



Initiatives and Labels for Plastics for the Circular Economy in Latin America and the Caribbean

Number 2

QUALITY INFRASTRUCTURE
OF THE AMERICAS PAPERS

Authors:

Vanessa Esslinger, Gabriela Soler Barbarán,
Mahdha Flores-Campos y Ulrich Harmes-Liedtke

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Preface

This document was produced by the Circular Economy Coalition for Latin America and the Caribbean in close collaboration with the Quality Infrastructure Council of the Americas (QICA).

The work was led by Vanessa Esslinger, who is responsible for coordinating the Circular Economy Coalition for Latin America and the Caribbean under the auspices of the United Nations Environment Programme (UNEP), with the support of Gabriela Soler Barbarán, Mahdha Flores-Campos and Ulrich Harmes-Liedtke, consultants on the Quality Infrastructure for the Circular Economy in Latin America and the Caribbean Project (QI4CE LAC) implemented by Physikalisch-Technische Bundesanstalt¹ (PTB) with support from the Federal Ministry for Economic Cooperation and Development (BMZ) and in coordination with its partners: The Pan American Standards Commission (COPANT), the Inter-American Accreditation Cooperation (IAAC) and the Inter-American Metrology System (SIM), which are the organisations that constitute the Quality Infrastructure Council of the Americas (QICA).²

It has also benefited from the comments made by the Circular Plastics for the Americas Programme (CPAP), DOW, Ecoplas, the Plastic and Rubber Research and Training Institute (ICIPC) and the Environmental Alliance of the Americas (AAA).³

The Circular Economy Coalition for Latin America and the Caribbean thanks each and every person and organisation.

The views expressed in this document are the sole responsibility of the authors and may not coincide with those of the organisations involved.

¹ German Metrology Agency <https://www.ptb.de/cms/>

² QICA <https://qica.site/es/qi4ce-lac>

³ Environmental Alliance of the Americas <https://alianza-ambiental.org/>

This study was prepared by Vanessa Esslinger, Gabriela Soler Barbarán, Mahdha Flores-Campos and Ulrich Harmes-Liedtke, international experts of the quality infrastructure and circular economy of the Physikalisch-Technische Bundesanstalt - PTB.

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Acronyms and abbreviations

AAA	Environmental Alliance of the Americas
ABNT	Brazilian Technical Standards Association (Associação Brasileira de Normas Técnicas)
B2B	Business to Business
BMZ	Federal Ministry for Economic Cooperation and Development (Germany)
CE	Circular Economy
CEC LAC	Circular Economy Coalition for Latin America and the Caribbean
COPANT	Pan American Standards Commission
CPA	Clean Production Agreement
CPAP	Circular Plastics for the Americas Programme
ECA	Costa Rican Accreditation Body (Ente Costarricense de Acreditación)
EN	European Standard
EPD	Environmental Product Declaration
EPS	Expanded Polystyrene
FSC	Forest Stewardship Council
HDPE	High Density Polyethylene
IAAC	Inter-American Accreditation Cooperation
IBU	Institut Bauen und Umwelt e. V. (Germany)
ICIPC	Plastic and Rubber Training and Research Institute (Instituto de Capacitación e Investigación del Plástico y del Caucho)
IEC	International Electrotechnical Commission
INTECO	Technical Standards Institute of Costa Rica
INTI	National Institute of Industrial Technology (Argentina)
ISO	International Organization for Standardization
LAC	Latin America and the Caribbean

LCA	Life Cycle Assessment
LDPE	Low Density Polyethylene
MINAE	Ministry of Environment and Energy (Costa Rica)
NCh	Chilean Standards
NTC	Colombian Technical Standards
PCR	Product Category Rules
PCR Plastics	Post-Consumer Recycled Plastics
PE	Polyethylene
PEFC	Programme for the Endorsement of Forest Certification
PET	Polyethylene Terephthalate
PP	Programa de las Naciones Unidas para el Medio Ambiente
PP	Polypropylene
PS	Polystyrene
PTB	Physikalisch-Technische Bundesanstalt / National Metrology Institute (Germany)
PVC	Polyvinyl Chloride
QI	Quality Infrastructure
QI4CE LAC	Quality Infrastructure for Circular Economy in Latin America and the Caribbean Project
QICA	Quality Infrastructure Council of the Americas
QR	Quick Response (code)
RCM	Renewable, Compostable and Compostable in Marine Environments
SDGs	Sustainable Development Goals
SIM	Inter-American Metrology System
SNC	National Quality System (Costa Rica)
SOFOFA	Chilean Manufacturers ' Association (Sociedad de Fomento Fabril)
UNEP	United Nations Environment Programme



Figures and images

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Figure 2	Priority aspects in the circularity of plastics
Figure 3	Labels and initiatives relating to QI and circularity strategies adherence
Image 1	Comparison of eco-labelling initiatives in Latin America and the Caribbean (in Spanish)
Image 2	Comparison of eco-labelling initiatives in Latin America and the Caribbean (in Spanish)

Glossary

based on ISO standards (International Organization for Standardization)⁴

Eco-label	Environmental identification indicating that a product meets the criteria of an eco-labelling programme.
Environmental self-declaration	An environmental claim that is self-declared by a responsible party.
Environmental Product Declaration	Report providing quantified environmental data using pre-determined parameters and additional environmental information, if applicable, based on Life Cycle Assessment (LCA)
Certification	Procedure by which a third party provides written assurance that a product or process complies with specified requirements.
Certificate	Attestation document issued by an independent third-party certification body.

⁴ ISO <https://www.iso.org/obp/ui/#home>



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A vertical strip of various chemical structures, including organic molecules, polymers, and functional groups, rendered in white and light blue on a dark blue background.

1

Introduction

How sustainable is a product? How can we trust the information put out by a company or organisation?

More and more consumers and users of products are asking themselves these questions. Labelling (eco-labels, self-declared claims, and environmental product declarations) is an effective way to provide consumers and the supply chain with information that enables them to make better choices for achieving sustainable production and consumption.⁵

In Latin America and the Caribbean (hereafter LAC), various initiatives related to plastics have arisen in the context of the Circular Economy (hereafter CE) with strategies for the redesign, reuse and improved management of plastics up to the post-consumption phase.

This document presents the first eco-labels surveyed in the region, together with an analysis of their technical quality.

The Plastics Working Group of the Circular Economy Coalition for Latin America and the Caribbean (CEC LAC), in collaboration with regional organisations, set out to identify and evaluate eco-labels in the domain

