The European Green Deal: How Information for Use Can Help Ensure Products Are Used Sustainably

Accelerating progress with technical communication

EN IEC/IEEE 82079-1 helps to specify the technical details of the legal provisions

An essential part of any product is the information on how to use it, known as "information for use." It provides the necessary information to use the product safely, effectively, and efficiently. As part of the European Green Deal, strategies and measures are being developed to make product design and usage more sustainable and conserve resources. In order for products to be used sustainably, consumers, experts, and other target audiences must be given the information they need to do so. Legislative processes conducted within the context of the Green Deal are addressing the topic of information for use – with EN IEC/IEEE 82079-1 acting as a useful reference work for the technical implementation of the legal provisions.

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What is technical communication and what is information for use?

Whether it's called "instructions for use", "operating instructions", "user instructions", "instruction handbook", or something else – everyone is sure to have come across it at some point as it is provided with almost every product at the time of purchase. While it was traditionally printed and supplied in hard copy form, digital versions are becoming more and more common nowadays.

Technical communication underpins this information for use and is defined as "the process of defining, creating and delivering information products for the safe, efficient and effective use of products (technical systems, software, services)"[1]. In order to find out what this actually means, it is worthwhile taking a look at the most important standard for technical communication: EN IEC/IEEE 82079-1:2020 Preparation of information for use (instructions for use) of products - Part 1: Principles and general requirements. It defines "information for use" as "information provided by the supplier that provides the target audience with concepts, procedures and

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[1] Quote from tekom Europe e. V.: What is technical communication? https://www.technical-communication.org/technical-communication/defining-technical-communication

reference material for the safe, effective, and efficient use of a supported product during its life cycle"[2]. And "use" is the "activity that the user may perform with or on the product during its whole life"[3]. It covers the intended use and the reasonably foreseeable misuse in normal and reasonably foreseeable conditions of use. The term "product" comprises for example industrial products, consumer products, medical devices, equipment and systems, complex systems of systems, means of transport, application software, software for operation and automatic control of systems and technical services. Information products of information for use have different terms for example "troubleshooting information", "information for operation", "functional description", "information for assembly", "information for maintenance", "instruction handbook".

Graphic shown on information for use indicating that it must be read and stored

Photo: Gabriela Fleischer

Information for use in the EU's New Legislative Framework

Within the context of the EU's New Legislative Framework (NLF), information for use is being addressed in various legal regulations as part of the work to harmonize the conditions for marketing products. When it comes to information for use, a common framework for the marketing of products applies[4]:

"Article 1

General principles

(3) Economic operators shall be responsible for ensuring that all information they provide with regard to their products is accurate, complete and in compliance with Community rules applicable."

In order to protect public interests, the NLF is defining essential safety and health protection requirements in information for use for various products as part of European directives and regulations. This includes the Machinery Directive[5], Medical Devices Regulation[6], Construction Products Regulation[7], Toy Safety Directive[8], and General Product Safety Directive[9].

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[2] EN IEC/IEEE 82079-1:2020 Preparation of information for use (instructions for use) of products - Part 1: Principles and general requirements

[3] EN IEC/IEEE 82079-1:2020 Preparation of information for use (instructions for use) of products - Part 1: Principles and general requirements

[4] DECISION No 768/2008/EG

[5] EU 2006/42/EC on machinery

[6] EU 2017/745 on medical devices

[7] EU 305/2011 for the marketing of construction products

[8] 2009/48/EC on the safety of toys

[9] 2001/95/EC on general product safety

Working in the public interest, in some cases the legislation has also formulated requirements aimed at protecting the environment and has set out specifications for the provision of information for use by manufacturers, for example the EU Waste Electrical and Electronic Equipment Directive[10] and the EU Ecodesign Directive[11].

It is likely that the Green Deal will place an even stronger focus on information for use in Europe. Working in the public interest, the legislation will set requirements aimed at protecting the environment and promoting sustainability for the information for use of products.

Instructions for a moka pot with information about recycling

Photo: Gabriela Fleischer

The Green Deal: Information for use is an important part of the big picture

The European Green Deal is one of six political priorities set by the EU Commission in 2019[12] for the period 2019 through 2024. It constitutes Europe's agenda for ensuring sustainable growth and is an integral part of the EU Commission's strategy for implementing the 2030 Agenda from the United Nations and the Sustainable Development Goals.

According to the EU Commission[13], the European Green Deal will transform the EU into a modern, resource-efficient, and competitive economy, ensuring

• no net emissions of greenhouse gases by 2050,
• economic growth decoupled from resource use,
• no person and no place left behind.

