From producer responsibility to social responsibility

Extended social responsibility
as the foundation
for a circular society

stichting OPEN

Vision book
Stichting OPEN

Foreword

By Steven van Eijck, Chairman of the Board, Stichting OPEN

I am writing this foreword on a Wednesday that, as a Catholic, carries special significance for me: Ash Wednesday. A day of reflection and transience, reminding us that everything we have and are is temporary. “Remember, man, that you are dust and to dust you shall return” is a message that resonates not only in Christianity, but in all major religions and philosophies. It is a universal theme, the recognition that we, as human beings, are part of a greater whole, and that everything we use and leave behind will one day return in another form.

One does not need to be religious to reflect on the insignificance of humankind in the universe. For every grain of sand on earth, there are 500 planets in the cosmos. It seems unimaginable, and it is. On our planet alone, there are an estimated 100 trillion grains of sand, a number with 20 zeros. For each of those grains, there are 500 worlds beyond. A handful of sand therefore symbolises hundreds of planets in that infinite universe.

Since Galileo Galilei first turned his telescope towards the stars, we have been searching for other forms of life. Now, with instruments such as the James Webb Telescope, we can look back 13.8 billion years in time. Yet in all that vastness, no sign of life as we know it has ever been found. This realisation demands humility.

We, humanity, are only a small part of a greater whole. Everything is interconnected, and nothing truly disappears, only its form changes. This realisation should naturally lead to a different way of thinking about how we relate to the world around us.

From a circular nature to a linear economy

For centuries, the circular society was self-evident. Before the Industrial Revolution radically changed that society, there was no such thing as ‘waste’ in the way we understand it today. Everything was reused, repaired or returned to the natural cycle. In the past 200 years, however, we have lost that fundamental insight. We have built a linear system in which products are designed for short-term use and then discarded, a system

premised on infinite growth on a planet with finite resources.

Today, we stand at a crossroads. Not only are we reaching ecological limits, but geopolitical and economic realities also force us to act. The world has changed profoundly. Europe must safeguard its economic strength, geopolitical independence and energy security in an increasingly volatile environment. Dependence on external raw materials and fossil energy sources makes us vulnerable. Prices of critical materials fluctuate, supply chains are disrupted, and competition for scarce resources is intensifying.

The United States has once again chosen fossil energy and national industry politics. China secures control over strategic raw materials and infrastructures through large-scale investments in mining and global trade routes. Europe cannot afford to wait and see.

The circular economy is no longer merely an environmental issue, it is a geopolitical and economic necessity. By keeping materials within Europe, preserving value instead of discarding it, and reducing our dependence on scarce resources, we strengthen both our competitiveness and our energy security.

The answer lies not in extracting more, but in using what we have more intelligently. Not in chasing finite reserves, but in building an economy independent of geopolitical whims. There are probably more resources above ground than beneath it, and we must learn to use them. This is no idealistic utopia, but a strategic necessity.

The way forward

In this vision book, we outline what is needed in terms of extended producer responsibility to realise this transition. We show how the lessons of 25 years of producer responsibility can contribute to a broader societal responsibility. Stichting OPEN, as executor of extended producer responsibility (EPR), has demonstrated how collective responsibility works in practice. Now, the time has come to take the next step.

The question is not whether we must change, but how. This book provides a roadmap towards a circular society. A society in which we are no longer temporary users of finite resources, but conscious stewards of a shared future.

The moment to act is now.

Steven van Eijck
Chairman of the Board, Stichting OPEN

A society in which we are no longer temporary users of finite resources, but **conscious stewards** of a shared future.

Introduction

By Jan Vlak, CEO, Stichting OPEN

The origins of this vision

The Netherlands holds a leading position in the collection and high-quality processing of electronic waste. According to the UN's Global E-waste Monitor 2024, nearly 59% of discarded electrical and electronic equipment in the Netherlands is reported and recycled. This compares favourably with the global average of just 22% and the European average of 42%. Such achievements did not emerge overnight, they are the result of more than 25 years of development.

