

A Sea of Plastics Claims and Credits: Steering Stakeholders Towards Impact



Summary



As more companies and governments make commitments to address plastic pollution, several plastic offset claims and credit schemes have emerged.

Plastic claims validate a plastic material based on its source or the way it has been processed. Similar to carbon offset credit schemes, plastic offset credit schemes are meant to provide credit holders the right to offset the amount of plastic waste they generate. This has, in turn, resulted in the emergence of standards, certifications and credit programs focused on accounting for ocean plastics or circular plastics.

In 2020, The Circulate Initiative (TCI) reviewed 32 standards, certifications, and credit programs to assess strengths and weaknesses across the current landscape and whether current programs are equipped to help buyers meet their impact objectives. Key findings from the review have been outlined below. In addition, TCI identified 11 best practices to ensure that the outcome of these programs contribute to meaningful impact on preventing ocean plastic pollution.

Key Findings





Today's fragmented landscape calls for standardization and a best practice framework.

While programs for verifying recycled content are well established, standardized and adopted, those for ocean plastics are nascent. The 32 actors reviewed were working mainly towards one of two outcomes – either assuring claims/labels for recycled material (including for "circular plastic" and "ocean plastic") or generating offset credits for recovered or recycled plastics.

Although there are many operators performing various functions necessary to create and maintain a credit scheme, stakeholders looking to adopt such schemes will find the current landscape is mired with a lack of standards and best practice principles. The most concerning issues include:

- No consistent definition of "ocean plastic" across programs or operators.
- Operators often play multiple roles that may undermine the credibility of standards.

In the absence of consistent standards and best practice principles, potential buyers and consumers will find it difficult to evaluate merits and impact behind a program's marketing claims.



Certifications and credits could create risks for large buyers.

Without a consistent best practice framework, buyers and other stakeholders should be aware of potential risks and monitor them as the landscape evolves.

TCI believes the three key risks in the current landscape include:

- Greenwashing: Many programs offer little transparency into the practices and pricing that sit behind their claims; buyers should stay vigilant on program messaging, methodologies for measuring impact, and pricing transparency.
- Unintended economic and social consequences: Programs could alter the economics of the plastic waste management and recycling sector. This may inadvertently disadvantage existing players, such as independent recyclers and waste pickers.
- Ignoring the impact on climate: Of the plastic programs reviewed, only three focus on carbon reduction and climate. The remaining 29 programs either include vague messaging on the plastic-climate link or do not make the connection at all. This limited focus of programs negates the global goals of a circular economy and sustainable cycles of production and consumption.





Best practices ensure programs meet impact-driven objectives.

Based on the analysis, TCI believes best practice standards are needed to ensure that claims and credits are a productive part of the solution to addressing plastic waste and can be used to evaluate a program's potential for impact.

The following findings in Exhibit 1 offer observations on how actors can improve programs and have credible impact.

Summary



Exhibit 1: 11 Best Practices to Ensure Impact

Program Development

Harmonization: Program should explicitly address alignment with other established claims, programs or standards.

2

Multi-Stakeholder Process: Program is developed with external stakeholders and holds public comment periods.

3

ISEAL Compliance: Program explicitly follows ISEAL best practices.

Contribution to Impact

4

Co-Benefits: Programs should also focus on the following core areas to ensure impact: a) Oceans; b) Livelihoods; c) Infrastructure; d) Climate.

5

Additionality: Program uses a relevant and consistent methodology for measuring impact claims beyond existing baseline efforts (without investment in solutions or purchase of material or credits).

Program Impact

6

Third Party Verification: Programs should include third party validation from an independent auditing body.

7

Governance: There is a clear, publicly available process for how decisions are made and disputes are settled. Results are documented and publicly reported.

8

Continuous Improvement: Programs should include a process for updates.

Program Adoption

9

Global Relevance: Programs should be global or multi-regional (covering 3+ continents). 10

Commercial Adoption: Program is adopted by three or more leading global brands.

11

Policy Influence: The standard or program has helped to inform new policy development or has been explicitly adopted into policy.

About Plastics Claims and Credit Mechanisms



As more companies and governments make commitments to address plastic pollution, several plastic claims and offset credit schemes have emerged.

What is a plastics claim?

