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# CUPRA FORMENTOR

## Infotainment Summary

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Independent, sporty and a family person!

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screens 

# READ ME!

For this report we spent more than **50 hours** testing this car's infotainment system. Thousands of interactions were made and literally every possible button was used.

We went through **hundreds of use cases**, both stationary and while driving, and looked at the car as intensely as possible. We guess the only other people were probably its developers. This report represents only a fraction of our findings.

We captured the **entire HMI structure** and documented every possible click in a giant tree with hundreds of entries.

Therefore: [Contact us](#) if you have any questions about this infotainment system. We know almost everything that can be found out when using it.

The best part about this:

We have **recorded everything** and made the video material available in a tool called screens. screens is an interactive video-based online platform, which enables you to **compare** the latest infotainment systems in-depth.

Whether it is ADAS, media, apps, navigation, speech or radio. Operated in the instrument cluster, the head unit, the head-up display or in the rear seat entertainment. You can check out every possible interaction on video. We render the videos searchable and interactive so you can find a particular sequence much faster than in the actual car.

Click [here](#) to create your **trial account** and dive deeply into the infotainment system right from your desk.

**We are looking forward to your feedback!**



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# Overview

A pure Cupra.

This is much more to that statement. Seat Cupra is a subsidiary of the Spanish car manufacturer Seat, whose focus, in contrast to the parent company, is purely on sporty vehicles. The Cupra Formentor embodies elegance, innovation and the vision of a new, contemporary sportiness. With the Formentor, Cupra presents its first independent model in the form of a crossover between an SUV and a coupé. A pure Cupra with a high-performance engine and 4Drive technology.

Named after a peninsula on the Spanish island of Mallorca, the vehicle brings sports car flair to the road. You can recognise the sport-inspired exterior design, which looks aggressive and massive in a certain way and is close to the concept car already presented at the Geneva Motor Show in 2019.

The racing character also finds its way into the interior of the vehicle. In terms of design, the brand's copper colour is reflected both in the decorative stitching on the seats, the steering wheel clasp and the air vent. The copper-coloured Cupra logo decorates the centre of the steering wheel. However, the Cupra Formentor cannot completely deny its origins. The interior is similar to the Cupra Leon. The Touch Slider below the Head Unit is similar to what we have seen in the Volkswagen Golf 8 and the Volkswagen ID.3.

We will take a closer look at the infotainment system. What functions and features does the vehicle offer? What are the highlights and the Cupra DNA and how are innovation, dynamic driving and safety combined in a user-friendly way?

In the following report we will go into more detail about the various features, displays and input modalities.



# 01 HIGHLIGHTS

Automatic parking  
Exit warning system  
Vehicle detection

# 02 SCREENS & CONTROLS

Instrument Cluster  
Head Unit  
Controls  
- Steering wheel  
- Touch Slider

# 03 VEHICLE

Specification  
HMI-Sitemap  
UX Assessment

# 04 MORE INFO

Upcoming Cars  
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# Automatic parking

Autonomous parking is a special feature that allows the vehicle to manoeuvre independently into a pre-detected parking space. However, there are decisive differences. The process of automatic parking consists of the recognition of a parking space, the selection of the parking direction of the vehicle, the parking process itself and the completion of parking.

If you select the automatic parking assistant in the Head Unit, a notification telling the driver to follow the instructions in the Instrument Cluster immediately pops up. Through the exterior radar sensors, the system scans the surroundings. If the system detects a potential parking space, the driver is informed via both the Instrument Cluster and the Head Unit and must brake independently. The parking space is selected via the Head Unit. The special feature is that the parking space is displayed as a suitable space to park forwards, backwards or parallel. In addition, the user has the option of changing the parking direction via the Head Unit. This is indicated by arrows next to the vehicle icon. For example, if you want to start the automatic parallel parking process, you follow the instructions in the Instrument Cluster, according to which you have to engage reverse gear or confirm the process via the Head Unit. If you then release the brake, the parking process begins and the vehicle moves. Basically, the driver can, but does not have to, accelerate, but must use the brakes. A bar next to the animation in the Instrument Cluster shows how far the current parking process has progressed. When the bar has expired, a sound comes on and the next instruction appears. The instruction being to use the brake to drive forwards slowly. We have to put the car into drive for this. Once this is done and the brake is released, the process continues. At the end, the message „Park Assist finished. Please take over steering“ is displayed and a sound comes on.

