The future of ecolabels

Fabio Iraldo¹ · Rainer Griesshammer^{2,3} · Walter Kahlenborn⁴

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1 History and recent developments of ecolabelling

The importance of the role of product labelling in those public policies that aim at improving the safety, environmental efficiency and quality of consumer products has progressively increased since the late 1970s. Initially, such labelling was adopted as a key tool for consumer protection in the field of product safety and was consolidated with the implementation of the so-called new approach EU directives. This approach was based on the general aim of protecting the consumer, also by providing him/her with the proper information to enable the best purchasing decision, e.g. through labelling. Such an approach in general and labelling in particular has then been extended to the sphere of environmental quality.

The development of ecolabelling, which is today an increasingly diffused instrument of environmental policy, has followed quite a similar path to that of the EU labelling for product safety. Like the latter, in fact, ecolabelling was inspired by the success that product labelling had achieved in the field of quality, for which such labels were originally conceived. Its success in the

environmental area has been achieved at exceptional speed, moving from a marketing instrument to a public policy instrument.

Starting from 1978, with the Blauer Engel, the 1980s were marked by the flourishing of a multitude of labels, brands and any other symbols or claims that could be exploited to highlight the presumed environmental quality of the products. As opposed to the Blauer Engel, which was conceived to be a third-party certification released on the basis of a thorough assessment of compliance to robust criteria, carried out by an independent jury, many of the following labels were rather self-declarations made by the companies themselves or certificates awarded by private institutes and bodies, which regarded specific ecological features of the product (mostly single criterion labels such as recyclable product, no CFCs) or just indicating that the product was ‘environmentally friendly’ on a broad scale and in a simplistic way.

Under the pressure of competitive dynamics, these forms of ‘private’ ecolabelling, which often rested on fragile scientific foundations, have become unexpectedly successful, particularly given the low maturity of the demand for ‘green’ products even in more economically and industrially advanced countries at that time. Several companies, above all multinationals, have used self-certified labels or adhered to private initiatives, in order to exploit ecolabelling as a marketing tool. This pioneering group of businesses was then joined by a large group of medium-large companies, who were neither very open to international markets nor particularly innovative, but who saw the value of the labels in terms of giving them what they presumed would be a competitive edge.

The spread of private ‘green labels’ led policy-makers to understand firstly the potential of such labels in pursuing aims of collective interest and, secondly, the need to give order and rules to the ecolabelling universe, which until then had not come under much public scrutiny.

✉ Fabio Iraldo
fabio.iraldo@santannapisa.it

Rainer Griesshammer
r.griesshammer@oeko.de

Walter Kahlenborn
kahlenborn@adelphi.de

¹ Institute of Management, Scuola Superiore di Studi Universitari e di Perfezionamento Sant’Anna, Piazza Martiri della Libertà, 24, 56127 Pisa, Italy

² Oeko-Institut, Freiburg im Breisgau, Germany

³ University of Freiburg, Freiburg im Breisgau, Germany

⁴ Adelphi, Berlin, Germany

Since the mid-1980s, several countries have set up national type I¹ ecolabelling programmes, also in response to the need for clarity and certainty of consumers and businesses who were confronted with the confusion of an ever-widening plethora of private brands. Given the sheer speed with which the markets and companies had assimilated and adopted ecolabelling, policy-makers had to confer a greater scientific basis and authority to what was essentially a marketing tool, whose original aim was solely to enhance the image of the product.

2 Common background and aims of the ecolabelling programmes

The ecolabelling programmes, at a national and supranational level (from the older Blauer Engel, Nordic Swan, EU Ecolabel to the more recent ecolabelling schemes adopted in emerging economies, such as the Green Product Certification India), set broader and much more ambitious objectives. Firstly, they aim to provide consumers with reliable and detailed information, in order to make them aware of the environmental performance and benefits of the products, develop their environmental awareness and enable them to make an informed choice and thus promote the consumption of the most environmentally friendly products. Secondly, these policies were designed to encourage companies to improve their products from an environmental point of view (especially through technological innovation), offering them the opportunity to see that the excellence of their products is recognised officially by a third party. Clearly, these two main objectives underlie the ultimate goal of these public policies: improving the environmental sustainability of products and consumption patterns.