On 3 October 2024, Stichting OPEN organised the conference "Together towards a circular e-waste sector". At this event, producers, chain partners and societal actors reflected on 25 years of extended producer responsibility (EPR). Just as importantly, they also looked ahead to the next 25 years. For a quarter of a century, the Netherlands has worked with EPR, a system that has achieved major progress in waste management and recycling. Yet the world is changing at great speed. Technology, digitalisation, climate change and geopolitical shifts compel us to fundamentally rethink how we deal with resources and responsibility.

A circular society will not emerge by itself. It requires new leadership, new forms of societal cooperation and knowledge transfer. For this reason, on 3 October 2024, Stichting OPEN announced the creation of a taskforce to engage with partners and develop the circular e-waste sector. That taskforce is now in place. At the same time, however, the realisation emerged that it is time for a new vision.

A vision that not only looks back at what we have learned, but above all looks forward to what is needed.

A vision that inspires and stimulates fresh thinking. We must move from EPR to ESR, from responsibility for waste to responsibility for the entire societal system surrounding discarded appliances, lamps and batteries. This is the essence of this vision, the call to share, broaden and deepen responsibility.

How to read this vision

This vision is structured as a roadmap. The summary (Part A) sets out the main lines of thought in bullet points: why change is needed, where we come from, where we stand and how we can move forward. Each chapter builds on the previous one, with the aim of presenting an integrated picture of a circular society in which electronics hold a sustainable place. The structure follows a logical sequence:

1. We start with the urgency: why now?
2. Then we look back at 25 years of EPR.
3. We analyse where the current system falls short.
4. We introduce the dual strategy as a path to change.
5. We outline how ESR can take concrete form.
6. Finally, we present a strategic agenda that calls for action.

For those wishing to explore the details further, there is the extended source report (Part B), available via www.stichting-open.org/visieboek and through the QR code provided. This combines analyses, context and substantiation. In this way, the vision is both guiding and evidence-based.

Acknowledgements

Het opstellen van deze visie was een intensief proces, The preparation of this vision was an intensive process, made possible only thanks to the efforts and expertise of many. I would especially like to thank **Henk Diepenmaat,** whose scientific perspective gave substance to several ideas included in this book. His sharpness, persistence and ability to articulate complex societal issues with clarity and foresight have been invaluable. The extended source document is his work.

I would also like to mention **André Habets.** He is one of the pioneers in the field of producer responsibility and has been involved since the mid-1990s in the development and implementation of this instrument. In 2024, the year in which we celebrated the 25th anniversary of EPR, he retired. In documenting 25 years of EPR, we were still able to draw gratefully on his memory. My thanks also go to **René Eijsbouts,** who made an indispensable contribution from a collegial, societal and policy perspective.

And of course, my thanks go to the team at **Stichting OPEN,** who work every day towards a circular practice and thus laid the foundation for this new step. Finally, I thank all those involved, from the Board and Advisory Council to producers, partners and experts, for their discussions, critical questions, ideas and contributions to this document.

This vision belongs to all of us.
Let us take the next step together. Not because we can, but because we must.

Jan Vlak
Chief Executive Officer, Stichting OPEN

Inhoudsopgave

01

Introduction

Why this vision, why now?

We stand at a crossroads. The world is changing at high speed. The energy transition, digitalisation and the electrification of mobility are driving unprecedented growth in the demand for electronics. At the same time, available raw materials are becoming increasingly scarce. This presents us with a fundamental dilemma:

How can we continue to produce the electronics and technologies needed for a sustainable future without locking ourselves into a system of depletion and waste?

Over the past 25 years, extended producer responsibility (EPR) has helped us to manage electronic waste and batteries more effectively. Producers and importers were made responsible for the waste phase of their products. This has led to significant improvements such as:

- A nationwide collection system,
- Specialised recycling techniques that recover valuable raw materials,
- Greater awareness among consumers of the importance of e-waste collection,
- Stricter legislation that encourages producers to take circular steps.

EPR has proven to be an effective system that has tackled the problem of e-waste in a structural way. Today, however, the question is larger. Do we continue to limit ourselves to waste management, or do we take responsibility for the broader transition of resources and energy? Is EPR still sufficient, or must we look further?

Why now? The momentum for change

The transition in resources and energy is not a distant point on the horizon. It is a reality that must be addressed now. Three developments accelerate this necessity:

1. Explosive growth of e-waste
Electronics are being produced and discarded in ever greater quantities. The amount of discarded devices is growing faster than we can recycle them.

