

Toolkit waste-free festivals

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From waste to resources



green
events

Colophon

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The way we deal with resources is rapidly changing. We are closely following developments and will also be regularly updating this document.

Download the latest version at www.greenevents.nl

Introduction: Green Deal waste-free festivals.

The 934 festivals in the Netherlands attract 26.7 million visitors per year (source: Respons festivalmonitor 2017). On average, 2.33 kilograms of waste per person is left behind on the festival grounds. Festival organisers, NederlandSchoon ('Clean Netherlands') and the Dutch government joined forces in October 2015 to prevent litter by reducing the waste streams and improving their separation and processing. This involves looking at one's own organisation as well as how visitors can be positively influenced to deal with waste more deliberately.

Festivals are faced with a number of waste streams. Food scraps, cigarette butts, flyers, rain ponchos, litter, camping gear and plastic are but a few examples. By better

separating waste – both frontstage and backstage – it is easier to recycle and it is possible, for instance, to compost waste. In addition, organisers want to limit catering waste; here, the use of 'hard cups' for beverages is a good option.

Together, the signatories of the Green Deal want to tackle the waste problem in an efficient and effective way. During various pilots, we examine which measures do and do not work and under what conditions, so that other festivals can emulate what has worked elsewhere.

The 'Lessons learned' have been brought together in this toolkit. This is a guideline for festival organisations to shape the approach 'From waste to resources'.

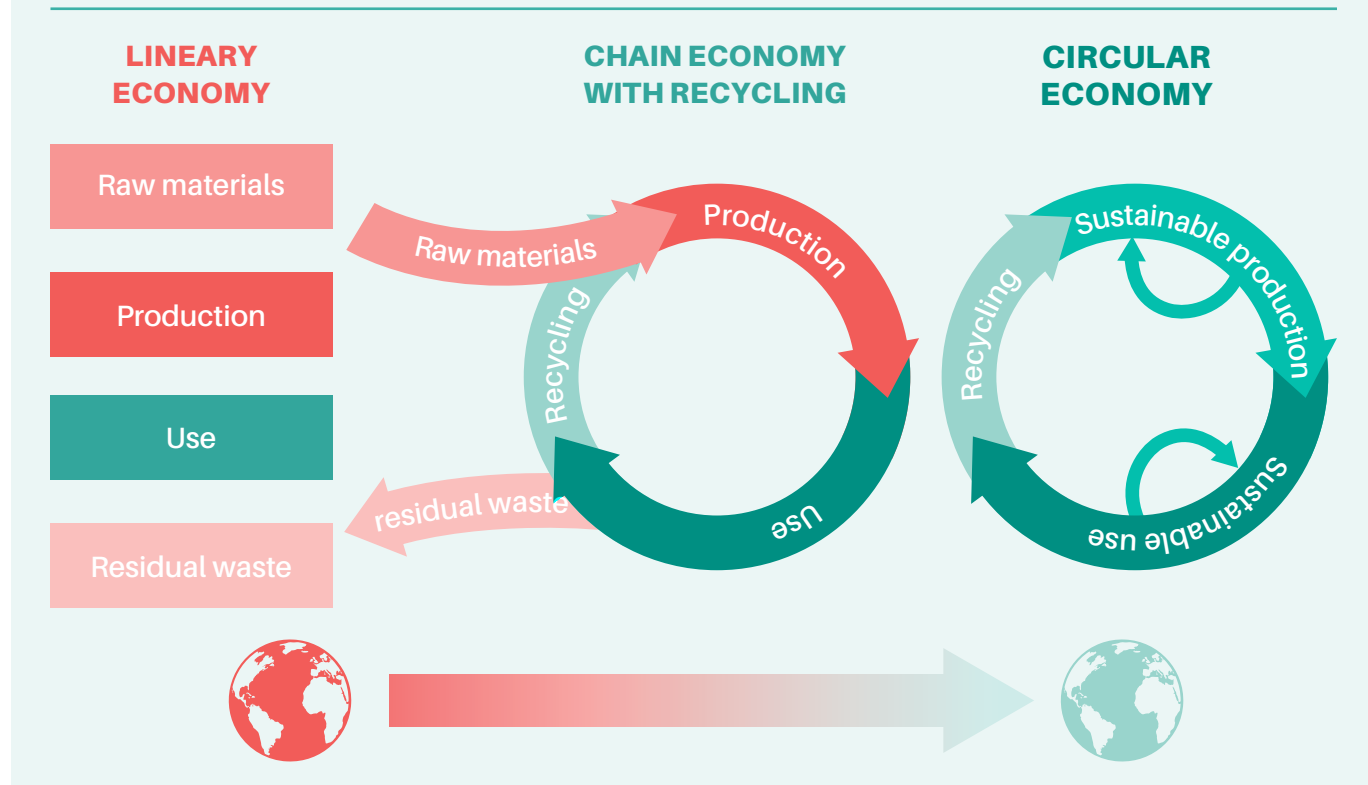


A different view of waste: from waste-free festivals to resource-rich festivals

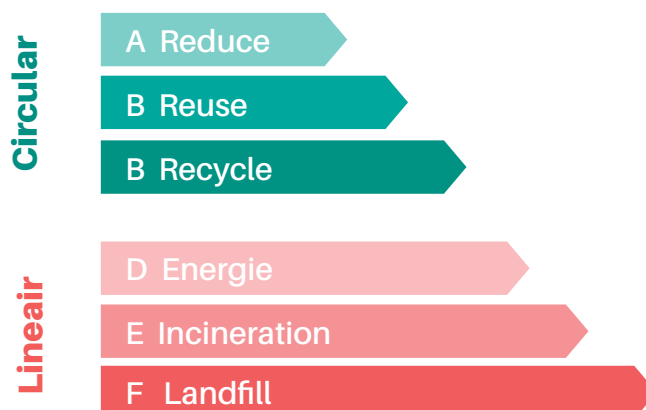
During the course of the Green Deal, the perception of the participants went from looking at waste to preserving resources. This is the basis for a circular economy. Read more about this (in Dutch) at circulairondernemen.nl. This toolkit is a resource for festival organisers, in order to help them achieve the circular objectives of the Dutch government. The 'Material Flow Analysis' (MFA) is increasingly being used by businesses, cities and countries in order to solve the problems surrounding, and provide insight into, their incoming and outgoing material flows (input and output). Just looking at the MFA can provide an answer to such questions as: Where do the materials that actually could have been reused currently flow? Which material flows have the most impact on the environment? For DGTL 2017, all material flows from during the festival, as well as all those which were brought in or removed during the build-up and breakdown, are mapped out. The MFA from DGTL (see pages 6-7) is visualised in a Sankey diagram, which can be read from left (input) to right (output) and puts the relative size of the material flows in perspective. Certain material flows are thus visibly larger here than others.

Goal of the Dutch government

50% reduction in the use of primary resources by 2030 and a fully circular economy in 2050.

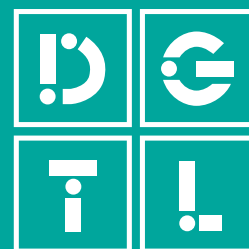
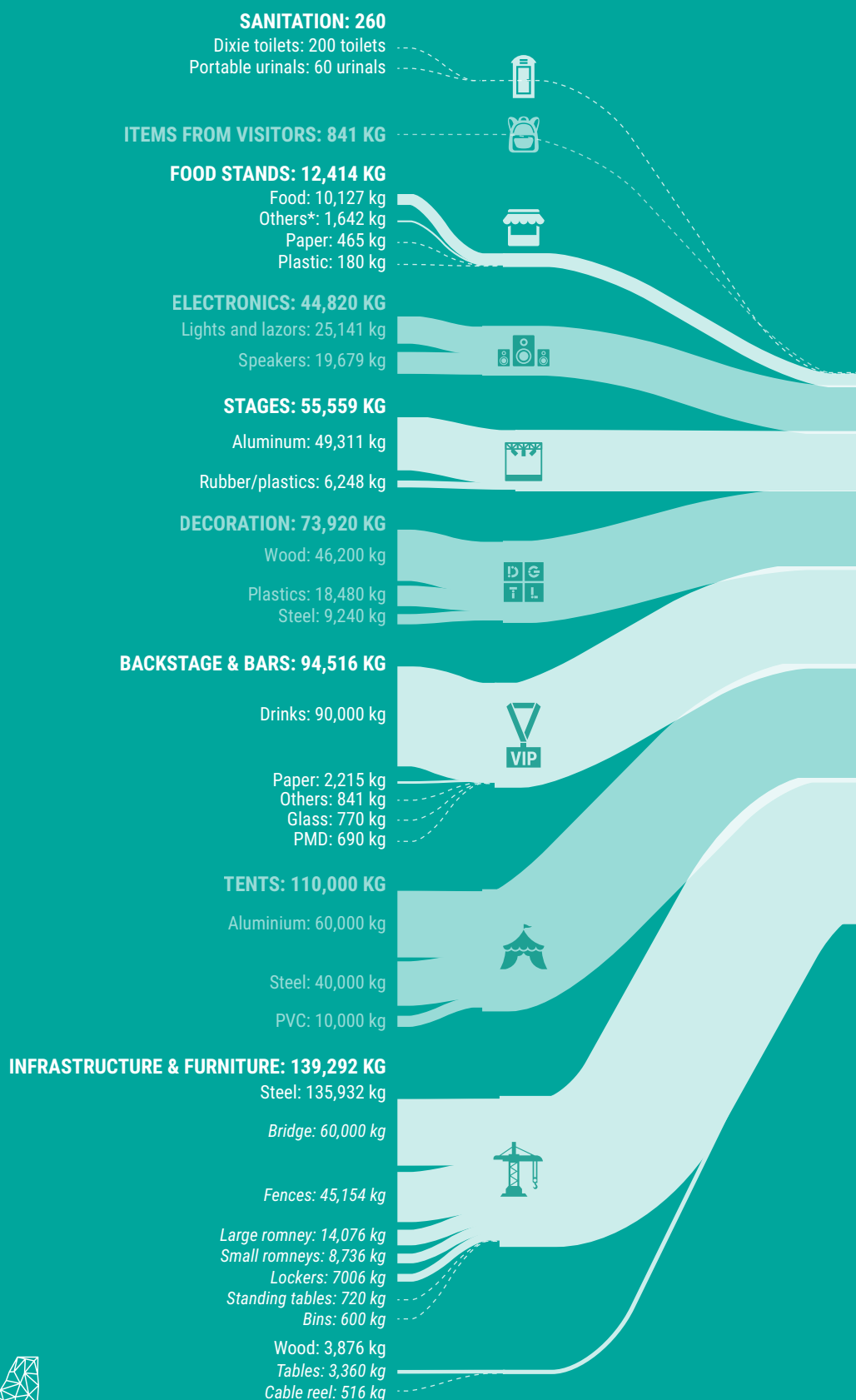


