AUMA
Association of the German Trade Fair Industry

fwd:
Bundesvereinigung Veranstaltungswirtschaft

Guide to Future-Ready Resource Management

in the Exhibition Industry

- Refuse
- Reuse
- Return

A joint project by fwd: and AUMA

version 1.0

» The Initiators

fwd:

fwd: Bundesvereinigung Veranstaltungswirtschaft e.V. (Federal Association of the German Events Industry): fwd: - short for „forward“ - stands for the continuous drive to advance the event industry and make it fit for the future. Together, we actively shape the future of our sector, advocate for its interests to be strongly represented in politics, and work to ensure that the industry is visible in society as a relevant economic sector. Our guiding principles shape everything we do: fwd: is the home for everyone who wants to build a strong community together on equal footing - nationally and regionally. As a strong network, we drive the sector‘s relevant issues forward and jointly shape a successful future. We build bridges to clients, partners, and interest groups in order to sustainably support the development of our economic sector, and we serve as a contact for political decision-makers.

AUMA

Association of the German trade fair industry: AUMA is the industry association of the German trade fair industry. Internationally and nationally, it represents the interests of all major and medium-sized German exhibition companies, international organizers in Germany, and associations representing exhibitors, service providers, and visitors with passion, professionalism, and transparency toward political and business institutions. Trade fairs in Germany secure up to 280,000 jobs. With 70 exhibition venues from the North Sea to Lake Constance, Germany is unique worldwide as a trade fair location. Two thirds of all leading trade fairs for the global economy take place in Germany. International, national, and regional trade fairs in Germany attract, in peak periods, more than 235,000 exhibiting companies and 16 million visitors. On average, 66 percent of exhibitors and 33 percent of trade visitors at all leading trade fairs come from abroad.

Note: This guide consolidates recommendations from existing guides issued by exhibition companies and exhibition construction companies, as well as the thematic priorities of the Resources Roundtable. The Resources Roundtable is an exchange format between exhibition companies and exhibition construction companies on resource management, the circular economy, and downstream disposal processes, held in cooperation between fwd: and AUMA. This guide is an outcome of that format. Users may extract from it the content that is relevant to their own operational topics and responsibilities. It is designed as a practical working document and may be adapted depending on trade, venue, and format.

Note on language use: The personal designations used in this document are intended to improve readability and, regardless of their linguistic form, are to be understood as inclusive of all genders.

Note on the use of AI: Individual passages of text were created with the support of artificial intelligence.

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» CHAPTER 0

Getting Started: Your Power Package for Operationalization

To get started, here is the power package for direct application.
All information on future-ready resource management.

CHECKLIST

ONE-PAGER

MAILING TEMPLATE

HOW TO

0

Checklist for Future-Ready Resource Management

1. PLAN

Focus: Refuse

- **Define responsibilities.**
  Designate early on the people who will support planning, implementation, return processes, and reporting across the entire life cycle.
- **Align the booth or space concept with reuse in the product cycle.**
  Plan in a way that enables dismantling, repair, reuse in the product cycle, and return to the material loop, for example through system or modular construction, rental and sharing solutions, and standard dimensions.
- **Select materials and constructions that are fit for circularity.**
  Make material and construction decisions in a way that enables dismantling, repair, and return - for example through separable structures and suitable connections.
- **Define product-cycle and material-loop pathways.**
  Define early which materials are to be reused in the product cycle and which are to be returned to the material loop after use, for example carpet, wood, textiles, foils, metals, plastics, technology, plants, or furniture.
- **Review and involve service providers, waste management partners, and logistics early.**
  Coordinate delivery, empties, pickup, time slots, and handover points in a binding way.

2. DO

Focus: Reuse

- **Implement reuse consistently during build-up.**
  During build-up, pay attention to material protection, labeling, and clear separation logic so that components remain intact and can be used again.
- **Organize logistics and storage for reusable elements.**
  Plan handover points, interim storage, and suitable packaging so that reusable materials are protected and handled in an orderly manner.
- **Cleanly separate and secure materials for the product cycle and the material loop.**
  Capture elements and materials separately during build-up and use, secure them for the product cycle or material loop, and clearly define residual materials as the residual pathway.
- **Inform teams on site effectively.**
  Conduct briefings and training and provide clear on-site guidance, for example through signage, multilingual instructions, or QR information.
- **Align and enforce catering around reusables and waste prevention.**
  Use reusable systems, regional and seasonal offerings, and sound quantity planning to avoid food waste.

3. CHECK

Focus: Make return visible

- **Document material use, reuse in the product cycle, and return to the material loop.**
  Record the quantities of materials used and document which fractions were actually taken back, reused, or returned.
- **Compare plan and result.**
  Review the extent to which the set targets were achieved, for example regarding material use, separation quality, and mixed waste.
- **Analyze causes of deviations.**
  If return processes do not work as planned, clarify the reasons, such as logistical or organizational obstacles, misthrows, design-related factors, or time pressure.
- **Prepare follow-up and reporting.**
  Secure evidence, prepare quantity balances, and document CO2 or KPI data as well as key project insights.

4. ACT

Focus: Improve future refuse, reuse, and return

- **Derive improvements for design and material selection.**
  Use the project insights to specifically improve actual separability, connection technology, and modularity.
- **Further develop standards and measures.**
  Adapt logistics, separation and take-back systems, training, and communication so that improvements take effect in the next project.
- **Adapt planning assumptions and processes.**
  Revise time slots, routes, responsibilities, additional information and training needs, and processes for the next cycle.
- **Update the resource concept.**
  Understand the concept as a learning system and define which materials should be avoided or no longer used in the future.

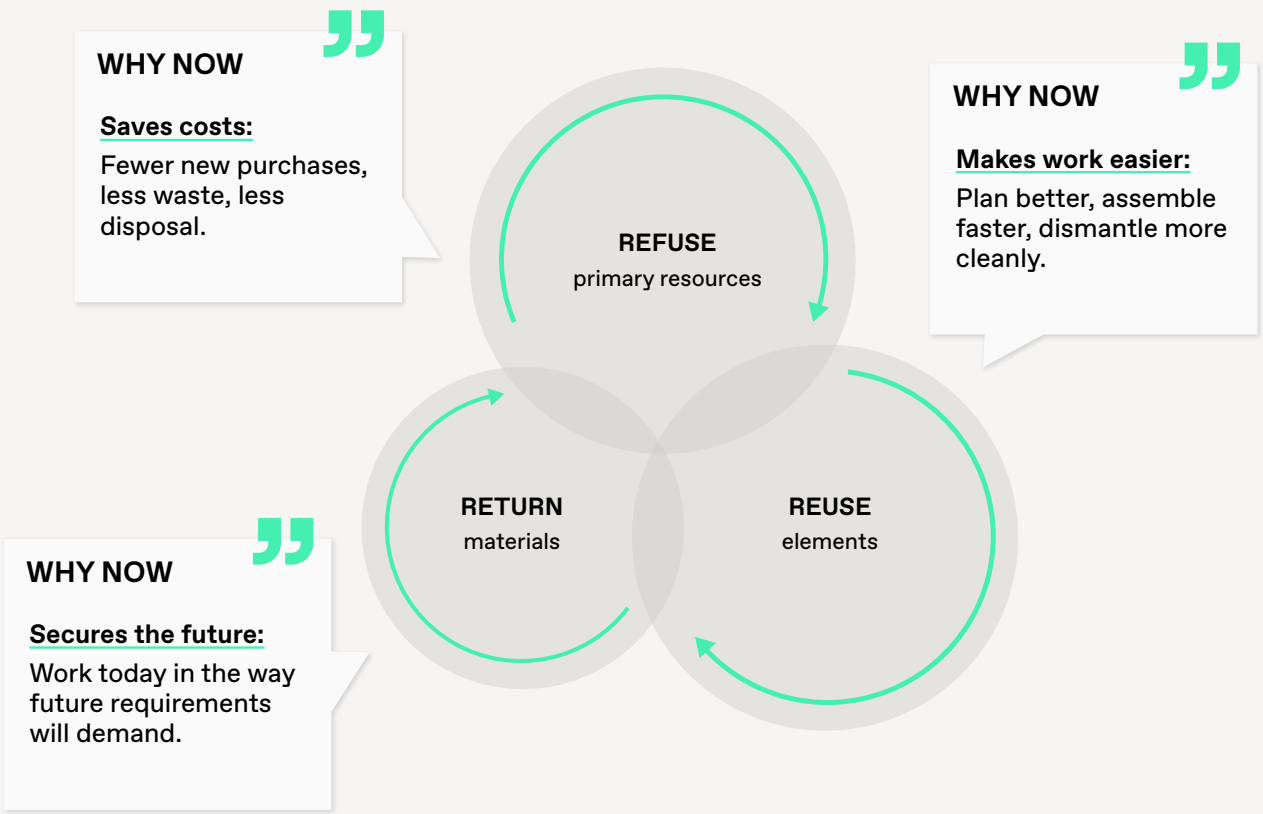
This checklist is intended as practical guidance. It shows at a glance which decisions and measures are particularly important in order to conserve resources, avoid waste, and keep materials either in the product cycle or in the material loop. It can be used both as a quick check for individual projects and as the basis for a dedicated resource management strategy. Depending on the role - for example as an organizer, exhibitor, exhibition construction company, or service provider - individual points can be adapted and weighted differently. For easier orientation, the checklist follows the project timeline and the three guiding phases of this guide: REFUSE - REUSE - RETURN.