2. Critical raw materials are both scarce and strategic
The energy transition and digitalisation drive demand for raw materials such as lithium, cobalt and nickel. At the same time, geopolitical risks are increasing. Raw materials are being used as instruments of economic power.

3. European and national legislation demands action
The EU is working on harmonisation of extended producer responsibility and a European producer register to curb leakages. The Netherlands has set itself ambitious targets: 50% less use of primary raw materials by 2030 and a fully circular economy by 2050.

We are at a tipping point. We cannot restrict ourselves to waste management, we are also responsible for the wider resource and energy transition.

The central question: how do we organise responsibility?
EPR was a first step and has shown that producer responsibility can be effective. Looking ahead, however, the question arises: who bears responsibility in a world where the management of raw materials is at least as important as waste management?

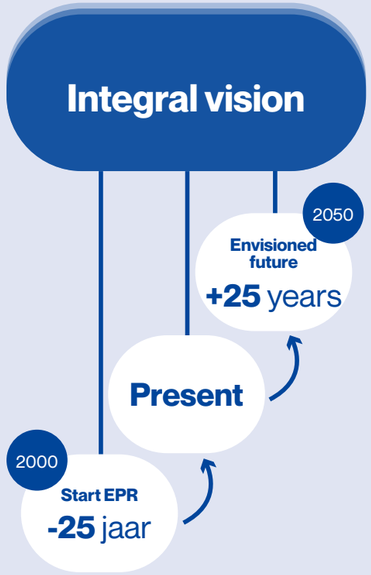


Figure 1
The scope of this vision: time. This vision covers half a century.

How can we organise this in a fundamentally different way? These are the questions at the heart of the following chapters, beginning with an analysis of why EPR has reached its functional limit.

02

Why EPR has reached its functional limit

Extended producer responsibility (EPR) has contributed significantly over the past 25 years to the management of electronic waste and discarded batteries. Yet the world has changed, and the challenges we face today are fundamentally different from those of 25 years ago. EPR was designed for a linear system in which the focus lay on managing waste streams. Today, the bigger challenge is resource scarcity and a rapidly growing global demand for electronic applications.

1. The explosive demand for critical raw materials

- The energy transition and digitalisation are driving exponential growth in demand for materials such as lithium, cobalt and rare earth metals.
- Europe is dependent on raw materials from geopolitically unstable regions and has no control over these supply chains.

2. The growth of e-waste outpaces recycling capacity

- E-waste is the fastest-growing waste stream in the world, yet its processing capacity is not keeping pace.
- Many products are still not returned correctly, causing valuable materials to be lost through illegal export streams, low-grade recycling or residual waste.

3. EPR focuses on waste management, not on resource conservation

- EPR only comes into effect at the end of a product's life cycle, while the greatest impact lies earlier in the chain, at the stage of design, use and choice of materials..
- The current system does too little to encourage longer product lifespans or the reintegration of materials into the chain.

4. EPR operates nationally, but the challenges are global

- Producers and importers are responsible under EPR, but e-waste and raw material flows do not respect national borders.
- Illegal exports and leakages mean that a large part of the materials we could recover disappear outside Europe.

5. The core of the problem

The EPR system has improved recycling and professionalised the management of e-waste, but it also shows its limitations.

- Recycling alone is not enough. Demand for materials continues to rise and recovery is insufficient.
- Products are still designed for use rather than for circularity. Extending lifespans and reuse are not being enforced.
- The resource crisis requires a system that goes beyond producer responsibility alone.

EPR has been an effective instrument, but in today's world it is no longer sufficient. This means we must think about a system that does not only manage the consequences of electronic waste but also addresses its origins.

What does this mean for the future of producer responsibility? What is needed to structurally improve the chain? In the following chapters, we explore the necessary transition and the steps required to achieve it.

03

The need to go beyond a circular economy

For a long time, the circular economy was seen as the solution to the challenges of resource use and waste. Less waste, better reuse and more efficient use of materials. This model has led to improved recycling, product design with reuse in mind and a broader acceptance of circular business models.

Despite this progress, however, a fundamental problem remains: society itself is not circular. The circular economy functions as a corrective mechanism within a system that, at its core, still operates in a linear way..

