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SUSTAINABILITY MEASUREMENT AND MANAGEMENT LABORATORY (SUMM LAB)

BOLOGNA BUSINESS SCHOOL | CENTRE FOR SUSTAINABILITY AND CLIMATE CHANGE

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REPORT 2: SUSTAINABLE PACKAGING

Sustainable packaging in a nutshell

PERCENTAGE OF COMPANIES
currently adopting sustainable packaging-related practices:

24% Recycling

7% Use of secondary raw materials

6% Packaging: Recovery and Re-use

5% Packaging: actions for the next five years

4% Packaging: biodegradable material

TOP SECTORS
in packaging-related pratices:

1. Food Industry
2. Manufacture of basic chemicals
3. Production of pharmaceuticals and fertilisers
4. Manufacture of glass and glass products
5. Production of tyres

INTRODUCTION

Environmental sustainability challenges have gained significant attention in recent years for managers' agenda. In particular, one of the most critical challenges for organizations is excess packaging, a global phenomenon that causes a huge production of polluting waste every year. The research towards sustainable solutions is advancing, and packaging design in a sustainable perspective is aimed at avoiding waste and unnecessary use of materials. These insights are progressively expanding among companies, which started to integrate sustainable-oriented practices related to packaging to respond both to the growing global attitude towards sustainability, and to increasing consumers' concerns regarding packaging waste.

The Sustainability Measurement and Management Laboratory (SuMM Lab), which acts as a permanent observatory assessing and reporting company's performance accordingly to environmental and social sustainability metrics, has identified a set of sustainable packaging-related practices adopted by small, medium, and large organisations, and conducted revealing analysis on this issue in the current Italian context

KEY FINDINGS

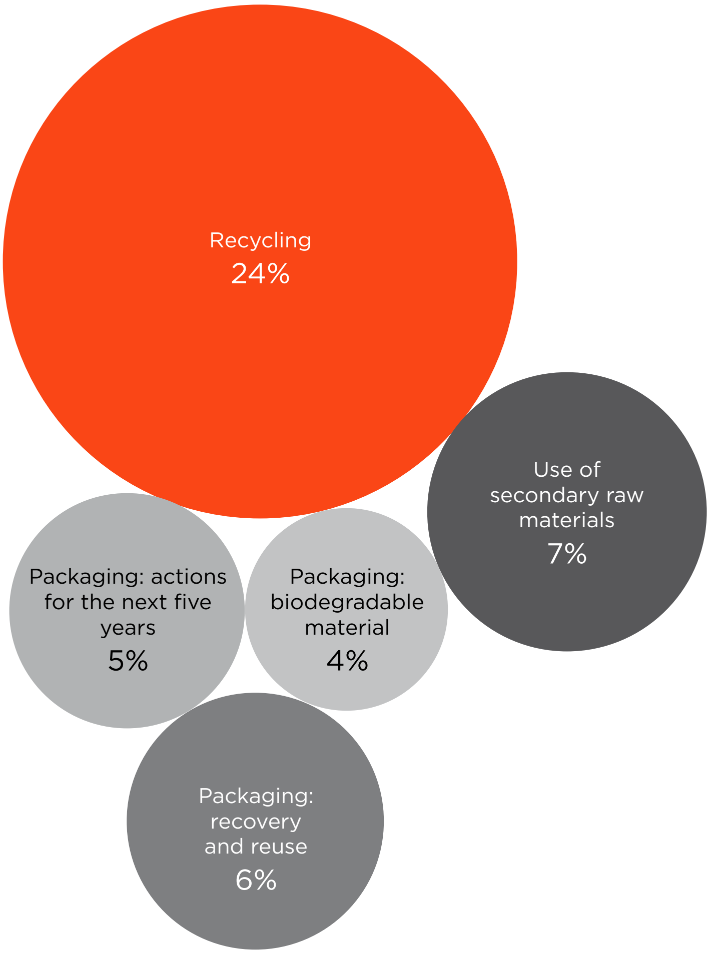
Among the 69 KPIs composing the Observatory, the following five meaningful metrics represent the development and adoption of sustainable packaging in the Italian industrial context:

1. Recycling, that is the implementation of recycling practices beyond regulatory requirements.
2. Use of recycled raw materials in production (for the development of new products, new packaging, or both), that is the use of secondary raw materials as input for the production.
3. Use of biodegradable material in the packaging (no plastic and derivatives).
4. Recovery and reuse of the packaging.
5. Actions for the next five years towards sustainable packaging.

