



CCMVV1801E

Consulting for Sustainability - Harnessing
Business Models and Innovation

Written product - 23.05.2019

Sustainability case #3 - Waste reduction at Folkemødet

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Part A – The Management Report

Problem definition

The Folkemødet festival, an annual Political event hosted on the Danish Island Bornholm inviting people and politicians for 4 days, is providing the framework for events about current political issues. Whereas sustainability and addressing our current environmental problems are integral contents of these debates and presentations during the festival, it has become evident that the festival itself is lacking sustainable

approaches in context of its organizational execution. Not only the rapid increase from a modest gathering of 10,000 visitors in 2011 to over 113,000 visitors in 2018 (Folkemoedet.dk (2019) *Tidligere Folkemøder*), but also the remote venue of the festival taking place on the island of Bornholm cause this deficiency. Folkemødet is currently struggling to adapt to these changes and is in need for a sustainable solution to reduce the amount of waste caused by the festival.

To create a holistic solution of waste reduction, not only various sources of waste at the festival have to be considered, including disposable tableware and similar “use and throw-away” materials, but also the management of the different stakeholders at Folkemødet. Consequently, a problem solution is required, which tackles identified issues in context of waste production caused by festival participants, and additionally aims to create awareness for a more sustainable behaviour of all participants during the festival. To create this connecting solution, organizers and participants, which includes stand owners, organizations, visitors and the leadership of Folkemødet itself have to be involved in the development of a more sustainable Folkemødet.

Furthermore, the latest EU-regulation about banning all single use plastic until 2021 is putting additional pressure on Folkemødet to exclude these kinds of products within the next two years from their festival ground. But also, the Sustainable Development Goals (in context of this project mainly goal number 12 for a more sustainable consumption and production) should be seen as an overarching objective for the festival and force Folkemødet to make its contribution to a more sustainable future.

Problem analysis

The problem was analysed using the methodology of the action research spiral strategy. The purpose and context of the action research were posed by the case: the reduction of wastes at Folkemødet, mainly single-use plastic tableware, and the local and international context in which Folkemødet is part of. The research process was iterative, translated into several cycles. Throughout the process, the phases of the cycles became more and more precise, for instance a sharper diagnostic, or a diagnostic of a specific element only. The actions taken were in the mean of information search, which also became more and more precise along the process. The first cycles were focused on gathering a lot of diverse information, while the later ones were focused on reaching out to specific individuals to find specific information. Several experts have been contacted along the action research process, contributing to the elaboration of the paper, and the process will pursue by the participation of some group members at Folkemødet.

Main findings and subsequent proposals

The report finds that Folkemødet is situated in a favorable position regarding possible new innovations in sustainability, with a political climate generally eager to take action. As Folkemødet is financially not equipped for heavy investments, though, this has been taken into consideration when developing proposals.

As such, the report proposes five tangible initiatives going forward for Folkemødet:

The first proposal is a redesign of the application form for food stalls, aimed at promoting accountability and incentivizing sustainable innovation from food stalls owners at Folkemødet. Being a technical “fix”, the implementation itself is estimated to require relatively little from Folkemødet. The main challenge for this proposal is deemed to be implementing an efficient and affordable system for administering deposits with food stall applicants. Within the application form, a video application format rewarding the most innovative sustainable solutions is proposed, with the intention of fostering an idea generating environment for the food stall applicants. In relation to this, a secondary challenge is a possible “cold start”-problem related to a video application competition, where the first one or two years most food stall applicants may be less concerned with the competition due to low publicity and low initial competitiveness between food stall applicants (or perhaps even a shortage of applicants).

The second proposal includes making the exclusive use of biodegradable plates, bowls and cutlery mandatory for all food stalls, while setting up a partnership with a provider of biodegradable tableware (Eat a Plate) that can help simplify the logistic challenges for food stall applicants. The target for this proposal is to eliminate single-use plastics for the food offers at Folkemødet, at least over the stalls the festival has control of. The greatest challenge for this proposal is implementing a system that ensures that food stalls do in fact not use plastic tableware, requiring a at least some minimum of inspection of food stalls that choose not to use Folkemødet’s provider of biodegradable tableware.

The third proposal is to set up a large number of clearly marked DropBucket waste bins across the festival site with the intention of increasing the amount of trash sorted properly for recycling by participants, and create a cleaner looking festival, where less trash ends up in the ocean. The biggest challenge for this proposal is probably the initial cost of investing in the Dropbucket waste bins. The proposal puts high trust in the viability based on successes in similar use cases (Roskilde Festival, among others), but this

may not be enough to make a convincing business case to the Folkemødet's leadership, posing a possible challenge.

The fourth proposal is to implement a refund system on reusable, washable beer cups with the aim of reducing waste from single-use beer cups. As Carlsberg is currently testing this system, a full-scale implementation at Folkemødet may be some time away still, posing the proposal's biggest possible challenge, not least in regard to possible extra staffing.

The fifth proposal is an idea generation lab for festival participants materialized in a large blackboard installation, with the goal of urging festival participants to get involved and list their ideas for sustainable innovation at Folkemødet. While there is inevitably some costs related to creating such an installation, the scalability of this idea, may mean its biggest challenge, is potential cost of staff for the potentially heavy and manual data analysis involved in Folkemødet gathering the ideas effectively, as the proposal would lose most of its purpose if data collection were to be down-prioritized.

Part B – The Full Report

1. Introduction

1.1 Justification & relevance of the project

Bornholm, a Danish island in the Baltic Sea, is known for its fishing villages and for being the sunniest place in Denmark. Besides being a famous and popular resort for not only Danes, the island is hosting the Folkemødet Festival, Denmark's annual Political Festival. Since 2011, Folkemødet invites people and politicians for 4 days to Bornholm, to debate current political issues and to participate in the comprehensive program - all events are free (Folkemødet, 2019). The festival has developed from a modest gathering of 10,000 visitors to over 113,000 people attending in 2018 (Folkemødet.dk (2019) *Tidligere Folkemøder*) and created more and more challenges for the Bornholm's residents, but especially for Folkemødet's hosts. Whereas sustainability and the protection of the environment are integral contents of the debates and presentations during the festival, it becomes more and more evident that the festival itself is lacking sustainable approaches in context of its organizational execution. Not only the rapid increase of visitors and participants, but also the special, but remote venue of the festival led to that deficiency. According to Emil Juul-Pedersen (Appendix 1), the person in charge of sustainability at the festival, the exceptionally huge amount of waste produced at a festival of Folkemødet's size is currently seen as one of the main problems of the festival, due to the limited infrastructure and small size of Bornholm.

While the size and number of visitors increased rapidly in the last years, the team behind Folkemødet did not that much and consequently needs support to address this challenge. Because of that, the authors of this paper developed sustainable solutions in the context of waste reduction at the Folkemødet festival. The approach considers not only various sources of waste at the festival, such as disposable tableware and similar "use and throw-away" materials, but also the management of the different stakeholders at Folkemødet. Organizers and participants, which include stand owners as well as organizations and visitors have to be involved to create a holistic approach of waste reduction at the festival. This is leading to the following research question for this paper:

How can Foreningen Folkemødet reduce the amount of waste at Folkemødet, specifically disposable tableware and similar "use and throw-away" materials?

and the following sub-question: *Can we guide the increasing number of actors at Folkemødet in ways of attending in a more sustainable way as an organizer or stand owner? E.g. reduce their amount of waste and material production.*

This paper is organized as followed. After the introduction, which presents project design, the paper's methodology and its positioning in research-based context, the Folkemødet festival and its key characteristics is described in Chapter 2. The following Chapter 3 includes the main component of this project report – the presentation of the solution, developed for reducing waste at Folkemødet. Every solution will first be described on the basis of its findings and subsequently discussed. Chapter 4 concludes the paper and reflects critical on the whole devolvement process of this project.

The solution presented in this paper consists out of several ideas, all contributing to one objective – reducing waste at Folkemødet. Instead of focusing on a single idea, this project follows a more tangible approach and combines rather *easy-to-implement* ideas. In that way, the project can ensure the involvement of all stakeholders at the festival. Further this procedure is based on the limited financial resources Folkemødet can provide in this context. Despite the low investments, this approach can lead to a maximum output. In total five initiatives were developed: four of the initiatives tackle identified issues in context of waste production caused by festival participants and lead to more sustainable processes during the festival, whereas the fifth is aiming to create awareness for sustainable behaviour and involve all participants in the development of a more sustainable Folkemødet and thus create one connecting solution.