The system is not 100% efficient. Depletion still follows, only at a slower pace. The demand for more electronic applications does not decrease, and even with maximum recycling a circular economy cannot meet the growing demand for scarce raw materials.

This is the development dilemma

The world increasingly needs electronics, yet even a perfectly circular economy cannot satisfy the rising demand for scarce raw materials. Nor can it ever be made 100% circular because of process losses. The true solution lies not only in a circular economy with circular material use, but in a circular society in which the economy, ownership, consumption and responsibility are fundamentally redefined.

What does a circular society mean?

A circular society means that:

- Not only producers, but also consumers and governments actively take responsibility.
- The economy shifts from ownership to use: less individual ownership, more reuse and shared models.
- Laws and agreements throughout the chain are structured to preserve and recover materials, not merely to manage waste.

A circular society can only function if responsibility is fairly distributed and genuinely shared. It requires broader cooperation between businesses, citizens and governments. How this affects the role of EPR will be the focus of the next chapter.

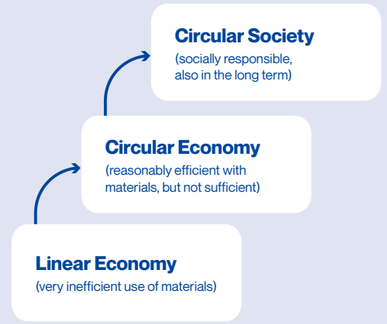


Figure 2
The Linear Economy, the Circular Economy, and the Circular Society

A circular society can only function if responsibility is fairly distributed and genuinely shared. It requires **broader cooperation** between **businesses, citizens** and **governments.**

04

How do we realise extended societal responsibility?

A dual strategy offers a clear roadmap: optimising within the existing system while at the same time building the transition towards a circular society. But how do we turn this vision into reality?

The shift from extended producer responsibility (EPR) to extended societal responsibility (ESR) requires structural changes in policy, financing and chain cooperation. This chapter focuses on practical implementation: what must be done, and who should take which role?

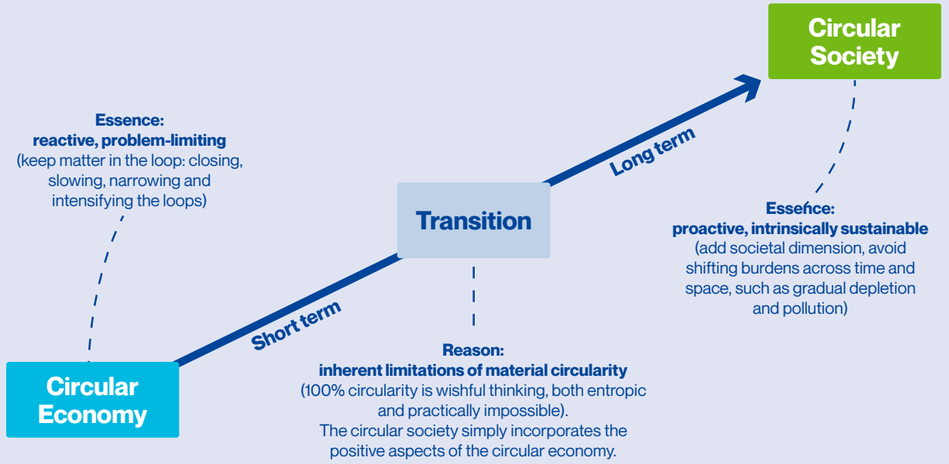
Policy as the driver of change

A circular society can only emerge if legislation and regulation guide developments in advance, rather than correcting them afterwards. Without a clear policy framework, circularity remains too dependent on voluntary initiatives and market forces.

Legislation must ensure that products are not only recyclable, but also have longer lifespans and are easier to repair. This requires standards for product design, such as mandatory repairability, modularity and the use of recycled materials. In addition, minimum warranty periods must be extended so that planned obsolescence cannot be used as a business model. Such a framework creates a level playing field and clear product requirements.

