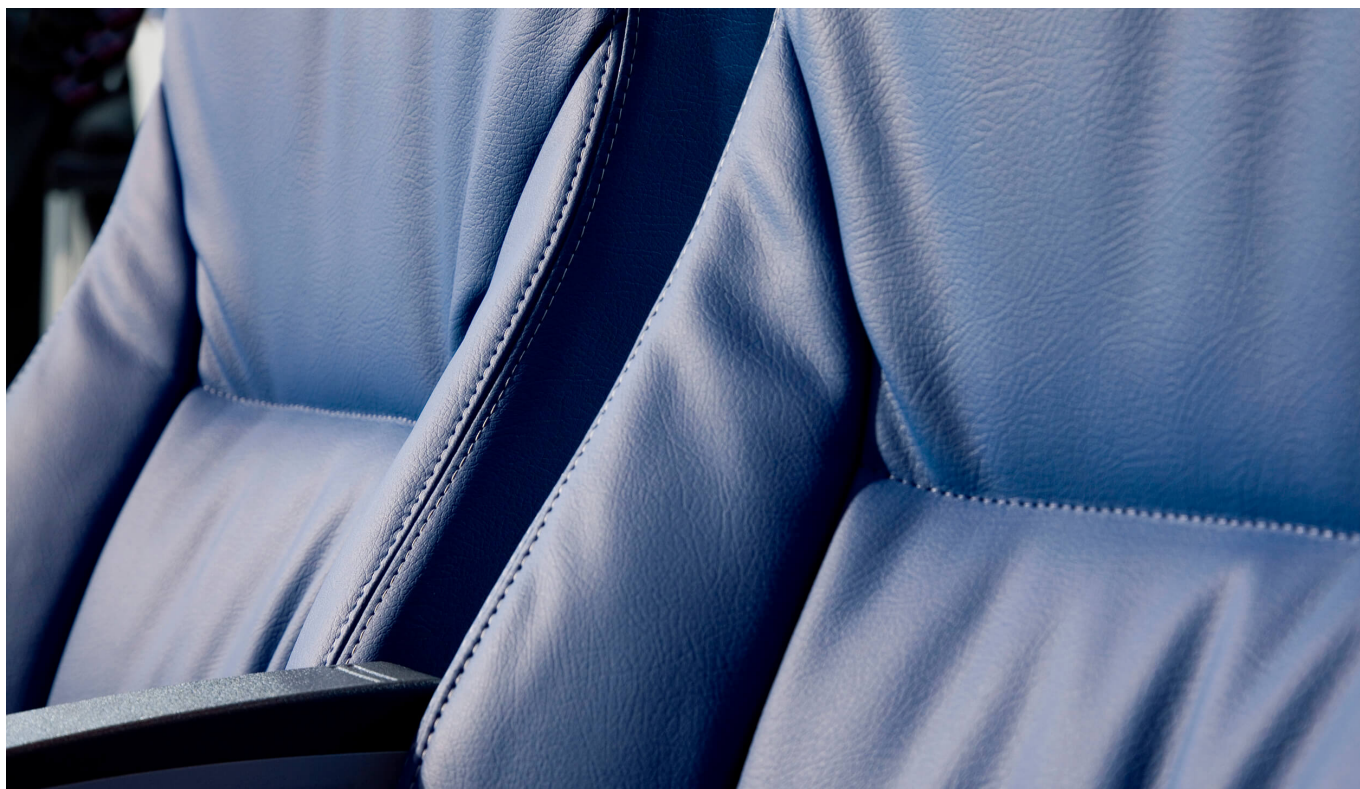


In the loop with Gen Phoenix

This is a special feature from *PAX Tech's* October 2024 [APEX Global EXPO](#) issue



Gen Phoenix coined the term “CirculAIR,” representing an industry trend

As the aviation industry moves toward sustainable initiatives, there is a growing need to repurpose existing materials. According to Nico den Ouden, [Gen Phoenix](#)’s Chief Innovation Officer & General Manager of Seating, the concept of “CirculAIR”—a term coined by the company—represents the next big trend in the industry. Gen Phoenix has recently implemented a circular manufacturing process, working with its existing customers to take back old seat covers with the intention of upcycling them.



Nico den Ouden, Innovation Officer & General Manager of Seating, Gen Phoenix

However, through this process, den Ouden tells *PAX Tech* the company realized products needed to be designed with circularity in mind to avoid needing to separate the materials during the upcycling process. Rather than laminating covers with graphite, which makes it difficult to reuse, circular seat design begins with specifying spacer fabrics, which are 3D knitted fabrics, that can be laminated to the material.

“Without any separation of layers, we can fully mill that through our process. We can use mixed waste sources as long as we can fiberize that and turn it back into a new product that we call Helios,” says den Ouden.

He explains that opting for seat covers made with circular materials can help airlines reduce carbon footprint by limiting the waste produced. Ultimately, he explains, the goal is to create a closed loop system where the seat covers are reused to build another product.

The challenge is that to maximize the effect of the circular concept, the design process is where the journey must begin.

For airlines, den Ouden says there are also direct cost savings associated with investing in circular seat covers, both from the lightweight of the material and the lower acquisition costs. With consumers becoming more environmentally conscious, he adds that an immaterial benefit to airlines is the customer loyalty that can result from aligning itself with these values through circular seating programs.

“Airlines need to put their efforts beyond sustainable fuels, which most of the attention seems to be going to,” den Ouden says. “We have to look at other areas as well, to reduce the amount of waste they produce. And I think that will ultimately help them get the vote of the passenger.”