A claim (or label) is a designation given to plastic based on a defined attribute or process, e.g., "recycled," "compostable" or "ocean-bound".

Material that is purchased and marketed with a claim or label (e.g., as "recycled" or "oceanbound" plastic) can be certified through a scheme that validates the material, usually based on its source or the way it has been processed. Such certification schemes have monetized this process by charging fees for certification or a price premium on the material itself.

While programs for verifying recycled content claims are well established, standardized and adopted, those for "ocean plastics" are newer. Nearly a dozen have emerged in recent years, presumably in response to global concern about the environmental crisis. Plastic credit mechanisms are nascent, but gaining attention with two new credit registries launching in the first quarter of 2021.

What are plastic offset credits?

A credit is a tradable permit or certificate that provides the credit holder with the right to offset their consumption of virgin plastic or associated generation of plastic waste, usually on a one-for-one basis (e.g., "for every tonne of plastic waste generated, a tonne of plastic has been diverted" through a credit purchase).

Similar to carbon offset credit schemes, plastics credits are meant to provide credit holders the right to offset their consumption of virgin plastic or related generation of plastic waste.

This has, in turn, resulted in the emergence of standards, certifications and credit programs focused on ocean plastics and circular plastics, offering claims of "plastic neutral" or "plastic positive" impact.

Buyers of such claims and credits may include manufacturers of plastic products and packaging, investment firms that trade claims and credits, and eco-minded consumers.

How do plastics claims and credits prevent ocean plastic pollution?

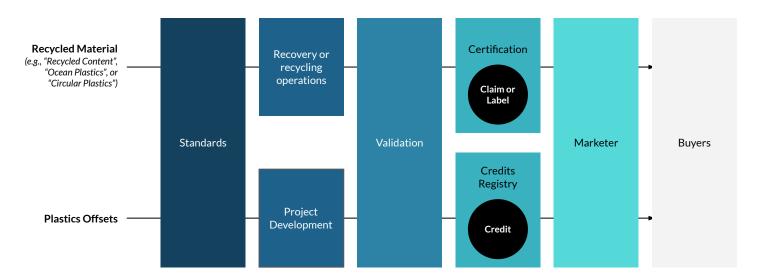
Both claims and credit mechanisms rely on a similar structure: A defined standard is applied to a certain activity; that activity is validated, before a certificate or credit is issued. There are a range of actors performing the various functions necessary to create and maintain these mechanisms. These functions are summarized overleaf.



How Mechanisms Work



Exhibit 2: Functions necessary to create or maintain a certification or credit scheme



- I. **Standards:** Actor/s define materials, methodologies, and mechanisms by which claims, labels, or credits can be issued
- II. Operations and Project Development: Actor/s create and/or oversee the project activities
- III. Validation: An actor or process verifies whether a planned project activity or operation has led to the expected result to be claimed/credited
- IV. Certification or Credit: An actor generates a unique certificate or credit that all conditions of the standard (for the material or credit holder) have been met.
- V. **Marketer:** An actor promotes or brokers the purchase of certified material and/or credits
- VI. **Buyers:** Actors (e.g., brand, investor, or consumer) purchase certified material for use in their supply chain or credit to offset their use or generation of material elsewhere.

Plastic Claims

As plastic claims or labels certify the source and/or process used to produce a material, e.g., "recycled" or "oceanbound", they may facilitate and encourage the procurement of post-consumer plastics, thereby diverting plastic pollution away from the ocean.

Plastic Offset Credits

To meet growing demand, plastic credit programs are being established to provide assurances that plastic is being kept out of the ocean, and, in some cases, diverting the material back into recycling and circular supply chains.

In concept, a buyer purchases a plastics credit to offset plastics production or waste generation tonne-for-tonne.

The Plastics Credit Landscape



Exhibit 3: Plastic offset credits programs reviewed



Circular Action Hub is a marketplace and clearinghouse for **offset credits that subsidize plastics collection**



PlasticBank sells **Social Plastic Collection Credits** that fund collection projects



Plastic Collective offers certified **Ethical Plastic Credits** to offset generation as part of overall reduction strategies



Plastics Credit Exchange offers certified offsets to help organizations achieve plastic neutrality



rePurpose subsidizes the ethical collection and recycling of low-value plastics through the sale of **plastic neutral credits**



The 3RI will offer credits to fund projects that meet the **Plastic Waste Reduction Standard**

Ensuring buyers are guided by impact

The potential for claims and credits to drive more investment and value into the system is appealing, but can these programs deliver impact?

