

Greenwashing, Eco-label Confusion, and the Postponement of the EU Green Claims Directive

Irena Žmak, Lidija Ćurković

University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture, Croatia

Mihone Kerolli, Gresa Ferri

Public International Business College Mitrovica (IBCM), Faculty of Environment, Technology and IT, Kosovo

Abstract

Climate change mitigation has placed increasing pressure on businesses to adopt sustainable practices, yet the absence of clear rules has led to widespread greenwashing, i.e., misleading claims about environmental benefits. This paper examines the evolution of EU policy responses, with particular focus on the proposed Green Claims Directive, designed to regulate and harmonise environmental claims across Member States. The analysis reviews the historical context of greenwashing, notable corporate scandals, and the rise of both mandatory and voluntary environmental labels such as the EU Energy Label, EU Ecolabel, and EMAS, which, while useful, contribute to consumer confusion due to their variety and inconsistent standards. The Directive aims to strengthen consumer trust by requiring third-party verification and transparent life cycle evidence for claims. However, its implementation faces obstacles, including political negotiations, industry resistance over costs, and concerns for micro-enterprises. Despite delays, the Directive is integral to the European Green Deal, as credible sustainability communication is essential for empowering consumers, ensuring market fairness, and accelerating the transition to a climate-neutral economy.

Keywords: greenwashing, Green Claims Directive, environmental labelling, European Green Deal, LCA

JEL classification: O13

Paper type: Research article

Received: 18 June 2025

Accepted: 26 August 2025

DOI: 10.54820/entrenova-2025-0084

Citation: Žmak, I., Ćurković, L., Kerolli, M., & Ferri, G. (2025). Greenwashing, Eco-label Confusion, and the Postponement of the EU Green Claims Directive. *ENTRENOVA - ENTERprise REsearch InNOVation*, 11(1), <https://doi.org/10.54820/entrenova-2025-0084>.

Introduction

The United Nations (UN) Intergovernmental Panel on Climate Change states that surpassing the 1.5 °C limit could trigger severe climate consequences, such as more frequent and intense droughts, heatwaves, and rainfall. Therefore, a legally binding international treaty on climate change was adopted by 195 parties at the UN Climate Change Conference in Paris, France, on 12 December 2015, and entered into force on 4 November 2016. The Paris Agreement's overarching goal is to hold "the increase in the global average temperature to well below 2 °C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5 °C above pre-industrial levels" (The Paris Agreement, UNFCCC, 2015).

As global concern about climate change increased following the Paris Agreement, the pressure on businesses to adopt environmentally friendly practices also intensified. In response, many companies produced marketing materials and sustainability reports showcasing their green initiatives to meet this demand. However, in the absence of clear regulations or standards, these claims were often vague, lacking supporting evidence.

Over the past year, there has been a significant rise in lawsuits and regulatory actions related to greenwashing, defined as companies' false portrayal of environmentally friendly practices in marketing materials. In the past, this was not considered important. Companies often showcased minor environmentally friendly actions to improve their image, which was a common practice.

In March 2023, the European Commission proposed the Directive on Substantiation and Communication of Explicit Environmental Claims, or the so-called Green Claims Directive, to enhance the reliability of environmental marketing across Europe (Proposal for a Directive of The European Parliament and of The Council on Substantiation and Communication of Explicit Environmental Claims (Green Claims Directive), 2023). More detailed rules are necessary to protect consumers against unfair practices better, provide them with more accurate information, and enable active participation in the green transition. The new proposed Directive would amend the Directives 2005/29/EC concerning unfair business-to-consumer commercial practices and 2011/83/EU on consumer rights, which are currently in force, and which cover a broad spectrum of unfair business-to-consumer practices, along with consumer rights concerning contracts, information, and withdrawal rights.

The European Parliament adopted its initial stance on the file during its first reading on 12 March 2024 (European Parliament Legislative Resolution of 12 March 2024 on the Proposal for a Directive of the European Parliament and of the Council on Substantiation and Communication of Explicit Environmental Claims (Green Claims Directive), 2024). The Council agreed on its position on 17 June 2024.