Those two practices are based on the theory of the push–pull strategy (Dowling, 2005, p.266) and will be presented in detail in Chapter 3. In the context of the *Sustainable Development Goals* (SDGs) the developed initiatives aim primarily for more sustainable consumption and production (goal number 12), but further intend to create awareness for a more sustainable behavior and the responsibility of all participants at the festival (United Nations, 2019).

All in all, changing the behaviour of all involved stakeholders, including participants, involved organizations, food stalls and visitors as well as the event organizers, can be seen as the overall mission of this project.

1.2 Project design and methodology

The case can benefit from many studies and research.

First, of all, the Living Lab concept has emerged in the past years, generating a lot of attention from scholars, businesses and teachers (Ballon et al., 2015). The Living Lab is regarded as an open- innovation approach, where multiple stakeholders are brought together to co-create value, potentially leading to innovation (Veeckman et al., 2013), around a broad range of themes (Ballon et al., 2015). The sustainability challenge, finding the nexus between societal, economic and environmental dimensions (Ballon et al., 2015), impacts numerous stakeholders, for which the Living Lab concept permits these different stakeholders to gather and join their effort toward the same objective, in the context of the festival, how to make Folkemødet more sustainable. The stakeholders at Folkemødet are the political participants, the visitors, the food stalls, Tuborg (being the official drink provider) and Folkemødet itself, all having different motivations, interests and experiencing Folkemødet differently. Hence, it is relevant to use this concept for the case, to have these stakeholders interact and generate ideas together, ideas to make the festival more sustainable.

Second, academicians studied littering behaviour, which findings can be of use for the case. It has been found that giving incentives are an effective way to reduce littering, however the solution is costly, and the good behaviours will stop as soon as the incentives stop (Burgess et al., 1971). Kort et al. (2008), proved the importance of norms regarding desirable littering behaviour, which was activated via pervasive trash bin design. Dwyer et al. (1993) concluded that, “in general, antecedent strategies appear more cost-effective than consequence strategies”. In their study, Bator et al. (2011), proved that the location, number and accessibility of receptacles are crucial elements affecting the littering behaviour.

Third, despite not being the core of any academic research, the “Clean Out Loud” project developed by Roskilde festival is proving that the correct nudge can trigger the desirable behaviours in an environment similar to Folkemødet. Since its creation in 2011, the project has become more and more successful over the years, developing an eco-friendly process and mentality (Roskilde-festival.dk, 2019). The correct nudge has to be found at Folkemødet, to trigger the desirable sustainable behaviours.

1.3 Data sources and collection

To conduct this project, the student researchers collected data in two ways: primary and secondary. Secondary data was collected in the mean of academic articles, data from other festivals and written information that was send by the various stakeholders they encountered.

Primary data was collected by various means: meetings, phone calls and emails:

- Mr Emil Juul-Pedersen was contacted throughout the semester by email for various information regarding Folkemødet,

- Mr Pelle Nybirk, communication responsible for Folkemødet, gave us data on mobile application downloads and email list of participants at Folkemødet,
- Mrs Heida Nolsøe, cofounder of DropBucket, was contacted by phone the 28th March,
- Mr Martin Lehrmann, sales manager from Eat A Plate, was contacted by phone the 4th of April,
- Mrs Line Amtorp, Sustainability Manager from Carlsberg/Tuborg was contacted by email 7th of April
- Mrs Beck-Nielsen, Marketing Associate Tuborg from Tuborg was contacted by mail 2nd of May
- Mrs Irena Bach Thovtrup, Marketing & Communication Coordinator of Danish Crown Beef, was contacted the 12th of March because of their previous participation as a food stall at Folkemødet.

Each of these stakeholders are experts in their field and were only asked about their field of expertise, hence, the reliability “the extent to which your data collection techniques or analysis procedures will yield consistent findings” (Saunders et al., 2009) is considered high. The validity, being “whether the findings are really about what they appear to be about” (Saunders et al., 2009), is also not considered as an issue, since History, Instrumentation and Maturation, the major threats to validity (Robson., 2002), are not applicable in the data collection with the experts.

1.4 Analytical framework

The analytical framework lies on the action research spiral strategy (see figure 1), which focus is the research in action and where the findings are the result from “involvement with members of an organization over a matter which is of genuine concern to them” (Eden and Huxham, 1996). The action research spiral starts within a specific context and with a precise purpose. In the case at hand, the context is multiple: Bornholm’s 2032 strategy if being waste incineration free, the ban of single-use plastic that will be enforced in 2021 in the European Union, the increasing number of visitors during Folkemødet and its increasing amount of wastes produced. The purpose is to reduce the amount of waste at Folkemødet, specifically targeting the disposable tableware. Knowing the context and purpose, a first diagnostic was done by the students’ researchers, in which a critical analysis was conducted, which enabled to break-down the problem into smaller and simpler elements. During this phase, initial ideas were generated. After, a plan was elaborated, where tasks were listed and divided among the group members. The first actions were then conducted, which, firstly, were mainly the search for more information regarding the initial ideas. Thereafter, the evaluation phase was in the mean of meetings, where all the information gathered during the action phase were shared, discussed, leading to a re-assessment of the initial ideas.

This iterative process went through the same phases every time, each new cycle being more precise in term of diagnostic and action plan, where specific information had to be found, or specific persons were to be contacted. Despite the hand-out of the report, the action research process is not over, and will continue during and after Folkemødet. Indeed, the presence of the student researchers at Folkemødet is a research cycle in itself, and the information extracted will lead to another research cycle.

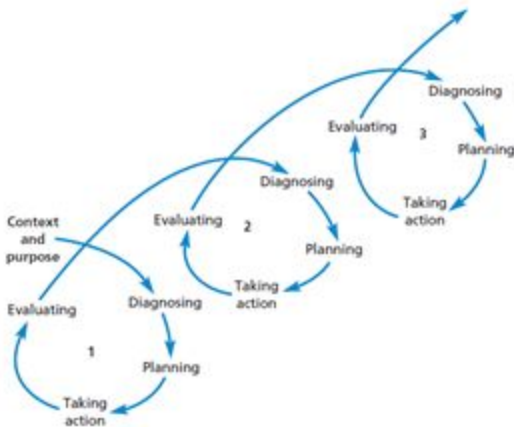


Figure 1: The action search spiral - Saunders et al., 2011

2. Case description and its external context

This section will do a general walk through of the development in sustainable actions on a political level, first starting at a global perspective, then moving to Europe, then going to Denmark, then zooming in on Bornholm and then finally looking at how Folkemødet is trying to fit into the wave of sustainable development.

In 2015, 195 countries signed the Paris Agreement. The agreement is a legally binding global climate deal which is part of the United Nations Framework Convention on Climate Change and the first of its kind (European Commission, 2019). The same year, United Nation member-states adopted 17 global development goals (SDGs), which provide a shared blueprint for peace and prosperity for people and the planet (United Nations, 2019). The SDGs are a part of the United Nations General assembly, by transforming our world: the 2030 agenda for sustainable development (United Nations, 2015).

From an European perspective, the parliament of European Union voted to ban certain single-use plastic products such as plastic straws, single-use plastic plates and single-use plastic cutlery (forks, knives, spoons and chopsticks) by 2021. Furthermore, member states will have to achieve a 90% collection target

for plastic bottles by 2029 (European Parliament, 2019). The month following, March 2019, EU research & innovation Magazine Horizon revealed that many experts believe the planet is in the middle of the sixth mass extinction of biodiversity and that humans are the cause (Horizon, 2019). The same month Greta Thunberg a 16-year-old girl from Sweden started a global movement *School strike for climate* which is a demonstration that demands more action to prevent climate change (Watts ,2019).

In Denmark, *The Danish Strategy for Sustainable Development* crafted in October 2014, contain 23 objectives related to financial, social and green sustainability. The strategy does for instance state that; *all of Denmark's energy supply, including transport, must be covered 100 percent of renewable energy in 2050* (Regjeringen, 2014). Furthermore, Copenhagen Municipality aims to become the first carbon-neutral capital in the world by 2025 through the initiative *CPH 2025 Climate Plan*, which covers four main areas: energy consumption, energy production, mobility, city administration initiatives (København Kommune, 2019). In 2016, 21,2 percent of Denmark's total export came from green export-related industries and accumulated for 51,200 of total jobs (State of Green, 2019). Denmark was ranked as the best country in terms of renewable energy supply in 2016 (Wittrup, 2016) and the fourth most sustainable country in 2017 (CSR, 2017).

