

# RENAULT SYMBOLOZ DEMO CAR



# WELCOME ABOARD

# SYMBIOZ

[sẽ.bjɔz]



## SUMMARY

MIND-OFF  
EASY LIFE  
DESIGN  
COLOUR  
EXPERIENCE  
TECHNOLOGY  
AT HOME  
PARTNERS

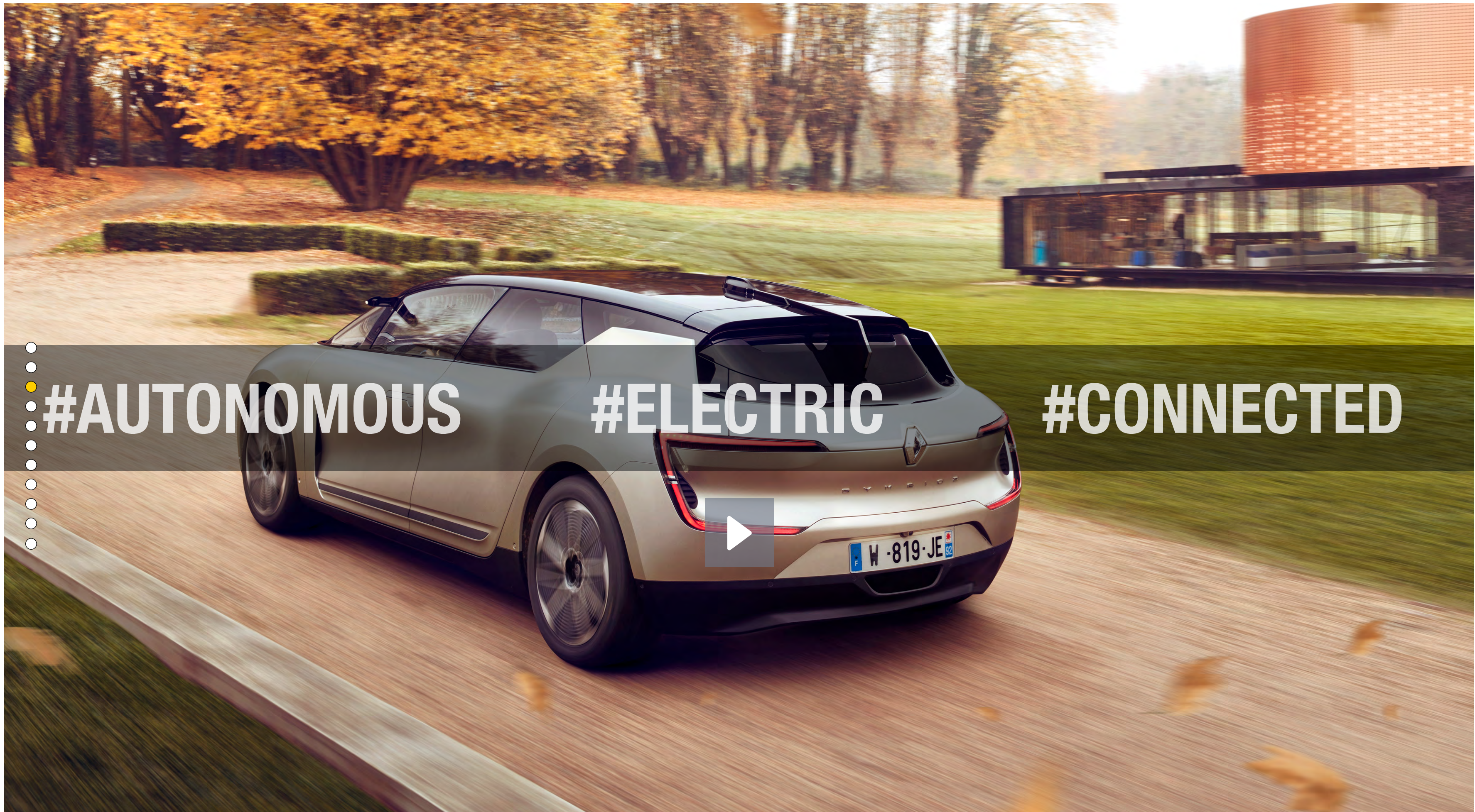
## VISION

**T**he Renault SYMBIOZ demo car demonstrates in real-life conditions a car that is autonomous, electric and connected. The result is a whole new life-on-board experience and as much pleasure while driving as with hands off the steering wheel. In SYMBIOZ, the driver can automate driving and use travel time for other activities. We believe car travel will become a multi-sensory, personalised experience, with a cabin reconfigured differently for each driving mode. The car becomes part of the personal ecosystem for both driver and passenger. Renault SYMBIOZ demo car showcases design elements –both interior and exterior– and key autonomous driving and connectivity technologies that will be progressively deployed in the range in the coming years. Experience tomorrow today.



