements for the reusability and reparability of products. The EU also aims to increase the length of product guarantee periods.

### **3.3 Insufficient attention to the waste processing phase in product design**

The design of many products takes hardly any account of what happens to the product, and the raw materials used in it, during the disposal phase. This is another mechanism that contributes to the throw-away trend and amplifies its negative effects. For example, the decision by manufacturers of electronics and furniture to glue parts together (see above) results in it being impossible to dismantle such products after they are disposed of.

Responsible and safe processing at the waste stage is then impossible. Goods end up whole in the incinerator or elsewhere (outside the Netherlands) in a landfill. Opportunities for reusing parts or recycling raw materials are thus simply eliminated.

There is a historical background to the lack of government regulations regarding this point. In the Netherlands, the waste processing sector has traditionally been separate from the production sector – not just in practice but also in the relevant legislation (namely the Environmental Management Act [*Wet milieubeheer*]). This situation means that producers have long been left out of the picture in the waste processing regulations. There was therefore no policy in place that incentivised producers to already consider responsible and safe waste processing and resource recovery at the design stage.

However, the government has since opted to gradually introduce a system of ‘extended producer responsibility’ (EPR) for various product groups. This gives producers more responsibility for the disposal phase of their products (see box).



### What is EPR?

EPR is a government scheme that defines, according to product group, the responsibility that producers (and importers) bear for the waste processing of the products that they place on the market. The government can impose EPR schemes for individual product groups, with specific targets and requirements. An EPR scheme makes producers financially and often organisationally responsible for waste management. Producers that are subject to an EPR scheme are required to pay a disposal management fee. The cost of the disposal phase is therefore no longer borne by society (via the municipality) but by the producers. Producers can request the minister to issue an order declaring the disposal fee generally binding (an 'AVV'), so that all relevant producers contribute to the cost of the scheme.

So far, only a limited number of EPR schemes have been imposed, including for electrical and electronic appliances, batteries and more recently mattresses and textiles. These schemes mainly comprise collection and processing obligations that make low-grade recycling possible. More high-grade recycling also requires attention to sorting and reusing product components and raw materials. This leads to higher costs and is often not cost-effective for the producer. It is only the recently introduced EPR scheme for the textile sector that contains more far-reaching arrangements regarding these points.

### 3.4 Lack of information about products

A fourth mechanism contributing to the throw-away problem is that making a responsible choice from the available product range is often made difficult by a lack of unambiguous and reliable information about the sustainability aspect.

According to surveys, many people do consider sustainability important (PBL, 2023b; Milieu Centraal, 2023). For example, a significant proportion of the Dutch population are willing to purchase *fewer* garments each year.<sup>13</sup> Many people also say they are open to purchasing products with a long lifespan and second-hand or refurbished products, and to getting defective goods repaired. However, this is reflected in their actual behaviour to only a very limited extent (Bouman & Steg, 2022; Sparkman et al., 2022). Only a quarter of those who say they wish to live sustainably actually behave accordingly (Milieu Centraal, 2023).

That people struggle to make a responsible choice or to refrain from making a purchase is unsurprising. The sustainable choice is often unavailable or proves to be unaffordable. Moreover, people also allow their decision to be influenced by countless other considerations. For instance, they are constantly tempted by advertising and influencers to purchase non-sustainable products. One important effect of this persistent marketing is that purchasing certain products is associated with a happy and successful life. People feel that having the latest fashion in clothing, the

<sup>13</sup> Purchasing fewer items of clothing is an example of *Refuse* behaviour, the highest rung on the R ladder.



trendiest furniture, and the latest mobile phone is quite simply the norm (Gössling et al., 2019). This contributes to the steady growth in the volume of products that are purchased – as well as discarded.

Making responsible choices is further complicated by a lack of relevant information. For instance, people generally have little information about the origin and environmental impact of products. They are also unable to properly assess the quality and lifespan of a product and how easy it is to repair in the event of a defect. It is therefore often the lowest price that is the deciding factor when buying something. When using a product, it then proves difficult to determine the right time to replace it. That involves balancing the cost of actual use against how long the product will last and what it costs to maintain it. In actual practice, people take the easy way out and rely on their own subjective assessment. This ‘mental book value’ of products usually tends to be too low, resulting in many products being discarded earlier than necessary (Van den Berge et al., 2021; Van den Berge et al., 2023).

It is in fact no coincidence that consumers have so little understanding of the sustainable or non-sustainable properties of products, given that producers are often reluctant to be transparent about their origin and environmental impact. Long production chains mean that they themselves often have only limited knowledge of the conditions under which products are manufactured and where and how the raw materials are extracted. The public’s lack of information is compounded by ‘greenwashing’. This involves producers making sustainability claims without being able to properly

substantiate them, or applying such low standards that the claims they make are in fact misleading (Van den Eerenbeemt, 2022).<sup>14</sup>

The multitude of ‘sustainability labels’ that producers circulate, sometimes with the best intentions, may also lead to unclear information. It is often impossible for consumers to determine what these labels actually mean and the extent to which they are reliable. The lack of standardised certification gives producers scope for presenting a prettier picture of the reality, or to omit information (Wicker et al., 2022).<sup>15</sup>

<sup>14</sup> The Netherlands Authority for Consumers and Markets (ACM) has been investigating greenwashing since 2020 and has launched an offensive against misleading labels.

<sup>15</sup> The *New York Times* reported in April 2022 that organic cotton certificates had been issued worldwide for a quantity six times larger than the quantity of organic cotton actually produced.





## 4 APPROACHES FOR REVERSING THE TREND

**How can we reverse the throw-away trend in today's economy? This section discusses four possible solutions that are being pursued in the EU and in the Netherlands. For each of them, we outline an ideal situation, assess the potential impact of current policy initiatives, and determine whether additional steps are needed on the part of the Dutch government. We believe that in the longer term, more fundamental interventions in the economic system will be unavoidable, as we also explain in this section.**

### **4.1 Set sustainability requirements for products and production processes**

#### *Ideal situation*

The situation in which the negative impacts of non-sustainable products are not factored into their price must be brought to an end. Products must also meet high, sustainable quality standards. This ideally means that in the future:

- in the production phase, no more negative environmental impacts and poor working conditions will be passed on to the producing countries;
- products will have a 'true price';<sup>16</sup>
- producers will be required to disclose (a) the raw materials and materials used and (b) the circumstances of raw material extraction and product manufacturing;
- products will meet high quality standards, will be made as standard from raw materials that are highly recyclable, and will consist largely of recovered raw materials.

#### *How is the EU working towards this solution?*

The European Commission intends imposing requirements for the reusability and reparability of products. These requirements will be included in the *Ecodesign Regulation*, which will also make it obligatory to use sustainable raw materials and to reuse recovered raw materials (European Commission, 2020). The regulation will also make a European digital product passport mandatory, stating the raw materials and other resources involved, and the origin of products. The European product passport will be an important means of registration and control. At a later date, it can also be used to ensure the proper processing and recycling of products.

The EU is also taking steps to enforce greater transparency of production chains by means of the *Corporate Sustainable Due Diligence Directive*

<sup>16</sup> There are various definitions of a 'true price' (True Price Foundation, 2020). We assume that products have a true price when the costs of external effects that occur during production processes are no longer diverted onto people and nature.

(CSDDD) and the *Corporate Sustainable Reporting Directive* (CSRD). Adopted in 2022, the CSRD obliges large companies to report, beginning in 2024, on the impact of their activities on people and the environment.

In addition, the EU has for many years been pursuing policies to reduce the use of hazardous substances in products by means of the *REACH Regulation*. This focuses on protecting humans and the environment from hazardous chemicals.<sup>17</sup> A ban is currently being prepared on the use of formaldehyde, a type of adhesive used, for example, in furniture. The ban will also be included in the REACH Regulation.

Finally, there is the *European Union Deforestation-free Regulation* (EUDR). This legislation, which came into force on 29 June 2023, aims to ensure that production chains do not contribute to deforestation or forest degradation.

#### *How is the Dutch government working towards this solution?*

The Dutch government has been working since 2020 on new legislation within the framework of International Responsible Business Conduct ('IRBC') (BZ, 2020a). The new rules are intended to ensure that Dutch companies doing business abroad do so in a socially responsible manner, taking account of human rights, working conditions, and the environment (BZ, 2020b). They also make companies responsible for the actions of suppliers and for tackling abuses within their production chains. To help companies meet these requirements, an IRBC support centre has been set up (RVO, 2023).

<sup>17</sup> REACH stands for the Registration, Evaluation, Authorisation and restriction of CHemicals.





Work is also under way on methods for quantifying the impact of external effects in specific monetary terms, using, *inter alia*, the *Environmental Pricing Handbook* (CE Delft, 2023). In this context, true pricing methods are also being developed (Transitiecoalitie Voedsel, 2020).

#### *What else is needed?*

In addition to existing policy, we believe the Dutch government should focus on promoting the true pricing of products. This should be done both at EU level (by means of the legislation referred to above) and nationally (by encouraging initiatives aimed at promoting true pricing).