In conjunction with Folkemødet 2018, Arla conducted a study of Danish people knowledge and attitudes towards sustainability, along with their behavior towards living in a sustainable way (Skovlund, 2018). According to the study, 76 percent of Danes see sustainable living as important, but 64 percent believe it is difficult to find out what sustainability is. Moreover, 36 percent of Danes have made great efforts to live more sustainable, but 65 percent want to become more sustainable. The majority of people in the study believed it is the consumers shared responsibility to ensure a more sustainable development.

Needless to say, sustainability has not just become trend, but a way for regulators, organizations and citizens to shape the future together. Consumers demand more action and are willing to live more sustainable. This has also received more attention from festivals around the world. One example of this is *A Greener Festival*. The non-profit organization helps festivals become more sustainable and reduce their environmental impacts. Since its origin, it has assessed and analysed almost 500 events across 5 different continents through 10 different categories (Appendix 1). Furthermore, the report *The show must go on*, written by the non-profit think-tank Powerful Thinking, provides a robust basis for an industry-wide approach to reduce environmental impacts for festivals (Klein, 2015). As part of this report, 40 festivals in United Kingdom has pledged to half their emission and obtain 50 per cent. recycling rates by 2025

(Riach, 2016). At the same time, festivals themselves have taken a lot of measures in order to become more sustainable, such as Denmark's largest festival, Roskilde Festival (Roskilde-festival.dk, 2016).

At Bornholm, Bornholms Waste Management service (BOFA) has a vision to become the first region in Europe without waste incineration. The vision is rather bold, but also inspiring. The slogan “Bornholm showing the way – without waste 2032” (Bornholms regionskommune, 2019) has received not just domestic interest but also attention from the global community (Gunn, 2019). Although this is just a vision, it indicates that people and the municipality of Bornholm are sharing a collaborative effort of changing the island for the better, and Folkemødet has a unique opportunity to be part of this change.

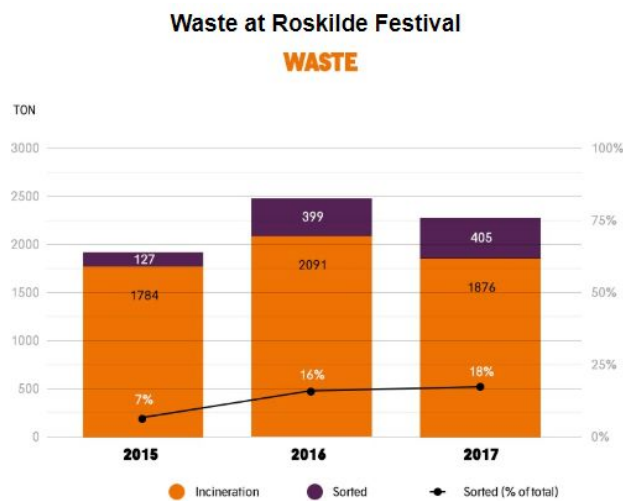


Figure 2 Showing amount of total and sorted waste at Roskilde 2015-2017 (Roskilde Festival (2019) *Waste & Recycling*)

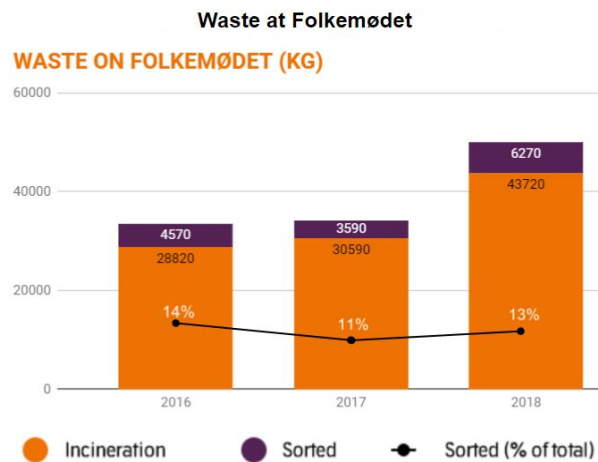


Figure 3: Showing amount of total and sorted waste at Folkemødet 2015-2017 (Data representation based on data from *Appendix 14* supplied by Folkemødet)

The above two data presentations (Figure 2 and Figure 3) were included in a presentation in class done by the project group (see *Appendix 15* for the full presentation slides) for comparing recycling efficiency between Roskilde Festival and Folkemødet.

The percentage of waste sorted at Folkemødet in 2018 was a total of 13 percent (6270 kg) whereas in 2016 it was 14 per cent (4570kg). Although the total amount of waste was far higher in 2017, Folkemødet faces huge problems sorting waste correctly. Comparing this to Roskilde Festival, they have since 2015 increased the percentage of sorted waste significantly. Whereas in 2015 sorted waste was a total of 7 percent (127 ton) and in 2017 18 percent (406 ton). Currently, the Folkemødet has taken measures by firstly employing their own Sustainability Manager Emil Juul-Pedersen, and secondly, shown willingness

to provide financial resources to the cause (this is however not yet specified). It is clear that Folkemødet's attitude towards changing for a more sustainable business model is present. However, there is still a lot of work to be done. Based on the project team's research, workshops, discussions and collaborative team effort, the aim is to help Folkemødet to reduce the amount of total waste and increase the percentage of sorted waste. The next section will outline in detail the developed solutions.

3. Description & discussion of the developed solutions

This section will give an overview of the report's findings. It will describe and discuss 5 potential solutions Folkemødet can implement in order to reduce the amount of waste at the festival. These are based on primary and secondary research including reading literature and articles as well as personal interaction in email communication and phone calls with both Folkemødet and various stakeholders from different organizations. As Folkemødet currently is in a immature state of initiatives related to waste reduction, and EU ban on one-time plastic soon to be enforced, the project team believes that instead of only focusing on one specific solution, there is a huge potential for several initiatives to be implemented in a relative short timeframe at Folkemødet.

For consistency, each idea will be presented with its findings, directly followed up by a discussion.

3.1 Biodegradable tableware

Findings

Folkemødet is currently using single-use plastic plates and cutleries at its food stalls, hence, a solution to reduce single-use plastic is to switch to biodegradable plates and cutleries. This change will dramatically contribute to reduce the amount of plastic generated during the festival, since, with more than 150,000 visitors (Folkemødet, 2019), who need to eat at least two times a day, during 4 days, the potential amount of single-use plastic plates and cutleries used exceeds 1,200,000 units.

See appendix 3 why paper tableware have not been proposed, and the advantages of the biodegradable tableware.

The bran used for the production of the tableware is a natural by-product from milling, usually treated as a waste by the industries. Implementing the use of wheat bran tableware at Folkemødet is supporting the valorisation of waste and contributes to the circular economy, as shown in appendix 4, in line with the SDG 12 "Ensure sustainable consumption and production patterns".

The company *Eat A Plate*, Copenhagen based, offers this kind of products, and has already supplied one food stall of Folkemødet in 2017. Mr Lehrmann, sales manager, contacted by phone (Appendix 5), affirmed the positive impression and feedbacks the food stall got from visitors, confirming that visitors are ready to be served with biodegradable tableware. This also confirms that such solution makes sense for Folkemødet, and should be implemented. The range of products offered (6 different types of plates, 3 types of bowls), makes the offer attractive and with high chances to satisfy the needs of the food stalls.

The company *Eat A Plate* is delivering its products to the venue of customer. Mr Lehrmann, reflecting on their delivery experience in 2017, explained the challenge they had to face, because of Folkemødet's geographical situation. Indeed, the traffic Sweden – Bornholm highly increased, but not the frequency of the ferry, creating bottleneck and the *Eat A Plate* delivery truck to be stuck on the continent. This past experience shows the importance for Folkemødet to implement a single solution for the tableware, with potentially a single partner – *Eat A Plate*. Despite being a public organization, Mr Juul-Pedersen confirmed that Folkemødet is not entitled to send out a bid, but is free to choose its partners and make agreements. Having a single partner for the supply and delivery of the festival will create the need for a better logistic regarding the delivery to Bornholm, and the delivery of the tableware will be prioritized for accessing the ferry.

