



mioSIM GREEN

Valid's sustainable approach
to the SIM card

Valid

mioSIM Green



The pandemic has been a huge accelerator of consumer behavior and awareness of environmental changes. For the past several years, there have been important discussions around climate change, environment preservation, and the potential long-term impacts to the planet. However, the pandemic has been a catalyst for widespread environmental change.

As evidenced in this market, companies are adopting more sustainable approaches to combat negative environmental impacts and governments are prioritizing sustainability in their economic recovery plans.

Consumers are more aware and are demanding change, so it will be imperative for companies to integrate environmental considerations into their products, services, and operations to a greater degree than in the past.

GSMA and MNOs sustainability endorsement



Ahead of the release of the [UN's sustainable development goals in 2016](#), the mobile industry was the first sector to commit to it in order to promote prosperity while protecting the planet. In 2021, more than 50 Mobile Network Operators (MNOs), representing more than 60% of mobile connections worldwide, actively disclosed their climate impact and energy and gas emission in their reports. As a result, MNOs are increasingly more selective in choosing suppliers and partners who share in their core values around sustainability.

Mobile switch towards an eco-friendly approach



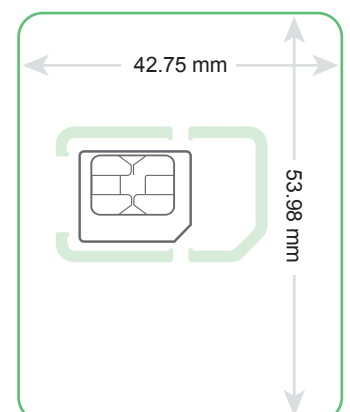
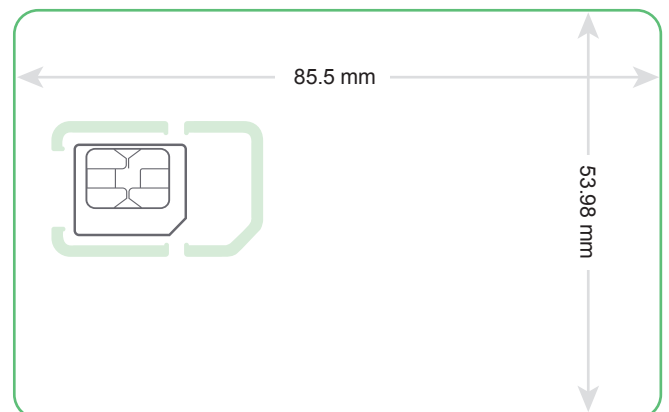
Over the past few years, MNOs have been analyzing the usage of different plastic materials outside of traditional PVC or ABS used in most factories worldwide. It is true that the only physical object mobile operators currently deliver to their customers is the SIM card – the credential token to mobile networks and the main physical channel they have with their consumers to drive brand awareness.

It is also a fact that the telecom industry is living through a strong digitalization process [with new product lines involving embedded SIM (eSIM), integrated secure elements (iSE or iSIM), mobile security solutions and more] and the investment is more focused on new business and the customer's digital experience rather than SIM card production.

However, the industry still produces approximately 4.5 billion SIM cards every year – representing 20,000 tons of plastic (PVC, ABS, etc) - that eventually ends up in a landfill.

Working towards greener solutions for SIM cards has to be a priority for mobile operators, especially if they want to keep their commitment to reduce their impact on the environment.

Valid can support eco-friendly and greener offerings for our customers that help them reduce their environmental impact through the transition towards the half-sized SIM, potentially reducing wastage in a significant way.



Valid mioSIM Green offering



While the half-size SIM is an immediate solution for environmental initiatives, Valid has also launched a **complete end-to-end offering** that can answer the industry demand for a truly sustainable supply chain and reduction in plastics.

With **Valid's mioSIM Green offering**, we support our customers in the adoption of an **end-to-end eco-friendly approach**, including:

1. Recycled and Compostable* SIM cards

**Product degradation per ASTM D3826 and ASTM D 5208-1 after 18 months under aerobic landfill conditions with average temperature of 20° C, and UV and oxygen availability.*

2. Eco-friendly and plastic free packaging

3. Environmental compensation program

Eco-friendly SIM cards



Regarding plastic materials, compostable SIMs (product degradation per ASTM D3826 and ASTM D 5208-1 after 18 months under aerobic landfill conditions with average temperature of 20° C, and UV and oxygen availability), such as our **mioSIM Green options**, are fully compliant with telecommunication standards and can be either made out of recycled PVC,

Bio PVC (PVC with additives that speed up the recyclability process), recycled ABS, H-ABS or other materials such as recycled PET or PETG according to specific requirements. Offering a Green SIM card option to your customers means you are reducing the environmental impact while providing the high-standard technical properties of Valid's mioSIM® product line to the market.