Aspect	Circular Economy	Circular Society
Essence	Reactive, problem-limiting (keep matter in the loop: closing, slowing, narrowing and intensifying the loops)	Proactive, intrinsically sustainable (add societal dimension, avoid shifting burdens across time and space, e.g. gradual depletion and pollution)
Reason	Inherent limitations of material circularity (100% circularity is wishful thinking, both entropic and practically impossible).	The circular society incorporates the positive aspects of the circular economy.
Development order	Problem-solving: analyse existing problem, then improvement steps aimed at problematic aspects.	Backcasting: design desired systems, then implement steps towards that better future.
Sustainable development	Problem-limiting sustainable development (focus on the problem, reactive).	System innovation, transition (intrinsically sustainable development).
Development order	Product innovation, waste management, higher R-strategies.	Broad systemic innovation, prevention of negative impacts, long-term societal sustainability.

Table 1
From a circular economy to a circular society



At the same time, disposable products and business models that systematically contribute to material waste should be discouraged or even banned. This does not only apply to fast fashion, but also to 'fast electronics': cheap devices with extremely short lifespans that are replaced rather than repaired. Products that cannot be repaired or reused can no longer be the norm in a society that aspires to function circularly.

Responsibility must also extend beyond what is produced, to who is accountable for what happens to a product after use. Until now, this responsibility has rested primarily with producers. But what good is assigning responsibility if that party depends on others to fulfil it? In a truly circular system, distributors, consumers and governments must also contribute to return flows and reuse.

Fair financing of circularity

To make the transition to ESR possible, financing must also change structurally. The costs can no longer rest solely on producers. If circularity is a societal interest, the costs and benefits must also be shared across society. This means that not only producers contribute to circular systems, but governments and consumers must also take responsibility.

Taxes and financial incentives can play a crucial role. Circular products can be encouraged through reduced VAT on repaired and refurbished items, while new products that are poorly reusable or difficult to repair should be taxed more heavily. A reformed tax system can ensure that 'green' choices become more attractive and that linear consumption is no longer the default.

There should also be investment in a fund to support businesses in transitioning to circular business models. This can take the form of subsidies, a legally visible circularity contribution, or investments in innovative technologies and infrastructure. Such a fund could be financed jointly by government,

consumers and industry. In the long run, these investments will lead to cost savings and a more stable supply of raw materials.

Finally, there must be a clear allocation of responsibility for the impact of non-circular products. Producers who persist with linear production processes could be taxed on the environmental impact of their products. This means that products contributing to waste and resource depletion would face higher levies, while circular products would be financially incentivised.

Cooperation as the key to success

The transition to ESR is not a matter of one party taking the lead. It requires cooperation at every level. Governments must provide clear legislation, producer collectives must establish collection structures, companies must invest in circular production processes, and consumers must be able to make informed choices and actively contribute to return flows.

The government plays a facilitating role by setting clear frameworks and strengthening enforcement. This does not only mean drafting legislation, but also actively supporting circular initiatives. Businesses must look beyond their own supply chains and work together to keep materials in the economy for as long as possible. This requires a new form of cooperation, in which producers, suppliers and recyclers no longer operate as separate links but as an integrated system centred on resource management.

Consumers, too, must be part of the solution. They need better information on circular choices and active encouragement to adopt more conscious behaviour. Financial incentives for reuse and repair can make circular behaviour the norm.

A circular society can only exist if all actors in the chain play an active role. ESR is therefore not a top-down policy, but a collective effort in which everyone carries responsibility.

A successful implementation requires political decisions, commitment from businesses and an active role for society. This means that a strong governance model is needed to guide and embed the transition in both policy and practice.

A circular society can only exist if all actors in the chain play an **active role.**

05

The principles of ESR governance: a new way of steering

To support this transition, a different type of governance is needed. ESR governance differs fundamentally from traditional producer responsibility in three key ways:

1) From voluntary cooperation to active coordination and shared responsibility
Governments, businesses and citizens must not only be involved but also held accountable for their contribution. The focus shifts from individual responsibility to collective responsibility.

2) From short-term thinking to long-term strategies and investments
The transition to ESR can only succeed if there are stable policy frameworks that give companies and investors the confidence to invest in circular innovations and infrastructure.

3) From national approaches to European and global cooperation
ESR cannot be realised within national borders. European harmonisation and international collaboration are crucial to creating a level playing field and preventing materials from leaking out of the circular economy.

These principles form the basis for a governance model that is structurally embedded, yet flexible enough to adapt to societal and technological developments.

Instruments for ESR governance: how do we make this concrete?