This single partnership requires the Festival to change the current supply and delivery process, where each food stall has to supply itself in tableware. A system can be imagined, as presented appendix 6. In this system, Folkemødet and *Eat A Plate* enter in an agreement, in which a discount can be negotiated, discount food stalls can benefit from when ordering directly to *Eat A Plate*. A bulk delivery is then organized prior to the start of Folkemødet, the partnership ensuring the priority of this delivery to Bornholm.

In this system, Folkemødet and *Eat A Plate* develop a partnership, but the food stalls are not obliged to supply themselves to *Eat A Plate*, they are free to supply themselves to another company, as long as the tableware are biodegradable. However, the partnership ensures the food stalls to benefit from a discounted price and the delivery is ensured.

The biodegradable tableware offers the advantage of being disposable in a single bin, without the current necessity for the visitors to sort between the leftover food and the plastic tableware. This solution is

visitors-friendly, as the visitors do not have to think anymore about sorting correctly. In addition, they will be able to find plenty of bins for biodegradable wastes, as explained more in details in part 3.3.

The solution of enforcing the use of biodegradable tableware at Folkemødet is directly answering the urgent need of the festival to reduce single-use plastic. With more than 150,000 hungry visitors, and with a growing affluence, Folkemødet needs to act concretely on the way food stalls are delivering food. Using biodegradable tableware is a tangible and fast-to-implement solution (2020). The idea has been presented to *Eat A Plate*, which is willing to engage the discussion with Folkemødet. In addition, the tableware are tangible elements the visitors can interact with, concrete proof of Folkemødet becoming more sustainable and actively contributing to the SDG 12.

Discussion

The partnership developed with *Eat A Plate* would require Folkemødet to negotiate the prices and arrange the logistic side with ensuring the delivery truck to arrive on time to Bornholm. This organization represents a certain workload that needs to be carried out before and during the festival, for which Mr Juul-Pedersen affirmed that Folkemødet does not currently have the capacity to follow through such arrangement (Appendix 7). To carry-out the successful implementation of such organizational change, Folkemødet needs to allocate resources in people and time.

Biodegradable tableware are significantly more expensive, Mr Lehrmann send the pricelist of their products (Appendix 8), from which a price comparison can be elaborated, compared to single-use plastic tableware. In the example of a regular 20cm wide plate, the cost of the plastic version would be around 0,13DKK (GET Marketing, 2017), while the biodegradable version of *Eat A Plate* is of 2,67 DKK. Using biodegradable tableware is on average 20 times more expensive than single-plastic tableware, which is a heavy financial investment from the food stalls. The partnership and the discount Folkemødet would negotiate with *Eat A Plate* is vital for the food stalls to engage with the rule, but the exact switching cost would depend on the discount negotiated. The ratio being so important, it seems quite unlikely that the discount would cover entirely the switching cost, implying that the food stalls would possibly rise their prices to the visitors of Folkemødet to cover the costs.

Having all the food stalls using biodegradable tableware would not mean the complete disappearance of single-use plastic tableware, since the standard would only apply for the food stalls registering through Folkemødet while local restaurants and food places in Allinge would not be entitled to follow it.

Restaurants and food places of the island are setting-up food stands in front of their boutique, free to use tableware of their choice.

Despite the challenges posed by the implementation of the use of biodegradable tableware for food stalls, it is an initiative that Folkemødet need to take in 2020. Indeed, the EU Parliament voted the ban of single-use plastic, which will be enforced in 2021, hence in 2021 Folkemødet's food stalls would need to supply themselves in non-plastic disposable tableware. Imposing the biodegradable tableware use in 2020 is a proactive action, which should be perceived as a "trial year", for Folkemødet and the food stalls to experiment, possibly make mistakes, and learn from them, so they can reflect, adjust and have a successful system running for 2021. The ban of single-use plastic at the EU level will certainly create new and increased demand for biodegradable tableware, which mean the arrival of more competitors on the market, hence a decrease in prices. One can imagine that *Eat A Plate* will decrease its prices to remain competitive, and, if not satisfied, Folkemødet will benefit from a larger range of suppliers to develop partnerships with.

3.2 Refund system

Findings

Beers and festivals tend to often go hand in hand. While participants enjoy their cold beer in the summer sun, in most cases, they are distributed in one-time-use plastic material. This has also been the case for Folkemødet until now. Although there is lack of available data on how many beers an average festival participant over 16 consumes, hypothetically, if 2/3 of participants consumes 3 units of beer each day, this would amount to approximately 200,000 plastic cups during the festival period.

Our solution gives Folkemødet the opportunity to terminate the use of single-use plastic cups by embracing the capabilities of already established partnerships and reduce volume of waste sent to the landfill. Tuborg is the main provider of beer at Folkemødet, and in 2019, Tuborg announced they will be launching a solution for recyclable plastic glasses for the four largest festivals in Denmark, Roskilde Festival, Tinderbox, GRØN Festival and NorthSide (Skovdal Jepsen, 2019). The initiative is a collaboration between Tuborg and the festivals themselves with shared costs and investment. The cups are made out of polypropylene, which can be classified as "thermoplastic" and can handle high degree of heat, hence can be put in the dishwasher without any problems (Creative Mechanisms Staff, 2016). Although this was made publicly in April 2019, the project team approached two different stakeholders in Tuborg/Carlsberg before the announcement. Line Amtorp (Sustainability Manager Carlsberg) and Anne

Dorthe Beck-Nielsen (Marketing Associate Tuborg) provided the project team with useful insight into how the process works, but also with the likelihood for Folkemødet to implement a similar solution in 2020 (see appendix 9 & 10). In fact, Tuborg is going to be present at Folkemødet 2019 to showcase the dishwashing machine.

The festivals themselves decide the setup for the cups and where they should be sold, whereas Tuborg delivers a 13 metres long dishwashing machine in order to clean the cups on a regular basis. It leaves however the festival in charge to create a system that suits their needs. The aim is to expand Tuborg's current solution by implementing a refund system for cups, as this is not currently present. Firstly, it builds on similar already commercialized concept of the "pant" system in Denmark. Secondly, it is an already established and socially accepted concept consumers already are familiar with, by promoting a reward-based system. With the proposed solution, participants pay a initial deposit of around 20 DKK for a cup and if they want a refill, the deposit is subtracted on the following order. Proof of paid deposit can be given in form of a stamp or a ticket made out of sustainable material. When participants choose to deliver their cups, they will have the choice to either donate their deposit to a local sustainability cause at Bornholm or receive their money, again similar to the pant system. This cause can either be done in collaboration with Bornholm municipality or driven by Folkemødet themselves.

Discussion

As mentioned previously, it does not seem that Tuborg offers a refund system, but rather a solution that is based on participants' trust by bringing their cups back to the beer booth voluntary. Indeed, this might work well and implies that festival participants create the necessary awareness and responsibility themselves. However, this can potentially end up in a similar situations as traditional ways of serving beers, whereas instead of single-used plastic laying around the festival area, there is now recyclable plastic cups. Moreover, refund systems have already proven to be successful in other large festivals that are promoting a sustainable behavior such as DGTL in Amsterdam (DGTL, 2016). The project group acknowledge that there are many ways to do a refund system for a festival, and that the proposed solution is not absolute.

If Folkemødet is to collaborate with Tuborg, they are not allowed to customize the design of the cups themselves. Tuborg will be the provider of the cups and one key aspect of their solution is that their cups can be reused over again across different festivals. Potentially, by allowing Folkemødet to customize the design for the cups, it could give increased brand value. On the other hand, the current solution does not

require Folkemødet to spend time and resources on designing the cups, look for new suppliers or store the cups on, or off site.

For a refund system, it is important that the process is easy to understand and operates both from booths selling the beer and participants approaching the booths. If the system is poorly designed, it will create confusion, longer lines and impatience. Hence, it is important that when a refund system is in place, both the sellers and participants have sufficient information available on how the process works. This can for instance be displayed in form of a “user manual” illustrated at the booth, or an additional stand can be setup close to the booth explaining how it works, and why Folkemødet believes this system to be important. This way it can create direct feedbacks on how the process works, generate discussion around waste reduction and provide information about the local sustainability cause. At last, Tuborg admits they had various issues as this project is in a somewhat unknown environment, without wanting to go into the specifics. However Beck-Nielsen states that “we are confident we have a good solution and we are very proud that we have been able to accomplish it together with 3 strong partners”(see appendix 9). It will indeed be interesting to see how their solution works for the given festivals and how Folkemødet can nurture the benefits from those, and implement a similar solution already in 2020.