The national and supranational programmes defined by the policy-makers and implemented in most industrialised countries have some common features that differentiate them from the generality of environmental labels. First of all, they rely on the voluntary participation of companies. The aim is to

involve as many categories of products as possible (multi-product ecolabels) and ensure that the label is assigned following a thorough and complete assessment of all the environmental impacts that a product exerts during its lifetime (multi-criteria ecolabels).

All ecolabelling programmes are inspired by regulatory principles and application methods and are based on the same functioning approach and logic: products that meet certain environmental criteria can be granted a label that indicates their better environmental performance compared with other products in the same category. Once a category of functionally equivalent products has been selected, including products that compete with one another in the eyes of the consumer, and after defining precisely which products fall within this category, the competent bodies identify a product-type and evaluate its environmental impacts. On the basis of those impacts that are considered to be the most significant, the competent bodies define the criteria that the products belonging to the category must meet in order to be granted the ecolabel. Clearly, in order for these schemes to work effectively and achieve the goals we have described above, both consumers and businesses need to be reassured of the credibility, scientific rigour and selectivity of the ecolabel. This means that the ecolabelling programmes make a thorough and comprehensive assessment of the environmental impacts based on widely shared criteria, which according to ISO 14024 is normally carried out through the application of the life cycle assessment (LCA) method. This methodology has become extremely widespread, and practically all type I ecolabelling programmes now take into consideration the environmental impacts related to the entire life cycle of the product. The evaluation of the impacts based on an LCA for establishing the assignment of an ecolabel has therefore become one of the cornerstones of these schemes, contributing to their success.

3 Old and new challenges

Despite their strengths and potential effectiveness, ecolabels in the last years have been facing severe challenges in guaranteeing and improving their ability to achieve high environmental sustainability standards in globalised and widely ramified value chains. In other words, their effectiveness has been hindered by some failures and limits that today need to be overcome in order to be able to pursue those high standards: spreading through the universe of SMEs to profoundly change the production system, harmonising the requirements of different schemes at the international level to face up to the globalisation of markets, integrating social criteria to respond to the ambitious goal of sustainable development-oriented policies, etc. Some of the most relevant challenges that ecolabels are facing today, to become more effective, are the following:

Among the main abilities of ecolabelling that are challenged, one is whether they can really change consumption

¹ According to ISO categorisation, the environmental “claims” can be classified as:

- Type I: voluntary environmental labels based on a multi-criteria system which analyses the entire product life cycle, subject to external certification by an independent body (ref.: ISO 14024);
- Type II: environmental self-declarations by manufacturers, importers or product distributors without the intervention of an independent certification board (self-declarations also include “Recyclable”, “Compostable”) (ref.: ISO 14021);
- Type III: eco-labels (or *Eco-profiles*) which include declarations based on pre-established parameters and which contain a quantification of the environmental impacts associated with the product life cycle through an LCA (life cycle assessment). They should be subject to an independent check and presented in a clear and comparable format. The International EPD “Environmental Product Declarations” system is among these (ref.: ISO 14025).

and production patterns. Are ecolabels currently used by companies that obtained them as a tool to help improve their environmental performance? Are these companies effectively employing ecolabels as a marketing tool?

Although several studies have shown that the adoption of an ecolabel is frequently able to actually produce such an improvement of companies' environmental performance, there are still doubts as to whether this is contributing to changes in the production and consumption patterns and the products themselves. The impact of ecolabelling programmes depends upon how product groups and criteria are established, how licences are issued and how products are made available on the market for purchase. However, it would be fair to state that the vast majority of literature on ecolabelling emphasises that these programmes require considerable time and investment by companies to achieve certification and that stakeholders (including consumers) should be more aware of ecolabels and use them more (i.e. informed purchase choices, public procurement). This often produces a low impact of ecolabelling schemes in the short to medium term.

The criteria development process of the existing ecolabelling programmes is often seen by scholars and stakeholders (such as NGOs) to result in effective criteria, mostly based on life cycle impacts. However, there remains a belief, especially by companies and trade associations, that often the criteria development process could achieve better effectiveness, through a less time-consuming process and simpler (or even fewer) criteria to encourage more applications, especially from SMEs.