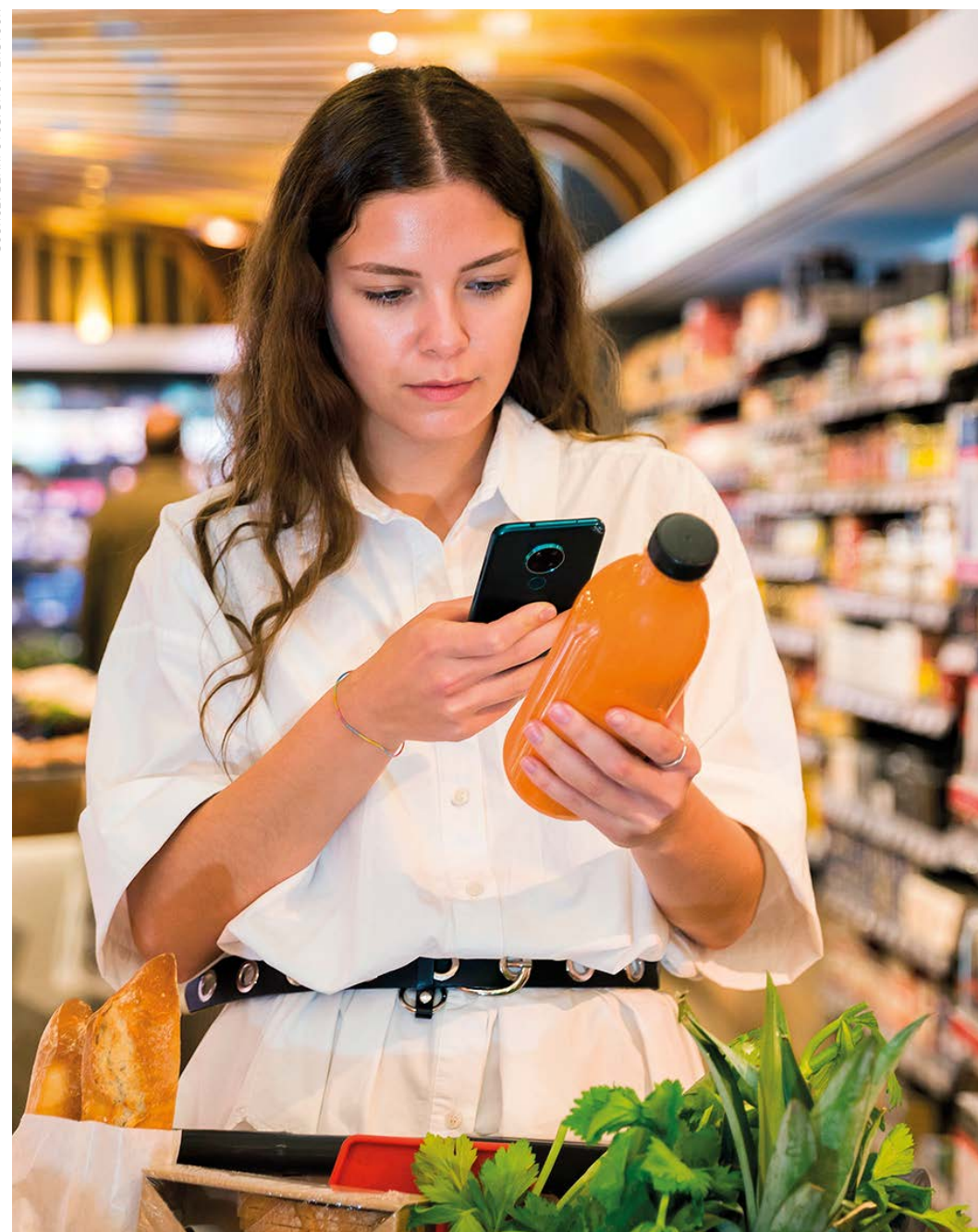
IN LATIN AMERICA AND THE CARIBBEAN, VARIOUS INITIATIVES RELATED TO PLASTICS HAVE ARISEN IN THE CONTEXT OF THE CIRCULAR ECONOMY.

of plastics. The information gathered will be continuously expanded and used for future analysis and related discussions.

The aim is to raise awareness of eco-labelling initiatives and to provide consumers with evaluation criteria. This publication is also intended as an encouragement to continue working towards reducing the plastic burden and achieving real circularity.

⁵ ISO 26000 Social Responsibility Guide

SOURCE: BEARFOTOS/SHUTTERSTOCK



Labelling (eco-labels, self-declared claims, and environmental product declarations) can provide information to users to encourage sustainable consumption.

The background is a solid blue color. On the left side, there are several stylized chemical structures in white, green, and yellow. A large white number '2' is centered on the left side. The title 'Plastics in the circular economy' is written in white on the right side, with horizontal lines above and below the words 'the circular' and 'economy'.

2

Plastics in the circular economy

Plastics play an important role in our society. Thanks to these materials, great progress has been made regarding health systems, safety, and food, to mention just a few examples. At the same time, there is a growing concern in Latin America and the Caribbean about the negative effects of their extensive use. In particular, more and more people are aware of the impact on the environment and climate. The industry is also responding to this concern with increased recycling efforts and the use of eco-labels.

Therefore, moving towards a CE of plastics requires a systemic approach to address the major environmental and social challenges linked to their life cycle and a commitment to contribute towards the Sustainable Development Goals (SDGs).

The CE proposes a rethink of the traditional economic model of “extract, produce, consume and discard”, which needs to be replaced by an economic system that is regenerative by design, with efficient and optimised flows of materials, energy, and water, based on renewable resources and energy, while contributing to healthy ecosystems.⁶

In an effort to harmonise the concept, the International Organisation for Standardization (ISO), in its 59000 series, defines the CE as an “economic system that uses a systemic approach to maintain a circular flow

MORE PEOPLE ARE BECOMING AWARE OF THE IMPACT OF PLASTICS ON THE ENVIRONMENT AND THE CLIMATE.

of resources by regenerating, retaining or adding to their value, while contributing to sustainable development”.⁷

According to the Ellen MacArthur Foundation, the transition to a circular economy for plastics entails three main areas of action:⁸

1. Eliminating all problematic and unnecessary plastic items.
2. Innovating to ensure that the plastics we really need are reusable, recyclable, or compostable.
3. Circulating all plastic items in use to keep them in the economy and out of the environment.

This paper focuses primarily on the latter two areas.

SOURCE: NATALI XIMICH/SHUTTERSTOCK



Moving towards a circular economy for plastics demands a systemic approach that addresses the significant environmental and social challenges linked to their life cycle.

6 Ellen MacArthur Foundation <https://archive.ellenmacarthurfoundation.org/es/economia-circular/> Accessed 21 February 2023.

7 It is defined by ISO 59004 (under development). Source: Quality infrastructure for the circular economy in Latin America and the Caribbean. Number 1. Documents for the Quality Infrastructure of the Americas [https://qica.](https://qica.site/wp-content/uploads/2023/03/Estudio-IC-EC-ESP-Online-PTB.pdf)

[site/wp-content/uploads/2023/03/Estudio-IC-EC-ESP-Online-PTB.pdf](https://qica.site/wp-content/uploads/2023/03/Estudio-IC-EC-ESP-Online-PTB.pdf)

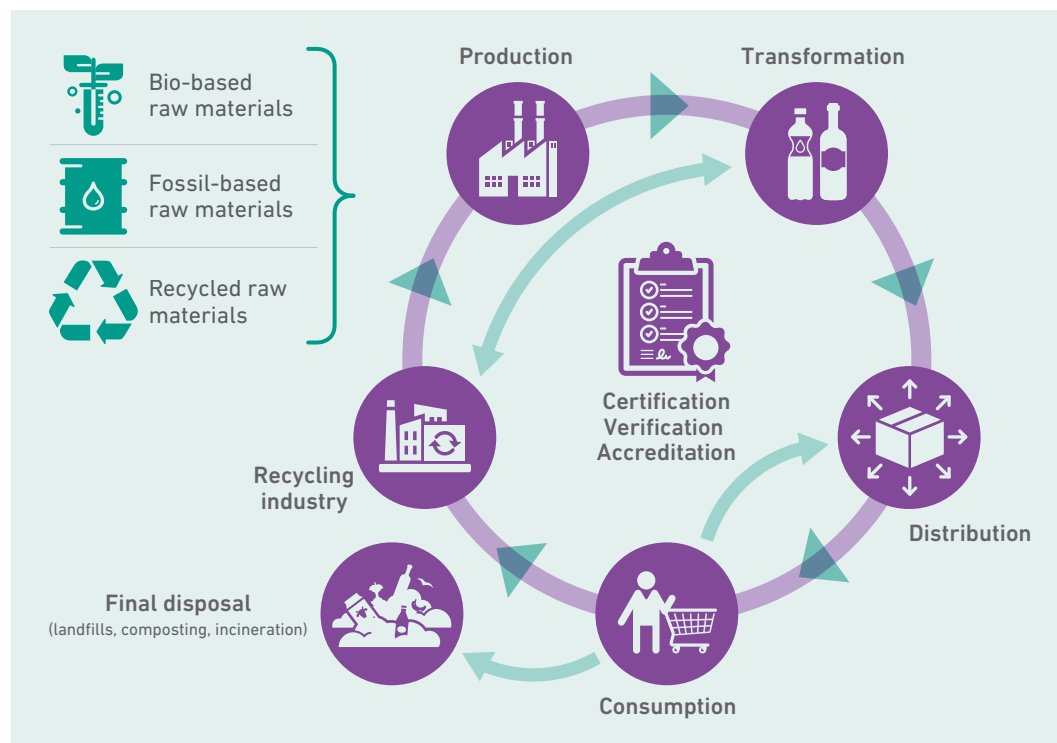
8 Ellen Mac Arthur Foundation, <https://ellenmacarthurfoundation.org/es/temas/plasticos/vision-general> y <https://ellenmacarthurfoundation.org/plastics-and-the-circular-economy-deep-dive>

Plastics life cycle and circularity strategies

The plastics cycle consists of a series of stages, each of which, while adding value, generates environmental and social impacts related to the use and transformation of material resources, water and energy.

