CASE STUDY · AMSTERDAM

Where the Money Leaks

A sustainability and efficiency diagnostic of a recurring family event package at an Amsterdam neighbourhood café

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Diagnostic engagement, March–May 2026 · Published [DATE]

The venue is not named and financial data is presented as a share of package revenue. This study is structured against ISO 20121:2024; no claim of conformity is made for any event, venue or engagement.

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Executive summary

A neighbourhood café in Amsterdam with an indoor play area sells the same family event package every week — a standardised, repeatable product. The owner's question at intake was not about sustainability. It was blunter: *where am I losing pointless money that should be reused in the business?*

This study answers that question, and finds that the answer and the sustainability answer are largely the same one.

At the time of the baseline the package ran at a **21% contribution margin after direct event costs**, against a 35–40% band derived from Dutch hospitality direct-cost norms. Labour absorbed **49% of package revenue** against a sector range of 25–35%. Single-use decorations and goodie bags absorbed a further **12%**. Nearly four out of every five euros the client paid were consumed by direct cost — before rent, utilities, insurance, marketing or the owner's own unpaid hours.

Four findings:

1. **Labour is the financial problem.** Seventeen paid hours were committed to an event containing roughly eleven hours of work. The gap was structural, not personal: inflating balloons, taping decorations to walls, and cooking to order on the busiest revenue day of the week.
2. **Disposables are the credibility problem, not the climate problem.** The single-use kit accounts for an estimated **4 kg CO_2e per event** — small in absolute terms, and I say so plainly below. But it is 12% of revenue, close to fully avoidable, and it contradicts what the venue tells the public about itself.
3. **The menu is the biggest carbon line and the smallest problem.** About three quarters of the event's emissions come from the food, and only a quarter from decorations and disposables. The menu is already light — no beef, no lamb, a seasonal vegetable sandwich — so there is little left to cut there. Which is exactly why the case against disposables is about money and credibility, not carbon.
4. **The disposables came in a box nobody chose.** The venue already runs a largely reusable service and proves it every week — enamel dishes, ceramic bowls, real glassware, metal ramekins, paper straws, all in use at the audited event. The gap is narrow and specific: it sits almost entirely in items that arrive **bundled inside a bought-in themed kit**, plus a nutritionist-designed children's menu that exists on the à la carte card but is absent from the party booking form. **Nothing recommended here requires new capability. It requires different procurement.**

A redesigned operating model was modelled to move the package from a **21% to a 50% contribution margin**, recovering roughly **5.5 staff hours and 29 percentage points of contribution per event**, on an asset investment recovered within two to three events.

This was a consultancy diagnostic, not a certification audit. It is structured against **ISO 20121:2024** to show how the standard's logic applies to a business far below the scale it is usually associated with. **No claim of conformity with ISO 20121 is made for this event, this venue, or this engagement.**

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1. About this study

1.1 What this is

A retrospective write-up of a commissioned diagnostic engagement carried out between March and May 2026. It has three purposes: to show how a management-system framework applies proportionately to a micro-business; to demonstrate a working method for quantifying impact when the client has almost no data; and to be honest about what that method can and cannot deliver.

1.2 What this is not

- **Not a certification audit.** ISO 20121:2024 (A.2) is explicit that conformity cannot be claimed for an event — only for a management system, and only by the organisation operating it.
- **Not a verified carbon footprint.** Emissions figures are screening-level estimates on declared assumptions. They should not be quoted as measured values.
- **Not a full double materiality assessment.** A complete assessment requires structured consultation with all relevant interested parties. This engagement consulted the owner.

1.3 Confidentiality

The venue is not named. Financial data is presented as a percentage of package revenue or indexed to €100 of revenue rather than in absolute euros. Certain observations made in confidence have been withheld entirely. Where a pattern is instructive but sensitive, it is described at sector level rather than attributed.

Photographs taken during the audit are reproduced only where they contain no identifiable people and no personal data.

> **Why this study exists.** The engagement was difficult. Data requested in March arrived in May, or not at all. Publishing an imperfect study with its gaps visible is more useful to other practitioners than publishing nothing, or publishing something tidier than the evidence supports.

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2. Scope, boundary and method

2.1 Scope statement

> A standardised, recurring family event package (private hire of an indoor play area, children's birthday format) at a single Amsterdam café venue, covering the period from setup start to full restoration of the space. **Two editions are in scope:** an **earlier edition**, analysed during the planning phase, which supplies the cost, labour and materials baseline; and the **audited edition of 24 May 2026**, observed on site, which supplies the guest, waste and emissions measurement. Boundary: **the venue in party mode**. Life-cycle stages in scope: procurement, delivery, on-site operation, end-of-life of event-consumed materials. Excluded: guest travel, capital equipment manufacture, upstream café supply chain beyond event inputs.

ISO 20121:2024 (A.5) permits a scope covering a single event, a group of events, or all events, and asks the organisation to state its time boundaries. A single event is legitimate. Here it is also representative: the package is a standardised product sold in the same format every week.

2.2 The boundary problem

The hardest methodological question in this engagement was not measurement. It was deciding what counted.

Event sustainability methodology was built for festivals and conferences: discrete, temporary, with their own perimeter, power supply and waste contract. A recurring family event inside a working café is none of those. **It is not a discrete entity. It is an operating mode of a permanent venue.** The kitchen serving the party is the kitchen serving the café. The meter does not distinguish. Cardboard from deliveries accumulates across the week regardless of whether a party happens.

Excluding shared flows silently would understate impact. Attributing all of them would overstate it. Every flow was therefore sorted into one of three buckets, with the rule declared in advance:

Bucket	Rule	Applied here
Attributable	Consumed by, or arising from, the event within the time boundary	Residual waste generated at teardown · decoration kit · goodie bags · party catering · party labour hours
Allocated	Shared with café trading; requires a stated allocation key	Energy · cleaning · cardboard from deliveries · base overhead
Excluded	Outside scope, with a stated reason	Café trading unrelated to the party · pre-existing venue fit-out

Allocation key: floor area × hours in party configuration. Where allocation was not possible from available data, the flow is reported directionally and marked unquantified rather than estimated.

One consequence cuts both ways. The audited event fell on an unusually warm Sunday; the café traded almost nothing during the party window. That makes the event **a poor basis for annual extrapolation** — and it makes the residual waste count **unusually clean**, because there was almost no competing café waste stream. Both are declared.

2.3 Two editions, two datasets

This is the most important thing to understand before reading any number in this report.

	Earlier edition	Audited edition, 24 May 2026
Role	Diagnostic baseline	Verification of adoption
How obtained	Cost records and labour data supplied by the operator, analysed in the planning phase	Direct on-site observation, full photographic record, owner debrief
Supplies	Cost structure: labour, decor and disposables, food, contribution margin, paid hours	Guest numbers, food order, material flow, waste composition, emissions estimate
What is missing	No direct observation — reconstructed from records	**No cost data.** Invoices and the labour payout were requested and not supplied

The sequence matters: the baseline analysis and the proposed alternatives were delivered **before** the audited event was planned. By 24 May part of the recommendations were in place — reusable fabric bunting and a chalkboard name sign had been bought, and disposable spend had fallen. The audit therefore measured a venue mid-transition, not a starting position.

Two consequences run through everything below. **Financial figures describe the earlier edition; environmental figures describe 24 May.** They are reported separately and never merged into a single column. And **the environmental findings are post-intervention** — the nine bags of plastic novelties, the themed box of single-use plates and cups, the foil balloons are what survived a partial switch, which makes them a sharper finding than the same items found cold.

2.4 Data quality tiers

Every figure carries a tier. This is the most important methodological commitment in the study.

