

D3. COLLECTION OF IDEAS ITALY



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From the discussion during the event, it emerged that the sustainability of technologies has become a categorical imperative in the current context, and the integration of Artificial Intelligence (AI) to streamline production processes plays a key role in this paradigm shift. Some attendees provided a tangible example of this transformation: the management of the smart grid, an intelligent energy system aimed at optimizing energy consumption.

Continuing the debate, it was highlighted that another fundamental element for promoting sustainability is:

- the **implementation of carbon credits**, a token based on blockchain.

According to this system, complete traceability of production and disposal processes would be offered, rewarding involved parties (consumers and producers) with tokens spendable at selected entities. This not only encourages more ecological practices but also creates a virtuous reward system for those adopting sustainable behaviors. Furthermore, detailed recording of processes through blockchain ensures transparency and efficient management of product recovery and recycling.

N.B. However, it is emphasized that recovery is only an upstream solution; therefore, it is crucial to consider that recycling, through thermal or mechanical transformations, remains essential to ensure true 'reuse' of products that consumers can no longer reuse without undergoing manipulations and transformations.

After concluding the discussion on blockchain technology, the focus shifts to another point: individual food consumption. Following a lively debate on the need to eliminate the individual's environmental footprint, possible aids are identified, including:

- **Improving product selection and labeling**, crucial to educating consumers about the sustainable characteristics of goods.
- **Introducing detailed information on labels**, such as a more understandable definition of materials and indications of possible reuse **through QR codes**, to contribute to informed and sustainable consumer choices.

N.B. As a consequence, there is a need to standardize waste differentiation.

Participants believe that achieving a circular economy system, where 100% of products are reused, largely depends on consumer behavior:

- **designing products with reuse in mind** becomes a fundamental aspect of industrial design. This would enable the sale of not just a single product but a variable multiplicity based on its use and maintenance given by the consumer.
 - Consequently, it is necessary to **implement post-sale support** and ensure the availability of components for at least 10 years from the specific model's release.
- The implementation of a **regional Environmental Intelligence Unit** to monitor and manage environmental matrices is suggested. By consolidating data from various public and private environmental control entities, the unit can detect pollution levels by area, optimizing resource allocation and interventions. Additionally, this allows for a historical analysis of the efficiency trends in a specific sector.

- **ESG (Environmental, Social, and Governance) certification** should become an essential condition for accessing public tenders and private funding, further promoting sustainability at the corporate and industrial levels. Only through joint commitment and a holistic vision is it possible to build a sustainable future for future generations.

Regarding consumers, the same needs identified in the survey:

- the use of tools such as **digital platforms** with an engaging communication language to stimulate consumer action in favor of the chosen direction.

Participants highlight that, despite being the last link in the consumption chain, the consumer plays a fundamental and indispensable role. Regardless of governmental and corporate efforts, if consumers do not understand the importance and convenience of reuse and recycling, previous efforts will be in vain;

- **"reward-punishment" system** should be considered, involving an increase in waste taxes when consumers produce a larger quantity of non-eco-friendly waste.

For example, a system similar to the German one could be envisaged, where defined standard quantities per housing unit, based on certain parameters resulting from context analysis and sector studies, would incur a cost per kilogram for non-recyclable waste.

- **Allocating more resources** to public or private entities dedicated to the formation of reuse centers is also suggested.