

LIFE BIOBEST

GUIDING THE MAINSTREAMING OF BEST BIO-WASTE RECYCLING
PRACTICES IN EUROPE

D5.1: Decision support trees

WP5: Policy and regulatory recommendations for bio-waste

T5.3: Design of a guidance in the form of decision support tree for local and regional authorities taking into account different framework conditions

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Public Report



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1 Document attributes

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1.1 Document Management Control Sheet

Table 1. Document Management Control Sheet

PROJECT NAME:	LIFE BIOBEST
Full Project Title:	Guiding the mainstreaming of best bio-waste recycling practices in Europe
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Duration:	30 months
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Task & Task Leader:	T.5.3 Design of a guidance in the form of decision support tree for local and regional authorities taking into account different framework conditions – ENT
Related Deliverables:	D2.3 Assessment Matrix of Best Practices
Related Milestones:	MS12 Guidance tree set up (M26)
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Other Authors Involved:	
Peer Reviewers:	ACR+ – Jean-Benoit Bel ZWE – Manon Jourdan & Enzo Favoino
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File Location:	P-22-04 PLP BIOBEST > BIOBEST Shared documents > WP5>T5.1>D5.1 (internal copy) Participant Portal (submitted copy)

1.2 Document Revision History

Table 2. Document Revision History

Version Number	Date	Version	Short Description of the Changes	Editor
0.1	12/2/25	1 st Draft	Document created as 1 st version	ENT – Mike Stinavage
0.2	12/3/25	2 nd Draft	Document created as 2 nd version to be distributed	ENT – Mike Stinavage & Gemma Nohales
0.3	01/04/25	3 rd Draft	Peer reviewers' contributions in track changes	ACR+ – Jean-Benoit Bel ZWE – Manon Jourdan & Enzo Favoino
0.4	01/04/25	4 th Draft	Revision to include peer reviewers' contributions and Linguistic and format revision	ENT – Mike Stinavage & Gemma Nohales
0.5	23/04/25	Definitive/ Approved	Creation and testing of the Excel tool (Annex 1) Final linguistic and format revision Definitive and approved version to be submitted	ENT – Mike Stinavage & Gemma Nohales
0.6	09/05/25	Submitted	Submitted to Participant Portal in PDF	ENT – Gemma Nohales

1.3 Document Overview

LIFE BIOBEST D5.1 Decision support trees functions as a tool for municipalities and regional authorities to evaluate their specific difficulties and context. Following a preliminary self-assessment in section [3](#), the decision support trees in section [4](#) disaggregate barriers that inhibit bio-waste implementation, pairing them with resources and recommendations from LIFE BIOBEST outputs.

Annex: Decision Support Tree Tool integrates the self-assessment checklists, including a scoring feature, and decision support trees into excel format with interactive navigation. Based on the user's responses, the excel form directs the user from the assessment to the barriers and, finally, to LIFE BIOBEST recommendations.

Designed to be considered alongside [LIFE BIOBEST D2.3 Assessment Matrix of Best Practices](#), the two resources provide distinct visualisations of the same information. Together, they evaluate contextual factors in order to provide local and regional authorities tools for understanding the needs and adaptations related to bio-waste management. For EU-level recommendations, please see [LIFE BIOBEST D5.4 Comprehensive guidance for the EU](#).

The goal of the decision support trees is to equip regional and local authorities with a way to evaluate their unique circumstance and improve their bio-waste management systems.

1.4 Table of Acronyms

Table 3. Table of Acronyms

Acronym	Term
AD	Anaerobic digestion
BP	Best practice
D	Deliverable
EC	European Commission
EU	European Union
KPI	Key performance Indicator
LD	Landfill Directive
MS	Member State(s)
PAYT	Pay-as-you-throw

1.5 LIFE BIOBEST Project Summary

EU obligations on the selective collection of bio-waste came into force at the end of 2023, increasing the availability of source-separated bio-waste for composting and anaerobic digestion. To ensure the development of bio-waste management best practices and the production of quality compost and digestate for soil applications, while minimising any negative effect and closing effectively the loop, a comprehensive analysis is required regarding bio-waste management strategies, instruments and management schemes and their results given that large disparities exist among experiences in the EU.

