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For scientists, scientists, students, graduate students, representatives of business and public organizations and higher education institutions and a wide range of readers.

PROMOTING THE EU BEST PRACTICES OF LCA TO ENSURE SUSTAINABLE DEVELOPMENT IN UKRAINE

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Life cycle thinking and life cycle management are essential to ensure sustainable development. This allows for considering possible consequences at all elements of the product system and avoiding suboptimal decisions. Life cycle assessment (LCA) is one of the main tools for implementing life cycle thinking and management practices (it was recognised by the UN in 2002). Today, the European Community demonstrates leadership in implementing LCA practices: through informing and disseminating knowledge, defining the primary method of conducting assessment in the EU and elaborating policies that contribute to the broadest possible spread of LCA practices when making decisions (Koblianska, 2022b). The implementation of life cycle assessment practices in Ukraine is at the infant stage, which is characterised by individual non-systematic studies conducted, as a rule, within the chemical, technical, and agricultural sciences (Koblianska, 2022a). The potential of LCA use in making business and political decisions has yet to be fully realised. At the same time, the existing ecological problems of the country make the implementation of the LCA toolkit an urgent task. The relevance of LCA implementation increases given the progress of European integration and the need to comply existing management practices with European ones.

This publication aims to highlight the trends of LCA development in the European space, as well as to share the experience of implementing domestic initiatives regarding the promotion of LCA. The presentation of the project results to the general public, among other things, will stimulate a discussion on ways of increasing awareness and implementation of the LCA practices among scientists, practitioners, and representatives of the public sector.

The LCA practices were first introduced in developed countries in the 60s of the last century. Since that, the perception of LCA has evolved: from individual business cases to the recognition as the basis of a sound environmental policy that favours achieving sustainable development goals. This became possible due to the following: the involvement of the public sector in relevant research and promotion, standardisation, dissemination of knowledge through virtual platforms, and LCA promotion via appropriate regulations (Koblianska, 2022a). Nowadays, LCA is the basis of a significant number of policies (and regulations) in the EU: Integrated Product Policy; Action Plan for Sustainable Consumption and Production and Sustainable Industrial Policy; Green Public Procurement; Environmental Labelling; Eco-management and eco-audit schemes; A Thematic Strategy on the

Prevention and Recycling of Waste; Thematic Strategy on Sustainable Use of Natural Resources; The EU Environmental Technologies Action Plan[7-26].

The current stage of LCA development in the EU is associated with the implementation of relevant practices in the construction and public procurement sectors, which should further contribute to the realisation of the “domino” effect spreading LCA in other sectors with the active involvement of the financial industry. In particular, the latest data shows that LCA-based decisions are encouraged and stimulated in every way in the EU within the framework of the green public procurement program (Hofbauer et al., 2021). In addition to product and process solutions, LCA is becoming an increasingly popular tool for making decisions on community development at the local level. It can form an appropriate information base for decision-making regarding the territorial and agro-food system's performance through the so-called territorial LCA (TLCA) (Borghino et al., 2021).

The project "EU best practice of life cycle assessment, social, environmental accounting and sustainability reporting", co-funded by the European Commission within the framework of the ERASMUS+ Jean Monnet Actions program, is dedicated to the dissemination of EU best practices in LCA (among other issues). The project is being implemented in 2022-2025 by a team of scholars from the Sumy National Agrarian University (EULasting, 2023).

The experience of project implementation (a training course for Ukrainian postgraduate students and young scientists in spring 2022, a training course for masters of agricultural higher education institutions in autumn 2022, a “Spring School” for masters, postgraduate students, and young scientists in spring 2023) reveals the lack of knowledge about LCA concept and methodology in Ukraine.

Another problem restricting the implementation of LCA practices in Ukraine lies in the absence of relevant tools and data to conduct LCA. The databases and datasets for LCA are created in many countries. These databases are constantly updated and improved. Although there are 1,392 datasets listed in OpenLCA Nexus for Ukraine (as of April 25, 2023) (OpenLCA Nexus, 2023), many still need to be completed. For example, some datasets for agricultural products contain only a few elements of the product system (waste management stage or particular substances), which only allows for a partial-fledged analysis making it impossible to compare domestic products with those made in other countries.

To sum up, the following problem issues must be resolved to promote LCA practices in Ukraine:

1) use of appropriate tools to popularise and disseminate knowledge about LCA (What tools should be used? Who should be the target audience? What format and communication is the most effective?);

2) informational and methodological support of the LCA implementation (What could be done to improve the content of datasets on LCA regarding the domestic products, processes, and systems? How can this work be made systematic?);

3) support of LCA practising (What difficulties do companies see in the LCA implementation? What is needed to overcome them?).

These questions should form the basis of the professional discussion concerning the LCA implementation in Ukraine and could form the research agenda in this field.

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