In addition, it follows the improvement principle of the PDCA cycle: Plan - Do - Check - Act.

Future-ready resource management

in the trade fair and exhibition industry

Guiding principles:



- **Planning & concept** - Do we really need this material or component?
- **Assembly** - Are we building in a way that allows everything to be separated again by material type?
- **Operation** - Do the elements used remain undamaged and reusable multiple times?
- **Dismantling** - Can we now keep every material cleanly separated?
- **Return** - Do we know where each material or element goes next?

This handout is a practical aid from the industry guide ‚Future-ready resource management in the trade fair and exhibition industry' by AUMA and fwd:
www.auma.de / www.forward.live

Scan me for: guide + detailed checklist

One-pager in 14 international languages

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Organizer / Venue Operator to Exhibitor

Subject: Brief guidance for your trade fair booth: resource management and waste prevention (template for forwarding)

Dear exhibiting companies,

We look forward to your participation and would like to support you with brief, practical guidance: together with fwd: and AUMA, a „Guide to Future-Ready Resource Management in the Trade Fair and Exhibition Industry: Refuse - Reuse - Return“ has been developed.

What this is about:
The objective is to conserve resources while maintaining the same quality and impact of your trade fair presence.

How you can use the guide directly (quick start):

- Plan the booth concept so that components can continue to be used (modular, standard dimensions, rental / sharing).
- Choose materials and connections so that dismantling, repair, and return are possible.
- Clarify separation / collection logic and return pathways (e.g., carpet, wood, textiles, technology, foils) in advance.
- Organize build-up / dismantling so that materials that can be returned remain separate and the residual pathway stays small.

Optional: Please coordinate these points with your booth construction partner:

1. Which components are intended for reuse / return?
2. Which parts are likely to end up in the residual pathway - and why?
3. Which take-back / return pathways are planned (carpet, graphics, technology, etc.)?

This template is intended as a service - please use it to the extent that fits your project.

Best regards,
[Name / Team]
[Organizer / Venue Operator]

Client / Agency / Exhibitor to Exhibition Construction Company

Subject: Brief alignment on the booth concept: resource management and return pathways

Dear booth construction partner,

We greatly value our collaboration and would like to further develop our trade fair presence in line with current sustainability requirements and our corporate strategy.

As part of an industry format by AUMA and fwd:, a „Guide to Future-Ready Resource Management in the Trade Fair and Exhibition Industry: Refuse - Reuse - Return“ was created. For our project, we would like to pragmatically adopt the points from it that can be implemented without compromising quality.

For our next alignment meeting, we kindly ask for a brief assessment:

1. **Reuse / product cycle:** Which booth components are intended for subsequent use (e.g., system / modular components, support frames, furniture)?
2. **Material loop / return:** Which materials can be returned after dismantling as source-separated materials into defined loops (e.g., wood, metal, textiles, carpet, foils, plastics)?
3. **Residual pathway:** Which elements are likely not to be returnable and will be sent to downstream disposal processes (including energy recovery) - and what alternatives would be available?

Optional (if possible without significant additional effort):

- A rough estimate of the quantity shares for each pathway (product cycle / material loop / residual pathway).
- Notes on material and connection selection (demountable, repairable, separable).

Thank you - our aim is a factual, plannable, and easy-to-implement solution.

Warm regards,
[Name / Company]
[Client / Agency / Exhibitor]

Exhibition Construction Company to Client / Agency / Exhibitor

Subject: Resource management in the trade fair booth project: procedure and return logic

Dear [Name],

To enable us to implement the trade fair booth in a resource-conserving and reliable way, we propose a clear logic for reuse, return, and residual pathways. The basis is formed by the principles described in the „Guide to Future-Ready Resource Management in the Trade Fair and Exhibition Industry: Refuse - Reuse - Return“ by the industry associations AUMA and fwd:, as well as the venue-specific requirements of the trade fair.

Our approach in the project (brief):

- **Planning / design:** Selection of modular, demountable, and repairable components; material layers that are as separable as possible.
- **On-site implementation:** Labeling and protection of reusable elements; separation logic during build-up / operation / dismantling.
- **Return:** Defined take-back or recycling pathways for each material group; documentation by fractions.

Classification of material flows (for the project):

- **Product cycle (reuse):** [insert examples / project parts]
- **Material loop (material return):** [insert examples / project parts]
- **Residual pathway (not returnable):** [insert examples / project parts]

For alignment, we need the following from you (brief):

- Approval of the prioritized reuse / return targets (e.g., modular share, take-back for carpet / graphics).
- Clarification of whether a rough quantity estimate for each pathway is desired.
- Contact person for project decisions (design / production / logistics).

Optionally, we can summarize the results after the event in a compact evaluation (lessons learned) in order to plan your next trade fair presence even more efficiently with you and formulate suitable communication messages for your sustainable brand communication.

Best regards,
[Name]
[Exhibition Construction Company]

How To: Prompts for Integration into Tenders and Orders

A possible text could be formulated as follows as a text module for a „trade fair booth construction“ tender, depending on individual requirements.

The contractor describes the booth concept in such a way that the components and materials used can continue to be used or returned after the event. For this purpose, the contractor submits a BOM / bill of materials (BOM light) that includes material groups, connection types (separable / non-separable), and an assignment of the main material flows to product cycle / material loop / residual pathway. For defined material groups (e.g., textiles, carpet, wood, graphics, foils), take-back or return pathways and responsibilities must be identified.

After the event, brief return documentation is provided (quantity balance by fractions + lessons learned).

TENDER BUILDING BLOCKS IN 6 POINTS (WITH EVIDENCE):

1. **Booth concept / modularity:** Requirement as an outcome („multiple-use, standardized dimensions“) rather than a technology mandate.
2. **Design for disassembly:** Separable connections; no unnecessary composite materials.
3. **Secondary material and textiles:** Secondary material share by material group; for textiles, e.g., OEKO-TEX / GRS as possible evidence (or equivalent).
4. **Take-back:** Defined take-back pathways (carpet / graphics / textiles, etc.) including responsibility.
5. **Material data (BOM light):** Bill of materials / material groups + pathway assignment (product cycle / material loop / residual pathway).
6. **Reporting minimum:** Quantities / evidence by fractions + brief target-versus -actual comparison.

Note: The previous text modules and prompts are provided as non-binding guidance. Any specific adoption in tenders, orders, or contractual documents must be reviewed by the respective company (especially procurement / legal / compliance) and adapted to its own requirements and to the applicable legal framework.

» CHAPTER 1

Foreword

1

01. Foreword

Trade fairs and events are public occasions with attractive visibility and a festive character. They concentrate aesthetics and communication, but also the consumption of resources (materials, capital) and the output of waste and emissions, all compressed into just a few days. Yet attractive solutions exist when the best available implementation pathways are chosen.

This guide enables exactly that: making the best choice in each case, optimally fulfilling one's own communication objectives, and using as little of the planet as possible in the process. From a research perspective as well, the guide is compelling because of both its technical depth and its practical implementation orientation.

The technical methodology is holistic and well-founded:

1. Extracting resources from nature (wood, metals, minerals, fossil resources).
2. Producing materials such as plastics, textiles, and components for construction.
3. Deploying them at the event, including all ancillary flows from equipment, catering, mobility, and giveaways.
4. Managing subsequent use in the sense of reuse, recycling, and disposal.

Even prioritization is technically convincing:

1. The priority is to avoid what is not required to achieve communication objectives; this is where enormous potential for innovation and creativity lies.
2. The consistent reuse of all essential elements in order to counteract the industry's short-lived nature while saving time and costs.
3. The careful return of anything that cannot be used again, in order to lose as little material from the cycle as possible.

But this guide is not only effective from a research perspective; it is also effective because of its consistent orientation towards practical implementation. The checklists, best practices, building blocks, and templates make it exceptionally easy to translate the principles of the guide into immediate practical action.

This guide keeps the regulatory framework firmly in view, but does not treat it as a restriction or burden; rather, it treats it as a flywheel for innovation. The two associations fwd: and AUMA have carried out groundwork that is rich in experience and practical knowledge. The path toward future-ready resource management has been opened, signposted, and secured. We can get started!

Bernd Draser

Bernd Draser

Program Director at the ecosign Academy for Sustainable Design
Sustainability Lead at the ecosign Institute for a Sustainable Future

» CHAPTER 2

Introduction and Objectives

2

02. Introduction and Objectives

Trade fairs and events are stages, marketplaces, and spaces for encounter - and at the same time drivers of material and energy use. The objective of this guide is to structure resource use and waste prevention in such a way that the impact, quality, and safety of the event are preserved while material input, waste volume, and CO2 emissions decrease. At the same time, elements and materials can increasingly be designed in a way that, after use, they either remain in the product cycle or are returned to suitable material loops.

Strategic Context: European Objectives

The guide takes up key European objectives for a climate-neutral, resource-efficient, and circular economy and translates them into practicable steps for trade fair and event projects. In doing so, it supports the transition to a circular economy that gradually decouples economic activity from resource consumption. The most important and most concrete role here is played by the new Ecodesign for Sustainable Products Regulation (ESPR).