The LIFE BIOBEST project aims to identify and validate the current Best Practices (BP) and management instruments along the bio-waste management chain (from generation to treatment) that allow the production of quality compost and digestate and establish a series of reference Key Performance Indicators (KPI), based on the analysis of existing databases and experiences. In a policy brief about barriers and through interconnected co-creation meetings with relevant expert stakeholders of the sector, solutions have been provided to overcome the identified technical, regulatory, economic and environmental barriers to widely adopt the proposed BPs.

Four guidelines and a comprehensive EU-wide guide have been created, together with two decision-support tree guides for local and regional authorities to adapt bio-waste management models to their specific context, offering feasible BP and management instruments to promote efficient collection and subsequent recycling of bio-waste into quality compost and digestate.

By means of an analysis of the input materials, treatment practices, resulting compost and digestate quality, a proposal for premium European standards for biological waste entering composting and anaerobic digestion have been developed with the ultimate goal of promoting the certification of these materials and treatments, guaranteeing optimal management processes and a safe, beneficial return to the soil.

The outcomes of LIFE BIOBEST will promote a significant improvement of the collection and treatment systems, and consequently of the quantity and purity of the input material, reducing process rejects and favouring the conversion of bio-waste into high-quality compost and digestate.

The LIFE BIOBEST consortium is led by [Fundació ENT](#) (ENT) in partnership with [Consorzio Italiano Compostatori](#) (CIC), [ACR+](#) (Association of Cities and Regions for sustainable Resource management), [European Compost Network](#) (ECN) and [Zero Waste Europe](#) (ZWE). It is a 2.5-years LIFE Preparatory Project funded by the European Commission.

Project Total Eligible Costs: € 1,664,600.07, Funding Rate: 90%,
Maximum Grant Amount: € 1,498,140.05.

2 Introduction

Unique regional and local contexts shape bio-waste management solutions. The design of the collection and treatment systems must be adapted to or aligned with contextual factors such as geography, topography, urbanism, and socio-economic conditions and demographic characteristics.

LIFE BIOBEST D5.1 Decision support trees functions as a tool for authorities to evaluate their specific context and bio-waste management barriers. It begins with a preliminary self-assessment in section 3. With the results in mind, readers may navigate to the decision support trees in section 4. There, common barriers are paired with resources and recommendations from LIFE BIOBEST outputs.

Annex: Decision Support Tree Tool integrates the self-assessment checklists, including a scoring feature, and decision support trees into excel format with interactive navigation. Based on the user's responses, the excel form directs the user from the assessment to the barriers and, finally, to LIFE BIOBEST recommendations.

Designed to be considered alongside [LIFE BIOBEST D2.3 Assessment Matrix of Best Practices](#), the two resources provide distinct visualisations of the same information. Together, they evaluate contextual factors in order to provide regional and local authorities with tools for understanding the needs and adaptations related to bio-waste management. For EU-level recommendations, please see [LIFE BIOBEST D5.4 Comprehensive guidance for the EU](#).