Governance must translate into concrete policy measures and structures that ensure circularity does not remain an ideal, but becomes a reality.

1. Standards and regulation

- Mandatory circular design principles such as the Right to Repair, modularity and a minimum share of recycled material in products.
- European regulation that creates a level playing field and prevents circular businesses from facing unfair competition from non-circular products.
- Clear, measurable objectives and indicators for circularity, with reporting obligations for companies and governments.
- A materials passport for devices and batteries.

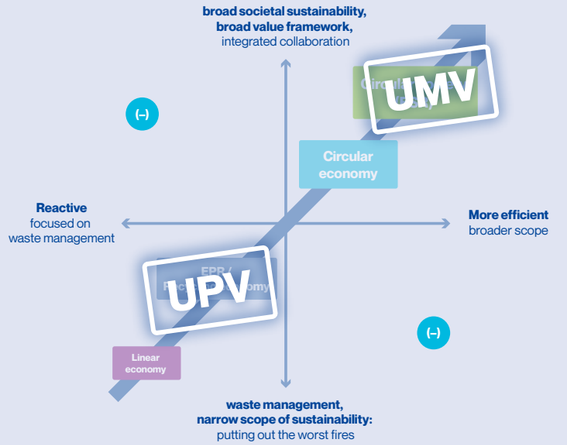


Figure 3
The circular society requires a shift from EPR as a framework to ESR governance.

2. Financial incentives and pricing

- Reduced or zero VAT on circular products and services, higher taxes on primary raw materials.
- A circular tax system in which the environmental impact of products is factored into their price.
- Reward systems for producers and consumers who contribute to circularity.

3. Collaboration and chain approach

- Governments stimulate investment in circular infrastructure, such as high-quality recycling facilities and refurbishing centres.
- Public-private partnerships to accelerate circular innovation projects.
- Mandatory cooperation across the chain between producers, retailers, repairers and recyclers.

4. Enforcement and monitoring

- A European producer register to prevent free-riding.
- Strict enforcement against illegal exports and leakages of e-waste.
- Independent monitoring of circular performance by both companies and governments, to measure progress and adjust policies where necessary.

These measures ensure that ESR is not only a vision but becomes a practical, workable system.

The Backbone and Dual Track Governance: the model for ESR

An effective governance structure must both steer and support. That is why ESR governance is organised according to two complementary models: the Backbone and Dual Track Governance.

The Backbone

A **public-private system** in which government sets the framework and industry carries out circular innovations. This means:

- **Legal standards** that structure and enforce circular production.
- **A chain-wide infrastructure** for return flows, reuse and recycling.
- **Transparent monitoring** and reporting to track progress.

Dual Track Governance

A **two-track approach** in which linear systems are not abruptly dismantled, but are phased out in parallel with the development of circular models. This means:

- **Financial incentives** to gradually remove linear products from the market.
- **Government investment** in circular infrastructure and business models.
- **Support for companies** making the transition, so they are not penalised unnecessarily.

Through this structure, ESR becomes not just a vision but a functioning system.

Conclusion: governance as the engine of the circular transition

Governance is the key to unlocking the potential of the circular society. Without a strong, well-designed and inclusive governance structure, the transition risks being delayed and ineffective.

The call to action is clear:

1. **Make circular** behaviour the norm through legislation and enforcement.
2. **Ensure fair financing** so the transition is broadly supported.
3. **Stimulate international cooperation** to guarantee a level playing field.

In the next chapter, we look at how this governance structure is applied specifically in the electronics sector.

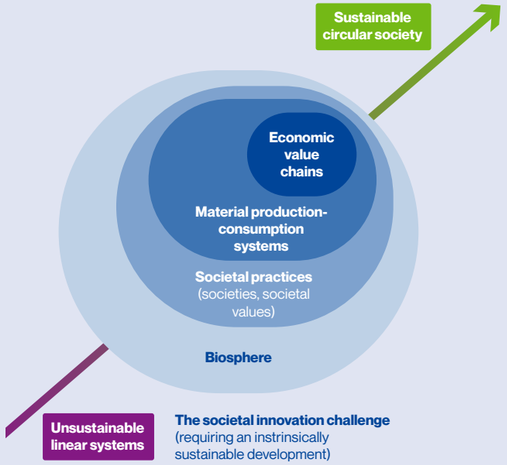


Figure 4
The societal system view of this vision
(Source: Dual Track Governance)

06

A roadmap for the transition: from ambition to action

> The transition to **ESR** requires not only a revision of legislation, business models and chain cooperation, but also a concrete path of implementation.