Climate Neutrality of the European Union by 2050

The European Union is pursuing the goal of becoming climate-neutral by 2050. Events and trade fair appearances also contribute to greenhouse gas emissions through material use, transportation, and disposal processes. The principles of „ Refuse - Reuse - Return“ can reduce material consumption, lower transport requirements, and reduce emissions along the event cycle.

Transition to a Circular Economy

A central objective of European economic policy is the gradual decoupling of economic activity from resource consumption. Temporary trade fair and event structures are often material- and logistics-intensive. Circular design approaches, modular systems, and planned reuse help reduce the use of primary raw materials and keep materials in the use system for longer.

Main Lever: Design for Circularity in the Planning Phase

The greatest lever lies in the planning and concept development phase: booth design, material decisions, and construction decisions largely determine whether a presentation reduces resources, can be reused in the product cycle, or can ultimately , as mono-material, be returned into material loops. Separation and return are important operational building blocks - but they work especially well when design for circularity is considered from the very beginning.

Design Space and Innovation

At the same time, the guide deliberately leaves room for different entrepreneurial solutions and innovations. It understands itself as an invitation to transfer the creative strength of the industry to material selection, construction, use systems, logistics, and return processes - and thus to develop solutions that are ecologically effective and economically viable.

Processes, Roles, and Implementation Along the Event Cycle

At the center of future-ready resource management is not a single measure, but the interaction of processes, interfaces, and responsibilities. Whether materials are refused, reused, or returned as mono-materials is determined along clear processes - from planning through production, build-up, and operation to follow-up. When the right information reaches the right stakeholders at the right time, sustainable solutions become easier, more cost-efficient, and more reliable to implement.

Economic Benefit

Future-ready resource management is not only a sustainability issue; it is often also a lever for economic efficiency. Less primary material and less single-use material mean less procurement, less transport, and less disposal. At the same time, this creates space for new business models. Clear separation and return logic reduces mixed waste, avoids express disposal, and lowers effort during dismantling and cleaning. This is particularly effective when measures are integrated early into design, ordering, and logistics planning - improvisation decreases and processes become more stable.

Objective and Benefit of the Guide

This guide helps make interrelationships visible and formulate requirements so that they work in practice. It can serve as a component of a sustainability strategy in operational implementation - especially where measures are to be planned, implemented, reviewed, and improved in a binding way.

Target Groups

This guide is aimed at:

- **Venue operators**
- **Trade fair organizers / event organizers**
- **Exhibiting companies / exhibitors**
- **Exhibition construction companies and other service providers**
- **Waste management companies, logistics providers, catering, cleaning**

Exhibiting companies and exhibition construction companies carry the central responsibility for booth design and material use and therefore make the key decisions that enable materials to be refused, reused, and returned to defined loops; the separation and disposal of remaining residual materials is downstream.

Compatibility with Management Systems

Guidance is provided both by regulatory requirements (including the ESPR, the Circular Economy Act, packaging law, and the Commercial Waste Ordinance) as well as management systems and reporting obligations (e.g., ISO 20121, ISO 14001, ESRS / CSRD). In the context of ISO 20121, the guide can be used as a practical working document to translate requirements of the sustainability management system into concrete processes and measures - from clarifying roles through implementation and appropriate KPIs to evaluation in regards of a continuous improvement process.

EU Framework: Regulatory Requirements

This guide is deliberately practice-oriented - and at the same time compatible with the regulatory framework, which in the EU is increasingly focused on circularity, resource efficiency, and reliable evidence.

Four important regulations or directives should be mentioned here:

- ESPR (Ecodesign for Sustainable Products Regulation): a framework for product-related requirements and transparency
- PPWR (Packaging and Packaging Waste Regulation): harmonization of requirements for packaging, reuse, and waste prevention
- EmpCo (Empowering Consumers Directive): requirements for credible sustainability communication, implemented in Germany through the amendment to the Act Against Unfair Competition (UWG)
- CSRD (Corporate Sustainability Reporting Directive): obligation for large companies to report on sustainability

This guide does not replace legal review, but it translates the underlying principles into an implementation-oriented logic for trade fairs and events - along the event cycle, with clear roles, processes, and KPIs. The ESPR covers all products placed on the EU market, with only a few product groups subject to exceptions because they are regulated elsewhere. Temporary trade fair and event structures are not a separate product category within the meaning of Guide to Future-Ready Resource Management | EN-US working translation Page 15 delegated acts, but the ESPR does apply to the elements and materials used. The approaches described in this guide therefore make a practical contribution to implementing ESPR principles such as life-cycle thinking, material transparency, and circularity in the trade fair context.

Transferability and Cooperation

At the same time, the guide is deliberately structured as to remain applicable regardless of venue, event format, or booth size and concept: it describes a shared target vision and provides practical approaches that can be integrated into existing processes as well as being developed further step by step. Partnerships and cooperation among the actors in the trade fair and exhibition industry ecosystem are a key lever for better implementation.

» CHAPTER 3

Sustainability Principles and Economic Efficiency

3

03. Sustainability Principles and Economic Efficiency

Guiding Principle: Refuse - Reuse - Return

The guiding principle of this guide is: **Refuse - Reuse - Return**. In exhibition construction, this guiding principle becomes effective above all through design for circularity. The sequence is decisive: first, resource consumption is reduced as much as possible; then used materials, components, and structures are kept in use for as long as possible; and only at the end comes high-quality return. Waste prevention does not mean sacrificing quality; it means good planning, booth and material design focused on multiple use, and processes that function reliably in practice.

The guide distinguishes between two central circular logics: preserving components and materials in the product cycle through reuse, and source-separated return into the material loop when further use is no longer meaningful or possible.

- **REFUSE:** The first step is to reduce overall resource consumption - through good planning and material selection, as well as the use of secondary raw materials. Avoidance also means standardizing instead of reinventing every time, and using only what is actually needed. Special design solutions should be used only if they can be used multiple times in the product cycle and returned to recovery loops.
- **REUSE:** Components, structures, and materials should be selected wherever possible so that they can be used multiple times. Reuse succeeds particularly when elements are demountable, repairable, and manageable from a logistics perspective - and when it is clear from the planning stage how dismantling, storage, handover, or subsequent use will be organized.
- **RETURN:** Only when use or reuse is no longer feasible does source-separated return into value-preserving material loops come into focus. The prerequisite is that materials are planned to be separable by type, captured cleanly, and routed to the right recovery pathways. Mixed waste is the worst option - both ecologically and economically.

Complementary Principles (Sufficiency, Efficiency, Consistency, Life Cycle, Transparency)

To make the guiding principle tangible in practice, the guide relies on complementary sustainability principles. Sufficiency means using only what is truly needed - „less is more“ is not a slogan here, but a planning principle. Efficiency aims to achieve the same impact with less material, energy, and logistics effort, for example through standard dimensions, modular solutions, or consolidated transport. Consistency stands for circular solutions: materials and connections are chosen so that they can be reused, repaired, or returned at high quality to material loops in the product cycle. This is supplemented by life-cycle thinking - the consistent planning from procurement through use and dismantling to return - and by transparency: only when material flows, waste volumes, and, where possible, CO2e data or KPIs are captured and evaluated can progress be tracked, measures be improved in a targeted way, and communication be effective.

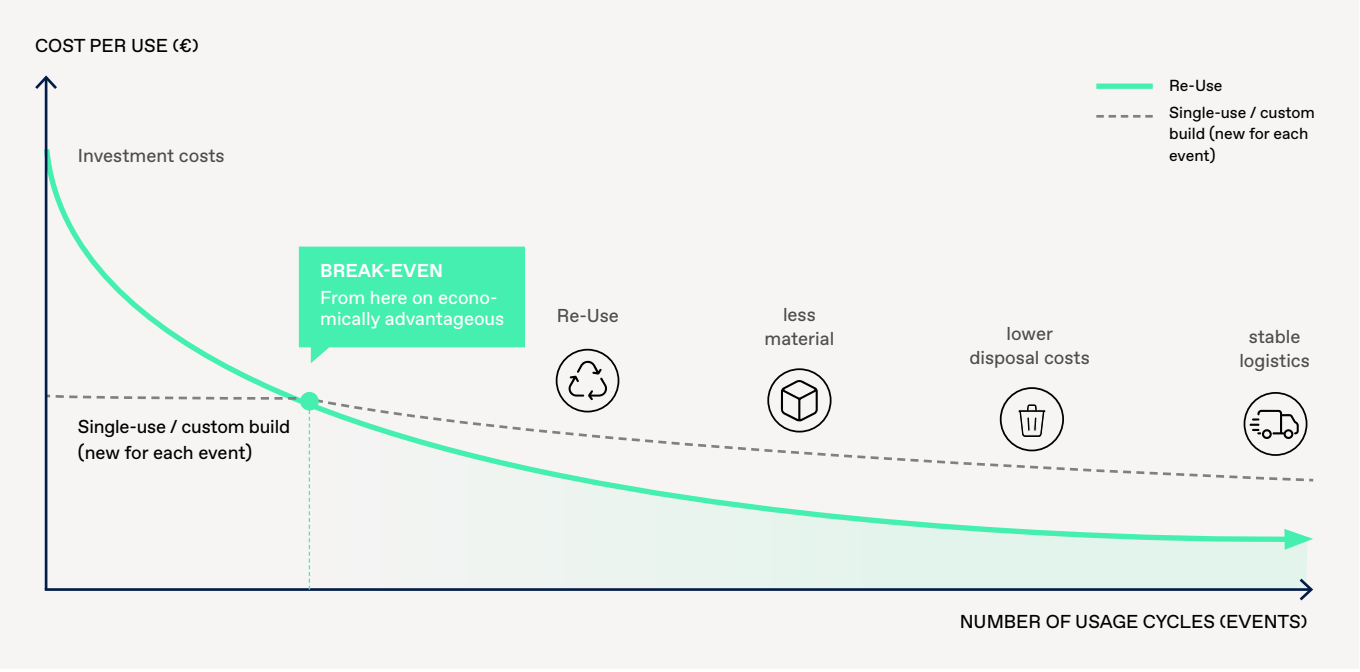
Economic Efficiency Across the Use Cycle (Total Cost of Use - TCU)

Sustainability in the exhibition industry has lasting impact only if it is also organized in an economically efficient way. The relevant criterion is therefore not the lowest individual price of a solution, but its economic efficiency across the entire use cycle. Reusable, modular, and returnable systems can become economically advantageous after only a few uses because material input, new procurement, disposal effort, and logistics costs decrease. At the same time, where possible, the CO2e impact across the use cycle should also be considered, so that economic advantages are not evaluated separately from climate- and resource-related impacts.