The process starts with the stages of extraction of raw materials (virgin and/or recycled), then passes through consecutive stages of production, transformation, distribution, and marketing before reaching the user/consumer (usage stage).

Figure 1. Life cycle stages and circularity of plastics (simplified)



Source: Own elaboration

To retain or increase value in these life cycle stages, the main circular strategies focus on rethinking, reducing, reusing, repairing, and remanufacturing products and processes. To achieve the goal of circularity, different forms of innovation are needed, such as:

- Eco-design of products, processes, and systems.
- Development of materials designed for more intensive cycles to improve their performance.
- New business models based, for example, on reverse logistics and returnability and recharging models.
- Extending the useful life of products at the usage stage through reuse (use of reusable packaging), upgrading (products that can be personalised and customised, such as watch straps and mobile phone covers) and product repair (furniture designed for component replacement).

Continuing with the subsequent life cycle stages, once the product ceases to fulfil its function for the user, and when reuse, repair or remanufacturing is no longer possible, other strategies are linked to the end-of-life stage. Strategies for this stage require, as a rule:

- Product design for recyclability.
- Responsible consumption of plastic products.
- Their correct separation, disposal, and management.

- Reinsertion of the resource into the value cycle with traceability.
- Preventing quality loss from cycle to cycle by detecting chemicals of concern.
- A dynamic secondary materials market that makes the circularity of the resource feasible.

One circular economy framework is the 9Rs: reject, rethink, reduce, reuse, repair, refurbish, remanufacture, reuse, recycle, and recover (energy). The 9Rs examine how materials can be used and reused to their maximum value while minimising waste and environmental destruction.⁹ They give us a measure of circularity. The least adverse effects occur when we rethink our consumption and refrain from unnecessary things. This is followed by strategies to reduce consumption and reuse or repair products. Remanufacturing requires more energy and resources. Recycling and energy recovery through waste incineration represent the lowest degree of circularity.

Knowledge of this hierarchy is necessary because the circular economy is often equated with recycling in Latin America and the Caribbean. However, before recycling, several strategies are much more resource efficient.

⁹ Potting J, Hekkert M, Worrell E and Hanemaaijer A, (2016). *Circular Economy: Measuring innovation in product chains*. PBL Netherlands Environmental Assessment Agency, The Hague.

Priority issues in plastics circularity

Considering the above-mentioned points, circularity can therefore refer to multiple aspects or properties relating to plastics. The main aspects surveyed are shown in Figure 2.

The Quality Infrastructure (hereinafter QI), with its metrology, standardization, accreditation, and conformity assessment components, supports circularity in the various phases of the plastics life cycle. Furthermore, testing, verifications and inspections enable transparent, safe, and sustainable management for competitive products and

services within the responsible production and consumption framework.

In the design and production stages of plastic resins, the QI ensures compliance with established quality standards, thus ensuring the safety and durability of end products.

During the in-use stage, the QI can assist with proper monitoring and maintaining products to ensure their correct performance and avoid risks to human health or the environment through accredited certification mechanisms. In addition, certifications and eco-labels inform consumers and support the choice of environmentally and health-friendly products.

At the end-of-life stage, the QI can intervene through metrology services and accredited testing laboratories, ensuring that plastics are recycled safely and effectively while maintaining the quality standards necessary for their reuse in new products.

The introduction of eco-labels, such as those for plastic characterisation and recyclability, based on national and international standards and accreditation mechanisms, represents an important step that contributes positively towards generating solutions arising from this productive sector.

“According to World Bank data, Latin America and the Caribbean is the region with the lowest waste recycling rate. Its ratio is 4.5%, while the global average is 13.5%.”

Source:
World Bank report: “What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050”

Figure 2. Priority aspects in the circularity of plastics



Source: Own elaboration

The background is a solid blue color. It is decorated with various white and colored chemical structures, including rings, chains, and functional groups, scattered across the top and bottom edges. A large, white, stylized number '3' is positioned in the center-left of the slide.

3

Eco-labels and environmental declarations

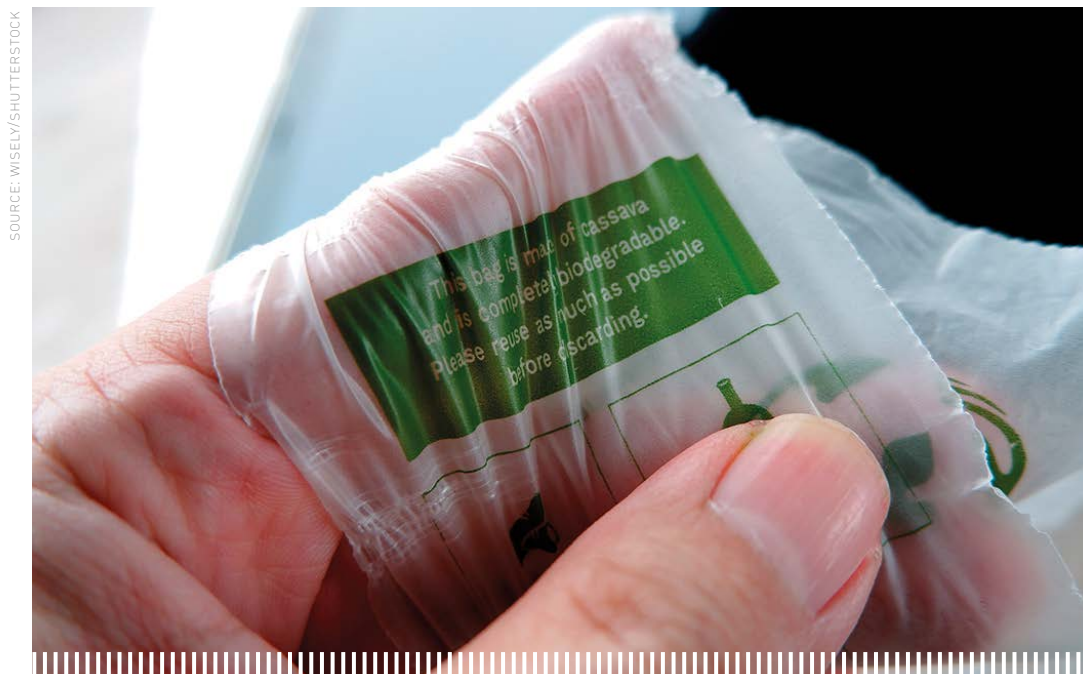
An eco-label is an instrument for notifying the user about products and services environmental and social attributes. To build trust in the supply chain, from producer to consumer, waste disposal and circularity, there are different means of support for these labels, such as international standards, accreditation systems, and third-party verification, which ensure transparency and impartiality.

Eco-labels, supported by harmonised and recognised systems, enable all actors in the value chain to make better assessments and decisions and guide consumers

in their choices. The International Organization for Standardization (ISO) sets guidelines for developing and using eco-labels in the ISO 14020 standards.¹⁰ Within these standards, the following distinctions are made:

- Eco-labels (ISO 14024)
- Self-declared environmental claims (ISO 14021)
- Environmental Product Declarations (ISO 14025)
- Communication of footprint information (ISO 14026)

A biodegradable plastic bag made from cassava.



SOURCE: WISELY/SHUTTERSTOCK

Eco-labels (ISO 14024)

These labels (previously identified as Type I)¹¹ show that a product complies with predefined environmental requirements, which recognised bodies have agreed upon and are publicly available.

ISO 14024¹² defines them as an: “environmental identification indicating that a product meets the criteria of an eco-labelling programme”, where an eco-labelling programme is understood as “a multi-criteria environmental claims programme provided by third parties that assesses the overall environmental preference of a product within a particular product category based on life cycle considerations, and grants a licence authorising the use of specific eco-labels on products related to environmental performance.