The first two practices are more general, in the sense that they are not strictly related to packaging, but they actually imply an effort in that sense, as packaging material represents a share of 25-28% of the total municipal solid waste in Italy[2] (source: CONAI). In detail, the analyses suggest that 24% of the 3,928 companies in the sample have already implemented precise actions on recycling, beyond what is required by regulation (D.lgs. 116/2020, modifying D. lgs. 152/06 and incorporating two EU Directives from the Circular Economy Package). This data could be further detailed to understand, for instance, what recycling means for these companies, or if recycling is adopted only in the production phase or even on the whole organization structure and its supply chain. On the other hand, the number of companies that use secondary raw materials as input for the production process is quite marginal, representing 7% of the total sample. Additionally, findings show that only 4% of Italian companies declares the use of biodegradable material for their packaging, and 6% have already implemented packaging reuse and recycling policies (not only on plastic materials, but also on paper and cardboard, aluminium, and steel). Finally, 5% of companies are planning specific actions on this issue over the next five years (Figure 1).

[2] www.repubblica.it/dossier/ambiente/green/2020/06/29/news/rifiuti_conai_nel_2019_riciclato_il_70_degli_imballaggi-260501412/ (Accessed 09 April, 2021)

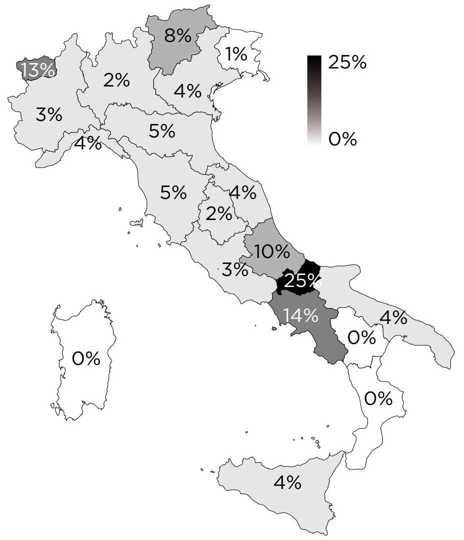
Figure 1. Percentages of companies currently adopting sustainable packaging-related practices in Italy (companies coloured in green).



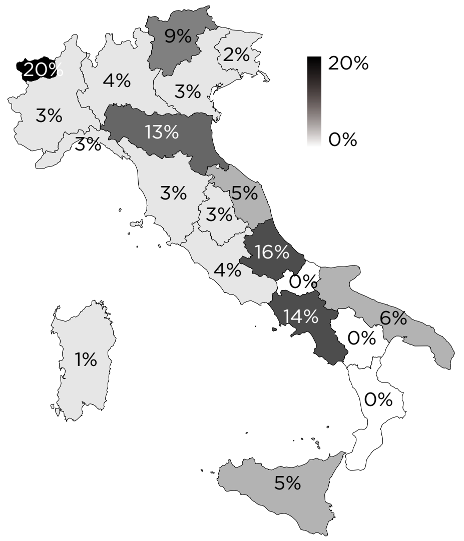
Looking at the geographical distribution, we can observe that the adoption of sustainable packaging-related practices considerably varies across Italian regions.
There are particularly virtuous cases of recovery and re-use of packaging in central regions like Emilia Romagna and Abruzzo, while Northern regions like Lombardy are planning to take sustainable actions in the next 5 years, whereas the adoption of biodegradable materials is more developed in the South of Italy (Figure 2). One of the main reasons for these results is related to the sampling procedure adopted: given that most of the companies in this area are agri-business, they typically use cardboards packaging or reusable fruit crates, therefore their performance is high.

Figure 2. Geographical distribution of sustainable packaging-related practices among Italian regions.