The objective here should go beyond merely carrying out studies and conducting non-committal experiments. It is important for government to focus on making true pricing enforceable. This could include imposing levies on products that can be shown to have involved external effects during production abroad which were not compensated for. Having a reverse burden of proof is also a possibility: imposing a levy on products that cannot be shown to have been produced sustainably and responsibly.

In this context, the Netherlands Scientific Council for Government Policy (WRR) recently noted that, in the absence of true pricing for non-sustainable products, there is a competitive disadvantage for companies that do produce sustainably (WRR, 2023). Until such time as true pricing is made mandatory, sustainable products therefore deserve extra support. The Dutch government could, for example, allow sustainable initiatives to enjoy tax relief in their corporate income tax.

The aforementioned European digital product passport will eventually ensure greater transparency about production chains and raw materials. For competition reasons, companies are often reluctant to reveal their production data. It is therefore necessary for the government to focus more strongly on making reliable data available from within production chains. This should include requiring producers to collect and release the necessary data.

## **4.2 Make longer use and reuse of products the norm**

#### *Ideal situation*

The situation in which many goods are discarded prematurely must be brought to an end. Longer use and reuse of products must become the new normal. This ideally means that in the future:

- everybody will have become used to products lasting a long time, being easy to repair, and capable of being updated as and when necessary (and will also understand why this is economically, environmentally, and socially necessary);
- components and raw materials from discarded products will to a large extent be recovered through proper collection, sorting, and processing;
- recovered parts and raw materials will be of high quality, cheaper than primary raw materials, and constitute the main raw material for new products.



### *How is the EU working towards this solution?*

The European Commission is currently working on three policy initiatives to ensure that the lifespan of products increases:

- With the *Ecodesign Regulation*, the Commission aims to set requirements for the reusability and reparability of products and the amount of recycled material in new products. Mobile phones and tablets, for example, must be designed so as to be easier to repair, refurbish, and maintain (European Commission, 2023a). Besides electronics, textiles and furniture are priority product groups for which product requirements will be introduced in the coming years. The Commission also intends including a ban in the Ecodesign Regulation on the destruction of unsold goods (European Commission, 2020).
- With a *Right to Repair*, the Commission aims to ensure that people can have products repaired not only within the two-year guarantee period (which is often usual), but also beyond it (Right to Repair Europe, 2023). A repair label will also be introduced indicating how easy a product is to repair. Such a label already exists in France.
- With the *Consumer Sales Directive* (EU Directive 2019/771) – in force since 1 January 2022 – the EU aims to ensure that producers extend the guarantee periods on their products.

The potential impact of the proposed Ecodesign Regulation is significant. We see it as a crucial tool for phasing out the throw-away society. The Netherlands' current commitment to ambitious implementation of that regulation therefore deserves support.

The regulation is still being negotiated with the European Council and the European Parliament. Design requirements will subsequently be established for each product or product group. It is expected that it will be several years, possibly until 2030, before the design requirements take effect. Whether the rules will then be as strict as the European Commission currently envisages will depend on the course of the negotiations.

Creation of the Right to Repair is still at a very early stage, and little can yet be said about what its impact will be. It should be noted that the Commission is currently also considering whether a right to a guarantee can be legally enforced.

### *How is the Dutch government working towards this solution?*

In the *National Circular Economy Programme 2023–2030* (NPCE) (IenW, 2023a), the Dutch government has stated the aim of setting up a nationwide network of circular craft centres. That network is intended to ensure that more products are repaired and reused, rather than being thrown away. The availability of municipal craft centres can also help increase people's 'reparability awareness'.

A register of repairers is also being drawn up in the framework of the NPCE; this is intended to normalise getting products repaired and to help consumers find a repairer. The NPCE also states that the legal possibilities will be investigated for requiring retailers to offer a certain proportion of second-hand products. (The investigation in fact recently commenced.)



It is still uncertain whether setting up a nationwide network of circular craft centres is in fact feasible. The first problem is whether enough skilled workers are available to staff all the centres. Secondly, it is questionable whether organising the network at municipal level is wise in all cases. From the point of view of efficiency and the required expertise, there is a lot to be said for relying on specialised regional repair centres for more complicated repairs (for example of laptops or TVs).

#### *What else is needed?*

People will need to get used to the idea that stuff is repairable. For repair to be possible, authorised repairers will need access to replacement parts, which is often not the case at the moment. It must also be made more financially attractive to have things repaired. This can be achieved in the short term by reducing or eliminating the VAT on repairs, making them more affordable.<sup>18</sup> In the longer term, consideration can be given to shifting from taxation of labour to taxation of resource use. In addition, the Netherlands could actively contribute to ongoing EU deliberations on the mandatory extension of guarantee periods and the introduction of a Right to Repair. At the same time, the Netherlands will then need to work towards better enforcement of the provisions in the current European guarantee directive.

<sup>18</sup> Eliminating the VAT on the repair of appliances is not comparable to abolishing it on fruit, which SEO (2023) concluded will have little noticeable effect on people's daily diet. A key difference is that the cost of repairs is usually considerable.

Purchasing second-hand items will also need to become commonplace. This is already the case online with platforms such as Marketplace, Vinted, and ReBuy. In 'bricks-and-mortar shops' (i.e. actual physical shops), buying second-hand products is not yet common, partly because second-hand shops are currently not very visible for shoppers. They are often located outside the centre of municipalities due to high rents in shopping centres. Government can play an enabling role here by applying flanking business location policy when allocating land, or by concluding operating agreements with property developers. One might also consider making it obligatory to offer second-hand items in existing shops.<sup>19</sup>

### **4.3 Ensure value retention of products, components, and raw materials**

#### *Ideal situation*

The situation in which the design of many products is not aligned with what happens to the product, and the raw materials used in it, during the disposal phase must be brought to an end. This ideally means that in the future:

- how a product and its components and raw materials can be given a new lease of life in the disposal phase will form the basic principle for its design;
- preventing the waste of raw materials will be a central focus throughout the life cycle of products;

<sup>19</sup> The Zeeman textile chain is currently experimenting with this.



- producers, users, and government will share responsibility for high-grade recycling and reuse of raw materials – in other words: for preserving the value of products.

### Value retention of products

Value retention of products involves using the products, their components, or raw materials incorporated into them for as long as possible and at the highest possible quality level. This can be achieved by *repairing* and *refurbishing* products, *reusing* parts and raw materials, and/or ensuring high-grade *recycling* of the raw materials.

#### *How is the EU working towards this solution?*

The EU's *Waste Framework Directive* came into force in 2008. This sets out measures to protect public health and the environment through proper waste management. Pursuant to the directive, EU Member States can establish a system of 'extended producer responsibility' (EPR) at national level, making producers responsible for the disposal phase of the products that they place on the market (see Section 3.3). The Ecodesign Regulation referred to above also contributes to this by means of product design requirements aimed at high-grade recycling and reuse of raw materials.

#### *How is the Dutch government working towards this solution?*

Based on the European Waste Framework Directive, the Dutch government can impose an EPR scheme for specific products. There is now an EPR scheme for car tyres and cars that are being scrapped, batteries, electrical

and electronic equipment, textiles, packaging, disposable plastic, and tobacco. At the initiative of producers, an EPR scheme has recently been set up for mattresses and a start has been made on exploring the introduction of one for furniture (Afval Circulair, 2023).

#### *What else is needed?*

Value retention of product components and raw materials requires cooperation and control throughout the entire chain of design, production, consumption, and waste processing. Premature disposal of goods needs to be prevented, while reuse, repair, and recycling of discarded products and raw materials needs to be encouraged. For this to take place, it is important to remove the restrictions that currently apply to the management, transport, and use of discarded items. Current legal provisions on dealing with 'waste', for example, make reuse and repair difficult. Given that these provisions stem from EU policy, the Netherlands should push for change within the EU. Specifically, the Netherlands should urge the EU to press for adjustment of waste management regulations within the World Trade Organisation (WTO) and the United Nations Industrial Development Organisation (UNIDO). Reuse of secondary (recovered) raw materials should be facilitated more effectively in the regulations, but obviously without losing sight of environmental and safety concerns.

In the context of phasing out the throw-away society, EPR schemes will need to include requirements for the reusability and (high-grade) recyclability of product components and raw materials. It is also important



in this regard that municipalities and municipal waste utilities are given a greater role in the creation of EPR schemes (Backes & Boeve, 2022). In our view, all this calls for an independent chain management organisation for each product group, similar to the product boards [*productschappen*] that were done away with in 2013. Such an organisation is needed so as to involve parties right along the entire chain of a product group in actions to ensure value retention. The organisation will need to focus on longer-lasting products and improved opportunities for repair and reuse. It will also need to ensure that there is greater coordination within the chain. Management of the chain could be entrusted to a partnership of companies and public parties within a product group. The partnership would then have the statutory authority to ensure retention of the value of products, components, and raw materials.