We must succeed in moving away from our previous throw-away society (where things are simply taken, manufactured, consumed, and discarded) if we are to avoid serious consequences, namely a doubling of the global consumption of material in the next forty years and a likely 70% increase in the amount of waste produced annually by 2050. This is based on the assumption that, all across the globe, 90% of the loss of species on land, 90% of water shortages, and 50% of the impact of climate change are due to the extraction and processing of resources.

The "Circular Economy Action Plan"[14] is part of the EU Industrial Strategy and one of the main building blocks of the Green Deal. It includes a strategy for "sustainable products", which is intended to help ensure all products are designed with the circular economy in mind and is based on common methods and principles. Product design plays a crucial role as it defines up to 80% of a product's environmental impact during its life cycle. The Action Plan provides additional measures for key sectors which use a significant amount of resources and where the

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[10] 2012/19/EU on waste electrical and electronic equipment (WEEE)

[11] 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products

[12] COM(2019) 640 final COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS The European Green Deal
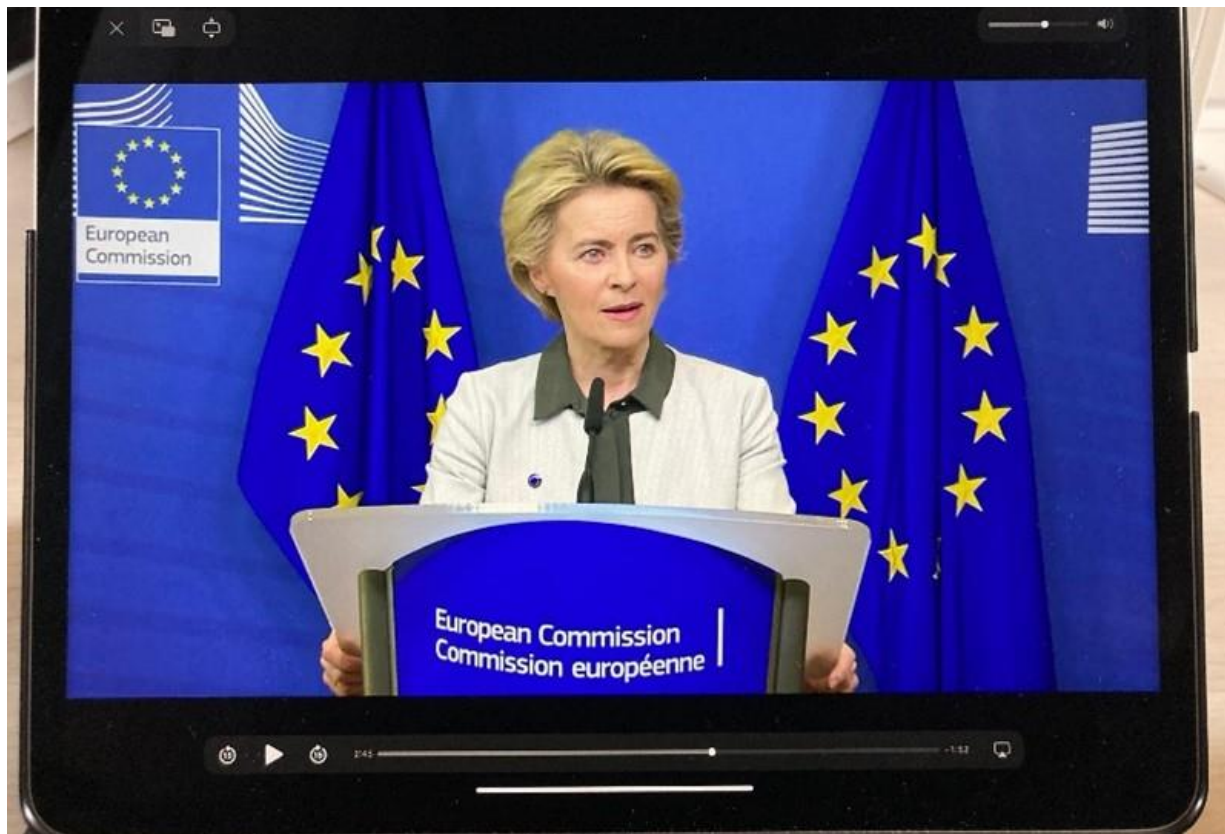
[13] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

[14] COM(2020) 98 final COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A new Circular Economy Action Plan For a cleaner and more competitive Europe

potential for circularity is high – textiles; construction; electronics and ICT[15]; plastics; batteries and vehicles; packaging; and food.

The sustainable product policy includes measures

- governing product design which cover the entire product life cycle and aim to improve the durability, reusability, retrofitting capability, and reparability of products;
- to empower consumers by introducing a right to repair, among other things; and
- for making production processes more sustainable.