Another important challenge has to do with market penetration. Most ecolabelling programmes are ambitious in their requirements and aim to label products with a high environmental performance. The resulting downside is that few products can achieve the requirements, and even fewer manufacturers might choose to pursue labelling. This identifies another challenge, which can be seen as the fundamental trade-off within the ecolabelling programmes: If the aim is to have highly stringent requirements (identifying 'beacon products'), then low market penetration is inevitable. If instead greater market penetration is the desired aim, then it is necessary to ease the stringency of the requirements. The aims of high criteria requirements and high market penetration can be, to some extent, mutually exclusive, and this challenge should be recognised when developing suites of requirements.

Connected to the previous challenge is the market uptake of ecolabelled products. Ecolabels are adopted by a steadily growing number of licensees. The increase in the number of products that bear some sort of ecolabel on the market indicates these programmes are developing, but this seems to be explained more by the progressive extension of the scope of these programmes (i.e. the range of product categories they include), rather than by an increase in the interest shown by companies for the existing categories. Ecolabelled product numbers increased all over the

world. But the challenge of a much higher uptake of ecolabelled products is still hindered at the adoption stage, as the barriers to their adoption are still significant (including cost of verification, time effort, investments needed).

These barriers are particularly relevant for SMEs. Cost of adoption is the biggest problem for smaller companies, but also technical considerations, such as the lack of internal human resources and competence and the lack of external technical support and information, are potential hindering factors for them. Overcoming these problems for SMEs is not a new challenge, but one that very few ecolabelling programmes have managed to succeed in.

Competitive and economic benefits can be an effective driver for adopting an ecolabel, but in many cases, they are still too limited to boost the diffusion of these schemes. The perceived benefits (increased competitiveness, increased benefit to consumers) brought by adopting an ecolabel, in fact, are sometimes insufficient to drive applications. In many countries, this is broadly a result of a lack of awareness of the ecolabels from consumers and professional buyers, often due to insufficient promotion of these programmes. It is not just a problem of being aware of an ecolabel but also of choosing it on the market: the lack of competitive rewards by all the above-mentioned actors is perceived as a considerable barrier (particularly high for new potential applicants). This may also be the result of consumers professing the desire to 'purchase green', but not following through on this intention, while for professional buyers (through Green Public Procurement (GPP)), the difficulty to apply the relevant legislation (which since 2014 allows to directly require an ecolabel in the tender documents²) is a barrier to using their adoption. In this case, the challenge for the future development of ecolabels especially lies in the possibility to strengthen both the marketing power of ecolabels and to make their adoption clearer and simpler within green public procurement procedures.

Other potential innovations that are challenging several ecolabelling programmes today pertain to the 'enlargement' of their current scope, in order to be able to develop criteria that deal with emerging key issues. For example, one key factor for the future success of the ecolabels is to be able to strengthen dimensions that are related to the concept of 'circular economy': critical raw materials, product durability and obsolescence, chain-of-custody and traceability of raw material value chains, etc.

² EU procurement directives (Directive 2014/24/EU & Directive 2014/25/EU) have strengthened the direct use of ecolabels in the whole procurement process (e.g. technical specifications, award criteria etc.). The preamble of the Directive specifically refers to the use of ecolabels (EU-Ecolabel, national ecolabels etc.). Authorities are now able to refer to particular labels in the technical specifications and to require a specific ecolabel as means of proof in the award criteria. Authorities can, under conditions, *require* a specific label as means of proof that the works, services or supplies correspond to the required characteristics. Even where a specific label is required, labels meeting equivalent criteria and, in cases where bidders cannot obtain a label within the relevant time limits for reasons not attributable to them, other appropriate forms of evidence should be accepted.

Strictly connected to this challenge, the shortening of product life cycles of electronic products and the rapid obsolescence of fashion-related items poses additional problems linked to the ever quicker need of recertification for these kinds of products.