The Total Cost of Use (TCU) approach helps make circular solutions economically traceable and comparable. In practice, this means that decisions should, where possible, be made on the basis of cost per use, including expenses for planning, transport, build-up, operation, dismantling, return, and storage or disposal. The TCU approach thus supplements existing sustainability and circularity approaches with an economic perspective, is Guide to Future-Ready Resource Management | EN-US working translation Page 17 compatible with established methods such as life cycle costing, and supports the practical implementation of the circular economy in the trade fair and event context.

The TCU approach can also be easily integrated into tenders and procurement processes by asking providers to submit, in addition to the offer price, supplementary information such as planned reuse cycles, take-back concepts, and expected disposal or return costs for circular alternatives. The goal is this: the lowest individual price should not decide; the economically and resource-efficient overall concept should.

Single-use vs. Re-Use: Cost Efficiency Across the Usage Cycle (TCU)



Reusable systems become economically superior with increasing use and at the same time reduce material consumption and waste.

© Graphic: Robert Trebus

Classification: The R-Strategies as an Orientation Framework

In this guide, the R-strategies serve as a practical orientation framework for circular solutions. They supplement existing legal requirements and established waste hierarchies without replacing them, and translate priorities into an implementation-oriented logic for the trade fair and exhibition industry. Their concrete intended effects are also anchored in the ESPR.

R0 **Refuse:** Avoid unnecessary materials, single-use products, or short-lived special solutions.

R1 **Rethink:** Refresh / rework components so they can be used again (e.g., surfaces, graphics, furniture).

R2 **Reduce:** Lower material and energy use (e.g., standardization, secondary raw materials, less packaging / print).

R3 **Reuse:** Use components / materials multiple times (system / modular construction, rental / sharing models).

R4 **Repair:** Repair instead of replacing (spare parts, repair-friendly connections).

R5 **Refurbish:** Refresh / rework components so they can be used again (e.g., surfaces, graphics, furniture).

R6 **Remanufacture:** Continue using parts in a new combination (e.g., elements from dismantled structures in new setups).

R7 **Repurpose:** Continue using materials for another purpose (e.g., fabrics / panels in other applications).

R8 **Recycle:** Recycling as high-quality, source-separated return to keep materials in the loop.

R9 **Recover:** Energy recovery only when previous options are not possible. R9 is therefore part of the residual pathway: non-returnable residual materials are sent to downstream disposal processes (including energy recovery).

The R-strategies can be grouped into three clusters, but they must be planned as a whole during the planning phase:

- Refuse, Rethink, and Reduce relate essentially to the design and planning phase.
- Reuse, Repair, and Refurbish relate essentially to the use phase.
- Remanufacture, Repurpose, Recycle, and Recover relate essentially to the post-use phase.

The rule is: the earlier avoidance and reuse are considered, the easier and more effective it becomes to conserve resources and reduce waste. The principles and R-strategies described in this chapter therefore serve as common guardrails for all stakeholders. In the following chapters, they are translated into concrete terms along the trade fair cycle - with clear process steps, roles, and measures that enable practical implementation.

The R-Strategies as a Circular Economy Framework

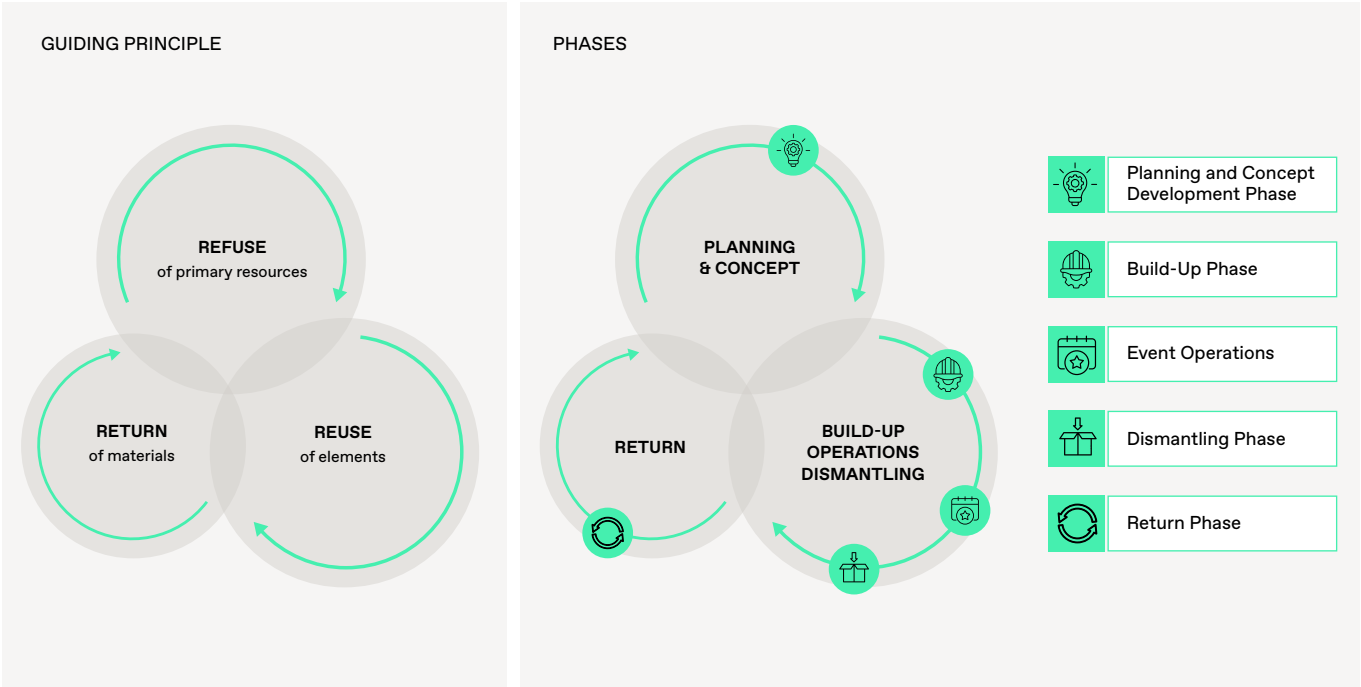
REFUSE & OPTIMIZE			EXTEND PRODUCT USE			MATERIAL UTILIZATION			
Plan intelligently, conserve resources			Keep products and components in use for as long as possible			Keep valuable materials in circulation and recover residual resources			
R0	R1	R2	R3	R4	R5	R6	R7	R8	R9
REFUSE	**RETHINK**	**REDUCE**	**REUSE**	**REPAIR**	**REFURBISH**	**REMANU-FACTURE**	**REPURPOSE**	**RECYCLE**	**RECOVER**
Eliminate unnecessary materials, single-use products, or short-term custom solutions.	Design concepts in a way that the same outcome is achieved with less material use.	Reduce material and energy consumption (e.g. through standardization, secondary materials, less packaging or printing).	Reuse products, components, or materials multiple times (e.g. modular systems, rental or sharing models).	Repair instead of replacing (e.g. spare parts, repair-friendly connections and designs).	Restore or upgrade components to make them usable again (e.g. furniture, graphics, surfaces).	Reuse parts in a new product or configuration (e.g. components from previous installations integrated into new setups).	Use materials or products for a different purpose (e.g. panels or fabrics in new applications).	Recover materials through high-quality, source-separated recycling to keep them in the material loop.	Recover energy from residual waste only when higher-value circular options are no longer feasible.

INCREASING CIRCULARITY

Source: Own illustration based on Potting et al. 2017, in: Kirchher et al. 2017.

Interaction of Guiding Principles and Phases in the Event Cycle

The phases make the guiding principles operationally effective and help secure the product cycle and material loop.



Possible Pathways After Use and Dismantling

- Product cycle
- Material loop
- Residual pathway / waste / thermal recovery

» CHAPTER 4

Resource Management in the Event Cycle

4

04. Resource Management in the Event Cycle

The most effective measures are phase-specific. This chapter structures the approach along the event cycle and the operational project phases - with concrete recommendations for action for all roles. The decisive factor is that design, processes, and responsibilities interact early on: the more clearly roles and interfaces are defined, the more reliably elements and materials can be refused, reused, and cleanly returned.

