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# PMI's Sustainable Design *Framework*



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INTERNATIONAL

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# *PMI's* **Sustainable Design Framework**

*PMI will be far more than a cigarette company. We are committed to delivering a smoke-free future. For PMI, sustainability means creating long-term value while minimizing the negative externalities associated with our products, operations and value chain.*

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## Our Approach to Sustainability in Design

### We believe that

- sustainability is an opportunity to change mindsets and processes, and harness the incredible power of human ingenuity in what we start doing and also what we stop doing.
- both the consumer experience and our products' functionality can be enriched through the lens of sustainability. It can even unearth completely new business opportunities.
- by applying more sustainable practices in our every day, we can contribute to change society and protect the planet, and realise our vision for a smoke-free future.

## Sustainability Strategy

To help realise a smoke-free future, and to ensure sustainability is a business priority with clear focus, we have built our Sustainability Strategy, which focuses on our products, our ways of operating, and our social and environmental impacts.

### Our Sustainability Strategy has four key pillars:

1. Innovating for better products
2. Operating with excellence
3. Caring for the people we work with
4. Protecting the environment

Within protecting the environment, a core area of focus is on the eco-design and circularity. It is essential for us to minimize negative social and environmental impacts of our smoke-free products, in addition to being a scientifically-substantiated better choice for adult consumers.

## Aims: Eco-Design and Circularity

Focused on eco-design and circularity, PMI has established two core targets for our smoke-free product portfolio:

- 100 percent of PMI smoke-free product users have access to collection and recovery for devices and consumables by 2025
- 100 percent of PMI smoke-free electronic devices introduced on the market as of end 2025 have eco-design certification

In addition, we have developed further targets focused on driving our eco-design program forward

- Inclusion of recycled content in all PMI developed devices as of 2025
- Decrease the carbon footprint of our smoke-free products in line with PMI's Science Based Targets
- 100% of packaging made with recyclable materials by 2025
- 95% of packaging materials from renewable sources by 2025

We are committed to understanding and managing the environmental and social impacts across our entire value chain, including the life cycles of our products.

For PMI, contributing to the circular economy means developing more environmentally friendly smoke-free products, meaning that our devices, consumables, accessories, and packaging have less environmental impact compared to our current products. We do this through activities such as improving their recyclability, efficiency, and reparability and including more renewable materials.

## Eco-Design Guidelines

All new devices, accessories, consumables, and packaging designs or re-designs of smoke-free products are subject to our Sustainable Design Guidelines, which include our five design strategies:

- Sustainable materials
- Minimize carbon footprint from energy use and transport
- Product lifetime optimization
- Circularity: reuse, recycling, and recovery
- Social responsibility in production use, and end-of-life.

## Vision Transforming for a sustainable smoke-free future

## Sustainability Strategy

### Pillars

*Innovating  
for better products*

*Operating  
with excellence*

*Caring  
for the people  
we work with*

*Protecting  
the environment*

## Aims: Eco Design and Circularity

01

*100 percent of PMI smoke free product users have access to collection and recovery for devices and consumables by 2025*

02

*100 percent of PMI smoke-free electronic devices introduced on the market as of end 2025 have eco-design certification*

## Guidelines

01

**Designing for effective sustainable materials use**

02

**Designing to minimize carbon footprint related to energy and transport**

03

**Designing for product lifetime optimization**

04

**Designing for circularity: re-use, recycling and recovery, zero waste**

05

**Designing for social responsibility in production, use and end of life phases**

## Value Chain Impact

As we design new products, we carefully evaluate how design choices effect the the lifecycle impacts of the product across the value chain. By considering a systemic view from the beginning we can design our products to minimize impact and maximize benefits. Before launching a new smoke free product, we perform life cycle analyses (LCA) and/or other relevant environmental assessments to determine how the product performs against previous versions. This allows us to understand our impact, improvement areas, or identify potential mitigation measures.

Once a product design or improvement is deployed, we integrate sustainable thinking and practices at every point of the product's life cycle to impact across the value chain. Such as developing reverse logistics operations and identifying reuse opportunities for recycled materials.