Another challenge derives from the increasing need for harmonisation. As the products are seldom produced solely for national markets and the industry requires internationally harmonised standards to promote trade and commerce, there is an imminent need for strengthening the cooperation among ecolabels worldwide. Apart from a coherent international positioning of ecolabels and undertaking mutual recognition agreements, the idea is growing that ecolabels should address the global environmental challenges together, by developing common requirements as well as mutual verification and certification mechanisms. Harmonisation among type I ecolabels (see footnote 1) can represent an opportunity to achieve significant efficiencies for licence holders, through the use of (for example) common test standards and criteria requirements. But also, the synergies with type III labels do represent a challenge for the future. Can ISO type III programmes be a synergetic tool and bring benefits for ecolabels? Many opportunities are being focused in the ongoing debate on how to pursue integration with ISO type III labels, especially with reference to operational, marketing and institutional synergies.

A last facet of the challenge for harmonisation concerns the possibility to integrate social criteria and human rights aspects in ecolabels, addressing issues of and implementing a harmonised performance and impact measurement system for what we could define as ‘sustainability labels’. Sometimes, this is seen as an opportunity to enlarge the ‘audience’ of the ecolabelling schemes, both with respect to potential applicants and with regard to consumers and clients, who might be more ‘engaged’ in the purchasing decision when the product is able to offer guarantees on additional dimensions of sustainability, other than only environmental performance.

4 Origins of the Special Issue

Against the background of these and other challenges, the German Environment Agency (UBA) commissioned the Oeko-Institut and adelphi to conduct a project³ on strengthening ecolabels worldwide in their role as reliable information systems on sustainability aspects of products for consumers,

industry and institutional and public procurers. The focus of the project was set on the following: (1) integrating sustainability issues of raw material supply chains in ecolabelling schemes and (2) measuring the performance of ecolabels. The two focus areas were selected in close dialogue with the Global Ecolabelling Network (GEN) and represent key, common challenges faced by ecolabels worldwide.

In the first focus area, Oeko-Institut, building on a comprehensive, scientific analysis and interviews with stakeholders, proposed a set of potential ecolabel criteria based on sustainable mining of raw materials in notebooks, with particular focus on supply chain due diligence of environmentally and socially critical raw materials. The proposed criteria build upon the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-affected and High-risk Areas. However, the project showed that supply chain due diligence according to related OECD guidance only covers issues around conflict financing and human rights violations. Environmental issues and other social aspects (e.g. health and safety in mining, development aspects) are not necessarily addressed by corporate due diligence efforts. While it would—from a theoretical perspective—be recommended to extend due diligence requirements for ecolabelling purposes onto such other issues, there is a certain risk that industries would consider such a step as being difficult to be achieved.

To reduce the risk that companies are incapable or unwilling to implement related criteria, it was suggested to use two very specific core elements of due diligence schemes to derive criteria that can either be used individually or in combination:

- Require producers to conduct a risk analysis with extended scope, related to key raw materials of a product group (e.g. tantalum, cobalt and palladium for notebooks). Thus, ecolabelling criteria would motivate producers to systematically assess environmental and social risks in their supply chains, which is commonly seen as a first important step for corporate mitigation measures.
- Require producers to support in-region initiatives that have a scope beyond conflict financing and human rights.

Additionally, it was recommended that producers demonstrate the full implementation of supply chain due diligence for most relevant raw materials in line with the OECD due diligence guidance for responsible supply chains of minerals from conflict-affected and high-risk areas. This requirement should be verified by the producers by providing a weblink to the published corporate due diligence report (not older than 2 years) covering all 5 steps of the OECD Due Diligence framework.

The second focus of the project on performance measurement of ecolabels was embedded in the overall discourse on the effectiveness of ecolabels in terms of achieving the defined environmental goals and targets. Ecolabelling schemes

³ Prakash, S.; Hilbert, I.; Manhart, A.; Rüdener, I. in collaboration with Domröse, L.; Polania Giese, J. C.; Weiss, D.; Irlando, F.: Methodological challenges for ecolabels in the Global Ecolabelling Network—evaluation and traceability of critical raw materials and determination of quantitative environmental relief potentials, Oeko-Institut e.V. in cooperation with adelphi Consult GmbH, Bocconi University Milano. This project was commissioned by the German Environment Agency (Umweltbundesamt (UBA)) as part of the Environmental Research Plan (research code 3717 37 316 0) and financed with federal funds