3.3 DropBucket

Findings

DropBucket is a sustainable trash bin solution that can be implemented at Folkemødet to help people better sort their trash and thereby reduce waste at the festival. The current trash bin setup at the festival definitely leaves some room for improvement, where the different categories of waste to sort are not communicated clearly on the bins and the trash bin stations look messy due to overfilling of the containers. See figure 4 below.



Figure 4: Trash station at Folkemødet from 2018

To solve this issue the project team suggests Folkemødet to set up DropBuckets across the whole festival and especially in locations where people get trash items in their hands, for example near food trucks, political tents and bars. The DropBucket is designed so it is easy for people to see which trash items should go in which bin as the container is open in the top and has a big sticker on the side indicating if it is for plastic, organic or paper waste. See figure 6 below.



Figure 5: DropBuckets at Roskilde Festival



Figure 6: Stickers to put on DropBucket

The project team contacted Dropbucket and did a phone interview with one of the co-founder of the company, Heida Nolsøe (See email and phone call to Heida, appendix 11). What makes DropBucket special according to Heida is that the trash bins are made by 100% recycled material be it cardboard or plastic bins and the bins are foldable which means they are easy to transport and store away when not in use. The main reason for big music festivals in Denmark such as Roskilde, Northside and Tinderbox are using DropBucket according to Heida is that the nicely designed trash bins help the festivals to be cleaner as people are keen to throw their trash in the bin rather than on the ground when it is easy and convenient for them. If a site is clean people are also more aware of throwing out and sorting their trash thanks to a positive social effect where people are following the norm of sorting trash rather than being the one leaving trash on the ground because it is seen as bad manners by the surroundings and social environment.

Discussion

If Folkemødet decides to implement DropBucket on the festival as an addition to the traditional trash bins and containers they already have present on site, it would apply a big initial investment from the organisation. A permanent plastic rack is priced at 175 DKK per unit if bought in a shipment of hundred units, so the cost of purchasing DropBucket is fairly high. On the other hand, the plastic racks has a long duration time and can be used as many years as the organisation wants to. As well, the organisation

Folkemødet has openly stated its vision to become more sustainable in its operations why investing in Dropbucket solution would be a step in the right direction to achieve this goal.

Beside the money aspect, another challenge for the organisation would be to make sure the DropBucket bins are not overfilled with trash causing the same situation as the one Emil sent a picture of from last year with trash thrown on the ground around the waste bins. As of now, the organisation has an agreement with the local waste management that containers and bins are emptied once per day, but it would be better to increase this number to make sure people always are able to throw their trash down in the bin rather than leaving it on the ground (See email from Emil, appendix 7).

Last thing is the fact that the number of trash bins dedicated for organic waste will increase as these bins are needed for taking in the waste that the solution for biodegradable plates and cutlery will produce.

3.4 Application form

Findings

Currently, all actors wishing to sell their food at Folkemødet are required to fill out a form, requesting to have a spot for Folkemødet from which to feed their more than 100.000 hungry annual guests. Here, a series of requirements are listed, as well as general guidelines for the food stall applicants. In this section, each change to the current application is presented alongside its current version if relevant. In conjunction with the management report, the “source code” used for making the new proposal will be sent to the Sustainability Manager of Folkemødet, Emil Juul-Pedersen, for easy access, editability and potential future use for Folkemødet.

Proposed changes to the application form

Video application

Drawing on the living lab research thinking, the project group proposes the *option* to submit a video application in conjunction with the overall application for food stall owners wishing to sell food at Folkemødet. The developed incentive should be participating in the competition for the three most attractive locations on Folkemødet based on sales data from previous years. The winners, assessed by Folkemødet, are evaluated on the level of innovation in terms of sustainability and overall concept.

Deposit

It is proposed that the application form requires the applicant to agree upon paying a deposit of 10.000 DKK deposit in conjunction with the one-time fee covering expenses. The deposit is then to be reimbursed after the festival if the requirements stated in the application form have been followed.

Field for mandatory and exclusive use of biodegradable cutlery, plates and bowls

It is proposed that the exclusive use of biodegradable cutlery, plates and bowls is made into a requirement in the application form, and recommend Folkemødet partner with a provider to resell biodegradable cutlery, bowls and plates.

Higher level of accountability and higher transparency

It is proposed that every requirement present in the current application form is converted into its own field, needing to be explicitly accepted through a checkbox.

Discussion

Video application

UDVÆLGELSE

Folkemødet ønsker at sammensætte et varieret udbud af boder der kan dække vores gæsters behov. Samtidig ønsker vi et grønt og bæredygtigt Folkemøde. Derfor foregår udvælgelsen ud fra følgende principper:

Vi ønsker et varieret udbud ift. prisniveau
Vi ønsker et varieret udbud ift. udbud af mad
Vi ønsker en stor grad af lokale og/eller økologiske råvarer
Vi ønsker at nedbringe ressourcelastningen ved anvendelsen af biologisk nedbrydeligt service, pant på engangskrus eller lign.
Sidst men ikke mindst vil boder der har tænkt kreativt i forhold til udsmykning blive foretrukket. Se billedet nedenfor som inspiration.

Har du spørgsmål skal du ikke tøve med at kontakte os på mail forplejning@folkemoedet.dk.



Figure 7: View the full current application form in appendix 12A. appendix 12B.



Link til videoansøgning

Som en del af udvælgelsesprocessen bedes du/I indsende en videoansøgning, hvori forplejningsbodens bæredygtige initiativer beskrives eller demonstreres kreativt gennem en kort video på 1-3 minutter. Videoansøgningen vil vægte højt i udvælgelsen, og de mest attraktive lokationer på Folkemødet uddeles til de forplejningsboder, der laver de bedste videoansøgninger og opfylder kravene bedst. I udvælgelsen lægges der vægt på bæredygtighed, udsmykning, udbud, råvarer og kreativitet.

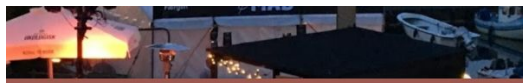
Your answer

Figure 8: View the full proposed application form in

With Folkemødet being an event now hosting more than 110.000 people, the project group assesses that the economic incentive in having a central location can act as a driver of sustainable innovation on the festival. Inspired by recent successes in the *Clean Out Loud*-area at Roskilde Festival, and directly founded in the idea of a facilitating a living lab, the video-application format can be used not only as an

incentive to gain certain benefits, but also to inspire others to produce and consume more sustainably through marketing. Thus, the scope of this particular concept is threefold: one, it can act in the sense of a living lab among the food stall applicants, driving community- and identity building and idea sharing for the content creators at Folkemødet through the effective format of video; secondly, it provides incentivization for acting more sustainably as a food stall owner at Folkemødet, accelerating sustainable innovation, and thirdly, the food stalls could potentially “lead by example” towards the festival participants. As seen on the above two photos, with the current application form on the left and the proposed addition to the right, the concept is not completely foreign to Folkemødet, as the current application form already calls for applicants to be creative and also has sustainability as one of the selection criterions. Another criterion in the current application form’s selection process is the stated desire from Folkemødet to use biodegradable tableware, which are proposed changed into a requirement (see 3.1 *Biodegradable tableware* of the report for the in-depth proposal).

Deposit



Folkemødet 2019 - Forplejning

Alle der ønsker at sælge mad eller konfekture på Folkemødet 2019 skal udfylde og indsende denne formular. Der er ingen ansøgningsfrist, da vi behandler ansøgninger løbende.

Inden du udfylder formularen henstiller vi til at du læser Folkemødets vilkår for madboder: https://folkemoedet.dk/media/1699/forplejningsbod_vilkaar_2019.pdf

GENEREL INFORMATION OG VILKÅR
Folkemødet 2019 afholdes 13. til 16. juni. Vi åbner torsdag den 13. juni kl. 11.30 og lukker igen søndag den 16. juni kl. 12.00.

Al salg af drikkevarer er forbeholdt Foreningen Folkemødet. Man kan derfor ikke som forplejningsbod sælge drikkevarer. Boder der udelukkende sælger juice er dog tilladt.

Foreningen Folkemødet stiller krav om at der forefindes minimum én vegansk eller vegetarisk ret på menukortet, samt at madboden giver 50% rabat på 50 madbilletter til Folkemødets frivillige.