- Definition of materials used
- Definition of sourcing strategy
- Supplier selection



- Selection of production sites
- Definition of production methods
- Operation of production
- Selection of co-manufacturer



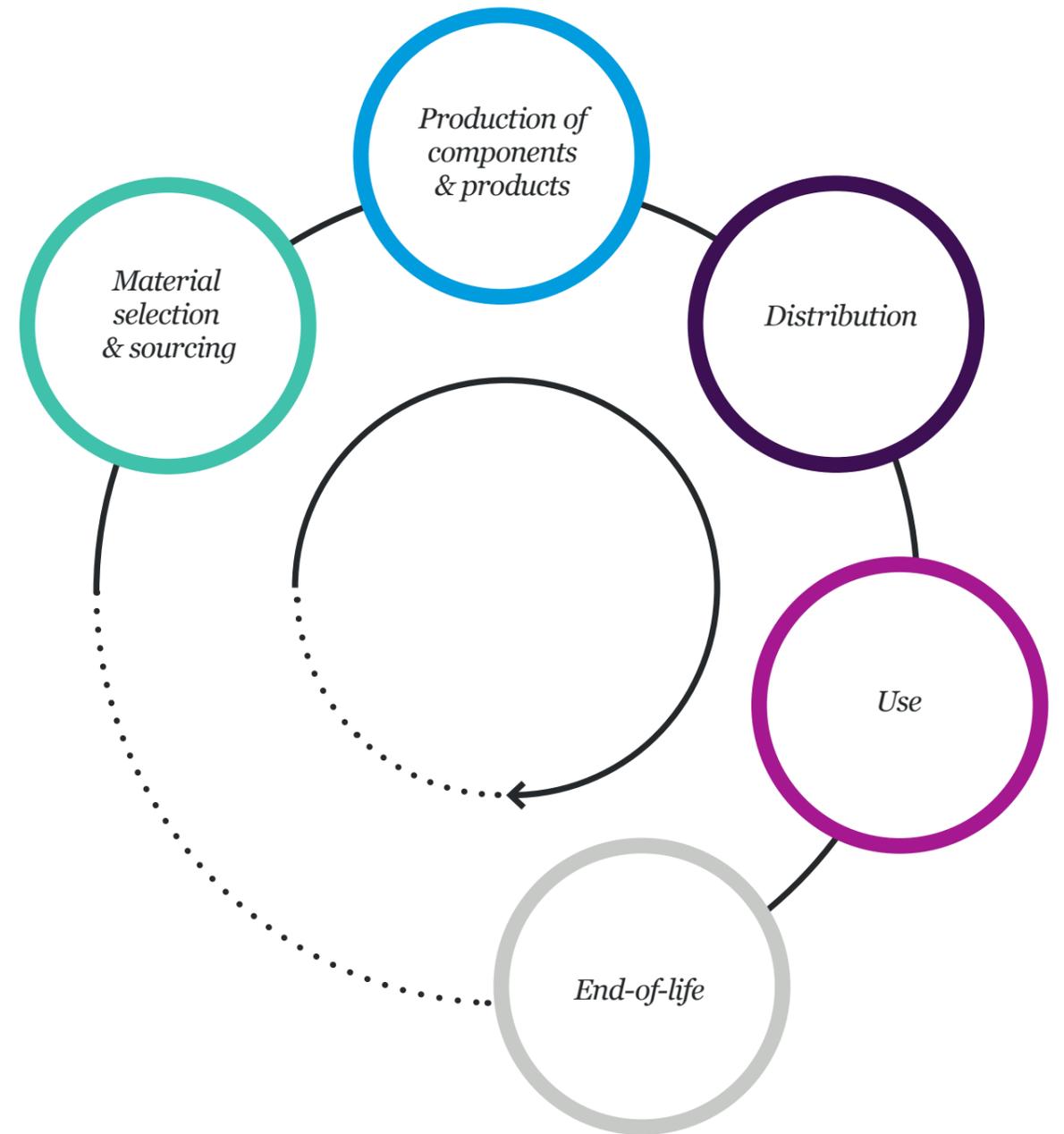
- Selection of transportation mode
- Handling & operation definition



- Definition of product life time (repairability, durability, upgradability, maintenance)
- Enablement of customer satisfaction
- Definition of material consumption during use
- Design of more sustainable business models and services