## Assessment

- + The instructions are represented in text form as well as pictures and animations in the Instrument Cluster and the Head Unit.
- + The written instructions are clear in both, the Instrument Cluster and the Head Unit.
- There is no separate button to open the Park Assist feature. It is opened solely via the Head Unit and thus the touchscreen.
- If a parallel parking space is detected, you will see arrows in the Head Unit next to the vehicle symbol, which are used in a normal parking space to decide whether to park forwards or backwards. In a parallel parking space, these are displayed, as well. If you press the vehicle animation, however, nothing happens. This makes sense since the vehicle cannot and should not park the other way round in the lateral space. Consequently, the arrows next to the vehicle animation are misleading and without function when parallel parking spaces are detected.
- The vehicle accelerates very fast during the parking process.
- Parking space boundaries such as the curb were sometimes not recognised, which is why the vehicle repeatedly drove against them.



# Exit warning system

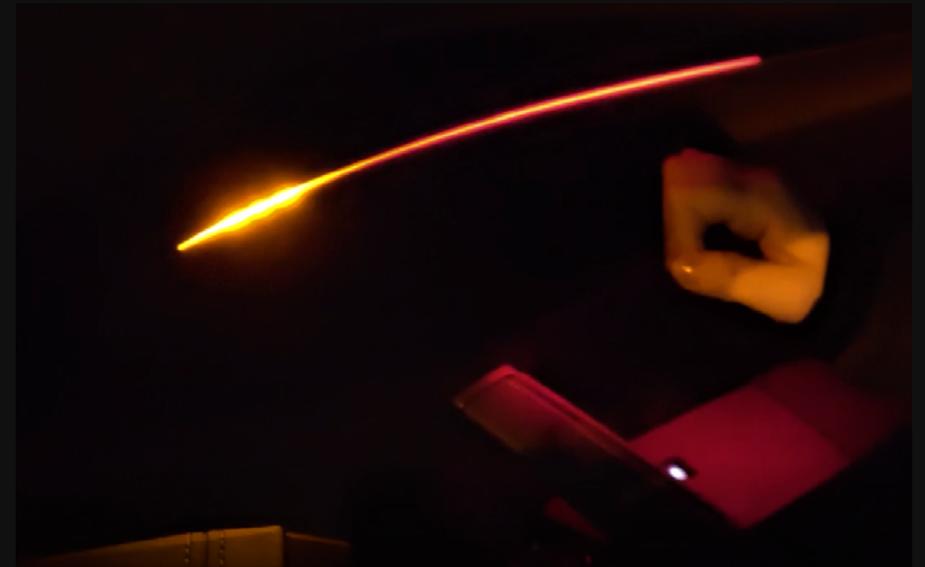
You learn that when taking driving lessons: When you get out of the vehicle, looking in the rearview mirror, side mirror and shoulder view are always part of the process. All the better if the system supports the driver doing all of the above.

In the Cupra Formentor, the system uses sensors to detect pedestrians or cyclists approaching the vehicle. For this purpose, there are light elements in the two front doors. Consequently, it can be said that the ambient lighting in the door keeps an eye on the blind spot. If the door is opened and there is a person or an approaching object in the analysis field of the sensors, the light element starts to flash orange in the front part of the light tube when opening the door and then turns red continuously.

Consequently, unlike the Exit Assist, the system does not prevent the user from opening the door in general, but warns him/her through a visual stimulus and warning sound. This is to prevent accidents when exiting the vehicle.