Som forplejningsbod på FM19 betaler man et bidrag til Foreningen Folkemødet som udover deltagelse også inkluderer renovation, Wi-Fi samt markedsføring af forplejningsboden på Folkemødets platforme: foldekort, hjemmeside og mobil app. For en normalstørrelses foodtruck er bidraget 9.000 kr. ekskl. moms. Dertil kommer udgifter til arealleje, tilslutning til strøm, tilslutning til vand/afledning af spilte, leje af telt ect.

Brug af egen generator er ikke tilladt og det lejede areal er alt inklusiv og skal derfor også kunne rumme eventuelle skraldespande, køleskabe ect.

Vi skræddersyer vores løsninger så de passer til jeres behov. Vejledende priseksempler:

Standard størrelse foodtruck inkl. areal på 3x3 meter og 230V strøm: 13.500 kr. ekskl. moms

Prisen for deltagelse skal være betalt inden 1. juni 2019. Ved manglende betaling frafalder retten til deltagelse på Folkemødet.

Eventuelle meromkostninger i forbindelse med afvikling faktureres efter Folkemødet.

Priser og depositum

Som forplejningsbod på Folkemødet betaler man et bidrag til Foreningen Folkemødet som udover deltagelse også inkluderer renovation, Wi-Fi samt markedsføring af forplejningsboden på Folkemødets platforme: foldekort, hjemmeside og mobil app. For en normalstørrelses foodtruck er bidraget 9.000 kr. ekskl. moms. Dertil kommer udgifter til arealleje, tilslutning til strøm, tilslutning til vand/afledning af spilte, leje af telt etc. Brug af egen generator er ikke tilladt og det lejede areal er alt inklusiv og skal derfor også kunne rumme eventuelle skraldespande, køleskabe ect. Vi skræddersyer vores løsninger så de passer til jeres behov. Vejledende priseksempler: Standard størrelse foodtruck inkl. areal på 3x3 meter og 230V strøm: 13.500 kr. ekskl. moms.

Prisen for deltagelse skal være betalt inden 1. juni. Foreligger der ikke betaling inden da, frafalder retten til deltagelse på Folkemødet. Herudover indbetales et depositum på 10.000 DKK, der ligeledes indbetales senest 1. juni. Depositummet agerer som sikring for opfyldelse af vilkårene i næste sektion, og Folkemødet forbeholder sig retten til at opkræve op til det fulde beløb på 10.000 DKK i tilfælde af misligholdelse af Folkemødets vilkår for forplejningsboder. *

Jeg har læst og accepterer ovenstående

Figure 9: View the full current application form in appendix 12A. Figure 10: View the full proposed application form in appendix 12B.

Currently, accepted food stall applicants need to pay a one-time fee based on the size of food truck, area size etc. At the same time, the food stall applicant is expected to follow certain guidelines, including a thorough cleanup of the area after use. As the project group learned early on, Folkemødet reported problems in holding the content creators responsible to these guidelines, often having to invoice content

creators, including both food stalls and event hosts, after the festival. This, it is argued, could be more effectively enforced through a 10.000 DKK deposit paid in conjunction with the one-time fee, which will then be reimbursed if the rules are followed. Although this will require administration on the part of Folkemødet, it would be expected to be offset in reduced cleaning costs and less last-minute hiring of cleaning staff and volunteers. While it could cause concern that certain, smaller actors would be discouraged from participation at Folkemødet with a deposit of 10.000 DKK, the initial assessment is that the amount is only fair with the potential earnings in mind, and could be compared to renting an apartment, where deposits are expected and part of protocol. Subsequently, the project team believe a deposit could become widely accepted at Folkemødet within two years after an initial expected resistance from food stall applicants.

Field for mandatory and exclusive use of biodegradable cutlery, plates and bowls

The current application form encourages food stalls to use biodegradable materials for cutlery, plates, bowls and one-time cups (coffee and juice is allowed to be sold through in the food stalls), but it is not a requirement. The project group found Copenhagen-based *Eat A Plate* as the project team's recommendation for a suitable partner. For a thorough discussion of the underlying proposal outside its inclusion in the application form see section 3.1 *Biodegradable tableware*.

Higher level of accountability and higher transparency

Currently, the application form has an external link where general guidelines are listed, while it also provides a list of things Folkemødet evaluates upon selection, including variety in prices and food, local actors, waste mitigation and creativity. Very few of the things listed in the current application form are actual requirements, though, but rather guidelines, and are dispersed in several external documents. This is a problematic both contractually and usability-wise. The objective of converting each requirement into its own field with a checkbox for each is to ensure a transparent and binding agreement between Folkemødet and the food stall owners. In this line of thinking, there should be as little information as possible linking out of the actual form, a document on the overall legislation for street sales in Denmark being the exception for practical reasons.

3.5 Idea Generation Lab

Findings

The Idea Generation Lab is an initiative for engaging visitors, event makers and food stall owners, basically everyone attending Folkemødet, to share ideas and commit themselves on how to make Folkemødet become more sustainable. It is heavily inspired by the concept of living lab, where the project team wants to facilitate an arena where participants can actively take part in idea generation. To foster this open space for creating and sharing sustainable ideas at Folkemødet and also find out what possible solutions could be done to reduce waste on the festival, the idea of installing a big chalkboard on the festival site with the following sentence is proposed:

"To reduce waste to make Folkemødet more sustainable I want to _____" written out as many times as the space allows with chalk available for the festival goers to fill out the blank spaces. See figures below to get an idea of the concept.



Figure 11: People writing on the wall



Figure 12: Chalkboard wall covered with text written by people

The chalkboard wall will function as one big idea generation lab and be a place where people can reflect on their own ideas on sustainable actions at Folkemødet and as well be inspired by what other people have written before them. The organisation can then collect all the ideas written on the board and use this feedback to implement new sustainable actions and processes in the next year's festival.

As well, the organisation Folkemødet can use its digital channels such as mobile application and newsletter emailing list to get in contact with the people attending Folkemødet to ask for insights and feedbacks on how to make Folkemødet become more sustainable. It should be a short question scheme only consisting of two questions asking about people's experience on how good/bad Folkemødet is implementing sustainability in its festival as of today and potential ideas for sustainable improvements in the next festivals to come. The mobile application had 15 thousand downloads at last year's festival and

the organisation has an emailing list of all stall owners and event makers participating in the festival which makes a solid base of people to get in contact with and get feedback from (See email from Pelle Nybirk, appendix 13).

Discussion

For the organisation Folkemødet to create the idea generation lab on the festival site, it would be easy to set up and almost has no cost as it only takes a bucket of blackboard paint, a paintbrush, some cases of chalk and a surface to paint over at Folkemødet and then the chalkboard wall is set up and ready to go. The value in return for the small money invested will be paid back a thousand times because the organisation will get many different ideas on sustainable solutions to be implemented. As well, people will also be more aware of acting sustainable at the festival as they are reflecting and engaging in the cause when writing on the wall. If the idea is viewed from a critical perspective, it could be that no one will share their ideas on the wall at the festival and thereby the organisation will not get any feedbacks. Or, the ideas put on the wall are simply not realistic to implement in the next festival years to come. One way to overcome the challenge of engaging people in writing on the wall can be that the ones setting it up writes a few sentences in the beginning causing a snowball effect that more people will come to write the more sentences they see written on the wall, if no one wants to be the first one.

4. Conclusion

Sustainability and protection of the environment are the main topics when more than hundred thousand people meet up to participate at the Folkemødet festival on Bornholm. However, there is a gap between how the topics are being discussed in political debates and presentations during the festival, to how the festival is running its current infrastructure and management in relation to sustainability actions and waste organization. There is no doubts that Folkemødet is facing huge challenges in handling the massive and increasing amount of waste produced on the festival as the number of visitors attending each year is growing. In addition, the resources to facilitate and run the festival are few and limited action concerning operating the festival in a sustainable way has been taken up until now.

For this reason this report contains five proposals for implementation at Folkemødet, aiming to reduce waste and promote sustainability. Four of the initiatives tackle identified issues in the context of waste production caused by festival participants and lead to more sustainable processes during the festival, whereas the fifth is aiming to create awareness for sustainable behaviour and involve all participants in the development of a more sustainable Folkemødet. The four initiatives to reduce waste production during

the festival are: Application form for the food stall owners to commit and act in a sustainable way when doing business at the festival, implementation of biodegradable plates and cutlery for all food servings to minimize the use of single use plastics on the festival, set up DropBucket waste bins across the whole festival to make it easier for visitors to sort their trash, and integrate a refund system on rewashable beer cups to reduce the waste amount produced by regular “throw away” beer cups. The fifth initiative is an idea generation lab, where people can share and reflect on initiatives to act more sustainable and reduce waste at Folkemødet by writing down their ideas on a big chalkboard wall set up on the festival.