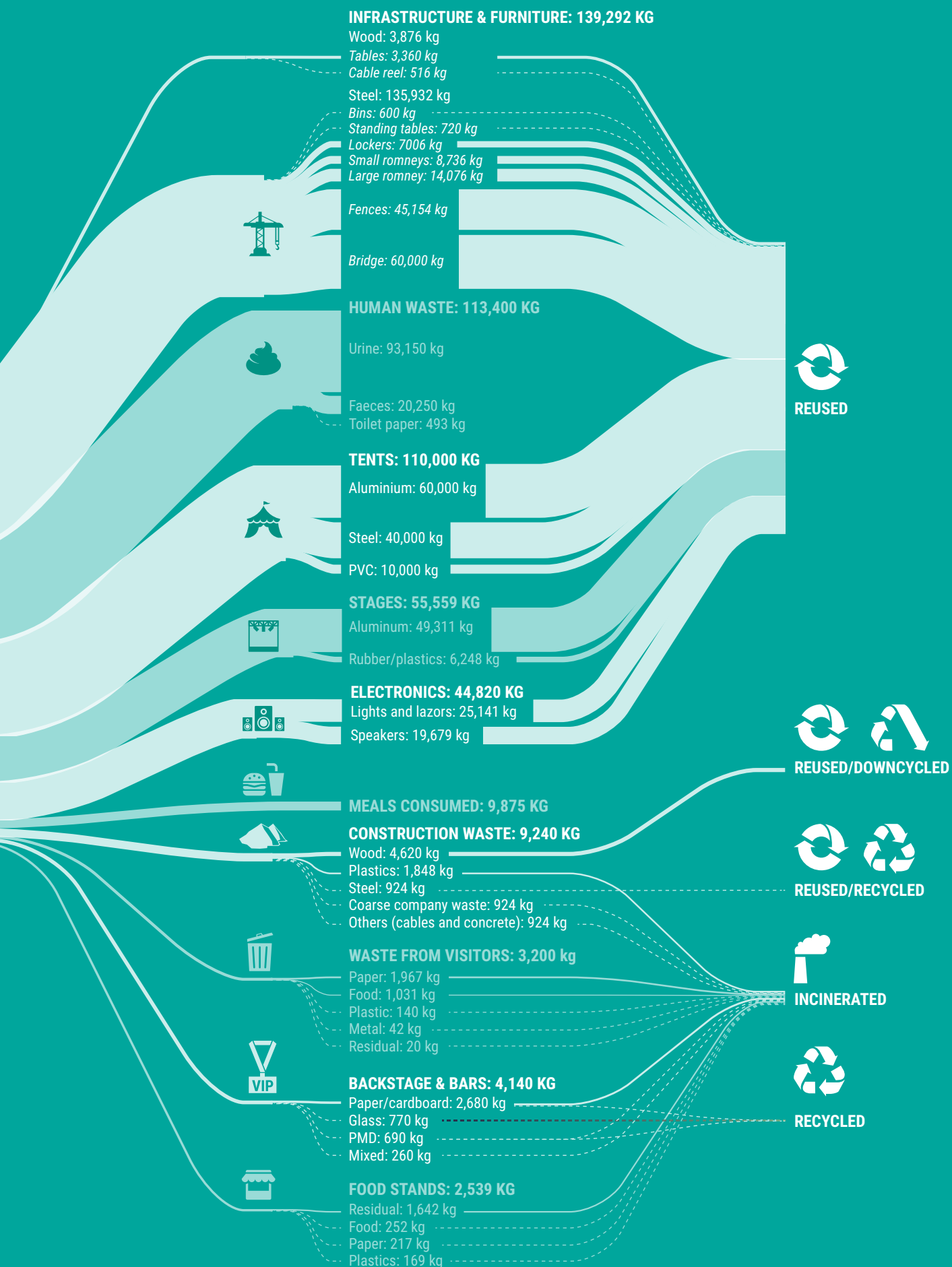
C recycle



MATERIAL FLOW ANALYSIS: DGTL FESTIVAL 2017

In order to make DGTL completely waste free, it is necessary to get insight into the material flows connected to the festival, where these materials come from and how they are processed after the festival. This can be done with the help of this 'Material Flow Analysis', made by Metabolic (metabolic.nl)





* Part of retail unsorted waste stream flowing to operations
 ----- Less than 1000kg

The road to waste-free festivals

Chapter 01



Why waste-free?



Into The Great Wide Open, 2018

Events not only serve as an example, but with their enormous reach, have the opportunity to inspire a great variety of target groups to a more sustainable lifestyle.

With the changes in regulations – such as the new events policy of the city of Amsterdam, which comes into force in 2020 – as well as a desire to meet the wishes of stakeholders such as local residents, a clean and sustainable event is important.

What can we do?

The road to a waste-free festival begins with the event's conceptualization. With every decision about physical materials that come to the festival you should ask: What happens to this when the festival is over? All rental materials that return to the supplier after the festival play no role when it comes to waste. For the rest of the materials, you practise the 3-R principle (Lansink's Ladder).

1. Reduce (or better still, refuse): Is this material really necessary? Can you do without it?
2. Reuse: Can it be replaced by a reusable alternative?
3. Recycle: Can the material be recycled?

As organiser the reins are in your hands, but for a successful strategy, cooperation with personnel, suppliers, caterers, cleaning companies, waste collectors, recycling companies/waste processors and other stakeholders is necessary. Set up a waste and resources coordinator who is responsible for the plan from a to z.

Step-by-step guide to waste and resource management

STEP	1		Appoint a waste and resources coordinator who is responsible for the cleaning and resources process.
STEP	2		Ensure that all stakeholders such as personnel, suppliers, caterers, cleaning companies, waste collectors and recycling companies/waste processors become part of this process.
STEP	3		Make an inventory of both the materials coming into your festival and those which will be left behind as waste (see Template Cleaning & Resources Plan in the appendix).
STEP	4		Apply the 3R-principle: Is it necessary, or can you do without it? Is reuse possible? And if not, can it be recycled? Decide which materials can be used and create a monostream where necessary to enable recycling.
STEP	5		Make an inventory of the necessary collection receptacles and make a bin plan (what bins will be located where) and supply these with the correct signage (see template signage Department of Waterways and Public Works).
STEP	6		Adjust the cleaning schedule according to the above steps.
STEP	7		The coordinator writes a waste plan, or rather, a plan for resources & cleaning (see Template Cleaning & Resources Plan).
STEP	8		The coordinator directs the teams and monitors and supervises the process thoroughly before (build-up), during and after (breakdown) the event.
STEP	9		Make a detailed evaluation and request the waste data from the waste collector.



Recycle Hub (DGTL 2018)

DGTL 2018

In 2020, DGTL aims to become the first Circular Festival. Building on the MFA, this year DGTL made a resource plan for the first time. With this, major steps are being taken in the transition from waste to resources. By dividing the festival into resource zones, a detailed resource plan could be made for each zone, including the circular food court and the collection of PET bottles that form the raw materials for new bottles. The collected resources were, in full view of the public, sorted and/or processed. Through the transparency of all parties involved, it is easy to see which resources there are, how they are dealt with and what happens to them. This is the key idea for a thorough resource plan. For DGTL, this has resulted in a waste reduction of 52%.



Clean Festivals

Chapter 02

Why clean festival?

Clean events are appreciated more by visitors because it is an added value for them. A clean festival influences the sense of safety and maintenance of norms. In addition, waste that ends up in the correct bin is often more recyclable than waste left lying on the ground.

Litter - Clean is the norm

- Clean contributes to the image of the event. It promotes a positive feeling and a pleasant environment. Besides eliciting support from the festival's neighbours and the licensing authorities, the public also finds it more attractive to come to the event.
- A clean event is achieved by the parties involved working together. Visitors notice this as well. Interaction with visitors through, for example, visibly cleaning, makes the work even more enjoyable.
- An additional advantage to keeping an event clean is that the intermediate and final cleaning takes less time to finish.
- Trash picked up from the ground is much more difficult, if not impossible, to recycle.
- Litter can cause damage to flora and fauna - yet another reason to keep the event clean.



Step-by-step guide to dealing with litter

The strategy for litter starts with the preparation of a Cleaning & Resources Plan' (see also page 49). The most important steps to this are:

STEP 1

Reduce disposable products through:

- Use a deposit system on reusable cups (see Chapter 4. Reusable drinking cups) and possibly on food packaging
- A ban on straws, disposable food packaging, cutlery, glitter confetti, balloons, giveaways, and small packaging such as sauces, sugar, milk, soap and shampoo (see Chapter 3. Responsible use of plastic)

STEP 2

Make a basic distinction between the different areas:

- Parking areas and approach routes
- Frontstage (the area accessible to the public)
- Backstage
- Food areas
- Campsite

In the strategy (per area), also make use of the Template Cleaning & Resources Plan in the appendix.

Parking areas and approach routes

A clean and tidy arrival sets a positive tone for the behaviour of the visitors. The experience of the event therefore starts in the parking areas and the routes leading to entrance of the festival (from public transport). Begin there with the 'clean strategy' and make the message clear.

- Determine the main walking routes across the parking areas and from public transport (stops and station(s)) to the event grounds.
- Place waste islands (a few bins that are attached to each other by a frame), brackets with bags or other provisions along these routes.
- Send a clear briefing about waste disposal to the drivers of the organised bus transport beforehand.

Frontstage (area open to the public)

— There are also walking routes on the grounds. The same strategy applies here as with the approach routes: set up facilities in high-traffic areas.

— Sometimes waste bins are best placed in the middle of the walkway. After all, in a busy crowd people don't go to the side of the flow of people in order to throw something away. Consequently, choose for facilities that properly support the flow of people and that are easy to spot. Use elevated signage for this, so it can be seen above the crowd.



Tentwatcher, Solar Weekend festival, 2018

Backstage (including build-up and breakdown)

- The backstage area is only accessible to the crew. This makes it easier to work with waste separation. Instruct the crew how the event wishes to deal with this.
- Facilitate the crew by putting large containers in place before the build-up begins. Only remove these containers once the breakdown is complete.
- Reserve sufficient space for the various containers (elements) if there is waste separation. Make sure that there is also sufficient space to shift these containers to empty them during the event.

Food areas

- Place the provisions near the food service distribution points. Provisions (rings with bags) at the tables minimise the effort necessary to neatly dispose of waste.
- Good maintenance of the bins/bags and visible cleaning are particularly important here, because it is precisely this area that can get dirty quickly. Experience has shown that when visitors see cleaning taking place, they also clean up after themselves.

Campsite

- Initiate a 'green campsite'. Let people consciously choose a 'green' and tidy campsite. By making that choice, visitors commit themselves to it, resulting in them deliberately cleaning up after themselves better.
- Support this with the presence of people from the organisation who are actively involved, such as a 'campsite mayor' and visible clean-up helpers.
- Start on one part of the grounds with this initiative so that people have a choice. If successful, then the 'green' part can be expanded each year.
- Assist visitors as much as possible; they also need the opportunity to dispose of their waste in a good way.
- If it is a new event with a campsite or a newly available campsite at an existing event, then set 'clean' as the norm from the beginning and tell visitors about it.