Examples of eco-labels



From left to right: Colombian Environmental Labels, Brazilian Associação Brasileira de Normas Técnicas (ABNT) Label, European Union Ecolabel.

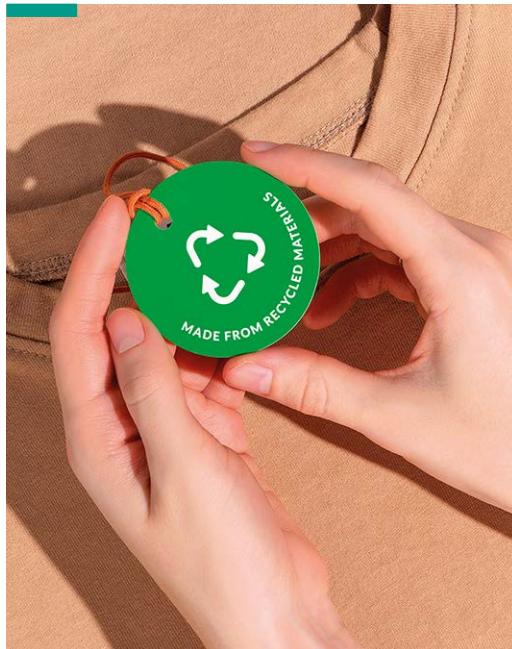
10 ISO 14020:2022(en) Environmental statements and programmes for products — Principles and general requirements, published in 2022. Current. Accessed online, March 2023. <https://www.iso.org/obp/ui#iso:std:iso:14020:ed-3:v1:en>

11 ISO 14020:2022(en) Environmental statements and programmes for products mentions that the terminology “Type I, II, and III” has become obsolete. <https://www.iso.org/obp/ui#iso:std:iso:14020:ed-3:v1:en:term:3.3.2>

12 ISO 14024:2018(en) Environmental labels and declarations — Type I environmental labelling — Principles and procedures (Accessed online 27 February 2023) <https://www.iso.org/obp/ui/en/#iso:std:iso:14024:ed-2:v1:es>

Self-declared environmental claims (ISO 14021)¹³

SOURCE: LEVIAUA/SHUTTERSTOCK



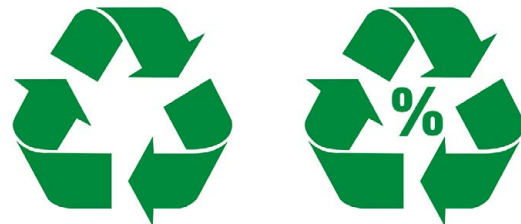
Green paper label with the inscription "Made from recycled materials."

These labels (previously identified as Type II) are created by organisations, industries, importers, distributors, retailers, and other stakeholders based on their environmental criteria and compliance shown as a symbol, graphic or text. Independent third parties may not verify them, although this is recommended.

ISO 14021 identifies and clarifies several common terms used in such declarations and sets out requirements for "ensuring reliability, to avoid negative effects on the market, such as trade barriers or unfair competition".

Examples of claims for which ISO 14021 details requirements for use are: compostable, degradable, designed for disassembly, recyclable, recycled, recycled content, pre-consumer material, post-consumer material, recycled material, reduced water consumption, and reusable.

Example of self-declaration



Moebius symbol for material recycling and the declaration of recycled content.

13 ISO 14021:2016(en) Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling) <https://www.iso.org/obp/ui#iso:std:iso:14021:ed-2:v1:es>

Environmental product declaration (ISO 14025)¹⁴

It provides quantified and verifiable information on the environmental performance of a product throughout its life cycle. ISO 14025 sets out the principles and procedures for environmental declarations, supported by Life Cycle Assessment (LCA) carried out by ISO 14040¹⁵ and ISO 14044.¹⁶

Environmental product declarations (EPDs) are third-party verified documents that allow product comparison based on the same product category rules (PCR).

EPDs (previously identified as Type III) are primarily intended for Business to Business (B2B) communication, as the information is extensive and detailed. However, they may also be intended for consumer communication (Business to Consumer, B2C).

EPDs are comprehensive and transparent reports; however, they do not require compliance with pre-established environmental criteria, so the fact that a product or service has an EPD declaration does not mean it is environmentally preferable.

Examples of bodies that manage, verify and/or certify EPDs

International EPD® System¹⁷, based in Sweden, and the Institut Bauen und Umwelt e. V. (IBU)¹⁸ in Germany.



14 ISO 14025:2006(en) Environmental labels and declarations — Type III environmental declarations — Principles and procedures <https://www.iso.org/obp/ui/#iso:std:iso:14025:ed-1:v1:es>

15 ISO 14040:2006(en) Environmental management — Life cycle assessment — Principles and framework <https://www.iso.org/obp/ui/en/#iso:std:iso:14040:ed-2:v1:en>

16 ISO 14044:2006(en) Environmental management — Life cycle assessment — Requirements and guidelines <https://www.iso.org/obp/ui/#iso:std:iso:14044:ed-1:v1:es>

17 <https://www.environdec.com/home> Accessed online, March 2023.

18 <https://ibu-epd.com/en/epd-programme/> Accessed online, March 2023

Communication of environmental footprints¹⁹ (ISO 14026)¹⁹

The standard sets out the principles, requirements, and guidance for organisations to communicate the environmental footprints of products and services in a credible manner that is not misleading. Examples of environmental footprints are the Carbon Footprint²⁰ and the Water Footprint²¹.

The goal is to ensure that the reporting of footprints, regardless of the quantification methodology used, follows the same principles and procedures, enabling comparability between products and services in the same product category and having the same functionality.

Microplastics are a silent enemy that pollutes the environment.



Other eco-labels

A wide variety of labels do not follow all the ISO 14024 Eco-labelling standard requirements. Instead, these labels indicate that a product or service meets predefined environmental and/or social requirements. Still, unlike the principles and procedures in the ISO reference standard, they focus on one or a few environmental and/or social aspects. Examples of such labels are energy efficiency labels for housing and appliances, forest management and chain of custody labels.

These labels are not supported by a specific standard and only guarantee compliance with criteria set by the issuing body.

These schemes may include requirements on the application of standards, e.g., accredited laboratories (ISO 17025), life cycle analysis (ISO 14040), carbon footprint calculation (ISO 14067), and submission of Environmental Product Declarations (ISO 14025).

Examples of eco-labels



From left to right: Responsible forest management labels issued by the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification (PEFC), and the Cradle-to-Cradle label, a multi-attribute product standard.

19 ISO 14026:2017(en) Environmental labels and declarations — Principles, requirements and guidelines for communication of footprint information. <https://www.iso.org/obp/ui#iso:std:iso:14026:ed-1:v1:es>

20 The ISO 14060 standards provide clarity and consistency for quantifying, tracking, reporting and validating or verifying GHG emissions and removals. It supports

sustainable development through a low-carbon economy. <https://www.iso.org/obp/ui#iso:std:iso:14067:ed-1:v1:es>

21 Environmental management - Water footprint sets out the principles, requirements and guidelines for its measurement. <https://www.iso.org/obp/ui#iso:std:iso:14046:ed-1:v1:es>

Certifications and their reliability

A certification body can award a label or eco-label. These bodies carry out a procedure to “certify” that the product, process, or service evaluated complies with the scheme’s requirements. Then, to guarantee compliance, they issue a Certificate to the company applying for the label.

ISO provides standardized definitions to help harmonise these terms.

A technician works with plastic granules.



- **Certificate:** attestation document issued by an independent external certification body.²²
- **Certification:** procedure through which a third party provides written assurance that a product or process conforms to specified requirements.²³

As the term “certification” may have different connotations depending on the region, ISO 14025 uses the term “third-party verification” rather than “certification”.²⁴

The reliability of certificate issuance is ensured when there is:

- A reference document that describes the product, process or service requirements and ensures compliance. For quality infrastructure, this document is a national or international standard.
- A third-party body that assesses whether the product complies with the expected requirements, as stated in the reference document/standard.