Classification of the R-Strategies in the Event Cycle

The R-strategies presented in Chapter 2 serve as an orientation framework for circular solutions. Although they can be assigned to individual phases, they always have systemic effects across planning, build-up, operation, dismantling, and return. The decisive factor is the interaction of the strategies over the entire life cycle of a trade fair presence, beginning with the planning and concept development phase.

4.1 Planning and Concept Development Phase

In the planning and concept development phase, **by far the largest share of later waste and resource impacts is determined**. Key levers lie **in design and booth concept, material and construction decisions, and early coordination with all trades involved.** This means that a major lever for sustainable resource management lies with the clients, where design, budget, and system decisions are made. In collaborative exchange, this phase determines whether a booth and the materials used are designed for single use - or whether they can be used multiple times in the product cycle and returned, source-separated, to material loops after completion of the intended use cycles. System and modular construction reduce project effort across multiple uses (assembly times, repurchasing) and thereby actively save costs.

Typical roles and functions in this phase (with responsibilities):

- **Exhibitor / project lead for trade fair presence:** defines design requirements, objectives (e.g., reuse, material requirements), budget framework, and requirements; ensures internal approvals.
- **Design / creative:** advises stakeholders and develops the design concept so that it is compatible with modular, reusable solutions; avoids short-lived special solutions.
- **Construction / structural engineering / technical planning:** advises stakeholders and selects construction and connections so that dismantling, repair, and return are practical or realistic (screw instead of adhesive connections, easily separable material layers).

- **Exhibition construction company / project management:** advises stakeholders and translates the concept into an implementable system consisting of BOM - bill of materials / parts list, material labeling, pathway assignment to product cycle or material loop, and logistics; reuse and dismantling processes are planned at the same time.
- **Trade fair organizer / venue operator:** provides infrastructure (separation systems, collection points) and services; integrates requirements into documents / ordering processes.
- **Sustainability / resource manager (depending on organization):** coordinates objectives, KPIs, briefings, monitoring, and ensures compatibility with reporting requirements.

PRACTICAL CHECKLIST FOR THIS PHASE:

- ☑ Design booth concept for reuse (system or modular construction, rental / sharing options, durability, and standard dimensions).
- ☑ Make material and construction decisions so that reuse, repair, and return are possible (separable structures, durable and repair-friendly connections).
- ☑ Define processes: How will materials and components be labeled, assigned to the product cycle / material loop / residual pathway, separated, stored, and used again?
- ☑ Involve locally / regionally available partners to reduce transport routes and express shipping.
- ☑ Critically review giveaways and printed media: only with a genuine function; prioritize resource-light and circular, if applicable biodegradable, products or digital alternatives (QR, download, online tickets).
- ☑ Plan catering and hospitality based on quantities (food waste prevention through better forecasting, possible reordering, and reduced variety; regional and seasonal where possible).
- ☑ Define responsibilities and acceptance points (e.g., resource / waste officer, approvals, checkpoints).

1) In the context of this guide, scene area refers to the presentation and action area planned for the trade fair presence or event. It is part of the planned use and staging of the respective booth or event concept and differs from traffic, logistics, and safety areas of the event venue, which are managed by the organizer or venue operator.

4.2 Build-Up Phase

During build-up, it becomes clear whether the concept works operationally. Separation systems must be visible on the scene or booth area1, logistically accessible, and understandable for all trades. At the same time, build-up is the phase in which processes are practically „clocked in“:

- Where will materials be collected on the available scene or booth area?
- How will items be labeled?
- What will be brought from the scene or booth area to which location?
- Who is the contact person?

The actors mentioned assume different roles within the event system. Resource and material flows arise through the interaction of these actors along the event and life cycle. Responsibility for effective resource management is therefore distributed according to the respective influence and design options of the stakeholders.

Typical roles and functions (with responsibilities):

- **Construction management (exhibition construction company):** controls build-up processes, pays attention to material protection, labeling, and separation logic.
- **Technology / AV / electrical (exhibition construction company):** ensures proper handling of technology and separate capture of electrical and special waste.
- **Logistics (exhibition construction company):** coordinates logistics, organizes delivery, return of empties and packaging, and clear handover points so that recyclable materials remain separate and no mixed waste is created.
- **Trade fair organizer:** offers necessary services.
- **Venue operator:** provides infrastructure and is responsible for traffic management and safety on the premises (operator responsibility).

PRACTICAL CHECKLIST FOR THIS PHASE:

- ☑ Place separation systems and collection points so they are easy to use (colors / symbols, highly visible, low-barrier).
- ☑ Organize special waste (e.g., paints, batteries, electronics, hazardous substances) separately and define responsibilities.
- ☑ Identify and label materials suitable for reuse early (e.g., stickers / tags) - not only during dismantling.
- ☑ Arrange short briefings for all trades (exhibition construction, technology, cleaning, catering) including „do / don‘t“ guidance and clear contacts.
- ☑ Organize empties and packaging logistics so that chaotic phases are avoided (boxes / crates instead of foils, clear collection points and time slots).

4.3 Event Operations

During the event, the focus is on clean processes, visitor communication, and the avoidance of „daily“ waste (catering, giveaways, packaging, cleaning waste). Sustainability becomes visible here primarily through consistent routines and clear communication - without creating additional effort.

Typical roles and functions (with responsibilities):

- **Booth team / hosts / sales:** implements the rules in everyday operations (e.g., separate collection, digital materials), communicates with visitors.
- **Catering / service:** implements reusable concepts, quantity planning, and deposit logic; actively reduces food waste.
- **Cleaning:** ensures separation quality, reports misthrows, and supports guidance to collection points.
- **Trade fair organizer:** supports through signage, visitor guidance, infrastructure, and communication tools.

PRACTICAL CHECKLIST FOR THIS PHASE:

- ☑ Digital instead of paper: digital brochures, QR codes, screens; print only selectively and without year reference where possible.
- ☑ Catering: reusables (glass / porcelain / metal), regional / seasonal, vegetarian / vegan as standard; use deposit logic.
- ☑ Reduce food waste: smaller selection, good quantity planning, review options for reuse of leftovers / donations.
- ☑ Visitor guidance: clear signage and simple instructions („How to separate correctly“).
- ☑ Cleaning: environmentally friendly cleaning agents, focused cleaning zones, avoidance of single-use aids.

4.4 Dismantling Phase

Resource management in the dismantling phase requires particular care. This phase is decisive because time pressure is high and mistakes here become especially expensive. The goal is to return materials to use systems as planned, predominantly through source-separated separation, reuse processes, and clear return pathways. Mixed waste increases costs and prevents return into reuse. Disorganized dismantling and mixed fractions make later reuse and return options more difficult or impossible.

Typical roles and functions (with responsibilities):

- **Exhibition construction / dismantling management:** organizes dismantling, protects reusable elements, ensures source-separated separation and labeling.
- **Exhibitor / booth team:** ensures orderly handover of booth materials, separates booth-related materials, and avoids last-minute mixing.
- **Trade fair organizer:** provides rules, time slots, and suitable infrastructure for orderly dismantling.

PRACTICAL CHECKLIST FOR THIS PHASE:

- ☑ Carry out dismantling with a clear separation logic (e.g., wood, metal, carpet, textiles, foils, plastic, electrical items).
- ☑ Protect, label, and separately capture reusable elements.
- ☑ Clearly organize time-critical handovers in order to avoid improvised mixed disposal.

4.5 Return Phase

The event focuses on streamlined processes, communication with visitors, and minimizing “daily” waste (catering, giveaways, packaging, cleaning waste). Sustainability is demonstrated here primarily through consistent routines and clear communication—without creating any additional work.

The return phase generally runs parallel to or follows the dismantling phase and serves as the central interface between system operation and subsequent system pathways. This phase determines whether the conceptual, design, and material decisions made during the project will achieve their intended results. Based on the quality of separation and securing achieved during dismantling, it is determined whether components and materials:

- remain in the product cycle (e.g., through reuse, repair, or refurbishment),
- are transferred into high-quality material loops (e.g., recycling that is as „closed-loop“ capable as possible), or
- fall out of the use system and are sent as a residual pathway to downstream disposal processes (residual pathway = waste; not returnable, downstream disposal processes such as energy recovery).

The return phase is therefore not a logistical „step afterward,“ but the point at which planning is translated into reality. It makes visible the extent to which upstream decisions on modularity, separability, and material selection actually enable circular management - or limit it.