STEP 3








Provide adequate facilities:

- Preferably opt for several small and noticeable containers, rather than for a smaller number of very large containers.
- Place bins in places where you expect that people will want to dispose of their waste. Test those places, also during the event.
- Ensure that the bins are emptied regularly and always look clean and tidy, for instance by making use of interchangeable bags.
- You can use the knowledge of the supplier of the bins if necessary, to get an idea of the numbers needed.

Signage

In the context of a sustainable event, the encouragement of waste separation is important. For the use of colours, choose the colours used nationally as often as possible (see chart). Consider the following elements:

- Paper (backstage)
- Glass (backstage)
- Organic waste and food scraps
- Residual waste
- Plastic or plastic packaging, tins, and drinking cartons

	Paper	Glas	GFT and food residues	Rest	Plastic	Plastic and Drinking suits	Plastic Bilk Drinking suits
							
RAL	5015	1023	6017	7012	2004	2004	2004
PMS (c)	285	123	7741	Cool Gray 10	1585	1585	1585
CMYK	90/45/0/0	0/20/100/0	80/20/100/10	5/0/0/70	0/65/100/0	0/65/100/0	0/65/100/0
RGB	0,112,105	255,198,39	65,135,62	100,100,105	255,107,11	255,107,11	255,107,11
Hex	#0070cd	#ffc627	#41873e	#646469	#FF6b0b	#FF6b0b	#FF6b0b

The particular waste elements should be adjusted depending on which materials are used at the event and what agreements have been made regionally about the separation of waste.

- Work with different-coloured bags, so that the contents also remain apparent outside of the containers. Label the collection containers too: with the collection of the different streams these should also be clearly distinguishable. To prevent overflowing waste bins, the bags from full containers should be easy to switch out.
- Determine a central waste point with the waste collector, where the various stations can deposit their full bags. Also determine how these can be picked up in the interim if desired.
- Ensure clear communication about the 'clean standard'. Everyone understands that a clean environment promotes clean behaviour. Communicate in any case the provisions you have in place and through visibly cleaning.
- In the case of a multi-day event, make sure that both the festival grounds themselves and the approach routes to the site are spic and span in the morning. If rubbish is lying around, you are already trailing 0-1!

Visible Cleaning Team

- Provide a Visible Cleaning Team that visibly cleans up and separates waste. The team briefing is vital. Encourage the team before the start of the event by pointing out how positive and important their task is. Make them responsible for cleaning, waste sorting and the timely changing of bags. It is essential that the team can explain to the public why keeping the event clean is important. A positive image, enthusiastic people and a good story are all a must to maintain the atmosphere. Make agreements about the areas for which they are responsible.
- Ideally, the Visible Cleaning Teams will be active everywhere, from the approach routes to the backstage area. Make sure that they are thorough: better that one part of the site is kept very clean than that the teams are so thinly spread that the intended goal – a clean event – is still not achieved. Should a choice have to be made, then it is advisable that the food areas be given priority.
- Ensure that every team has a leader. This person is in contact with the organisation.

STEP

4

When making agreements with stakeholders consider the following points:

- Ensure that the surroundings of stands (stalls/service points) are kept clean during the event. This can be achieved by placing sufficient waste bins, by giving sponsors themselves the responsibility of preventing overflowing waste bins and by cleaning up any waste in the interim.
- Ensure that stands are delivered clean as a rule. You could work, for example, with a deposit system, so that an actual control takes place.
- Agree to a clear division of roles between employees and the sponsors, volunteers and the waste collector.
- Discuss in advance the hospitality that volunteers represent at the event. Cleaning waste during the event is also a part of this. That they would keep their environment clean speaks for itself.
- Share the strategy for a clean event with the local authorities, including in the follow-up afterwards. Does the municipality have its own waste service and/or sweeping service? Then make agreements about their possible deployment during the event and upon its completion.

STAP 5

Communicate about the measures you are taking and what you expect from your visitors and stakeholders.

- Deploy the website and social media in advance to communicate with your target group about the clean event. Communicate about what measures are being taken and what is expected of visitors. During the event you can use social media to, for example, bring attention to a fun cleaning action.
- Ask participants afterwards to indicate where they lacked waste facilities and/or where they were hard to find, for example via the email evaluation of the event. Accept any good advice. Don't forget to ask them to indicate the positive points as well!
- Supporter van Schoon is the public platform that was created by NederlandSchoon to encourage people to do their part to increase the level of cleanliness in the Netherlands. The platform is becoming increasingly well known and has many followers on social media. Statements about clean are communicated to the visitor according to a consistent style and appearance. Because this platform is now known to many people and is associated with cleanliness, it makes sense to also use this platform at the event. You thus take advantage of the reputation and recognisability of the platform.





Kliko Crossers (Zwarte Cross 2017)

THE KLIKO CROSSERS OF THE ZWARTE CROSS

Due to the limited capacity of the roads leading to the Zwarte Cross festival site, there are always long traffic jams before the start of the event. Because people spend a long time in the car, they consume their own drinks and food, with the empty packaging often ending up on the ground in a large radius around the festival.

Cleaning it up had become a time-consuming task, until the organisation came up with a solution fitting to the festival: the Kliko Crossers. Volunteers rode electric motorbikes – with a waste container mounted onto the front fork – along the traffic jams to collect the waste. Thanks to this playful action, visitors saved their waste to hand it in with a Kliko Crosser. It was easy for the organisation to find volunteers for this job. As compensation, the volunteers were allowed to make a round on the Zwarte Cross circuit.



Waste-free zone (Vierdaagsefeesten 2018)

WASTE-FREE ZONE DURING THE VIERDAAGSEFEESTEN

Every year the Vierdaagsefeesten attracts around 1.6 million visitors over seven days. Due to its size alone, the event has a major impact on the environment. Litter plays a major role in this. To prevent littering, the Vierdaagsefeesten introduced waste-free zones. In these zones, visitors were encouraged – with the aid of, among other things, large and conspicuous waste bins and waste coaches – to throw all their waste into the appropriate waste bins to prevent litter.

With this initiative, the Vierdaagsefeesten aims to reduce litter, improve separating and recycle more. In addition, the organisation has created awareness among the visitors: What happens to your waste when you deposit it in the correct bin? This results in visitors throwing their waste in the appropriate waste bin outside of the waste-free zones as well. In this way, the Vierdaagsefeesten hopes to create a pure waste stream.

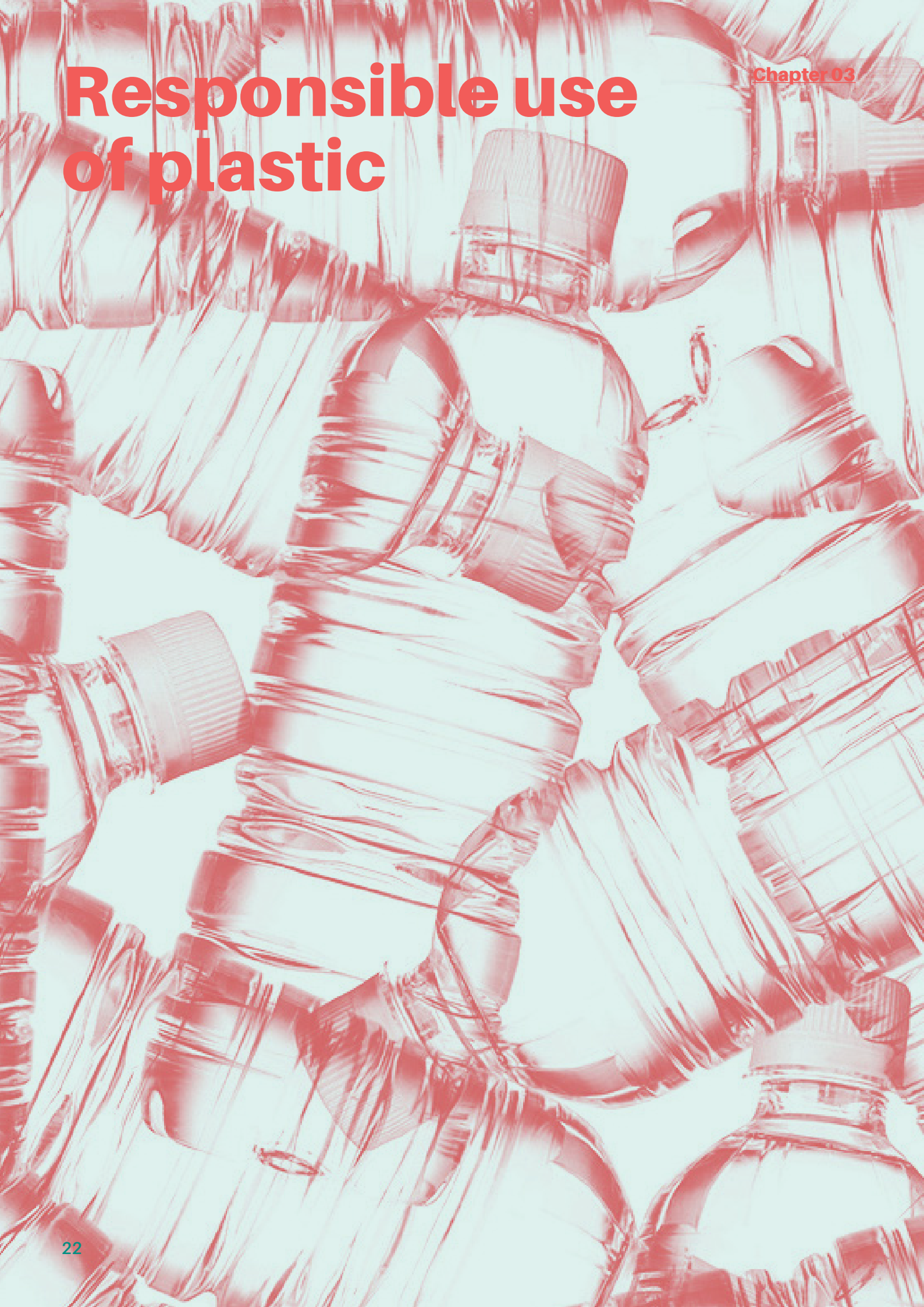


Pocket ashtrays (Extrema Outdoor 2017)

POCKET ASHTRAYS AT EXTREMA OUTDOOR

Extrema Outdoor, in cooperation with NederlandSchoon, handed out free pocket ashtrays to visitors. These pocket ashtrays were well used during the event, resulting in significantly fewer cigarette butts on the ground. Because the pocket ashtrays were provided free of charge, however, many were found in waste bins after the festival.

By charging a small fee, users would attach more value to the ashtrays. They might take them home with them, perhaps to use them again the next time.



Responsible use of plastic

Chapter 03

Why responsible use of plastic?

The use of disposable plastic items is becoming less and less suitable for a society that focusses on sustainability and circularity. Both at the European and national level, plans are already being made to tackle the use of (disposable) plastic. Moreover, disposable plastics are also the biggest eyesore when it comes to waste at festivals.