Emil, sustainability manager from Folkemødet, stated that he is looking for initiatives on sustainability that are easy to implement on the festival. In a critical light, four of the presented initiatives, concerning changes in the infrastructure, would all imply higher money investments and many working hours from the Folkemødet professionals to take responsibility on the projects and set up agreements with stakeholders such as Tuborg, Eat A Plate and DropBucket. On the other hand, when the project group was reaching out to the stakeholders, all of them were very positive towards supplying Folkemødet with their respective products and saw great potential in how this could improve the waste reduction on the festival. Then again, from a critical standpoint, the suppliers might be positive as Folkemødet could become a potential paying customer and a source of income for their business. But the fact that Tuborg is already implementing the rewashable cups on music festivals this year definitely gives an indication that this can be feasible to introduce at Folkemødet as well. The idea generation lab is the most easy to implement solution for the festival and a prototype of the idea could already be installed at this year’s festival to test if people are willing to share sustainability ideas on the wall and if these ideas might be useful to Folkemødet.

In general, the five initiatives have taken shape by a discussion among the group members to agree if ideas are valid or not and then reaching out to the stakeholders to hear if this solution could potentially be delivered to Folkemødet. Then finally the ideas were presented to Emil Juul-Pedersen on email correspondence, but feedback was limited which fostered a working process in silos where the group was generating ideas about Folkemødet on one side, while Emil was on the other side knowing exact limitations and opportunities for the organisation Folkemødet, but communication was not stable between the two sides. A working process more in style of co-creation would have been the preferred one, so ideas from the group and feedbacks from Emil would have developed throughout the project finally leading to sustainable ideas and initiatives matching perfectly with the needs and capabilities on Folkemødet.

Despite the challenges of the process, the project team is convinced that the ideas developed offer tremendous potential for waste reduction at Folkemødet. The range of ideas developed offers the festival the opportunity to take many actions and to be inspired to become more sustainable and properly set itself in the SDGs.

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7. Appendices

List of appendices:

1. Audio file from Emil Juul Pedersen of the 20/02/2019
2. The *A Greener Festival* categories
3. Advantages of biodegradable tableware
4. Circular economy of the wheat bran tableware
5. Mail with Mr Lehrmann - Eat A Plate
6. Partnership between Folkemødet and Eat A Plate
7. Mails from Emil Juul-Pedersen of 08/04/2019
8. Price list of Eat A Plate
9. Mail with Anne Dorthe Beck-Nielsen from Tuborg of the 02/05/2019
10. Mail with Line Amtorp from Tuborg of the 7th April 2019
11. Email correspondence and phone call with Heida Nølsøe, 27/03/2019
12. 12A: current application form; 12B: proposed application form
13. Email correspondence with Pelle Nybirk, 24/04/2019
14. Link to access the materials provided by Emil regarding the wastes at Folkemødet
15. Link to access the in-class presentation of the 27/03/2019

Appendix 1

You can listen to the audio via the link below:

https://drive.google.com/file/d/1tn9ey_KRC7WcwaNSTtrSb9AWzbf_CIPy/view?usp=sharing

Appendix 2

1. Local Ecosystem
2. Local Area Impact
3. Travel & Transport
4. Power & Electricity
5. Procurement
6. Solid Waste & Recycling
7. Water Usage, Waste Water & Sewage
8. Legal Compliance & Management Systems
9. Behavioural Change & Communication
10. CO2 Analysis

Appendix 3

The option to use paper tableware has not been selected, as the production requires significant amount of water and chemical compounds, and the 6 months decomposition time is still high. On the contrary, the solution we propose is for Folkemødet to use biodegradable tableware, made from wheat bran. The production process does not require large amount of water, as the tableware are mainly formed by high pressure and temperature, and the volume produced are high compare to the raw material needed, as 1 ton of wheat bran can produce up to 10,000 units of tableware. The tableware, only composed of wheat bran and water, are fully biodegradable in 30 days.

Appendix 4

Circular economy of the wheat bran tableware



Appendix 5

Exchange of emails with Mr Lehrmann

Le 26 mars 2019 16:10, kontakt@eataplate.dk a écrit :
Dear Lise,

Thank you for a good talk on the phone.
If you need any support or information from us, please let me know.
Here is the pricelist!

If you would like to know what other type of packaging we do then check out our fastpack.dk
instagram:

<https://www.instagram.com/fastpack.dk/>

Martin Lehrmann

Sales manager

tlf.: +45 51 94 54 84
kontakt@eataplate.dk
www.eataplate.dk

W dniu 26 marca 2019 14:54:54 +01:00 Lise Marie Alice Aulnette-Turpin <liau18ab@student.cbs.dk>
napisał(-a):

Dear Martin,
Perfect, I can give you a call in the afternoon.
Best,
Lise

Provenance : [Courrier](#) pour Windows 10

De : kontakt@eataplate.dk <kontakt@eataplate.dk>
Envoyé : Tuesday, March 26, 2019 2:18:51 PM
À : Lise Marie Alice Aulnette-Turpin
Objet : RE: Request for information & phone call - Folkemødet Festival

Dear Lise

It sounds very interesting .
Please give me a call, when you have the time!

Martin Lehrmann

Sales manager

tlf.: +45 51 94 54 84
kontakt@eataplate.dk
www.eataplate.dk

De : Lise Marie Alice Aulnette-Turpin
Envoyé : Tuesday, March 19, 2019 4:17:46 PM
À : kontakt@eataplate.dk
Objet : Request for information & phone call - Folkemødet Festival

Good evening,

My name is Lise, I'm a CBS Master student, among others taking the course "Consulting for Sustainability – Harnessing Business Models and Innovations", in which we are working in groups and each assigned a company's sustainability-related case.

We are conducting a Waste Reduction project with the [Folkemødet](#) festival, which has a strong focus on single plastic reduction. This is particularly targeted to food stands-related cutleries, which we want to replace by biodegradable cutleries.

When searching for biodegradable cutleries Danish companies, yours particularly attracted our attention. The products you offer are matching our criteria and you already supplying food companies – including the Copenhagen Food Festival, which make use confident in your experience.

Would it be possible to have more information about your products, offer(s), partnerships' opportunities and prices?

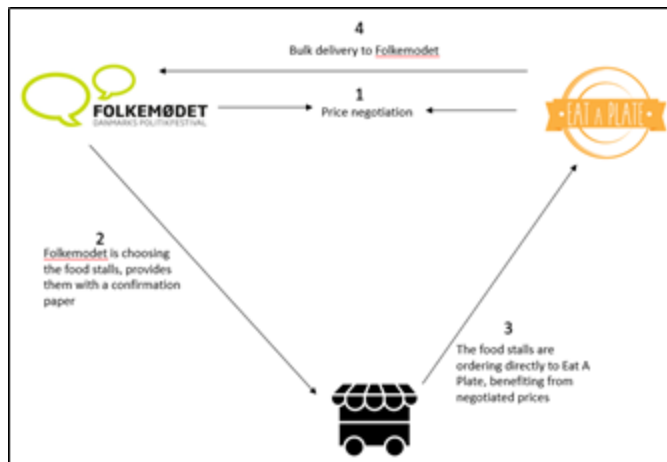
Would it be possible to schedule a phone call, so we could explain in more details our project, ambition and discuss further a potential collaboration?

Thank you in advance for your consideration.
Waiting for your answer,

Best regards,
Lise Aulnette-Turpin

Appendix 6

Partnership between Folkemødet and Eat A Plate



Appendix 7

Emil Juul-Pedersen <emil@folkemoedet.dk>
Man 08-04-2019 15:40

Hey all.

Great to hear.

I would be very interested to get a better understanding of implementing DropBucket as a system for all the stands. Different stand owners have different demands for trash fractions, which I think some sort of DropBucket solution could help solve.

The bins we use currently are from BOFA and Fugato. And as far as I know, the bins are used for other events during the rest of the season, but are stored in the winter half year. There are different sizes, for different solutions. BOFA use mostly the standard ones (on the pictures I send with the data) and Fugato use 650L containers.