The new Directive aims to establish specific rules for environmental claims, banning those that are not supported by recognised high environmental standards relevant to the claim. Examples of such generic environmental claims include "eco" and "ecological", "eco-friendly", "environmentally friendly", "climate-friendly", "carbon-friendly", "energy efficient", "biobased", and "biodegradable", or similar statements that suggest improved environmental performance without proof.

The European Commission announced on 20 June 2025 that it plans to withdraw the legislative proposal. The Commission clarified that it would proceed with the withdrawal if the European Council's amendment to include 30 million micro-enterprises within the directive's scope remains in place.

What is Greenwashing

Greenwashing is the misleading practice of giving a false impression or spreading false information about how a company's products, services, or operations are environmentally friendly. It essentially involves deceptive marketing or public relations intended to present a company as more environmentally responsible than it is. Examples of green claims include: "packaging made of 30% recycled plastic", "the company's environmental footprint has decreased by 20% since 2015", "CO₂ emissions associated with this product have been halved compared to 2020", etc. (Green Claims - European Commission, n.d.)

Public concern about environmental issues has increased significantly, leading to numerous movements and policy initiatives (Figure 1). For example, the well-known European Green Deal is currently in effect. The European Green Deal, introduced by the European Commission, is a broad set of policy initiatives designed to make Europe the first climate-neutral continent by 2050. The agreement includes intermediate steps to reduce emissions by at least 55% by 2030, with a proposed reduction of 90% by 2040 (Communication from the Commission: The European Green Deal, 2019).

The Green Deal prioritises addressing greenwashing to ensure consumers can make informed choices about sustainable products. Greenwashing occurs when companies make false or misleading claims about the sustainability of their products or services. This strategy aims to attract customers interested in eco-friendly and sustainable practices, encouraging them to purchase these "green" products.

Figure 1

Amsterdam, Netherlands, 2021, Demonstration against Greenwashing Practices



Source: McGowan (2024)

Greenwashing was first assessed in 1986 by activist Jay Westerveld, when hotels started asking guests to reuse towels, claiming it was a water conservation strategy, even though they lacked other significant environmental actions (De Freitas Netto et al., 2020).

Apart from language, businesses should also pay attention to other practices, such as using images that create a misleading impression of environmental responsibility, greenhushing, where companies intentionally minimise their environmental achievements, and scopewashing, which refers to presenting data in a misleading manner (Table 1).

It is estimated that in the EU, 53% of green claims are vague, misleading, or unsupported by evidence. About 40% of these claims lack supporting proof, and half of all green labels have weak or no verification. The EU features 230 sustainability labels and 100 green energy labels, each with varying transparency levels (Green Claims - European Commission, n.d.).

Table 1
Forms of Greenwashing

Practice	Description
Language	Traders should avoid making vague environmental statement claims (eco-friendly, eco, green, ecological, and climate-friendly, etc).
Images	Avoid images that can create an unwarranted green impression.
Greenhushing	Deliberately downplaying or concealing environmental achievements.
Scopewashing	Presenting incomplete information, for example, highlighting direct emissions while omitting indirect emissions from energy or materials.

Source: Malinauskaitė & Jouhara (2024)

The environmental, social, and governance (ESG) data presented in corporate sustainability reports is frequently unaudited. If companies' ESG disclosures are unreliable, their greenwashing practices can hinder the integration of ESG factors into investment decisions (Yu et al., 2020).

Greenwashing in Engineering

Greenwashing in engineering involves misleadingly presenting engineering projects or products as environmentally friendly or sustainable when they are not, or when the claimed environmental benefits are exaggerated. This can include overstating the use of recycled materials or making unverified claims about lower emissions or energy use.

Exaggerated sustainability claims occur when a project or product is labelled as sustainable without concrete proof, often using vague terms like "eco-friendly" or "green" without clear definitions. Negative impacts are often downplayed by focusing on one positive environmental aspect while ignoring other significant adverse effects. Manufacturers or energy producers may highlight minor improvements as significant gains while overlooking the broader environmental impact of the product or process. The use of specialised technical terminology can also be employed to conceal the lack of real environmental benefits.