- Each year we use hundreds of millions of disposable plastic cups at Dutch festivals
- 99% of them do not get recycled
- 4.8 to 12.7 million tonnes of plastic ends up in our seas and oceans every year
- 43% of that is disposable plastic
- If nothing changes, by 2050 our oceans will contain more plastic than fish
- Plastic takes five hundred years to decompose.
- Plastic in our ecosystem poses a danger to humans and animals. Plastic has now even been found in the air we breathe.

What can you do?

A festival that is clean and tidy is obviously more attractive. That's not just our opinion; visitors think so too. They attach more value to clean and sustainable festivals. And of all that plastic at our events, 99% does not get recycled, so there is much room for improvement.

Unfortunately, there is no standard approach. After all, no festival or event is the same. What does apply to every festival and event is that responsible plastic use is not limited to visitors, so let's not forget the staff, volunteers and artists.

How do you go about it?

1. Reduce (or better still, refuse): Is the article of plastic really necessary, or can we do without it? Consider samples, giveaways, etc.
2. Reuse: Can we use the plastic more often? For example, by means of a deposit system.
3. Recycle: How can we ensure high-quality recycling?

For recycling, a monostream (one sort of plastic) is necessary

In the table below, you can read which types of plastics are recyclable. That something is recyclable, and actually recycling it, are two different things. High-quality recycling is only possible if the waste stream is delivered to the recycling company or waste processor without excessive contamination (maximum 2%). If a cup is recycled into a new cup (instead of, for example, a kitchen cupboard), then this involves the highest quality of recycling: circular recycling.









Success factors for waste separation are

- Clear signage above the waste bins
- Creating a monostream of one sort of plastic (ice packaging, chewing gum wrappers, beer trays, etc., can be a problem here)
- If you want to make a new transparent cup from an existing one, as is possible with rPET, for example, then do not print the cup. This precludes a monostream. Embossing is a great alternative.



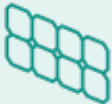




The table below gives an overview of the most used (disposable) plastics and possible measures. We are guided here by the aforementioned 3-R principle.

"I am very much involved in the environment in many ways, which is also reflected in my hospitality rider. We ask organisations to help us with this and to do it together. For example, they can contribute by not using plastic cups, straws or bottles or, if this is not possible, by ensuring high-quality recycling."

Sam feldt.

DISPOSABLE PLASTIC ITEM	POSSIBLE MEASURE
 Drinking cups and bottles	<p>Circular drinking cups:</p> <ul style="list-style-type: none"> — Replace disposable drinking cups and bottles with reusable cups (see Chapter 4) — Collect disposable cups and bottles and fully recycle (choose one type of cup (monostream) made of a recyclable material) — Sell reusable bottles or give visitors permission to bring them themselves and possibly offer (free) drinking water
 Food packaging, tableware and cutlery	<p>Circular packaging:</p> <ul style="list-style-type: none"> — Use less packaging and cutlery and ban unnecessary packaging — Replace with reusable alternatives — Replace with compostable alternatives, collect them separately and actually compost them. This can be done by using an on-site composting machine or asking your waste collector about the possibilities
 Small packaging (sugar, creamer, sauces, soap and shampoo)	<ul style="list-style-type: none"> — Ban unnecessary small packaging (single-serve condiments, travel- and sample-size products) — Replace with larger packaging in combination with dispensers or refillable packaging
 Straws	<ul style="list-style-type: none"> — Ban straws — Replace plastic straws with compostable alternatives, if necessary (cocktails)
 Glitter, confetti and balloons	<ul style="list-style-type: none"> — Ban glitter, confetti and balloons — Replace with biodegradable alternatives
 Ty-Raps	<ul style="list-style-type: none"> — Use fewer Ty-Raps, only when necessary — Replace Ty-Raps with reusable alternatives such as wire and tie-down straps
 Barricade tape	<ul style="list-style-type: none"> — Use less barricade tape, only when necessary — Replace with reusable alternatives such as rope
 Banners	<ul style="list-style-type: none"> — Use fewer banners — Do not date banners, to make reuse possible — Replace with other reusable alternatives, for instance wood or recyclable textiles instead PVC — There are still no good options on the market for recycling PVC-banners, but finding a different purpose for banners – such as a canvas or bag – is also an option on a small scale



	Ponchos	<ul style="list-style-type: none"> — Do not provide (free) ponchos unless necessary. Safety first, of course! — Sell reusable ponchos and encourage visitors to take them with them — Collect the used ponchos separately and look at the recycling options.
	Stretch wrap	<ul style="list-style-type: none"> — Use less stretch wrap, if possible — Replace the wrap with reusable alternatives, such as crates — Collect the used pieces of stretch wrap separately and view the recycling options.
	Tokens	<ul style="list-style-type: none"> — Instead of using tokens opt for a debit card (PIN) only or cashless system — Recycle tokens in a closed circuit
	Signage, stickers and laminating	<ul style="list-style-type: none"> — Do not laminate all signage — Do not date signage, to make reuse possible — Replace disposable signage with reusable alternatives such as wood
	Giveaways	<ul style="list-style-type: none"> — Prevent the handing out of (disposable) giveaways for promotional purposes
	Tents, camping materials and inflatable items (air mattresses, floaties)	<ul style="list-style-type: none"> — Prevent an excess of party tents and inflatable items (with the exception of air mattresses), or discourage them and offer an alternative — Facilitate accommodations such as reusable or recyclable tents — Facilitate a 'Green Campsite' — Create awareness among visitors — Donate materials to charity, but do not share this information with visitors, as it gives them the impression that it is acceptable to leave things behind.
	Bags	<ul style="list-style-type: none"> — Free provision of plastic bags is already prohibited. This obviously applies to events as well

Recycled or recyclable?

To begin with it is important to differentiate between recycled materials and recyclable materials. Many materials are recyclable, but without concrete measures, they often end up in the incinerator. They are, therefore, not actually recycled. Furthermore, there are also cups and other

products available that have already been made from recycled materials. The chart below shows how the various materials can be processed. In a circular economy, the preservation of resources is paramount, so incineration must be prevented as much as possible.

	RECYCLING	FAST COMPOSTING * (ON-SITE)	COMPOSTING	FERMENTING	INCINERATION
PET/rPET	Easily circularly recyclable				Fossil resource with CO2-emissions
Polypropylene (PP)	Easily recyclable (not circular)				Fossil resource with CO2-emissions
PLA	Theoretically possible but not (yet) available in the Netherlands	Can be composted in the machine, but takes at least seven days	Theoretically possible but not (yet) available in the Netherlands	Theoretically possible but not (yet) available in the Netherlands	Not a fossil resource and no harmful emissions when burned
Paper with PE coating	Can be recycled, if collected separately				Not a fossil resource and less harmful emissions when burned
Paper with PLA coating	Can be recycled, if collected separately	Can be processed in a fast composting machine	Theoretically possible but not (yet) available in the Netherlands	Theoretically possible but not (yet) available in the Netherlands	Not a fossil resource and harmful emissions when burned

*Only compostable in combination with food remains, ratio is dependent on the material.

PET/rPET

PET is currently the only material that can be recycled in a circular manner. Thus, a new cup can again be made without the addition of new raw materials. The use of rPET (recycled PET) reduces CO₂-emissions by around 50%. This is therefore the most sustainable option for disposable cups, provided that the cups are actually recycled. The disadvantage of PET is that it cannot be used for hot beverages, in contrast to PP.

Polypropylene (PP)

PP is very recyclable but not in cups or 'food approved' (disposable) tableware. Recycling is therefore downcycling: the value decreases and for this reason it is not a circular solution. PP is, however, suitable for use with hot drinks.

PLA

At the moment there are no waste processors in the Netherlands that process PLA. Therefore, this material ends up in the incinerator. The advantage is that no harmful substances are released during incineration, but the material is lost. An on-site fast composting machine can process PLA, but this takes seven days in contrast to, for example, 24 hours for food waste. As a result, PLA adds no value to compost. Therefore, PLA is not a sustainable solution.

In addition, consumers get confused: Is bioplastic plastic or compost? It is possible that compostable packaging causes 'contamination' of the plastic stream. And the

modern sorting locations at the waste processors often do not recognise bioplastics. It is also no solution for the plastic soup floating in our oceans and seas!

Paper with coating

A paper cup is always given a coating, either plastic (PE) or Polylactic (PLA). Both options are recyclable, if collected separately (PE) or with cardboard (PLA). If this is not possible, the PLA coating is preferred as it emits fewer harmful substances when incinerated.

Disposable plates & cutlery

In practice, food waste and napkins appear to produce too much contamination for plastic plates and cutlery to be recycled. At present, the maximum amount of other materials that can come from a separate stream is 2%. For this reason, it is currently advisable to use compostable materials (with an OK Compost or Kiemplant logo) and, if possible, actually compost them. In the future this can change through innovation in the waste-processing industry. We will of course be following this development.

PLASTIC PROMISE

Events pioneering in responsible plastic use

Plastic Promise is a national campaign that demonstrates that the dynamic and innovative event industry is a pioneer in the field of responsible plastic use.

The use of disposable plastic items at festivals and events is still more often the rule than the exception. That can stand some improvement. That's why we are striving to replace at least 50% of all disposable plastic items – such as cups, plates, cutlery and straws – by reusable products or high-quality recycling within three years.

Join the Movement & Make a Plastic Promise

Ready to become a pioneer in the field of responsible plastic use? Join with a Plastic Promise to tackle plastic use in your organisation or at your event. Decide for yourself which goals will be part of your Plastic Promise. As long as they are feasible within three years and really have an impact.

For more information visit www.plasticpromise.nl

WHAT IS RESPONSIBLE USE OF PLASTIC?



Reduce

Is the article of plastic really necessary, or can it be done without (e.g. samples, giveaways, etc.)



Re-use

Is it possible to use the item more frequently, for example with a deposit system?



Recycle

How can the plastic be recycled in a high-quality manner?



Waste-free bar, ITGWO, 2018

(NEARLY) WASTE-FREE FESTIVAL BARS AT INTO THE GREAT WIDE OPEN

At this year's Into The Great Wide Open, waste from the bars was virtually eliminated through a system that was designed and executed in collaboration with Lab Vlieland. All articles of use could be returned in one of two circles of materials:

1. Reuse: locally by rinsing or washing reusable cups, or off-site by returning reusable products such as bottles, kegs, tents, bars, etc.
2. A collection of bar materials separated backstage for effective recycling circles: glass, paper, monostream plastic.

What has Into The Great Wide Open done to achieve this? The festival has been using hard cups for years in combination with a deposit for all its drinks. In recent years,

no more disposable water bottles have been sold. These were replaced by reusable bottles, cups and tap water points. Last year the festival switched to reusable bottles of syrup in combination with (carbonised) tap water instead of the standard soft drinks in disposable bottles. This made the festival not only more sustainable, but also tastier and healthier. In addition, all the beer came from a large, reusable tank.