There is a gap in the current regulations as regards direct internet sales from outside the EU (Staatsblad, 2023). Such sales lead to large quantities of goods entering the market whose producers or importers cannot be made subject to an EPR scheme or compelled to join a chain management organisation. As long as these kinds of companies – most of them China-based – cannot be required to appoint an authorised representative, they can continue to evade Dutch and EU legislation and regulations. This seriously undermines the phasing out of the throw-away society. In our view, government should push for regulation of this issue within the EU.

Finally, we believe that the Dutch government should focus more explicitly on effective large-scale collection, sorting, and recycling of

discarded products and raw materials. This can be achieved, for example, by encouraging collection of bulky waste at people's front door and by supporting technological innovation initiatives in the field of recycling.

#### 4.4 Encourage sustainable choices by consumers

##### *Ideal situation*

The situation in which making a responsible choice from the product range is made difficult by a lack of unambiguous and reliable information about sustainability must be brought to an end. This ideally means that in the future:

- consumers will base their purchasing behaviour on readily available, accessible, and reliable information on the origin and environmental impact of products;
- consumers will view purchasing non-sustainable and non-responsible products as a thing of the past (like smoking, for example);
- producers will be open and transparent about their products and will be inspired to do better;
- 'sustainable' will be the norm, both in marketing and in government communications, with the government itself leading by example.

##### *How is the EU working towards this solution?*

In March 2023, the European Commission proposed a directive on green claims, aimed at protecting people against misleading green claims made by producers. The relevant rules are being tightened up. When something



is sold as being a 'green' product, it really should be green. The EU also adopted the *Consumer Protection Modernisation Directive* in 2019 with the aim of ensuring improved enforcement of European consumer rules.

In addition, the EU has introduced an *Ecolabel* (European Commission, 2023b). This indicates that a product has a relatively small negative impact on the environment, health, climate, and natural resources. It takes account of the entire life cycle of the product, from raw materials and packaging to distribution, use, and waste processing. The requirements are defined in such a way that only 10-20% of products can be awarded the label.

#### *How is the Dutch government working towards this solution?*

The Dutch government aims to make sustainable choices 'logical, easy and fair' for consumers. The behavioural strategy it has developed to achieve this focuses on removing obstacles and exploiting incentives (IenW, 2023b).

Currently, the government supports consumer education about sustainability mainly by subsidising the Milieu Centraal foundation (Milieu Centraal, 2022), which provides information on sustainable choices, such as purchasing second-hand clothing or getting defective appliances repaired.<sup>20</sup> Organisations such as the Dutch Consumers Association [Consumentenbond] also regularly highlight sustainable product choices. The SMK (Environmental Label) Foundation [*Stichting Milieukeur*] handles

<sup>20</sup> Visits to Milieu Centraal's website have doubled to 9 million over the past four years. Its reach via other channels is also increasing strongly.

certification for the EU Ecolabel in the Netherlands, receiving funding from central government for that purpose (SMK, 2022).<sup>21</sup>

To counter 'greenwashing' and other forms of deception, the Dutch government amended the *Dutch Advertising Code* in May 2022. This means that the Netherlands now complies with the EU's Consumer Protection Modernisation Directive. The Code now defines more specifically when advertising is considered misleading. For example, providers are not allowed to display search results without clearly indicating cases of paid advertising, to make use of false reviews, or to give misleading information about price reductions (Stichting Reclame Code, 2022). The Authority for Consumers and Markets (ACM) monitors companies' use of green claims on behalf of the government.

Action is also being taken at lower levels of government against *advertising in public space* for non-sustainable products, activities, and businesses. The city of Haarlem banned meat advertising in 2022, for example. Amsterdam, Leiden, and The Hague had previously decided to ban advertising for air travel, petrol-driven cars, and the fossil industry (Stichting OneWorld, 2023). This can be extended to other non-sustainable products.

<sup>21</sup> A total of 83,593 products and services in the EU have been certified with the EU Ecolabel. In the Netherlands, the SMK awarded its certificate for 1,673 products and services, which is a 34% increase compared with the previous year. The number of certificate holders increased to 60 (+9%).



### *What else is needed?*

Making sustainable choices by consumers logical, easy, and fair requires more than just the effective provision of information about the sustainability (or otherwise) of products and production processes. After all, an informed consumer is not yet a sustainable consumer. What is required is for consumers to convert their knowledge of sustainability into sustainable *behaviour*. It is important here to recognise that for many people, ingrained patterns of behaviour are a barrier they find difficult to cross (Bouman et al., 2023). Consumers need to feel supported if they make sustainable choices that are contrary to the prevailing throw-away norm. They need a bit of a push. Specifically, this requires the following:

- Sustainable choices should be readily available and affordable. At the moment, that is often not the case. For instance, second-hand shops are mostly located outside shopping centres and getting products repaired is generally relatively expensive. Sustainable, circular items also often cost more than ‘regular’ items because external effects on humans and the environment have been allowed for during production. To influence assessment of the price, it may be helpful to introduce a lifespan or repair label.<sup>22</sup> After all, your assessment of the price will be different when you recognise that a cheap product has only a short lifespan or is difficult to repair – and so is in fact a case of ‘false economy’. When used carefully, repair discounts, buy-back guarantees, and circularity bonuses can also encourage sustainable choices.

<sup>22</sup> The Dutch Consumer Association has experience with lifespan tests.

- Advertising for non-sustainable products should ultimately be banned. Start by imposing a ban on such advertising in public space, both locally and nationally.
- Rock-bottom offers that promote hunting for cheap bargains and encourage impulse purchases should be curtailed. This can be achieved by concluding relevant agreements with the retail sector and by further tightening up the Dutch Advertising Code.
- The government should run appealing publicity campaigns to highlight the inviting prospect of a healthy and liveable world. Such campaigns can provide examples of the sustainable choices that consumers can make and how easy it is to do so. In this way, the government can appeal to the quality and sustainability awareness shared – according to various surveys – by broad groups within society (PBL, 2023b; Milieu Centraal, 2023; Mirande, 2023).

### **4.5 For the longer term: fundamental intervention in the economic system**

The possible solutions outlined above are aimed at countering the four mechanisms that are driving the throw-away society and which we identified in Section 3. Structural commitment to these possible solutions will help to slow down the throw-away trend to the maximum extent and to set a lower limit to the economic race to the bottom. They offer guidelines for the next five years.



This is not enough, however, for the longer term. To create an economy that is sustainable on all fronts, the government will need to intervene in some structural features of the economic system. Such more fundamental interventions are beyond the short-term horizon of the present advisory report. Nevertheless, we feel it is important to briefly draw attention to them here. We list some necessary interventions below, based on previous advisory reports that we have issued (Rli, 2015; Rli, 2019; Rli, 2021a).

Bringing about the transition to a sustainable economy requires interventions and efforts taking many years. It also requires visionary ideas as to the design of that new economy. In our 2019 and 2021 reports, we identified a certain ‘lack of vision’ in this regard. We noted that the pursuit of structural growth in GDP alone offers insufficient guidance for creating a future-proof economy that remains within the planetary boundaries (Rli 2021a).

The following principles will need to guide the transition to a sustainable economy:

- *Promote true pricing of products by deploying the instruments of standard-setting and pricing*

The aim of this principle is to ensure that it is no longer possible to pass on external effects that cause harm to people and the environment, but that the market can still continue to operate. An intervention whereby the government imposes levies on goods whose production process has led to negative external effects that have not been compensated for in the country concerned is in line with this.

- *Tax the use of primary raw materials more and labour less*

The aim of this principle is to transform the tax system in such a way that it promotes processes that bring a sustainable economy closer and inhibits processes that do not fit in with such an economy. In 2015, we found that the current tax system taxes labour more than the use of primary resources (Rli, 2015). This system encourages production and consumption on the one hand (which is undesirable in a sustainable, circular economy), while on the other making it profitable to cut labour costs (which leads to work being carried out in low-wage countries, under poor working conditions). The current tax system thus works to the detriment of the transition to a sustainable, circular economy.<sup>23</sup> We realise that a reformed system that taxes labour lower and resource use higher is a medium-term challenge that requires the necessary investigation, but we consider it important to start thinking about it in the short term. In doing so, the government should consider the many reports that have already been published on this subject.

- *Promote an anti-throw-away attitude – structurally, actively, and throughout society*

The aim of this principle is to encourage people to make more sustainable choices. The government will need to develop a broad, comprehensive strategy for this. As with the anti-smoking campaigns that the government initiated as early as the 1960s (Alliantie Nederland Rookvrij, 2018), fostering an anti-throw-away attitude is likely to require long-term efforts.

<sup>23</sup> This finding is underlined by the *New era. New plan* report, to which four leading accountancy firms contributed (The Ex'tax Project et al., 2016).