The Volkswagen emissions scandal, or the so-called "Dieselgate" incident, is among the most impactful cases (Table 2). The company was found to have installed software that reduced nitrogen oxides (different NO_x gaseous compounds) emissions during testing. Volkswagen faced allegations of violating the Clean Air Act through the sale of about 590,000 diesel vehicles from model years 2009 to 2016, which were equipped with "defeat devices", i.e., computer software designed to bypass U.S. federal emissions tests (Learn About Volkswagen Violations, U.S. Environmental Protection Agency, 2025).

Since the scandal emerged in September 2015, Volkswagen has paid over €30 billion in fines, compensation, and legal expenses globally. The case involves approximately 470,000 owners of diesel cars sold after November 1, 2008, by the Volkswagen Group. This includes vehicles from the Volkswagen, Audi, Seat, and Skoda brands. In 2019, hundreds of thousands of German consumers also sought compensation from the automobile manufacturer regarding emissions test cheating (Jolly, 2019).

Table 2

Largest Corporate Greenwashing Fines Globally in 2023 (Million U.S. Dollars)

	Fine in millions U.S. dollars	Accusation
Volkswagen	34,690	Developing software that manipulated data and assisted in bypassing emissions tests on vehicles.
Toyota	180	Delay in sharing emissions reports.
DWS	25	Marketing ESG funds by claiming they are more environmentally friendly than they truly are.
Eni	5.60	Claiming that its palm oil diesel was “green”.
Kohl’s & Walmart*	5.50	Asserting that their products are made from environmentally friendly bamboo, despite being manufactured from alternative materials.
Goldman Sachs	4	Failing to adhere to ESG investment policies and misleading its customers.
Keurig	2.20	Making false claims regarding its single-use coffee pods.
BNY Mellon	1.50	Failing to enforce ESG policies and exaggerating the ESG value of its funds.
H&M	0.43	Unsupported sustainability claims on their labels.
Decathlon	0.53	Unsupported sustainability claims on their labels.

Note: *Combined number. More details are available on the source site.

Source: Cleanhub (February 7, 2024). Biggest Corporate Greenwashing Fines Worldwide as of 2023, by Company (in Million U.S. Dollars) [Graph]. In Statista. (2024)

Numerous investigations since 2015 have revealed that, besides VW, many car manufacturers have extensively used similar cheating software to meet the increasingly strict regulations on vehicle emissions fraudulently. In 2021, the USA Department of Justice and the Environmental Protection Agency (EPA) reached a settlement with Toyota for alleged non-compliance with the Clean Air Act. The violations included not monitoring vehicles for emission defects, failing to report to the EPA, and not submitting recall reports. As part of the agreement, Toyota must implement measures to ensure future compliance and will pay a civil penalty of 180 million US dollars (Toyota Clean Air Act Emissions Defect Reporting Settlement Information Sheet, U.S. Environmental Protection Agency, 2025).