In summary, you have eliminated: disposable cups (hard cups), trays of beer (deposit on cardboard trays) or cans or disposable plastic bottles for water, soft drinks or beer (everything is poured from reusable bottles into hard cups). Only specialty beer still came this year in PET disposable kegs. These are also collected as monostream, making higher-quality recycling possible.

As a result, Into The Great Wide Open, with six thousand visitors over three and a half days – and on an island no less – managed to prevent more than 250,000 plastic disposable items this year alone.

Reusable drinking cups

Chapter 04



Why reusable drinking cups?

We are all familiar with the image of a festival field strewn with broken cups. It looks bad, is not sustainable and it costs extra money and effort to clean up. Did you know that when reusable cups are used, visitors also use the designated waste bins for other waste more often, thus ensuring that the festival site remains extra clean?

Reusable cups, why bother?

- A cleaner event, so a better experience
- Sustainable choice
- Optimal drinking experience
- Image enhancement
- Possible earnings model
- Marketing value when the cup is taken home
- Savings on cleaning and waste costs, other waste ends up in the rubbish bin more quickly

Facts, fables, faq and answers

Is the use of reusable cups a sustainable choice?

Yes, when you reuse a cup (Polypropylene: PP) at least seven to eight times.

Comparison of reusable cup vs other materials	Cup uses at which impact is less per use than disposable
(PP) reusable cup vs. cardboard single-use - incinerated	9 — 14 times
(PP) reusable cup vs. PP single-use - incinerated	7 — 8 times
(PP) reusable cup vs. PS single-use - incinerated	3 — 5 times
(PP) reusable cup vs. PET single-use - incinerated	2.5* — 5 times

*OVAM analysis uses 18 LCAs.

Source: Studie draaiboek drink- en eetgerei op evenementen - eindrapport (OVAM, 2017)

The eighteen LCAs that were consulted by OVAM do not specifically relate to events. Transport is therefore included to a limited extent in this calculation. On the other hand, cleaning processes, as they relate to water and energy use, are greatly improving. The environmental burden caused by transport also decreases when, due to increasing demand from the market, more washing facilities become available at shorter distances.

Is the use of reusable cups unhygienic?

No. The cups are in many cases not washed at the event, but done industrially and hygienically. Read more about this on page 22.

Is the use of reusable cups affordable?

Yes, in many cases it is. A deposit system provides income, and you can also save costs on cleaning, waste processing and the purchase of disposable cups. And maybe even on decoration, because a clean festival is naturally much more attractive!

Is it complicated to work with reusable cups?

No, it is not complicated. This toolkit is intended to help organisers and the food service industry with this process. Many events – including Best Kept Secret, De Parade, Into The Great Wide Open, DGTL, Amsterdam Open Air, Welcome To The Village and Mandala – have already worked with reusable cups. The most important dos and don'ts can be found in this document.

Will the use of reusable cups come at the expense of revenue?

No, numerous cases and experiences have never pointed to visitors drinking less when reusable cups are used.

Are reusable cups unsafe?

No. Due to the use of a deposit system, most of the cups do not end up on the ground. There is thus no tripping hazard. Cups made of PP are also (nearly) unbreakable, so shards are also very unlikely.

Is it true that visitors do not prefer reusable cups?

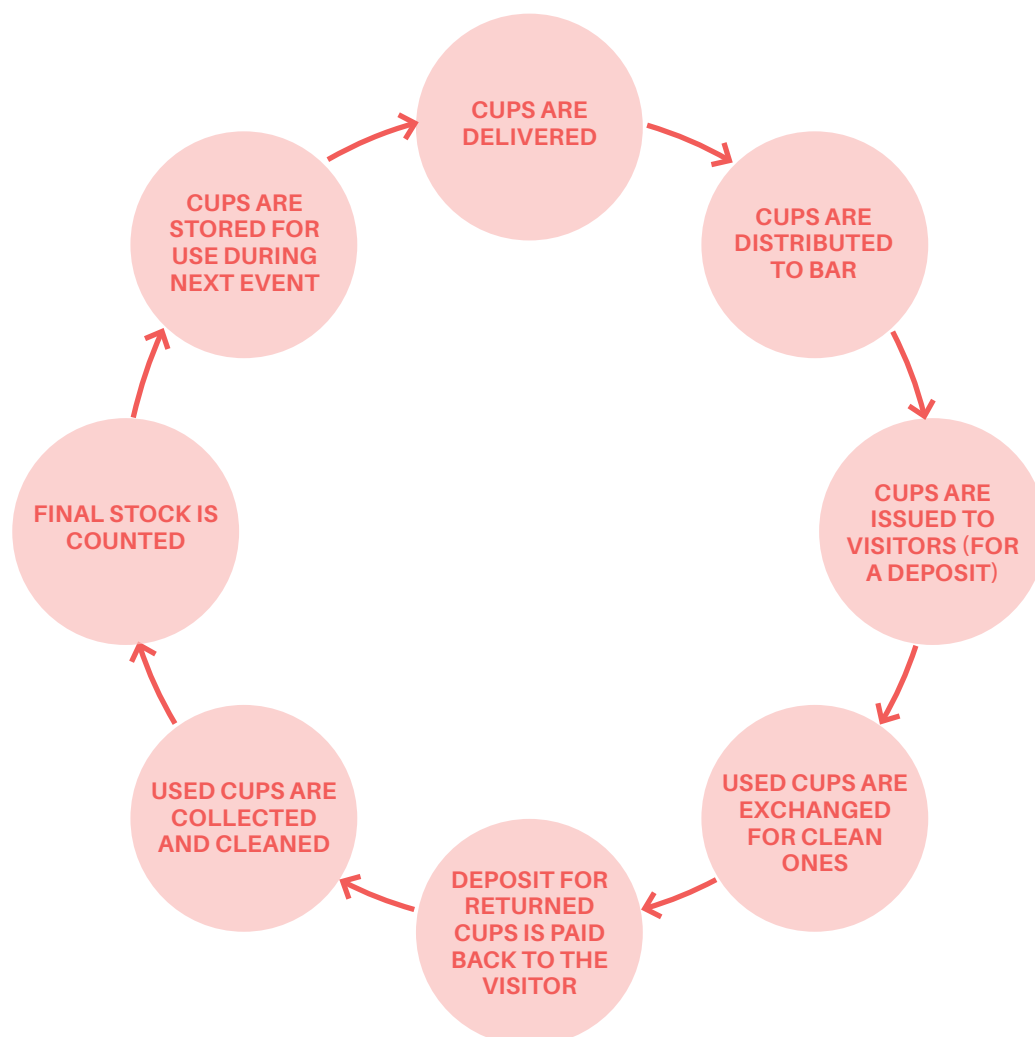
No, several visitor surveys (DGTL 2016, Mysteryland Campsite 2015) have shown that visitors actually really appreciate them. Only keeping a cup on you is less appreciated, so provide a user-friendly deposit system that allows visitors to easily turn in their cups during the day.

In addition, you can make visitors happy with a cup holder or a key ring. Did you know that a drink stays colder longer in a reusable cup? That does make visitors happy!



Visitor with Hard Cup XONL

(Possible) process reusable cups



Pre-production

To rent or to buy?

A combination of both options is often implemented. If you rent some of the cups and buy the rest, you can still use a cup with your own imprint without making too much of an initial investment. This can turn out positively in the business case, since visitors end up taking home cups with

their own printing more often and the deposit is therefore not returned.

Below you can see an overview of the advantages and disadvantages of renting and buying.

	RENTING	BUYING
Investment		High initial expenses
Business case	Cost per use higher	After about ten uses, the investment is recouped
Printing cup (advantageous for earnings model in connection with the deposit on the cups not being returned)	(Usually) not possible	Possible
Logo placement brewer/ beverage brand	Ask about the possibilities at your brewer/beverage brand	If logo placement is mandatory, investing is not a good idea, as both the logo and the collaboration can change in the future
Storage capacity		In-house or at the service partner (washing facility)

Types of cups

— Polypropylene (PP) cups are more environmentally friendly than polycarbonate (PC) and copolyester (e.g. Tritan®). They are also scratch-resistant, safe – they contain no BPA – and cheap. There are variants with a handle or tab, which enables stacking and allows for multiple filled cups to be carried in one hand.

— Some plastic cups on the market contain a percentage of recycled plastic. The environmental impact of a cup made entirely from recycled plastic (e.g. rPET) is about half that of a plastic cup from new, unrecycled plastic.

— For 100% transparent cups – such as the ribbed glass for beer or reusable plastic champagne glasses – CP or copolyester is preferable. Of the reusable cups, those that are polycarbonate do have the highest environmental impact. They are also more expensive and less scratch-resistant.

Source: Studie draaiboek drink- en eetgerei op evenementen – eindrapport (OVAM, 2017)

How many cups should I order?

The number of cups you should order depends above all on the expected beverage sales and whether you will be washing the cups on location or not.

Washing on location: dependent on washing capacity; read more on page 30.

Industrial cleaning afterwards: as many cups as the number of disposable cups that you would normally order. In addition, the accessibility of the bars during the event also plays a role in the number of cups to be ordered.

Which cup do I choose for which drink?

Choose the smallest number of different types of cups possible (beer, soft drinks, mixed drinks, wine) to limit the logistical challenges. If you do choose multiple cups, make sure that they are easy to differentiate. This speeds up the sorting process for the bar staff. But the fewer different types of glasses the faster. Are you working with a rapid tapping/pouring device? If so, check in advance whether the cup fits into the system.

Hybrid system (reusable & recycling)

In combination with reusable cups, it is also possible to sell disposable packaging – such as water bottles – with the same deposit system. Just like the cups, the bottles come back to the bar. The result is a clean waste stream that is easily recyclable.

The deposit system is also suitable for beverage-carrying trays (reusable and disposable).

Deposit or payment system

The success of the use of disposable cups is inextricably linked to a good deposit system. The deposit must be high enough: from a minimum of one Euro to a maximum of the price of one drink. This is not only to cover the costs of a missed cup, but also to give the cup extra value. Consequently, visitors more quickly grasp the importance of returning the cup.

Because the return payment is not always easy to organise and can be susceptible to fraud, organisations are increasingly opting for an alternative: a souvenir or promotional code. Make sure that this alternative has sufficient value for the visitor. A sympathetic and sustainable option is the placement of return boxes where visitors can donate their cup to charity.

It is possible to give visitors the first cup for free, by giving out a cup token at the entrance. The visitor exchanges

this token for a cup with their first order at the bar.

Selling a cup, and thus not facilitating a return payment, causes a huge loss of cups and is thus not a sustainable choice! By way of comparison, the loss of one reusable cup is equivalent to throwing away ten disposable cups.

The deposit system can also be adapted for trays (reusable and disposable).