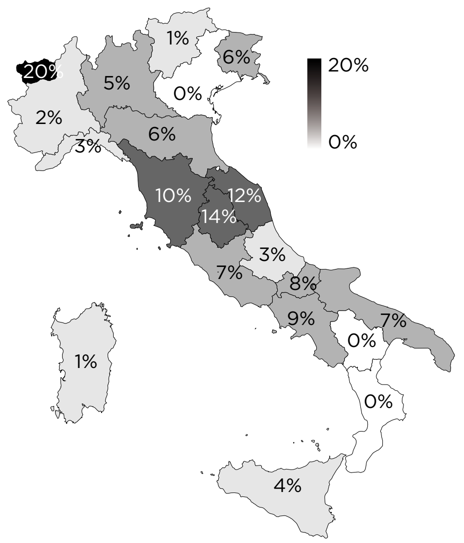
Packaging:
biodegradable
material



Packaging:
recovery and
re-use



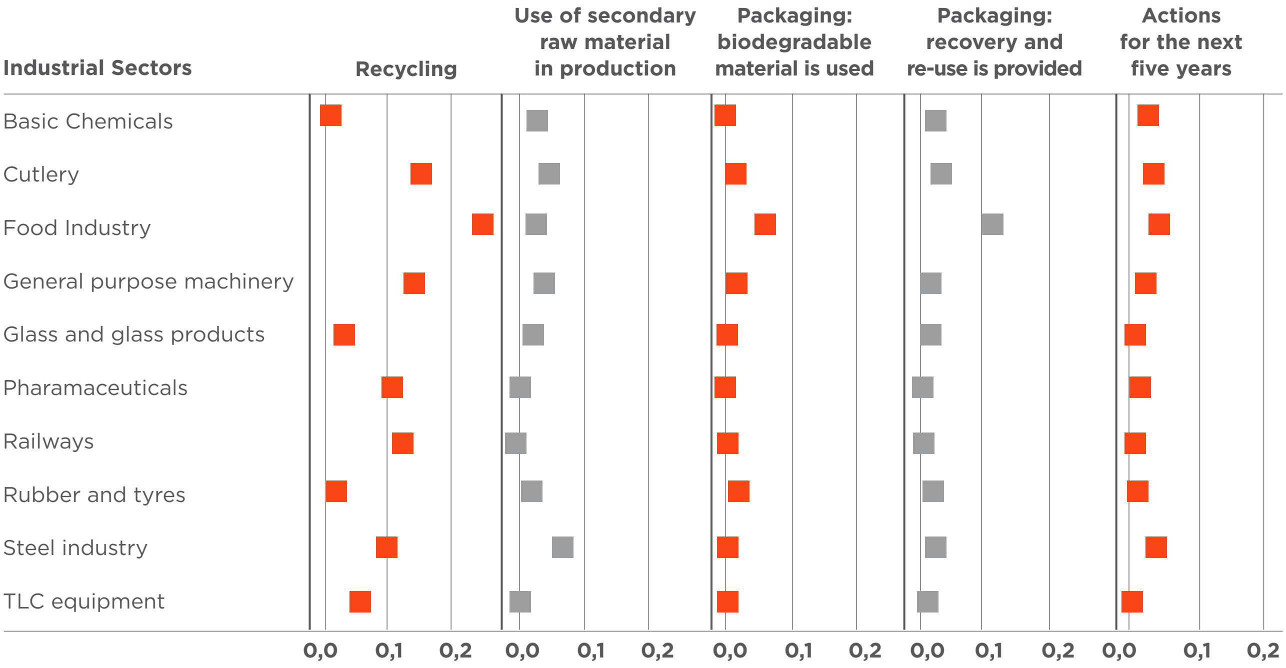
Packaging:
Actions for the
next five years



Moreover, disclosure of some environmental and social information appears significantly statistically different among industry groups . Specifically, SuMM Lab results show that the most committed industrial sectors to sustainable packaging-related practices are the following (see Figure 3 for more detailed insights):
1. Food Industry;
2. Manufacture of basic chemicals;
3. Production of Pharmaceuticals and Fertilisers;
4. Manufacture of glass and glass products;
5. Production of tyres.

Examples of the most virtuous companies are Ferrero (for the Food Industry), Versalis (manufacture of basic chemicals), Baxter (production of pharmaceuticals), Bormioli Rocco spa (for the manufacture of glass and glass products), and Michelin IT (for the tyres production).

3. TOP10 sectors in sustainable packaging-related practices and the percentage of companies displaying the packaging-related practices within each sector. Industrial sectors are reported based on ATECO classification.



WHAT TO DO NEXT?

Overall, sustainability-related practices implemented by Italian companies are still a few, as less than 15% of companies mapped appears to develop sustainability processes at all. Sustainable packaging appears to be still at its first stages of development in the industrial context, as it is adopted between 4% - 6% of the companies. Within this context, matching the goals set by the progressive tightening of regulations could results extremely hard. Packaging waste, with particular regard to the plastic one, has been identified as a key priority action by EU and the ambitious goal of 100% reusable and/or recyclable packaging by 2030 (The Strategy for plastics in a Circular Economy) requires radical and quick interventions at product design level.
Therefore, we report some suggestions to extend sustainable practices to a wider set of organizations:

At company level:

- Training on new management tools, such as Life Cycle Assessment (LCA), Cradle-to-Cradle strategies, and eco-design systems are highly effective tools to boost the sustainability of packaging products, which can be integrated with the management accounting and performance management dashboards of a company.
- Developing new production chains, setting targets and criteria for suppliers' selection, in order to trigger cascade effects on the value network.

At industrial ecosystem level:

- Communicating the circular economy as a business opportunity: It is necessary to show how tools like sustainable packaging can lead companies to differential strategic positioning, and how this power will grow with time, as on the one hand the legislation will be increasingly stringent on the sustainability issues, and, on the other hand, consumers will be progressively attentive, aware, and demanding.

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[4] Mura, M., Longo, M., Domingues, A. R., Zanni, S. (2019). "An exploration of content and drivers of online sustainability disclosure: A study of Italian organisations", Sustainability, Vol. 11, No.12.
[5] https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516265440535&uri=COM:2018:28:FIN

At policy level:

- Developing adequate incentive systems: Tax credit, digital use to create secondary raw materials platforms upcycling) are examples of adequate incentive systems able to develop sustainable packaging widely among companies.
- Reducing regulatory fragmentation: To date, the legislative fragmentation has been perceived as a barrier for the implementation of sustainability-related practices. There is a need for simplification and translation of regulations into operative guidelines, supporting the logic of integrated design on the packaging.

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