Neutralisation Techniques Tend Toward Greenwashing

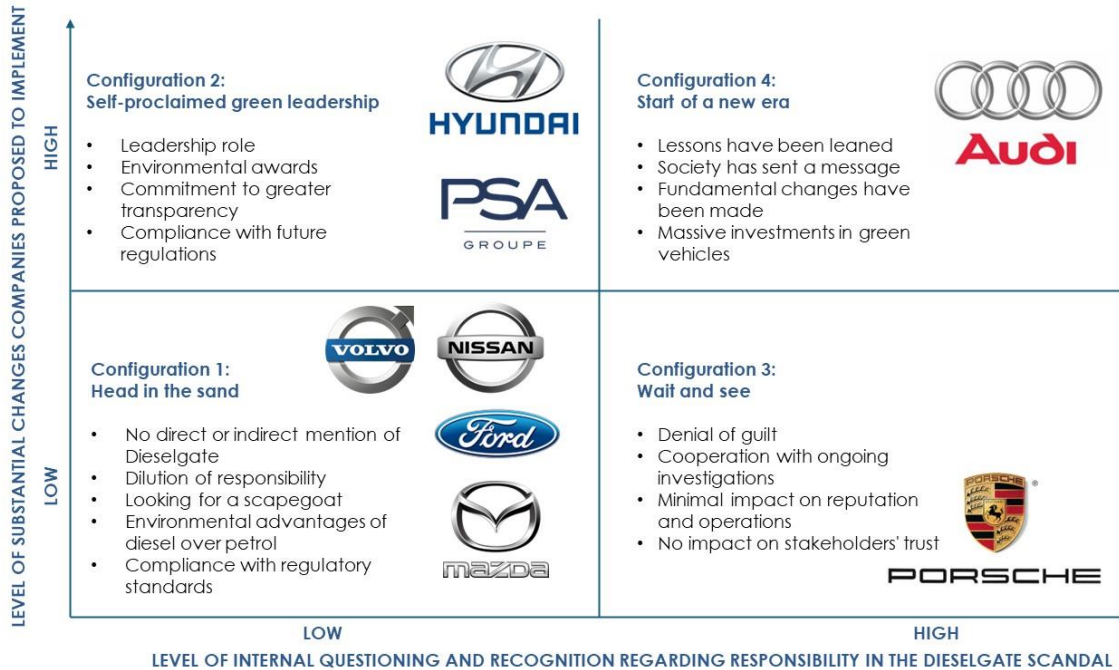
Neutralisation techniques are a type of defensive impression management strategy used to justify, through socially acceptable arguments, the occurrence of unethical behaviour or negative impacts. For example, a systematic qualitative content analysis was conducted on 72 sustainability reports from 2013 to 2017, involving 15 car manufacturers accused of unethical practices in measuring diesel vehicle pollutant emissions. Four main neutralisation techniques include “head in the sand,” “self-proclaimed green leadership,” “wait and see,” and “start of a new era” (Figure 2). The most prevalent configuration observed was “head in the sand,” characterised by minimal recognition of external pressures and little or no questioning of internal practices (De Freitas Netto et al., 2020).

Overall, despite the variety of neutralisation techniques, they all reveal a clear disconnect between the level of institutional pressures on manufacturers and the optimistic or even mistaken discourse of most of the published sustainability reports.

This gap highlights the tendency toward greenwashing and the concealment of negative events that could harm the corporate image (De Freitas Netto et al., 2020).

Figure 2

The Four Approaches to Neutralisation Techniques in Response to Dieselgate



Source: De Freitas Netto et al. (2020)

Empowering Consumers for the Green Transition (ECGT)

The Directive on Empowering Consumers for the Green Transition (ECGT) from February 28, 2024 (Directive (EU) 2024/825 of the European Parliament and of the Council of 28 February 2024 Amending Directives 2005/29/EC and 2011/83/EU as Regards Empowering Consumers for the Green Transition through Better Protection against Unfair Practices and through Better Information, 2024) is significant because it aims to improve consumer rights and foster a more sustainable economy by tackling issues such as greenwashing, product durability, and access to repair information. It focuses on ensuring consumers receive trustworthy information about products, preventing misleading environmental claims, and encouraging a circular economy. To ensure consumers across the European Union are well informed and can readily understand their rights, a harmonised notice and a harmonised label will be implemented.

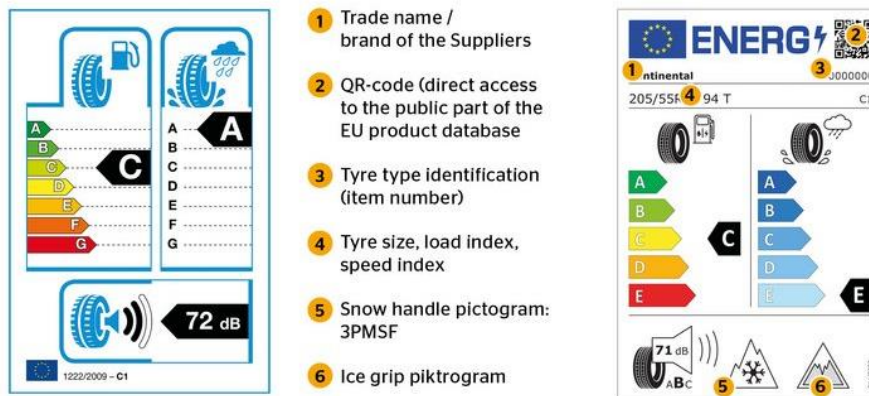
The ECGT forbids false environmental claims and unreliable sustainability logos, aiming to stop businesses from falsely marketing their products as environmentally sustainable. It requires that consumers be provided with clearer information about product durability, reparability, and the duration of the legal guarantee at the point of purchase. The directive also seeks to make repairs easier by providing consumers with access to repair services, spare parts, and repair manuals. It aims to prevent practices that cause products to become unusable or need early replacement, such as the concealment of harmful effects from software updates or design choices that deliberately shorten product lifespan. The Directive promotes better information and discourages deceptive practices, enabling consumers to make more sustainable choices and engage in a circular economy.