mioSIM Green specifications

Recycled & Compostable*

**Product degradation per ASTM D3826 and ASTM D 5208-1 after 18 months under aerobic landfill conditions with average temperature of 20° C, and UV and oxygen availability*

- Improvements in your carbon footprint
- High consistency

Material	Bio PVC	rPVC	rABS	PETG-PET	PLA
Features	Compostable Product degradation per ASTM D3826 and ASTM D 5208-1 after 18 months under aerobic landfill conditions with average temperature of 20° C, and UV and oxygen availability	From 25% or 99% pre-consumer or 100% post-manufacturing recycled PVC core	From 25% or 99% pre-consumer or 100% post-manufacturing recycled ABS core	Polyester based plastic with similar properties to PVC	Polymer derived from plants like maize or beet
Benefits	Eco friendly material	Can be fully recycled	Can be fully recycled	Can be fully recycled	Compostable Product degradation per ASTM D3826 and ASTM D 5208-1 after 18 months under aerobic landfill conditions with average temperature of 20° C, and UV and oxygen availability
	Non-performance differences when compared with regular PVC or ABS	Non-performance differences when compared with regular PVC or ABS	Non-performance differences when compared with regular PVC or ABS	Long lasting (can be also used for M2M Industrial applications)	Wider range of colors for other applications like banking.
				Conceptually close to standard PVC for its functional characteristics	

Plastic-free packaging



It is a common practice to use plastic in various forms when preparing SIM cards to send to customers worldwide. This process usually consists of:

- Plastic tape to seal inner boxes
- Plastic tape to seal master boxes
- Plastic straps (polypropylene) to secure master boxes and pallets
- Film wrap to cover the full pallet to make sure the product doesn't move during transport
- More plastic straps to secure the final shipment

In order to reduce this plastic footprint, Valid launched a plastic-free packing specification offer. Valid is now able to deliver plastic-free shipments without compromising the integrity and the security of the goods during transportation, while still complying with GSMA's regulations, **substituting plastic packaging for paper at all levels of the boxing process.**

Below you can find the options we offer for plastic-free packaging:

First Level and Second Level of Cardboard Boxes:

- Inner box design. No tape would be required. Box is self-closed with a dedicated flap.
- To meet the GSM SAS-UP requirement, Valid has validated an anti-tamper paper label to properly seal the box to ensure that it is not opened during delivery.

Final Level of Packing:

- Option 1: One Masterbox with cover on top of the pallet (all boxes inside, first and second level). Paper straps will be used to secure the cover.
- Option 2: Second Level boxes placed over the pallet. Once boxes are correctly placed, a cover is added, cardboard corners and cardboard taped on the 4 sides. The paper straps are used to secure all materials.
- Cardboard used on the external side of the pallet is waterproof and suitable for sea or air freight.

Valid is prepared to conduct additional tests with the mobile operator to understand which of our plastic-free packaging options is best suited for their needs.

Environmental compensation program



mioSIM Green and plastic-free packaging options are all solutions relevant to the industry to reduce environmental impacts and support a greener manufacture of products. However, in order to make a significant difference and bring a real benefit to our environment and planet, Valid decided to create, together with Plastic Bank, an **environmental compensation program**.

Plastic Bank is a social enterprise empowering a regenerative society. They build ethical recycling ecosystems in coastal communities, and reprocess the materials for reintroduction into the global supply chain as Social Plastic™. Their collectors receive a premium for the materials they collect which helps them provide basic family necessities such as groceries, cooking fuel, school tuition, and health insurance. Their certified blockchain platform secures the entire transaction and provides real-time data visualization – allowing for transparency, traceability, and rapid scalability.

With this goal, Plastic Bank is relying on companies like Valid to support the collection process of the plastic in order to:

- Mitigate the impact of many corporations and potentially reduce, offset or decrease the plastic footprint of their operations.
- Improve the social and economic situations in different regions of the world by creating job opportunities through plastic waste collection.
- Supports environmental stewardship and circular economy.