Tier	Meaning	Examples
T1 — Measured	Direct records or first-hand observed counts	Staff hours and rates · itemised procurement costs · package revenue · booked guest count · setup and teardown timings · goodie bag count · photographic record
T2 — Derived	Calculated from T1 data or identified product specifications	Material masses from identified items · residual waste mass from observed bag volume · food masses from the recorded order
T3 — Proxy	Benchmark, average emission factor, or assumed disposal route	Emission factors · hospitality cost ranges · assumed material composition
T4 — Not assessed	Declared exclusion or unavailable data	Guest travel · event-isolated energy · supplier credentials · water

2.5 Photographic evidence, and a correction it forced

The audit protocol included a photographic record of setup, service and teardown, including all waste receptacles.

This turned out to matter. My contemporaneous field note recorded food waste at this event as minor — a few sandwiches and a few portions of fries. Reviewing the photographic record afterwards, the residual stream

contained a substantial wedge of birthday cake, a significant quantity of fries, a sandwich and salad leaves, across two separate bags.

My on-the-day judgement was wrong, and the photographs corrected it. I record this rather than quietly restating the figure, for two reasons. It is the honest account. And it is the strongest argument I can make for photographing every waste receptacle at teardown: an auditor's impression of a bin is not evidence, and the difference between the two was material to the conclusion.

2.6 Emission factors, and where they stop working

Screening estimates use the **UK Government GHG Conversion Factors 2025 (condensed set)** for material production and waste disposal, and published food intensity values for catering. Three caveats are load-bearing, and each one changed a number:

5. **This is a UK dataset applied in the Netherlands.** Defensible for globally traded materials — plastics, paper, textiles — whose production is not country-specific. Not defensible for electricity or transport, where Dutch factors from the national list (**co2emissiefactoren.nl**) apply. Energy is therefore reported directionally rather than quantified.
6. **The landfill factors do not apply.** Dutch residual waste goes predominantly to incineration with energy recovery. Using the landfill factor for food waste would overstate disposal emissions by roughly two orders of magnitude. This shapes the narrative as much as the arithmetic: the story is not methane at end-of-life, it is **embodied carbon in objects manufactured to be destroyed once**.
7. **The incineration factor excludes combustion emissions.** DEFRA's waste factors for incineration with energy recovery cover collection and transport only. For a plastic-rich stream sent to a waste-to-energy plant, direct combustion CO_2 must be added separately. Doing so roughly doubles the estimated footprint of the disposable kit. Omitting it — the default if the factor is used naively — would have halved it.

Average food factors size a footprint; they do not tell you what to change. A single average food-and-drink factor would have produced a total within a kilogram of the item-level result below, while averaging cheese and beetroot into one meaningless number. For menu-level work the RIVM Dutch food environmental impact database is the appropriate tool and is recommended for the next stage.

2.7 Limitations

- Single event, atypical trading conditions (§2.2)
- Booked headcount used; observed attendance may have differed
- Invoices, exact labour payout and one catering cost were requested and not supplied
- Whether the fruit and vegetable platters were served at this event is unresolved; the recorded order does not list them while the cost breakdown includes them
- Several fields on the audit instrument remain blank because the count was not obtainable during service
- Interested-party consultation limited to the owner
- Package pricing and configuration changed during and after the engagement; see Annex A

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3. Context and intake

ISO 20121:2024 §4.1 · §4.2

The engagement opened with a structured intake questionnaire rather than a sustainability audit, deliberately. The operator did not arrive with a sustainability problem. She arrived with a margin problem.

- Stated priorities were commercial: increasing average spend, optimising the terrace and takeaway model, streamlining kitchen operations
- Self-assessed operational optimisation: **5 out of 10**
- Confidence in communicating sustainability claims without greenwashing: **3 out of 5** — this proved prescient (§5.4)
- Customers "rarely or never" ask about ingredient origin or plastic-free policies, so no external pressure was driving change
- The service most wanted was explicitly diagnostic
- On investment: a clear return would make a sustainability strategy "a necessary business investment"

The intake also established something less expected. The operator described her venue's inclusivity — adults and children sharing a space, families of different ethnic and socioeconomic backgrounds mixing — as core to the business identity, and wanted it measured and communicated as a social sustainability achievement. That is an unusually clear articulation of social impact from a business with no sustainability function, and it sets up the central tension of this study (§7.3).

3.1 Interested parties

ISO 20121 Table A.1 lists interested-party roles as though they belong to different organisations. At this scale they collapse into one:

Role (Table A.1)	Who holds it here
Event owner · organiser · venue · supplier	The venue
Workforce	4–5 staff, variable
Attendees	Booking family and guests — **including children as the primary attendee group**
Local authority	Municipality (waste, permits, sustainability guidance)
Supply chain	Food wholesalers, bakery, online marketplaces

Four roles sit with one person. This is not a footnote — it explains why the boundary problem in §2.2 exists, and why proportionality is not optional when applying a management system at this scale.

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4. The on-site audit

ISO 20121:2024 §9.1

A structured audit instrument was developed for the event across five blocks: labour, kitchen and F&B, decor and material flow, client behaviour, and post-event strategic questions. Waste tracking follows the approach in Meegan Jones' event sustainability methodology.

Event profile (T1): 31 booked guests, of whom 9 children (from the goodie bag count), celebrating two birthdays. Party window 15:30–18:00. Setup began 14:30. Guests departed by 17:50. Staff departed 19:00. Staffing: 5 across kitchen and bar, of whom 2 dedicated to the party. Play area age band 0–7.

4.1 Labour

Setup began an hour early because the space was unbooked, and proceeded calmly. The café traded almost nothing during the party — roughly three customers. By the operator's own assessment on the day, one to two people would have sufficed for the workload present.

17 paid hours were committed to an event containing approximately 11 hours of work. The residual six hours were not idleness in any culpable sense. They were the cost of a staffing model built for a peak that did not arrive, on a day with no mechanism to redeploy people to revenue-generating work.

Two time sinks were observed directly:

- **Balloon inflation: two staff, ten minutes** — twenty minutes of paid labour producing objects with a service life of two hours, taped to walls and removed with visible damage to the paint
- **Goodie bag assembly: 8–10 minutes**, under calm conditions

A third is structural rather than observed. The booking process invites clients into the room from 15:00 to begin setting up, half an hour before the party starts. Staff separately reported that parents sometimes arrive with additional decorations, generating unplanned work and stress. **The behaviour the team is trying to manage is the behaviour the offer solicits.** At this event the family brought nothing, so the cost did not materialise — but the exposure is designed in.

4.2 Kitchen and food

The recorded order for 31 guests: four white-bread sandwich triangles with seasonal vegetable filling (beetroot), three cheese toasties, three portions of popcorn chicken, three portions of fries, and a low-sugar apple and maple cake supplied by a baker known to the owner and finished on site.

The kitchen ran busy for the duration despite the modest order. Staff characterised the pre-order as reasonable for the timeslot — the party sits between lunch and dinner, and guests are not hungry.

Food waste was material. Two waste bags photographed at teardown contained a substantial wedge of cake, a significant quantity of fries, a sandwich and salad leaves — on the order of half a kilo to eight hundred grams of edible food, including the highest-carbon item on the menu. My contemporaneous note underestimated this (§2.4).

The structural issue is **binary waste**: fried food not eaten within minutes cannot be repurposed. Sandwiches can go home; fries cannot. The menu converts labour into a product with a two-hour shelf life and no second use.

The party menu omits the venue's own best options. The standing children's menu — three items for €10, developed with a child nutritionist — includes courgette and pea fritters with tzatziki, omelette strips with a side of vegetables, a fruit salad and a purée pot of the day. The à la carte list offered to party bookings consists

of fries, chicken lollipops, bread and butter, cheese sables, a pickle plate and ice lollies. The vegetable-forward dishes are not on it. Families are choosing freely — from a list that has had its best items removed.

The surplus-food app was live with three listings; **one was sold**. It covers bar pastries only, not kitchen output. Remaining pastries went to staff.