## Assessment

- + The visual stimulus is clearly assigned to the process of opening the door. If there was only a warning sound, it might not be so quickly associated with the action.
- + The light element uses a colour code that can be understood intuitively. Orange = attention and red = stop.
- The light elements are only located on the driver and passenger doors. Although there is a kind of child safety lock for the rear doors, it would be nice to have in the rear seat area in the sense of a universal safety concept.
- During our test, not all pedestrians were recognised. Consequently, there was not a warning every time. The exact speeds or sensor angles at which a cyclist or pedestrian is detected cannot be clearly determined.



# Vehicle detection

The digital Instrument Cluster is the main screen for the driver. Especially when using driving assistance systems, the display of surroundings and thus also the visualisation of surroundings with regard to vehicles in front and the lane boundary is important. For example, when Travel Assist or Adaptive Cruise Control are activated, the distance to the vehicle in front is displayed for the driver. In the Cupra Formentor, however, this visualisation is supplemented by vehicles in the vicinity of the vehicle. The system differentiates between cars, trucks and motorbikes. We have already seen this in the Tesla Model Y, which also differentiated between cars, trucks and motorbikes. The display of the so-called Travel Assist in the digital Instrument Cluster of the Cupra is particularly convincing in the designated Assist Systems view, which shows the driving situation across the entire display. When this is selected and the Travel Assist is activated, the driver sees:

- his/her own vehicle represented as a silver Cupra Formentor vehicle icon,
- the flashing of the vehicle,
- the vehicle's lights being switched on,
- the marked lane in a light grey on which the vehicle is currently located,
- in black the adjacent lane(s),
- in grey tiles the area outside the lane,
- in a light orange the solid lane boundary on the left and right,
- in a light orange the central dashed lane boundary,
- a horizontal, light orange line to the set distance.

Both the vehicles that serve as reference vehicles for the selected distance as part of Travel Assist or Adaptive Cruise Control and the vehicles on the adjacent side lane are recognised by the system and displayed as trucks, motorbikes or cars, depending on their size.

## Assessment

- + Even with a three-lane highway, the animation represents the division of the real world very well. By dividing the lane boundary into dashed and solid lines, it is possible to see in which direction manoeuvres can be made and in which direction they cannot, just as it is in reality.
- + The colour selection of simple grey tones and the signal colour light orange does not appear as too much and emphasises the important elements for the driving situation such as the distance and the lane boundary.
- + Very detailed animation of the driving situation with regard to the flashing lights and the switched-on lights.
- The recognition accuracy has not yet reached its full potential. For example, a motorbike was shown several times although there was no motorbike in the vicinity of this situation. In addition, there were sometimes long latency periods.



# Overview

The digital Instrument Cluster is about 10.25". The resolution of the entire display is very high and primarily designed in grey primary colours, coupled with selected highlight colours. The basic structure of the Instrument Cluster consists of three areas, which can be found in the form of three slightly slanted rhombuses. These three areas can be accessed by two buttons on the right side of the multifunction steering wheel: the left tube, the central tube and the right tube. The user can scroll through the content of the left and right content areas by using the scroll wheel on the right part of the steering wheel. However, the content of the central area changes depending on the selected view. The view button on the right part of the multifunction steering wheel can be used to select between the following views: Classic, Dynamic, Assist System, Navigation, Night and Cupra. If a view is selected, the content of the central area changes, as already mentioned. The content of the left and right areas remains the same, but the display changes.

It is important to emphasise that it is possible to select which views can be activated. This setting is to be made directly in the Instrument Cluster. Except for the Classic view and the Assist System view, the other views can be deactivated. Consequently, it can be stated that the Instrument Cluster offers many types of individual representations.

**Display Size** 10,25"



# Features & Content Distribution

The majority of the different elements is arranged in the middle of the infotainment system architecture.