Learning by example could help create a plastic credit mechanism with positive impact and accelerate viable solutions for recycling. To progress towards a gold standard, it is first imperative to understand the current landscape and define what "good" looks like.

Synthesized from research and interviews, TCI identified 11 best practices that should inform assessment of individual programs as they are developed, measure impact, and are implemented and adopted. TCI also reviewed 32 standards, certifications and credit programs to assess strengths and weaknesses across the current landscape.



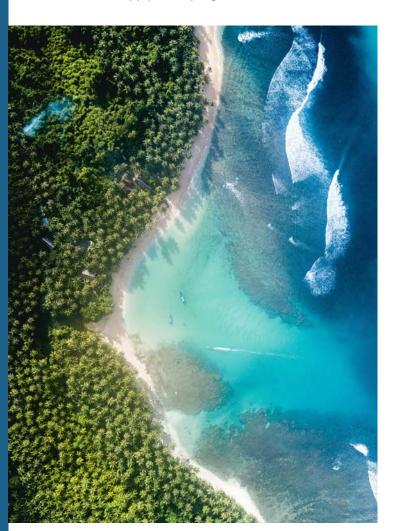
by THE CIRCULATE INITIATIV

Applying Lessons Learned from Carbon Markets

Plastic offset credits: Applying lessons learned from carbon markets

In environmental sustainability, similar mechanisms have been used to facilitate claims of carbon neutrality and responsible resource management in supply chains. In those cases, financing innovations have infused capital into beneficial projects. Buyers now know what a "good" carbon offset credit looks like, though not all credit issuers follow known best practices. Credit programs designed to support sustainable raw material production have also emerged in supply chains, including programs designed for sustainable forestry and cotton.

Plastics credit schemes have likened the model to "carbon offsets for plastics," creating a market mechanism that puts a price on waste that currently has low or no value. If the analogy truly holds, then plastics credits should apply the lessons learned from more mature carbon credit markets and other sustainable supply chain programs.



Over the past several years, investors and project developers in carbon markets have learned what works.

Clear definitions: For carbon credits, the definition of what counts as a credit is straightforward, i.e., 1 offset credit = 1 tonne of CO2 equivalent. This consistency has strengthened the sector's ability to communicate, collaborate, and advance the carbon market. The plastics offset credit market, still in its infancy, has yet to harmonize definitions for what counts as a credit.

Crediting at the jurisdiction level: In terms of adding value through scale, carbon crediting moved away from crediting at the project level and towards aggregating projects at the jurisdiction level. This could also serve as an efficient approach for accounting for material across localized waste management, recycling, and manufacturing infrastructure. As the carbon market has matured, individual projects have gotten bigger, driving efficiencies and improving costs. It remains to be seen whether eligible projects in a plastics credit market will be able to achieve such efficiency and scale.

Co-benefits reflected in better credit prices: In

addition, the carbon market has recognized that impact is holistic, with better credit prices going to projects with co-benefits beyond tonnes of CO2. Similarly, plastics credits programs should account for more than the material itself, and recognize closely related social and environmental benefits, especially impact on overall infrastructure, ocean health, livelihoods, and climate.

Plastic credits as a last resort: It is important to recognize the limited role of carbon credits alone in achieving global reductions of greenhouse gas emissions at the pace that the world demands. Likewise, potential buyers and stakeholders should consider plastic credits as a last resort, only pursued after other strategies, including reducing use of unnecessary plastics, reusing when possible, designing for recyclability, driving demand for recycled content, and investing directly in circular infrastructure.



Methodology

In 2020, TCI reviewed 32 known programs¹ either assuring claims or labels for recycled material (including "circular" and "ocean plastic"), or generating offset credits for recovered or recycled plastics.

TCI conducted this study in partnership with Circulate Capital and its Impact Metrics Working Group, composed of subject matter experts and advisors. TCI also consulted experts and stakeholders through a series of interviews and reviewed publicly available information on programs between July and December 2020.