4.3 Decor and material flow

- A **thematic decoration box purchased online for around €15** supplied balloons and, notably, **disposable cups and plates — used while the venue's own reusable plates sat on the same table**
- **Latex balloons taped directly to painted walls**, plus at least three large **foil balloons** — metallised film, not recyclable in any domestic stream
- **Nine goodie bags**, one per child. The bags themselves are paper; the contents are individually near-worthless plastic novelties — a bubble blower, a gum ball, a whistle
- **Plastic bunting** hung alongside reusable fabric bunting
- **Cut flowers** used as table decoration
- Reusable fabric bunting and a reusable chalkboard name sign had been purchased on recommendation between the earlier analysis and this audit, and both were in use on the day. Disposable spend had fallen accordingly. **The plastic bunting went up alongside the new fabric bunting** — a partial switch, observed mid-transition
- Reusable service ware was in active use throughout: enamel serving dishes, ceramic snack bowls, real glassware and glass bottles, metal condiment ramekins, paper straws. The venue is not under-equipped, and the single-use items are confined to what arrived in the purchased kit

The disposable cups are the clearest instance of the pattern. This was not a cost decision — the reusables were present and free to use. It was a default embedded in a purchased kit that arrived pre-loaded with items nobody had chosen individually.

4.4 Waste

Amsterdam's collection arrangement, as understood and operated by staff, separates paper and glass; food waste and plastics go to residual together. Staff were clear that sorting is never a bottleneck — because there is very little sorting to do. Cans were observed being collected separately.

Observed residual: approximately one and a half large bags of mixed plastic and organic material, roughly 6 kg, or **0.19 kg per guest**. Waste is charged by volume.

Two streams surfaced only in the photographic record and had not been identified during the engagement:

- **Cut flowers, binned whole.** Stems, foliage and blooms went to residual at teardown rather than to an organic stream, and were not reused in the café afterwards. Nobody classifies flowers as decoration, so nobody counts them.
- **Apparently unused paper cups, discarded.** A stack went into the same bag as the flowers. Virgin single-use product manufactured, shipped and binned without touching a drink.

Confetti appears as a standard prep item on the venue's own party call sheet. It is among the items Amsterdam's sustainable events guidance identifies as impractical to collect after use.

The operator identified **cardboard** as her largest waste cost driver — a flow accumulating across the week from deliveries, and therefore allocated rather than attributed (§2.2). It is nonetheless directionally relevant: a weekly disposable kit generates delivery cardboard fifty times a year, an asset kit generates it once.

Verifying the disposal route. The claim that residual waste is incinerated with energy recovery rather than landfilled is load-bearing — it changes the emission factor by roughly two orders of magnitude (§2.6) — so it should not rest on assumption. Four levels of evidence, in ascending order of effort:

8. **Legal.** The *Besluit stortplaatsen en stortverboden afvalstoffen* (Bssa) prohibits landfilling of combustible and recyclable waste, and the prohibited categories explicitly include household residual waste and comparable business residual waste — which is precisely this stream. Government guidance to businesses states the same: reusable or combustible waste may not be offered to a landfill site.
9. **Capacity.** National policy analysis records structural overcapacity in Dutch incineration, described as more than sufficient to prevent landfilling of combustible waste. There is no practical route by which this stream reaches a landfill.
10. **National data.** Rijkswaterstaat's annual *Afvalverwerking in Nederland* series reports tonnage by treatment route and Euralcode, and can be used to confirm the split for the relevant waste category.
11. **Contractual, and the only venue-specific evidence.** Request from the waste contractor the annual waste report (*afvalstoffenrapportage*), the Euralcode applied to the collection, and the receiving facility. This is the step that converts a sound structural inference into a documented fact for this venue, and it is one email.

Levels 1–3 were used here. Level 4 was not obtainable within the engagement and is carried as a recommendation.

> ⚠️ **Separately, still to verify.** The *separation* arrangement described above is staff understanding of household-style collection. Obligations for commercial waste in hospitality may be more demanding than for households. Either outcome is useful: it confirms compliance or identifies a legal nonconformity under §6.1.3.

4.5 Client behaviour

The booking family brought nothing, requested nothing beyond the package, and tested no boundaries. They complimented the service and the house-made soft drinks specifically. No guest commented on reusables in either direction.

The auditor's judgement, recorded at the time: this client would very probably have accepted a seed-kit favour or a different menu without noticing a downgrade. **The resistance to sustainable alternatives that operators anticipate was not observable in the clients actually present.**

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5. Issue identification and materiality

ISO 20121:2024 §6.1.2 · Annex C.1 · Annex D

5.1 Method, and what to call it

A note on where this sits. This report is organised by argument, not by chronology — the working sequence is set out in §2.3 and in the phase summary of the accompanying case study. Methodologically, issue identification precedes measurement — you decide what matters, then go and measure it, rather than measuring everything and rationalising afterwards. That is the order the standard sets out (Clause 6 before Clause 9) and the order in which this engagement was worked. It is presented *after* the audit in this document for a different reason: the screening below cites observed evidence and carries data-quality tiers drawn from the site visit, so it cannot be read before that evidence has been set out. The sequence of the work and the sequence of the argument are not the same thing.

ISO 20121:2024 does **not** require a double materiality assessment. Clause 6.1.2 requires issue identification and evaluation; NOTE 1 records that the process *may be* referred to as a materiality assessment, or as a double materiality assessment where issues relevant to both the organisation and society are identified. Definitions 3.45 and 3.46 provide both.

What follows is a **consultant-led materiality screening applying a double-materiality lens, with single-stakeholder validation.** Issues are named using Annex C.1 vocabulary. The screening was not validated with staff, client families, suppliers or the neighbourhood, and is not presented as complete.

Clause 6.1.2 also requires an organisation to consider issues it can *influence* as well as those it *controls*. That distinction is carried as a column below, because it explains the shape of this engagement.

5.2 Materiality screening

Issue (Annex C.1)	Pillar	Impact materiality (inside-out)	Financial materiality (outside-in)	Control / influence	Tier	Priority
Materials choice	Env	High — virgin plastic, latex and foil manufactured for single use; wall damage	**High** — 12% of revenue vs 2–4% target	Control	T1/T2	**1**
Conditions of work	Social	Medium — overstaffing under-uses people; change risks resentment	**High** — 49% of revenue vs 25–35%	Control	T1	**1**
Food and beverage	Env/ Social	Medium–High — largest carbon component; binary-waste menu design	Medium — 17% of revenue, below benchmark	Control	T2/T3	**2**
Waste	Env	Medium — no organic separation; residual to incineration; edible food and flowers binned	Medium — charged by volume	Control / influence	T2	**2**
Sourcing and procurement	Env/ Social/ Econ	**High** — opaque value chains; no supplier criteria applied	Medium — low unit cost masks risk	Control	T4	**2**
Human and child rights	Social	**High** — children aged 0–7 are the primary attendee group	Low direct, high liability tail	Control	T1/T4	**1**

Issue (Annex C.1)	Pillar	Impact materiality (inside-out)	Financial materiality (outside-in)	Control / influence	Tier	Priority
(Annex D)						
Accessibility and inclusion	Social	**High — positive impact.** Mixed-background, cross-generational third space	**High** — inclusivity vs viability tension (§7.3)	Control	T1	**1**
Communication (§7.4)	Governance	High — public claims outrun practice	High — greenwashing exposure	Control	T1	**1**
Energy	Env	Medium — renewable supply contract; new appliance load added	Medium–High — fixed capacity charge likely mis-sized	Control	T4	**2**
Local community / economy	Econ/ Social	Medium — spend leaks to online marketplaces rather than local suppliers	Low–Medium	Control	T3	**3**
Transport and logistics	Env	Medium — guest and delivery travel	Low	**Influence only**	T4	**4**
Water	Env	Not assessed	Not assessed	Control	T4	—

5.3 Children as an interested party

ISO 20121:2024's substantive addition over the 2012 edition is **Annex D, on human and child rights**. It is rarely applied to businesses this size. It applies here, because the primary attendee group at every event in scope is children aged 0–7.

