

GREEN DEAL CIRCULAR FESTIVALS

MONITORING FRAMEWORK

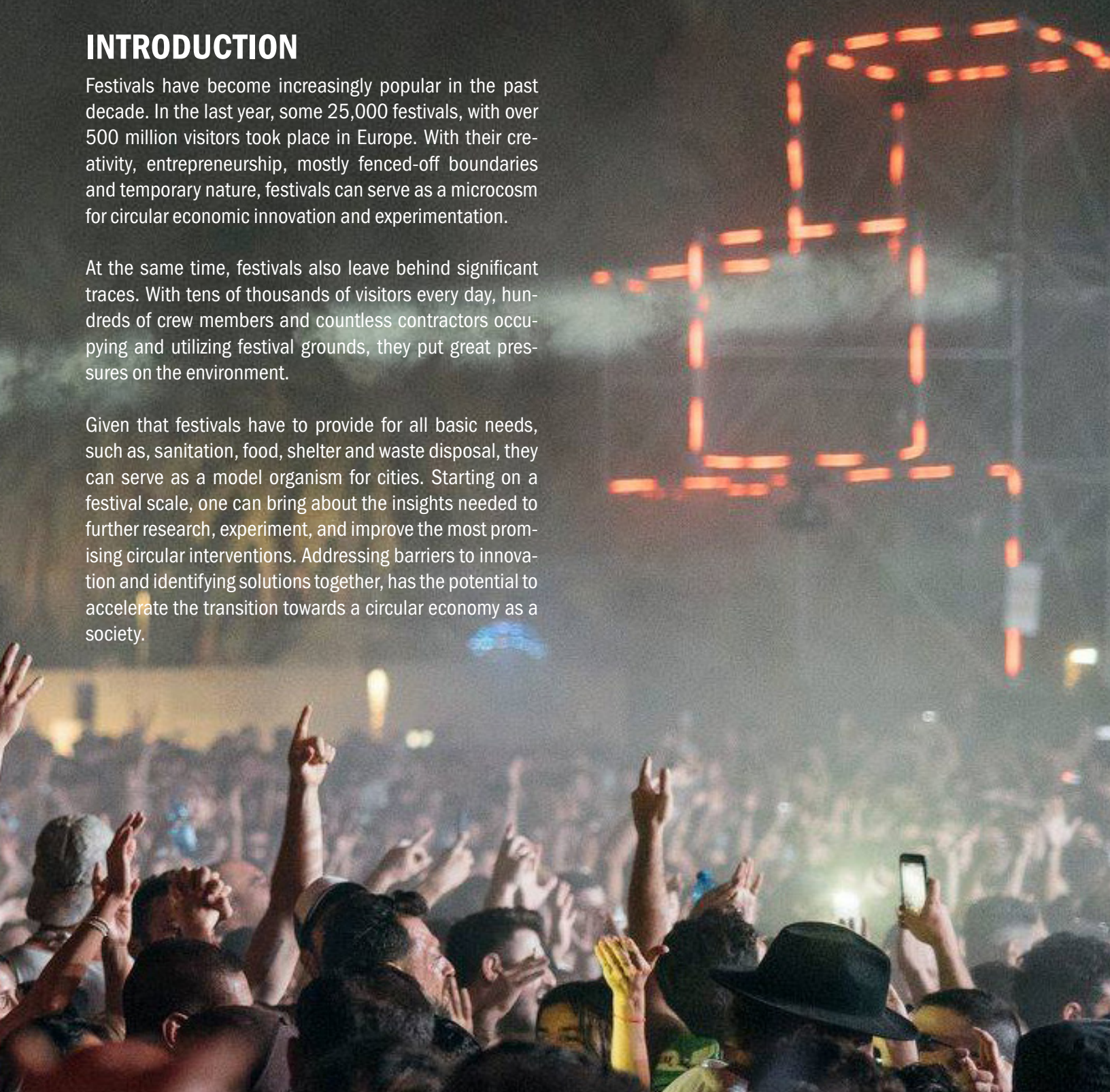
March 31st 2020

INTRODUCTION

Festivals have become increasingly popular in the past decade. In the last year, some 25,000 festivals, with over 500 million visitors took place in Europe. With their creativity, entrepreneurship, mostly fenced-off boundaries and temporary nature, festivals can serve as a microcosm for circular economic innovation and experimentation.

At the same time, festivals also leave behind significant traces. With tens of thousands of visitors every day, hundreds of crew members and countless contractors occupying and utilizing festival grounds, they put great pressures on the environment.