The 32 programs were compared against 11 best practices, informed by stakeholder interviews and WWF's Principles for Effective and Credible Standards and Certifications. The best practices have been segregated into four sections, namely,

- I. how programs have been developed,
- II. their contribution to impact,
- III. how programs are implemented, and
- IV. how programs are adopted.

The programs we reviewed fall within three stages of maturity, from commercial (25), they are being implemented or purchased by customers in multiple settings, to pilot (4), they are being trialed with a few partners/customers, and conceptual (3), the claim or credit is described "on paper" only. Among the 32, 11 offered claims, labels, and/or credits related to ocean plastic.²



Today's fragmented landscape calls for standardization and a best practice framework.

TCI identified key challenges of claims and credit mechanisms, which are underpinned by a lack of standards and best practice.

No consistent definition of "ocean plastic". The term is often used as shorthand to refer to plastic pollution that has entered the environment and how we define it remains elusive. With no standard definition in place, claims are as diverse as the nine (and counting) individual programs that have recently emerged. For example, DNV GL and the Ocean Cleanup Project have defined "ocean plastic" as "100% coming from the ocean". In contrast, others, including Oceanworks, differentiate their material as ocean-bound, or "averted," plastics, defined as "material collected from communities with mismanaged waste that are greater than 50km from the shore line". Definitions are essential to support the sector's ability to communicate (by fairly comparing similar concepts), collaborate, and therefore advance.

undermine the credibility of standards. In these cases, TCI found that a seemingly linear scheme can be difficult to navigate in reality, as actors often play multiple roles. For example, a standards developer might also be the validator and certifier, as is the case with DNV GL Chain of Custody Standard. Similarly, a project developer might also be the marketer of the scheme, as in the case of Plastic Collective. While the latter role combination is not an issue, the former may lead to a conflict of interest that may dilute the credibility of the standard. Potential buyers should fully understand the roles and relationships among individual actors and where conflicting interest can undermine accountability and credibility.





Certifications and credits could create risks for large buyers

With many programs falling short on best practices highlighted above (see Exhibit 1), potential buyers and consumers are challenged to evaluate the merits and impact behind a program's marketing claims. Stakeholders should be aware of the potential risks and monitor them as the landscape evolves. Below TCI highlighted three key risks.

Greenwashing: Responsible messaging and certification can bolster or undermine consumer and buyer trust in any supply chain program. For plastics credits, marketing claims imply there are simple solutions to addressing the complex challenge of plastic waste pollution. For example, rePurpose states on their website that they can support businesses to create "Planetary Impact Made Delightfully Simple Today".

In reality, many programs offer little transparency into the practices and pricing that sit behind their claims. As a result, certifications and credits may drive large buyers toward cost savings or good storytelling, rather than actual impact. Ultimately, buyers may or may not be aware of inaccuracies or misleading claims.

Buyers prioritizing impact on the system, regardless of price, should stay vigilant of program messaging, methodologies for measuring impact, and transparency in pricing.

Unintended economic and social consequences: Since programs are primarily designed for large corporations, and program activities and pricing are not transparent, the potential economic and social risks to recyclers and community members must not be overlooked.

Recyclers, who have confronted plunging commodity prices since China's 2018 National Sword policy, hope the additional costs (such as auditing and reporting) associated with participating in programs pay off with increased demand for recycled plastic material. However, programs that act as marketers, or brokers, may actually prevent suppliers from building productive relationships with global buyers by acting as middlemen.

Moreover, as new programs emerge, increased competition may threaten recyclers in an already challenging sector. Offsets, in particular, may obfuscate demand signals from large buyers.

Wastepickers, who are often unrecognized and unrepresented in existing waste management and recycling systems, may experience limited benefits or even be excluded from new mechanisms that formalize or subsidize projects promoted by larger developers and operators. While intentions may be good, it is essential to ask, "who wins?" for plastic certifications and credits to stay on dual paths toward impact and financial viability.

Ignoring the impact on climate: Participants in claim and credit programs must keep in mind the global goals of a circular economy and sustainable production and consumption. Of the plastic programs reviewed, only three focus on carbon reduction and climate. The remaining 29 programs either include vague messaging on their websites linking plastic to climate benefit, or the connection is not made at all.