The transition to **extended societal responsibility (ESR)** requires not only a revision of legislation, business models and chain cooperation, but also a concrete path of implementation.

The move towards ESR cannot be achieved in a single step. Too many structural changes are needed, ranging from financial incentives and legal frameworks to behavioural change among consumers and companies.

A phased approach is therefore essential: a roadmap in which existing structures are strengthened in the short term, while in the longer term the transition towards a fully circular system is realised.

The strategic agenda: three phases of transition

This strategic agenda builds on three consecutive phases. Each phase creates the conditions for the next. This is not an optional route, but a necessary transition.

Phase 1: 0–5 years – Immediate optimisation within the EPR framework

The first step is to maximise and strengthen the existing EPR system. This means that:

- **Stricter legislation and enforcement** are required to stop illegal waste streams and leakages.
- **Ecodesign obligations** must be introduced more rapidly, with firm requirements on repairability and modular design.
- **Consumer behaviour** must be influenced through awareness campaigns and transparency about the impact of electronic purchases.

This phase focuses on **improving what already exists.** However, it does not yet solve the fundamental problem of resource scarcity. That is the task of Phase 2.

Phase 2: 5–10 years – Transition to a circular system based on ESR

In this phase, the focus shifts from producer responsibility to a shared system of societal responsibility.

- **New business models become the norm,** such as Product-as-a-Service (PaaS), in which producers remain owners and responsible for the entire life cycle of products.
- **The financing of e-waste management changes:** no longer solely a cost for producers, but a shared model in which governments and consumers also contribute.
- **Sustainability requirements become stricter:** a minimum percentage of recycled material in new products becomes mandatory, and disposable electronics are phased out.

This phase marks the **real transition.** It is no longer about optimising the old system, but about preparing the ground for **a new way of producing and consuming.**

Phase 3: 10–25 years – The circular society as reality

The third phase is the end goal: an economy and society in which circular thinking is the standard.

- **Circular legislation is fully integrated** into the way products are designed, used and reused.
- **Linear business models** have become the exception.
- **The EU takes a leading role** in global cooperation to tackle e-waste and resource scarcity.

This is the phase in which **the transition is complete.** It is no longer a system that manages waste, but a society in which waste simply does not exist.

Conclusion: time for structural choices

The transition to ESR is not a theoretical ambition. It is the necessary route towards a future in which electronics no longer contribute to resource depletion and growing waste mountains, but instead form part of a circular society.

This plan requires **short-term action, medium-term strategic choices and long-term system change.**

Sub-agenda “Recycling Economy Electronics” short term (0–5 years)

What	Who	How
Steering team	Appoint steering team for recycling economy development strategy. They direct closing the recycling loop and design for recycling via Dual Track Governance (DTG) and the backbone.	Candidates: people with political and managerial influence, from businesses, policy and consumer organisations, connected to current production–consumption processes around electronics and their recycling phase. Ensure strong alignment with existing initiatives, sense for missing initiatives, set the bar high.
Approach	Develop integrated vision on recycling economy: sectors and product groups, recycling potentials, market issues of recyclates, preparation for medium term transition.	Development teams with broad expertise in recycling options and methods, focusing on priority sectors today. First step: translate this vision into a Strategic Innovation Plan short term “Recycling Economy Electronics”. Start innovation portfolio from shortlists, encourage proactive business activity.
Content themes	Identify and manage portfolio of sectors/product groups and their recycling. Criteria: match with major short-term benefits (economic and ecological).	Steering team, development teams, experts with societal and entrepreneurial perspective.
Examples	Example pilot theme: collection structure for electronic waste from businesses. Example pilot theme: DTG plastic recycling (enabling environment).	