What is already in place, and should be credited. The venue displays posted house rules: adults remain present at all times, no shoes in the play area, an explicit 0–7 age limit, food and drink confined to seating areas, and a stated zero-tolerance position on unsafe behaviour. That is a real, documented safeguarding and safety control, not a gap.

What is missing:

12. **A written allergen protocol.** Any move toward participatory food activity — assembly, dough-making — raises cross-contamination risk materially. With an attendee group starting at age 0, choking and allergen risk are the highest-consequence exposures in the entire study.
13. **Product safety assurance for items given to children.** Novelty items in goodie bags and reusable service ware handled by children carry food-contact and product-safety obligations. Ultra-low-cost sourcing channels provide no practical assurance on either.
14. **Consulting the children.** Nobody asks the children what they want. The operator's own instinct — to ask parents whether goodie bags are actually welcome — is right and should extend to the children themselves. It is also free market research: the belief that clients demand plastic was not supported by anything observed on the day.

5.4 The claim-versus-practice gap

ISO 20121:2024 §7.4 Communication

The venue's public marketing describes the party setting as warm rather than plastic. The audited event used latex and foil balloons, disposable cups, plates and napkins, plastic bunting, and nine bags of plastic novelties — with goodie bags still listed as an included feature of the package at the time of writing.

Clause 7.4 requires that no communication mislead the public regarding the real environmental impact of a product or service. The gap is unintentional and fixable in an afternoon by rewriting the package description. It is also the most common sustainability failure in hospitality: marketing moves faster than operations, and nobody reconciles them.

The exposure is not regulatory at this scale. It is reputational, and it lands hardest with exactly the customers the venue most wants.

5.5 The reusables paradox

Reported as a sector-level pattern.

Switching from single-use to reusable service ware is unambiguously right, and operators are increasingly making it. A pattern observed in this segment — worth naming because almost nothing written about circularity acknowledges it — is that **the reusables themselves are frequently sourced from ultra-low-cost online marketplaces with opaque supply chains, long-haul freight and no meaningful assurance on labour standards or material safety.**

The result is a genuine improvement in one dimension that quietly relocates burden into another, less visible one. Operators are generally aware of the tension and unable to resolve it alone.

The alternative is not exhortation. It is three procurement criteria and a shortlist: EU-sourced food-contact-certified reusables from hospitality wholesalers; second-hand and reuse channels; and a one-page supplier code of conduct applied to anything handled by a child.

This is the gap ISO 20121 §8.3 and Annex B exist to close, and the clearest example in this study of why a management system beats a checklist. A checklist says *use reusables*. A management system asks *where did the reusables come from*.

5.6 Sourcing, and what could not be seen

Two sourcing patterns sit behind the findings above. Neither could be quantified, and both are material.

Food is carbon-light but not local. The menu performs well on intensity — no beef, no lamb, a seasonal vegetable filling — but it is bought largely through a national foodservice distributor. Per-item intensity and supply-chain distance are different questions, and this assessment only answered the first. Distributor sourcing hides origin, transport mode and consolidation behind a single delivery, which is efficient logistically and opaque environmentally.

Two distinct opportunities follow, and they are often confused:

	What it is	What it delivers
Local and regional sourcing	Direct relationships with growers and producers for produce and bakery	Shorter and visible transport chains, traceable origin, ingredient quality, and local economic impact — ISO 20121 Annex C.1 *Market presence* and *Indirect economic impacts*
Food-	Working with neighbourhood surplus-food	Not a supply channel: these initiatives give food

	What it is	What it delivers
rescue and community partnership	initiatives — De Groene Kans is the strongest Amsterdam example, redistributing around 1.5 tonnes of produce and bread a week across several locations	away to residents rather than selling to businesses. The value is social — *Local community*, and *legacy* in the sense of ISO 20121 3.17

The second is an unusually good fit here. The venue already has a stated zero-waste orientation and an inclusivity mission, De Groene Kans actively invites local businesses to take part, and the alignment is with what the operator already says the business is for. It should be pursued as community impact, not as procurement — and reported as such, or it becomes a claim the venue cannot substantiate.

Decorations and part of the reusables came from online mass-market retailers. This is common across the segment and rarely examined. The consequences run in four directions:

- **Transport.** Long-haul freight in individually shipped parcels, with no consolidation. Mode dominates: air freight carries roughly fifty times the emissions per tonne-kilometre of sea freight, and which one was used is invisible at the point of purchase.
- **Packaging.** Per-item parcel packaging rather than bulk delivery, arriving as the cardboard stream the operator already identifies as her largest waste cost.
- **Product integrity.** Low-cost reusables that fail early destroy the entire logic of the switch. A reusable's environmental case rests on service life (§7.2); an item that lasts ten events instead of a hundred is worse than the disposable it replaced.
- **Value-chain risk.** Labour standards, chemical compliance and material safety are unverifiable through these channels. For items handled by children aged 0–7 this is not abstract: food-contact materials and toy-safety obligations apply regardless of where an item was bought.

Why no shipping estimate is given. Quantifying the freight footprint would require origin, transport mode, parcel mass and consolidation. None were available. An estimate built on four stacked assumptions would carry uncertainty far larger than the figure itself, and publishing it would contradict the data-quality discipline the rest of this report relies on. The mechanism is stated; the number is not, and it is recorded as a gap rather than modelled.

5.7 What the supplier documentation did not contain

ISO 20121 §8.3 requires an organisation to apply criteria to select and evaluate suppliers, and to request evidence of sustainability requirements in procurement. No such criteria were in place, so none of the following was available for any supplier — food, decor or equipment. Listed here because the absence is the finding:

- **Origin and transport mode** — country or region of production, and how goods travelled
- **Material composition and recycled content** — including whether "reusable" items contain recycled or virgin material
- **Expected service life** — the single variable that determines whether a reusable is an improvement
- **Chemical compliance** — REACH, food-contact materials, and toy-safety obligations for anything handled by children
- **Labour standards** — conditions in the upstream chain, and any supplier code of conduct

- **Biodiversity and land use** — particularly for produce: land conversion, pesticide use, habitat impact
- **Water use and pollution** — at extraction, processing and manufacture
- **End-of-life** — take-back, repairability, and what happens to the item when it fails

This is not a criticism of the operator, who had no reason to hold any of it. It is a description of the standard gap in this segment, and the reason Annex B of ISO 20121 exists. Closing even the first four rows would take one page appended to a purchase order.

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6. Quantification

6.1 Financial baseline

Indexed to €100 of package revenue at the April 2026 price point (T1). **These figures describe the earlier edition of the package** — the diagnostic baseline — and the proposal issued from it. Cost data for the audited event of 24 May was requested and not supplied, so the financial effect of partial adoption is unquantified (§2.3).

Cost line	Baseline	Sector reference	Modelled
Labour	**49.4**	25–35	34.1
Supplies / decor	**12.2**	2–4 *	1.0
Food and beverage	**17.4**	25–35	14.4
Total direct cost	**78.9**	60–65	**49.5**
Contribution margin	**21.1**	35–40 **	**50.5**
Labour hours	17.0	—	11.5

\ *Internal target derived from event-industry practice, not a published sector benchmark.* * Derived as the arithmetic complement of the 60–65% direct-cost norm, not a published net-profit benchmark.

Sources and links at Annex D. Sector references are whole-business ratios for Dutch hospitality applied indicatively to a single product line, which carries no rent allocation — a limitation stated rather than hidden.

