Rinspeed presents the clever urban "Oasis" runabout at the CES in Las Vegas and the NAIAS in Detroit in January 2017

## Garden plot on wheels for the urban jungle

You can count on Swiss automotive visionary Frank M. Rinderknecht when it comes to reimagining mobility. With the Rinspeed concept vehicle "Oasis," the ingenious self-driving electric vehicle for the city and surrounding areas, he refutes the deeply ingrained notion of the urban jungle that requires SUVs the size of battle tanks for the daily struggle for survival. His alternative concept: a maneuverable speedster with an integrated small garden plot behind the windshield.

The Rinspeed boss therefore challenges the martial appearance with mobile urban gardening. With its large glazed areas and shrouds on the front wheels, the refined and swift two-seat runabout looks rather futuristic and is somewhat reminiscent of a modern interpretation of famous Star Wars icon R2D2. They both can turn on their wheels with almost a zero radius. In the case of the "Oasis," thanks to a special steering angle, two in-wheel electric motors and torque vectoring, all developed by ZF on Lake Constance.

The self-driving Swiss vehicle is not a wallflower or strictly functional like the Google Car, but rather "next gen" - with a host of technical and visual treats inside. Because in keeping with a great tradition, the twenty-third Rinspeed concept car was again engineered by Swiss company 4erC and executed by Esoro.

Speaking of inside: The ultimate eye-catcher is the small garden with enough space for growing radishes or even little Bonsai trees. Automotive supplier Kostal adds the element of nature to the car to make it a true third space. "Home+Garden" becomes "Car+Garden" - brought together by a custom removable planter.

The small garden plot is just one of features that creates a new living space in the interior of the car. Armchairs, sideboard and TV provide a modern living room ambience in white. Everything looks welcoming and inviting, thanks to the efforts of the innovative Swabian textile developers at Strähle+Hess, and Dutch company Stahl, the world market leader in leather and synthetic surfaces in automotive interiors. Together, they created a remarkable ensemble of natural, functional leather with various designs and surfaces complemented by textiles with bright edging highlights. For this purpose, Schoeller Spinning Group supplied an all-new highly elastic wool yarn. Also worthy of note are the elegant aluminum seat bases from GF Automotive in bionic lightweight design, the futuristic retractable air vents, and the multi-purpose storage box from Dr. Schneider Unternehmensgruppe. The floor is made from real wood, and created by the specialists from MeisterWerke. All adhesive bonds in and on the "Oasis" are realized with innovative adhesives from Sika Automotive.

Always a step ahead: In the "Oasis," the journey becomes the destination

An eerie quiet around the football arena, but the activities on Twitter show: Injury time is almost up and tens of thousands of fans will soon flood the streets. The Rinspeed "Oasis" is equipped with Harman LIVS technologies (Life-Enhancing Intelligent Vehicle Solutions), which put it always a step ahead, and its finger on the pulse of the social web - the "Oasis" has long since planned the alternative route.

The "Oasis" lets its driver know that several Facebook friends with similar tastes have recently liked a new restaurant that just opened nearby. A quick 'Ok' signaled to the personal assistant of the "Oasis," and the table has been reserved. That fast.

To interact with the Harman system, the occupants use a slightly curved 5K widescreen display with voice- or gesture-control that spans the width of the "Oasis" in front of its passengers. In manual mode, it presents the most important information in condensed form. The images of the electronic rearview mirrors are dimmed when not needed.

The steering wheel from ZF folds flat and thus turns into a keyboard or work surface. The car thus becomes a self-driving office on wheels, complete with Office productivity software and Skype video telephony with live translation. The personal assistant not only knows which of the occupants is talking to it at the time, but also in what language the occupant speaks. The "Oasis" passengers are able to exchange and share interesting news on social media channels by using swiping gestures. In keeping with a ten-year tradition, a mechanical Carl F. Bucherer watch is integrated on the steering column. What is more: On the "Oasis," the new Manero Flyback is rewound by the steering motions.

The next business trip begs. After dropping its owner off at the airport, the "Oasis" chauffeurs a nice couple who had searched for a ride on Facebook into the city. After dropping them off at their destination, the "Oasis" goes on Twitter to let the owners' friends know that it is available for use at any time. They are able to summon it via WhatsApp and other social media apps. Two days later, the "Oasis" returns to the arrivals terminal of the airport, thanks to Harman LIVS punctual to the minute and unperturbed by potential flight delays, traffic jams and long lines at the baggage claim.