<u>Plastic Bank</u> and <u>rePurpose</u>, for example, offer plastic footprint calculators. However, carbon impacts are not integrated into those calculators. Well-intentioned programs seeking to divert plastic from emerging markets (where it is most likely to leak into the ocean) are also more likely to find buyers in Europe and North America today. Unfortunately, many of these programs are not as transparent about the carbon footprint of shipping that material around the world. Rather than missing the opportunity to address both plastic pollution and climate, programs should directly link plastic pollution prevention to broader climate strategies and keep the appropriate focus on systems level impacts.

Best Practice in the Current Landscape



Based on TCI's research, 11 best practices were identified that should guide the development, approach to impact, implementation and adoption of certification and credit programs.

No single program has clearly adopted all eleven. The following summary offers observations on how actors can improve programs and have credible impact.

Of the programs reviewed, the strongest performers across all three attributes exemplifying best practice were focused on recycled content claims or labels. Recycled content programs tend to be more mature than nascent ocean plastic programs. It is possible that the "recycled" definition is more easily understood and therefore harmonized in comparison with ocean plastics.

Program Development

	Best practice	Rationale	Example
1	Harmonization: Program should explicitly address alignment with other established claims, programs or standards.	Consistent definitions and approaches are important to create a common language and a standard process for claims or credits. Harmonization makes it possible to compare like-programs.	Circular Action Hub
2	Multi-Stakeholder Process: Program is developed with external stakeholders and holds public comment periods.	Diverse perspectives increase the likelihood that programs are locally relevant, protect the interests of stakeholders, and avoid unintended social, environmental, and economic impacts.	The Recycled Claim Standard ³
3	ISEAL Compliance: Program explicitly follows ISEAL best practices.	As an international framework developed over seven years of input and consultation, this is a "Gold Standard" for programs seeking to drive positive impact. The Standard defines minimal measurable requirements for certification and accreditation.	GreenCircle Recycled Content Certified

All but one of the seven leaders, including the Recycling Claim Standard developed by Textile Exchange, exclusively offer recycled content. Only 3Rl's Plastic Waste Reduction Program has developed a standard that accounts for both recovered and recycled plastics. 3Rl's program also held two 30-day public consultations to guide their pilot program and they adhere to ISEAL's Codes of Good Practice.



Among the eleven ocean-focused actors, six either do not include public comment and external advisor input, or they make little to no attempt to harmonize with existing guidelines, programs, claims, and standards.

There is evidently further ground to cover for best practice to be a market norm for developing plastics certification and credit programs.

Contribution to Impact

	Best practice	Rationale	Example
4	Co-benefits: Programs should also focus on the following core areas to ensure impact: a) Oceans; b) Livelihoods; c) Infrastructure; d) Climate.	Driving activities across these four core social, environmental, and economic areas of the plastic product lifecycle ensures a prioritized and unified approach to impact.	<u>Plastic Bank</u> (Oceans, Livelihoods, Infrastructure)
5	Additionality: Program uses a relevant and consistent methodology for measuring impact claims beyond existing baseline efforts (without investment in solutions or purchase of material or credits).	Reductions of plastic pollution must be attributable to the program itself. In other words, the impact would not have happened without the program being implemented.	<u>rePurpose</u>



Solutions that address plastic waste should contribute positive impacts on recycling infrastructure, oceans, climate (CO2e reduction), and worker livelihoods.

Each program reviewed addresses at least one of these impact areas; 22 were designed to impact more than one area. While many programs are primarily focused on livelihoods and ocean plastics impact, only three programs reviewed directly focus on climate.

This gap is a missed opportunity to connect plastics waste prevention with greenhouse gas reductions. The resulting risk is that buyers of certified plastics or plastics credits may end up working against their own climate goals. As regulatory pressures on both carbon and plastics production increase in markets around the world, this oversight may have unintended environmental consequences.



