

World first as green CityTree brings a breath of fresh air to Newcastle Central Station

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London North Eastern Railway (LNER) is bringing a breath of fresh air to Newcastle-upon-Tyne as a green 'CityTree' takes root at Newcastle Central Station.

Combining the natural ability of living moss to bind fine dust and remove it from the air, with cutting edge technology, the CityTree has been designed to clean, cool and humidify 3,500 m³ of air each hour. That is equivalent to the breathing volume of 7,000 people.

Newcastle Central Station is the first station in the world to benefit from having a CityTree inside, as a result of LNER's innovation programme, LNER FutureLabs, which fast tracks new and emerging technology into the rail industry.

Unlike conventional air filters, the various species of moss inside the eye catching three-metre high structure are never full, as the fine dust is converted to natural biomass and digested by the moss.

This means it can absorb and metabolise up to 82 per cent of the fine dust in the air and in doing so, produce oxygen.

Danny Gonzalez, Chief Digital and Innovation Officer at LNER, said: “We’re excited that Newcastle Central Station is the first in the world where customers can enjoy a breath of fresh air from a CityTree, as it shows how new technology can be accelerated to have a positive impact on the environment in and around railway stations.

“Drawing upon the natural benefits of living moss and combining it with the latest tech developments, we look forward to seeing the impact that the CityTree has on the station environment. It is a great example of the innovative approach we are taking at LNER, to help us achieve our ambitious sustainability goals.

“The improvement of air quality is hugely important to LNER and we are pleased that we have already been able to significantly reduce our direct carbon emissions as a result of the introduction of our Azuma trains, saving nine million litres of diesel in 2019/20 compared to the previous year.

LNER partnered with German company Green City Solutions, which specialises in combining nature with digital technology, to test the CityTree within the station environment.

Peter Sängner, co-founder and CEO of Green City Solutions, said “Our mission is to find a solution for inner-city spaces so that as many people as possible can breathe clean air. It has been great to get this opportunity to share the CityTree with the people of Newcastle and create a pleasant zone for them to enjoy the noticeably fresher and cooler air.”

TheCityTree will be installed at Newcastle Central for 12 weeks as LNER and Green City Solutions monitor its impact on the station environment.

Further information about the CityTree can be found at:

<https://www.lner.co.uk/about-us/responsible-business/green-city-tree/>

Photo credit: LNER