This is a contribution margin, not a net margin, and the distinction carries the argument. The calculation stops after labour, supplies and food. It does not include rent, utilities, insurance, administration, marketing, depreciation or the owner's own pay.

That matters because average operating profit in Dutch hospitality runs around 10% of revenue, and around 8% for restaurants. Applying the sector's own overhead structure to this package gives an illustrative full-cost view:

Per event	Baseline	Modelled
Contribution after direct costs	21.1%	50.5%
less rent and service charges	−9.5%	−9.5%
less utilities, insurance, administration, marketing, maintenance, depreciation	−21.7%	−21.7%
Left before tax and any payment to the owner	**≈ −10%**	**≈ +19%**

Overhead structure derived from Dutch hospitality sector ratios: cost of sales ~30%, personnel ~28%, housing ~10%, other operating costs ~22%, leaving a sector-average operating profit of ~8–10% of revenue (Annex D).

Two readings, both worth stating. On a **fully-absorbed** basis the package runs at a small loss — the operator's intuition that these parties cost her money is arithmetically supportable. On a **marginal** basis, where the café trades anyway and much of the overhead is fixed, the 21.1% still contributes toward those fixed costs and the

package is thin rather than loss-making. The truth sits between the two, and closer to the fully-absorbed end on a Sunday when the café itself takes almost nothing.

Either way, the redesign to a 50.5% contribution margin is what moves the package from marginal to genuinely profitable — an illustrative ~19% before tax, against a sector average of 8–10%. That figure assumes the modelled savings are realised in full.

Two further honesty notes:

The owner's own labour is not costed. The 17 hours cover paid staff. The owner was present as a fifth person, and her time on client communication, desk preparation and supplier liaison is captured nowhere. The true baseline is therefore *lower* than 21.1%. This is the most common way small hospitality businesses overstate profitability.

Food sits below the sector reference, not above. The catering line is not a cost problem. It is included because it is the largest *carbon* line — a divergence between financial and impact materiality that the double-materiality lens is designed to surface.

6.2 Material flow baseline

Estimated for the **audited event of 24 May 2026** (T2/T3 — derivation at Annex B). These figures already reflect the partial switch to reusable decor:

Stream	Estimate	Fate
Plastics (balloons incl. foil, novelties, disposable service ware, bunting, film)	~0.6 kg	Residual → incineration
Paper and card (hats, banner, bags, fry cartons, napkins)	~0.3 kg	Residual or paper stream
Cut flowers	Unquantified	Residual (compostable, not composted)
Catering inputs	~3.7 kg	Consumed / taken home / residual
Edible food discarded	~0.5–0.8 kg	Residual
Residual waste generated	~6 kg (≈1.5 bags)	Incineration with energy recovery

Residual waste per guest: approximately 0.19 kg. This is the metric that matters locally — Amsterdam's current sustainable events guidance is built around residual waste per visitor and requires reduction against a 2024 baseline. [Benchmark against the per-visitor threshold in the current Richtlijn Duurzame Evenementen before publication.]

6.3 Emissions scope and coverage

Before any figure: what this assessment covers, in GHG Protocol terms. This is a **coverage map, not an inventory** — its purpose is to make the boundary legible and the omissions explicit.

Scope	What it covers for this activity	Assessed	Tier
Scope 1 —	Gas used in cooking; refrigerant leakage from kitchen and bar refrigeration; any owned vehicle used for collection	**No**	T4

Scope	What it covers for this activity	Assessed	Tier
direct			
Scope 2 — purchased energy	Electricity consumed during the party window: lighting, kitchen equipment, and the added load from new popcorn and pancake equipment	**No**	T4
Scope 3 — value chain	**Cat. 1 Purchased goods and services** — food, decorations, disposables · **assessed** **Cat. 5 Waste generated in operations** — residual to incineration, production and combustion · **assessed** **Cat. 4 Upstream transport** — distributor delivery, parcel freight from online retailers · not assessed (§5.6) **Cat. 6/7 Travel and commuting** — staff · not assessed **Downstream** — guest travel · not assessed (§6.4.1)	**Partially**	T2/T3

Everything quantified in this report sits inside Scope 3, Categories 1 and 5. Scopes 1 and 2 were not assessed. Stated plainly because a partial Scope 3 screening is a legitimate deliverable at this scale, and pretending otherwise is not.

A note on Scope 2, because it matters commercially. The venue holds a 100% renewable electricity supply contract. Under market-based accounting that puts its Scope 2 at or near zero — a genuine and already-banked achievement. A location-based figure, which most reporting frameworks require alongside it, would need event-isolated kWh and the Dutch grid factor, and neither was available. Reporting only the market-based number without the location-based one is a common and criticised practice; the venue should be ready to give both before making any public energy claim.

The most material omission is guest travel (§6.4.1). It is excluded because the venue can influence but not control it, and because no travel data was collected — not because it is small. It is almost certainly the largest line in the whole picture.

6.4 Carbon baseline

Screening estimate for the **audited event of 24 May 2026**. T3. Assumptions at Annex B.

Component	Estimate
Disposable kit — production	~2.3 kg CO_2e
Disposable kit — combustion at waste-to-energy	~1.9 kg CO_2e
Disposables subtotal	**~4.2 kg CO_2e**
Catering — cake	~3.9 kg CO_2e
Catering — cheese toasties	~2.8 kg CO_2e
Catering — popcorn chicken	~2.7 kg CO_2e
Catering — fries	~0.9 kg CO_2e
Catering — vegetable sandwiches	~0.5 kg CO_2e
Catering subtotal	**~11 kg CO_2e**
Energy	Not quantified (T4)

Component	Estimate
Guest travel	Excluded (T4)
Assessed total	**~15 kg CO_2e — ≈ 0.5 kg CO_2e per guest**

6.4.1 How the per-guest figure is derived

A per-guest intensity is the figure most likely to be quoted out of context, so the full chain is set out here rather than left in an annex.

#	Step	Value	Basis
1	Catering	11.0 kg CO_2e	Five recorded items; assumed mass × published per-item intensity (Annex B)
2	Disposable kit — material production	2.3 kg CO_2e	~0.6 kg plastics × 3.17 + ~0.3 kg paper and card × 1.29 kg CO_2e/kg (DEFRA 2025, primary production)
3	Disposable kit — combustion	1.9 kg CO_2e	Fossil carbon content of plastics (assumed 85%) × 44/12. Added because DEFRA's incineration factor covers collection and transport only (§2.6)
4	**Assessed total**	**15.2 kg CO_2e**	Sum of steps 1–3
5	Divided by guests	31	Booked headcount, from the venue's own call sheet (T1)
6	**Per guest**	**≈ 0.49 kg CO_2e**	Reported as ≈0.5
7	Expressed as distance	≈ 2.9 km	÷ 0.17 kg CO_2e per km, average passenger car (Annex E)

Sensitivity. Step 1 dominates the result. Catering mass carries roughly ±40% uncertainty and the cake alone accounts for about a third of it, so the per-guest figure could reasonably sit anywhere between 0.35 and 0.65 kg CO_2e. The ranking of components — food first, disposables second — holds across that entire range, which is why this report relies on the ranking rather than on the absolute value.

Denominator. Booked headcount is used rather than the 36 recorded in a contemporaneous field note, because the call sheet is the documented figure. Using 36 would lower the result to ≈0.42 kg CO_2e per guest; the more conservative denominator is retained.

What the total excludes, and why it matters. Guest and staff travel, event-isolated energy, water, capital equipment manufacture, and the cut flowers. **Travel is the significant omission**: a single guest driving 10 km each way would add roughly 3.4 kg CO_2e — more than seven times their entire assessed share. It sits outside the boundary because the venue can influence guest travel but not control it (§5.1), and because no travel data was collected. Any future assessment that adds a travel survey should expect the shape of this footprint to change substantially.