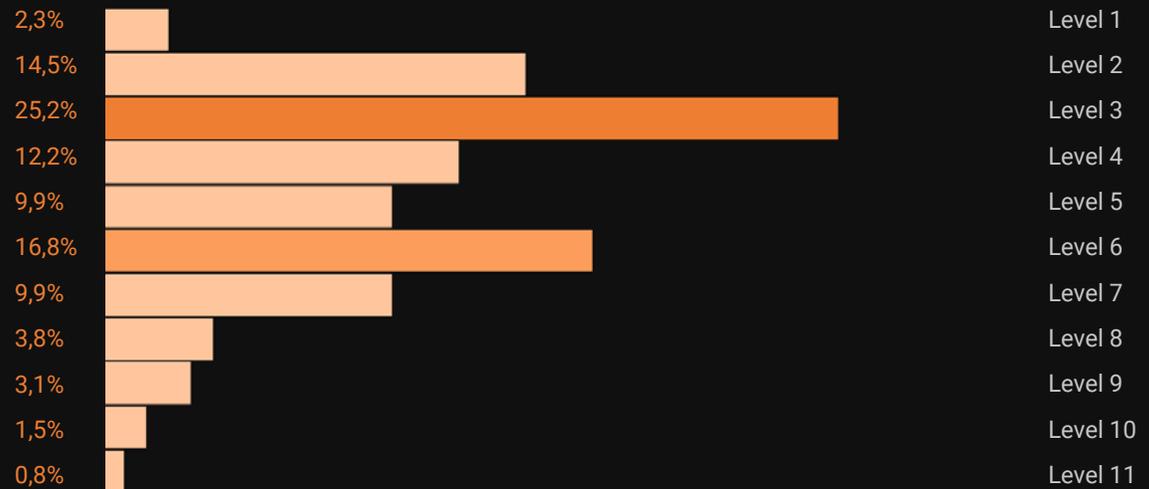
The last elements to be operated is a track play mode in the audio feature via the genre filter.

## Features

Left Tube  
Center Tube  
Right Tube

Number of clickable elements

Infotainment Architecture Depth Level



# Overview

The Head Unit of the Cupra Formentor is 12" in size and is mounted on the dashboard as a centralised screen. A Touch Slide is integrated into the frame of the Head Unit, which can be used to control the temperature, volume and deactivation of the screen. The Head Unit itself consists of an

- **Upper bar:** A/C settings and a control centre with shortcuts and notifications.
- **Lower bar:** Shortcuts regarding Navigation, Data, Full link, Users, Radio/media, Telephone, Sound, Settings. There are up to two pages in the lower bar. In addition to the shortcuts, there is a non-editable shortcut for the Vehicle feature. The colouring of the icons corresponds with the icons in the menu area.
- **Menu button on the bottom left:** It can be used to access the main menu. The individual features are represented by coloured icons and the corresponding feature name.

On the home screen, the user can create six widgets. The widgets consist of rhombuses tilted to the right. This design is also found in the Instrument Cluster. The widget content ranges from Navigation, Radio/media, Telephone, Vehicle, Driving Data up to Air Conditioning. It is not possible to double the content of the Navigation widget. It can only be stored in the first widget on the first page. Radio/media and Phone content can be selected once per page. The other contents can be selected multiple times. Within a widget, it is possible to switch between individual content pages of the widgets by swiping up and down. The number and functionality of these content pages differs from widget to widget.

**Display Size** 12"



# Features & Content Distribution

The majority of the different elements is arranged in the 4th level of the infotainment system architecture.

The elements of level 11 are part of an the destination view in the navigation feature. The elements are the save button regarding the selection destination.

