Bin2Bean

PLAN

Strategic alignment



CREATE A COMMON UNDERSTANDING – PARTICIPATORY MODELLING WORKSHOPS

Building an effective bio-waste-to-soil-health system requires a shared understanding of how different factors across the value chain interact. This participatory activity brings stakeholders together to collectively map system barriers and enablers, constructing a visual Causal Loop Diagram (CLD). By illustrating cause-and-effect relationships across separation, collection, processing, and end-use stages, municipalities can identify critical leverage points and co-design targeted, high-impact interventions.

- **Who leads it:** The Municipality leads the activity. Participants should represent all Living Lab stakeholders across the full bio-waste value chain (separation, collection, processing, and end-use). A facilitator familiar with systems thinking/CLD methodology is required.
- **What needs to be done:** Prepare by recruiting key stakeholders and optional predefined starter factors. Choose one of two formats:
    1. *In-person workshop (~3h):* Run a World Café brainstorm on barriers/enablers, cluster and vote on priority factors, then build a collective CLD using sticky notes and causal arrows before brainstorming interventions.
    2. *Interviews + online workshop:* Conduct individual mental-modelling interviews (~1h each) using starter factors, digitise and merge the models into a joint CLD, and

validate it during an online consolidation workshop (e.g., via MIRO) before co-designing interventions.

- **Timeline:** Depending on the approach, the timeline requires:
    1. In-person group workshop option: 3–5 hours for recruitment, 3–4 hours for design, 1–2 hours for facilitator briefing, ~3 hours for the session itself, 4–6 hours to digitise the CLD, and 4–6 hours for synthesis.
    2. Interviews + consolidation workshop option: 3–4 hours for recruitment, 2–3 hours to predefine candidate factors, ~5–6 hours total for 4 individual interviews (~1–1.5 hours each), 5–8 hours to digitise/merge models, 1.5–2 hours for an online consolidation workshop, and 3–5 hours for synthesis.

Activity Abstract Article

DRIVING SYSTEMIC CHANGE: POLICY ROADMAP AND GUIDELINES

Before designing or refining your local bio-waste strategy, it is important to understand the regulatory and governance frameworks that dictate long-term compliance and circularity. Even the most technically sound business plans can be hindered by fragmented policies or hidden legislative barriers. This activity leverages the *Bin2Bean Policy Roadmap and Guidelines*, a ready-to-use result built directly upon evidence from multiple Living Labs, extensive stakeholder interviews, and comparative cross-country analyses already carried out by the BIN2BEAN project partners. Mapping out six critical regulatory gaps across the entire bio-waste-to-soil value chain, this resource equips your city with six structured policy recommendations to bridge the gap between ambitious EU policy goals and local implementation realities, so you do not need to repeat analysis from scratch.

- **Who leads it:** A policy-oriented organisation with expertise in bio-waste regulation and circular economy governance must lead the process of applying these recommendations locally, such as a city sustainability department, a regional waste management authority, or a national agency. The process should actively involve EU, national, and local policymakers, municipal waste officers, processing facility managers, farmers, agricultural associations, legal experts, and local advisory bodies.
- **What needs to be done:** Gain online access to the Bin2Bean policy materials. Read the summary brief for an accessible overview of the core gaps, and then dive into the full deliverable to review the complete evidence base and country-specific case studies. Identify which of the six documented regulatory gaps directly impact your local or national context. Rather than developing a new roadmap from scratch, use the corresponding policy recommendations as a concrete foundation to better implement your local policy objectives and bio-waste management (BWM) strategies, for example by drafting updated local policy proposals, preparing response frameworks for legislative consultations, or hosting focused policy dialogue sessions, either in person or online, to align local waste operations with regional and European standards.
- **When to use it:** Deploy this result early in the planning process, when your city, region, or national authority is reviewing or redesigning its bio-waste collection and valorisation strategy, preparing inputs for legislative consultations, or establishing multi-stakeholder policy dialogues.
- **Timeline:** Reviewing the quick Policy Brief takes 30 to 45 minutes, while studying the full report takes 3 to 5 hours. Organising an internal or external policy dialogue session based on the findings requires 1 to 2 days of preparation and a half-day event.