Program Implementation

	Best practice	Rationale	Example
6	Third-party Verification: Programs should include third party validation from an independent auditing body.	Verification adds a layer of transparency that boosts consumer confidence by assuring a plastic claim is true. This is of particular importance given the need to reward advanced actors in an increasingly crowded market.	SCS Global Recycled Content Certification
7	Governance: Clear, publicly available process for how decisions are made and disputes are settled. Results are documented and publicly reported.	Transparent forms of decision-making aid programs in achieving their objectives via input while avoiding risk. Overall, this enhances performance and economic results.	International Sustainability and Carbon Certification (ISCC) PLUS) ⁴
8	Continuous Improvement: Programs should include a process for updates.	Periodic programs reviews are essential to progressing in terms of adopting best practice and failing forward through lessons learned.	Inclusive Waste Recycling Consortium (iWRC)



Just three of the programs reviewed are adopting best practices across all three areas. International Sustainability and Carbon Certification PLUS (ISCC). ISCC clearly <u>outlines a procedure</u> to submit a complaint or fraud allegation and they require annual audits by <u>3rd party certification bodies</u>, in terms of governance and verification measures. Leveraging these approaches adds an objective layer of transparency that boosts consumer confidence that claims are true.

Moreover, actors with established program evaluations will utilize these independent verifications to showcase the progress they have made as a result of integrating continuous improvement reviews.

Governance mechanisms add an additional measure of transparency into program decision making.

Nevertheless, just four of the programs reviewed are clearly communicating good governance practices. This lack of transparency can hamper accountability and exclude relevant stakeholder perspectives.



Program Adoption

	Best practice	Rationale	Example
9	Global Relevance: Programs should be global or multi-regional (covering 3+ continents).	This signals a program's ability to promote harmonization, large scale impact, and ease of program use for multinational companies.	UL 2809 Environmental Claim Validation Procedure (ECVP) for Recycled Content
10	Commercial Adoption: Program is adopted by three or more leading global brands.	A program's impact and influence is closely tied to its customers' market share and use/marketing of the claim or credit.	Parley Ocean Plastic
11	Policy Influence: The standard or program has been adopted into policy.	Programs should have the potential to be the basis of, or support mandatory/voluntary Extended Producer Responsibility schemes. Such policies promote harmonization and minimize consumer confusion. Programs should, at minimum, support policy development.	EN 15343 Plastics, Recycled plastics



As global companies adopt claims and credits in key markets, the opportunity to create systemic impact increases. Nine of the programs reviewed have seen high program uptake among leading multinational companies. Parley Ocean Plastic, for instance, is used by Adidas, as well as other global brands. Twenty-four programs are in use in multiple regions. The gap between commercial usage and the global reach of programs is likely due to the sector's early stage of development and not from a lack of availability.

Legislation is also promoting harmonization and large-scale program adoption. Programs should support policy development to contribute to this momentum. Of the actors reviewed, seven are either seeking to influence, or have been adopted into, public policy.

EN 15343 Plastics, for example, is the European legislation that specifies traceability procedures for recycled plastics and defines recycled content calculation methodologies. Others, like Bantam's Prevented Ocean Plastic program, have drafted a bottle deposit scheme tailored to informal recycling economies and are engaging with multiple governments to transform the concept into reality.

Given that many of the programs are still relatively new, this trend is encouraging. The future ideal is to continue harmonizing with policy to unlock scale and positive impact, especially as momentum builds for Extended Producer Responsibility (EPR) legislation.

The best examples among the standards reviewed were ISO's (ISO 14021:2016(en) Environmental Labels and Declarations and ISO 15270:2008 Plastics), which have been adopted by the private and public sector globally.



Best practices ensure programs meet impact-driven objectives

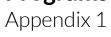
Based on TCI's analysis, best practice standards are needed to ensure that claims and credits are a productive part of the solution to addressing plastic waste and can be tracked and monitored for performance.

For the moment, too many programs are falling short of the practices identified in this study. As the landscape matures, this analysis can guide stakeholders towards holistic impact. In the meantime, buyers and stakeholders need to understand the risks. Lessons must also be translated from other supply chain claims, credit programs, and carbon markets. The rise of corporate and investor commitments takes us part way. If certifications and credits are going to play a role, then they must follow best practice in service of true impact.