In addition, to ensure that such an entity assesses according to international standards, it must also have been **evaluated and approved/accredited** under an international standard within the scope of the product it certifies. **If both preconditions are fulfilled, the body can issue the certificate.**

For the QI, this body is known as a certification body. If it certifies a product, it must be accredited to ISO/IEC 17065:2012²⁵; if it certifies management systems, it must be accredited to ISO/IEC 17021.²⁶

- Suppose granting the certificate involves performing any test to verify a product’s physical or chemical properties. In that case, the laboratory performing such test must demonstrate that it is competent according to internationally approved criteria. The QI must be performed by an accredited testing laboratory and comply with ISO/IEC 17025.²⁷

22 ISO 22222:2005(en) <https://www.iso.org/obp/ui/en/#iso:std:iso:22222:ed-1:v1:en:term:3.2> — Accessed online, March 2023.

23 <https://www.iso.org/obp/ui/en/#iso:std:iso:14024:ed-2:v1:es> — Accessed online, March 2023.

24 Citation in Colombian Technical Standard NTC-ISO 14025.

25 ISO/IEC 17065:2012(en) Conformity assessment — Re-

quirements for bodies certifying products, processes, and services.

26 ISO/IEC 17021-1:2015(en) Conformity assessment — Requirements for bodies providing audit and certification of management systems.

27 ISO/IEC 17025:2017(en) General requirements for the competence of testing and calibration laboratories.

The background is a solid blue color. On the left side, there are several stylized chemical structures in white, green, and yellow. A large, white, bold number '4' is positioned in the center-left area. The title 'Initiatives in Latin America and the Caribbean' is written in white, bold, sans-serif font on the right side, with horizontal lines separating the words. At the bottom, there is a thin white line with a series of small, vertical blue bars of varying heights, resembling a barcode or a decorative border.

4

Initiatives in Latin America and the Caribbean

The following initiatives were selected to identify and evaluate eco-labels linked to the circularity of plastics in LAC. Some of them have an accompanying formal reference document (standards) and have been assessed by a third-party organisation or are in the process of accreditation as a certification body.

The bodies in charge shared the descriptions below, summarising the main aspects of the initiatives.

18 of the 86 countries in the ISO 323 Technical Committee for the Development of Circular Economy Standards are from Latin America and the Caribbean.

Source: ISO/TC 323 - Circular economy (<https://www.iso.org>)

Quality infrastructure ensures that plastics are recycled safely and effectively.



SOURCE: PEXELS

Argentina: Ecoplas Certifications



Ecoplas is a non-profit civil association specialising in plastics and the environment that promotes the sustainable development of plastics in a circular economy to contribute towards protecting the environment and people's quality of life.

They are a reference organisation in Argentina and the region for promoting public policies, working actively on communication and education, and promoting standards with technical support. They have also created two certifications to promote the circularity of plastics.

4.1.1 Certification Plásticos Reciclables²⁸



The Plásticos Reciclables Certification, with its "Manito" (thumbs-up) label belongs to Eco-plas. It encourages the recycling of packaging and plastic products and contributes to the circular economy. It certifies that this is a single-material product, and each thumbs-up label identifies a type of plastic: Polyethylene (PE), Polypropylene (PP), Polyvinyl Chloride (PVC), Recyclable Polystyrene (PS), Expanded Polystyrene (EPS) and Polyethylene Terephthalate (PET).

²⁸ Link: <https://www.inti.gob.ar/areas/servicios-regulados/certificaciones/organismo-de-certificacion/tramites/certificacion-de-contenido-de-plastico-reciclado>

Certified products can use the printed label, which, by identifying them as recyclable, helps consumers to separate them correctly at home and helps urban waste pickers collect and classify waste so that it can be incorporated into the appropriate recovery stream.

Certification is voluntary. It is available to all companies that wish to add sustainability to their products, thus facilitating recycling and providing consumers with a recyclable product option. Membership is simple and free of charge. All required is to send an application form and product samples; Eco-plas manages the verification with external laboratory analysis. It then grants certification and permission to use the label to the applicant company for two years, which can be renewed at the end of this period.

4.1.2 INTI-Ecoplas certification of recycled plastic content²⁹

The INTI-Ecoplas Certification guarantees that a minimum of 15% to 100% of the plastic in a final product is of recycled origin. It is jointly owned by the National Institute of Industrial Technology (INTI) and Ecoplas and is the first of its kind in Argentina.

The label consists of an isologo of the letter R with a percentage indicating the proportion of recycled plastic in the product. It gives to the consumer validated information to help them choose a product. It includes a QR that redirects them to a video about the circular economy of plastics and its environmental benefits.



The certification is for companies, enterprises and organisations that manufacture partially or entirely recycled plastic products. It allows them and those who buy their products to demonstrate their environmental commitment. Certification is voluntary. Membership is obtained through an application submitted to the INTI Certification Body, and verification is carried out through a documentary and in-plant audit by the aforementioned certified body. Certification and permission to use the label are granted to the applicant company for two years and may be renewed at the end of this period.

²⁹ Links: <https://ecoplas.org.ar/certificacion-inti-ecoplas> - <https://www.inti.gob.ar/areas/servicios-regulados/certificaciones/organismo-de-certificacion/tramites/certificacion-de-contenido-de-plastico-reciclado>

Colombia: ICIPC certifications



The Plastic and Rubber Research and Training Institute (ICIPC) is leading the initiative to communicate the Colombian industry's commitment to the circular economy in the production of plastic packaging and containers, as well as in the production of plastic products that incorporate a high proportion of post-consumer and pre-consumer recycled material.

LOOP is the ICIPC's strategy for communicating good circular economy practices for the plastics industry. It will be developed in different stages and seeks to create value for the entire chain involved in processing and sustainably using plastic packaging.

To this end, the ICIPC has developed two certifications that the Colombian business community has successfully accepted: LOOP_ICIPC Eco-design Label and ICIPC Recycled Plastic Content Label.

4.2.1 LOOP_ICIPC Eco-design Label

Based on different technical and scientific criteria, laboratory test support and international standards, the ICIPC awards its certification labels, which evaluate 14 factors of eco-design and recyclability potential.

The ICIPC awards the label only to products for which all the criteria associated with the methodology established by the ICIPC have been assessed. The ICIPC refrains from assessing products that have not defined specific characteristics for each criterion.

Based on the result obtained for the packaging material, the followings ratings are obtained:

AAA: >95%

High utilisation capacity.

AA: 90-94%

Very good use with some restrictions.

A: 70-89%

Usable with restrictions.



Packaging with a rating of less than 70% is not considered eligible for the label.

Deliverables:



A report containing the diagnostic assessment of the Eco-design criteria and recommendations for the packaging analysed.



If the score is above 70%, the label is awarded to the company, and the certificate is registered in the database that can be consulted on the website at <https://icipc.org/loop>. The end user or any interested party familiar with the packaging can thus check the validity and awarding of the label.



An identity and usage manual about the LOOP - ICIPC Eco-design Content Certificate and logos of the label.

4.2.2 ICIPC Recycled Plastic Content Label



To grant this label, third-party audits are carried out under the guidelines of ISO 22095 "Chain of Custody", EN 15343 "Recycled Plastics - Plastics Recycling Traceability and Assessment of Conformity and Recycled Content" and "NTC 14021 Environmental Labels and Declarations."

The ICIPC conducts an audit of the company's production plant. The recycled content will be the minimum for all products from different recycled plastic formulations.

The recycled content will consider only pre-consumer and post-consumer recycled material (ISO 14021). Material recovered from the production processes will not be considered when calculating the recycled content (ISO 14021).

Deliverables:



An executive report containing a description of the process carried out, the evidence collected, and the recycled content calculation for the product/area or company analysed.

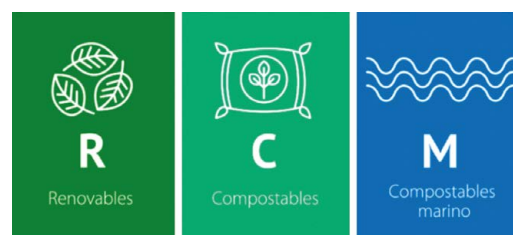


Certificate of minimum content evidenced in the audit process. The certificate is registered in the database and can be consulted on the website at <https://icipc.org/loop>. The end user or any interested party familiar with the products can thus check the validity and awarding of the label.



