Human	**Societal**	**Environmental**	**Management of adverse effects**
Principle of Autonomy: if and how the system limits human control and compromises user autonomy, understood as the ability of humans to act according to their informed beliefs. For instance, whether human beings can take or regain control over the system autonomy, and explain when this is not possible, allowed, or beneficial for humans.	*Society and Democracy*: includes aspects on the influence of digital systems on democratic processes, institutions, political engagement, public deliberation as well as broader societal conditions, institutional transparency, and media pluralism. For example, a news app should clearly state whether it uses a fact checker and which filtering policy (if any) is adopted in reporting opinions.	*Energy Consumption*: user understandable estimation of energy consumption for the services offered or the training of AI algorithms. For instance, producers can make comparison with the energy needed by houses, saunas, etc.	*Minimization of Adverse Effects*: if and how the system has a plan to monitor, eliminate, or limit risks or negative impact as much as possible. For instance, organizations can have standardized risk management practices and processes for managing both existing and newly detected human, societal, and environmental risks. Also, organization can make use of bias detection solutions for diversity, fairness, and non-discrimination.
Privacy and Data Governance/ Intellectual Property: privacy must be respected throughout data collection, use, and sharing, with clear and accessible information provided to users. Intellectual property rights must also be safeguarded, particularly during AI training processes, to prevent misuse or legal infringements. The governance structure of the system—including who controls and who accesses data—must be transparently disclosed.	*Inclusive and Participatory Design*: the inclusive design principles that have been followed and the stakeholders related to the system that have been identified and consulted during development. The producer may clearly state whether the system was tested and shaped with feedback from different user groups, such as people with disabilities and elderly users.	*Greenhouse Gas Emissions*: user understandable estimation of gas emission for the services offered or the training of AI algorithms. To make it understandable to users, producers can make a comparison with the emissions of vehicles.	*Mitigation of Risk/Negative Impact*: recognizing the inevitability of some risks, it is important to consider if and how the system has strategies to address the aftermath of a problem, as well as the steps that can be taken beforehand to reduce adverse and potentially long-term effects. For instance, when a data leak is discovered, the system can take actions to reduce the severity of the consequences.
Transparency and Explainability: it is made clear to those who use or interact with a digital system, e.g., an AI-powered system, that AI is being used and that the resulting outcomes are transparent. Another perspective involves explaining the rationale behind the decisions made by the system.	*Openness and Plurality/Cultural Sensitivities*: Whether the system has been developed in an open-source environment and by a plurality of actors (e.g., universities, public authorities). Also, whether the system is able to recognize, understand, and respect cultural differences. For example, the user should be informed whether and why the system uses a specific language only or does not consider some cultural aspects.	*Water Consumption*: user understandable explanation of the system's water consumption during production, algorithm training, as well as use. The explanation should clearly make examples and comparisons, e.g., in terms of the average daily water consumption of a person.	*Reporting Negative Impact*: concerns making the public and users aware of the potential negative impacts of the system and providing a strategy to report them. For instance, there can be a plan and strategies to inform users about potential data leaks or biased decisions, together with the impact and the scope of it.
Beneficialness: the extent to which the use of the system is beneficial for humans and how. The producer should clearly describe the benefits brought by the system usage and how. For instance, reminding users to take a break from screen exposure to reduce eye strain or to take breaks while driving to avoid accidents.	*Diversity, Fairness, and Non-Discrimination*: if and how the system aligns with the ideal of justice and promotes fairness, inclusion, respect for diversity, and equality of opportunity. For example, the representativeness of the sample used for testing should be clear, as well as whether the system works better/worse for certain groups of people and why.	*Other Resource Consumption*: user understandable explanation of other resource consumption of the system, e.g., in terms of raw material extraction or disposal at the end of life of the product. The explanation should clearly make examples and comparisons, e.g., in terms of land-use-related biodiversity loss or ecosystem damage.	
(Not) Harmfulness: The producer should clearly state either that the use of the system is never harmful or describe the situations in which it could be. As an example, users should be informed that a personal LLM-based chatbot could cause harm if heavily jailbroken or improperly used.	*Responsibility and Accountability*: the system must respect the laws of the countries in which it is used. It should inform users of the correct way to use systems to avoid potential violations of laws, e.g., ethical filters in LLMs or autonomous systems. Moreover, providers should clearly indicate to the user when she/he is considered accountable or, in general, responsible for the use of the system.	*Sustainability Promotion in Use*: it refers to whether and how the system leverages sustainability potential, such as promoting sustainable products, incorporating sustainability into decision-making processes, or considering it when generating recommendations. For example, a search engine could rank results based on sustainability criteria in addition to other factors.	

Table 7: Ethics label.