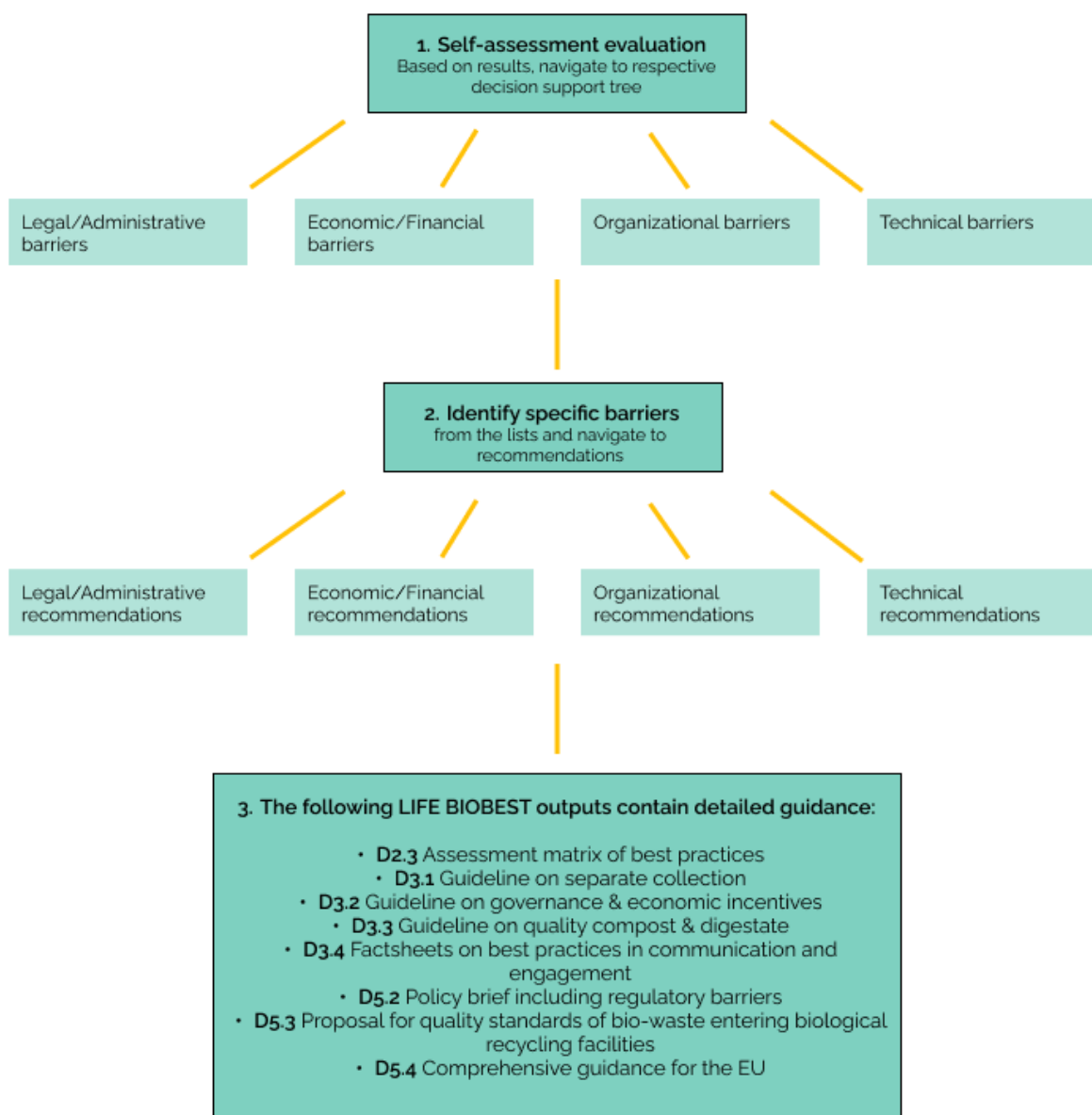
On 10 April 2025, the LIFE BIOBEST consortium held its final [capacity building event](#) in which the self-assessment checklists and decision support trees were presented and validated by participants. For more information on the feedback received, please see **LIFE BIOBEST D4.3 Report on the feedback received in the decision support tree session**.

The documents below are launching points for this report and references for more information.

- [LIFE BIOBEST D2.2 Statistical analysis identifying best practices](#),
- [LIFE BIOBEST D3.1 Guideline on separate collection](#),
- [LIFE BIOBEST D3.2 Guideline on governance and economic incentives](#),
- [LIFE BIOBEST D3.3 Guideline on quality compost and digestate](#),
- [LIFE BIOBEST D3.4 Factsheets on the analysis of best practices in communication and engagement from various countries](#),
- [LIFE BIOBEST D5.2 Policy brief including regulatory barriers](#) and
- [LIFE BIOBEST D5.3 Proposal for quality standards for bio-waste entering biological recycling facilities](#).

Figure 1 provides a visual guide for navigating this document and the resources therein.

Figure 1. Graphic depiction to assist navigation of the document



3 Self-assessment checklists

Within the framework of the [LIFE BIOBEST D2.3 Assessment Matrix of Best Practices](#) and [LIFE BIOBEST D5.1 Decision support trees](#), LIFE BIOBEST generated two checklists, one for regional authorities and the other for local authorities. Regional authority refers to any jurisdictional level with duties and mandates to define plans, strategies, regulations and monitoring. Local authority, on the other hand, refers to any jurisdictional level mandated to implement operational schemes. These checklists serve as a self-assessment of bio-waste management and key instruments application.