Given that festivals have to provide for all basic needs, such as, sanitation, food, shelter and waste disposal, they can serve as a model organism for cities. Starting on a festival scale, one can bring about the insights needed to further research, experiment, and improve the most promising circular interventions. Addressing barriers to innovation and identifying solutions together, has the potential to accelerate the transition towards a circular economy as a society.



WHAT IS THE GREEN DEAL CIRCULAR FESTIVALS?

The Green Deal Circular Festivals sets the following overarching goal:

Festival Organisations strive to become circular in 2025, inspiring visitors and setting an example for other festivals.

RESULTS

Concrete results within this overarching goal are:

1. Green Deal Participants will create and implement a general design for circular festivals.
2. Green Deal Participants will develop and implement their own specific roadmaps towards a circular festival and share their best practices and other relevant experiences with each other.
3. Green Deal Participants will develop and implement a tool to conduct a baseline measurement and monitor the progress of individual festivals towards a circular festival.
4. Green Deal Participants will use instruments of communication and behaviour change to inspire other parties and visitors to act more circular.

DEFINITION OF A CIRCULAR FESTIVAL

“A circular festival is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems.”

We work with a definition that is (1) in line with existing theoretical, scientific frameworks that are also used within cities, companies and governments, and (2) concrete and understandable. In search of such a guiding framework, we decided to select the definition of a circular economy from the Ellen Macarthur Foundation. This definition is still rather open and widely formulated. Therefore, within the 6 themes of a circular festival and their corresponding goals, we define what circularity means and what the desired outcome should be. This will be explained in the following section.

6 THEMES AND SUB-GOALS

During the duration of this Green Deal, festival organizations will actively contribute to the General Design (themes) for a circular festival, and commit to pursuing the sub-goals per theme as formulated in figure 2 below. This design consists of the following six themes. The themes are selected because together they constitute the biggest impact made by festival organizations:



Figure 1: The 6 themes of a circular festival and their corresponding sub-goals.

MONITORING AT TWO LEVELS

In the transition towards a circular festival, monitoring the key trends and patterns is key to understanding how the various elements of the circular festival are developing over time, to help identify success factors in member festivals and to assess whether sufficient action has been taken within the Green Deal in its entirety. The results of monitoring form the basis for setting priorities towards achieving the long-term objectives of the Green Deal International Circular Festivals (GDCF). This is why the Monitoring Commission (MC), in the GDCF action plan, committed to come forward with a simple and effective monitoring framework. We monitor progress at two different levels:

FESTIVAL

1. Performance on the 6 themes

2. **Environmental impact** (based on Doughnut Economy model; The Festival Doughnut, will be explained later on)

GREEN DEAL

3. GDCF Programme

By monitoring progress of (circular) performance at these two levels, we are able to assess whether member festivals put sufficient effort in achieving their goals, and whether the Green Deal in its entirety moves into the right direction at the desired pace. After each festival-season, a dashboard is created that provides insight in performance of both participants as well as the Green Deal as a whole.

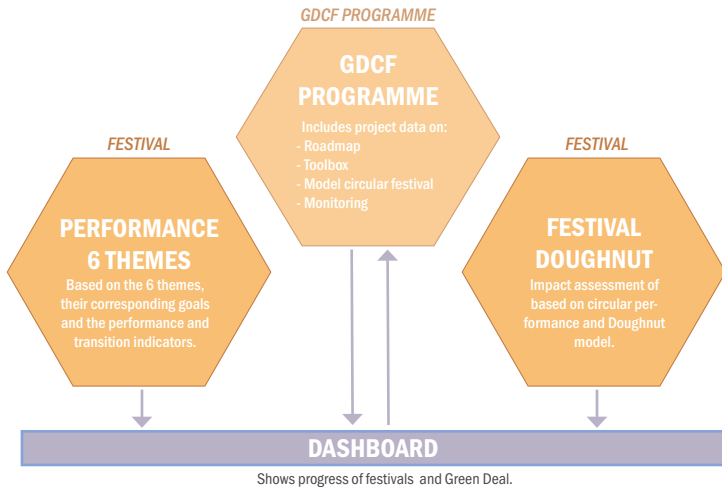


Figure 3: The elements of the Green Deal Monitoring.