A European harmonised notice will be a concise, mandatory information box on the legal guarantee (≥ 2 years), any extra commercial durability guarantee, spare parts, repairs, updates, etc. The European harmonised label will be a standard EU-wide label or logo featuring symbols or scores on reparability, possible extended durability, and access to additional information (likely via QR code). It is planned that by 27 September 2025, the Commission will define the design and content of the harmonised notice. Both the notice and label should be easily recognisable, understandable for consumers, and simple for traders to use and reproduce. This approach allows consumers to compare products more easily, while preventing producers from hiding durability or reparability through vague marketing.

Mandatory Environmental Labels

Several mandatory environmental labels are already legally required to guarantee safety, recyclability, or transparency in the EU. Well-known examples include the Energy Label (EU Energy Efficiency Label) for appliances, the CE Marking that indicates compliance with EU safety, health, and environmental standards, Recycling Symbols from the Packaging Directive, and Battery Labelling, which shows heavy metal content and disposal instructions. Depending on how frequently a product is used daily, some labels are less well-known, such as the EU tyre label, updated in 2021 (Figure 3).

Figure 3
Old (left) and New (right) Tyre Labelling Rules Applying from 1 May 2021



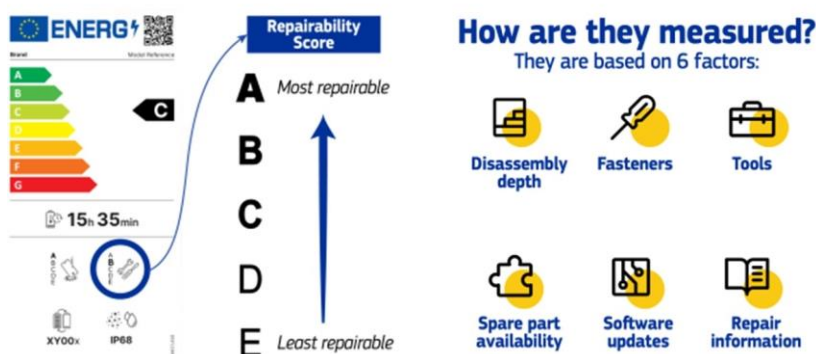
Source: New EU Tyre Label Designed to Provide More Information for Consumers - Continental AG (2021)

In May 2021, a new EU tyre label was introduced to provide consumers with more detailed information about tyre features, such as rolling resistance and wet braking classes, while noise will be shown in decibels and letter grades A, B, or C. The added QR code allows access to more details on an EU database. The label now also includes pictograms indicating whether the tyre has snow grip per EU standards or ice grip per ISO standards (Regulation (EU) 2020/740 of the European Parliament and of the Council of 25 May 2020 on the Labelling of Tyres with Respect to Fuel Efficiency and Other Parameters, Amending Regulation (EU) 2017/1369 and Repealing Regulation (EC) No 1222/2009, 2020).

The EU Energy Label is a mandatory label for energy-related products like fridges, washing machines, and TVs. Introduced in 1994, it has been periodically updated, most recently in 2021, when, similarly to tires, the energy efficiency classes were rescaled from A+ to A++, A++ to A+++ back to A to G. This update was necessary

because many products were earning ratings of A+, A++, or A+++ under the new scale. The EU now includes a repairability score for smartphones and tablets on the Energy Label, alongside details such as energy efficiency and battery life (Figure 4). This allows consumers to make more sustainable choices when purchasing these items. The repairability scores offer a straightforward rating of a product's repairability, ranging from A (highest) to E (lowest). They are determined using a rigorous scientific approach developed by the Joint Research Centre (JRC), the European Commission's science and knowledge service (Commission Delegated Regulation (EU) 2023/1669 of 16 June 2023 Supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with Regard to the Energy Labelling of Smartphones and Slate Tablets, 2023).