Activity Abstract

Policy Brief

Policy Roadmap

Report on comparative policy frameworks

POLICY FORUM: NAVIGATING COMPLEX BIO-WASTE DECISIONS

Introducing structural changes to local bio-waste management, such as new waste charging systems, bio-bin rollouts, or quality standards, involves complex technical, legal, and political considerations. The Policy Forum (PF) is a structured, strictly in-person discussion format designed to evaluate policy alternatives on a rational basis, assess impacts across the value chain, and resolve divergent public or political opinions. By gathering relevant stakeholders in the initial planning phase before key decisions are taken, the PF generates well-supported recommendations to guide municipal choices. Follow-up forums can subsequently be held to review implementation results and discuss new approaches.

- **Who leads it:** The city administration (problem owner) leads and organises the activity. Participants include administrative departments, municipal council members, political parties, external experts, and key value-chain stakeholders, moderated by a dedicated facilitator.
- **What needs to be done:** Define clear objectives for the forum, compile a curated participant list, and share essential briefing information in advance to ensure full transparency. Host the 1.5- to 4-hour session in a quiet room, utilizing interactive co-creation methods and real-time visual projections of key theses. Finally, produce comprehensive documentation recording all contributions and administrative conclusions (applying Chatham House Rules if necessary).
- **When to run it:** Organise a Policy Forum during the early planning phase when facing sensitive political questions, public ambiguities, or complex decisions requiring in-depth technical evaluation. Additional sessions can be scheduled later if necessary.
- **Timeline:** Plan for a total timeline of 2 to 3 months: allow 3 weeks for internal preparation, 2 to 4 weeks for participant preparation, 1.5 to 4 hours for the forum itself, and 2 weeks for documentation and sharing results.

Activity Abstract

ESTABLISHING A COMMON VISION, SMART OBJECTIVES & TRANSITION PATHWAYS

Moving from baseline diagnostics to action requires defining a shared long-term ambition for the urban bio-waste system and setting concrete steps to achieve it. Bringing together key stakeholders, this activity develops a collective, desirable future vision (e.g., for at least five years[1]) for local bio-waste recycling and soil health. This qualitative vision is then translated into time-bound, quantifiable SMART objectives and strategic transition pathways, bridging the gap between future goals and current urban realities.

[1] *Be careful of the side-effect that having a too long-term time horizon can lead the stakeholders to postpone the solution of current problems. Better to keep the vision short & medium term (e.g. 5 to 10 years in the future).*

- **Who leads it:** The city administration or Living Lab facilitator, in close co-creation with multi-stakeholder representatives (e.g. local authorities, waste operators, researchers, farmers, civil society organisations, and citizens).
- **What needs to be done:** Host participatory envisioning workshops using creative backcasting techniques to articulate a shared vision for urban circularity and soil health. Break down the overarching vision into specific, measurable, achievable, relevant, and time-bound (SMART) mid-term objectives (e.g., target biowaste capture rates, soil improver purity levels, CO2 reduction targets). Define parallel transition pathways (e.g., policy, infrastructure, community engagement) that chart the practical steps, milestones, and governance needed to transition from the current baseline to the desired future state.
- **Timeline:** Plan for 2 to 4 months, incorporating 1 to 3 collaborative visioning and backcasting workshops.