**DOWNLOAD THE COMPLETE  
WORD PRESS KIT**

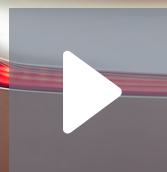




#AUTONOMOUS

#ELECTRIC

#CONNECTED





# MIND-OFF

[maɪnd ɒf]

**The Renault SYMBIOZ demo car is equipped with level 4 autonomous driving technology, known as “mind-off”.**

What this means in practice:

- ⇒ No need to pay even a minimum of attention to the road.
- ⇒ The car itself is capable of maintaining safety or moving to a safe position.

## LET THE SYMBIOZ DEMO CAR TAKE YOU AWAY

Thanks to the combined engineering, automated driving, and geo-positioning expertise of Renault, IAV and TomTom, the Renault SYMBIOZ Demo car is capable —on authorized highways—of adjusting its speed to maintain safe distances with surrounding cars, of staying in its lane even when cornering, of safely changing lanes (to overtake another car or exit the highway, for example), and of navigating autonomously in traffic jams.

## LET THE SYMBIOZ DEMO CAR MAKE YOUR JOURNEY SAFER

Renault SYMBIOZ demo car is connected to road infrastructures in the Sanef network (Sanef is a subsidiary of the Albertis group, the world’s leading highway operator). The car passes automatically through toll gates and is warned in advance of any hazards ahead including roadworks, accidents, congestion, or a turn for the worse in the weather.

## LET THE SYMBIOZ DEMO CAR SHOW ITS COLORS

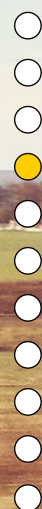
To announce its presence and let other drivers know they’re sharing the road with an automated vehicle, Renault SYMBIOZ demo car lights up in blue when the autonomous driving mode is activated.

## CLIMBING UP THE LEVELS OF AUTONOMY

Renault SYMBIOZ demo car is capable of autonomous driving at Level 4 on the scale of 5 levels of autonomous driving defined by SAE International, the US-based organization responsible for establishing engineering standards in the transport industry. Renault’s anticipated Level 4-equipped models will be rolled out starting in 2022, pending government regulatory approvals.



**DISCOVER THE 5 LEVELS  
OF AUTONOMOUS DRIVING**





# EASY LIFE

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More than a slogan, *Easy Life* is the philosophy Renault has cultivated for years now, thanks to its people-centric innovations. The SYMBIOZ demo car onboard connectivity system allows driver and passengers uninterrupted access to their digital lives and offers a wide range of services, all the better to make use of their new-found time on the road.



## SMARTPHONE FRIENDLY

Occupants of the car are identified by their smartphone regardless of where they are sitting. The smartphone interacts with the SYMBIOZ human-machine interface to adjust personalized functions such as preferred seat settings, air-conditioning settings, and music preferences.



## ALWAYS CONNECTED

Thanks to a full suite of connectivity features (GPS, 4G, Wi-Fi), occupants enjoy permanent access to their digital environment, media, networks, and services. The driver's smartphone synchronizes with the SYMBIOZ demo car to allow access to the personal calendars, trip itinerary and information about tourist attractions in the vicinity.



## VIRTUAL REALITIES

Onboard the SYMBIOZ demo car the "mind-off" experience expands even further, thanks to the virtual reality options designed by our partner Ubisoft and available while traveling in autonomous mode. Wearing virtual reality headset and with the seat inclined in "zero gravity" position, the driver plunges into an immersive and contemplative world, fully relaxed and detached from the pressures of the road.





# DESIGN

[di.zajn]

The Renault SYMBIOZ demo car's exterior design is intrinsically aligned with Renault's signature "French Design" styling: sensual and warm, with fluid lines and a dynamic presence accentuated by the "champagne" body color in a pearlescent finish.