An identity and usage manual about the LOOP - ICIPC Eco-design Content Certificate and logos of the label.

Costa Rica: RCM labelling for materials. Products containing plastic materials³⁰



Environmental labelling in Costa Rica was developed by the Ministry of Environment and Energy (MINAE), which is the owner of the label, together with the National Quality System (SNC), in which the Costa Rican Technical Standards Institute (INTECO) and the Costa Rican Accreditation Body (ECA) participate.

For single-use plastics and their recyclability, the country already has RCM (renewable, compostable in marine environments) labelling, which is based on an SNC standard.³¹

This sets out requirements for RCM labelling of products containing plastic materials, which allows them to be identified by their origin, biodegradability, and compostability, including in marine environments. It addresses the following three aspects:

- Materials of a renewable source.
- Rapid degradation and biodegradation under appropriate composting conditions.
- Materials that are compostable in marine environments.

The RCM label provides consumers with accurate, verifiable, non-misleading and science-based information on the environmental impact of products.

This standard is not limited to plastic products and materials, but also applies to solid, non-metallic, and non-vitreous products for use and consumption, of a organic, plant and animal or inorganic origin, including their packaging, in bulk or laminate form, whether disposable, reusable, recyclable or not, and which degrade through the processes of biodegradation, photodegradation, chemical degradation,

hydrolytic degradation, and compostability, which are not mutually exclusive.

Note: This RCM label can be used for many materials. In the case of plastics, it allows them to be grouped into six categories. It provides a simple and practical framework for creating plastic regulations with a legal basis in the Integrated Waste Management Act No. 8839.

A comprehensive environmental labelling standard for plastics will be developed in the near future, considering RCM issues and plastics' safety.

RCM label coding

Coding	RCM 000	RCM 100	RCM 010
Meaning	Non-renewable Non-compostable Non-compostable in marine environment	Renewable Non-compostable Not compostable in marine environment	Non-renewable Compostable Not compostable in marine environment
	RCM 011	RCM 110	RCM 111
	Non-renewable Compostable Compostable in marine environment	Renewable Compostable Not compostable in marine environment	Renewable Compostable Compostable in marine environment

30 Link: <https://www.inteco.org/shop/inte-b25-2019-enm-1-2020-etiquetado-rcm-para-materiales-renovables-y-compostables-productos-con-contenido-de-materiales-plasticos-7506#attr=>

31 INTE B25:2019. RCM labelling for renewable and compostable materials. Products containing plastic materials

Chile: #ElijoReciclar ("I choose to recycle") Label



Packaging mass that is over 80% theoretically recyclable, separable and in demand can use the label, which is evaluated by independent certification bodies that comply with the NCh-ISO 17065:2013 standard or its international equivalent and are validated by a committee set up to monitor the project. The assessment scheme, as well as the participants, is detailed at: <https://elijoreciclar.mma.gob.cl>

The #ElijoReciclar (I choose to recycle) Label is part of a Clean Production Agreement (CPA) on Eco-labelling, led by the Chilean Manufacturers' Association (SOFOPA), the Ministry of the Environment and the Sustainability and Climate Change Agency, among others. The label includes two graphic elements:

1. The #ElijoReciclar front label, which indicates that the packaging is recyclable.
2. Recycling information detailing the materiality of each packaging component, indicating if any of these are not recyclable.

More than 70 national companies have voluntarily joined the CPA to deliver a standardized message to consumers regarding the recyclability of packaging. To qualify for the label, three criteria are assessed:

1. Theoretical recyclability (percentage of packaging mass that is made of theoretically recyclable material).
2. Separability (to assess cases where two theoretically recyclable packaging components cannot be separated and therefore cannot be recovered).
3. Demand (to ensure support from a group of validated waste recovery operators indicating that they collect the post-consumer packaging from households and recover it).

Uruguay: "Desafío: Libre de plásticos de un solo uso" ("Challenge: Free of single- use plastics") Environmental Label³²



The environmental label "Challenge: Free of single-use plastics" is a voluntary scheme developed by the Uruguayan Ministry of Environment, which promotes the reduction of plastic waste - particularly the kind with a short useful life and which is easily replaced - in specific sectors of activity. Its creation was established in Resolution N° 272/021 - Reduction of plastic waste generation, 28 April 2021.

The label aims to adopt measures that minimise plastic waste generation and replace single-use plastics with sustainable alternatives, such as reusable products or products incorporating recycled raw materials. The label is national in scope and is focused on the following sectors: tourist accommodation, supermarkets, gastronomy, and trade in general.

The label requirements assess various domains such as communication, waste management and specific actions to reduce the use of disposable plastics in different areas effectively.

Specific requirements are common to all sectors covered, while others are specific to each industry. There are also mandatory requirements and desirable requirements. Depending on the degree of compliance with the requirements, a score is awarded that determines the level of the label (non-compliant, initial, or committed).

³² Link: <https://www.gub.uy/ministerio-ambiente/politicas-y-gestion/sello-ambiental-desafio-libre-plasticos-solo-uso>

The background is a solid blue color. On the left side, there are several stylized chemical structures in white, green, and yellow. These structures include various rings, chains, and functional groups, some with colored atoms (green, yellow, blue) highlighted. A large, white, bold number '5' is centered on the left side of the slide.

5

Evaluation of initiatives and labels

The initiatives identified constitute a good tool for raising awareness in society about protecting the environment and introducing issues related to the circular economy.

An important factor in their evaluation is adherence to quality infrastructure instruments, with the technical and scientific support it offers, as this ensures legitimate compliance with health, safety, and environmental concerns and allows a natural participation in globalisation.

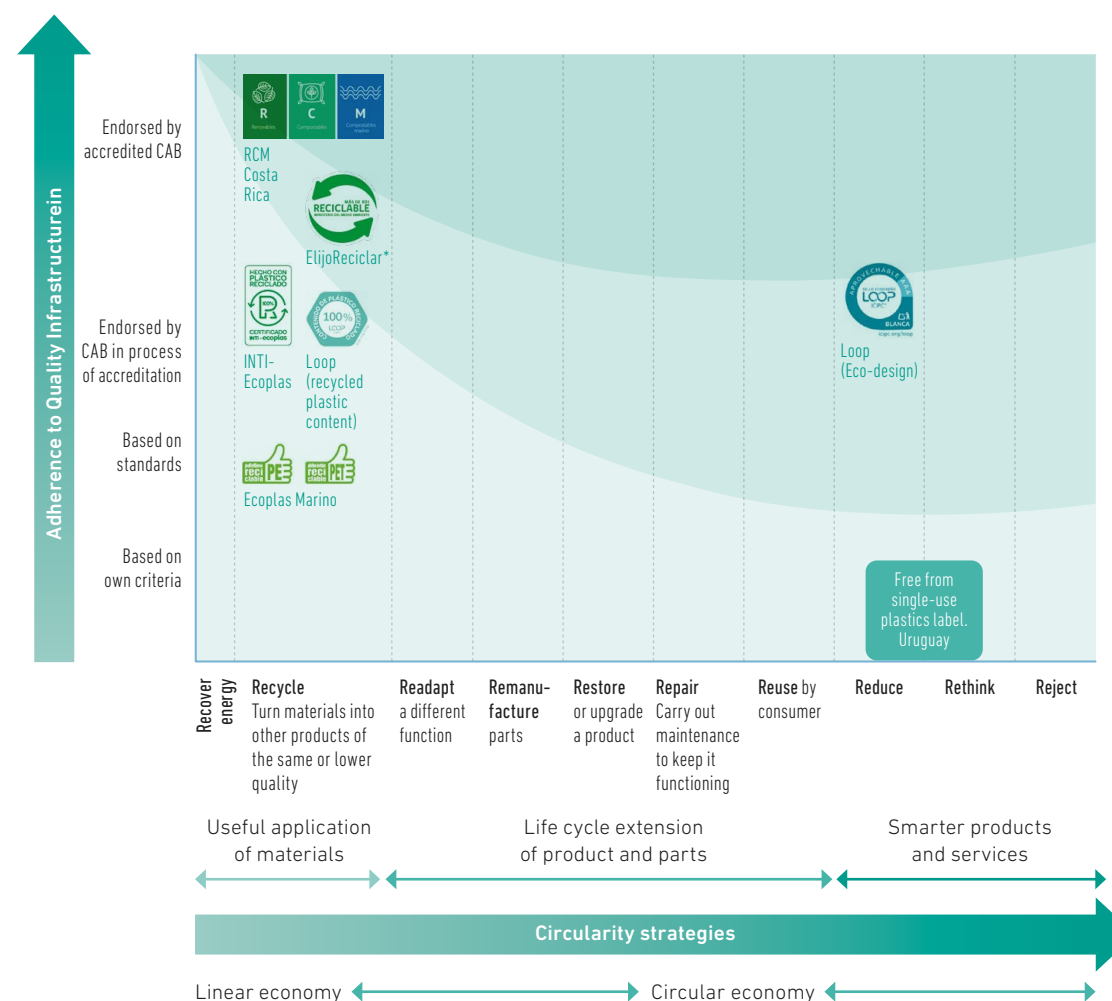
The figure below shows a categorisation of the different CE strategies concerning QI compliance for the assessed labels.

