ESSMA COVID-19 REPORT

PART 2

Preparing venues for "The new normal"

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Introduction

In **part 1 of our COVID-19 report** ("Impact of COVID-19 on the stadium industry") you were able to read more about **how European venues were affected by COVID-19 in the earliest stages** of the virus. We discussed the multifunctionality of venues in the fight against the virus, their creativeness in finding alternative uses and the protocols developed to organise matches behind closed doors.

However, this was not the last part in our journey towards **the "new normal"**. In this second part of our report we will continue our journey and discuss **how venues are adapting** to be able to safely host matches with (small amounts of) fans. While some leagues are still developing protocols, others around Europe have already organised their first matches with fans and have shared their experiences with us.

It is clear that both stadium operators and fans are **eager to have visitors back in the stadium**, but they are also aware that they will have to get used to **a new type of fan journey** if they want to do so safely.

To develop this new fan journey clubs and stadium operators are **relying on national legislation and turning to industry suppliers** who can offer them the solutions that make it possible to put the new regulations into practice. We will discuss how these (new) products are helping create a **safer venue during COVID-19**, while also helping to prepare venues for the future of match day operations.

Throughout this report you will find the results of a COVID-19 survey we conducted amongst 36 European clubs and 8 Leagues & FA's, supplemented with best practices from our members and solutions from our industry suppliers. We would like to thank all of them for their contribution to the creation of this report. It would not have been possible without their support.

We hope you will find this report informative and that our conclusions will provide valuable insights for both future stadium development projects and current stadiums in operations.

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Content

Matchday preparations - Step by step

In order to **prepare their venues to host fans** during COVID-19, stadium operators are having to create **a new type of fan journey.** One that limits the risk of contaminations, enforces social distancing and respects all national legislations. In this chapter we will discuss how this new fan journey might look like, while trying to offer you practical steps, tips and solutions that are currently on the market to improve each step of the journey.

This list was created with **the help of our industry suppliers** and was heavily **inspired by documents published** by:

- Sports Grounds Safety Authority (SGSA, "Planning for social distancing at sports grounds")
- National Center for Spectator Sports Safety and Security (NCS4, "COVID-19 considerations for sport and entertainment venues and events")
- Event Safety Alliance (ESA, "The Event Safety Alliance Reopening Guide")
- World Health Organisation (WHO, "Key planning recommendations for mass gatherings in the context of COVID-19")

While the tips given in this overview should generally apply for all sports events, **national or local legislations can differ** from country to country. As an example, we can point out that even the exact distance that people have to keep to respect social distancing is not the same in every country.

The **new fan journey** will more or less follow the same steps as the fan journey as we normally know it but can include changes for each step that drastically change the overall experience.

It consists of **three large chapters that each contain their own steps:**

1 Pre event

Step 1: Creating new policies and procedures
Step 2: Staff training & PPE's
Step 3: Communication & creating awareness
Step 4: Applying signage & markers
Step 5: Contact-tracing
Step 6: New approach to ticketing & seating distribution

2 During the event

Step 7: Transport & Parking
Step 8: Ingress & crowd management
Step 9: Catering & merchandising
Step 10: Dynamic staff management & incident reporting

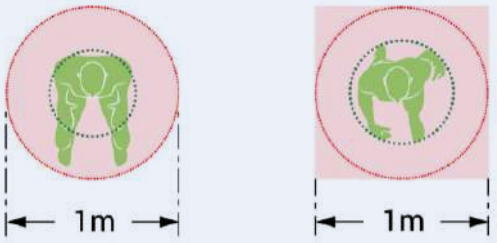
3 Post event

Step 11: Egress
Step 12: Cleaning & disinfection

Step 6: New approach to ticketing & seating distribution

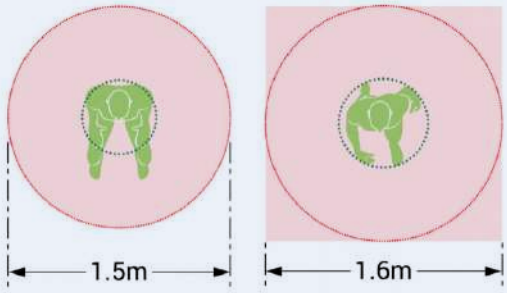
As venues will reopen and social distancing regulations will have to be respected, it seems inevitable that venues' capacities will be reduced and that therefore a **new ticketing distribution system** will have to be set up, so that only people within the same household are able to sit together. Other visitors should respect social distancing (exact distance can vary from country to country but is generally between one and two meters) at all times.