Communication

Communicate clearly about the use of reusable cups and the deposit system, so that your visitors know what to expect. This might include:

- Website and social media
- Signage at the bars
- Event programme and/or app
- Map (with cup collection points indicated)

	TOKENS	CASHLESS CREDITS	DEBIT CARD (PIN) ONLY
Deposit amount	In multiples of (half) tokens	In multiples of (half) credits	All amounts possible
Returning cups	At the bar: no more cups are returned than the number of ordered drinks, so that no tokens are returned	At the bar: no more cups are returned than the number of ordered drinks, so that no credits are returned	At the bar: no more cups are returned than the number of ordered drinks, so that no money (PIN) is returned
Refunding the deposit	Cup collection point(s): Be careful with change. Cash on location is susceptible to fraud. Ensure that there are sufficient collection points when people are leaving to prevent long lines, possibly resulting in dissatisfied visitors	Cup collection point(s): Refunding credits can be done by bank. Include a maximum number of cups per visitor in the regulations. Checking for fraud is possible before the payments are made	Cup collection point(s): Refunds via debit card (PIN) are even more susceptible to fraud since large amounts can be reimbursed

Production

Storage & handling of cups during the event

1. How are the cups delivered?

Plastic crates are preferable to cardboard boxes.

2. What must be taken into account?

- Extra space behind the bars
- Organisation of the bars and the collection system for the cups (cylinders or crates)
- Closed storage; the cups represent value
- Accessibility for restocking
- Extra staff
- Briefing for staff
- Fraud by staff is – just as with all valuable items – something to think about

3. Separate collection point

Consider using separate return points during the event. This prevents every bartender from being able to issue tokens or credits. Do make sure you have sufficient collection points, especially when people are leaving.

4. Collection teams

Let the bar staff and cleaning staff collect cups from the ground (if necessary), which not only provides a financial savings but is also more sustainable. It would obviously be a shame to throw them away.

5. Counting system and bookkeeping

The cups represent a value, therefore ensure balanced accounts by counting the cups on delivery and return shipment.

Post-production

Cleaning on location and/or industrially afterwards

Mobile wash bays are available. If you have a water connection, it may be worth looking into washing on location as that would entail fewer cups (and therefore lower costs). A backstage route behind the bars for bringing cups to and from the central washing location would then be necessary, as would extra staff.

A final, industrial cleaning is always necessary in connection with health regulations. If the cups are not stored hygienically and dry, there is a risk of mould formation.

INSPIRATION



Hard Cups, DGTL, 2017

DGTL CUPS



Hard Cups Welcome to the Village, 2018

WTTV CUPS

Composting

Chapter 05



Why compost?

After a festival has introduced the hard-cup system and this residual stream of disposable plastic has thus disappeared, one can take the next step towards a waste-free festival by composting plates, cutlery and leftover food. This waste stream is virtually impossible to recycle when the plates and cutlery are made of plastic because of the way that the food scraps contaminate it. An additional advantage is that you do not use fossil resources (plastics).

Step-by-step guide to composting

STEP 1

Require caterers – and everyone who provides disposable tableware, packaging and products to the public at the festival site – to use compostable disposable tableware. It is important that the products are made from kraft, unbleached paper, cardboard, thin wood or sugar cane. These products can be recognised by the OK Compost or Kiemplant logo. Other biodegradable materials such as (C)PLA, bamboo, thicker wood and palm leaves are not suitable for this system due to the length of time they require to compost. The demand for compostable disposable tableware is becoming more and more common for festival caterers. However, it is good to arrange for a discount for the caterers at two or three different packaging suppliers, so that the price difference does not vary too much from standard products.

STEP 2

Install a fast composting machine that composts all the organic residual material on location. All compostable disposables (suitable materials for a fast composting process: kraft, unbleached paper, cardboard, thin wood or sugar cane), food waste and green waste can go in here. The residual organic material is then converted by the machine in 24 hours, from waste to the new resource: compost. If necessary, this compost is sieved so that any contamination (not properly separated materials) will disappear from the end product after the composting process. In this way, the system can also withstand 10 to 20 per cent contamination of the compostable stream.

The compost can be used for growing food for subsequent editions, the restoration of grass fields or the enrichment of other soils. It can also be given to the public in attractive packaging or sold for home use. By using the compost in this way, the nutrients return to the ecosystem instead of it being incinerated. Thus, the organic circle is closed a bit more.

There are now some waste processors that can process these compostable waste streams. Discuss this with your waste processor if placing a compost machine doesn't fit into your plans.

Composting with a compost machine is a new, not yet fully developed, technique. It is currently not yet certain if the final product can properly be called compost. An official government definition is coming later this year.

STEP 3

Furthermore, we recommend separating two waste streams at the festival site:

1. Compostable
2. Residual waste

In principle, everything that the public can get at the festival site can go into the first stream. The second stream – residual waste – is intended for the materials and products that people bring with them, such as cigarette packs, lighters, broken sunglasses, deodorant applicators, hair clips, etc. With a well-regulated system, the residual stream is minimal. Therefore, it is also better if the residual waste bins are smaller than those for compostable residual material.

Success factors for waste separation are

- Clear signage above the waste bins
- Creating a monostream of material that can be processed in the same way

STEP 4

Good communication about separating waste at the festival site is essential. Use the website, social media, and signage at the bars and caterers and at the waste and resource bins. Visitors are not accustomed to plates, cups and utensils being compostable, so they may initially be a little confused. Good signage can make it clear to the visitor what can go in a particular bin. Good communication afterwards about the results helps the public get used to the idea. Likewise, the appreciation for the festival as a whole increases.

By following these four steps, you can make the public areas of your festival virtually waste free. Are you interested in this as a festival organisation, but could use some help with the planning and/or implementation? Then take a look at: www.labvlieland.nl



Compost Machine



DGTL Circular Food Court

FROM WASTE TO RESOURCES AT DGTL, AMSTERDAM OPEN AIR, WELCOME TO THE VILLAGE, MILKSHAKE & INTO THE GREAT WIDE OPEN

In 2018, five festivals worked together with Lab Vlieland on the same goal: transforming waste to resources. After the introduction of reusable cups and minimizing the use of disposable bottles through deposit, a large residual waste stream remained on the festival site; namely, disposable food packaging (cups, plates, trays, eating utensils). With the assistance of the caterers, the visitors at the festivals ate with compostable disposables. For this purpose, the waste/resources at the festival site were collected separately in a compostable stream and a very small residual stream (cigarette packs, sunglasses, deodorant applicators, etc.).

The compostable disposables were then processed on-site in combination with green and food remains in a fast-composting machine. The machine works through the combination of heat, a slow mixer and a special bacterial culture, and so doing, can create a new resource from this residual stream in 24-hours: compost.

In this way the nutrients can be brought back into the local ecosystem instead of burning them, as usually happens with residual waste. Transport CO₂ is also saved and CO₂ is trapped in the compost. With this local processing system, these and other festivals were able to make a big step in the direction of a waste-free festival site.

Campsite waste

Chapter 06



20-25% of the tents and camping material are left behind



The discarded tents and camping materials left behind at Dutch festival campsites are the rule rather than the exception. It's part of the festival culture because - according to many visitors - it will be cleaned up anyway. Tents are cheap these days: for just a few dozen Euros you can buy a pop-up tent

Clear communication on this subject is key to achieving a change in behaviour.

Why campsite waste is a problem?

While it's a European problem, in the Netherlands in particular 20% to 25% of the tents and camping gear are left behind after a festival. In general, this type of campsite waste is poorly recyclable due to the use of various materials. And the low cost of the materials versus the high costs of labour make manually sorting it virtually impossible. It is very difficult and perhaps impossible to make a positive business case out of this. The 'household waste' is also poorly recyclable and difficult to manage, because visitors often bring a lot of things from home.

What can you do about it?

Unfortunately, an ideal solution to this problem has not yet been found. As long as visitors can cheaply buy a tent and these cheap tents – of poor quality – are even being sold as 'festival tents', it is difficult to find an incentive for visitors to take their things home with them. Using a deposit seems a logical choice, but that entails some challenges in practice. A number of festivals have launched successful projects that will be shared with you in this chapter.

While the perfect solution has yet to be found, there are still some appropriate measures that can be taken. As the campsite is part of the festival, a similar strategy as elsewhere can be applied here, with a few campsite-specific additions:

- Distribute garbage bags (possibly two sorts for waste separation)
- Mobilise teams to make visitors conscious of the impact of their waste with a friendly conversation
- Look critically at the campsite regulations
- Encourage visitors to bring less stuff
- Set up a 'clean zone' where visitors conform to a number of rules, such as: keep your camping spot clean and take your tent home with you
- Offer tents or other reusable accommodations
- Give discarded items a second life, but don't communicate this to festivalgoers

Clean

It is a given that a clean environment stays that way longer, and this is also applicable to festival campsites. Visitors are often prepared to do their part, provided it does not take too much effort. Therefore, hand out garbage bags at the entrance, or even better, while they are setting up their tents. And explain the importance of using the garbage bags. Solar Weekend, for example, puts the cleanest camp in the spotlight every year and rewards these visitors with tickets for the following edition. In addition, deploy teams to make the visitor aware of the impact of their litter. Read more about this in the Camping Guardians case on page 47.

Clean Zone

Set up a 'Clean Zone', where visitors conform to a number of rules to ensure that the zone remains clean and that tents and other camping equipment return home. Read more about this in the 'Greener Grass' case on page 48.

Reuse

Reducing waste can be done through the adoption of strict campsite regulations: What are visitors allowed to bring, and what not? Think for instance about banning party tents. The challenge with this is enforcement: How are you going to rigorously monitor this? It also works to motivate visitors in a positive way to bring fewer things with them, for instance through – one time only and upon the presentation of their ticket – offering a tray of beer at supermarket prices, or by renting out equipment at the campsite through a recycle store.

Reuse & Recycle

Offer visitors the possibility of renting a tent or other accommodation. There are various providers, in a large variety of price brackets. Most accommodations are reusable and are used again at other events. A cardboard tent (KarTent) is not reusable, but it is recyclable: you can ensure that this actually happens by collecting and processing paper and cardboard separately.

Despite the fact that it is difficult to give a new life to the discarded camping materials, there are institutions and good causes – such as charity shops – which can do something with these things. Give them the opportunity to come salvage what can be used after the festival. Please note: do not communicate this to visitors, to prevent them from thinking that it is good to leave things behind.



Camping guardians (Mysteryland, 2018)

MYSTERYLAND CAMPING GUARDIANS

Since 2016 – the first year that Mysteryland had a campsite – the organisation has worked with Camping Guardians. The Camping Guardians work in pairs and manage the Mysteryland Campsite from opening to closing. Each pair has its own tent with seating, spread out over the campsite. The spots are manned from early in the morning until 1am.

The Camping Guardians welcome the visitors at the opening. They hand out garbage bags, show visitors the ropes and give them a hand with heavy baggage. At the Camping Guardians' tents, visitors can inflate their airbeds and charge their mobile phones. You can also wait at their tents for your friends, and lost visitors can catch their breath. Camping Guardians are a source of information and, if necessary, can refer someone to first aid or security.

