Press

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CES 2020: Osram and Rinspeed reveal Future Mobility Technologies in MetroSnap Concept Vehicle

Smart lighting solutions help pave way for a mobility future that is healthier, safer and more connected.

January 2nd, 2020 – Las Vegas | CES 2020 – Osram is proud to announce it is the exclusive lighting supplier for MetroSnap, the latest concept vehicle from Rinspeed, a Switzerland-based creative think tank famous for its vision. This is the fourth consecutive year that Osram has supported the Rinspeed concept vehicle with automotive lighting and sensing applications, helping to illuminate the future of driving. The new Rinspeed concept vehicle will be unveiled for the first time in Osram's CES booth 8516 in the North Hall of the Las Vegas Convention Center.

As one of the leading innovators in the field of visible and invisible light, Osram is bringing more than 110 years of experience to its partnership with Rinspeed to help transform the automotive experience through the application of state-of-the-art technologies and next-generation lighting features. The electric MetroSnap vehicle has a unique swapping system that allows its chassis, known as a "skateboard," to connect two different body types or "pods."

MetroSnap features Osram components for lighting and sensing applications in and around the vehicle that provide solutions within the categories of Mobility, Safety and Security, Connection, and Health and Well-Being. These technologies will be critical in creating an autonomous world and shaping the third living space by using dynamic and human centric lighting, as well as biomonitoring and biometric applications enabled by infrared light sources.

"We are thrilled to once again partner with Rinspeed on another amazing concept vehicle that reimagines the act of driving," said Wolfgang Lex, Vice President and General Manager of Automotive at Osram Opto Semiconductors. "Lighting will increasingly be at the center of the driving experience and Osram's technologies will help usher in a new automotive future where cars are more than just a means of transportation, but also a place to relax, rejuvenate and work." On the exterior of MetroSnap, Osram has provided the following:

- **Eviyos**, which features thousands of individually addressable pixels that project valuable information and warning symbols on the road for passengers and pedestrians.
- Light Detection and Ranging (LiDAR) technology, which helps orient MetroSnap on the road using infrared laser pulses. Once a light pulse hits an object, it is registered by a sensor and the vehicle calculates the distance from the light to the object, then initiates appropriate actions such as braking.
- Intelligent display systems on the front and back of the vehicle, and even on windows, which allow for visual communications with other road users. LED license plates serve as supporting human-machine-interfaces and provide further possibilities for individualized driving experiences.

Inside MetroSnap, Osram has provided the following:

- **3D facial recognition and palm recognition systems**. These technologies ensure that only approved individuals can ride in the vehicle, while also allowing the vehicle to adapt to the personalized settings of those riders.
- Intelligent ambient lighting and human-centric lighting, specifically designed to make the ride more enjoyable and deliver critical safety features. With the advent of autonomous driving, the interior of vehicles will be more than simply a cabin, they will be true living spaces in which we will work and relax. Osram's ambient lighting solutions, such as the Osire family of iRGB LEDs, will adjust to brightness and temperature preferences of passengers as well as include human-centric lighting features to ensure interior lighting always adapts to their moods. Special reading lights ensure dynamic and optimum illumination of the vehicle's reading area.
- In-cabin monitoring, which uses VCSEL (Vertical Cavity Surface Emitting Laser) technology to scan MetroSnap's cabin for forgotten objects and notifies passengers if something is left behind.

CES attendees can visit the Rinspeed interactive display at Osram's booth (#8516 North Hall) to learn more about the Osram-enabled applications featured in the MetroSnap concept vehicle.

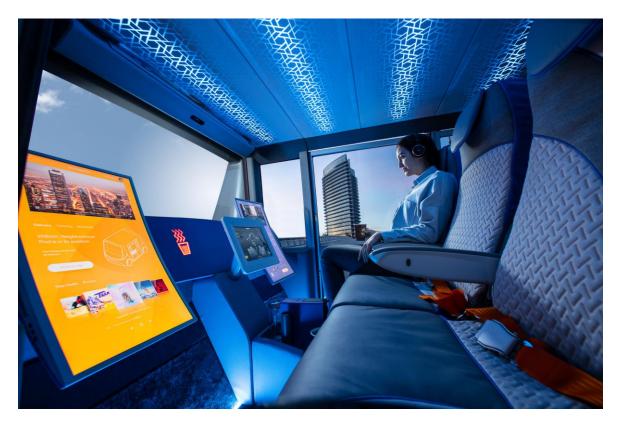
For further information, visit <u>www.osram.com/CES</u>.

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For the fourth consecutive year Osram supports the Rinspeed concept vehicle with automotive lighting and sensing applications. Picture: Rinspeed



Osram's Osire family of iRGB LEDs light the interior of Rinspeed's MetroSnap, adjusting to match personal preferences of passengers. Picture: Rinspeed

ABOUT OSRAM

OSRAM, based in Munich, is a leading global high-tech company with a history dating back more than 110 years. Primarily focused on semiconductor -based technologies, our products are used in highly diverse applications ranging from virtual reality to autonomous driving and from smartphones to smart and connected lighting solutions in buildings and cities. OSRAM uses the endless possibilities of light to improve the quality of life for individuals and communities. OSRAM's innovations enable people all over the world not only to see better, but also to communicate, travel, work and live better. OSRAM has approximately 23,500 employees worldwide as of end of fiscal 2019 (September 30) and generated revenue of about 3.5 billion euros from continuing activities. The company is listed on the stock exchanges in Frankfurt and Munich (ISIN: DE000LED4000; WKN: LED 400; trading symbol: OSR). Additional information can be found at www.osram.com.