DRIFT report | CDS Toolkit | Bin2Bean Living Lab Toolbox

Activity Abstracts

PARTICIPATORY MODELLING WORKSHOPS

WHO	
Who should lead the activity?	Municipality
Who should be involved?	All Living Lab stakeholders spanning the full biowaste value chain where possible
WHAT	
Short description of the activity	A participatory workshop in which stakeholders collectively identify barriers and enablers across the biowaste system stages (separation, collection, processing, end-use), and then construct a causal loop diagram (CLD) visualizing how these factors relate to and influence each other and to shared system goals.
Purpose/Goal	To create a shared, visual model of stakeholders' understanding of the local biowaste-to-soil-health system, identify the most critical barriers/enablers and intervention points, and use these insights to design targeted, actionable interventions.
Inputs needed to prepare the activity	Identified stakeholders (ideally spanning all system stages), a facilitator familiar with systems thinking/CLD methodology, and potentially a set of predefined factors drawn from prior workshops or literature to give participants a starting point.
Main steps	Two approaches emerged, adaptable based on group size, and stakeholder availability: **Approach A — In-person group workshop (~3h):** Icebreaker → small-group brainstorm of barriers/enablers per system stage (World Café format) → clustering → dot-voting to prioritize → brief systems thinking input → joint CLD construction with sticky notes and causal arrows → intervention brainstorming → wrap-up.

	Approach B — Interviews + consolidation workshop: Individual mental-modelling interviews (~4 participants) using predefined focal factors as anchors → Team merges into one joint CLD → follow-up online workshop (via MIRO) to validate and refine the model with a subset of interviewees plus other key actors, followed by intervention brainstorming and introduction of a planned follow-up study.
Outputs of the activity	One or more CLDs per living lab visualizing the perceived biowaste system and its critical intervention points; a prioritized list of barriers and enablers per system stage; a set of concrete, stakeholder-generated intervention ideas
Links to more information	Article: https://thesystemsthinker.com/causal-loop-construction-the-basics/
WHEN	
When should the activity be implemented?	At the beginning of the Plan phase, to establish a shared baseline understanding of the local system before designing specific interventions.
How much time should be planned to do this activity?	In-person group workshop: ~3 hours Individual interviews (1 hour per interview): allow enough time per participant for a full mental-model walkthrough Additional time afterward for the team to digitize, merge, and refine models
Timeline	**In-person workshop** • **Stakeholder identification and recruitment:** 3–5h (aim to include all system stages — separation, collection, processing, end-use) • **Workshop design:** 3–4h • **Facilitator briefing/translation:** 1–2h • **Running the workshop:** ~3h • **Digitizing and refining the CLD:** 4–6h • **Analysis of results and intervention synthesis:** 4–6h **Interviews + consolidation workshop** • **Stakeholder identification and recruitment:** 3–4h • **Predefining starter factors:** 2–3h • **Conducting individual interviews (~4 participants):** 1–1.5h each, ~5–6h total • **Digitizing and merging into a joint CLD:** 5–8h • **Follow-up consolidation workshop (online):** 1.5–2h • **Analysis and intervention synthesis:** 3–5h
WHERE	
Where should the activity take place? (e.g. online, in person, on site)	**In-person** for a full group workshop or a **hybrid approach, e.g.** in-person one-on-one interviews followed by an **online** consolidation workshop
HOW WOULD YOU IMPROVE THIS ACTIVITY, COMPARED TO HOW YOU DID IT IN BIN2BEAN?	
Feedback on experience from Living Labs or people participating	• Workshop-based barrier-identification phase was well received and engaging; the CLD-construction phase was more difficult for participants

	• Interviewees enjoyed the mental-modelling process, but were self-selected and highly motivated, which may bias how representative their models are
Feedback on experience from partners leading the activity	• Individual interviews lead to more nuanced factors when participants already know the system well • Predefining a starter list of candidate factors helps participants engage faster without overly constraining them