- The horizontal axis indicates the CE strategies where the label is placed based on the 9Rs (reject, rethink, reduce, repair, restore, remanufacture, repurpose, recycle and energy recovery).³³ These strategies start with the useful application of materials, move through the extension of the life span of a product and its parts, and finally arrive at the use and manufacture of smarter products and services.
- The vertical axis represents the level of QI adherence of each of the initiatives, considering as a base their adherence to national or international standards. At a higher level, we find those which, in addition to complying with standards, use third-party entities to assess compliance with the standards that apply to them. In the best-case scenario, these entities have been accredited to enable them to perform the conformity assessment.

IN LATIN AMERICA AND THE CARIBBEAN, THERE IS GROWING CONCERN ABOUT THE NEGATIVE EFFECTS OF EXTENSIVE PLASTIC USAGE.

Figure 3.

Labels and initiatives relating to QI and circularity strategies adherence



RCM (Costa Rica), #ElijoReciclar (Chile), INTI-Ecoplas and Manito Ecoplas (Argentina), Loop contenido plástico reciclado and Loop Ecodiseño, ICIPC (Colombia) and Sello Libre de plásticos de un solo uso (Uruguay).

Source: Own elaboration.

³³ Circular economy strategies. Source: PBL (2017). Circular economy: measuring innovation in the product chain, J. Potting, M. Hekkert, E. Worrell et al.

Comparative table of labels and initiatives in LAC

In order to visualise the different initiatives and labels identified, these were systematised, and the evaluation criteria were defined. The information obtained is constantly being updated in an online comparative table available at the following link: <https://tinyurl.com>

Main criteria considered:



General information

Owner (body or institution awarding the eco-label and setting the requirements), country, scope (including life cycle stages considered).



Conformity assessment

Reliability and integration of the QI system into the label to ensure fairness and transparency based on internationally recognised standards, accreditation, and independent third-party verification.



Specific information

Testing by accredited laboratories, integration of priority aspects for circularity of plastics.

SOURCE: CHANCHAI PHETDIKHA/SHUTTERSTOCK



In Latin America and the Caribbean, the industry is responding to the negative effects of the extensive use of plastics with increased recycling efforts.

Image 1.

Comparison of eco-labelling initiatives in Latin America and the Caribbean (in Spanish)









				
	Etiquetado RCM Materiales renovables y compostables. Productos con	Neutralidad de Materiales	Loop Sello de Contenido de Plástico Reciclado	Loop Certificado de Ecodiseño
Links	https://www.inteco.org/shop/inte-b2-5-2019-enm-1-2020-etiquetado-rcm	https://tienda.icontec.org/gp-ntc-neutralidad-en-materiales-principios-reg	https://icipc.org/loop/cor/ https://icipc.org/loop/	https://icipc.org/loop/
País	COSTA RICA	COLOMBIA	COLOMBIA	COLOMBIA
Dueño	Dueño Gobierno de Costa Rica / administradas por el Ministerio de Ambiente y Energía en conjunto con el Sistema Nacional para la Calidad (SNC).	ICONTEC	ICIPC . Instituto de Capacitación e Investigación del Plástico y Caucho https://icipc.org/	ICIPC . Instituto de Capacitación e Investigación del Plástico y Caucho https://icipc.org/
Voluntario o mandatorio	voluntario	Voluntario	voluntario	voluntario
Alcance	La presente norma establece requisitos para el etiquetado RCM (renovable, compostable, compostable en ambiente marino) de productos con contenido de materiales plásticos, que permite identificarlos por su origen y por su capacidad de biodegradabilidad y compostabilidad, incluida en el ambiente marino. La presente norma aborda los siguientes tres aspectos:	Verificación que se hace a las declaraciones que realiza una organización acerca de la cantidad de material que genera comparado con la cantidad de material posconsumo y/o preconsumo optimizado y/o compensado. Se orienta a promover la gestión y declaración de flujos circulares en corrientes de materiales de Organizaciones, Productos, eventos y servicios. Los materiales	El ICIPC realiza una auditoría a la planta de producción de la empresa. El contenido de material reciclado será el contenido mínimo encontrado para todos los productos elaborados con las distintas formulaciones de plástico reciclado. En el contenido de material reciclado solo se tendrá en cuenta el material reciclado pre-consumo y post-consumo (ISO	Con base en diferentes criterios técnicos y científicos, soporte de ensayos de laboratorios y normas internacionales, el ICIPC otorga sus sellos de certificación, donde se evalúan 14 factores de ecodiseño y de potencial de reciclabilidad. El ICIPC otorga el sello solo a los productos en los cuales se evalúan todos los criterios asociados
Evaluación de conformidad / validación de terceras partes	Auditoría de Tercera Parte acreditada dentro del Sistema Nacional de la Calidad	Auditoría por tercera parte	Auditoría de tercera parte bajo los lineamientos de la norma ISO 22095 "Cadena de Custodia", norma EN 15343 "Recycled Plastics- Plastics Recycling	
Respaldo por la acreditación	Requiere acreditación ECA	No por ahora	Piensa buscar reconocimiento de ONAC	Piensa buscar reconocimiento de ONAC
Normas de referencia	INTE B25:2019/Enm 1-2020, INTE/ISO 16929, INTE/ISO 14855-1, INTE B24, INTE B21, INTE B23, INTE B22, INTE/ISO 17025, INTE/ISO 17065	NTC 6657:2022 Neutralidad en materiales. Principios, requisitos y recomendaciones y protocolo complementario desarrollado por ICONTEC.	ISO 14021 ; EN 15343 ; ISO 22095 ; ISO9001 ; GTC-ISO 19011	ISO 14020 ; EN 13430 ; ISO 18604
Ensayos específicos		No es aplicable a este servicio		Ensayos de laboratorio (Técnicas instrumentales y procesamiento)
Laboratorios de ensayos acreditados	Si	No es aplicable a este servicio		
Toxicidad		No es aplicable a este servicio		
Aptitud alimentos		No es aplicable a este servicio		
Biodegradabilidad / Compostabilidad	Si	No es aplicable a este servicio		
Micro y macroplásticos , fugas al ambiente		No es aplicable a este servicio		
Título completo de las normas citadas	ISO 16929:2021 Plásticos. Determinación del grado de desintegración de materiales plásticos en condiciones de compostaje definidas en una prueba a escala piloto.	NTC 6657:2022 Neutralidad en materiales. Principios, requisitos y recomendaciones y protocolo complementario desarrollado por ICONTEC	ISO 14021:2016(es) Etiquetas y declaraciones ambientales — Afirmaciones ambientales autodeclaradas (Etiquetado ambiental tipo II)	DIN – ISO 14021: ISO 14021:2016(es) Etiquetas y declaraciones ambientales — Afirmaciones ambientales autodeclaradas (Etiquetado ambiental tipo II)
	ISO 14855-1:2013 Determinación de la biodegradabilidad aeróbica final de materiales plásticos en condiciones de compostaje controladas. Método según el análisis de dióxido de carbono		ISO 22095:2020 Chain of custody — General terminology and models	UNE-EN 13430:2005 Envases y embalajes. Requisitos para envases y embalajes recuperables mediante reciclado de materiales.
	ISO/IEC 17025:2017(es) Requisitos generales para la competencia de los laboratorios de ensayo y calibración		UNE-EN 15343:2008 Plásticos. Plásticos reciclados. Trazabilidad y evaluación de conformidad del reciclado de plásticos y contenido en reciclado.	ISO 18604 Packaging and the environment — Material recycling
	ISO/IEC 17065:2012(es) Conformity assessment — Requirements for bodies certifying products, processes and services		ISO 19011:2018(es) Directrices para la auditoría de los sistemas de gestión	ISO 14020:2000(es) Etiquetas y declaraciones ambientales — Principios generales

Image 2.