Figure 4
New Repairability Score System for Smartphones and Tablets Added to Energy Label



Source: New EU Labels to Help Consumers Choose More Repairable Electronics (2025)

The 2024 Eco-design Impact Accounting Overview Report estimates that including the repairability score on energy labels could save 0.2 million tonnes of CO₂ emissions annually and reduce costs for consumers by 20 billion euros by 2030 (Wierda & Zanuttini, 2024).

Voluntary Environmental Labels

Unlike mandatory environmental labels, several voluntary labels have gained recognition and widespread adoption. Companies often pursue these labels to showcase higher environmental standards and appeal to eco-conscious consumers. These labels are competitive advantages: not required, but they indicate strong environmental and sustainability performance. While they serve as effective marketing and trust tools, these labels are founded on independent criteria. Selected examples of voluntary environmental labels include EU Ecolabel ("the Flower"), EMAS (Eco-Management and Audit Scheme), Blue Angel, Fairtrade, etc. (Figure 5).

EU Ecolabel is the only official European Union voluntary label for environmental excellence. The label certifies products and services with an assured lower environmental impact across their entire life cycle (EU Ecolabel, n.d.). According to Regulation (EC) No 66/2010 on the EU Ecolabel, the criteria are based on the top-performing products in the EEA market regarding environmental impact throughout their life cycle. These criteria generally represent the best 10-20% of products available at the time of adoption in terms of environmental performance. As of March 2025, the label had been awarded to 102,373 products (comprising goods and services), 3,248 licences (Figure 6) - 97% in the EEA, while 57% licence holders are SMEs (a licence refers

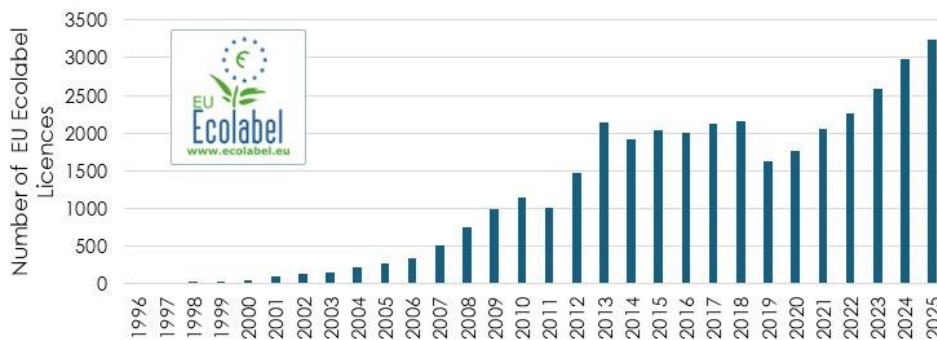
to an EU Ecolabel contract encompassing one or several awarded products within the same product group).

Figure 5
Selected Voluntary Environmental Labels



Source: Yokessa & Marette (2019)

Figure 6
Increasing Number of EU Ecolabel Licences Awarded



Note: In 1996 - 6 licences, 1997 - 11, 1998 - 33, 1999 - 39, 2000 - 53, 2001 - 95, etc.

Source: Authors' illustration based on Ecolabel Facts and Figures - European Commission (2025)

Products awarded by category are: 36,960 in do-it-yourself, 24,705 for paper products, 14,417 for cleaning products, 11,122 for clothing and textiles, 7,326 for floor coverings, 4,474 for furniture and bed mattresses, 1,631 for personal care products, 837 for holiday accommodation, 812 for lubricants, 86 for gardening, and 3 for electronic equipment. The EU Ecolabel Product Catalogue (ECAT) online database can be searched by product type and by country awarded.

Proposal for a Directive on Green Claims

With hundreds of voluntary ecolabels differing in criteria, scope, and strictness, consumers find it difficult to compare products or verify label credibility. This confusion can lead to greenwashing, where companies may create fake logos or opt for simpler certification schemes. The EU Ecolabel offers a unified benchmark across Europe. The upcoming Green Claims Directive aims to require scientific evidence and verification for any environmental claims, covering all advertising and branding. This directive is a broader step towards systematically combating greenwashing.

