

# Good Practices SCIENTIFIC APPROVAL CRITERIA



Good Circular Economy practice examples can be submitted by anyone through the online form that will be available on C4CEC's website in Q4 2024. Then, the good practices are evaluated by the Scientific Board according to their correspondence with the definition of the circular economy in coffee and with the 9R strategies outlined below. Following their approval by the scientific board, good practices will appear on the C4CEC online platform.

The metrics used to evaluate good practices will be updated periodically. C4CEC is dedicated to developing its own evaluation framework, which will incorporate both the current parameters and additional criteria to provide a more thorough and accurate analysis.

### Circular Economy for coffee definition



"A Circular Economy model for the coffee sector designs, balances, and implements regenerative practices, resource efficiency, and waste reduction while giving value to process outputs, achieving environmental, social and economic sustainability. Driven by a systemic and holistic approach, it draws inspiration from the dynamics of natural systems to regenerate, maintain, and create shared value for all stakeholders, across different contexts and within the entire coffee value circle."

ITC Coffee Guide Network, Circular Economy Working Group, 2024

A circular economy for the coffee sector integrates the circular economy principles of waste reduction, resource efficiency and sustainability. These principles are reflected in this definition for a circular economy in the coffee sector as follows:

# Engage efficiency in resource use and waste reduction



This principle ensures that every stage of the coffee life cycle, from cultivation to consumption, is optimized to minimize resource use and reduce waste. When outputs are unavoidable, circular practices aim to maximize their value. For example, while transforming coffee cherries into a cup of coffee, by-products can be repurposed as raw materials for new products or processes. The life cycle of these new products doesn't end after their first use; they must be designed to enable upcycling and keep materials in circulation. For instance, a plastic product incorporating spent coffee grounds should be recyclable at the end of its life.

### Regenerate, maintain, and create value



In contrast with conventional approaches that frequently emphasize impact reduction, the proposed model goes beyond mitigating negative impacts. Instead, it actively engages the regeneration and maintenance of value, striving to create new value when possible. This value can manifest in various forms, such as empowering communities, preserving and enhancing culture and traditions, or transforming seemingly invaluable assets through innovative technologies.

# Aim for environmental, economic, and social sustainability:



A circular economy in the sector promotes the wellbeing of coffeeproducing communities, expanding economic opportunities for all stakeholders involved, while conserving and regenerating natural resources. From an environmental standpoint, this translates into a decrease in the use of non-renewable natural resources, a reduced production of waste, and an overall improvement in the health of ecosystems involved in coffee production. From a social perspective, the aim is to promote ethical work practices, enhance the quality of life for the communities involved, and ensure fair access to resources. Economically, the objective is to create long-term value, stimulate innovation, and provide equitable income distribution within the coffee value circle.

Read the remaining principles on the next page  $\left. \right> \right>$ 

# Employ a systemic, participatory, and holistic approach



A systemic approach considers the system as a whole, rather than focusing on individual parts. The coffee sector is no longer seen as a collection of isolated elements but as a complex network of stakeholders, material and value flows, and processes that involve coffee from the cherry to the final product and beyond. This approach recognizes that all systems are dynamic and interconnected, and that changes to one part of the system can have unintended consequences elsewhere. The coffee market, understood as a system, highlights the interdependence of all actors and activities, from coffee production to consumption. The coffee systems lens also recognizes the relevance of indirect actors (i.e. those not selling or buying coffee but supporting or influencing market's operation), who can shape the coffee market structure, organization, and development.

A holistic approach considers the complexity of the sector and the sum of its parts. Awareness of this interconnectedness and complexity of the coffee market system is of paramount importance to solving the sustainability challenges faced by the sector. This complexity also encompasses the understanding of timelines that go beyond the short-term rationality of business operations. Market systems change requires awareness of core functions, but also of supporting functions and critical rules in the development of competitive and inclusive economies operating within the limits of our ecosystems.

### Transition toward a value circle



A circular approach toward the coffee sector as a whole envisions a system of trade rooted in cooperation: a value circle. This concept reflects a new way of thinking that acknowledges the unique contribution and particular needs of each stakeholder within a system of trade, balancing a need for profit with its relative costs to the environment. By its very nature, a circle must seek balance, or it becomes broken. In this way, a circular economy model mimics nature itself.

# Ensure shared value for all



Porter, M. E., & Kramer, M. R. (2011). Creating shared value. Harvard Business Review, 89(1-2), 62-77.

The concept of shared value, or "creating economic value in a way that also creates value for society by addressing its needs and challenges" (Porter & Kramer, 2011) points to the need to generate benefits that are not confined to a few stakeholders, but are instead proportional to the needs of all actors involved in the system. From this perspective, circular economy will enhance the competitiveness of coffee companies while simultaneously advancing economic and social conditions in the coffee landscape, from coffee producing regions to the global market.

#### **9R Strategies**



From the inputs entering production to the final consumer, a circular flow of goods avoids pollution, prolongs material use, captures value from waste and regenerates organic flows.

Good practices are also evaluated according to the so called 9 "Rs:"

#### • Refuse:

Avoid using unnecessary products and materials

#### • Rethink:

Use products in a smarter way to improve efficiency

#### • Reduce:

Minimize the use of raw materials and energy

#### • Reuse:

Use products or components more than once without significant alteration

#### • Repair:

Fix and maintain products to extend their lifespan

#### • Refurbish:

Restore old products and bring them up to date

#### • Remanufacture:

Use parts of discarded products to create new products

#### • Repurpose:

Use discarded products or materials for a different purpose or function

#### • Recycle:

Process materials to obtain the make new products, despite their quality

#### • Recover\*:

Extract energy or materials from waste that cannot be reused, repaired or recycled

<sup>\*</sup> This strategy is generally considered a last resort before disposal, after ensuring their residual value at the end of their life cycle is captured as much as possible.

## **9R Strategies** Examples

#### Refuse:

Avoid singleuse plastics when buying takeaway coffee



#### **Rethink:**

Rethink coffee processing methods to improve efficiency



#### Reduce:

Minimize the use of inputs through regerative practices



#### Refurbish:

Restore coffee capsule machines to bring them up to date for new capsules



#### Remanufacture:

Use components from old coffee processing machines



#### Repair:

Fix espresso machines before disposing them



#### Reuse:

Use coffee travel mugs

#### Repurpose:

Use coffee byproducts for new purposes



#### Recycle:

Process coffee grounds to create new products









Politecnico di Torino





Università di Scienze Gastronomiche di Pollenzo



ALLIANCES FOR ACTION