## 5 CONCLUSIONS AND RECOMMENDATIONS

**In this final section, we draw conclusions based on our analysis in the previous sections. We then go on to set out our recommendations. In doing so, we articulate the possible solutions we outlined in Section 4 in the form of specific policy interventions. We describe both measures that central government can put in place and those that require commitment at municipal level.**

### 5.1 Conclusions

#### **Tackling the throw-away problem is a matter of urgency**

Today's throw-away society has for decades already had a disastrous impact on the environment and life on our planet. The volume of products purchased is increasing, while the lifespan and useful life of products is decreasing. This trend contributes to depletion of natural resources, environmental pollution, wastage of raw materials, and exploitation of labour. Tackling this issue is a matter of urgency. However, that urgency is not yet sufficiently recognised, either politically or socially.

### **Switching to sustainable production and consumption is still a step too far for many**

The Netherlands Environmental Assessment Agency (PBL) recently showed that the proportion of circular producers in the Netherlands has been static at around 6% for a number of years. In other words, the transition to a sustainable and circular economy is hardly getting off the ground. In our view, this will not change as long as large-scale throwing away of products – that have often been used for only a short time – remains the norm.

In drawing up this advisory report, we came across many entrepreneurs with circular and sustainable ambitions that run counter to the throw-away trend. At the same time, we see few real success stories emerging to join the well-known examples of MUD Jeans, Fairphone, and Auping. Many companies simply cannot manage to stay in business as long as the throw-away society, with its cheap non-sustainable products, is dominant. There are also many companies that want to become more sustainable but find it difficult to be the first to take the plunge as long as their competitors do not do the same. Consumers likewise remain stuck in the established scheme of things. Although they are increasingly aware of the negative effects of consumption, they too often find that switching to sustainable behaviour is still a big step.

The transition is also proceeding with difficulty in terms of policy. Despite efforts by various policy departments, members of government and politicians, the transition to a sustainable and circular economy is still a neglected element in government policy. It is precisely for this reason that

tackling the throw-away problem is vitally important. Actively phasing out the throw-away society is a first specific step by which the Dutch government can really accelerate the transition to a sustainable and circular economy.

### **Reversing the throw-away trend is difficult but achievable**

Global competition on cost efficiency is forcing companies to pursue ever-higher sales volumes based on cheaply made products of throw-away quality. In other words, the throw-away society is closely intertwined with the current economic system, which makes it difficult to do anything about it. However, the government does in fact have resources and options for reversing the throw-away trend. Steps to do so can be taken in both the short and medium term.

For the short term – the focus of the present advisory report – we propose a mix of measures that the government can impose at national level or press for at European level. The fact that there are a number of mechanisms that maintain and reinforce the throw-away society (see Section 3) means that there is no single all-important ‘control knob’ for the government to turn. Government intervention will need to focus on several tracks simultaneously. The recommendations we discuss in the following sub-section therefore entail specific interventions in a variety of areas. These are measures that the government can put in place over the next five years. Together, they will have a restraining effect on the throw-away society.



Ultimately, however, more will be necessary. In the medium term, as we indicated at the end of Section 4, the government will need to bring about three fundamental changes in the economic system in order for a situation to emerge with (1) true prices for products, (2) less taxation on labour and more taxation on primary raw materials, and (3) an anti-throw-away attitude in society as a whole. These changes are indispensable for (4) the desired transition to a sustainable economy in which structural growth of GDP is no longer the primary focus, but moves within the planetary boundaries.

## 5.2 Recommendations

In this sub-section, we present five recommendations, each involving a number of specific policy interventions that the government can implement so as to begin phasing out the throw-away society in the coming years. These interventions give concrete shape to the four possible solutions that we described in Section 4 of this report. Most of the interventions are addressed to central government and some to local government.

Government intervention will need to be simultaneous along the five tracks outlined in the recommendations. The policy interventions that we propose sometimes overlap with one another. That is logical, given that in phasing out the throw-away society government will need to turn a number of 'control knobs' simultaneously and in conjunction with one another. However, the priority will need to be on ensuring sustainable production processes. Achieving success in this area is essential if we are to phase out the throw-away society, and our first recommendation therefore focuses on it.

### 1 Enforce sustainable production processes, on the way towards true product pricing

To be able to phase out the throw-away society, it is essential that production processes are as sustainable as possible and that products have a true price, i.e. a price that factors in the cost of their impact on people and the environment. EU regulations and directives currently under development (notably the Ecodesign Regulation and the business transparency directives) offer an exceptional opportunity to enforce such sustainability. Both nationally and in an EU context, the Dutch government will need to push hard for ambitious content and implementation of this legislation.

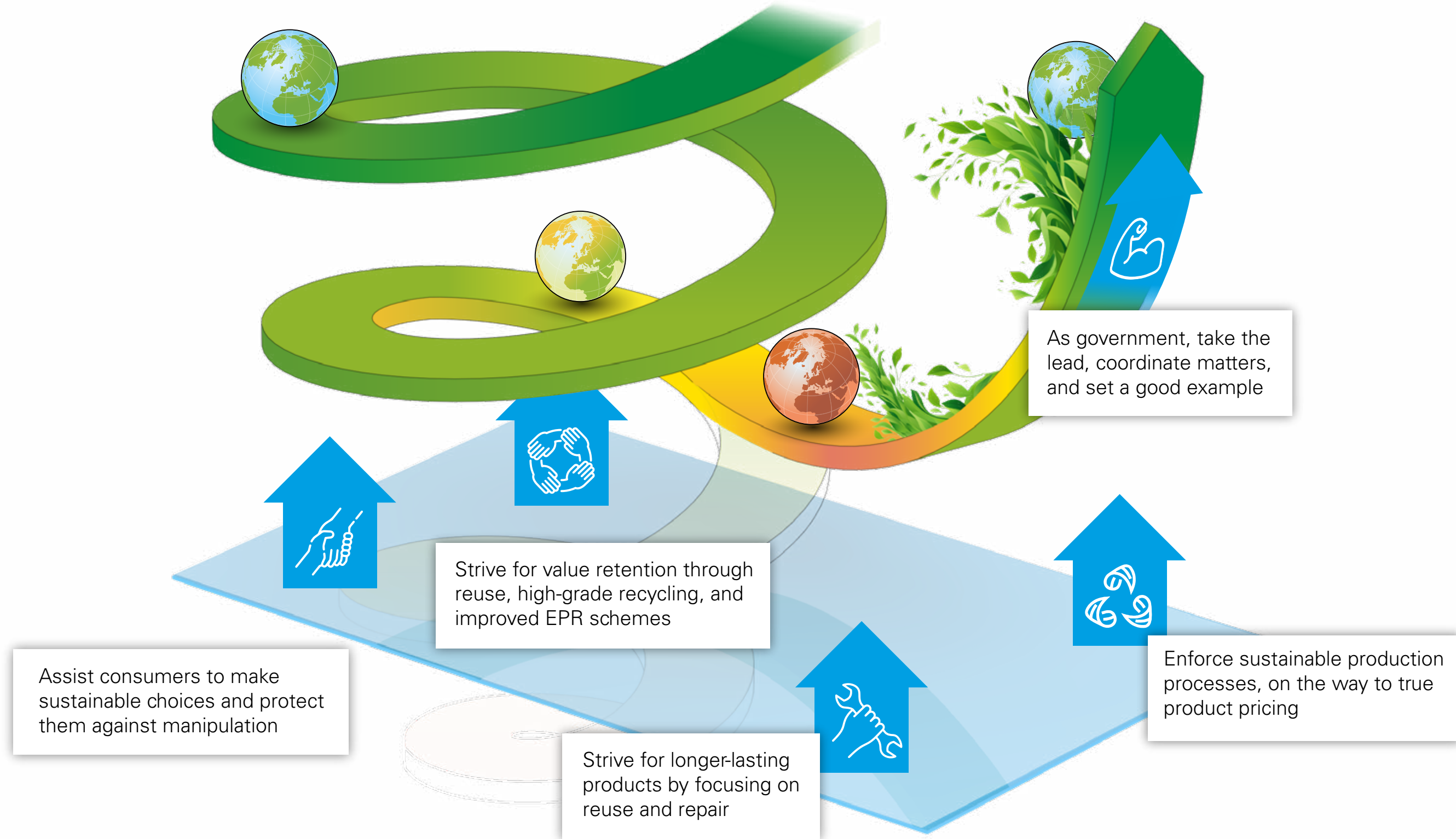
Through all these requirements and obligations, a movement can be initiated towards sustainable and responsible production, true pricing, and reduction of the large-scale consumption of natural resources.

Specifically, we recommend that central government act as follows:

- Call at EU level for *ambitious content of the Ecodesign Regulation* and sufficient resources to implement it. When the details of the regulation are drafted, push for strict requirements for each product group regarding product design, use of reusable raw materials, lifespan, and reparability. Also set requirements for the use of recycled materials in new products. Make use of the know-how available at Dutch manufacturers and sector organisations.