In the checklists below, local and regional entities may assess their progress towards core actions as “Applied”, “Underway” or “Not applied”. Based on the categorization of barriers and proposals achieved in the context of [LIFE BIOBEST D5.2 Policy brief](#), regulatory and technical barriers can also be categorized as primarily:

- Legal/Administrative,
- Economic/Financial,
- Organizational and
- Technical.

The first checklist in section [3.1](#) is designed with regional authorities or any other jurisdictional entity mandated to define plans and strategies. The second checklist in section [3.2](#) considers local authorities or any other jurisdictional entity mandated to implement schemes.

For those actions that result in “Not applied”, authorities may pay special attention to the subsequent decision support trees that correspond to the respective action lines.

3.1 Regional authorities

Figure 2. Core actions checklist based on primary categorizations for regional authorities

Checklist: Core actions for regional authorities

	Applied	Underway	Not applied
Legal/Administrative			
a. Laws and strategies to cascade policies down to lower authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Instituted legally binding targets to support quality and quantity of collected materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Effective penalties for noncompliance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Environmental and agricultural policies aligned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Economic/Financial			
a. Sufficient economic resources and procurement of EU funds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Effective disposal taxes for landfills and incinerators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Tax refund schemes in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Promotion of PAYT and variable charges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Streamlined permissions and financing process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Reliable market for compost, digestate & biogas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organizational			
a. Strategic regional waste management plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Synchronization & coordination of entities involved in waste management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Decision-maker advocacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Provision of trainings for technicians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Provision of outreach to agricultural producers about the use of compost & digestate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Comprehensive monitoring information and statistics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Promote communication activities and launch general communication campaigns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical			
a. Technical guidance and support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Planning and support of treatment network & capacity considering projected tonnages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Consideration of local contextual factors in the creation of mandates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.2 Local authorities

Figure 3. Core actions checklist based on primary categorizations for local authorities

Checklist: Core actions for local authorities			
	Applied	Underway	Not applied
Legal/Administrative			
a. Effective local ordinances and norms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Effective penalties for noncompliance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Economic/Financial			
a. PAYT or other variable charges associated to individualized collection models	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Charges that cover 100% of the cost of waste management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Access to grants and use tax refund amount to improve management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organizational			
a. Strategic local waste management plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Decision-makers involvement and advocacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Comprehensive monitoring information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Effective & continuous outreach campaigns and participation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical			
a. Use of individualized collection models	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. High service quality and coverage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Technical guidance and support for technicians and operators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Sufficient skillset and trainings for producers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Proper functioning and tracking of home composting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Monitoring producer delivery and set out to ensure quality and quantity material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Planning and support of treatment network & capacity considering projected tonnages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Proper management of facilities and implementation of Quality Assurance Schemes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Comprehensive assessment of contextual factors and application of measures necessary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4 Decision support trees

With the results of the self-assessment checklists in mind, the following chapter presents various decision support trees.

These trees offer a scheme in which readers can find barriers organized based on categories described in section 3. Once barriers have been identified, the decision support trees offer readers a list of specific barriers that may apply to their circumstance.

The trees then direct authorities to LIFE BIOBEST resources that give detailed guidance and tools to overcome the barriers and improve the bio-waste management system. The decision support trees are a way for authorities to easily locate the LIFE BIOBEST resources with technical expertise and details that will best fit their necessity.

Due to the specific competencies of certain government levels, within the framework of these decision support trees, legal/administrative barriers primarily apply to regional authorities. Technical barriers primarily apply to local authorities. Economic/financial and organizational barriers, on the other hand, apply to both regional and local authorities.

4.1 Legal/Administrative decision support tree: Regional authorities

Figure 4. Decision support tree for regional authorities experiencing legal/administrative barriers