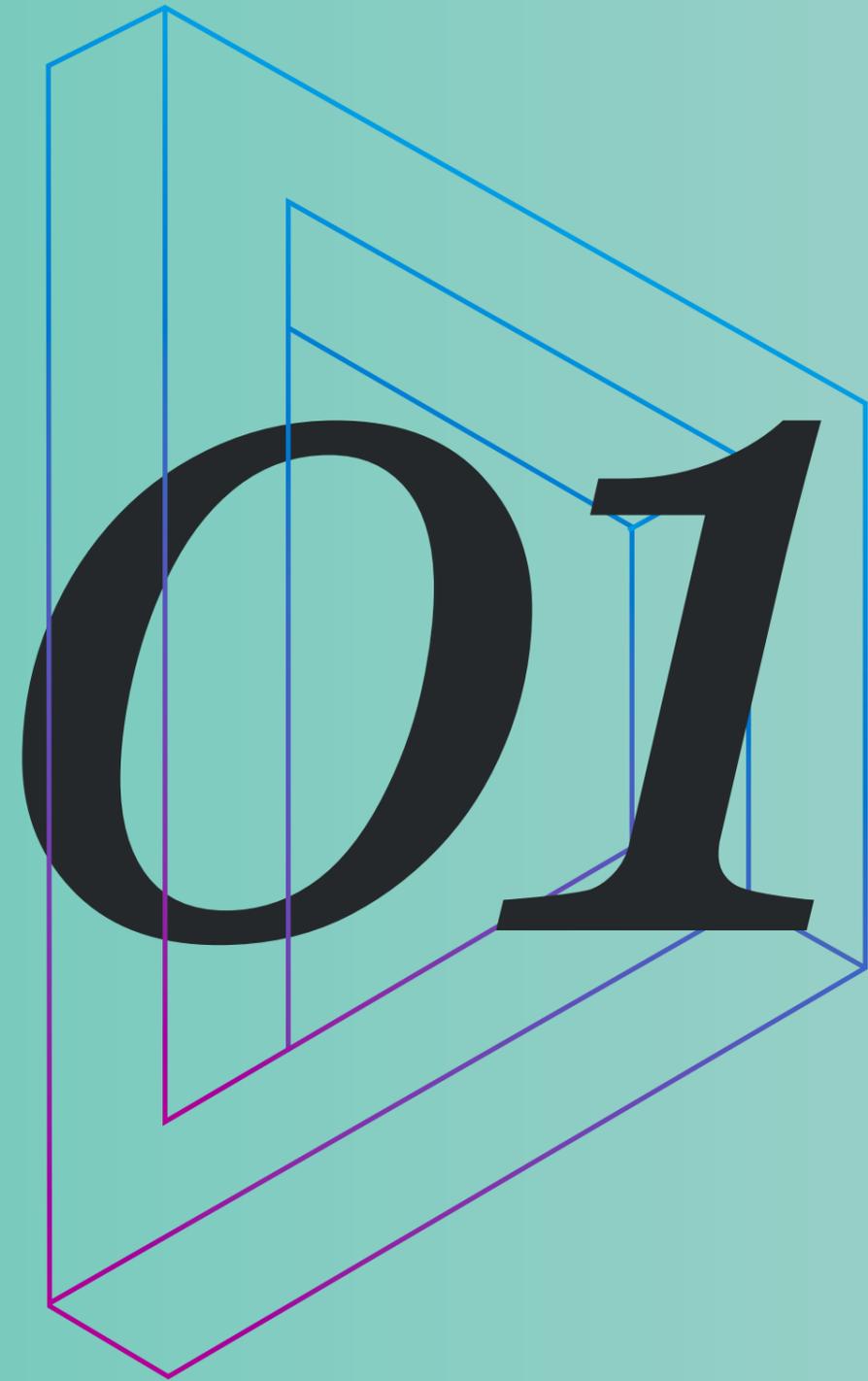
- Design of proper way of disposal
- Enable closing the loop



## Opportunities in PMI's product lifecycle

We are striving to contribute to the circular economy by improving the design of our current products, embedding sustainability in ideation of future smoke-free product generations, and establishing services and business models that allow our adult consumers to engage with the circular economy.