Comparison of eco-labelling initiatives in Latin America and the Caribbean (in Spanish)

				
	#Eljoreciclar	INTI - Ecoplas certificación	Certificación Plásticos Reciclables Ecoplas	Desafío: Libre de plásticos de un solo uso*
Links	https://eljoreciclar.mma.gob.cl/	https://ecoplas.org.ar/certificacion-inti-ecoplas/	https://ecoplas.org.ar/certificacion-plasticos-reciclables/	https://www.gub.uy/ministerio-ambiente/politicas-y-gestion/sello-ambiente
País	CHILE	ARGENTINA	ARGENTINA	URUGUAY
Dueño	Acuerdo de Producción Limpia de Eco-Etiquetado, liderado por la Sociedad de Fomento Fabril, el Ministerio del Medio Ambiente y la Agencia de Sustentabilidad y Cambio Climático.	INTI - Ecoplas	Ecoplas	Ministerio de Ambiente
Voluntario o mandatorio	voluntario	voluntario	voluntario	voluntario
Alcance	Se evalúan tres criterios; la reciclabilidad teórica (porcentaje de masa del envase que es de material teóricamente reciclable), la separabilidad (para evaluar casos en donde dos componentes del envase teóricamente reciclables, por no poderse separar, no se pueden valorizar) y la demanda (que haya respaldo por parte de un grupo de valorizadores validados que indican	Certificación de proceso y de producto que avala la trazabilidad y proporción de un contenido de material plástico reciclado en productos finales.	Certificación de envases que demuestra que estos se han fabricado con un solo tipo de resina plástica, pudiendo ser incorporados a las respectivas corrientes de recuperación y reciclado. Se certifican envases de PET, PE, PP, EPS, PS y PVC	Este sello ambiental tiene por objetivo promover la reducción de la generación de residuos plásticos, priorizando el uso y consumo sustentables de productos reutilizables, desestimulando productos plásticos de un solo uso, innecesarios y de baja vida útil.
Evaluación de conformidad / validación de terceras partes	Auditoría de tercera parte por TÜV R., AENOR, Bureau Veritas, SGS	Auditoría de tercera parte		Auditoría por Ministerio de Ambiente. A futuro se realizarán por terceras partes.
Respaldo por la acreditación		Se evalúa iniciar proceso de acreditación frente a OAA		A futuro se considera el reconocimiento a través de OUA
Normas de referencia	NCI-ISO17065:2013o su equivalente internacional	EN 15343:2007 ; ISO 14021:2016 ISO 14020:2000(es)		A futuro se trabajará para que quede conforme a la ISO 17065
Ensayos específicos			Determinación de composición mediante análisis (DSC e IR,	Ninguno
Laboratorios de ensayos acreditados		No se hacen ensayos de laboratorio	Laboratorios designados por Ecoplas	Ninguno
Toxicidad		No es objetivo de la certificación, pero si se exige que presenten evidencia de que no representa riesgos de toxicidad conforme a normativa vigente	No se encuentra contemplado en esta certificación	Ninguno
Aptitud alimentos		No es objetivo de la certificación, pero si se evalúa cumplimiento a las regulaciones MERCOSUR	No se encuentra contemplado en esta certificación	Se da cumplimiento a las regulaciones MERCOSUR
Biodegradabilidad / Compostabilidad		No se considera en la certificación pues los productos biodegradables o compostables no tienen contenido reciclado, ya que su	No se encuentra contemplado en esta certificación. Los polímeros a certificar no son biodegradables ni compostables	Aún no se cuenta con ensayos exigidos. A futuro se evalúa la incorporación de algún tipo de ensayo que pruebe los requisitos exigidos en
Micro y macroplásticos , fugas al ambiente		No es objetivo de la certificación pero si se evalúa el cumplimiento	No se encuentra contemplado en esta certificación	No se encuentra contemplado en este sello
Título completo de las normas citadas	ISO/IEC 17065:2012(es) Conformity assessment — Requirements for bodies certifying products, processes and services	UNE-EN 15343:2008 Plásticos. Plásticos reciclados. Trazabilidad y evaluación de conformidad del reciclado de plásticos y contenido en reciclado.		Ninguna
		ISO 14020:2000(es) Etiquetas y declaraciones ambientales — Principios generales		
		ISO 14021:2016(es) Etiquetas y declaraciones ambientales — Afirmaciones ambientales autodeclaradas (Etiquetado ambiental tipo II)		

6

Conclusions

This mapping shows that our region is progressing toward CE with a growing number of initiatives.

The quality infrastructure offers tools to enable effective collaboration with services that ensure transparent and reliable systems for informed consumers and producers, who have the tools to apply good circular practices, including traceability of the value chain and are supported by standards that provide reliability and impartiality.

To improve the reliability of labels and eco-labels about plastics in the context of the circular economy, the following areas of action have been identified:

1. Harmonisation of definitions and criteria.
2. Extension of eco-labelling to the whole life cycle of plastics taking into account eco-design and 9R circularity hierarchies.
3. Increasing eco-labels' credibility with the support of international standards and accreditation bodies for conformity assessment.
4. Articulate and engage enforcement authorities to improve technical regulation related to the plastics value chain by setting minimum health and environmental performance standards, as well as implementing and monitoring these regulations.³⁴
5. Create the basis for moving towards a regional eco-labelling scheme based on regionally and internationally recognised standards. Generate synergies with organisations already working in this direction.
6. Encourage and promote access to certification schemes for small producers, cooperatives and SMEs.

The systemic approach shared by the quality infrastructure and the circular economy represents a clear opportunity to create

QUALITY INFRASTRUCTURE (QI) PROVIDES TOOLS TO COLLABORATE EFFECTIVELY WITH SERVICES THAT ENSURE TRANSPARENT AND RELIABLE SYSTEMS FOR AN INFORMED CONSUMER.

SOURCE: PEOPLEIMAGES.COM – YURI A/SHUTTERSTOCK



The growing importance of recycling enables progress toward an increasingly circular economy.

value and generate a positive impact on international trade, as well as more efficient management of resources,³⁵ responsible production and consumption, protection of our biodiverse ecosystems, and promotion of social inclusion, to ensure the sustainable development of our region.

³⁴ **Technical standard** are documents that set standards for products, processes and services. National or international institutions, such as ISO or IEC articulate them. Compliance is voluntary **Technical regulations** establish conditions for products and production processes. Compliance is mandatory.

³⁵ Quality Infrastructure for the Circular Economy in Latin America and the Caribbean. Number 1. Quality Infrastructure of The Americas Papers.

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About the Circular Economy Coalition in Latin America and the Caribbean

The Circular Economy Coalition for Latin America and the Caribbean responds to the great interest and circular economy initiatives promoted by governments, the private sector, research institutes and other social actors, as well as the many initiatives implemented by regional and international organisations that provide technical support on innovation and circular economy approaches. It, therefore, seeks to offer more coordinated support, avoid duplication, and strengthen cooperation to generate greater impact.

The Circular Economy Coalition's main goals are to create a shared regional vision and perspective with an integrated and holistic approach, to serve as a platform for sharing knowledge and tools, and to support the transition towards the circular economy through a systems thinking approach.