**DISCOVER THE  
INTERIOR IN 3D**



**EXTERIOR STYLING  
DISCRETELY  
INTEGRATES** various  
sensors and captors for  
autonomous driving

**MAXIMAL GLASS  
SURFACE** for ample  
natural lighting in  
the cabin

**RENAULT'S HALLMARK  
C-SHAPED** headlamps  
and tail lamps

**ENHANCED  
AERODYNAMIC  
efficiency**



**AUDIO MODULES  
AND SPEAKERS**  
strategically  
positioned for an  
immersive ambiance

**A NEW CONCEPT  
OF INTERIOR SPACE:**  
no central console,  
and dashboard storage  
areas have been moved  
to free up space

**DIGITAL DASHBOARD**  
conceived by LG, with  
head-up display mounted  
on the windshield

**"LIVING-ROOM"-  
STYLE CABIN** with  
highly modular  
individual seats



# COLOUR

['kʌlə]

Three driving modes and three colour moods personalize the journey experience with Renault SYMBIOZ demo car. Select the driving mode by pushing the Renault logo in the middle of the steering wheel.



**GOLD**  
For autonomous driving. The AD mode transforms and optimizes the interior space of the SYMBIOZ demo car by reorienting the seats and retracting the dashboard.



**BLUE**  
For enhanced focus on conventional driving comfort. The *Classic* mode permits the driver to feel at one with the car in a standard, manual driving position.



**AMBRE**  
For a more active and sensory driving experience. In *Dynamic* mode the engine response, steering, and chassis settings are all geared toward boosting a dynamic driving style.



# EXPERIENCE

[ɪkˈspɪəriəns]

**Sight, hearing, smell:** climb aboard the SYMBIOZ demo car and take your senses for a drive.

Renault's MULTI-SENSE 3.0, a system specially conceived for the SYMBIOZ demo car, reinforces the sensory aspects of the three driving modes. A dedicated interface on the digital dashboard allows each driver a personalized sensory experience while behind the wheel.

## LIGHT

The Renault SYMBIOZ demo car envelops its passengers in a lighting ambiance ideal for enhancing well-being. This lighting varies according to the moment and according to the driving mode.

## SOUND

The sound experience has received special attention. Designed by Devialet on the model of its Phantom speaker, the audio modules are built into the car's centre pillars, the middle of the dashboard and between the rear seats. They feed the network of diffusers distributed in the cabin, for a totally immersive sound reproduction.

## SCENT

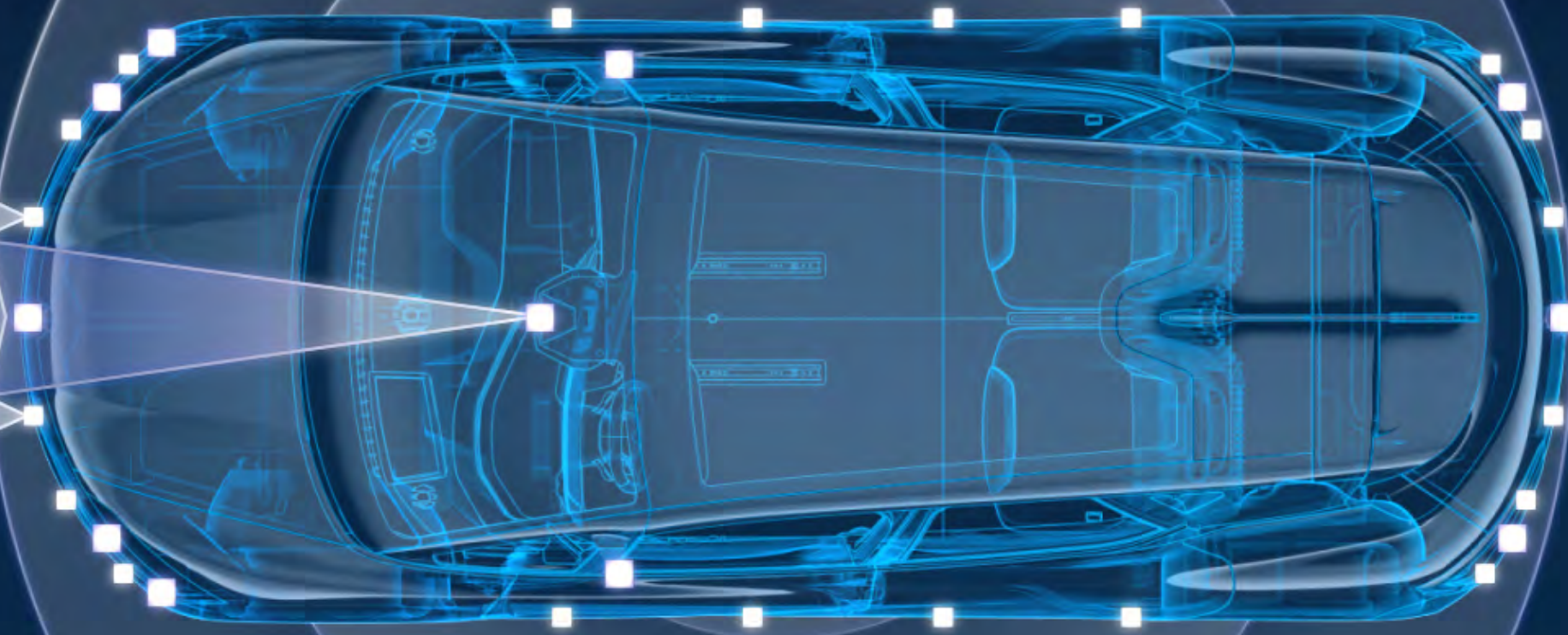
Three ambient fragrances, each an olfactory experience designed by a specialist perfumer, accompany the three driving modes.