## Recommendations



- Ensure *ambitious content and implementation of national legislation and regulations on International Responsible Business Conduct (IRBC)*. Require producers to disclose the environmental and labour impacts associated with raw material extraction and production processes, including those of suppliers. Also require producers to disclose how they combat malpractice.
- Argue at EU level for strict European requirements for the transparency of production chains. To that end, push for *ambitious content and implementation of the Corporate Sustainable Due Diligence Directive (CSDDD)* and the *Corporate Sustainable Reporting Directive (CSRD)*.
- Oblige Dutch producers to share their product data. It is indispensable for monitoring International Responsible Business Conduct. Such an obligation also allows Dutch companies to prepare for introduction of the European Commission's proposed digital product passport.
- Draw up a research and policy agenda to work towards true pricing in the medium term, with the hidden costs of human and environmental impacts being factored into product prices.

## 2 Strive for longer-lasting products by focusing on reuse and repair

It is important that the government take structural measures aimed at increasing product lifespans and encouraging reuse and repair. This must make it easier and affordable for consumers to purchase high-quality second-hand products and to have defective items repaired.

Specifically, we recommend that central government act as follows:

- Promote a professional repair market by mandating that authorised repairers have access to spare parts from all electronics chains. In addition, make use of the opportunities offered by the pending EU Right to Repair and the Consumer Sales Directive to extend guarantee periods.

We also propose two interventions aimed at both central government and municipalities:

- Make repairing defective items more affordable for consumers. Central government: *Abolish the VAT on repairs*. In addition, start investigating revision of the tax system (see Section 4.5). Municipalities: *Make repairing products cheaper for low-income groups* by means of repair discounts, to be financed from municipal social funds. Lessons can be drawn from the experience gained with this in Amsterdam.
- Make second-hand shops and second-hand items more accessible and visible, and thus a standard component of the retail offer and shopping experience. Central government: *Require larger (non-second-hand) retail chains to offer more second-hand products*. Municipalities: *Ensure that a proportion (say 10%) of floor space in shopping centres is made available for the sale of second-hand products*. In doing so, make maximum use of available policy instruments.

## 3 Strive for value retention through reuse, high-grade recycling, and improved EPR schemes

To ensure value retention of products, product components and raw materials, government will need to strive for better product design and



improved, more professional collection, sorting, reuse, and recycling of discarded products. It will need to set higher requirements in EPR schemes for high-grade reuse and recycling. It will also need to ensure that parties such as municipalities and municipal waste processing services are fully involved in drawing up EPR schemes.

Specifically, we recommend that central government act as follows:

- Press within the EU, the World Trade Organisation (WTO), and the United Nations Industrial Development Organisation (UNIDO) for *revision of the rules regarding waste*. The current rules on the use, transport, and processing of discarded products are not in line with the aim of ensuring the reuse and recovery of products, product components, and raw materials.
- Strive for *improved, larger-scale collection, sorting, reuse and recycling of discarded products*. This can be achieved, for example, by (1) providing financial support for technological innovations in sorting and recycling discarded clothing; (2) requiring retailers to introduce a doorstep return system for large products such as washing machines, mattresses, and seating furniture; and (3) introducing a deposit scheme for batteries (to improve collection and prevent them causing fires in waste).
- Encourage Dutch producers to *make large-scale use of recycled raw materials* by offsetting the additional costs fiscally. This can be achieved, for example, by deducting the additional costs from corporate income tax. In this way, the price differential between virgin raw materials and (currently more expensive) reclaimed raw materials can be bridged, and reuse of raw materials encouraged.
- Exercise *greater government control of the content of EPR schemes*. It is particularly important to set more stringent requirements for collection, sorting, high-quality reuse, and high-grade recycling of discarded products and raw materials. To that end, increase the requirements over a period of time (as was done with the EPR scheme for the textile sector) and alter the waste management contribution paid by producers so that improved product design and reuse become worthwhile.
- Ensure that *municipalities and municipal waste processing services are involved in drawing up EPR schemes*. It is important that they have a voice in the relevant decision-making with a view to coordinating the work effectively and sharing the burden fairly.
- Investigate the possibility of *setting up of an independent chain management organisation* that will involve parties throughout a product group's chain in the tasks aimed at value retention. That organisation will need to focus on ensuring collection, sorting, reuse, and recycling of discarded products and raw materials, in so far as the requirements regarding these points fall outside the legal frameworks of EPR schemes. A chain management organisation can also focus on improved product design and it can replace the practice of declaring EPR schemes binding on all producers involved in a particular product group. The product boards that were done away with in 2013 can serve as a model.
- Ensure *proper enforcement of the objectives laid down in EPR schemes*.



We also propose an intervention specifically aimed at municipalities:

- Make municipal waste recycling centres more accessible and organise them in such a way that sorting of reusable or repairable goods takes place as the default, before discarded items disappear into the waste skips.

#### **4 Assist consumers to make sustainable choices and protect them against manipulation**

Making a responsible choice from the product range offered by shops is often difficult because of a lack of unambiguous and reliable information about sustainability. To promote behavioural change among consumers, government will need to ensure that information on the origin and environmental impact of products is readily available, accessible, and reliable. Sustainable products must also be easily accessible and affordable. Government will also need to ensure that people feel they are supported in making responsible choices, and that they are protected from being misled and lured into making impulsive purchases.

Specifically, we recommend that central government act as follows:

- *Introduce a lifespan label and a repair label* with information on the expected useful life and reparability of a product. This can prevent products from being discarded too soon and can contribute to making product repair ‘normal’. A repair label can be introduced without waiting for the advent of an EU version; until such time as an EU label arrives, the Dutch government can introduce a national label. The French initiative in this area can serve as a model.

- *Assist people in turning sustainability awareness into sustainable behaviour*, doing so with the behavioural strategy that was recently developed for this purpose (IenW, 2023b). Run publicity campaigns to clarify the harmful effects that consumption has on people and the environment, and highlight the inviting prospect of a healthy and liveable world. Spread the idea that it helps not to purchase something: ‘the most sustainable product is the one you don’t buy’. To support deliberate and sustainable consumption choices, invest more in the information activities of Milieu Centraal, which is an important source of information for people who want to know more about this.
- *Ban or discourage rock-bottom pricing of products* that – combined with targeted marketing campaigns – mostly encourages impulsive purchases, and prohibit the discarding and destruction of unsold stock. In this way, also force producers to think more carefully in advance about the numbers of products that they place on the market and the quality of those products. Draw up an agreement with retailers and the second-hand sector that includes arrangements to stop promotion of cheap bargains by means of rock-bottom pricing, and encourage the donation or sale of unsold stock to the second-hand circuit
- *Raise awareness of the EU Ecolabel* and push its wider application to products and services in the Netherlands.
- *Press in Brussels for ambitious content and implementation of the EU rules against greenwashing* that are in the pipeline. Ensure adequate national oversight of the use of sustainability labels and sustainability claims. To that end, require producers to share their product data.



- *Explore ways to limit advertising for disposable products that have harmful effects.* Start by restricting advertising in public space that urges people to purchase products whose production involves negative environmental impacts or poor working conditions. In doing so, learn from the experience of various cities in banning advertising for air travel, petrol-driven cars and the fossil industry, on the one hand, and experience of restricting smoking and gambling advertising on the other.

## **5 As government, take the lead, coordinate matters, and set a good example**

If results are to be achieved, it is therefore crucial for central government to adopt an active, enabling, and coordinating role in this regard. That starts by taking the phasing out of the throw-away society seriously as a precondition for the transition to a sustainable economy. It is important that there is stronger commitment to this transition at cabinet level, both in terms of the coordinating minister or state secretary and the government budget allocated for this purpose. The directing role of government should be fulfilled along three different tracks. We are therefore making three recommendations to the Dutch government in this regard:

- *Support and protect consumers* in purchasing products. Make clear how consumers can contribute to sustainability themselves, and create the necessary conditions for them to do so. To that end, implement the interventions described in recommendation 4.
- *Support the business community* in reducing harmful impacts of their products and production chains. Ensure that it is clearer to companies what ‘sustainability’ or ‘circularity’ actually mean in practice for their

business operations, and what consequences EU legislation and regulations in this field have on their business. To that end, set up support centres for each different sector (because there are major differences between sectors).

- *Take the lead, coordinate matters, and lead by example.* Based on the recommendations set out in this advisory report, draw up a plan for phasing out the throw-away society and reducing consumption of resources. To that end, ensure more robust cross-ministry coordination at cabinet level. In doing so, free up substantially more capacity for phasing out the disposable economy and transitioning towards a sustainable economy. At the same time, provide more budgetary resources for this. The measures described in this section will require a substantially larger budget than is currently allocated for the transition to a circular economy. Finally, require public authorities to make their procurement sustainable and circular.