Typical roles and functions (with responsibilities):

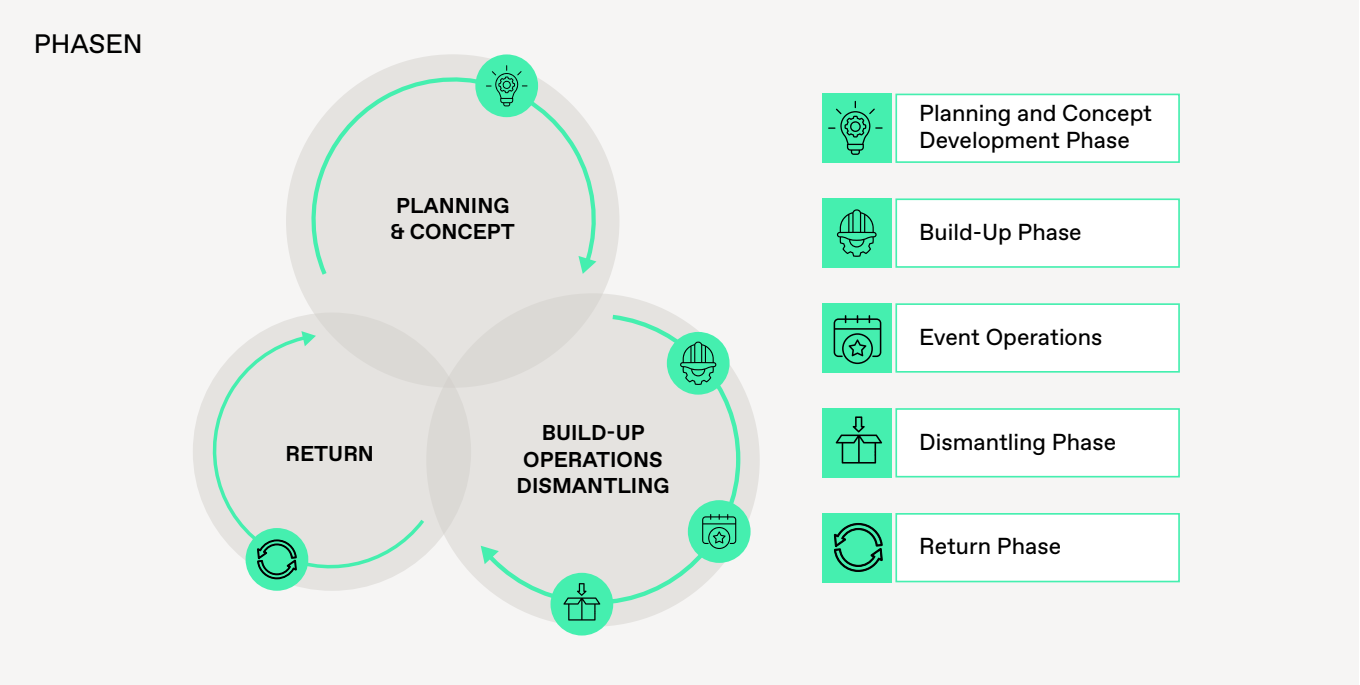
- **Logistics / transport:** coordinates pickup, empties management, and return transport to storage or to the next use.
- **Waste management / recyclable materials management:** takes over the waste that the exhibitor and exhibition construction company have collected as source-separated materials in the ordered waste boxes and confirms the accepted quantities.
- **Trade fair organizer:** coordinates the disposal process and documents disposal accordingly.

PRACTICAL CHECKLIST FOR THIS PHASE:

- ☑ Prioritize reuse and return flows and clearly separate them from residual materials.
- ☑ Implement external handover (e.g., plants, furniture) only in a coordinated and documented way.
- ☑ Secure quantity balances and evidence by fractions.
- ☑ Evaluate findings from the return phase and make them usable for the next planning cycle.
- ☑ Ensure assignment of each relevant material flow to a pathway:
  - Product cycle (reuse / repair / refurbishment)
  - Material loop (value-preserving return to material cycles)
  - Residual pathway (waste; not returnable, downstream disposal)

Resource and waste management works best when design decisions, processes, and roles interlock across the entire event cycle. The more clearly responsibilities, routing, and return logic are defined, the easier reuse, clean separation, and robust reporting become - and the more impact is created without additional effort. Dismantling and return are the phases in which it becomes clear whether circularity holds up in everyday operations. The more clearly separation logic, roles, time slots, and pathways are defined, the more materials remain in the product cycle or material loop - and the smaller the residual pathway becomes.

The diagram illustrates the interplay between the individual phases of the event cycle and makes it clear that future-ready resource management begins already in the planning and concept stages, continues through reuse during build-up, operations, and dismantling and extends all the way to the return phase with the recycling of the materials used (see Chapter 3, “Sustainability Principles and Economic Efficiency”).



» CHAPTER 5

Materials, Reuse, and Design for Circularity

5

05. Materials, Reuse, and Design for Circularity

Materials are the central lever in exhibition construction - and they become effective through design decisions (standardization, modularity, separable construction). The goal is to select, install, and organize materials so that they can be used multiple times, repaired, passed on, returned, or ultimately recycled as mono-materials. The decisive factor is not only the material itself, but also the construction, connection technology, and return logic: what can be easily dismantled, separated, and transported has the best practical chance of reuse and high-quality recovery.

Another central principle is the conscious decision between primary material and secondary material. Wherever possible, the use of secondary material (e.g., recycled plastics, recycled textiles, recovered wood-based materials) should be prioritized. As a rule, secondary materials reduce the need for new raw materials, reduce environmental impacts in production, and strengthen loops - provided that quality, application area, and return pathways are clearly defined. Renewable materials are not necessarily more resource-conserving than fossil-based or mineral raw materials; here, a bias-free assessment should always be made of which material choice offers the most favorable balance between resource consumption on the one hand and service life on the other.

Criteria Catalog (Short Version)

Material and connection selection should be based on criteria that enable reuse, repair, and return:

- **Reusability:** modular, robust, demountable, standardized dimensions.
- **Evidence-based material selection:** longest possible service life with the lightest possible resource pathway.
- **Repairability:** spare parts available, simple repair possible.
- **Separability:** source-separated separability, avoidance of composite materials, clear material labeling..
- **Certifications / standards:** e.g., FSC / PEFC (wood), Cradle to Cradle, Blue Angel (where appropriate), and for textiles OEKO-TEX(R) or GRS (Global Recycled Standard).
- **Logistics suitability:** stackable, flat-packable, durable transport packaging (boxes / crates).

Outlook: Material Data, Traceability, and the (Future) Digital Product Passport (DPP)

In view of the ESPR, product transparency is becoming increasingly important. For exhibition construction, this means that, looking ahead, materials and components will increasingly be describable through material data, origin / share of secondary material, repairability, separability, and return pathways - and traceable through unique labeling. This concept can already be implemented pragmatically today: through a BOM / bill of materials, simple material labeling (e.g., material group + return pathway), and a compact material data sheet per booth / module. This makes dismantling and return more reliable, and reporting becomes easier. The Digital Product Passport (DPP) required by the ESPR is therefore a real opportunity for information standardization.

MINI-CHECKLIST

- ☑ BOM / bill of materials per booth / module (material group, mass / unit, connection type)
- ☑ Labeling of main components with pathway assignment: product cycle / material loop / residual pathway
- ☑ Take-back / return information: contact person, time slot, handover point

Material Groups - Best-Practice Options

The following points are to be understood as best practice: they have been tested in practice, are scalable, and can be implemented with clear return pathways. At the same time, best practices are not eternal truths but snapshots in time; it is always worthwhile to remain open to even better solutions.

- **Carpet / textiles:** Critically review the need, prioritize sustainable options, and clarify take-back / recycling pathways in advance; preferably use textiles with OEKO-TEX®, Cradle to Cradle, or GRS certification.
- **Wood:** Use standard formats, avoid painting, prefer screw rather than adhesive connections, and consider take-back / handover organizationally (storage, resale, donation, return).
- **Graphics / banners:** Use interchangeable motifs and reusable frame systems; use textile solutions instead of PVC where suitable, and design motifs so that they can also be used at subsequent events.
- **Technology / electronics:** Prefer rental over purchase; plan reuse and return components that are no longer usable separately and properly as electronic waste.
- **Furniture:** Rent, use second-life options, and prioritize robust standard solutions that can be used multiple times and repaired.

Reuse as an Organizational Task

Reuse works only when the organization works: reuse means planned and value-preserving reuse (R-strategy) - in other words, reuse with defined responsibility, quality requirements, and an intended next use. Success factors include early communication, labeling, clear pickup and handover points in the halls, interim storage areas, andunambiguous responsibilities along the reuse process. Handover (e.g., to third parties) can be a sensible option, but it should be distinguished from reuse: as a rule, it means that responsibility and use are transferred and that no defined return in the sense of continued resource management is planned. If handover is used, it should therefore be coordinated, documented, and implemented with clear criteria (e.g., suitability, quality, quantities, time slots). Cooperation with local reuse actors can facilitate both reuse processes and coordinated handover - provided that roles, requirements, and processes are clearly agreed in advance.

» CHAPTER 6

Communication, Training, and Incentives

6

06. Communication, Training, and Incentives

Communication is the multiplier. The more clearly requirements and benefits are conveyed, the higher the acceptance, implementation fidelity, and separation quality. At the same time, training ensures that processes are not only „understood," but also applied reliably in everyday operations. The aim of this chapter is to set up communication and enablement so that they are simple, repeatable, and compatible for all stakeholders - from exhibitors and exhibition construction to service providers and visitors.

A key success factor is shifting communication forward: requirements have the strongest effect when they are integrated early into planning, ordering, and briefings - not only once the event is already underway. Equally important is understandable and consistent on-site guidance: people who know what belongs where and why separate better and avoid mistakes that later cost time and money.