INSPIRATION



Greener Grass (Solar Weekend Festival, 2018)

GREENER GRASS CAMPSITE AT SOLAR WEEKEND FESTIVAL

In order to reduce the growing number of tents and other camping articles such as party tents, chairs, coolers, air mattresses and sleeping bags that are left behind, Solar Weekend calls on its visitors to take these things home with them. Under the guise of 'the grass is always greener on the other side', Solar Weekend Festival has created 'Greener Grass Campsite'. For this separate camping area, where visitors who like to stay on a clean campsite can come, the following 'commandments' apply:

1. A Greener Grass ticket does not cost any more or less than the regular campsite but is just nicer for everyone.
2. You throw your own rubbish in the correct waste bin and/or garbage bag.
3. You take your tent and other camping materials home with you when the festival is over.
4. If your fellow campers end up making a mess of it accidentally anyway, remind them of these commandments.
5. You party just as hard here as at the rest of the campsite.

The ticket price for this campsite is the same as that of a regular ticket and the facilities are virtually the same. This prevents visitors from staying at this campsite for the wrong reasons and not abiding by the Greener Grass Commandments. The number of tickets sold is growing yearly; it would be nice if after a number of years, 'grey' campsite tickets are no longer sold at all.



Recycle store (Mysteryland, 2018)

MYSTERYLAND CAMPING RECYCLE STORE

Mysteryland has hosted a Camping Recycle Store since it introduced a campsite in 2016. Second-hand chairs, tables and other camping necessities in good condition can be bought here for a friendly price. New items such as mattresses and lighting can also be bought here.

There is a deposit on the second-hand items, and visitors are encouraged to return the items or take them home. Each item of used camping gear is tagged with a message stating that it should be taken good care of and not left on the campsite. Good camping gear can be turned in here after the festival weekend. The second-hand items are collected, selected, picked up and stored at another festival.

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Welcome to your (first) waste-free festival!

Every year, festivals in the Netherlands attract millions of visitors. Not only do they come for the music, but also for the delicious food, the decor and the vibrant atmosphere that the festival organisers create. However, with all of this activity comes a lot of waste. Studies show that on average, festival visitors each produce more than one kilogram of waste per day. On an annual basis this amounts to up to 50 million kilograms of waste. This is the equivalent amount of waste that 23 000 households produce in one year! Much of this waste becomes residual waste, and thus, little to none of it can be recycled. In order to tackle this type of waste, organisations Nederland Schoon (Netherlands Clean) and Green Events Nederland launched the Green Deal Afvalvrije Festivals (Waste-Free Festivals) in 2015.

When we look at the material flows surrounding the organization of a festival, various waste streams can be identified. These waste streams are mostly litter, food remains, ponchos, packages, wrapping and cigarettes from visitors, and wood-, metal- and plastic waste from the setup and dismantling of the festival. The first step in addressing these waste streams is to understand the source of the waste (where does it come from), the final destination of the waste (what happens with the waste) and the volume. To make this possible, it is very important to properly map out all these waste streams. The purpose of this handbook is to provide a step-by-step guide that helps to make mapping all of the relevant waste streams for festivals a standard procedure.

In this guide, you will find several checklists and tables to help you create a detailed overview of the waste streams coming from festival visitors, catering companies and bars, as well as the waste produced when setting up and dismantling the stages, tents and decor. These can be used before and after the festival (by the organizers), as well as during the festival (by volunteers, for example).

Following the steps provided in this manual will help you to map out all of your material flows. This is a very important first step towards becoming a waste-free festival!

Good luck and have fun!

How to use this handbook



THE SCOPE

This handbook is designed as a step-by-step guide to help you gather information on the waste streams within your festival in an easy and structured way. To narrow the scope of this research, we will only focus on materials and material flows, and not, for example, electricity or energy use, CO₂ emissions or fuel-use.

THE APPROACH

When we carry out the research, we make a distinction between three specific phases, namely:

1. Before the festival
2. During the festival
3. After the festival

This distinction will be repeated in the research methods, where we have divided the tasks into those that can/need to be performed before, those performed during, and those performed after the festival.

USING THE MANUAL

In this manual, every phase contains checklists that will help you to carry out your research. At each step, they will explain what still needs to happen and why. There is also an indication, per phase, of how much time you will need to complete the checklists and how many people/volunteers will be needed to do so.



Phase 1: Before the Festival

During this phase, an inventory is created of all the materials used during the setup of the festival. Examples could include construction materials for the stages and tents, or electronics for the lighting and sound. A lot of waste is already produced during this phase of the festival, mainly in the form of cardboard boxes, plastic wrapping, wooden beams or, for example, remnants from the décor setup. To get a clear and insightful overview of these waste streams, it is important to remind those involved in this phase early on during the construction period, to keep close track of their waste.

CHECKLIST: CREATING AN OVERVIEW OF THE MATERIALS ENTERING THE FESTIVAL SITE

- ☐ Make a list of all suppliers, waste handlers, material- and construction firms that bring materials to the festival site, or that treat or collect materials after the festival has ended, for example:
 - ☐ Stage builders
 - ☐ Tent hire firms
 - ☐ Caterers
 - ☐ Sanitation and plumbing firms
 - ☐ Counters/lockers/and cloakroom providers
 - ☐ Fence builders and area markers
 - ☐ Decor firms
 - ☐ Waste handlers
 - ☐ Cleaning companies
- ☐ Inform suppliers and waste handlers beforehand that they will receive a survey and tell them why it is important that they answer the survey questions in as much detail as possible.
- ☐ Send all suppliers and waste handlers the survey by email well ahead the festival (at least 2-3 weeks in advance).
 - ☐ Data from the waste handlers will only be available after the festival has ended. Nonetheless, it is still important to notify and inform the waste handlers about the coming request for data well in advance.
- ☐ Follow up with the suppliers that haven't replied within a week of the festival start date.
- ☐ Collect the data from the suppliers. Here, it is important to note that:
 - ☐ For all data, it should clearly state who delivered the data , including contact details
 - ☐ For all values, it should clearly state whether this is an estimation or an actual value (in most cases, suppliers will use estimations.)



WHEN IS THE BEST TIME TO DO THIS?

- 6 weeks in advance
- Send a reminder 1 week in advance



HOW LONG WILL IT TAKE TO COMPLETE?

- Half a day, 6 weeks in advance
- Half a day, 1 week in advance



WHO DO YOU NEED FOR THIS?

- 1 person from the organisation



WHAT CAN YOU USE TO HELP YOU?

- Appendix A: Template: Introduction for suppliers and waste handlers
- Appendix F: Survey for the waste from constructing and dismantling the stages, decor and technical elements

Phase 2: During the festival

The collection of data during the festival will mostly depend on the efforts of volunteers present at the festival site. By completing surveys during the separation of collected waste and conducting interviews with the caterers and bars, volunteers should aim to gain insights into the composition of the unseparated waste streams. Waste streams that have already been separated on site are weighed separately and processed by the waste handlers, thus these streams do not need to be analysed by the volunteers and are therefore also outside of the scope of this research.

Surveys during the separation of collected waste

It is important to understand the waste content within the garbage bins that come from the festival site. This can be done by randomly examining sample garbage bags using the surveys provided.

CHECKLIST: COLLECTING RESIDUAL WASTE DATA FROM THE FESTIVAL SITE

- ☐ Plan and schedule 4-8 volunteers (depending on the size of the festival) to carry out the task of random sampling the garbage bags coming from the festival site in the afternoon and evening.
 - ☐ At a multi-day festival, this task can be executed not only on the opening day but also on every other day of the festival including an extra check every morning
- ☐ Check 1 in every 5 garbage bags using the appropriate surveys.
 - ☐ Fewer garbage bags will result in data with a lower resolution.
 - ☐ Separating the waste from one garbage bag and filling out the survey will take two volunteers roughly 10 minutes. One volunteer separates the waste, while the other keeps track of everything that is being separated while filling out the survey.
- ☐ Assign a designated individual who is responsible for collecting the data of the completed surveys and who will make sure at the end of the festival that all data is collected.



WHEN IS THE BEST TIME TO DO THIS?

- In the afternoon/evening of the festival



HOW LONG WILL IT TAKE TO COMPLETE?

- For each volunteer, 1-2 hours per afternoon/evening session



WHO DO YOU NEED FOR THIS?

- 4-8 volunteers (depending on the size of the festival)
- 1 coordinator



WHAT CAN YOU USE TO HELP YOU?

- Appendix B: Template: Introduction for volunteers
- Appendix C: Survey for waste separation

Phase 2: During the festival (continued)

Interviews with caterers and bars

A lot of waste is produced during the production of meals on the festival site. This includes food waste (peels and unsold meals), frying fat, packages and wrapping. These waste streams can be identified and mapped out by conducting interviews.

CHECKLIST: COLLECTING WASTE DATA FROM CATERERS

- ☐ Plan and schedule 2-4 volunteers to conduct interviews with caterers at the beginning of the festival, or close to its start date.
 - ☐ For this you can use the interview script and survey presented in this handbook.
- ☐ Interviews will take about 5-10 minutes and can be conducted individually or in pairs.
- ☐ Interview all the caterers and all the bars.
- ☐ Assign a designated individual that is responsible for collecting the data of the completed surveys and who will make sure at the end of the festival that all the data is collected.



WHEN IS THE BEST TIME TO DO THIS?

- In the morning or at the beginning of the festival



HOW LONG WILL IT TAKE TO COMPLETE?

- 2-3 hours in the morning or at the beginning of the festival



WHO DO YOU NEED FOR THIS?

- 2-4 volunteers (depending on the size of the festival)
- 1 coordinator



WHAT CAN YOU USE TO HELP YOU?

- Appendix B: Template: Introduction for volunteers
- Appendix D: Interview script for waste from caterers and bars
- Appendix E: Survey for caterers and bars

Phase 3: After the festival

The week after the festival has ended, there is still a lot of data to be collected from the waste handlers, cleaning companies and dismantling crew. This data will not be readily available right after the festival has ended, but it is very important to contact these parties shortly after the festival so that they can mentally prepare for the upcoming survey.

CHECKLIST 4: COLLECTING DATA AFTER THE FESTIVAL

- ☐ Shortly after the festival, contact all the relevant parties involved in the collection and processing of material and waste streams, including:
 - ☐ Waste handlers
 - ☐ Sanitation and plumbing firms
 - ☐ Stage builders and dismantlers
 - ☐ Decor firms
- ☐ One week after the festival has finished, send the survey for waste from the construction and dismantling of stages, decor and technical elements to all the identified parties.
- ☐ Try and aim to have all surveys from all firms completed within 2-3 weeks after the festival has ended.
- ☐ Assign a designated individual who is responsible for collecting the data of the completed surveys and who will make sure at the end of the festival that all the data is collected.



WHEN IS THE BEST TIME TO DO THIS?

- In the first two weeks after the festival has ended



HOW LONG WILL IT TAKE TO COMPLETE?

- Half a day per week



WHO DO YOU NEED FOR THIS?

- 1 employee from the festival organizer



WHAT CAN YOU USE TO HELP YOU?