Tabel 2
Sub-agenda ‘recycling economy electronics’ short-term (0-5 years)

Deelagenda “Circulaire Economie Elektronica” ML Termijn (0-10 jr)

What	Who	How
Steering team	Appoint steering team for circular economy development strategy. They direct higher R-strategies and design for circularity through DTG and the backbone.	People with managerial influence, from business, policy and consumer organisations (ESR), connected to current and next-generation production–consumption systems around electronics.
Approach	Develop integrated vision on circular economy: sectors and product groups, next-generation developments, higher R potentials, preparation for transition from short to long term, preparation for shift from problem-limiting to intrinsically sustainable development.	Development teams with expertise in recycling, higher R-strategies, and near-future priority sectors (<10 years). First step: Strategic Innovation Plan “Circular Economy Electronics”. Start innovation portfolio from shortlists, stimulate proactive business activity.
Content themes	Identify and manage portfolio of high R production–consumption systems. Criteria: aligned with societal direction and highly relevant higher R-strategies.	Steering team, development teams, experts with societal, managerial and entrepreneurial perspectives.
Examples	Example theme: strengthen repair infrastructures for electronics via producers. Example theme: strengthen repair infrastructures via new repair industry (with involvement of producers).	

Table 3
Sub-agenda “Circular Economy Electronics” ML Term (0-10 years)

Sub-agenda “Circular Society Electronics” long term (0–25+ years)

What	Who	How
Steering team	Appoint steering team for circular society development strategy. They explore and prepare radically new production–consumption systems and concepts via pilots, DTG and the backbone.	Influential figures from business, policy and consumer organisations (ESR) with long-term outlook.
Approach	Develop integrated vision on the circular society: preconditions for future production–consumption, far-reaching extrapolations, backcasting from societal needs.	Development teams with broad expertise in advanced societal innovations, complex higher R-strategies, and possible future needs/sectors (>10 years). First step: Strategic Innovation Plan “Circular Society Electronics”. Start innovation portfolio from shortlists.
Content themes	Identify and manage portfolio of highly innovative production–consumption concepts for the circular society (comparable to Packalicious from KIDV). Criteria: aligned with desired societal direction and intrinsically sustainable.	Steering team, development teams, experts with governance, societal and entrepreneurial vision.
Examples	Example theme: explore radically sustainable production–consumption scenarios starting from today’s growth sectors (using strong backcasting).	

Table 4
Sub-agenda “Circular Society Electronics” Long-Term (0-25 years and beyond)

07

Conclusion: a call for decisiveness

The future of electronics is circular, and that future begins now. Twenty-five years of extended producer responsibility (EPR) have laid a solid foundation. Yet the explosive growth of e-waste, the scarcity of critical raw materials and the urgent need for a circular society demand more than optimisation of existing systems. They require a fundamental transition: a transition to extended societal responsibility (ESR).

This transition is not an optional ambition; it is an absolute necessity if we are to achieve the circular goals for 2050 and secure a sustainable future. It is a challenge that concerns all stakeholders – producers, governments, companies, consumers and societal organisations. It calls for shared responsibility, intensive cooperation, innovative business models, smart regulation and decisive leadership.

The Strategic Societal Development Agenda provides a concrete roadmap for this transition. The time for talking is over. The time for delay is over. The time for small steps is over.

This is the moment for decisiveness. This is the moment for system change. This is the moment to build together a circular future for electronics.

Main agenda “Circular Society Electronics” (short, medium and long term)

What	Who	How
Steering team	Appoint steering team for dual strategy circular society. They steer on societal direction via DTG and the backbone.	Influential people with long-term vision, from business, policy and consumer organisations (ESR).
Approach	Develop integrated vision for dual strategy: societal direction, scope, timelines, priorities, pilot projects.	Development teams with broad expertise in societal innovation and relevant sectors. First step: Strategic Innovation Plan “Circular Society Electronics”.
Content themes	Identify and manage portfolio of pilot projects and transition points. Criteria: aligned with long-term societal direction, priority on highly relevant themes.	Steering team, development teams, experts with societal and entrepreneurial outlook.
Examples	Example project: PV panels. Short term: high-quality recycling and design for recycling. Medium term: expansion with R-strategies and design for circularity. Long term: intrinsically sustainable PV panels.	

Table 5
Main Agenda Circular Society Electronics

The future of electronics is circular, **and that future begins now.**

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A circular society means that not only producers, but also consumers and governments actively take responsibility; **This vision belongs to all of us.**