Building Blocks for Effective Communication and Implementation

- **Advance communication:** Requirements should already be communicated clearly during registration, in exhibitor documents, and in the ordering process - including concrete examples and contact persons. This sets expectations early and allows them to be considered in design, material selection, and logistics planning.
- **On-site guidance:** Signage and guidance systems should be understandable, consistent, and as selfexplanatory as possible - multilingual where needed. QR codes can supplement short instructions or site plans and help make information available at the right moment (e.g., „How to separate correctly," „Special waste," „Reuse handover point").
- **Training and briefings:** Short, standardized briefings for exhibition construction, technology, catering, cleaning, and logistics - whether in-house crew, service provider, or subcontractor - create implementation certainty, especially under time pressure and with changing teams. Ten-minute onboardings, recurring do / don't lists, and clear escalation paths for ambiguities have proven effective.
- **Incentives and incentive systems:** Positive incentives increase motivation to use circular solutions. Transparent, non-discriminatory incentive systems can accelerate the shift to demonstrably reusable, modular booth concepts (e.g., system / modular construction, rental or sharing solutions). The decisive factor is that criteria, evidence, and conditions are clearly communicated in advance.
- **Transparent sustainability communication:** Small steps should be communicated openly - including the learning curve. This strengthens credibility and prevents greenwashing. Communication is particularly effective when it shows concrete measures and verifiable results (e.g., „reuse share," „mixed waste reduced," „reuse materials returned").

Note: Robust Sustainability Communication

To ensure that good measures are not communicated in a misleading or vulnerable way, sustainability communication should be based on data, clear definitions, and traceable boundaries. Especially in the context of new EU requirements on green claims (including the EmpCo Directive, implemented in Germany through the Act Against Unfair Competition), the rule is: better precise and substantiated than broad and vague.

DO'S (RECOMMENDED):

- Link statements to metrics (e.g., reuse share, return rate, mixed waste share, where evidence is available).
- State system boundaries: What does the statement refer to (booth, event, material group)?
- Define reuse cleanly (planned, value-preserving reuse) and distinguish it from handover.

DON'TS (AVOID):

- Do not make broad claims such as „climate-neutral" or „100% sustainable" without a robust basis.
- Do not claim „closed loop" if the return pathway is not defined and evidenced.
- Do not provide CO2 figures without a traceable method / scope / system boundaries.

Principle: No sustainability claim without a traceable basis and verifiable data.

» CHAPTER 7

Reporting and Evaluation

7

07. Reporting and Evaluation

Without data, effective management is impossible. Metrics make impact visible, create comparability, and facilitate continuous improvement in resource management. They are also becoming more important in the context of ESG and CSRD requirements and management systems such as ISO 20121. The goal is not maximum complexity, but a technically robust set of metrics that fits event processes, enables transparency, and can be developed further step by step. Metrics should be selected so that they can be collected with reasonable effort, are relevant to action, and can be translated directly into improvements for planning, build-up, operation, and return.

7.1 Core and Practical KPIs for Resource Management

To safeguard the future viability of exhibition construction, a clear, traceable, and at the same time practical assessment of resource use is required. The following metrics create a shared orientation for exhibitors and exhibition constructors by making central aspects of the circular economy - product cycle, material loop, and share of secondary raw materials - systematically measurable. They stand in the context of overarching policy objectives for transformation toward a resource-conserving and circular economy and translate these into an applicable framework for exhibition construction.

At the same time, the metrics expressly do not see themselves as a restriction of design or entrepreneurial freedom, but as a foundation for innovation. They open up new scope for material-efficient construction, intelligent system solutions, and creative reuse concepts.

They are deliberately formulated as ambitious but implementable orientation values and enable the gradual development of the industry toward robust material loops. The metrics are collected by the actors for whom the corresponding data arise during the course of the project:

- KPI 1 = X % material loop
- KPI 2 = X % product cycle
- KPI 3 = X % secondary raw material share at system level
- KPI 4 = X tkm/m² transport intensity

KPI 1

X % Material Loop

This captures the percentage share of the total mass of a trade fair booth whose materials can be materially recovered after use. This metric describes the material-related perspective of the circular economy and makes visible what share of the booth can be transferred into a further loop at the material level. A reference value here is 70%.

KPI 2

X % Product Cycle

This captures the percentage share of the total mass of a trade fair booth that can be reused as components or system components. This metric describes the component-related perspective of the circular economy and makes visible what remains in use as a product or component.

KPI 3

X % Secondary Raw Material Share at System Level

This captures the percentage share of the total mass of a trade fair booth that already consists of secondary raw materials. This metric describes the input perspective of resource use and makes visible how potentially circular a booth already is at the point of material selection.

KPI 4

X tkm/m² Transport Intensity

This captures the total mass of the trade fair booth moved through inbound and return transport in ton-kilometers (tkm), in relation to the scene or booth area in square meters (m2). The metric makes visible how transport-intensive a staging is in relation to its size and the extent to which planning, material use, modularity, and return contribute to reducing logistics effort.

(For further detail: AUMA Guideline for the calculation of emissions at trade fairs – 1st edition.)

System boundary of the metrics: These metrics refer to the structural materials and components of the trade fair booth, especially all elements that form the load-bearing structure, spatial design, and functional shell of the booth (e.g., structure, wall and surface elements, structural surfaces, and structural floor assemblies). This includes all corresponding components regardless of construction type or procurement form, including individually manufactured constructions as well as modular or system-based solutions, provided that they are an integral part of the structural system. Excluded from the metrics are only those elements that are not part of the structural system (e.g., furniture, technical equipment, AV technology, lighting, consumables).

Additional Recommended Metrics

The following KPIs are to be understood as a modular toolkit and represent possible metrics. Depending on data availability, basic values can be collected first and later differentiated. For possible orientation, two prioritized KPIs are highlighted [= „Prioritized“ (ESPR-relevant)].

7.2 KPIs in the Planning Phase

A) Resources and Procurement (Primary vs. Secondary)

- **Secondary material share** (stated in kg and %)
  (share of recycled materials in defined material groups)
- **Monomaterial share in components / elements/ products** (stated in kg and %)
  (roughly via material lists - as an indicator of separability / recyclability)
- **Primary material share** (stated in kg and %, where meaningful)
  (e.g., as a comparative value across events or projects)
- **Material efficiency** (stated in kg material per m^2 booth area)
  (lowest possible material mass per function and area)

B) Reuse (Planning Perspective)

- **Number / share of modular or rental-based booth concepts** (stated in %)
  (e.g., percentage of booths at an event that use system / modular construction)
- **Share of components with a reuse plan** (stated in kg and %)
  (e.g., percentage of elements with a defined subsequent use / storage pathway)
- **Take-back rate** (statedin kg in %)
  (e.g., carpet take-back percentage: planned to be returned vs. issued)

C) Energy, Transport, and CO2 (Planning)

- **CO_2 impact (planned value, where possible) for material / transport**
  (greenhouse gas emissions for event or trade fair booth)
- **Number of deliveries / high consolidation rate**
  (e.g., percentage of consolidated deliveries vs. individual deliveries)
- **Transport kilometers / logistics effort**
  (planned value; e.g., expected number of deliveries or truck trips as an approximation)

7.3 KPIs in the Build-Up, Operating, and Dismantling Phases

A) Recyclable Materials and Waste (Quantities and Quality)

- **Recyclables by fraction shares** (stated in kg and %)
  (e.g., wood, paper / cardboard, plastics, metal, glass, organics, residual waste)
- **Total waste volume** (stated in kg)
- **Mixed waste share** (kg or %) as a central quality indicator
- **Misthrow / contamination rate** (%, where measurable)
  (e.g., spot checks or feedback from the waste management provider)
- **Waste volume per visitor** (stated in kg / visitor) or **per area** (kg / m^2)
- **Special waste volume** (stated in kg) **and number of correctly submitted special waste transactions**
  (e.g., batteries, paints, e-waste)
- **Number / volume of unplanned disposals**
  (e.g., additional containers, express pickups as an indicator of process stability)

B) Energy and Operations (Consumption- and Behavior-Related KPIs)

- **Reusable share in catering** (stated in %, e.g., reusable containers vs. single-use)
- **Food waste volume** (stated in kg) **or food waste per guest**
  (optional, where catering data are available)
- **Share of lower-emission travel** (stated in %)
  (e.g., public transport / rail among visitors or booth personnel - optional)
- **Share of digital information materials** (stated in %)
  (e.g., QR / download instead of print - where measurable via orders / downloads)

7.4 KPIs in the Return Phase

C) Reuse

- **Share of reuse / repeated-use flows by mass** (stated in kg and %)
- **Reuse rate of components** (share of components that are used again).)

D) Return (Circularity)

- **Total share of returned material** (kg or %)
- **Share of returned materials by material groups** (stated in kg and %)
  (e.g., carpet, wood, textiles, film, plastics, furniture, technology)
- **Take-back rate (actual value)** (stated in %)
  (e.g., carpet take-back: returned vs. issued)

E) Waste (Residual Pathway) - Only for Non-Returnable Residual Materials

- **Recovery rate by fractions** (stated in %)
  (only in relation to the residual pathway / non-returnable residual materials)
- **Residual pathway share** (stated in kg or %) **of total material input or total flows**
  as a central management indicator

F) Energy, Logistics, and CO2 (Downstream, Where Possible)

- **CO_2 impact (where possible) for return transport / disposal / recovery**
  (greenhouse gas emissions for event or trade fair booth)
- **Return logistics effort**
  (e.g., number of return transports / pickups; kilometers optional)

In conclusion, reporting is not an end in itself. It creates transparency, makes progress measurable and manageable, and enables resource and waste management to become more effective and efficient step by step - along clear processes and with a set of metrics that fits practice.