worldwide face the uphill task of delivering empirical evidence to political decision-makers and other societal actors, proving the positive impact of ecolabels on the environment. However, as we have seen, there is a lack of general agreement on how the performance of ecolabel programmes can be evaluated and, actually, what constitutes success of ecolabelling. As a result, ecolabelling schemes have been using a varying degree of indicators to monitor and evaluate the performance of their ecolabels. To tackle this challenge, the project developed and tested a methodological guidance document for measuring the performance of ecolabels. The methodological guidance document was designed primarily for the practitioners in ecolabelling institutions and considered their limitations in terms of financial and personnel resources. The following ecolabelling schemes participated in the project by implementing the guidance document: Environmental Choice New Zealand, Green Product Certification India, Green Mark Taiwan, Thai Green Label, Blue Angel Germany, Vitality Leaf Russia and the China Environmental Labelling. The results showed that ecolabels play an important role in reducing the environmental impact of our consumption patterns. Furthermore, it was shown that it is possible to calculate the environmental savings reliably, even for ecolabelling schemes with limited resources if they are provided with some capacity building on methodological and technical aspects.

Within this project, the German Environment Agency (UBA) also planned and organised an international conference ‘40 Years of Credible Environmental Labelling – Driving Smart Innovations towards Our Green Future’, on 25 October 2018 in Berlin, to promote the dialogue among policy-makers, academia and civil society on challenges facing ecolabels and possible solutions for the future. The major occasion flagging this international conference was the 40-year anniversary celebration of the German ecolabel, the Blue Angel. Founded in 1978, the Blue Angel was the first type I ecolabel of the world and has been a successful market-based, voluntary instrument of environmental policy in Germany.

The conference was attended by about 150 experts on environmental and consumer policy issues. The participants discussed the role of ecolabels in times of increasing digitalisation and e-commerce as well as the possibilities of influencing complex raw material supply chains. In in-depth thematic workshops, the participants dealt with how ecolabels could contribute to the promotion of social standards and human rights as well as to prolonging the life and useful life of products. Last but not least, the participants discussed options for action to increase the market share of ecolabels, as well as legal options against greenwashing and to reduce the flood of labels on the market. Participants stressed the need for increased international cooperation and networking between type I ecolabels to make the impact on global markets visible.

This includes measures such as the joint development of award criteria, mutual assessment and certification of label applications, close integration with other international initiatives, e.g. in the area of social standards, and the effective design of incentive mechanisms, e.g. public procurement, to promote ecolabels.

Linked to the conference, in order to promote the scientific discourse on challenges facing ecolabels and defining possible solutions, the German Environment Agency (UBA) has promoted the present Special Issue. The eight contributions that have been selected, touching upon some of the key challenges for the future of ecolabels already emphasised above, are the following:

- ‘Characterization of environmental labels beyond the criteria of ISO 14020-series’, authored by: Nikolay Minkov, Annkatrin Lehmann, Lisa Winter, Matthias Finkbeiner.
- ‘Challenges for eco-labeling growth: lessons from the EU Ecolabel in Spain’, authored by: Vanessa Prieto-Sandoval, Andres Mejia-Villa, Marta Ormazabal, Carmen Jaca.
- ‘Are the existing EU Ecolabel criteria for furniture products too complex?’ Authored by: Shane Donatello, Mauro Cordella, Renata Kaps, Malgorzata Kowalska, Oliver Wolf.
- ‘The effects of ecolabels on environmentally- and health-friendly cars: an online survey and two experimental studies’, authored by: Frans Folkvord, Giuseppe Veltri, Francisco Lupiáñez-Villanueva, Pietro Tornese, Cristiano Codagnone.
- ‘Relevance of attributional and consequential information for EPDs’, authored by: Bo Pedersen Weidema, Moana S. Simas, Jannick Schmidt, Massimo Pizzol, Søren Løkke, Pedro Brancoli.
- ‘Communication through ecolabels: how discrepancies between the EU PEF and EPD schemes could affect outcome consistency’, authored by: Adriana Del Borghi, Luca Moreschi, Michela Gallo.
- ‘Improving material efficiency in the LC of products: a review of EU Ecolabel requirements’, authored by: Mauro Cordella, Felice Alfieri, Javier Sanfelix, Shane Donatello, Renata Kaps, Oliver Wolf.
- ‘Product sustainability criteria in ecolabels: A complete analysis of the Blue Angel with focus on longevity and social criteria’, authored by: Laura Spengler, Dirk Jepsen, Till Zimmermann, Paula Wichmann.