This number is small, and pretending otherwise would be dishonest. Fifteen kilograms is roughly a short car journey. Across fifty events a year it is well under a tonne. No serious climate outcome depends on this venue's balloon policy.

What the number does is rank things correctly, and the ranking is counter-intuitive:

- **About three quarters of the assessed total is food; a quarter is decorations and disposables** — the reverse of where the conversation was focused
- **Three cheese toasties carry about the same embodied carbon as three portions of chicken.** Roughly 120 grams of cheese matches 450 grams of chicken
- **The cake is the single largest item, around a third of the food footprint — and it is the one with no data at all.** Supplied by a friend at an unstated price, garnished on site. The biggest carbon item at the event is the one nobody costed or recorded
- **Fries are the smallest savoury line.** Replacing them with popcorn remains right, on labour and binary-waste grounds. It is not a carbon intervention and should not be sold as one
- **The vegetable sandwiches are the best item on the menu** — seasonal root vegetables on bread is close to the lowest-carbon option available in a commercial kitchen, and it was already standard practice

The case for eliminating disposables is therefore **financial, operational and reputational** — 12% of revenue, hours of labour, and a direct contradiction of public positioning. It is not primarily a carbon case, and presenting it as one would be the kind of overclaiming that makes small businesses distrust sustainability advice.

6.5 Putting the numbers in proportion

Kilograms of CO_2e mean nothing to most operators. Every figure below is therefore expressed against something the business already recognises. All comparators are illustrative and rounded; sources at Annex E.

Measure	Assessed	In other terms
One guest's share	~0.5 kg CO_2e	About **3 km in an average car**
One event, total assessed	~15 kg CO_2e	About **90 km in an average car** — an Amsterdam–Utrecht return drive
Disposable kit only	~4.2 kg CO_2e	About **25 km of driving**, repeated weekly
Fifty events a year	~750 kg CO_2e	About **4,400 km of driving**
Residual waste per guest	~0.19 kg	Roughly **a third of what one Dutch resident sends to residual in a whole day**, generated in a two-and-a-half-hour visit

Two readings follow, and both belong in the report.

By carbon this is a small event. The useful output is not the total but the ranking: food is about three quarters of it, decorations and disposables the remaining quarter. A carbon-reduction project sold to this venue on climate grounds alone would be aimed at the wrong quarter.

A judgement against each line, since a number without an assessment is not advice:

Line	Assessment
Per guest, ~0.5 kg	**Low.** Party catering is snacks rather than meals; a served restaurant meal typically sits several times higher

Line	Assessment
CO_2e	
Per event, ~15 kg CO_2e	**Small.** No robust per-guest benchmark exists for indoor family events at this scale — published event-sector figures are built on delegate travel and accommodation and do not transfer
Disposables, ~4.2 kg CO_2e	**The outlier.** Roughly 28% of the total, for objects with a two-hour service life. The only line where the venue is clearly behind what is achievable, and the only one close to fully avoidable
Annual, ~750 kg CO_2e	**Ahead of where it needs to be, not finished.** Under a tonne a year across the whole programme, and falling as the reusable switch completes. Net zero is about absolute reduction, not scale — and the largest lines sit outside this figure (§6.5)

By waste, the quantity is unremarkable but the composition is poor. At roughly 0.19 kg of residual per guest, the event sits within the range typical of catered indoor events and below common outdoor festival figures. The problem is what is in the bag: approximately **15% single-use party items that had reusable equivalents on site, 10% edible food, and a further portion of compostable cut flowers.** On the order of **a third of the residual stream was avoidable or divertible** — not through new equipment, but by using what the venue already owns and routing organics out of residual.

That is the sharper metric for this business, and it is the one Amsterdam's guidance measures. [Benchmark the per-visitor figure against the threshold in the current Richtlijn Duurzame Evenementen, and verify the Dutch household residual figure against CBS, before publication.]

6.6 Where this sits on a path to net zero

A small footprint is not the same as a finished one, and "we are too small to matter" is the most common way a business stops improving. The venue is ahead of most of its size, and two of the harder parts are already done.

Stage	Position
Already in place	A 100% renewable electricity supply contract; a stated zero-waste orientation, visible in the venue's own community programming; a menu carrying no beef or lamb
Complete the measurement	This assessment deliberately excludes guest travel and event-isolated energy — in most venues the two largest lines (§6.4.1). One question added to the booking form starts the first; a sub-meter reading starts the second
Cut what is controllable	Disposables are the cheapest line to close and the only one close to fully avoidable. Food follows, and the menu is already light
Only then, removals	For whatever genuinely cannot be cut. Purchasing offsets before completing the measurement is the common and expensive error, and it is what most small operators are sold first

The sequencing matters more than the arithmetic. An operator who buys offsets in year one and never measures travel has spent money and learned nothing; an operator who closes the disposables line and adds a travel question to a booking form has reduced real emissions and built a dataset.

On claims. If a net zero or carbon neutrality claim is ever made, the applicable frameworks are **ISO 14068-1** (climate change management — transition to net zero — carbon neutrality) and **ISO/IWA 42** (guidance on net zero), both listed in ISO 20121:2024's own bibliography (Table A.4). Clause 7.4 of that standard also requires that no communication mislead the public on real environmental impact — which makes an unsubstantiated neutrality claim a nonconformity, not merely a marketing risk. **No such claim is made in this assessment.**

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7. Options designed, and the tension that stayed unresolved

ISO 20121:2024 §6.2 · §8.1

7.1 The redesign

Bottleneck	Intervention	Mechanism
Labour absorbed by setup and teardown	Reusable asset kit — fabric bunting, foldable lanterns, heirloom crown, giant bubble station, communal kraft art wall	Setup in minutes rather than half-hours; eliminates balloon inflation entirely
Binary-waste menu, high Sunday labour	Add the existing nutritionist-designed vegetable dishes to the party form; prep-ahead finishing; popcorn in place of fries; optional live pancake station as a paid experience	Uses capability already on the premises; shifts prep to weekdays; shelf-stable inputs
Idle staff during party window	Redeployment to terrace and window service	Converts paid idle time into trading time
Unmanaged client setup window	Either staff and price the 15:00 setup slot as a service, or stop inviting client-brought decoration in the booking flow	Removes an absorbed, unpriced labour exposure
Flowers and unused stock discarded	Route flowers to the organic stream or reuse in the café; count cups out against confirmed headcount	Near-zero cost, immediate

Supporting measures: surplus-food sourcing partnership, ethical coffee sourcing, a decor disposal surcharge for client-brought materials, and staggered appliance startup to manage added electrical load.

Modelled outcome: direct cost from 78.9 to 49.5 per €100 of revenue; contribution margin from 21.1% to 50.5%; 5.5 staff hours recovered per event; asset investment recovered within two to three events.

The strongest single recommendation costs nothing: **add three lines to the party booking form.** The courgette and pea fritters, the omelette strips with vegetables and the purée pot already exist, are already priced, and were already developed with a child nutritionist. They are simply not offered to party bookings.

7.2 Carbon payback, and an uncomfortable finding

Financial payback and carbon payback are not the same curve, and conflating them is a common error.

Reusable cotton bunting has an **immediate financial payback — roughly three events.** Its **carbon payback is far longer.** Textiles carry high embodied emissions per kilogram; amortised against the modest paper decor it displaces, break-even sits above a hundred events. More than two years of weekly parties.

That is not an argument against it. It is an argument for **buying it second-hand.** Material-use factors for reused and recycled-source textiles sit roughly two orders of magnitude below primary production. Sourcing the same

item preloved collapses a hundred-event carbon payback to effectively immediate — and the operator had already independently identified specialist second-hand children's retailers as a source.

Buying the item new is justified on cost; buying it second-hand is justified on carbon. The two decisions are frequently treated as one.