» CHAPTER 8

Best Practices

8

08. Best Practices

Best practices are motivating because they show that implementation is possible - even under real conditions such as time pressure, complex interfaces, and the different roles of individual actors in the overall system, as presented in Chapter 4 in the sections on roles and responsibilities. This chapter brings together proven approaches from the trade fair and exhibition industry that have proved effective and scalable in practice. Most best practices relate to implementation within the respective scene or booth area.

Analogous to Chapter 3, the best practices are structured along the event cycle. This makes visible when which measure has the greatest leverage - and which roles are typically involved.

Best Practices in the Planning and Concept Development Phase

In this phase, the decisive foundations are laid: booth concept, material and construction decisions, and the process logic for dismantling and return.

- **System / modular construction as the standard instead of a special solution, with the possibility of rental, sharing, and material pooling models**
  Booth concepts are planned so that components can be used multiple times (standard dimensions, interchangeable surfaces, repairable connections).
  Impact: less primary material, lower waste volumes, faster assembly / dismantling.
- **Material and connection standard („design for disassembly“) as a planning principle**
  Screw instead of adhesive connections, separable material layers, clear material labeling.
  Impact: better reuse, higher recycling quality, less mixed waste.
- **Anchor sustainability criteria in tenders and orders**
  Requirements for reuse, secondary material, certifications, and take-back pathways are integrated early into briefings and ordering processes.
  Impact: plannability, less short-term improvisation, higher implementation rate.
- **Use of an assessment and development logic**
  Assessment of booth concepts based on circularity criteria and step-by-step optimization based on that (e.g., from one-time construction to modular / reuse).
  Impact: comparability, clear target visions, better communication with all stakeholders.
- **Packaging and empties concept considered from the outset**
  Boxes / crates, defined handover points, return instead of single-use packaging.
  Impact: fewer foils and less mixed waste, better logistics.

Best Practices in the Build-Up Phase

During build-up, the focus is on clear processes, orientation, and preventing misthrows under time pressure.

- **Reuse collection point with labeling system and hall pickup (including interim storage)**
  Reusable materials are visibly marked early and collected and picked up via defined points.
  Impact: more reuse, less loss during chaotic phases.
- **Separation systems with consistent logic (colors, symbols, clear routes)**
  Collection points are visible, accessible, and understandable; fractions are defined in conformity with the venue.
  Impact: higher separation quality, less mixed waste, lower disposal costs.
- **Special waste and electronic waste process with clear responsibility**
  Separate handling for batteries, paints, electronics, hazardous substances - including contacts and handover points.
  Impact: compliance, safety, better recovery.
- **Short briefings per trade („10-minute onboarding“) as a standard process**
  Repeatable briefings and do / don‘t lists for exhibition construction, technology, cleaning, catering.
  Impact: fewer errors, faster alignment, more stable implementation.

Best Practices During Event Operations

During operations, the main focus is daily waste, visitor guidance, and visible but simple solutions.

- **Digital instead of print as the standard („QR first“)**
  Digital brochures, QR codes, screens; print only selectively and without year reference (reusable).
  Impact: less paper waste, less logistics, clear message.
- **Reusable catering with deposit logic and clear return infrastructure**
  Reusable containers, regional / seasonal offerings, vegetarian / vegan as the standard option.
  Impact: less single-use, higher visibility, better manageability.
- **Food waste monitoring and leftover use**
  Quantity planning, smaller selection, adjustment during the event; leftover use / donation options where practicable
  Impact: less waste, lower costs, high credibility.
- **Visitor guidance and signage that make behavior easier**
  „How to separate correctly“ instructions, clear pictograms, short routes to collection points.
  Impact: better separation, fewer misthrows, less cleaning effort.

Best Practices in the Dismantling and Return Phase

Under high time pressure, this is where it is decided whether materials remain in the loop or end up as mixed waste.

- **„Leave the booth empty“: disposal and return of goods and food**
  Unused goods, giveaways, and food leftovers are removed in an orderly manner at the end of the event and transferred into defined pathways (e.g., return transport to storage, return to suppliers, donation / handover, or proper disposal). This includes clear responsibilities, time slots, and handover points so that no „last-minute“ mixed disposal occurs.
  Impact: smaller residual pathway, clean booth handover, lower additional costs, and better plannability for dismantling and cleaning.
- **Donation / handover processes for suitable materials**
  Plants, furniture, or exhibition elements are handed over in an orderly manner via partners / programs (where suitable and coordinated).
  Impact: visible effect, less disposal effort, positive communication.
- **„Sorting logic during dismantling“: separated fractions as a standard process**
  Wood, metal, textiles, plastics, and electronics kept separate - with clear collection points and responsibilities.
  Impact: better recovery, lower mixed-waste costs.
- **Carpet take-back / recycling processes with source-separated collection and clear logistics**
  Predefined take-back pathways, fraction containers, time slots, and clear handovers.
  Impact: return rate, less residual waste.
- **Waste management provider as an active partner in the return process**
  The waste management provider supports fraction logic, container management, evidence, and feed back on separation quality.
  Impact: more transparency, better data basis, continuous improvement.

In conclusion, best practices are particularly valuable when they are understood not as individual cases, but as building blocks for standards for each scene or booth area. The examples in this chapter are therefore intended to serve as templates for adapting, testing, and further developing measures with robust metrics, depending on trade fair format and trade fair booth, regardless of venue.

» CHAPTER 9

Further Links

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09. Further Links

General Links:

- Cradle to Cradle NGO (C2C): https://c2c.ngo/en/
- Ellen Mac Arthur Foundation: https://www.ellenmacarthurfoundation.org/
- EU GREEN DEAL: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en
- EU Ecodesign for Sustainable Products Regulation (ESPR): https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401781
- NKWS - National Circular Economy Strategy: https://www.bundesumweltministerium.de/en/topics/circular-economy/circular-economy-strategy
- Overview of the Ecodesign Regulation (ESPR): https://www.oekodesignforum.com/verordnungen-text/10/%C3%96kodesign-Verordnung%20%28ESPR%29

Links from the Trade Fair and Exhibition Industry:

- AUMA – Guide to Successful Trade Fair Participation (exhibitors): https://www.auma.de/en/exhibit/tips-for-trade-fair-participation/6-stand-design-and-stand-construction/
- AUMA – Guideline for Calculating Emissions at Trade Fairs: https://www.auma.de/schwerpunkte/nachhaltigkeit/leitlinie-zur-emissionsberechnung-bei-messen/
- Better Stands as a system for classifying the degree of reuse: https://betterstands.org/
- Frankfurt Book Fair - Checklist for sustainable trade fair participation: https://www.buchmesse.de/files/media/pdf/checklist-sustainable-fair-presence.pdf
- Frankfurt Book Fair - Guide for sustainable trade fair participation: https://www.buchmesse.de/files/media/pdf/guide-sustainable-fair-presence.pdf
- fwd: Position paper on sharing and reuse (09/2025): https://forward.live/wp-content/uploads/2025/11/Impulspapier-fwd-01092025.pdf
- German Environment Agency - Guidelines on Sustainable Event Organisation: https://www.bundesumweltministerium.de/en/publication/guidelines-on-sustainable-event-organisation
- IMEX Frankfurt - Exhibit Sustainably: https://frankfurt.imexevents.com/exhibit-sustainably
- Initiatives for material loops in Germany / Austria / Switzerland: https://material-initiativen.org/
- Messe Berlin Feasibility study „Reuse of exhibition construction materials“ Berlin: https://www.berlin.de/sen/uvk/_assets/umwelt/kreislaufwirtschaft/projekte/re-use-berlin/kurzstudie-re-use-messe.pdf?ts=1756446241
- Messe Dusseldorf - Exhibiting sustainably: https://www.messe-duesseldorf.com/en/About_Us/Responsibility/Exhibit_sustainably
- Messe Frankfurt - Sustainability: https://www.messefrankfurt.com/frankfurt/en/company/sustainability.html
- Messe Munchen - Waste Prevention Guide: https://messe-muenchen.de/en/services/waste-prevention-guide/

This collection of links was developed in the resource table of AUMA and fwd: with the participants and makes no claim to completeness.

» CHAPTER 10

Imprint and Update Note

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10. Imprint and Update Note

AUMA

Ausstellungs- und Messe-Ausschuss der Deutschen Wirtschaft e.V.

Littenstraße 9
10179 Berlin
info@auma.de

Contact:
Barbara-Maria Lüder
Manager Legal Affairs, Taxes, Technology, Sustainability
b.lueder@auma.de

fwd:

Bundesvereinigung Veranstaltungswirtschaft e. V.

Hauptstraße 122-124
33378 Rheda-Wiedenbrück
info@forward.live

Contact:
Marko Roscher
Sustainability Officer
marko@forward.live

Update Note

This guide is designed as a living document. Regulatory frameworks, methodological questions, industry-specific experiences, and solutions continue to evolve - as do expectations regarding transparency, sustainability performance, and resource management in our industry. New insights, comments, and suggestions can help further sharpen the paper and expand and improve its applicability.

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Working Together for a Sustainable Exhibition Industry.

Refuse, Reuse, Return

AUMA
Association of the Germa
Trade Fair Industry

www.auma.de
info@auma.de

fwd:
Bundesvereinigung
Veranstaltungswirtschaft

www.forward.live
info@forward.live