5 The contributions on the future of ecolabels

In the first article, Nicolay Minkov proposes an analysis of a sample of ecolabelling schemes against the criteria of the ISO

14020 series. The aim of the analysis is twofold: on the one hand, to propose a characterisation scheme for ecolabels and, on the other hand, to provide recommendations for the enhancement of existing ecolabel classifications. The article analyses the content, purpose and awarding criteria of the sampled schemes (covering forest and paper products) through a literature review and, based on the obtained information, observes tendencies in ecolabel development through the lenses of a list of characterisation attributes and their options. Ultimately, based on the outcomes of the proposed characterisation scheme, the author provides guidelines for improving existing or establishing new ecolabelling programmes.

The second article, by Andres Mejia-Villa et al., focuses on the factors and conditions for the success of an ecolabelling scheme. By analysing the experience of the EU Ecolabel diffusion and uptake in Spain, the authors aim to assess the effectiveness of some drivers to promote and support the acceptance of the EU Ecolabel by the market. Using a mixed approach, including literature review, interviews with EU Ecolabel key players in some regions and consultation of the EU database, the authors find with that some drivers, such as a strong communication strategy, Ecolabel-oriented public procurement criteria and international trade incentives can be able to spur the success and increase the numbers of the EU Ecolabel products and services.

The third article, authored by Shane Donatello et al., stems from the consideration that companies' perception and adoption of an ecolabel can be directly correlated to how complex they consider the participation in the scheme. As literature shows, demonstrating compliance with the criteria, and gaining the test results and verifications that are necessary to obtain the label, is in many cases the highest barrier for (potential) applicants, regardless of their size, and often translates into the consideration that the documentation required for obtaining and maintaining the EU Ecolabel is also too much and too complicated. Thanks to the elaboration of a specific Index, the authors apply to the case of the EU Ecolabel for furniture a method which quantifies criteria complexity and, coherently, they propose ways for its reduction, which could be considered in future criteria revision.

The market is a key element in companies' perception of and experience with ecolabels. Market factors such as increased competitiveness and enhanced capabilities to respond to consumers' demand are seen by companies as great motivations to use a label on their products. Nevertheless, the (sometimes very limited) market response is also seen by companies as one of the main barriers that they have to tackle for the real success of their ecolabelled products. In this respect, the fourth article, authored by Frans Folkvord et al., identifies and tests the considerations that would nudge consumers towards an environmentally (and health-friendly) product. Their research focuses on the automotive sector and

proposes the results of an extensive survey focusing on the factors that have the strongest effect and influence on the consumer's choice of a motor vehicle.

The inadequate market response to ecolabelled products and services is linked, in the companies' view, also to the lack of awareness and information by consumers, as well as to the insufficient promotion and inadequate recognition of ecolabels. These factors call for a much stronger and more effective communication and marketing approach by companies, to stimulate the market for ecolabelled products and services. Green marketing through an ecolabel can be powered by an LCA-based approach, which provides a way to communicate indicators on key environmental performance.

The fifth and sixth articles specifically concentrate on the use of LCA within ecolabelling schemes, to strengthen their effectiveness. The fifth article, authored by Bo Weidema et al., is based on an experiment aimed to test what is the difference between results of an attributional and a consequential LCA as they are presented within a label to consumers. From the pilot exercise, it appears that the small sample of consumers has a preference for consequential information and that the main problem in communicating these results is that, since the consequences are located in the future, they are perceived as less trustworthy and more uncertain. Adriana del Borghi et al., in the sixth article, compare the relevant PEF (Product Environmental Footprint) Guide requirements (proposed by the European Commission) with the key rules defined by the International EPD® System (IES)—one of the main widely accepted EPD schemes—in order to identify the discrepancies which potentially reduces the consistency of the outcomes of the two methods and, consequently, hinder their comparability, compromising the communication effectiveness.

The last two articles deal with potential future developments of ecolabelling schemes towards two strongly emerging trends in environmental policies: the cross-sectoral approach of the circular economy and the idea of integrating environmental requirements with other dimensions of sustainability.