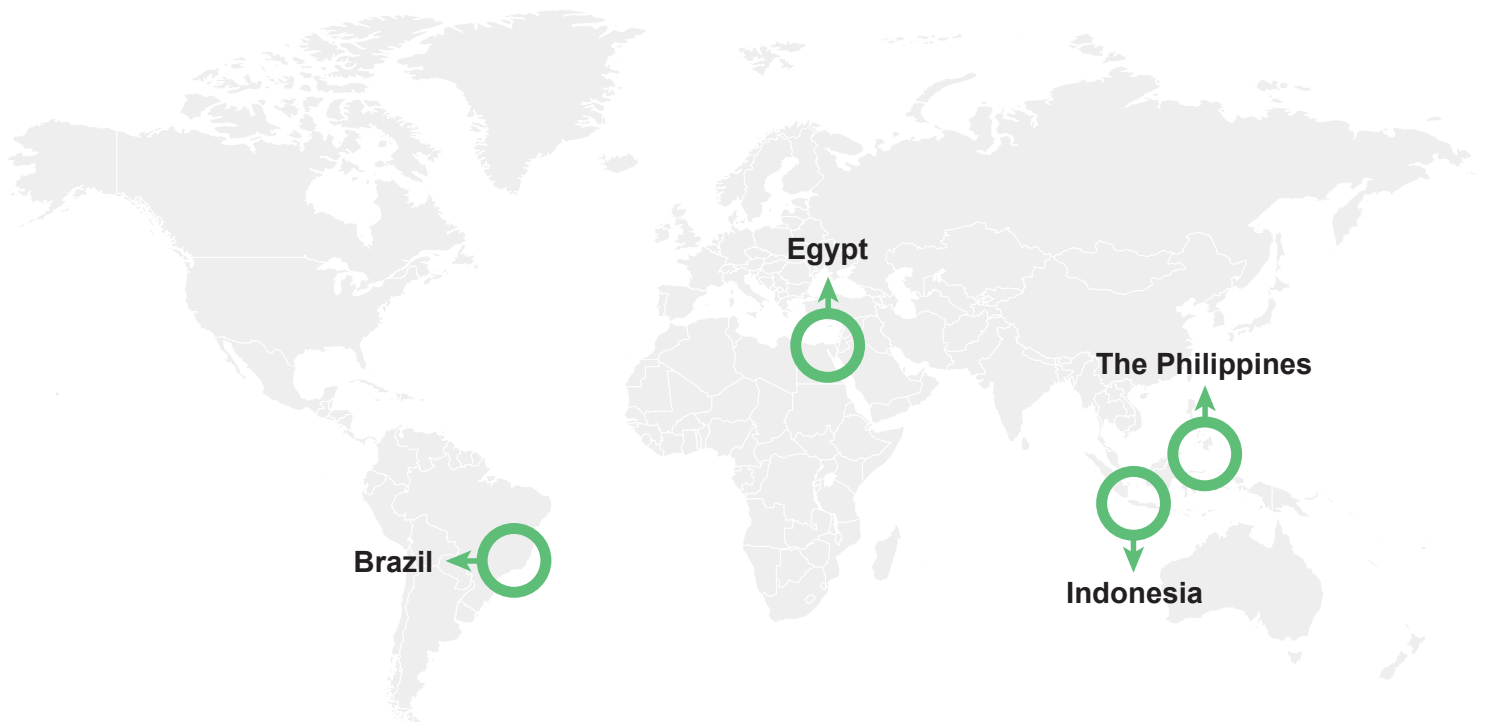
**For every SIM card that our customers sell to their consumers,
Valid will collect one plastic bottle from the ocean.
1 SIM card = 1 plastic bottle removed from the environment**

Valid's environmental compensation program includes:

- Traceability of your impact thanks to Plastic Bank's Blockchain-based application.
- Full report traceability for plastic collection and supply chain performance.
- Regular audits to ensure operations are compliant, ethical, and abide by a Code of Conduct.
- Zero-tolerance policy for child labour, forced labour, claim double-counting, unsafe working conditions, and landfill usage.

Below are the social communities Plastic Bank partners with to deliver plastic collection requests. Thanks to our compensation program, Valid intends to prevent millions of single-use plastic bottles from entering the oceans.

Plastic Bank operates in Brazil, Indonesia, Philippines and Egypt and have an ambitious expansion roadmap for the years to come.



Get in touch with a Valid sales representative to discuss your sustainable program options.

Let's make a greener world together!

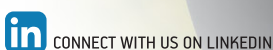
mioSIM GREEN

Valid Trust is Power

Valid's sustainable approach to the SIM card

Valid provides tailored solutions that integrate emerging technologies to enable secure, trusted experiences. From Data, Payments, Identity, and Mobile to IoT, Track and Trace, Digital Certification, and Agritech, Valid offers a wide portfolio of services and solutions that accelerate the digital transformation of our clients' business. With over 60 years of experience and more than 6,000 employees in 16 countries, Valid is the largest issuer of identification documents in Brazil, among the top 5 producers of SIM cards and among the world's largest manufacturers of banking cards.

To learn more, visit valid.com



valid.com
info@valid.com

Valid (B3: VLID3 - ON) provides tailored solutions that integrate emerging technologies to enable secure, trusted experiences. From Data, Payments, Identity, and Mobile to IoT, Track and Trace, Digital Certification, and Agritech, Valid offers a wide portfolio of services and solutions that accelerate the digital transformation of our clients' business. With over 60 years of experience and more than 6,000 employees in 16 countries, Valid is the largest issuer of identification documents in Brazil, among the top 5 producers of SIM cards and the world's largest manufacturers of banking cards. To learn more, visit www.valid.com.