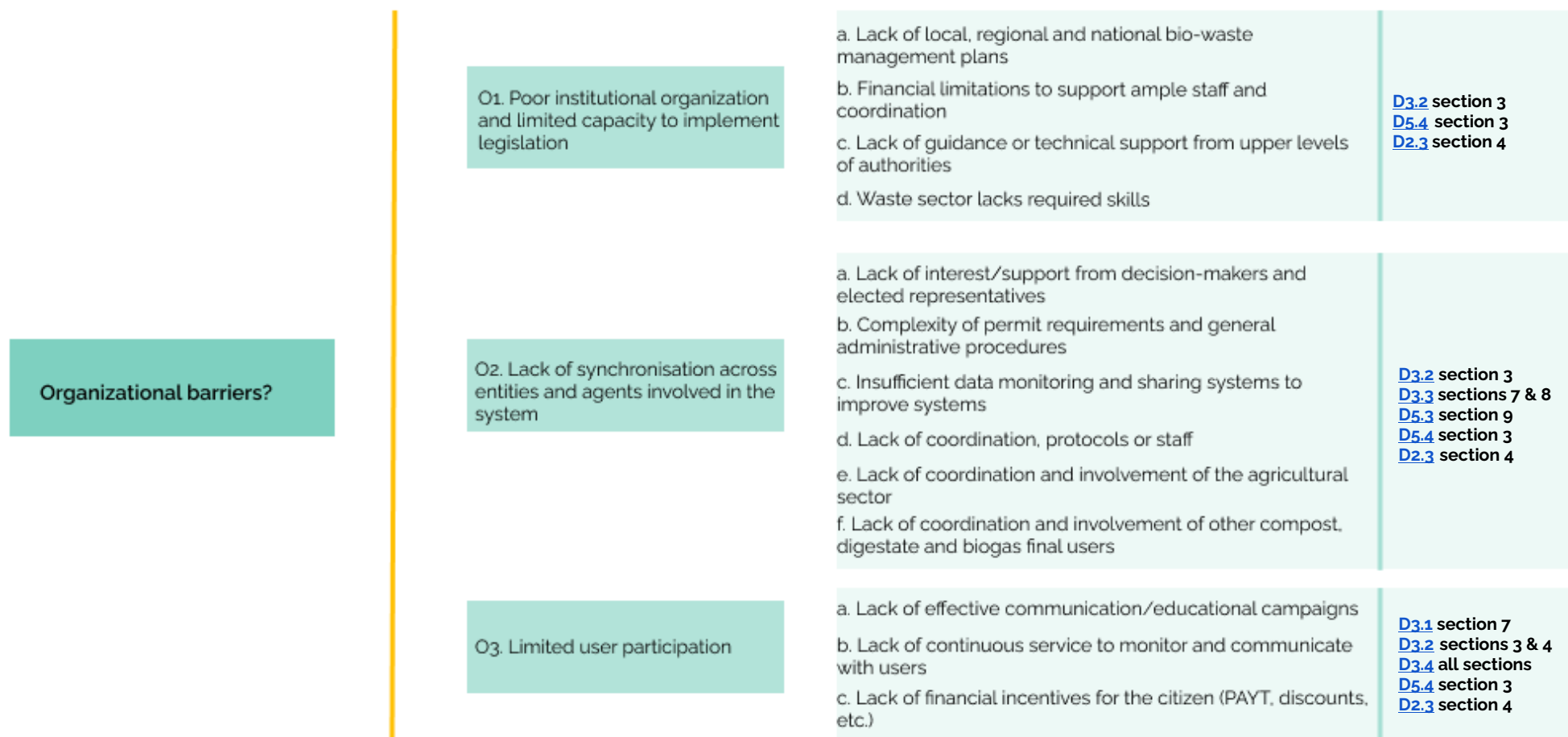
4.2 Economic/Financial decision support tree: Regional and local authorities

Figure 5. Decision support tree for regional and local authorities experiencing economic/financial barriers