The European Green Deal commits the European Commission to empowering consumers to make well-informed choices and actively participate in the ecological transition. Specifically, it aims to combat false environmental claims by ensuring that consumers receive trustworthy, comparable, and verifiable information. This enables them to make more sustainable decisions and helps prevent 'green washing'. Addressing greenwashing has become a priority under both the New Circular

Economy Action Plan and the New Consumer Agenda. The recently adopted Green Deal Industrial Plan emphasises the importance of providing consumers with transparent and reliable information about the sustainability, durability, and carbon footprint of products. It also underlines that market transparency is key to encouraging the adoption of environmentally superior, net-zero products (Proposal for a Directive of the European Parliament and of the Council on Substantiation and Communication of Explicit Environmental Claims (Green Claims Directive), 2023).

Any company that makes environmental claims about their products or services, such as “eco-friendly”, “natural”, “biodegradable”, and “climate-neutral” should be subject to the rules specified in the proposal for a Directive on the substantiation and communication of explicit environmental claims (Green Claims Directive), which was published on 22 March 2023. The draft law seeks to safeguard consumers from deceptive environmental marketing tactics. It mandates that companies wishing to make complex environmental claims in Europe must submit these claims, supported by evidence, to national accredited verifiers for prior assessment and approval. Additionally, the draft law intends to regulate the application of environmental labelling schemes across Europe. The proposal would require companies to have environmental claims verified by third parties and regulate eco-labels across the EU to boost consumer trust and prevent misleading marketing.

Negotiations on the final draft began in January 2025 and were originally scheduled to conclude on 23 June 2025, but the Council has officially cancelled the meeting.

After Italy decided to withdraw its support for the bill, the Commission now states the legislation is too burdensome for small businesses, affecting nearly 30 million micro-businesses, i.e., about 96% of all EU businesses, and may withdraw the proposal unless revised (Abnett, 2025).

To comply with the new directive, businesses would need to take proactive measures to ensure that their explicit environmental claims are accurate, transparent, and backed by credible evidence. Conducting thorough assessments of products' life cycles to provide specific details about raw material sourcing, production methods, and waste management practices.

Generally, Life Cycle Assessment (LCA) tasks, such as method and data development, and activities related to supporting green claims demand specialised technical and scientific expertise, typically requiring a scientific PhD-level education and extensive experience. It is not feasible to attract such staff under contract agency conditions. Therefore, these tasks should be handled through official positions, which, if no qualified in-house staff are available, should be filled with temporary agent appointments.

Conclusion

The postponement of the EU Greenwashing Directive highlights both its importance and the challenges of implementing it. The Directive is vital for preventing misleading sustainability claims, as today's proliferation of eco-labels, from the EU Ecolabel and EMAS to the Energy Label and numerous private schemes, causes confusion and undermines consumer trust. Without clear, harmonised rules, greenwashing could compromise genuine efforts toward sustainability.

Delays result from the difficulty of aligning standards across member states, industry concerns over costs, and political negotiations. Nonetheless, the Directive remains essential for the success of the EU Green Deal, as transparent and trustworthy communication is key to encouraging responsible consumption and accelerating the shift to a climate-neutral economy.

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About the authors

Irena Žmak is a Full Professor at the Department of Materials at the Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb. She graduated in Mechanical Engineering and completed her PhD studies in Technical Sciences in 2012. The author can be contacted at irena.zmak@fsb.unizg.hr

Lidija Ćurković is a Full Professor at the Department of Materials and Head of the Laboratory for Engineering Ceramics at the Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb. She is a Chemical Engineer and holds a PhD in Chemical Engineering and Technology since 1999. The author can be contacted at lidija.curkovic@fsb.unizg.hr

Mihone Kerolli is a Full Professor at the Department of Environmental Management and Technology at the Faculty of Environment, Technology and IT, Public International Business College Mitrovica (IBCM). She graduated in Environmental Engineering and completed her PhD studies in Chemical Engineering and technology in 2014. The author can be contacted at m.kerolli@ibcmitrovica.eu

Gresa Ferri is a Lecturer at the Department of Environmental Management and Technology at the Faculty of Environment, Technology and IT, Public International Business College Mitrovica (IBCM). She graduated in Environmental Management and is currently a PhD Candidate in the Faculty of Agriculture at the University of Zagreb. The author can be contacted at g.ferri@ibcmitrovica.eu