Statement by Ursula von der Leyen, President of the EU Commission, on the European Green Deal on December 11, 2019 (SPEECH/19/6749)

Photo: Gabriela Fleischer

Quote:[16]

"The Commission will launch a European Circular Dataspace to mobilise the potential of digitalisation of product information, introducing for example digital product passports."

In March 2022 the EU Commission presented a package of European Green Deal proposals. Through its "Making sustainable products the norm" initiative[17], the aim is to regulate product design in such a way that products become more durable and reliable, by amending the aforementioned EU Ecodesign Directive. It should also be possible to reuse, upgrade, and repair them and it should be easier to maintain, refurbish, and recycle products,

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[15] Information and Communication Technology (ICT)

[16] https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_419

[17] COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS On making sustainable products the norm, Brussels, 30.3.2022 COM(2022) 140 final

as well as make them efficient in terms of energy and resource consumption. It was announced that: "All regulated products will have Digital Product Passports," which will "make it easier to repair or recycle products and facilitate tracking substances of concern along the supply chain."[18] The new Ecodesign Regulation is intended to cover a broad range of products (and no longer apply solely to energy-related products), introduce minimum criteria for circularity, energy efficiency, and an overall reduction of the environmental and climate footprint of products, and ensure less pollution. The proposal will set a framework and a process through which the Commission, working in close cooperation with all those concerned, will progressively set out requirements for products or product groups.

In March 2022 the EU Commission also announced changes to the previous regulations governing construction products. As a result, the environmental and climate performance will in future need to be evaluated and communicated. The aim is to introduce new product requirements for both design and manufacturing in this area, too, in order to improve the durability, recyclability, and remanufacturing of construction products. A database of construction products and a Digital Product Passport are also envisaged.

Information for use covers a broad spectrum of the product life cycle

The Green Deal introduces legal regulations that address the information for use of products. The sustainable product design that is often mentioned in political papers must include and enable sustainable use of the product. According to the political strategies, a longer lifetime is to be achieved by measures including:

• improved product durability,
• enabling repair work in the case of product damage,
• promoting remanufacturing,
• improved reuse and further use by other users and for other purposes.

Once the product reaches the end of its lifetime, the aim is to be able to disassemble and recycle it so as to generate resources from the products, make them available for other purposes, and return them into circulation as far as possible. In order for these steps to succeed, the necessary information must be provided as part of the information for use. Information for use already aims to do this today – provided that the manufacturer has considered this. Yet the scope of information for use is even broader than that: Depending on the product, it provides information about the product packaging; transportation and storage; installation; commissioning; product modifications; operation; maintenance; troubleshooting and repair; disassembly; recycling and waste disposal; the meaning of signals and error messages/displays; and signals from warning devices. Taking this kind of holistic view of everything is important because information on, for example, how to properly transport the product or maintain it (with the relevant information for maintenance) could prevent premature repair work and product defects. As stated at the outset, information for use aims to ensure that the product is used safely, effectively, and efficiently. It also covers information on how to use the product sustainably. All those involved should reflect on the goal, purpose, and mission of information for use at regular intervals to ensure that the resources required to prepare it are available.

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[18] European Commission - Press release
    Green Deal: New proposals to make sustainable products the norm and boost Europe's resource indepedence Brussels 30 March 2022

Information for use as part of Green Deal legislation

In the legislation initiated through the Green Deal there is clear recognition of the significance of information for use. As part of the "Initiative for sustainable products", the EU Commission has addressed information for use in its proposal for the draft Ecodesign Regulation[19] dated March 30, 2022, by obligating manufacturers as follows:

Article 21

(7) Manufacturers shall ensure that that a product covered by a delegated act adopted pursuant to Article 4 is accompanied by instructions that enable consumers and other end-users to safely assemble, install, operate, store, maintain, repair and dispose of the product in a language that can be easily understood by consumers and other endusers, as determined by the Member State concerned. Such instructions shall be clear, understandable and legible and include at least the information specified in the delegated acts adopted pursuant to Article 4 and pursuant to Article 7(2)(b), point (ii).

Similar wording is also envisaged for distributors and importers.

The information requirements for products set out in Article 7 of the draft Regulation are also comprehensive and stipulate the following (among other provisions):

(ii) information for consumers and other end-users on how to install, use, maintain and repair the product in order to minimise its impact on the environment and to ensure optimum durability, as well as on how to return or dispose of the product at end-of-life;

(iii) information for treatment facilities on disassembly, recycling, or disposal at end-of-life;

(iv) other information that may influence the way the product is handled by parties other than the manufacturer in order to improve performance in relation to product parameters referred to in Annex I.