The **Sports Grounds Safety Authority** (SGSA) has outlined how venues can assess and **calculate their safe capacity** for social distancing in their "Supplementary Guidance: Planning for social distancing at sports grounds". In the guide they say that the calculation of the safe capacity is the most important step that the ground management team can take towards the achievement of reasonable safety. They explain that **there are two methods** to measure a social distance of one meter (the distance applicable for UK venues):



Method One

Is based upon a 1.0m diameter circle, centred on the head, regardless of whether the individual is sitting, walking or standing. This method results in a side-to-side space of approximately 500mm between two people sitting, and approximately 400mm between two people standing or walking.



Method Two

Takes into account the width and depth of an individual's body, so that, when positioned next to another individual, the social distance between the two in all directions measures approximately 1.0m.

This method requires two different circles:

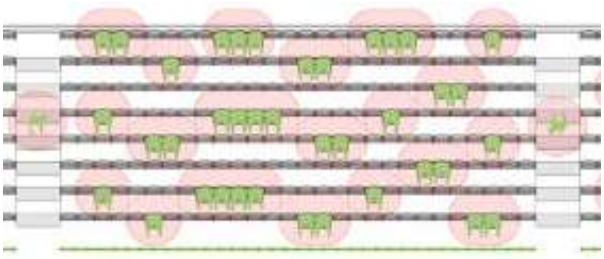
a. for people seated: a 1.5m diameter circle (this is to allow for a typical width of 500mm for an individual who is seated)
b. for people walking or standing: a 1.6m diameter circle (this is to allow for the typical width of 600mm for an individual who is walking or standing).

Regardless of which method is adopted the process followed when assessing spectator numbers will differ according to whether accommodation is for seated or standing spectators.

The **capacity for a seated area can be calculated based on:**

- whether method one or two is used
- the seat widths
- the depth of seating rows
- the allocation of seats
- the width of the radial gangway
- whether every row will be occupied or alternating rows are left open
- the amount of people that fit in one bubble and are therefore allowed to sit together
- whether the flow of the radial gangway is one-way or two-way at any one time

Before allocating seats under social distancing, the allocation of seats and of groups of seats will require management to undertake a detailed survey of each area of seated accommodation.



Given these different factors the new socially distanced seating capacity can be calculated.
For example:

- Seat row depth: 700 mm
- Seat width: 460 mm
- Radial gangway width: 1.2 m
- Seat allocation: every row occupied in. singles, twos, threes...

> **Occupancy level:**
> **75 seats out of 224 (approx. 33 per cent)**

> **Social distancing requirements:** Two seats must be kept unoccupied between every allocated seat. Every seat next to radial gangways must be kept unoccupied. One-way flow only possible in radial gangways at any one time.

As the given elements and methods used for measuring social distancing change, so will the occupancy levels. In the examples given by SGSA in their "Supplementary Guidance: Planning for social distancing at sports grounds" the **occupancy levels range between 17% and 33%.** It will be up to stadium operators to calculate the correct capacity for each of the sections in their stadium.

Luckily, there are now several solutions on the market that can help stadium operators automate this process, so that fans are immediately distributed throughout the stadium in the correct manner, respecting social distancing and the individual features of each stadium.

ESSMA Corporate Partner 3D Digital Venue, for example, have developed the service **"Venue Business Intelligence (VBI)"** in order to achieve maximum efficiency when seating their clients and maintaining the safety distances recommended by health institutions. VBI allows those in charge of a venue to access a **virtual reconstruction** and perform, in a visual and interactive way, different types of simulations. The system allows you to **enable several configurations** and to easily adapt to different events via automatic algorithms on the fly.

VBI aims to help venue owners achieve the most profitable scenario to reactivate the sports and entertainment industries.

3,000 fans were able to attend Brøndby - FC Kopenhagen and were distributed in the stands thanks to the Roboticket solution.

Another market solution is offered by **ESSMA Corporate Partner roboticket**, who have already integrated their solution at several stadiums including Brøndby Stadium, Telia Parken and Stadion Miejski. For all of these venues the roboticket advanced ticketing system was successfully integrated over the last months to **allow them to host reduced numbers of crowds** while respecting social distancing.

Step 8: Ingress & Crowd Management

Ingress

In terms of ingress, each entrance point to the venue **should be monitored** by employees who were trained to do so. They can conduct any form of **screening and testing** that is deemed necessary such as temperature checks with "no-touch" thermometers.