Intervention	Financial payback	Carbon payback
Fabric bunting, new	~3 events	>100 events
Fabric bunting, second-hand	~2 events	<1 event
Goodie bags → art envelope + kraft mural	Immediate	Immediate (~2 kg CO_2e per event)
Popcorn in place of fries	~2 events	Directional — labour and waste, not carbon
Adding vegetable dishes to the party form	Immediate	Immediate

7.3 The tension that did not resolve

The most important thing this engagement found is not in any table.

The venue's identity — stated by the owner at intake, before sustainability was discussed — is a genuinely mixed third space where families of different backgrounds share a room. The commercial reality is that the audited package format sits at or below break-even once indirect costs are counted, and the clearest routes to profitability are to raise prices, target higher-spending clients, or hire out the whole venue at a substantially higher rate.

Each of those routes prices out part of the clientele that constitutes the venue's social value.

This is a direct conflict between financial materiality and impact materiality on the social pillar, in a single business, and I did not resolve it. What can be said:

- The tension is **structural, not a failure of will.** Any adviser who says sustainability and profitability always align has not looked closely enough
- A **tiered product architecture** is the most promising route: a genuinely accessible entry format alongside premium formats, so high-spend bookings cross-subsidise access rather than displacing it. At the time of writing the venue's public offer has moved in exactly this direction
- Operational efficiency is the only lever that improves margin **without** touching price — which is precisely why the labour and materials findings matter more here than they would in a larger business

I would rather publish this tension unresolved than publish a case study in which everything reconciled neatly. It did not.

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8. Verification of adoption

ISO 20121:2024 §9.1 · §10.1

The audit was designed as a verification step, not a first look. The baseline analysis and the costed list of alternatives were delivered during the planning phase, before the audited event was scheduled. The site visit on 24 May therefore had two jobs: to observe the event in full, and to establish which of the recommendations had actually reached the floor.

The engagement was designed to close in April. It did not, and no formal post-implementation cost measurement was carried out. The Act phase of the cycle remains open.

Two forms of partial verification are available.

Observed on site, 24 May: reusable fabric bunting in use; a reusable chalkboard name sign replacing printed banners; disposable decor spend materially reduced against the earlier baseline; cans separated at teardown; paper straws in service; the surplus-food app live, though under-utilised. A written call sheet with per-tier preparation checklists was in use — documented operational control under §8.1.

Verified from the venue's public offer at time of writing: a structured activity add-on is now sold as a priced option; bespoke thematic requests are now chargeable rather than absorbed as unpaid labour; wine is now pre-selected at the point of booking and paid on the day, addressing the finding that margin depends on adult beverage spend that did not materialise on the audited day; the package range has been restructured into tiers spanning an accessible per-head format through to full-venue hire; and off-peak private hire has been introduced, addressing the seasonality problem identified during the audit.

These changes are consistent with recommendations made during the engagement. **Attribution is not claimed** — the operator was working with at least one other adviser during the same period, and a business makes its own decisions.

Two recommendations remain open at the time of writing: the package description still lists goodie bags as an included feature and still describes the setting in terms the audited event did not support (§5.4); and the vegetable-forward dishes are still absent from the party booking form.

> **Note on pricing.** The package price changed twice during and after the engagement, most recently to a figure materially above the costed baseline. At current pricing a substantial share of the modelled contribution recovery would be delivered by price alone. **Price is a commercial lever, not a sustainability lever**, and the two should not be presented as one. Annex A separates them.

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9. Recommendations

9.1 Immediate — no cost, this month

15. **Add the existing vegetable dishes to the party booking form.** Three lines. Already priced, already nutritionist-developed.
16. **Rewrite the package description** so what is promised matches what is delivered (§5.4).
17. **Write the allergen protocol** before any participatory food activity launches (§5.3).
18. **Start counting.** Guests, residual bags, setup and teardown minutes. Four numbers per event, thirty seconds to record. Template at Annex C.
19. **Photograph every waste receptacle at teardown** (§2.4).
20. **Route flowers and organic waste out of residual.**
21. **Verify the commercial waste separation obligation** (§4.4).
22. **Cost the owner's own hours** into the package model (§6.1).

9.2 Short term — one to two quarters

23. **Complete the asset transition, buying second-hand where the item allows** (§7.2).
24. **Adopt three procurement criteria** for anything handled by a child: EU-sourced, food-contact certified, supplier identifiable (§5.5).
25. **Request the waste contractor's annual report**, the Euralcode applied, and the receiving facility — converting a structural inference into venue-specific evidence (§4.4).
26. **Open one local sourcing relationship** for produce or bakery, and measure the difference in delivery distance and packaging against the distributor line (§5.6).
27. **Approach a neighbourhood food-rescue initiative** as a community partner rather than a supplier, and report it as social impact rather than as procurement (§5.6).
28. **Resolve the fixed energy capacity charge**, which appears mis-sized for actual demand.
29. **Decide what the 15:00 setup window is** — a staffed, priced service, or not offered.
30. **Activate the partnerships already identified**, with dates attached.
31. **Consult the interested parties who were not consulted**: staff, booking families, and children.

9.3 What formal certification would require

The venue is **not** currently positioned to seek ISO 20121 certification, and pursuing it now would be poor advice. Against the standard's own maturity model (Table A.5):

Governing principle	Position	Gap to *Improving*
Stewardship	Minimal → Improving	Documented operational controls exist (call sheet, house rules); no objectives, monitoring or supplier criteria
Inclusion	Improving → Engaged	Strong lived practice; undocumented and unmeasured
Integrity	Minimal	Public claims not reconciled with practice
Transparency	Minimal	No external reporting; no feedback loop

Certification would require, at minimum: a documented scope and sustainable development policy signed by management (4.3, 5.2); assigned roles (5.3); a documented issue identification and evaluation process with interested-party feedback (6.1.2); measurable objectives with monitoring (6.2, 9.1); supplier selection criteria and evidence (8.3); an internal audit programme (9.2); and management review (9.3). Realistically twelve to eighteen months of consistent practice before an initial certification audit is worth booking.

A more proportionate path first: a hospitality-sector environmental label — Green Key is administered in the Netherlands and is recognised as equivalent by Amsterdam's sustainable events guidance — is better matched to a venue of this size and cost. ISO 20121 becomes the right instrument if and when the event line becomes a distinct, scaled business. Verify any certification body's accreditation through the Dutch Accreditation Council (RvA) register before engagement.

For reporting rather than certification: the EU's Voluntary Sustainability Reporting Standard for SMEs (VSME), developed by EFRAG for non-listed small and medium enterprises, provides a proportionate disclosure structure. ISO 20121 is a management system and states explicitly that it is not a reporting framework; the two are complementary. [Confirm current VSME status directly with EFRAG before citing.]

9.4 What I would do differently

The engagement ran three months past its close date, primarily because data requested in March arrived in May or never arrived. Two changes to my own practice follow:

- **A data availability clause** in the engagement letter, specifying the minimum dataset, the date it is due, and what happens to scope if it does not arrive
- **A hard close date**, with a defined reduced deliverable if inputs are outstanding

The absence of a materials register, waste records or event-level energy data is not unusual in this segment. It is the norm. **Any methodology for small venues that assumes this data exists will fail on contact with reality** — which is the strongest argument in this study for starting with four numbers on a clipboard rather than a carbon calculator.

Annex A — Figures register

Indexed to €100 of package revenue at the April 2026 price point unless stated.