All bins are emptied every morning – and we are trying to make a system for them to be emptied one more time during the day when they are full. But this is problematic in regards to law-enforcement/regulations and such.

We can choose any company and make a partner-arrangement and use their service across the whole festival. It is not an idea unfamiliar to us, but at the moment we don't have the capacity to follow through on such an arrangement.

I have this contact from Tuborg, that you can reach out to.

Marlene Vagn Andersen
Sponsorkoordinator, Tuborg Marketing
mva@carlsberg.dk

If there is anything else, let me know.


/Emil

Appendix 8



Stermann APS
Ryparken 40
København Ø
www.eataplate.dk

Samtlige priser er ekskl. 25% moms.

	Produkt	Størrelse	Pris pr stk– ved 1. Palle	Pris ved 10.pks bokse	
	T-28	Flad Ø28cm	DKK 2,67	DKK 3,10	
	T-24	Flad Ø24cm	DKK 2,32	DKK 2,65	
	T-20	Flad Ø20cm	DKK 2,07	DKK 2,40	
	M-20	Dyb Ø20cm	DKK 2,37	DKK 2,65	
	P-24	Dyb 16x24cm	DKK 2,37	DKK 2,65	
			DKK 0,69		
			DKK 0,69		

Appendix 9

Hi Øyvind

See our answers below....

Please share your report – could be interesting to read.

/Anne Dorthe

Venlig hilsen

Anne Dorthe Beck-Nielsen

Tuborg Marketing

Mob +45 4179 2221

adbn@carlsberg.dk

TUBORG

1. Is it possible to customize the design of the cups? (make them customized particularly for the festival). No – it is Tuborg branded glass and the key is that it is the same glasses that are used over and over again across the different festivals.
2. How likely would you say it is for Tuborg/Carlsberg to establish a similar collaboration with Folkemødet in 2020? We plan to showcase the machine already at FM 2019 – still to be decided what might happens in 2020
3. Have there been any obstacles introducing this initiative? If so, how did Carlsberg & the festivals solve them? It is a major project in somewhat unknown land so we have off course had to overcome various issues but we are confident we have a good solution and we are very proud that we have been able to accomplish it together with 3 strong partners
4. Who is bearing the costs? Is it estimated how much the festivals/Tuborg would financially win/lose by the initiative? It is a shared investment between the 4 partners; Tuborg, Roskilde Festival, Grøn Koncert and Down the Drain (Tinderbox & Northside). We are not able to comment on the possible wins/loss. The focus of the case is to reduce the use of onetime-use plastic at the festivals.
5. Do you know if it was considered to implement a refund system and the reason why it is done without one currently? Question not understood
6. How is the process supposed to work for the festivals? Are the visitors supposed to bring the cup back each time they have drunk a beer, or are there some stations they are going to place them? Can you elaborate briefly? Each festival decides the setup for refunding the cups – Tuborg delivers the washing mashine and the cups and then it is up to each festival to make a system that suits their needs.
- 7.

Appendix 10

Hi,

Thank you for your email.

I have had about the Students Hack Folkemødet initativ and I am really looking forward to see the ideas.

We have been working on a solution ourselves and are very proud to announce the collaboration between the four largest festivals in Denmark and Tuborg. The same technology is expected to be used for the public meeting this summer.

Please find a link below:

<https://www.berlingske.dk/virksomheder/tuborg-afskaffer-plastikkrus-paa-festivaler-nye-glas-skal-vaskes-op-i>

I wish you all the best with your project.

Med Venlig Hilsen/Best regards,

Line Amtorp

Sustainability Manager

Mob +45 20 11 68 28

Line.Amtorp.Poulsen@carlsberg.dk

Carlsberg Danmark A/S

Vestre ringvej 111, 7000 Fredericia

Tel +45 3327 3300 Fax +45 3327 4711

www.carlsbergdanmark.dk

Appendix 11

fra: Jacob Møller <jacob.moller92@gmail.com>

til: hello@dropbucket.com

dato: 27. mar. 2019 16.03

Hi DropBucket,

I am part of a student group from CBS currently taking a course in Consulting for Sustainability where we are working on a project about how to reduce waste at Folkemødet on Bornholm. In relation to this we came across DropBucket as a possible solution to set up a new trash bin system at Folkemødet.

Before we decide to go with this solution we have some questions we hope you can help us give answers to. We list a couple of them below, but if it is possible to have a quick phone interview with a representative from your team during this week or the coming week to go more in depth with the topic, we would greatly appreciate it.

Which festivals are currently using Dropbucket?

What is the motivation for the festivals to use Dropbucket?

Do you know if the festivals reuse the Dropbucket for next year or if it is more of single time use?
If it is the case, do you have any data that proves the Dropbucket solution makes people better sort their trash and thereby reduce waste?

What could be an argument from your side for us to choose the Dropbucket as our solution to set up a trash bin system at Folkemødet in stead of using the trash bins and plastic containers already present at the festival?

Looking much forward to hear your feedback.

Best regards,
Jacob

fra: Heiða from DropBucket <hn@dropbucket.dk>

til: hello@dropbucket.com,
Jacob Møller <jacob.moller92@gmail.com>

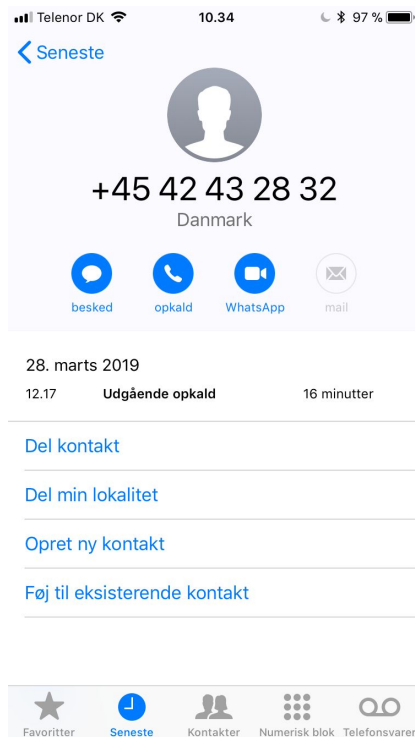
dato: 28. mar. 2019 11.18

Hej Jacob,

It is easier if you call me today and I will try to answer your questions :)

Best

Heiða G. Nolsøe
Co-founder
hn@dropbucket.com
+45 42432832



Phone call to Heida Nolsøe

Appendix 12A

Link to view current application form for food stalls at Folkemødet (last retrieved 22-05-2019):

https://docs.google.com/forms/d/e/1FAIpQLSc7SdtOxMphkqEl5WkEMPI9aQ86wYhra5Glrn4Kr1o8CN_e7GQ/viewform

Appendix 12B

Link to view proposed application form for food stalls at Folkemødet:

https://docs.google.com/forms/d/e/1FAIpQLSdjD_wJd8jxtC3vY_i4ceOlsDRaI0orvo4yHtKfpF0ff0IHA/viewform

Appendix 13

Pelle Nybirk <pelle@folkemoedet.dk>

Ons 24-04-2019 09:06

Hej Jacob,

Vi havde cirka 15.000 downloads sidste år. 11.000 på iOS og 4.000 på Android. Jeg har desværre ikke tal på hvor længe brugerne benytter appen.

Pelle Nybirk

Kommunikationsansvarlig

Jacob Møller

Ons 24-04-2019 09:18

Hej Pelle,

Tak for tallene. Jeg har et nyt spørgsmål som jeg håber du kan være behjælpelig med at svare på som kommunikationsansvarlig.

Når man tilmelder sig Folkemødet som deltager har I så personen gemt i en database som I kan sende mails til, f.eks. nyhedsbrev eller evaluering efter Folkemødet er afholdt?

Mvh. Jacob

Pelle Nybirk <pelle@folkemoedet.dk>

Ons 24-04-2019 09:46

Det kommer an på hvad du mener med deltager. Hvis du hentyder til ”deltagere” i appen, så nej. Dem får vi ikke kontaktoplysninger på. Men alle de brugere der opretter events og/eller søger om plads på Folkemødet, dem får vi kontaktinfo på og sender nyhedsbreve ud til.

Appendix 14

See pdf file:

https://drive.google.com/file/d/1F5W4VcrmNPxOBc_ycHszSt--N6Y5CbWx/view?usp=sharing

Appendix 15

See pdf file:

https://drive.google.com/file/d/1Qzw3I4g5oePBsxp01n__FwcOtoMHVCHS/view?usp=sharing