

## How carbon emissions become CleanCloud™

Carbon emissions



Step 1

Carbon emissions emitted from industrial sources are captured by LanzaTech before they enter the atmosphere.

Ethanol



Step 2

A fermentation process then converts these emissions into liquid ethanol.

EVA



Step 3

The ethanol is dehydrated to become ethylene gas, which is then polymerized by Borealis to create EVA pellets.

CleanCloud™



Step 4

On then uses this EVA to engineer high-performance foam cushioning for running shoes: CleanCloud™.

On's technology converts carbon emissions into a foam material for shoe soles | Photo source On

Innovation > Sport & Fitness >

Swiss shoe manufacturer leverages collaboration to create soles made from carbon emissions

## SWISS SHOE MANUFACTURER LEVERAGES COLLABORATION TO CREATE SOLES MADE FROM CARBON EMISSIONS

 SPORT & FITNESS

**The shoes are believed to be the first to explore carbon emissions as a primary raw material**

### Register for full access

Our library content is no longer freely available. Please register to gain access to more than 12,000 innovations, updated daily. Our content is global in scope and covers solutions to the world's biggest challenges across 18 sectors.

[REGISTER](#)

[SIGN IN](#)

16th November 2021

Website: [on-running.com](https://on-running.com)

Contact: [on-running.com/contact\\_us](https://on-running.com/contact_us)

[Download PDF](#)

### Takeaway:

From running shoes to puffer jackets, we are seeing more and more products slowly transition away from carbon emissions - which is inspiring to say the least. Likewise, we are excited to see

**SIGN IN**

poration within and across industries. This, in the long run, will synergistically help to  
greater number of challenges. It is still important to consider the carbon impact of  
the processes involved, as transportation of materials can be costly. This can sometimes be  
exacerbated when a greater number of parts are involved.