# REFERENCES

- Afval Circulair (2023). *Geldende Avv's*. Geraadpleegd op 27 september 2023, via <https://www.afvalcirculair.nl/onderwerpen/afvalregelgeving/producentenverantwoordelijkheid/algemeen-verbindend/geldende-avv/>
- Alliantie Nederland Rookvrij (2018). *De geschiedenis van tabaksontmoediging in Nederland*. Geraadpleegd op 4 oktober 2023, via <https://gezondheidsfondsenvoorrookvrij.nl/wp-content/uploads/2020/04/2018-Geschiedenis-Tabaksontmoediging-webversie.pdf>
- Backes C. & Boeve, M. (2022). *Uitgebreide producentenverantwoordelijkheid: rol en verantwoordelijkheden gemeenten en inzamelingsorganisaties in relatie tot producenten: juridische kaders voor de afbakening van verantwoordelijkheden*. White paper. Utrecht: Universiteit Utrecht.
- Berge, R. van den, Magnier, L. & Mugge, R. (2021). Too good to go? Consumers' replacement behaviour and potential strategies for stimulating product retention. *Current Opinion in Psychology*, 39, p. 66-71.
- Berge, R. van den, Magnier L. & Mugge, R. (2023). Until death do us part? In-depth insights into Dutch consumers' considerations about product lifetimes and lifetime extension. *Journal of Industrial Ecology*. DOI: 10.1111/jiec.13372.
- Bouman, T. & Steg, L. (2022). A spiral of (in)action: Empowering people to translate their values in climate action. *One Earth*, 5 (9), 975-978. DOI: 10.1016/j.oneear.2022.08.009.
- Bouman, T., Bolderdijk, J.W., Renes, R.J., Wal, A.J. van der, Paradies, G., Roeser, S., Grift, L. van de, Uffelen, N. van, Vries, G. de, Onwezen, M.C., Wals, A.E.J. & Arts, M.N.C. (2023). *Een verbod op fossiele reclame. Essentieel, maar niet voldoende*. Advies in reactie op debat Tweede

- Kamer, vergaderjaar 2022-2023. 36200 XIII, nr. 122.
- BZ (2020a). *Van voorlichten tot verplichten. Een nieuwe impuls voor internationaal maatschappelijk verantwoord ondernemerschap*. Brief van de minister van Buitenlandse Zaken aan de Tweede Kamer van 16 oktober 2020. Tweede Kamer, vergaderjaar 2020-2021, 26 485, nr. 337.
- BZ (2020b). *Van voorlichten tot verplichten: een nieuwe impuls voor internationaal maatschappelijk verantwoord ondernemerschap*. Den Haag.
- CBS (2023). *Statline. Detailhandel; omzetontwikkeling, index 2015=100*. Geraadpleegd op 28 september 2023, via <https://opendata.cbs.nl/#/CBS/nl/dataset/83868NED/table>
- CE Delft (2020). *Top 10 milieubelasting gemiddelde Nederlandse consument – update*. Delft.
- CE Delft (2023). *Handboek Milieuprijzen 2023: methodische onderbouwing van kengetallen gebruikt voor waardering van emissies en milieu-impacts*. Delft.
- CLO (2023a). *Milieudruk door consumptie, 1995-2022*. Geraadpleegd op 4 oktober 2023, via <https://www.clo.nl/indicatoren/nl0137-bestedingen-en-milieudruk?ond=20889>
- CLO (2023b). *Energiegebruik van huishoudelijke apparatuur, 2000-2021*. Geraadpleegd op 4 oktober 2023, via <https://www.clo.nl/indicatoren/nl0536-energielabels-voor-huishoudelijke-apparaten>
- CLO (2023c). *Verkoop, gebruik en afgedankte elektronische en elektrische apparatuur, 1995-2022*. Geraadpleegd op 2 oktober 2023, via <https://www.clo.nl/indicatoren/nl0561-afgedankte-elektronische-en-elektrische-apparatuur>
- Consumentenbond (2023). *Je tv laten repareren: wat moet je weten?* Geraadpleegd op 3 oktober 2023, via <https://www.consumentenbond.nl/tv/tv-reparatie>
- CPB (2022). *Kerngegevensstabel MEV 2023 (september 2022)*. Den Haag: Centraal Planbureau.
- Do, T. (2023). *The Real Production Costs of Smartphones*. Geraadpleegd op 4 oktober 2023, via <https://www.ls.com/production-costs-of-smartphones/>
- Duintjer Tebbens, M. (2023). *Nieuw onderzoek: 'Aarde is ernstig ziek, maar niet ongeneeslijk'*. Geraadpleegd op 4 oktober 2023, via <https://nos.nl/nieuwsuur/collectie/13871/artikel/2477243-nieuw-onderzoek-aarde-is-ernstig-ziek-maar-niet-ongeneeslijk>
- Earth Overshoot Day (2023a). *This Year's Earth Overshoot Day Fell On August 2: In A Resounding Call For Sustainability And Innovation, Slovenia's Ministry of Environment, Climate And Energy Ushers In The One-Hour Initiative During High-Level Event Commemorating This Year's Earth Overshoot Day*. Geraadpleegd op 4 oktober 2023, via <https://www.overshootday.org/>
- Earth Overshoot Day (2023b). *Country Overshoot Days*. Geraadpleegd op 4 oktober 2023, via <https://www.overshootday.org/newsroom/country-overshoot-days/>
- Eerenbeemt, M. van den (2022). *Nederlands onderzoek naar groene marketing brengt H&M op de knieën*. *De Volkskrant*, 13 september 2022.
- Ellen MacArthur Foundation (2022). *Building a circular economy for textiles supported by common rules on Extended Producer Responsibility (EPR) in the EU: Recommendations and open questions for the upcoming revision of the EU Waste Framework Directive (WFD)*. White paper. Cowes.



Europese Commissie (2020). *Ecodesign: mobiele telefoons en tablets zo ontwerpen dat ze duurzaam zijn*. Geraadpleegd op 4 oktober 2023, via [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12797-Ecodesign-mobiele-telefoons-en-tablets-zo-ontwerpen-dat-ze-duurzaam-zijn\\_nl](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12797-Ecodesign-mobiele-telefoons-en-tablets-zo-ontwerpen-dat-ze-duurzaam-zijn_nl)

Europese Commissie (2023a). *Verordening inzake ecologisch ontwerp voor duurzame producten: de nieuwe verordening zal de circulariteit, energieprestaties en andere aspecten van milieuduurzaamheid in de EU verbeteren*. Geraadpleegd op 5 oktober 2023, via [https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products-regulation\\_nl?etrans=nl](https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products-regulation_nl?etrans=nl)

Europese Commissie (2023b). *EU Ecolabel facts and figures*. Geraadpleegd op 31 oktober 2023, via [https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel-home/business/ecolabel-facts-and-figures\\_nl](https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel-home/business/ecolabel-facts-and-figures_nl)

Global Footprint Network (2023). *Glossary*. Geraadpleegd op 4 oktober 2023, via <https://www.footprintnetwork.org/resources/glossary/#global-hectare-gha>

González, A. & Schipper, I. (2021). *State of play and roadmap concepts: Electronics Sector*. Re-sourcing Deliverable 4.3. Amsterdam: Centre for Research on Multinational Corporations.

Gössling, S., Hanna, P., Higham, J., Cohen, S. & Hopkins, D. (2019). Can we fly less? Evaluating the 'necessity' of air travel. *Journal of Air Transport Management*. DOI: 10.1016/j.jairtraman.2019.101722.

lenW (2023a). *Nationaal Programma Circulaire Economie 2023-2030*. Den Haag.

lenW (2023b). *Gedragstrategie Burgers en circulaire economie: langetermijnstrategie en operationele aanpak voor circulair gedrag van burgers ten behoeve van de realisatie van Nederland Circulair in 2050*. Den Haag.

Jansen, F., Paassen, D. van & Zegers, H. (2023). *Is vintage kleding op Vinted wel echt duurzaam?* Geraadpleegd op 28 september 2023, via <https://www.groene.nl/artikel/is-vintage-kleding-op-vinted-wel-echt-duurzaam>

Jonker, J., Faber, N. en Haaker, T. (2021). *QuickScan Circulaire Businessmodellen, Inspiratie voor het organiseren van waardebehoud*. Den Haag: Ministerie van Economische Zaken en Klimaat.

Jonker, J., Stegeman, H. & Faber, N. (2018). *De circulaire economie: denkbeelden, ontwikkelingen en business modellen*. Whitepaper. Januari 2018. Nijmegen.

KplusV (2020). *Fast fashion onderzoek: vermindering van de negatieve impact*. In opdracht van het Ministerie van Infrastructuur en Waterstaat. Arnhem.

KPMG, Copper8 & Kennedy van der Laan (2019). *Circulaire verdienmodellen. Praktische handvatten voor ondernemers*. Whitepaper. 25 september 2019. S.L.: KPMG Advisory, Copper8 & Kennedy van der Laan.

Limburgsch Dagblad (1963). Advertentie: Met de Bayern III méér programma's béter zien. *Limburgsch Dagblad*, 18 oktober 1963.