# TECHNOLOGY

[tek.no.lo.ʒi]

As a **100% electric vehicle**, the Renault SYMBIOZ demo car takes its place in the long-game strategy of Renault's zero-emissions commitment. This vehicle is the fruit of more than a century of work in automotive engineering.



## PERFORMANCE

The Renault SYMBIOZ demo car delivers a maximum power of 500 kW and a peak torque of 660 Nm. The two electric motors are located on the rear axel, and are powered by a battery pack with a 72 kWh capacity.

## SECURITY

In autonomous driving mode the Renault SYMBIOZ demo car uses a variety of captors to evaluate, with great precision, the environment through which it moves.

4.9

METERS LONG

1.9

METERS WIDE

1.4

METERS HIGH

0 to 100

KM/H IN 6 SECONDS

4

PASSENGERS

500

KM OF AUTONOMY  
IN REAL-USE  
CONDITIONS

2

MOTORS, 100 %  
ELECTRIQUE

80%

OF CAPACITY  
IN 30 MINUTES

34

EXTERNAL CAPTORS  
(CAMERAS, RADARS...)



# AT HOME

[hju:m]

When connected to the digital life of the user, the Renault SYMBIOZ demo car becomes an extension of the home. The traditional divides separating the car from the home and workplace are blurring...

## SHARED INFORMATION

The journey starts at home: the Renault SYMBIOZ demo car communicates with your devices (tablet, TV, smartphone or PC) to update you on the status of the vehicle and your next journey. Once on the road, you can access security cameras, adjust thermostats, or control devices and connected appliances at home.

## SHARED ROLES

Parked inside the house in its dedicated spot, the Renault SYMBIOZ demo car shows us that the automobile can play an increasingly important and integrated role in our daily lives.

## SHARED PRACTICALITY

With the 'valet parking' function activated by a simple call from a smartphone or smartwatch, the empty Renault SYMBIOZ demo car leaves its parking spot to come pick up passengers inside or in front of the house.





# PARTNERS

['pɑ:tnə]



Renault SYMBIOZ demo car was made in partnership with technology and creative industry leaders in an **Open Innovation approach**. The six core partners involved alongside Renault's teams in the development of the Renault SYMBIOZ demo car provided input in their specific areas of expertise:



**LG** developed the digital dashboard interface to display information and settings pertaining to the driving modes, navigation, and life onboard in the cabin of the SYMBIOZ demo car.

[Learn more about this partnership](#)



**Devialet** designs the SYMBIOZ Demo car audio system and brings its expertise and know-how to offer the best sound experience on board.

[Learn more about this partnership](#)



**Ubisoft** proposes a virtual reality experience based on information captured by the vehicle's sensors and dedicated to enhancing the autonomous driving mode.

[Learn more about this partnership](#)



**IAV** participated in the development and integration of autonomous driving systems.

[Learn more about this partnership](#)



**Sanef** oversaw communication between the SYMBIOZ demo car and road network infrastructures, an element essential to ensuring a safe journey.

[Learn more about this partnership](#)



**TomTom** built on its geo-positioning expertise to develop internal guidance systems for the SYMBIOZ demo car.

[Learn more about this partnership](#)