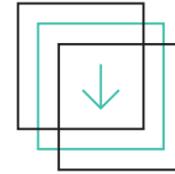
*Designing for*  
**effective  
sustainable  
materials use**



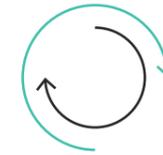
*We are designing to ensure that all PMI smoke free products use just the right amount of materials, which are sustainably produced and have the lowest carbon footprint possible.*

To deliver less waste during use and at the end of life, products should contain the correct quantities of sustainably produced materials, which have the lowest carbon footprint possible. This means using recycled, recyclable, and renewable materials sourced sustainably, such as from suppliers who meet our Responsible Sourcing Principles, or with certified materials, and produced in energy and water efficient processes.

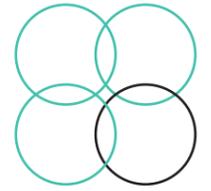
*Our design objectives include:*



Minimizing overall (raw) material use and maximize the effectiveness of the material choice.



Understanding when to prefer renewable or non-renewable materials.



Selecting materials that are connected to less environmental impacts in their production.



Selecting (raw) materials and components with low-carbon footprints.

For our smoke-free consumables, we center our research efforts on testing biodegradable materials, focusing on materials that have the potential to perform similarly to or better than what we use currently, that may also reduce life-cycle CO<sub>2</sub> emissions and have scientifically verified enhanced biodegradation properties in aquatic, soil, and marine conditions. For our electronic devices, our primary focus is on recycled and recyclable materials, with lowered embedded CO<sub>2</sub> footprints.

In packaging we strive for minimization and the use of primarily renewable and recyclable materials.

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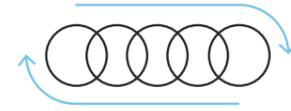
*Designing to*  
**minimize carbon  
footprints related to  
energy and transport**



*We are designing to achieve zero carbon emissions from energy consumption and transportation of PMI products.*

Energy efficiency is a priority in PMI manufacturing operations. We aim to minimize the carbon footprint from raw materials transportation and product distribution and reduce the weight of packaged products being transported. We also strive to optimize the energy consumption and efficiency of our products during their use.

*Our design objectives include:*



Preferring production methods that are energy efficient and prefer energy from renewable sources.



Reducing transportation distances where possible (e.g. through materials that can be sourced regionally).



Reducing weight and volume of product and packaging for transportation.



Optimizing energy consumption during the use of devices.



Taking measures that avoid decomposition of organic matter in open landfills or nature, e.g. by designing a convenient way to collect the smoke-free consumables after use.

We are working to close the carbon footprint gap between combustible and smoke-free products. We are reducing the overall CO<sub>2</sub> impact of our smoke-free products through improved manufacturing processes and smart design choices, including material substitution in our consumables and electronic devices.

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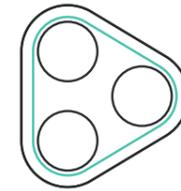
*Designing for*  
**product lifetime  
optimization**



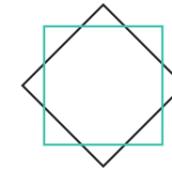
*We are designing products that have optimal lifetimes for their specific applications*  
**—for example, devices should last as long as possible.**

PMI electronic devices and accessories are designed to have an optimal lifetime with due regard for materials, electronics, and mechanical components available. Products should include lasting aesthetics, be repairable, and have reusable or recyclable packaging.

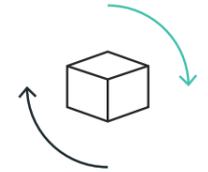
*Our design objectives include:*



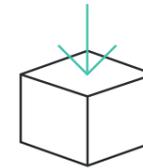
Extending the expected lifetime by selecting robust, high quality materials, electronics, and mechanical components (avoiding built in obsolescence).



Choosing design for long lasting aesthetics, timeless shapes, and colours (avoiding perceived obsolescence).



Enabling service, refurbishment and repair of products.



Designing packaging to have a useful function for the end-use adult customer when appropriate.



Exploring re-use options for products and their materials, for the same or different purpose.

*Designing for*  
**circularity: re-use,  
recycling and  
recovery, zero waste**



# We are designing to offer fully circular smoke-free products and systems.

We are increasingly adapting our design to use recycled materials and materials that are recyclable or biodegradable. Our designs aim to enable re-use and recycling by avoiding gluing or laminating where possible, and new ways of doing business embracing electronics take back into a repair, refurbishment, disassembly, separation, and recycling system.