Maldini, I., Duncker, L., Bregman, L., Piltz, G., Duscha, L., Cunningham, G., Vooges, M., Grevinga, T., Tap, R., & Balgooi, F. van (2017). *Measuring the Dutch clothing mountain: Data for sustainability-oriented studies and actions in the apparel sector*. Resultaten van een onderzoeksproject van



- MVO Nederland, Hogeschool van Amsterdam, Saxion, Sympany, Circle Economy en Modint. Geraadpleegd op 28 september, via <https://research.hva.nl/en/publications/measuring-the-dutch-clothing-mountain-data-for-sustainability-ori>
- Milieu Centraal (2022). *Jaarverslag 2022*. Geraadpleegd op 4 oktober 2023, via <https://www.milieucentraal.nl/over-milieu-centraal/jaarverslag-2022/>
- Milieu Centraal (2023). *Monitor Duurzaam Leven: hoe duurzaam leeft Nederland? Monitoring van 98 duurzame keuzes en openheid tot duurzaam gedrag*. Utrecht.
- Mirande R. (2023). *Consumentenonderzoek wijst uit: 'Zuinigheid is het nieuwe cool'*. Geraadpleegd op 4 oktober 2023, via <https://www.adformatie.nl/data-insights/consumentenonderzoek-zuinigheid-het-nieuwe-cool>
- MVO Nederland & Wageningen University (2016). *Mapping obsolete inventory in the Dutch clothing industry*. MSc Thesis van G. Wijnia. Geraadpleegd op 28 september 2023, via <https://www.mvonderland.nl/onderzoek-hoe-kom-je-van-onverkochte-voorraad-kleding-af/>
- PBL (2023a). *Integrale Circulaire Economie Rapportage 2023*. Den Haag: Planbureau voor de Leefomgeving.
- PBL (2023b). *Hoe 'circulair' zijn Nederlandse consumenten? Een empirisch onderzoek naar gedrag, bereidheid en de potentiële milieuwinst van circulair consumeren*. Den Haag: Planbureau voor de Leefomgeving.
- Porcelijn, B. (2020). *De verborgen impact: alles voor een eco-positief leven*. 9<sup>e</sup> druk. Amsterdam: Volt.
- Repsol (2023). *What is planned obsolescence? Optimizing resources towards a circular economy*. Geraadpleegd op 2 oktober 2023, via <https://www.repsol.com/en/energy-and-the-future/technology-and-innovation/planned-obsolescence/index.cshtml>
- Right to repair Europe (2023). *Europe, let's reuse, refurbish, repair*. Geraadpleegd op 5 oktober 2023, via <https://repair.eu/>
- Rli (2015). *Circulaire economie : van wens naar uitvoering*. Den Haag: Raad voor de leefomgeving en infrastructuur.
- Rli (2019). *Naar een duurzame economie: overheidssturing op transities*. Den Haag: Raad voor de leefomgeving en infrastructuur.
- Rli (2021a). *Investeren in duurzame groei*. Den Haag: Raad voor de leefomgeving en infrastructuur.
- Rli (2021b). *Boeren met Toekomst*. Den Haag: Raad voor de leefomgeving en infrastructuur.
- Rli (2023). *Werkprogramma 2023-2024*. Den Haag: Raad voor de leefomgeving en infrastructuur.
- Rockström, J., Gupta, J., Qin, D. et al. (2023). Safe and just Earth system boundaries. *Nature* 619, p. 102–111.
- RVO (2023). *IMVO-steunpunt voor bedrijven*. Geraadpleegd op 4 oktober 2023, via <https://www.rvo.nl/onderwerpen/imvo-steunpunt-bedrijven>
- SEO (2023). *Een btw-nultarief voor groente en fruit: voor- en nadelen van mogelijke afbakeningsvarianten*. Amsterdam: SEO Economisch Onderzoek.
- SMK (2022). *SMK Jaarverslag 2021*. Geraadpleegd op 4 oktober 2023, via <https://smkjaarverslag2021.nieuws.smk.nl/eu-ecolabel/>



- Sparkman, G., Geiger, N. & Weber, E. (2022). Americans experience a false social reality by underestimating popular climate policy support by nearly half. *Nature Communications*. DOI: 10.1038/s41467-022-32412-y.
- Staatsblad van het Koninkrijk der Nederlanden (2023). Besluit van 14 april 2023, houdende regels voor uitgebreide producentenverantwoordelijkheid voor textielproducten (Besluit uitgebreide producentenverantwoordelijkheid textiel). *Staatsblad* 2023, 132.
- Stibat (2022). *Jaarverslag 2021*. Zoetermeer: Stichting Stibat Services.
- Stichting OneWorld (2023). 'Pak overconsumptie aan: verbied reclames'. Geraadpleegd op 4 oktober 2023, via <https://www.oneworld.nl/klimaat/pak-overconsumptie-aan-verbied-reclames/>
- Stichting Reclame Code (2022). *Nieuwe regels om misleidende reclame tegen te gaan in Nederlandse Reclame Code*. Geraadpleegd op 4 oktober 2023, via <https://www.reclamecode.nl/news/nieuwe-regels-om-misleidende-reclame-tegen-te-gaan-in-nederlandse-reclame-code/>
- Stil, H. (2023). Liever een refurbished telefoon dan hem laten fixen: reparateurs vallen bij bosjes om. *Het Parool*, 21 juli 2023.
- TAUW (2022). *Groot zitmeubilair: productstromen en materialen in kaart gebracht*. Rapport in opdracht van Rijkswaterstaat. Rotterdam.
- The Ex'tax Project, et al. (2016). *New era. New plan. Europe. A fiscal strategy for an inclusive, circular economy*. Utrecht.
- The ReUse Alliance (2023). *The ReUse Alliance: op naar een circulaire meubelsector waarin meubels langer meegaan*. Visiedocument. Geraadpleegd op 28 september 2023, via [https://reusealliance.nl/wp-content/uploads/2023/05/230427-Definitief-Visiedocument\\_1.pdf](https://reusealliance.nl/wp-content/uploads/2023/05/230427-Definitief-Visiedocument_1.pdf)
- Transitiecoalitie Voedsel (2020). *Experimenten voor echte prijzen: naar een Meerjarig Experimenteerprogramma Echte en Eerlijke Prijzen*. Eindrapport. De Bilt: Stichting Transitiecoalitie Voedsel.
- True Price Foundation (2020). *Principles for true pricing: consultation draft*. Geraadpleegd op 18 oktober, via <https://trueprice.org/principles-for-true-pricing/>
- VNA (2023). *Private lease in cijfers 2022*. Geraadpleegd op 28 september 2023, via <https://www.vna-lease.nl/cijfers-en-feiten/private-lease-in-cijfers-2022>
- Wicker, A., Schmall, E., Raj, S. & Paton, E. (2022). *That Organic Cotton T-Shirt May Not Be as Organic as You Think: The organic cotton movement in India appears to be booming, but much of this growth is fake, say those who source, process and grow the cotton*. Geraadpleegd op 4 oktober 2023, via <https://www.nytimes.com/2022/02/13/world/asia/organic-cotton-fraud-india.html>
- WRR (2023). *Goede zaken: naar een grotere maatschappelijke bijdrage van ondernemingen*. WRR-rapport 107. Den Haag: Wetenschappelijke Raad voor het Regeringsbeleid.



## RESPONSIBILITY AND ACKNOWLEDGEMENT

### **Composition of the Council committee**

Em. prof. dr. A.N. (André) van der Zande, Council member Rli and committee chair

Drs. J.A. (Jeanet) van Antwerpen, Council member Rli

Em. prof. dr. J. (Jan) Jonker, external committee member (Emeritus Professor of Sustainable Entrepreneurship, Radboud University Nijmegen)

A.M.A.E. (Anne-Marie) Rakhorst, external committee member (Entrepreneur and owner of Duurzaamheid.nl)

### **Composition of the Project team**

Dr. B. (Bas) Waterhout, project leader

Drs. A.A.F. (Amanda) Bachaus, external project staff member, CE Delft, until 30 November 2023

S.A.H. (Sonja) Middendorp, project assistant

Dr. ir. G.M. (Geert) Munnichs, project staff member

### **Consultees**

Chris Backes, Universiteit Utrecht

Nancy Bocken, Universiteit Maastricht

Jan Willem Bolderdijk, Universiteit van Amsterdam

Michiel Boots, Ministerie van Economische Zaken en Klimaat  
Gijsbert Borgman, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties  
Daniëlle Broeze, Ministerie van Infrastructuur en Waterstaat  
Rosalie de Bruijn, Sociaal-Economische Raad  
Jacqueline Cramer, Universiteit Utrecht  
Ruben Dekker, Ministerie van Infrastructuur en Waterstaat  
Dirk van Deursen, Koninklijke CBM  
Hilde van Duijn, Circle Economy  
Steven van Eijck, Stichting Open  
Sander Gerritsen, Ministerie van Economische Zaken en Klimaat  
Aldert Hanemaaijer, Planbureau voor de Leefomgeving  
Fabrice van Hoof, Ministerie van Financiën  
Sarah van Hugte, Sociaal-Economische Raad  
Marieke Kamphuis, The Substitute  
Julia Koch, Planbureau voor de Leefomgeving  
Janneke Koster, Rijksuniversiteit Groningen  
Valerie van 't Lam, Stibbe N.V.  
Ruth Mugge, TU Delft  
Kees Noordmans, Opnieuw!  
Ralph Peters, Nederlandse vereniging voor afval- en reinigingsdiensten  
Mattheüs van de Pol, Ministerie van Economische Zaken en Klimaat  
Afke van Rijn, Ministerie van Infrastructuur en Waterstaat  
Roosmarie Ruigrok, Clean and Unique  
Martine Roza-Molenschot, Ministerie van Infrastructuur en Waterstaat  
Caroline Santamaria, Duurzaamheid.nl  
Bram Schmidt, Stibbe N.V.