- Appendix A: Template: Introduction for suppliers and waste handlers
- Appendix F: Survey for waste from the construction and dismantling of stages, decoration and technical elements

Phase 3: After the festival (continued)

Collecting and sending the data

Once the data is gathered, it is very important that the handling and processing of the data is carefully managed, and that it is clear who is responsible for doing so. Therefore, it is recommended that only one person is appointed as responsible for the whole process and keeps a clear overview of these final steps. They ensure that all surveys and interviews are collected, that all the suppliers responded, and that all the waste handlers have submitted their data to the festival organizers after the festival has ended. When all the data has been collected, it can be sent by email to Green Events Nederland (paul@greenevents.nl), who will make sure the data will be properly handled for further analysis.

CHECKLIST: DATA COLLECTION AND SENDING

- ☐ All suppliers have sent their data.
 - ☐ The data is complete.
- ☐ During the festival, all the surveys conducted for the separation of waste from garbage bags and the interviews surrounding this, have been submitted to the responsible person.
- ☐ All the waste handlers have submitted their data to the festival organizers.
 - ☐ This data is complete.



WHEN IS THE BEST TIME TO DO THIS?

- As soon as all the data is present



HOW LONG WILL IT TAKE TO COMPLETE?

- Half a day



WHO DO YOU NEED FOR THIS?

- 1 employee from the festival organizers



WHAT CAN YOU USE TO HELP YOU?

- -

1. Contact information – organisation

NAME	FUNCTION	TELEPHONE	EMAIL

2. Contact information – cleaning

CLEANING COMPANY: *Fill in name*

NAME	FUNCTION	TELEPHONE	EMAIL

3. Contact information – waste- and resource-processing

WASTE (RAW MATERIAL) COLLECTION COMPANY: *Fill in name*

NAME	FUNCTION	TELEPHONE	EMAIL

4. Details

EVENT

DATE	
LOCATION	
NUMBER OF VISITORS	
LICENSING AUTHORITY	
TIMES	
SURFACE AREA	

CAMPSITE

DATE	
LOCATION	
NUMBER OF VISITORS	
LICENSING AUTHORITY	
TIMES	
SURFACE AREA	

5. Resources Plan

Three key factors in the strategy for dealing with waste are reduce, reuse and recycle.



REDUCE



REUSE



RECYCLE

5.1 REDUCE

To prevent and/or reduce waste, we take the following measures:

- No samples, flyers, timetables and carrying trays
- No plastic bags (free distribution is forbidden anyway)
- Less packaging for catering, the camping shop, etc.
- Strict camping regulations concerning bringing your own food, drinks, party tents etc.
- Avoid the use of disposables

5.2 REUSE

To reuse resources, we take the following measures:

- Whenever possible, make use of stages, décor and infrastructure that are designed for disassembly and reuse (for instance rented)
- Do not have a date printed on banners and signage
- Use hard cups instead of disposable cups

5.3 RECYCLE/RESOURCES

To get as clear a picture as possible of the resources that are released, we divide the resources into those which are produced during the build-up, during the festival, and during the breakdown.

Build-up

RESOURCE	ORIGIN	COLLECTION RECEPTACLE	WHAT HAPPENS TO IT?	DESTINATION (RECYCLING)
e.g. Wood	e.g. Decoration	e.g. 20m3 roller container	e.g. Reused	
e.g. Glass	e.g. Crew catering	e.g. 240 litre container	e.g. Removed separately	

Festival/Camping

RESOURCE	ORIGIN	COLLECTION RECEPTACLE	WHAT HAPPENS TO IT??	DESTINATION (RECYCLING)
e.g. Cardboard	e.g. Caterers	Bijv. 1100 liter container	Bijv. Gescheiden afgevoerd	
e.g. Plastic	e.g. Public area	e.g. 240 litre container	e.g. Removed separately	

Breakdown

RESOURCE	ORIGIN	COLLECTION RECEPTACLE	WHAT HAPPENS TO IT?	DESTINATION (RECYCLING)
e.g. Wood	e.g. Decoration	e.g. 20m3 roller container	e.g. Removed separately	
e.g. Furnishings	e.g. Decoration/	Bijv. 20m3 afzetcontainer	Bijv. Afgevoerd als grof afval	

The collector is not always the processor of the resources he disposes of. Many waste streams are processed by a final processor. To gain more insight into what happens to the resources once they are removed – where they go and who processes them – it is advisable to request this information from the collector in advance. Weight dockets or photos can be requested as a means of verification.








Make prior agreements about such matters as:

- The number of transport journeys. The collector is usually given the opportunity to drive the containers in together (other rate agreements).
- Disposal of containers only takes place in consultation with the organisation and after inspection, in order to prevent rejection due to possible contamination. Remember to cover the containers in case of rain to prevent extra contamination.
- Futile journeys taken without the prior agreement or signature of the organisation will not incur a charge.
- All weight dockets from the removed containers are sent with the invoice as verification.

5.4 COLLECTION RECEPTACLES AND BIN PLAN

- Collection receptacles are available in various types and sizes. The most common collection containers are wheelie bins and roller containers
- Wheelie bins in the sizes 140, 240, 660 and 1100 litre
- Roller containers with a capacity of: 6, 10, 20, 40 m³
- By making a prior inventory of which resources are produced, a detailed 'bin plan' can be made.
- In the bin plan, describe which bins will be used where.
- For example: bars 1 x 1100 litres residual waste, 1 x 1100 litres cardboard, 1 x 660 litres plastic

Islands or other collection receptacles are often used for the separation of resources on location. It is important to take into account coloured containers and correct signage, according to the following colour coding:

	Paper	Glas	GFT and food residues	Rest	Plastic	Plastic and Drinking suits	Plastic Bilk Drinking suits
							
RAL	5015	1023	6017	7012	2004	2004	2004
PMS (c)	285	123	7741	Cool Gray 10	1585	1585	1585
CMYK	90/45/0/0	0/20/100/0	80/20/100/10	5/0/0/70	0/65/100/0	0/65/100/0	0/65/100/0
RGB	0,112,105	255,198,39	65,135,62	100,100,105	255,107,11	255,107,11	255,107,11
Hex	#0070cd	#ffc627	#41873e	#646469	#FF6b0b	#FF6b0b	#FF6b0b

Deployment of Containers

ORIGIN	WASTE/	INZAMEL- INGSMIDDEL BACKSTAGE 240 LITER	INZAMEL- INGSMIDDEL BACKSTAGE 660 LITER	INZAMEL- INGSMIDDEL BACKSTAGE 1100 LITER	INZAMEL- INGSMIDDEL FRONTSTAGE 240 LITER	INZAMEL- INGSMIDDEL FRONTSTAGE AFVALEI- LAND
Production	Paper/ Cardboard			1		
Crew Catering	Glass	1				
Bar1	Plastic		1			1
Food1	Residual Waste			1		1
Etc.						

5.5 CHECK

The mapping of the resources to be produced and the creation of a suitable resource plan takes time, but it is time well spent. A plan alone, however, is not enough.

The implementation of the plan also requires the proper attention. In order for this plan to be successful, continuous monitoring is necessary. A number of issues require structural attention, such as::

- Communication and coordination with the various suppliers
- Monitoring the resource flows during the build-up and breakdown, during the event and after removal
- Reviewing the bin plan

In order to be able to carry out the above, it is advisable to appoint someone as a resource coordinator. This person, together with the sustainability manager, is responsible for the correct marketing and processing of resources. They see to it that the resource plan is executed according to agreement.

6. Cleaning plan

6.1 DURING THE DAY

To prevent littering and to keep the site as clean as possible, we deploy service teams during the day. The service teams consist of cleaning company personnel and/or volunteers ('Clean & Green' Teams)

Distribution of service teams during the event:

Evenement

DATE	TIME	STAFF	FOCUS AREA

Campsite

DATE	TIME	STAFF	FOCUS AREA

A number of focus areas are predetermined:

1. Approach route/surrounding area

- Parking spaces, bicycle parking, approach routes

Tasks: cleaning up using a trash picker and emptying collection receptacles

2. Frontstage

- Entrance, food area, VIP

Tasks: cleaning using a picker, keeping the tables clean and waste-free, emptying collection receptacles.

3. Backstage

- Production, bars, catering

Tasks: Checking separation of resources, sorting resources on location.

6.2 FINAL CLEANING

After the event the entire site, the surrounding area and the campsite are cleaned according to the following schedule:

Event

DATE	TIME	NUMBER OF STAFF	MATERIALS AND MACHINES

The completion of the event takes place on:

Camping

DATE	TIME	NUMBER OF STAFF	MATERIALS AND MACHINES

The completion of the campsite takes place on:

7. Clean & Green teams

7.1 DEPLOYMENT AND ACTIVITIES CLEAN & GREEN TEAMS

- Picking trash up and separating it – festival
- Handing out garbage bags – campsite
- Appealing to visitors to throw the resources in the correct bin in a cheerful, enthusiastic and approachable manner
- On Monday morning, supporting visitors in their cleaning efforts and preventing them from leaving much behind
 - This in cooperation with the cleaning company (should be adequately dealing with full collection receptacles, etc.)
- Preventing litter on the approach routes before and after the festival
- Keeping food areas clean
 - ptying tables and cleaning them with a cloth

Important points:

- Divide the teams into areas and ask them to keep their area clean from the start. This will keep everyone on schedule and the areas tidy.
- Make the 'Clean & Green' Team important. Pamper the workers and make sure that they do not lack for anything.
- Provide eye-catching styling and make-up. It's fun for the workers and their enthusiasm will be contagious.
- Adjust the colours of their clothing to the type of waste that they pick up, and let these colours correspond to the signs on the bins. Then visitors will better understand why they aren't picking up all the waste.
- Ask the teams about what they have noticed, such as: points for improvement for next year, use and placement of waste bins, places where specific waste ends up, etc.

GREEN CAMPSITE TEAMS

- Providing information
- Handing out new garbage bags
- Helping with inflating airbeds
- Acting as 'telephone watcher' when phones are charging (unsecured)
- Daily morning round for handing out garbage bags (can use 2 colours to enable waste separation) and asking visitors to clean up debris around their own tent
- On Monday/last morning: support visitors in cleaning up and prevent much stuff from being left behind
- Hangout 'get together' for people who come home (alone) after the festival
- Hangout 'meeting point' with friends
- First point of contact for questions and assistance. Can quickly switch with security and first aid via walkie-talkie
- Signalling of problems and dealing with them appropriately

Important points::

- Provide eye-catching styling. This communicates more easily with visitors and stands out better
- Important that they also stay in a tent on the campsite (peer-to-peer communication)
- Preferably no volunteers, in connection with the working hours and responsibilities

8. Planning

When will which resources and materials be delivered?

BUILD-UP

DATE	TIME	COLLECTION RECEPTACLE/ MATERIAL	SUPPLIER	CONTACT

BREAKDOWN

DATE	TIME	COLLECTION RECEPTACLE/ MATERIAL	SUPPLIER	CONTACT

Include the production and/or cleaning company manual where applicable.

green events

Green Events Nederland
www.greenevents.nl