In very recent years, the goal of public policies and of the management strategies of many companies in the field of environmental sustainability has been increasingly aimed at making the economy as 'circular' as possible. In particular, a transition phase has started, characterised by a rethinking of business strategies, in order to reduce the dependence from those resources that increasingly become scarce and often critical. To this end, new business models have begun to explore innovative ways of procuring, (re)manufacturing, increasing the durability, enabling repair and promoting recovery and reuse of products, in a logic geared to maximising the opportunities linked to the concept of 'circularity'. According to this prospect, in the seventh article, Mauro Cordella et al. analyse the current implementation level of material efficiency-related requirements as set out in existing EU Ecolabel sets of criteria, considering possible improvement

and identifying current limitations and synergies with other EU policies and initiatives.

Finally, the eighth article looks into the gradual introduction in current ecolabelling schemes of criteria that can ‘pave the way’ towards the integration of other sustainability dimensions, stimulating the attention of companies and consumers on some of the connected issues (e.g. health and safety of the workforce, gender issues, fair trade). In the last article, Laura Spengler et al., basing on a complete analysis through desk research of all existing Blue Angel criteria sets for products, carry out a thorough assessment of two selected issues that are of particular concern in the current debate within sustainability product-related policies: the longevity of products and the coverage of social aspects. The results are very interesting, as they show that longevity criteria are present in many sets of criteria (even if not in a comprehensive way), whereas social criteria are still rare in the Blue Angel, especially when it comes to phases located ‘upstream’ in the supply chain, such as raw material extraction. Nevertheless, the authors register the intention to elaborate in the future a systematic basis for social criteria within this scheme.

6 Conclusions

An increased demand and supply for green products is one of the main aims underlying future sustainable consumption and production policies, of which ecolabelling is a pillar. In the last years, the interest in environmental issues has increased, along with the idea that consumer choices can actually improve the performance of the production system as a whole. The majority of consumers state that, among products that cost the same, they would choose the ones with a lower impact on the environment, and ecolabels are one of the most important signals to the market to help this process.

The role of ecolabels in this framework was clear from the beginning: to create an effective instrument that provides clear information to consumers and allows producers to demonstrate the ‘green credentials’ of their products. In other words, their aim has always been to combine customer satisfaction and firms’ competitiveness, in order to ultimately reduce the environmental impact of products.

The main aim of this Special Issue is to investigate on how effective ecolabels can be vis-a-vis the challenges that they have been struggling with in the last decades and that are still hindering their development. Winning these challenges would imply for ecolabelling programmes around the world to be really effective, i.e. essentially to be able to achieve their goal

of reducing environmental impacts, compared with products in the same category but without an ecolabel.

Great efforts have been made by the programme operators (mostly public institutions) in increasing the uptake of the ecolabels and keeping up with their level of ‘ambition’. Whether this level will be effectively achieved in the future or not depends on the key aspects that the authors of the selected contributions deal with, in this Special Issue. In particular, the following articles provide interesting insights on how an ecolabelling programme can win the challenge for a successful future and, therefore, can be able to:

- stimulate innovation and improvement of products’ environmental performance;
- promote the diffusion of an environmental sensitivity among consumers and enable more informed choices;
- enlarge the ecolabelled products ‘market shares’, i.e. spread to as many products as possible, making them more competitive and attractive for increasingly aware consumers;
- generate results that are ‘sustainable’ in themselves, i.e. maintain effectiveness in the long run, by making participation ‘possible’ for a wide number of companies and, especially, to the vast universe of SMEs, despite their lack of resources;
- fit in the overall framework of the environmental policies aiming at improving the competitiveness of green products (and producers), with particular reference to life cycle-oriented schemes and initiatives, such as EPDs and Product Environmental Footprints;
- not only provide a real contribution to the environmental ‘pillar’ of sustainable development but also integrate with social and quality aspects, with particular reference to the ecolabels’ potential ability to foster longevity and to provide for ethical guarantees in the supply chain.

The following articles assess different features of ecolabels and of the framework/context conditions in which these schemes are applied, in order to understand if they can positively respond to the challenges that they have to tackle to fully exploit their potential and prove their effectiveness.

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