

Sustainable Stadiums

The climate is changing and is not getting better. People are not changing their ways either. For example, the way stadiums, buildings, transportation, industrial products, etc. are built continues to be major contributors to polluting our planet. To maintain a healthier planet, we should reduce water consumption. We can minimize energy consumption and implement more sustainable alternatives like solar and wind power systems. Proper waste management and recycling also helps reduce pollution levels. By reducing manufacturing's carbon footprint companies can start protecting our planet better. This article provides several alternatives to help reduce pollution levels in football stadiums.



The Geneva stadium during Servette's match against Sion (29.01.2023 – Malia C.)

The Geneva Stadium

In Geneva 2020, the Geneva stadium was the biggest source of light pollution due to light therapy sessions on the lawn. From a distance, you could see that the sky above the stadium was orange. [1] Fortunately, the Stade de Genève foundation decided to stop the hybrid turf, which was supposed to be illuminated and heated all winter. It is only in July 2021 that they decided to change the turf, a 100% natural turf. [2] Light pollution is the presence of unnatural light that causes problems for fauna (animals), flora (plants), fungi (mushrooms) and ecosystems. It can also

have effects on humans, for example the development of cancer. This is why, every year in Geneva, there is a night when you should not turn on the light. [1] We asked Mr. Renevey, the deputy director of the Stade de Genève foundation, what he would change: «Try to heat the lawn as little as possible, but there are times when you have to, otherwise the lawn will freeze». In 2020, the Geneva stadium foundation and SIG decided to install 5000 m² of photovoltaic panels on the stadium roof. 30% of the energy will be used to power the stadium and the rest will be sold

to citizens. It costs 330 francs. For 20 years you can benefit of 100 kWh of greener electricity. [3/4] This is a good alternative for people who cannot put photovoltaic panels on their roofs. There is a small difference between photovoltaic panels and solar panels.

What are other countries doing?

In France, things are changing step by step. The Minister of Sports, Amélie Oudéa-Castéra, declared that perhaps football matches will no longer be played at night in order to avoid even more light pollution but also to use less electrical energy. [6] In the United Kingdom, there is one stadium that stands out from the rest. It is the Tottenham Hotspur Stadium. The Tottenham club has signed up to the UN's Race to Zero programme. By 2030 the club aims to reduce its carbon emissions by 50% and to use zero carbon by 2040. It is one of the five greenest stadiums according to eonenergy, as is the Europa Park Stadium in Freiburg, Germany.

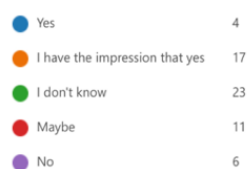
What do young people think?

The question we are all asking ourselves is whether we will be able to consider creating more ecological and sustainable stadiums. That's why we asked some questions in our school to see how other people around us felt about this situation. We asked 3 questions to our school and here is what they think about this situation knowing that 20% of the students did not know that the stadium of Geneva polluted so much. The majority of the students are hopeful that it will be possible to make it less polluting, but we think that we are not aware enough of the impact of sport on ecology. 31% of students think that we make more ecological stadium and 52% think that we can make more sustainable stadiums.

Solar panels transform solar energy into heat, while photovoltaic panels convert sunlight into electricity. The carbon footprint of the city of Geneva (including households, businesses and administration) is estimated at 13 tons of CO₂ per person per year in 2019.

The Freiburg club is installing a 2.4 MW solar panel, which is huge. In Germany, professional clubs are obliged to be sustainable, otherwise they will not be able to get the license to play matches. In Istanbul, Turkey, the Nef Stadium of the Ali Sami Yen sports complex has just won a Guinness World Record for solar energy production on a sports facility. The roof is 40,000 square metres. On this roof is the gigantic 4.2 MW solar power plant with a total of more than 10,000 solar panels, which produces renewable electricity comparable to the amount consumed by 2,000 households. Thanks to this, the city can save 3250 tons of CO₂ emissions per year. [7]

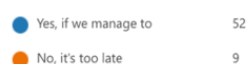
1. Do you think that the Geneva stadium pollutes a lot?



2. Do you think we will be able to make a more ecological stadium?



3. Do you think it will even be possible to consider more sustainable types of stadiums?



What can we change?

For future football stadiums, ecological materials such as FSC-certified wood (a label that guarantees that the wood comes from legal logging), recycled materials and concrete should be preferred. The stadiums should be powered by renewable energy such as solar, wind or thermal energy in order to have a smaller carbon footprint. They could also save water by using sprinkler systems, water-saving toilets and rainwater harvesting systems. They should do sustainable waste management techniques such as reducing, sorting and recycling spectator waste. If there is a restaurant in the stadium, it could offer a cuisine that is local and sustainable by consuming fresh, fair and organic products in order to reduce the emissions caused by the transportation of food.

Well-known stadiums could encourage people to use sustainable transport such as cycling, walking or public transport. The equipment could also change! In 2016, the Adidas brand began selling football jerseys made of plastic waste that came from the ocean to Bayern Munich and Real Madrid. The Puma brand makes jerseys made of recycled polyester fibre. Nike, on the other hand, began selling balloons called next nature made from recycled airbags. [6]

References

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