Curtains up for the evening entertainment with viewing enjoyment in CinemaScope, accompanied by the Harman Kardon 24-channel sound that virtually follows the passenger as the seat glides into the fully reclined position. The personal assistant takes a photo of the stunning sunset in passing - the "Oasis" keeps a diary and if desired also acts as a travel blogger to keep the Instagram followers up to date.

Feeling like taking back the wheel? Gladly - after passing an automatically administered fitness and alertness test.

By the way, the personal assistant is also at the driver's disposal outside the car. Thanks to a link to the Harman Ignite Cloud Platform, it allows controlling the owner's smart home from the "Oasis," for example. Always a step ahead, it takes care of the lights and the wellness climate as the situation demands. BlackBerry QNX supplies an integrated and certified secure and protected software platform for self-driving vehicles.

The windscreen serves as a giant display for virtual and augmented realities. Holographic laser projection technology developed by WayRay allowed to make area covered by displays significantly larger than in conventional head-up display used today. US Company Techniplas, a specialist for cognitive and networked products, developed the multi-functional rear window. It integrates not only the usual lights at the back of a car; it also serves as a display panel for the integrated clever micro delivery box. It can even be cooled or heated as needed. As a special touch, the box was sized to fit a power bank form EVA Fahrzeugtechnik, which increases the range of the "Oasis" when circumstances demand.

When it comes to automotive lighting, Rinspeed relies on proven Osram quality. The manufacturer supplies the powerful LED headlights and the two projectors in the front surround. The LED ambience lighting with reading lights integrated into the headliner comes from Forster Rohner.

## The who's who in the use of the vehicle

Who will own the car, who will operate it and what will it be used for? Rinspeed boss Rinderknecht has designed and equipped the car to keep all conceivable options open - if society is willing to share goods in a beneficial way. "Oasis" can be a shopping cart in the morning, a shipping services counter for a parcel service in the afternoon, and a pizza delivery vehicle at night. A digital access system from German supplier Huf makes it possible.

Apart from consulting firm EY, which contributed a study on the individualization of mobility, the masterminds behind the "Oasis" also include TOG-Tübitak. The Turkish research center - an institution not unlike the German Fraunhofer Institute - examines issues of tomorrow's transport in its own mobility lab.

However, even the "Oasis" does need a dash of masculinity: Futuristic 20-inch Borbet Aero Design rims with laser-engraved "Oasis" logo underscore the vehicle dynamics.

Transmitting large volumes of data and information requires perfect connections and consequently is of fundamental importance for autonomous driving in particular. The intelligent antenna systems from Vites integrated into the roof play a crucial role in this regard.

Intelligent traffic management solutions from Siemens help optimize the traffic flow and thereby are a factor in providing more comfort in traveling, minimizing emissions, and enhancing the safety of all road users – for example, by warning road users of an approaching emergency vehicle. The "Oasis" uses different sensors based on NXP technology to capture a 360-degree view of its surroundings with pinpoint precision. Thanks to vehicle-to-vehicle communication, it can even look around corners and obstacles. This sensor fusion is then used to compute the safe driving maneuver.

An innovative app from MHP allows choosing potential passengers by interest or profession. For passionate car enthusiasts who just met, this can make the long drive to the vintage car event a sheer pleasure. The "Mini Mica" from connectivity specialist Harting is a scalable and flexible computing architecture, which uses different modules for adapting the "Oasis" to the particular requirements of the vehicle user, and installs the corresponding technology features. This makes an individualization of the "Oasis fleet" with efficient use of resources possible. The secure transmission of data and information was tested and certified by independent and impartial certification specialist Dekra. Axa Winterthur provides insurance and peace of mind if the unthinkable happens.

Urban gardening on wheels as a new trend? A little bit out there? Maybe. But as always, the creation of Swiss mobility innovator Frank M. Rinderknecht is an oasis for inspiration in the otherwise rather expansive automotive wasteland. On display at the CES in Las Vegas and the NAIAS in Detroit in January 2017, and in spring 2017 - in a manner of speaking, in the Swiss national own front garden - at the Geneva Motor Show. As always, put in the best light by Vollmond Advertising Agency from Saarland, Germany.

The "Oasis" will be exhibited at the CES Las Vegas in the Hard Rock Hotel in the Harman Venue from January  $4^{th}$  thru  $7^{th}$ , 2017 and from January  $9^{th}$  thru  $22^{nd}$ , 2017 at the NAIAS in Detroit in the ZF booth.