Frank Stevens van Abbe, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties  
Jaap Stokking, Ministerie van Economische Zaken en Klimaat  
Martijn Tak, Ministerie van Infrastructuur en Waterstaat  
Rogier Tesson, Ministerie van Financiën  
Walter Vermeulen, Universiteit Utrecht  
Kees Vringer, Planbureau voor de Leefomgeving

*Expert meeting Clothing 3 April 2023*

Daniëlle Bruggeman, ArtEZ  
Emile Bruls, Rijkswaterstaat  
Hilde van Duijn, Circle Economy  
Jolanda Kooi, Tex-tracer  
Janneke Koster, Rijksuniversiteit Groningen  
Kim Poldner, Haagse Hogeschool  
Bert van Son, MUD Jeans  
Mirella Soyer, Hogeschool Rotterdam  
Thomas Ashok, Patagonia Europe Coöperatief U.A.  
Patrick Welp, Vodde

*Expert meeting Batteries 11 April 2023*

Ingeborg Gort-Duurkoop, CIRCO  
André Habets, FIAR Consumer Electronics  
Hannes de Jong, Heskon | Accu Revisie  
Michiel Krijvenaar, Techniek Nederland  
Ruth Mugge, TU Delft



Leendert Jan de Olde, Philips International BV  
Erik Schalk, Road2Work Nederland BV  
Natascha Spanbroek, RIVM  
Stefan Verhoeven, Miele  
Jan Vlak, Stichting Open  
Wiebo de Vries, Made Circular by  
Timmy de Vos, Race Against Waste

*Expert meeting Furniture 12 April 2023*

Dirk van Deursen, Koninklijke CBM  
Dionne Ewen, Ahrend  
Mark Groot Wassink, Koninklijke Auping B.V.  
Timber Haaker, Saxion  
Aniek Ivens, Milieu Centraal  
Marieke Kamphuis, The Substitute  
Julia Koch, Planbureau voor de Leefomgeving  
Valérie van 't Lam, Stibbe N.V.  
Tanja Meeuwssen, Branchevereniging Kringloop Nederland  
Machteld Rijnten, The Substitute  
Heleen Verkerk, Rataplan  
Rick Verkuyl, Marktplaats  
Hanneke van de Vijfeijke, IKEA

*Expert meeting 5 September 2023*

Chris Backes, Universiteit Utrecht  
Bart Brüggewirth, b-open

Marieke Kamphuis, The Substitute  
Mirjam Karmiggelt, GS1  
Ika van de Pas, Milieu Centraal  
Mirella Soyer, Hogeschool Rotterdam  
Jan Vlak, Stichting Open

*Working visit Fairphone 13 June 2023*

Thea Kleinmagd, Fairphone  
Monique Lempers, Fairphone

*Working visit Road2Work 28 June 2023*

Erik Schalk, Road2Work Nederland B.V.  
Joost Ezendam, Road2Work Nederland B.V.

*Departmental contact group*

Ruben Dekker, Ministerie van Infrastructuur en Waterstaat  
Sander Gerritsen, Ministerie van Economische Zaken en Klimaat  
Aldert Hanemaaijer, Planbureau voor de Leefomgeving  
Sarah van Hugte, Sociaal-Economische Raad  
Wilma van Hunnik, Ministerie van Infrastructuur en Waterstaat

*Reviewers*

Marjolein Demmers, Stichting Natuur en Milieu  
Paul Schenderling, Postgroei Nederland  
Stientje van Veldhoven, World Resources Institute





# OVERVIEW OF RLI PUBLICATIONS

## 2023

Working together: opting for future-proof business parks [Samen werken: kiezen voor toekomstbestendige bedrijventerreinen]. October 2023 (2023/04)

Adviezen in beeld. June 2023 (Rli 2023/03). Not translated.

Good Water, Good Policy. [‘Goed water goed geregeld’]. May 2023 (Rli 2023/02)

Every region counts! A new approach to regional disparities [Elke regio telt! Een nieuwe aanpak van verschillen tussen regio’s]. March 2023 (Rli 2023/01)

## 2022

Finance in transition: towards an active role for the financial sector in a sustainable economy [‘Financiering in transitie: naar een actieve rol van de financiële sector in een duurzame economie’]. December 2022 (Rli 2022/05)

Towards a sustainable food system: a position paper on the framework law. December 2022 (Rli/EEAC)

Splitting the atom, splitting opinion? Decision-making on nuclear energy based on values. [‘Splijtstof? Besluiten over kernenergie vanuit waarden’]. September 2022 (Rli 2022/04)

Providing shelter: maximising the performance of housing associations. [‘Onderdak bieden: sturen op prestaties van woningcorporaties’]. May 2022 (Rli 2022/03)

Adviezen in beeld. April 2022 (Rli 2022/02). Not translated.

Nature-inclusive Netherlands: nature everywhere and for everyone. [‘Natuurinclusief Nederland: natuur overal en voor iedereen’]. March 2022 (Rli 2022/01)

## 2021

Farmers with a future. [‘Boeren met toekomst’]. December 2021 (Rli 2021/06)

Give direction, make space! [‘Geef richting, maak ruimte!’]. November 2021 (Rli 2021/05)

National Growth Fund. [‘Investeren in duurzame groei’]. October 2021 (Rli 2021/04)

Towards an integrated accessibility policy. [‘Naar een integraal bereikbaarheidsbeleid’]. February 2021 (Rli 2021/03)



Digitally Sustainable. ['Digitaal duurzaam']. February 2021 (Rli 2021/02)

Hydrogen: the missing link. ['Waterstof: de ontbrekende schakel'].  
January 2021 (Rli 2021/01)

## 2020

Access to the city: how public amenities, housing and transport are key for citizens. ['Toegang tot de stad: hoe publieke voorzieningen, wonen en vervoer de sleutel voor burgers vormen']. October 2020 (Rli 2020/06)

Stop land subsidence in peat meadow areas: the 'Green Heart' area as an example. ['Stop bodemdaling in veenweidegebieden: Het Groene Hart als voorbeeld']. September 2020 (Rli 2020/05)

Green Recovery. ['Groen uit de crisis']. July 2020 (Rli 2020/04)

Changing Tracks: Towards Better International Passenger Transport by Train. ['Verzet de wissel: naar beter internationaal reizigersvervoer per trein'].  
July 2020 (Rli 2020/03)

Soils for Sustainability. ['De Bodem bereikt?!']. June 2020 (Rli 2020/02)

A Grip on Hazardous Substances. ['Greep op gevaarlijke stoffen'].  
February 2020 (Rli 2020/01)

## 2019

Towards a Sustainable Economy: The Governance of Transitions. ['Naar een duurzame economie: overheidssturing op transitie']. November 2019  
(Rli 2019/05)

Desirable Tourism: Capitalising on Opportunities in the Living Environment. ['Waardevol toerisme: onze leefomgeving verdient het']. September 2019  
(Rli 2019/04)

European Agricultural Policy: Working Towards Circular Agriculture. ['Europees Landbouwbeleid: inzetten op kringlooplandbouw']. May 2019  
(Rli 2019/03)

Aviation Policy: A New Approach Path. ['Luchtvaartbeleid: een nieuwe aanvliegroute']. April 2019 (Rli 2019/02)

The Sum of the Parts: Converging National and Regional Challenges. ['De som der delen: verkenning samenvallende opgaven in de regio'].  
March 2019 (Rli 2019/01)



**Original title**

Weg van de wegwerpmaatschappij

**Copy editing (dutch version)**

Saskia van As, Tekstkantoor Van As, Amsterdam

**Infographics**

Frédéric Ruys, Vizualism, Utrecht, The Netherlands (pages 27, 44)

**Photo credits**

Cover: Robin Utrecht / ANP

Page 5: StevenK / Shutterstock

Page 18: Tineke Dijkstra / Mediatheek Rijksoverheid

Page 25: Linda Bouritius / ANP

Page 31: BearFotos / Shutterstock

Page 41: Kaspars Grinvalds / Shutterstock

**Graphic design**

Jenneke Drupsteen Grafische vormgeving, The Hague, The Netherlands

**Publication Rli 2023/05**

November 2023

**Translation**

Acolad, Maastricht, The Netherlands

**Preferred citation**

Council for the Environment and Infrastructure (2023). Phasing out the Throw-Away Society. The Hague.

ISBN 978-90-77323-45-8

NUR740