POLICY ROADMAP AND GUIDELINES

WHO	
Who should be the "lead" when using the result?	A policy-oriented organisation with expertise in bio-waste regulation and circular economy governance, like a research institution, a municipal or regional authority, or a national agency working on waste and soil policy. Also, a regional waste management authority, or a city sustainability department seeking to design or update its bio-waste policy framework.
Who should be involved?	• Policymakers at EU, national, regional, and local level • Municipal waste management officers and operators • Representatives of bio-waste processing facilities • Farmers and agricultural associations • Environmental and legal experts familiar with WFD, FPR, and soil legislation • Stakeholder and Policy Group (SPG) members or equivalent local advisory bodies
WHAT	
Short description of the result	A policy roadmap and set of practical guidelines for policymakers, grounded in evidence from BIN2BEAN's three Living Labs (Amsterdam, Hamburg, Egaleo), stakeholder interviews, policy forum discussions, and comparative analysis with sister projects (bioSOILUTIONS, FENIX). It covers the full bio-waste-to-soil improvers value chain, identifies six key regulatory gaps, and provides six structured policy recommendations addressed to EU, national, and local levels.
Purpose/Goal	To support policymakers in designing, updating, or strengthening regulatory and governance frameworks for bio-waste valorisation, with the goal of closing the gap between EU policy ambitions and local implementation.
Inputs needed to use the result	• Understand your regulatory context based on the *Template on local and national regulatory frameworks* • Identify your policy priorities at local level based on the *Policy Forum* work. • Use the BIN2BEAN policy material
Main steps of the result	1. Read the Policy Brief for an accessible overview of the key gaps and recommendations 2. Consult the full Policy Roadmap for the full evidence base, detailed recommendations by governance level, and Living Lab case studies 3. Identify which of the six regulatory gaps are most relevant to your local or national context 4. Use the corresponding policy recommendations as a basis for dialogue with relevant authorities, stakeholders, or policy processes

Outputs of using this result	• Improved understanding of regulatory barriers in the bio-waste-to-soil improvers value chain • Policy proposals at local, national, or EU level • Stronger dialogue between municipalities, national authorities, and EU institutions
Links to more information	BIN2BEAN policy brief BIN2BEAN report on comparative policy frameworks BIN2BEAN policy roadmap
WHEN	
When should the result be used?	When a city, region, or national authority is reviewing or redesigning its bio-waste collection and valorisation strategy, preparing input to legislative consultations, or setting up multi-stakeholder policy dialogue processes. It is also relevant for organisations applying for EU funding in the bio-waste or circular economy domain, as it provides a consolidated evidence base.
How much time should be planned to use this result?	• Reading the Policy Brief: approximately 30-45 minutes • Reading the full Policy Roadmap: 3–5 hours • Organising a policy dialogue session based on the recommendations: 1–2 days of preparation plus a half-day event
Timeline	Day 1: read the Policy Brief and identify the most relevant regulatory gaps for your context Days 2–5: consult Deliverable 6.2 and IR2 for the detailed evidence and country-specific regulatory information Weeks 2–4: use the recommendations as a basis for internal discussion or stakeholder consultation
WHERE	
Where should the result be used? (e.g. on site (which site?), in person, online, …)	The Policy Brief and the full Policy Roadmap are available online and can be consulted remotely Policy dialogue and stakeholder consultations based on the recommendations should take place in person (as a preference), but can be held online as well if in person meetings are not possible. The results are designed for applicability at European level

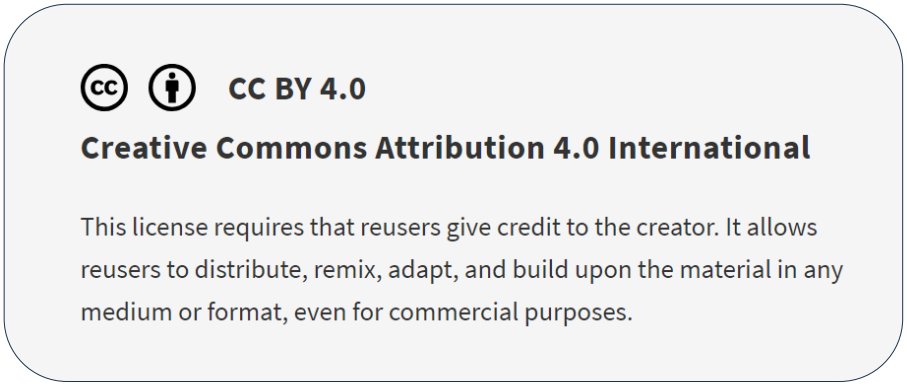
POLICY FORUM (FOR LLS/CITIES LAUNCHING THEIR BW STRATEGY)

