



RETHINK
food resources,
losses, and waste

Athens, September 27-29, 2023



Hellenic Mediterranean
University

RETASTE 2023 is co-organized
by Harokopio University



RETASTE 2023 is organized with
the financial support of the External
Actions Program 2023 of the Green Fund.



GREEN FUND

RETASTE:

**Rethink Food Resources,
Losses, and Waste**

3rd International Conference

Athens, September 27-29, 2023

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Publication

Hellenic Mediterranean University, School of Agriculture, Department of Agriculture
Estavromenos, 71 410 Heraklion, Greece

First published on September 27, 2023, in Heraklion, Greece by Hellenic Mediterranean University, School of Agriculture, Department of Agriculture.

ISBN: 978-618-84774-7-6

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Analyzing the Use of Accounting Methodologies for Assessing Sustainability in Food Waste Prevention and Reduction Actions from ToNoWaste HEurope Project Approach

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Abstract

The identification, validation, and demonstration of innovative and effective ways to reduce food losses and waste is a key issue for a sustainable development. JRC workshop 'Food waste accounting: methodologies, challenges, and opportunities', concluded that "a harmonized methodology for food waste accounting is not yet defined and there is the need of improving and matching methodological aspects and policy questions as the information needs are different depending on the area of policy intervention" (Corrado et al., 2019). Consequently, it is necessary to advance in the development of sustainability food loss and waste prevention and reduction (FLWPR) accounting methodologies that integrate economic, social, and environmental issues which overcome current limitations. In this context, the goal of this paper is twofold. First, to analyze the current strengths and weaknesses of existing accounting methodologies for assessing sustainability in FLWPR actions to define an integrative sustainability assessment methodology. For this, a systematic mapping study of European Research Projects is conducted with the aim of identifying and analyzing the recent research projects developed in Europe focused on FLWPR to take them as a solid foundation for the future research on this area. Specifically, this study adapts the research method proposed by García-Holgado et al. (2019) for mapping studies and chooses as sources to conduct this research two main databases: CORDIS and BBI JU. Moreover, the study covers European research projects from 2013 to 2023. To define this searching period, the previous FUSIONS H2020 Project was taken as a reference of the analysis of FLWPR accounting methodologies. Finally, a total of 21 projects were considered in the analysis process. Based on the proposal of Bocken et al. (2014), a previous classification of projects was estimated needed to make a proper analysis considering the specific particularities of each kind of project. This classification was made attending to the nature of the solutions to the problem of food losses and waste proposed by each project. The categories considered are solutions based on technological aspects, social aspects, and organizational aspects. Second goal is to test the assessment proposal by assessing some aspects related to the sustainability of a specific FLWPR action, with the objective of showing how this method could help to overcome the current limitations of existing accounting methodologies. In this line, the testing process of this study will be mainly focused on the technological based solutions.

Keywords: food loss, food waste, accounting methodologies, sustainability

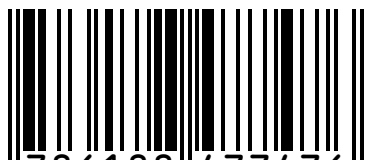
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Acknowledgments: This paper is supported by the project 101059849 HORIZON EUROPE (CEE) 'TONOWASTE-Towards a new zero food waste mindset based on holistic assessment'



ISBN 978-618-84774-7-6



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