

The digital signage that cleans the air we breathe

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Green City Solutions picks BrightSign for environmental DOOH innovation

Digital out-of-home (DOOH) media has been part of the makeup of modern cities for some time, contributing to the exhilaration and convenience of metropolitan life. Now it's also helping to tackle the pressing problems of air pollution and rising urban temperatures, thanks to an innovation in clean air generation from Germany powered by BrightSign media players.

Brandenburg-based Green City Solutions has developed CityBreeze, the world's first DOOH screen containing regenerative air quality filters made from high-performance moss. This ancient plant has a natural ability to attract and metabolise all kinds of harmful pollutants such as black carbon and nitrogen oxides, removing them from the atmosphere. It also cools the ambient air by evaporating water across its exceptionally large 'leaf' surface.

As well as a 75" LCD screen controlled by a BrightSign HD224 media player, each attractively designed CityBreeze unit has the capacity to filter 1,400m³ of cubic meters of air an hour, removing up to 82% of the pollutants contained in it and reducing its temperature by up to 4°C. The moss is kept in perfect condition through smart IoT technology which can also be used to capture and share real-time air-quality data.





“Combining digital out-of-home (DOOH) functionality with our biotech system for producing fresh, breathable air has put a compelling environmental product within the reach of many more city authorities than would otherwise be the case,” explains Simon Dierks, Marketing Lead for Green City Solutions. “It greatly simplifies the planning process and makes it much faster. Every town already has fixed locations for OOH screens, and they need to be replaced every eight to ten years. When that happens, upgrading to a unit that also purifies the air and reduces the ambient temperature instead of increasing it makes a lot of sense.”

The advertising revenue the screens generate can be used to cover both the installation and maintenance costs, making the CityBreeze very cheap or even cost neutral to instal and run. Units can be either rented or purchased from Green City Solutions.

The first City Breeze module was installed in Küsnacht Switzerland at the end of 2021. Three more units are set to go live in German cities shortly and Green City Solutions expects to sell between 100-150 more by the end of the year. It has also introduced an optional 43” LCD screen controlled by a BrightSign LS424 player on its flagship CityTree product. This larger filtration tower already offers various other add-ons including e-charging, information boards, seating, shading and smart services such as dust sensors, with 5G wifi hotspots planned in future.

City councils and train stations are the primary markets for both products, while the CityBreeze is also of interest to conference venues, where it can be used to highlight information about events and exhibitions, potentially generating an income stream.

“Ten percent of the media run-time on the digital screens is reserved for explaining how the moss system works and the health and environmental benefits it brings,” continues Dierks. “The rest can be used for commercial content or anything else. In Luton town centre, for example, the Borough Council has taken the opportunity to highlight local green initiatives as well as real-time air quality data.”

Flexibility and ease of media management were key considerations in the selection of the BrightSign media players running BrightAuthor for creating content. Green City Solutions also uses BSN.cloud for scheduling and uploading media, as do some of its customers. Says Dierks, “The easier the management platform is to use, the more interesting and dynamic the content is likely to be. We want to remove as many barriers as possible to maximise the benefits. We provide content creation services for clients as needed.”

There were also several hardware issues to factor in: “Durability was really important,” Dierks continues. “The modules have a guaranteed lifespan of 10 years, so we wanted something that’s robust and low maintenance. Also, CityBreeze has a slim design for flexible installation in urban areas and the BrightSign player is integrated into its casing. The players are fanless and fit well into confined spaces without generating too much heat, which would reduce the overall cooling effect of the unit.”

The CityBreeze and CityTree modules can be installed anywhere with a power supply, but Green City Solutions is keen for them to be placed where they can have the most impact for public health. That often means where there are lots of pedestrians coming into contact with heavy traffic pollution. “Of course, that happens to be a great DOOH location too - where there are lots of people and vehicles passing by,” observes Dierks. Brands also benefit from running campaigns on screens that are helping the environment and improving public health, as they are visibly supporting those outcomes through their advertising spend.

For Dierks this is a win-win scenario. “If you have the option of a digital screen that is cleaning and cooling the air around it rather than heating it up more, why wouldn’t you go for that?”

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