Any visitor who displays symptoms or fails to pass the test may be **denied entry** to the venue and directed to medical care. It might be a good idea to clearly communicate the venue's policy about refunds if such a case should occur.

All entrances should be **equipped with sanitizing stations** of some form. This can include disinfecting hand gels or simply water and soap. If possible, they should be set up with no-touch activation and should regularly be checked by supervisors.

Stadium operators should also consider **a system of "virtual queuing"** to **spread the arrival times**. This means that fans will be appointed a specific time slot and entrance in and at which they should arrive at the venue, thereby **eliminating the risk of large groups** arriving at an entrance point at the same time. But even with spread arrival times, the nature of securing a large event makes it so that visitors have to be thoroughly checked at each entrance point which may still cause lines to form. Venue operators should therefore make sure that there is sufficient space to allow visitors to wait in an orderly line while respecting social distancing.

If deemed necessary, they may even put up **physical barriers**, such as the ones provided by **ESSMA Stadium Partner Pitagone. Pitagone's** physical barriers were typically used as anti-ramming or anti-terrorism barriers but can also be used for **perimeter control** to guide the ingress of fans and keep them separated at access points. **The versatility of the product** means that it helps make the stadium environment safer, both from an anti-contamination and an anti-terrorism point of view.

Another solution is offered by **ESSMA Corporate Partner Covermaster**, whose **physical barriers can even be printed with specific instructions** on how to queue while respecting social distancing. Stadium operators may also consider applying signage and markers around entrance points to remind visitors of how and where to queue within the new regulations of social distancing.

Case Study

Restrata implemented to provide the world's first "bio-secure" cricket test match between England and West Indies.

In June 2020, ESSMA Corporate Partner Restrata were contacted by the English Cricket Board (ECB) to identify if their software platform, originally designed to protect physical infrastructure and people from security and safety threats such as terrorism or industrial accidents, could be deployed to help the ECB comply with the UK Government's COVID-19 regulations on social distancing for the safe return of cricket behind closed doors.

After a detailed R&D exercise Restrata developed a suite of new "COVID-SAFE" software modules and were then hired by the ECB to help deliver the World's first bio-secure Test Match series, between England and West Indies which took place on Wednesday 8th July 2020. The Restrata software platform, was deployed to ensure both test venues, the Ageas Bowl and Emirates Old Trafford cricket grounds, comply with the Government's COVID-19 regulations on social distancing, providing a unique system to manage capacity at the venues and track and trace any COVID-19 outbreaks during the series.

Restrata implemented its platform using Bluetooth technology to manage the 1,400 people who were present in Southampton's Ageas Bowl and Emirates Old Trafford during the test series. This included players, coaches, media, stadium staff, but not spectators as the matches were played behind closed doors.

Results

Restrata's track and trace solution enabled the ECB to **control the numbers of people working in specific zones** so that capacity can be controlled to meet the Government's requirements on social distancing and capacity limits, and zone access rights. The platform enabled the ECB's in-stadium team to monitor capacity in all areas of the stadiums so capacity limits and access rights are adhered to. The company's Bluetooth technology also provided the ECB with an accurate, and real time capability to track and trace any suspected outbreaks of COVID-19 within the Test match environment.