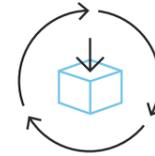
## Our design objectives include:



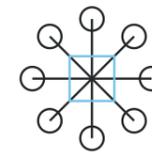
Selecting and specifying high quality (raw) materials and components that are fully recyclable, that contain as much recycled content as possible or are fully biodegradable.



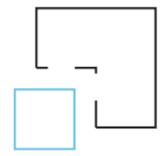
Selecting production methods that do not hinder re-use and recycling.



Designing packaging and information material so that they are either fully recyclable or fully biodegradable.



Optimizing the actual take-back by design and by suggesting new business models.



Designing for easy disassembly, separation of parts and materials, and high quality recycling and recovery.

We have implemented collection and recycling schemes for our smoke-free devices, with 2 hubs, one located in Europe and one located in Asia. Users of PMI smoke-free devices can now be part of the circular economy and to return a device that is broken or at the end of its life through PMI take-back services where available.

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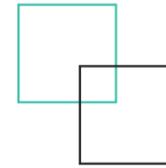
*Designing for*  
**social responsibility**  
**in production, use**  
**and end of life phases**



# We are designing products that strive for positive social impacts within their value chain, while minimizing potential negative impacts.

PMI smoke-free devices and accessories should minimize negative social and environmental impacts while striving for positive social impacts upstream in the supply chain; for instance, by verifying that our suppliers are complying with all rules and regulations concerning Conflict Minerals. Downstream, we encourage anti-littering behavior, and use packaging to inform about standards in production and how to recycle devices.

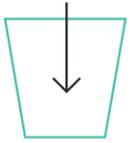
## Our design objectives include:



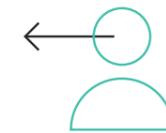
Verifying that our suppliers are complying with all rules and regulations concerning Conflict Minerals.



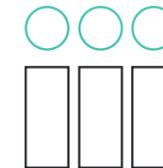
Choosing (raw) materials, components, and products that are sourced from suppliers that apply internationally recognized social or working conditions standards aligned with [PMI's Responsible Sourcing Principles](#).



Providing mechanisms for adult consumers to avoid littering of smoke-free products.



Encouraging adult consumers to engage with takeback programs, providing more sustainable methods of product disposal.



Informing adult consumers on product packaging and information booklets about issues connected to use and end of life of smoke-free products, as well as littering in line with local law.

PMI has developed a variety of standards to manage social impacts across our value chain including our **Agricultural Labor Practices** – [pmi.com/resources/docs/default-source/pmi-sustainability/alp-code.pdf](https://www.pmi.com/resources/docs/default-source/pmi-sustainability/alp-code.pdf) and **Responsible Sourcing Principles** – [pmi.com/resources/docs/default-source/pmi-sustainability/responsible-sourcing-principles.pdf](https://www.pmi.com/resources/docs/default-source/pmi-sustainability/responsible-sourcing-principles.pdf)

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# *Initiatives, Examples,* **Next Steps**

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By integrating sustainability considerations into our products, from development to end-of-use, we can aim to lower their environmental and social impacts and costs. Potential benefits include energy savings, reduced use of natural resources, waste reduction, and, typically, a longer product lifespan.

Our smoke free products' 2025 eco design and circularity ambitions, including electronic devices, accessories, consumables, and packaging, include:

- Providing access to collection and recovery for the device and its consumables
- Decrease the carbon footprint of our smoke-free products in line with PMI's Science Based Targets
- Ensuring 100 percent of packaging materials are recyclable and 95 percent are from renewable sources
- Achieving eco-certification for our smoke-free electronic devices introduced on the market as of end 2025
- Achieving inclusion of recycled content in our electronic devices

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At PMI, we are committed to playing our part in promoting a circular economy, and setting industry precedents in sustainable design principles and benchmarks in sustainable outcomes. While a circular approach requires upfront investments—for example, to set up take-back and recycling systems or lower our carbon footprint—it also spurs innovation, boosts competitiveness, and adds value to our brands.

Our stakeholders are partners in our journey. Our adult consumers expect products that are durable and reliable, and our adult consumers, investors, and communities expect us to implement innovative and sustainable solutions.

For more information and to see our latest sustainable design achievements visit [pmi.com/sustainability](https://pmi.com/sustainability).

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