Figure	Value used	Note
Baseline contribution margin	21.1%	An earlier working model used a 15.1% baseline on a different cost scope. The **higher** baseline is used here because it produces the **smaller** improvement claim.
Modelled contribution margin	50.5%	
Improvement	+29.4 percentage points	Equivalent to +139% relative growth. An alternative model produced +217% by combining the energy findings; **that figure is not used here.**
Labour, baseline / modelled	49.4 / 34.1	
Labour hours, baseline / modelled	17.0 / 11.5	
Supplies, baseline / modelled	12.2 / 1.0	Modelled figure net of asset investment amortised over 25 events
Amortisation basis	25 events	Single basis throughout; annual projections use 50 events/year
Asset investment scope	Decor kit + food equipment	[Confirm final scope — working documents contain several variants]
Guest count	31 (booked, per call sheet)	A contemporaneous field note recorded 36, which is also the package maximum. The documented figure is used.
Price at baseline	April 2026 price	Subsequently increased twice; see §8

Pricing effect separated: [To complete — quantify the contribution delta attributable to price increase alone at the current price point, and state the operational contribution separately.]

Annex B — Assumptions register

Material masses (T2/T3). Latex balloons ~30 units at 3 g. Foil balloons 3–4 units at ~15 g. Goodie bag contents 3 items per bag at ~28 g total, 9 bags; paper bags ~15 g each. Disposable cups ~20 at 5 g; plates ~20 at 8 g; fry cartons ~6 at 10 g. Party hats 8 at 15 g. Plastic bunting, banner and cling film ~100 g combined. Cut flowers unquantified.

Catering masses (T2). Four sandwich triangles ~0.4 kg; three cheese toasties ~0.35 kg including ~120 g cheese; three portions popcorn chicken ~0.45 kg; three portions fries ~0.45 kg; cake ~1.3 kg. Whether fruit and vegetable platters were served is unresolved (§2.6); they are excluded from the total and would add mass with limited carbon effect.

Residual waste. 1.5 large bags at 60 litres, mixed plastic and organic, assumed bulk density ~70 kg/m^3 → ~6 kg. Edible food discarded estimated from photographic record at 0.5–0.8 kg.

Emission factors. DEFRA 2025 condensed set, material use (primary production): average plastics 3,172 kg CO_2e/t; paper and board mixed 1,289 kg CO_2e/t. Textiles primary production 22,310 kg CO_2e/t; reused/recycled-source factor approximately two orders of magnitude lower [confirm exact column before publication]. Food intensities applied per item: cheese ~21, chicken ~6, cake ~3, fries ~2, bread ~1.3, beetroot ~0.5 kg CO_2e/kg [replace with RIVM values before publication].

Combustion. Fossil CO_2 from plastics at waste-to-energy calculated from assumed 85% carbon content. Biogenic CO_2 from paper and food combustion reported separately and excluded from the fossil total.

Excluded. Guest and staff travel; water; capital equipment manufacture; café operations outside the party window.

Uncertainty. Material mass assumptions carry an estimated ±50% uncertainty; food factors carry higher uncertainty still. Figures are directional and are used to rank interventions, not to substantiate a footprint claim.

Annex C — Tracking progress without a consultant

Everything in this report can be re-measured by the venue itself, at a cost of about thirty seconds per event. The design principle is the same as the rest of the study: **use what is already there.**

C.1 Five fields on a form that already exists

The venue runs a written birthday call sheet for every booking. Add five rows to it. No new document, no new habit — the form is already filled in every week.

Field	How	Why it matters
Guests — adults / children	Already partly captured	The denominator for every other metric
Bags of residual at teardown	Count them	The metric Amsterdam measures
Setup start / teardown finish	Two clock times	Converts directly to labour cost
Disposable items used	Tick if any	The one number with a target of zero
Photo of every bin at teardown	Phone, ten seconds	Impressions are not evidence (§2.4)

C.2 Three indicators, with targets

Three is the maximum a business this size will sustain. Each maps to a finding in this report.

Indicator	Baseline (24 May 2026)	Target	By
Residual bags per 10 guests	~0.5	Halve	12 months
Disposable items per party	~60 units	Zero	6 months
Setup + teardown minutes	~150	Under 90	3 months

C.3 The wider rhythm

Monthly (5 minutes): waste invoice volume · disposable and decor spend · energy consumption.

Quarterly (20 minutes): the three cost lines — labour, supplies, food — as a percentage of package revenue, against the sector references at Annex D. This is the only step that needs a spreadsheet.

Annually (half a day): repeat the photographic waste audit on one representative event and compare composition against this baseline. This is the check that catches drift, and it is the closest thing to an internal audit (§9.2) the business needs at this scale.

C.4 What good looks like

Progress is not a lower carbon number — at this scale the carbon number will barely move, and chasing it is a distraction. Progress is:

- Nothing in the residual bag that had a reusable alternative in the cupboard
- No edible food in the bin at teardown
- Organics and flowers leaving via a different route than residual
- The package description describing what actually happens
- Three quarters of consistent data — the minimum a certification body would expect to see

Annex D — Benchmark sources

Sector reference ranges are whole-business ratios for Dutch hospitality, applied indicatively to a single product line. They carry no rent allocation and should be read as orientation, not as a like-for-like comparator.

Reference	Value used	Source
Personnel costs, % of revenue	25–35%	Horeca Tweepuntnul, *Horeca kengetallen* — https://horecatweepuntnul.nl/horeca-kengetallen-de-startersgids/
Personnel costs, sector actual	28.1% (hospitality) · 31.9% (restaurants)	Firmfocus, branchecijfers derived from CBS, Belastingdienst and trade bodies — https://www.firmfocus.biz/NL/BI/branche/logies-maaltijd-en-drankverstrekking · https://www.firmfocus.biz/NL/BI/branche/restaurants
Cost of goods, % of revenue	25–35%	Zenchef, *Restaurantfinanciën* — https://www.zenchef.com/nl/guides/restaurantfinancien · Firmfocus KPI page (28–33%) — https://www.firmfocus.biz/NL/brancheinformatie/restaurants/kengetallen-kpi
Cost of goods, sector actual	30.1% (hospitality) · 32.5% (restaurants)	Firmfocus, as above
Total direct costs, % of revenue	60–65%	Marissa Bonants, *Kengetallen horeca* — https://www.marissabonants.nl/blog/kengetallen-horeca/
Operating profit, sector actual	10.1% (hospitality) · 8.2% (restaurants)	Firmfocus, as above
Housing costs, % of revenue	~9–10%	Firmfocus, as above
Contribution margin target	35–40%	Derived as the complement of the 60–65% direct-cost norm. Not a published benchmark.

Before publication: cross-check the sector actuals against CBS StatLine and Rabobank *Cijfers & Trends* directly, and against Koninklijke Horeca Nederland's published figures. The Firmfocus values are derived from those primary sources and are current to 2022; the trade-press ranges corroborate but are not primary. Citing a primary source for at least the operating-profit figure would strengthen §6.1, since that figure carries the contribution-versus-net argument.

Annex E — Comparator basis

Comparators in §6.4 are illustrative devices for a non-specialist reader, not additional findings. Each is rounded to a single significant figure and should be presented as approximate.

Comparator	Value used	Basis
Average car	~0.17 kg CO_2e per km	DEFRA 2025, average petrol car, passenger vehicles
Dutch residual waste per resident	~0.5 kg per day	Derived from national household residual waste per capita per year. **Verify against CBS before publication** — Amsterdam's per-resident figure runs materially above the national average
Amsterdam–Utrecht return	~90 km	Road distance, illustrative only

A milky-coffee comparator was drafted and withdrawn. It is café-native and intuitive, but it is dominated by dairy, whose carbon intensity varies by roughly a factor of two between efficient European production and global averages. Placing a ±50% comparator beside a ±15% one implies a precision neither shares. The vehicle comparator is retained because it rests on a single published average.

Comparators are deliberately drawn from familiar experience rather than from abstract equivalents such as tree-years or flight hours, which invite challenge and carry wider uncertainty than the underlying estimate.

This study was carried out as a commissioned consultancy engagement. It is published with financial and identifying detail withheld. Findings and any errors are my own.

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