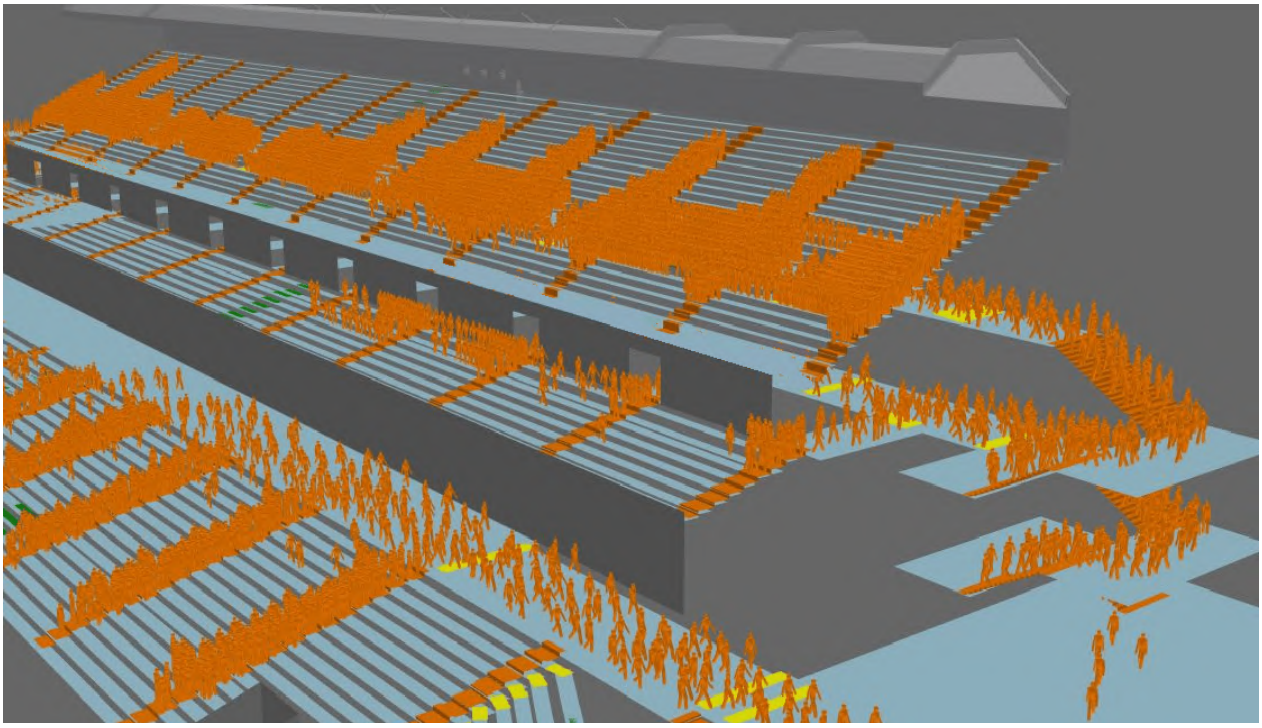
Future trials in the UK

Following the successful return of cricket behind closed doors Restrata were contacted by Surrey County Cricket to deploy the Restrata platform and their COVID safe modules in a trial to monitor and manage social distancing, capacity and Track & Trace during the match which will be attended by 2,500 spectators. Unfortunately, the pilot study backed by the UK Department for Culture Media and Sport was cancelled by the UK government due to rising infection rates in the United Kingdom. The plan was for Bluetooth tracking 'fobs' to manage social distancing and control crowd capacity and ESSMA members will soon be updated on the outcome of the trial once it is allowed to take place.

> "Our number one priority throughout this series is people safety. Restrata's safety, security and mobility management platform has enabled us to deliver this Test series in the knowledge that we are managing the specific and detailed risks presented by COVID-19 and that we comply with the Government's comprehensive guidelines for managing events of this nature, particularly those relating to Track and Trace."
>
> **Damian Smith,**
> **Head of IT at the English Cricket Board**

Post-event

Step 11: Egress



As is the case with ingress, egress should be **clearly scheduled** to prevent visitors from gathering at one point at the same time and creating bottlenecks. It is therefore recommended to schedule egress in specific time slots for each section of seating and/or with a **"front to back" or "back to front" system**. This means that you will organise egress the same way that passengers exit an airplane. After the match, **spectators nearest to the exits should leave first**, row by row, in order to clear space for visitors further down to follow. This will require workers and volunteers to ensure that spectators understand the procedure and comply with social distancing requirements until they are in their vehicles or otherwise outside the venue doors.

According to SGSA, if we use "method one" for calculating a social distance of 1m, egress of **72 people per channel per minute** would be possible on a **level surface**, while on a **stepped surface, egress of 54 people per channel per minute** would be feasible while respecting social distancing. Under normal operational circumstances this would be 82 and 66 people per channel per minute respectively.

In terms of **emergency egress**, the need for social distancing can create significant challenges. Where spectators might be told to take refuge, such as at an outdoor event due to a forecast of severe storms, the area of refuge must be able to accommodate the crowd while maintaining social distancing between unrelated groups. Likewise, if spectators will be instructed to return to their vehicles in an emergency, workers will need training to manage the existing crowd to avoid the risk of contagion while they flee from some other hazard. These may not be significant obstacles for the smaller crowds that will initially return to events, but event organizers will have to coordinate with all stakeholders, including public health and public safety officials, to reevaluate their emergency plans as larger crowds gradually return. In the worst-case scenario, it might be wise to allow normal emergency egress plans to take place so that all people can get to safety, even if that means that you can not respect social distancing during this evacuation.

Do you want access to the full ESSMA COVID-19 report?

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