In addition, there are also information requirements for substances of concern.

These specifications need to be implemented in a targeted way for the products falling under the Ecodesign Regulation.

When it comes to construction products, the EU Commission's draft Regulation for the marketing of construction products[20] relies on technical documentation compiled by the manufacturer. In this technical documentation, manufacturers will be obligated to describe aspects such as the intended use and conditions for use and calculation of the ecological sustainability of the construction product. In terms of their environmental obligations, manufacturers will also need to provide information about repairs, refurbishing, and recycling (including warnings) in the instructions for use of the construction product.

The specification relating to Digital Product Passports defines the format in which the manufacturers should provide their information; this applies both to products falling under the future Ecodesign Regulation and to construction products. The aim of the Digital Product Passports is to improve the availability of product information concerning origin, composition, repair and disassembly options, and the steps to take once the product reaches the end of its lifetime.

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[19] COM(2022) 142 final 2022/0095 (COD) Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC
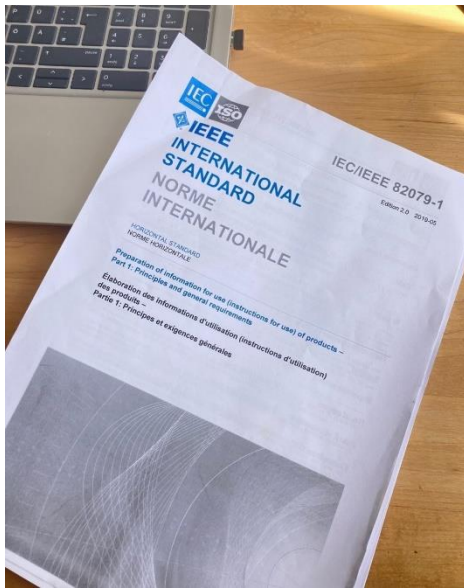
[20] Brussels, 30.3.2022
COM(2022) 144 final 2022/0094 (COD)
Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
laying down harmonised conditions for the marketing of construction products, amending Regulation (EU) 2019/1020 and repealing Regulation (EU) 305/2011

EN IEC/IEEE 82079-1 specifies the technical details of the legal provisions

IEC/IEEE 82079-1 is the most important standard for technical communication

Photo: Gabriela Fleischer

The regulatory requirements for products as set out in the Green Deal state that the information for use or other information specified must always be provided, in some cases with a reference to the choice of language. Specifications governing the quality of the information for use are made in vague legal terms: for example, the instructions shall be "clear, understandable and legible." Standards are an extremely useful way of specifying the technical details set out in the legal obligations. EN IEC/IEEE 82079-1 has established itself both in Europe and internationally as the standard to use for the preparation of information for use. It was drawn up jointly by the three international standardization organizations IEC, IEEE, and ISO, and covers the information for use of all products falling within the scope of these organizations. It applies to both electrotechnical and non-electrotechnical products as well as software. This standard constitutes a cross-organizational consensus regarding the principles and general requirements governing the preparation of information for use for all types of products and for different target groups – from lay consumers to experts. Information for use is prepared according to EN IEC/IEEE 82079-1 "Principles for the selection of content, structure, and format for information for use, and the processes for the design and sustainment of information for use." These principles relate to the purpose and quality of the information for use and the processes for the management of information. For example, when it comes to the quality of the information, it states that the needs of the target group must be met in terms of completeness, minimalism, correctness, conciseness, consistency, comprehensibility, and accessibility. The standard contains technical details in the form of normative provisions for each of these aspects. As one example, the principle of "target audiences' orientation" is a key consideration because it makes a difference whether information for use is prepared for trained personnel and experts or for consumers who have not been trained on how to use the product. Similarly, the information on how to disassemble the product will need to differ depending on whether it is aimed at waste disposal sites or consumers

EN IEC/IEEE 82079-1 examines what to take into account in terms of the comprehensibility, clarity, legibility, and completeness of the information for use. It also explains which points to consider when selecting the format for the information for use (i.e., digital or hard copy), for example.

Against the backdrop of the legal regulations for information for use as part of the Green Deal, EN IEC/IEEE 82079-1 is a useful tool for anyone who is obligated to provide information for use. It also assists organizations tasked with reviewing whether information for use meets the regulatory requirements. Making reference to the standard in legislation or harmonizing EN IEC/IEEE 82079-1 as per the corresponding directives and regulations could encourage the application of the standard and thereby ensure the provision of high-quality information for use.

Ultimately, technical communication ensures that technical communicators prepare and provide the information products required for sustainable product use so as to ensure that, at the end, users are able to use the products in a way that conserves resources and achieves the goals set out in the Green Deal.

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