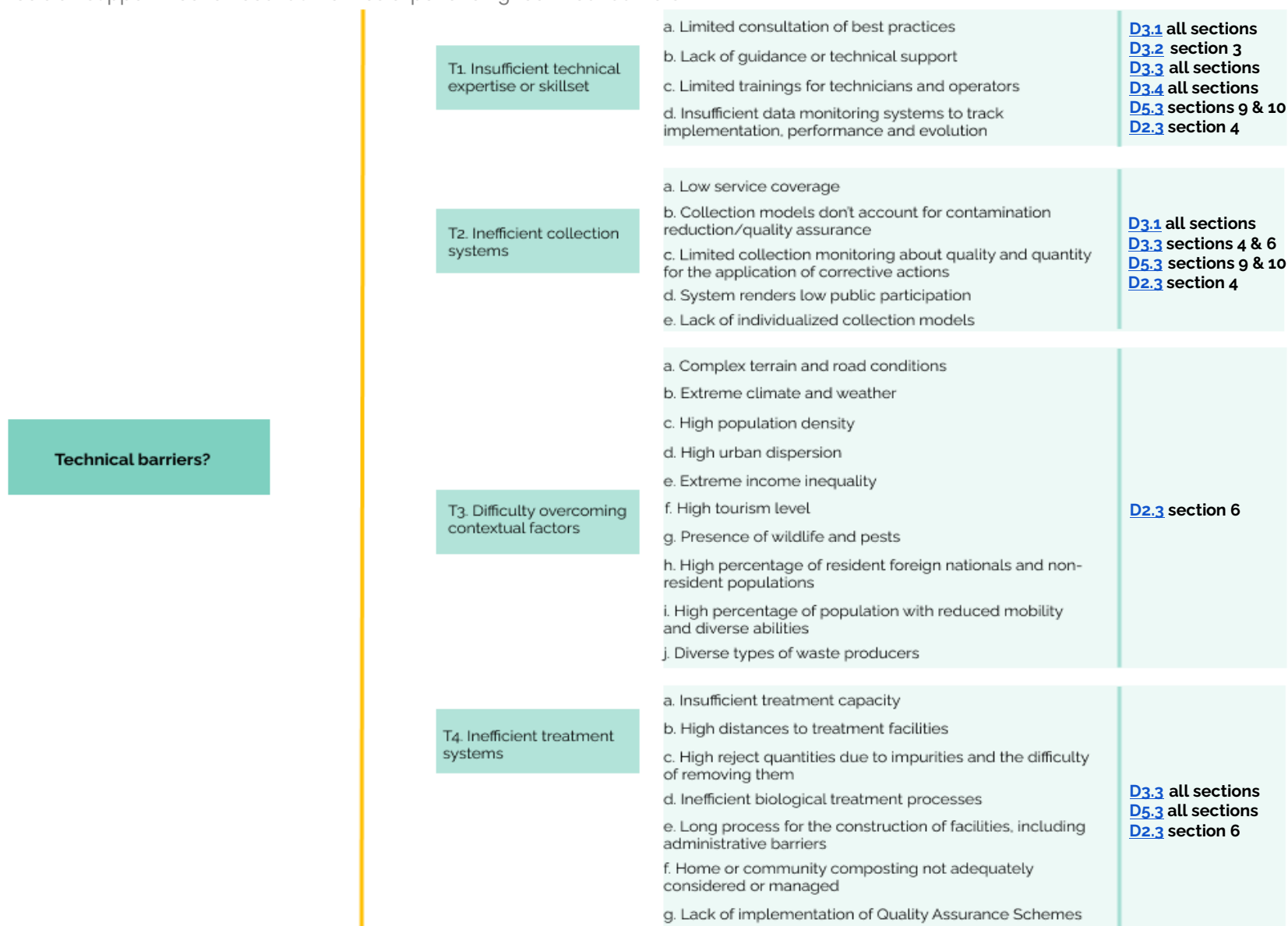
4.3 Organizational decision support tree: Regional and local authorities

Figure 6. Decision support tree for regional and local authorities experiencing organizational barriers



4.4 Technical decision support tree: Local authorities

Figure 7. Decision support tree for local authorities experiencing technical barriers



5 Conclusion

Self-assessment checklists and decision support trees for legal/administrative, economic/financial, organizational and technical barriers are provided as tools for regional and local authorities to evaluate and improve their bio-waste management system and strategy.

The decision support trees are complementary tools to the [**LIFE BIOBEST D2.3 Assessment Matrix of Best Practices**](#), which is another resource to evaluate primary factors in order to provide recommendations.

The decision support trees and matrices are visualizations of LIFE BIOBEST recommendations and guidance and should be considered alongside the deliverables listed in the introduction.

To facilitate the usage of these resources, please access the **Annex: Decision Support Tree Tool** that integrates the self-assessment checklists, including a scoring feature, and decision support trees into excel format with interactive navigation. Based on the user's responses, the excel form directs the user from the assessment to the barriers and, finally, to LIFE BIOBEST recommendations.

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