1. PERFORMANCE ON 6 THEMES

This monitor shows how the individual festival performs in terms of circularity, based on the 6 themes of a circular festival. It measures the effects of shifting to circular practices by quantifying changes in selected indicators per theme. For the Circular Performance Monitor, we combine quantitative (**performance indicators**) as well as qualitative indicators (**transition indicators**) in order to capture both trends in preserving the (economic) value of products, materials and resources as well as other, deeper-level trends, such as driving awareness, increasing efforts to change internally, and building a new socio-economic paradigm from the ground up.

ENERGY	Share of renewable energy (%)
	Energy consumption per visitor (kWh/MJ)
	Energy carrier (type)
RESOURCE EFFICIENCY	R-ladder score
	Material consumption per visitor (kg/tonnes)
PLASTICS	R-ladder score
	Plastic consumption per visitor (kg/tonnes)
WATER	Freshwater use per visitor (liters/m3)
	Nutrient recovery rate (%)
FOOD	Impact food menu (CO2/m3w water/acres land)
	Food waste prevented (%)
	Food reused (%)
TRAVEL & TRANSPORT	CO2-emissions visitors/suppliers/artist (tonnes)
	Promotion of clean modes of travel and transport

*Per visitor indicators are always measured per festival day.

Figure 4: The 6 themes and the corresponding indicators.

2. ENVIRONMENTAL IMPACT

The only thing that the 6 themes lack, is a boundary. Therefore, this monitor measures the environmental pressures of the festival and compares that to the ecological boundaries that are set for that particular festival. For this environmental impact assessment, we make use of the **Doughnut Economy** model of Kate Raworth (2017). The data that we collect of the festivals will be modelled and processes in such a way that we are able to translate raw data into environmental pressures, corresponding to the pressures of the Doughnut model. This monitor we call the Festival Doughnut, and will be executed as a baseline in 2020, mid term in 2023 and at the end of the Green Deal in 2025 for the final results.

DOUGHNUT ECONOMY

The Doughnut of social and planetary boundaries offers a global compass for humanity in the 21st century, envisioning a world that meets the needs of all people within the means of the living planet (Raworth 2017). The social foundation is derived from the social dimensions of the UN Sustainable Development Goals, setting out the minimum standards of living to which every human being has a claim (UNGA 2015). The ecological ceiling comprises of nine planetary boundaries, drawn up by Earth-system scientists to define Earth's critical life-supporting systems and the global limits of pressure that they can endure (Steffen et al, 2015). Between the two sets of boundaries lies a doughnut-shaped space that is socially just and ecologically safe for humanity.

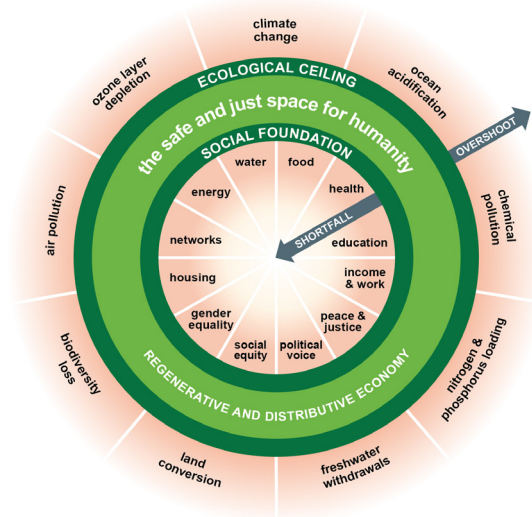


Figure 5: Visualization of the Doughnut Economy by Kate Raworth .

THE FESTIVAL DOUGHNUT

We are currently developing the very first “Festival Doughnut”, a new theoretical framework for festivals and events that provides ecological boundaries, while also looking at the social foundations. The ecological boundaries represent the maximum pressures that a festival can put on the environment. These ceilings represent caps on environmental impacts such as air pollution, freshwater withdrawal and chemical pollution. In turn, an inner, social boundary represents human needs which must be met. This foundation is measured by assessing access to fundamental demands such as food, energy, and transport. As festivals, we need to operate in between both boundaries: the safe and just space.

Not all pressures of the global model of Raworth are present or relevant within the ecosystem of a festival. Therefore, in the Festival Doughnut we have decided to only work with a limited number of pressures, being the emissions of CO₂ and NO_x, freshwater use, residual waste and chemical pollution. Find a very first sketch of a Festival Doughnut below, indicating the relative impacts on the selected pressures, including an ecological boundary, depicted in green. This represents the ecological ceiling of that particular pressure. Overshooting is not desired, undershooting is.