Programs and Organizations Reviewed





Program or Organization	Website
APR Post Consumer Resin (PCR) Certification Program	https://plasticsrecycling.org/pcr-certification/overview-application
Circular Action Hub	https://www.circularactionhub.org//
DNV GL Chain of Custody Standard	https://www.dnvgl.com/services/building-trust-into-products-made-of-reclaimed-plastic-from-the-hydrosphere-176654
EN 15343 Plastics, Recycled plastics	https://shop.bsigroup.com/ProductDetail/?pid=0000000000000007507
Global Recycled Standard (GRS)	https://textileexchange.org/integrity/
GreenCircle Recycled Content Certified	http://www.greencirclecertified.com/product-certifications
Inclusive Waste Recycling Consortium (iWrc)	http://www.iwrc.world/
International Sustainability and Carbon Certification (ISCC) PLUS	https://www.iscc-system.org/process/overview/ https://www.iscc-system.org/process/market-applications/iscc-for-industrial-applications/
Intertek's Recycled Content Verification Program	https://www.intertek.com/sustainability/recycledcontent/
ISO 14021:2016(en) Environmental labels and declarations	https://www.iso.org/obp/ui/#iso:std:iso:14021:en
ISO 15270:2008 Plastics — Guidelines for the recovery and recycling of plastics waste	https://www.iso.org/standard/45089.html
ISO Circular Economy -TC 323 (Developing 4 Standards)	https://www.iso.org/committee/7203984.html https://www.iso.org/news/ref2292.html https://www.iso.org/news/ref2402.html
Ocean Bound Plastic Certification	https://www.obpcert.org/
OceanCycle Certification	https://www.oceancycle.co/about-us
Oceanworks Plastic Marketplace	https://oceanworks.co/
Parley Ocean Plastic	https://www.parley.tv/oceanplastic#re_copy-of-ocean-plastic-program
Plastic Bank	https://plasticbank.com/about/
Plastic Collective	https://www.plasticcollective.co/plastic-neutral/
Plastic Credit Exchange (PCEx)	https://www.plasticcreditexchange.com
Plastic Standard	https://plasticstandard.com/#comparison
Plastics for Change	http://www.plasticsforchange.org/about-us
Prevented Ocean Plastic (POP) Program	https://www.preventedoceanplastic.com/oceancycle-certification-developing-trust-and-traceability-across-a-complex-supply-chain
Recycled Material Standard (RMS)	https://sustainablepackaging.org/projects/recycled-material-standard-rms/https://www.rmscertified.com
rePurpose	https://repurpose.global https://www.business.repurpose.global https://www.business.repurpose.global/impact

Programs and Organizations Reviewed

Appendix 1



Program or Organization	Website
3RI (Plastic Waste Reduction Program)	http://www.3rinitiative.org https://verra.org/project/plastic-accounting-program/public-consultation/
Reverse Logistics Credits	https://www.bvrio.org/view?type=publicacao&key=publicacoes/5247c99f-102a-41a9-88de-88fa4fd75774.pdf
SAP	https://news.sap.com/2019/09/plastics-cloud-pilot-new-global-supplier-marketplace//
SCS Global Recycled Content Certification	https://www.scsglobalservices.com/services/recycled-content-certification
The Circularise Protocol	https://www.circularise.com/plastics
The Recycled Claim Standard (RCS)	https://textileexchange.org/integrity/ https://textileexchange.org/standards/recycled-claim-standard-global-recycled-standard/ https://www.gcl-intl.com/wp-content/uploads/2018/10/RCS-Standard-v2.0pdf
Tide Ocean Material	https://tide.earth/#home
UL 2809 Environmental Claim Validation Procedure (ECVP) for Recycled Content	https://www.ul.com/services/recycled-content-validation https://standardscatalog.ul.com/standards/en/standard 2809

Endnotes



- Refer to Appendix 1 for a full list of programs reviewed.
- 2. These include: DNV GL Chain of Custody Standard, Ocean Bound Plastic Certification, OceanCycle Certification, Oceanworks Plastic Marketplace, Parley Ocean Plastic, Plastic Bank, Plastic Standard (3Ri), rePurpose, Prevented Ocean Plastic Program, SAP, and Tide Ocean Material.
- 3. See also:

https://textileexchange.org/standards/recycled-cl aim-standard-global-recycled-standard/; https://www.gcl-intl.com/wp-content/uploads/20 18/10/RCS-Standard-v2.0.pdf

4. See also:

https://www.iscc-system.org/process/market-app lications/iscc-for-industrial-applications/

