



Stahl has lent its know-how to a driverless car design by Swiss company Rinspeed that showcases innovative technologies and debuts glow-in-the-dark leather.

## U-turn in car concepts

Each year, Swiss think tank Rinspeed creates an automotive concept that becomes the talk of the Geneva Motor Show, with recent inventions including an underwater 'scuba' car and a hovercar. This year, however, it debuted its latest concept,  $\Sigma$ tos, at the CES show in Las Vegas, as "the digital world will provide the disruptive innovations in automotive engineering in the future", according to its founder, Frank Rinderknecht.

The concept, based on a BMW i8, features a retractable steering wheel to make more room for the driver to relax when in driverless mode, eight cameras that "communicate with the environment" for safety and a Harman communications system that learns the driver's preferences and responds to voice, gestures, touch input or controller. It houses its own drone that can take videos and can even pick up shopping if the car is stuck in traffic, and which is built into a platform made up of 12,000 LEDs that can even double up as a dance floor, the company suggests.

As well as combining state-of-the-art technology and engineering, Rinspeed was keen for the aesthetics of the car to continue the futuristic theme. It teamed up with leather chemicals maker Stahl for the interiors, which feature the company's Easy White Tan and new glow-in-the-dark leathers on the seat cover, dashboard, steering wheel and door panels. The high elasticity makes the leather flexible, tear resistant and versatile, enabling thinner and lighter leather.

Mr Rinderknecht admits it might be some time before driverless cars become the norm. "This process will likely lead to an adaptive, learning and intuitive control software, but it will be a long, rocky road," he says. However, if the reception from the world's motoring and digital press at CES was anything to go by, Rinspeed is certainly making good progress.

$\Sigma$ tos is making its European debut at the Geneva Motor Show, March 1 to 13, where Stahl will be able to highlight its achievements to the wider automotive industry. We spoke to the Dutch group to find out more about the collaboration.

### How did the partnership with Rinspeed come about?

We met Frank Rinderknecht about a year ago and were inspired by his progressive ideas and the success he has had for 35 years. Frank was inspired by Stahl's design freedom, and our collaboration as the official interior development partner was the logical consequence.

Within a very short timeframe, we were challenged to use special innovative surface finishes in the  $\Sigma$ tos that are alien to car designers. We created a sensory experience for the customer with the use of different substrates. The  $\Sigma$ tos is a perfect platform to showcase our most recent technologies and innovations.

### Can you tell us a bit more about the glow-in-the-dark leather?

The technology provides a completely new mobility experience at night and addresses the increasing need of OEMs and car interior designers to differentiate and provide appeal to car interiors. Interior lighting is a "hot topic" in automotive design and the new technology adds design freedom and room for expression to the car interiors of the future.

### How is it achieved, how long do the effects last?

The effect is achieved by integrating special pigments and newly developed additives into our finishing systems. The biggest challenge was to adjust the build-up of the finishing system in a way that the additional design features, as well as all the other OEM specs, can be achieved. We managed to find the right trade-offs. Depending on colour, finish system and charging time, the effect lasts the whole night.

### Which tanneries were you working with and how did the concept develop?

We started to test our ideas by involving partners quite some time ago. We believe working in partnerships provides the best results for all parties, it has certainly helped us to improve the concept over time. Although this new technology is at an

# BEAST to Beauty

*Stahl took inspiration for the interior leather design from California sunsets.*  
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*The design combines a number of leather textures with textiles and piping, and is adorned with the embroidered skyline of San Francisco.*

advanced stage and ready for series car models, we think the potential applications are, as yet, in their infancy.

Take the bespoke articles for the Σtos. We have incorporated the glow-in-the-dark technology by means of a fine cloud-print on to the interior materials, which provides a very light and elegant effect. We were inspired by the reflection of sunlight over the California Bay area, and the effect surprises at night with a mystic and kind of translucent appeal. The colour, material and interior-concept is in line with the Σtos concept and has a direct link to the Silicon Valley.

The driverless concept is packed with exciting new technologies from the digital realm, combined with the latest technologies from the “real world materials”, such as automotive leather – this is just one way the glow-in-the-dark technology can express the character of the car. We can also imagine OEMs wanting to enhance the appeal of an ordinary black car interior by having their logo glowing at night on the front seats.

#### How could it be used in other areas or sectors?

We imagine many possible applications in different industries. There are probably many ideas out there in the marketplace with designers, product developers and marketers that can be realised with this technology that we have yet to think of. We are perfectly fine with this, because we see our chemicals-rooted strength, know-how and product portfolio as an “enabler” for the value chain and for partners and customers to bring innovative products to the end consumers – be this for car interiors, bags, footwear, surfboards or smartphone sleeves – virtually anything is possible.

#### What has been the reaction to the Rinspeed partnership?

The interest has been very broad – from media, press, OEMs, tier one and our direct customers – sparked by launching it on such a prominent platform. The broad reach into the different stages of the value chain will also help our partners to bring innovative new products to the marketplace. 🌐



*When the lights are dimmed, the leather will subtly glow.*