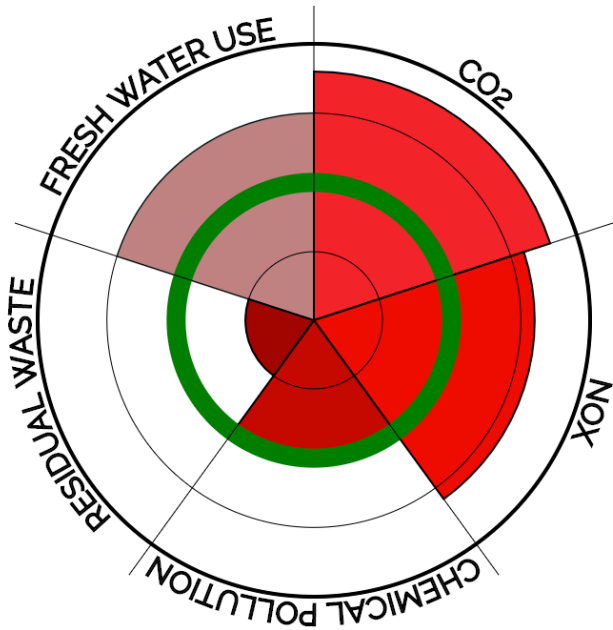


Figure 6: The first sketch of the Festival Doughnut.

Of course, the pressures are not solely caused by one single theme or system. Therefore, we enable the viewer of the Doughnut to hover over the pressures and click on them. After clicking, a barchart appears that provides insight into the systems that cause the impacts, such as mobility or food. Find the example for the emissions of CO₂ below in figure 7. This will be available for all impact dimensions.

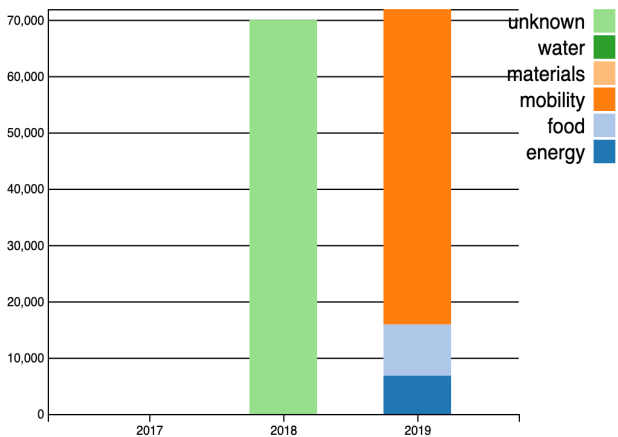


Figure 7: Bar chart with themes per impacts dimension, in this case CO₂ emissions.

BOUNDARY ALLOCATION

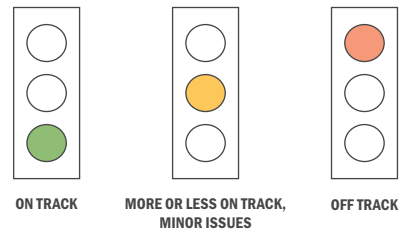
Most Planetary Boundaries, as defined by Steffen, et al. (2015), are global. The city's share of the global boundary (its boundary allocation) is calculated using a simple per-capita approach that allocates all people in the world an equal annual share for each pressure. After that, the city-boundaries are downscaled from city to festival-level by dividing the city boundaries by the number of visitors and days.

3. GDCF PROGRAMME MONITOR

The programme monitor is needed to measure the progress of the programme; the progression of the actions of the participating festivals and progression on the overarching actions of the programme management team. Completed actions need to be evaluated.

Monitoring actions of the participating festivals

Participating festivals will fill in a form about the progress on their actions annually. They need to report whether they are on track with their actions. If the festival isn't on track they need to give a short description why they are off track. The progress of the actions of the festivals will be shown with a 'traffic light':



Monitoring the overarching actions

The programme management team will monitor the progress of development of the:

- Roadmap
- Toolbox
- The model for a circular festival
- The monitoring of circularity and impact of festivals

Evaluation of completed actions

For completed actions a few questions need to be answered, to see the effect of these actions. This information can be used to decide whether these actions are 'best practices'. The best practices will be incorporated in the toolbox and the model of a circular festival. These questions will be about:

- What was the effect of the action (positive/negative)?
 - As quantitative as possible
- What was the cost/effort needed for this action (approximately)?
- Will you do this again next year?
- Would you recommend other festivals to do this?

GREEN DEAL CIRCULAR FESTIVALS

MONITORING FRAMEWORK

AUTHORS

Xander Kotvis

x.kotvis@revolutionfoundation.nl

Guido Israels

guido.israels@rhdhv.com