WHO	
Who should lead the activity?	Problem owner, e.g. the city administration
Who should be involved?	Stakeholders (to be recruited by the organiser, e.g. the guiding municipality), responsible departments of the administration, experts, maybe also council members, political parties
WHAT	
Short description of the activity	A PF serves as a discussion forum for political questions with regard to complex issues of (bio-) waste management including charging systems.
Purpose/Goal	The PF should yield results based on the in-depth discussion of different alternatives, which can be used as basis for further considerations in the administration and potentially as a preparation of council decisions.
Inputs needed to prepare the activity	Description of options for the introduction or changes of certain steps in (bio-) waste management (e.g. quality issues, new waste charging system, introduction of bio bins in new areas, awareness raising for compost and soil issues). Inclusion of potential impacts on the value chain.

Main steps	- The administration defines the subject and the target of the PF as precisely as possible. - The administration structures the PF and compiles a list of potential participants (stakeholders, experts, maybe members of the city council etc.) - The responsible department completes the agenda and the "house rules", invites the participants, nominates a facilitator (maybe an external consultant) - All information, which is necessary to discuss the subject in question, should be available for the participants before or during the PF – transparency is key for trust in the process. - The PF (1.5 – 4 hours) should take place in a quiet room (without disruptions by phone calls etc.). - The documentation of the PF must include all contributions, at best also conclusions drawn by the administration. - The documentation might follow the Chatham House Rules if necessary - The list of participants should make it clear who is speaking on behalf of an institution and who is expressing their personal opinion
Outputs of the activity	An overview of opinions and recommendations from stakeholders with regard to the defined. Stakeholder and expert judgement of potential alternatives and their implementation
Links to more information	Evaluation of the PFs of the LLs are documented in the Bin2Bean report "Charging Systems for Bio-Waste Collection and Valorisation"
WHEN	
When should the activity be implemented?	In case of political questions / decisions that require in-depth technical, legal,... information and discussion, particularly if there are divergent opinions on the subject in question, maybe also in case of sensitive issues and ambiguities in the public discussion
How much time should be planned to do this activity?	2-3 months
Timeline	Internal preparation: 3 weeks; final agenda, invitation (1 week), time slot for preparatory work of the invited persons: 2-4 weeks, PF, minutes and evaluation: 2 weeks; information of all participants about the results
WHERE	
Where should the activity take place? (e.g. online, in person, on site)	Strictly in person
HOW WOULD YOU IMPROVE THIS ACTIVITY, COMPARED TO HOW YOU DID IT IN BIN2BEAN?	
Feedback on experience from Living Labs or people participating	LL1: The PF was initiated by the LL leader, rather than the administration. The facilitator recommends establishing a visual representation of the discussion in real time, for example by projecting notes or theses onto a screen. Furthermore, co-creation methods are useful for encouraging interaction and participation from all stakeholders. Curating the participants list also proved to be crucial. LL2: In this case, the PF was organised as a review and evaluation of project activities, i.e. measures that had already been implemented. The PDCA abstract accurately describes the process. LL3: The LL performed three PFs. The process turned out to be suitable. It is recommended that the first PF is organised within the administration,

	with the aim of achieving a good structure and preparing for the next PFs, which will involve numerous stakeholders and/or political leaders. External experts can be very helpful in providing evidence and sharing experiences from other cities.
Feedback on experience from partners leading the activity	If the recommended format for the PF does not fit in the case in question, it can easily be customized with respect to the local situation. It is most important to identify the relevant stakeholders and ensure they have all necessary information for a fair and fruitful discussion.

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