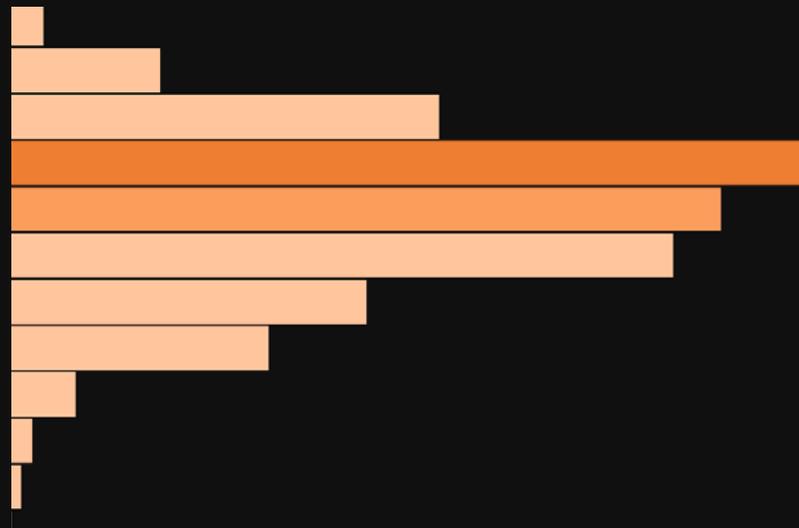
## Features

Home  
Navigation  
Radio/Media  
Telephone  
Full Link  
Users  
Help

Store  
Vehicle  
Data  
Air Conditioning  
Sound  
Settings  
Legal Notice

Number of clickable elements

1,0%  
4,3%  
12,2%  
22,9%  
20,2%  
18,8%  
10,2%  
7,4%  
1,9%  
0,7%  
0,4%



Infotainment Architecture Depth Level

Level 1  
Level 2  
Level 3  
Level 4  
Level 5  
Level 6  
Level 7  
Level 8  
Level 9  
Level 10  
Level 11

# We are family!

There is simply no denying its origins. This is also true for the Cupra Formentor, which belongs to the large VW family as a subsidiary of Seat. This can also be seen in the interior.



We already know the Touch Slider from the [Volkswagen Golf 8](#) and the [Volkswagen ID.3](#). The aim is to reduce the number of buttons in the vehicle interior. We have already discussed the advantages and disadvantages of this in the [Infotainment Summaries](#) of both vehicles.



The left part of the multifunction steering wheel in terms of functions and icons is similar to that of the Seat Tarraco. Above all, the buttons to control the individual areas in the Instrument Cluster, the view button and the scroll wheel for navigating through the individual content of the Instrument Cluster are clearly recognisable.

# Steering Wheel

Audio volume

Driving assistance systems

Select IC tube

IC controle element

ACC distance

Change speed

VIEW

IC view

Voice control

Change station/track

Cupra drive mode

START  
ENGINE  
STOP

Start/stop engine



# Control center

Standby

Temperature driver

Volume

Temperature passenger



## Equipment Level

VZ

## Display Sizes

Head Unit 12"  
Instrument Cluster 10, 25"

## Input Modalities

Touchscreen  
Speech  
Gestic

## Software version

1664

## Application

Cupra Connect

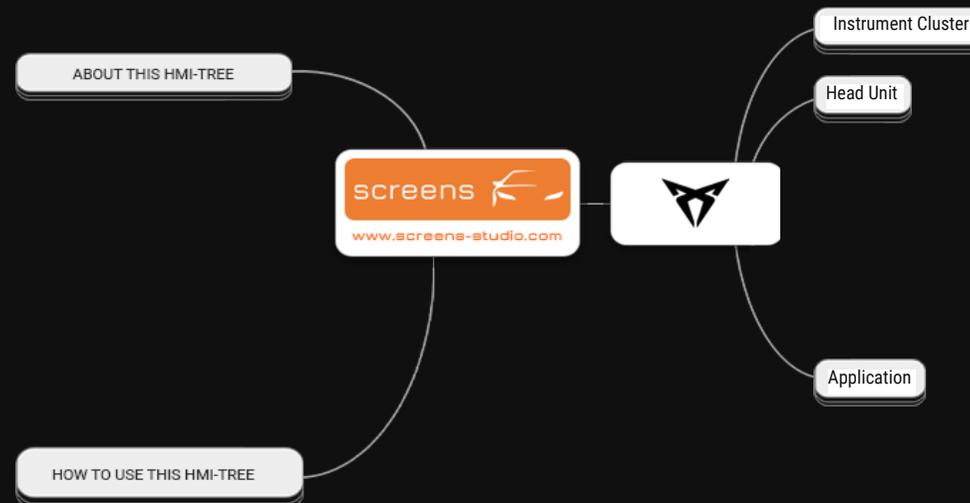
## Connectivity



# HMI-Sitemap

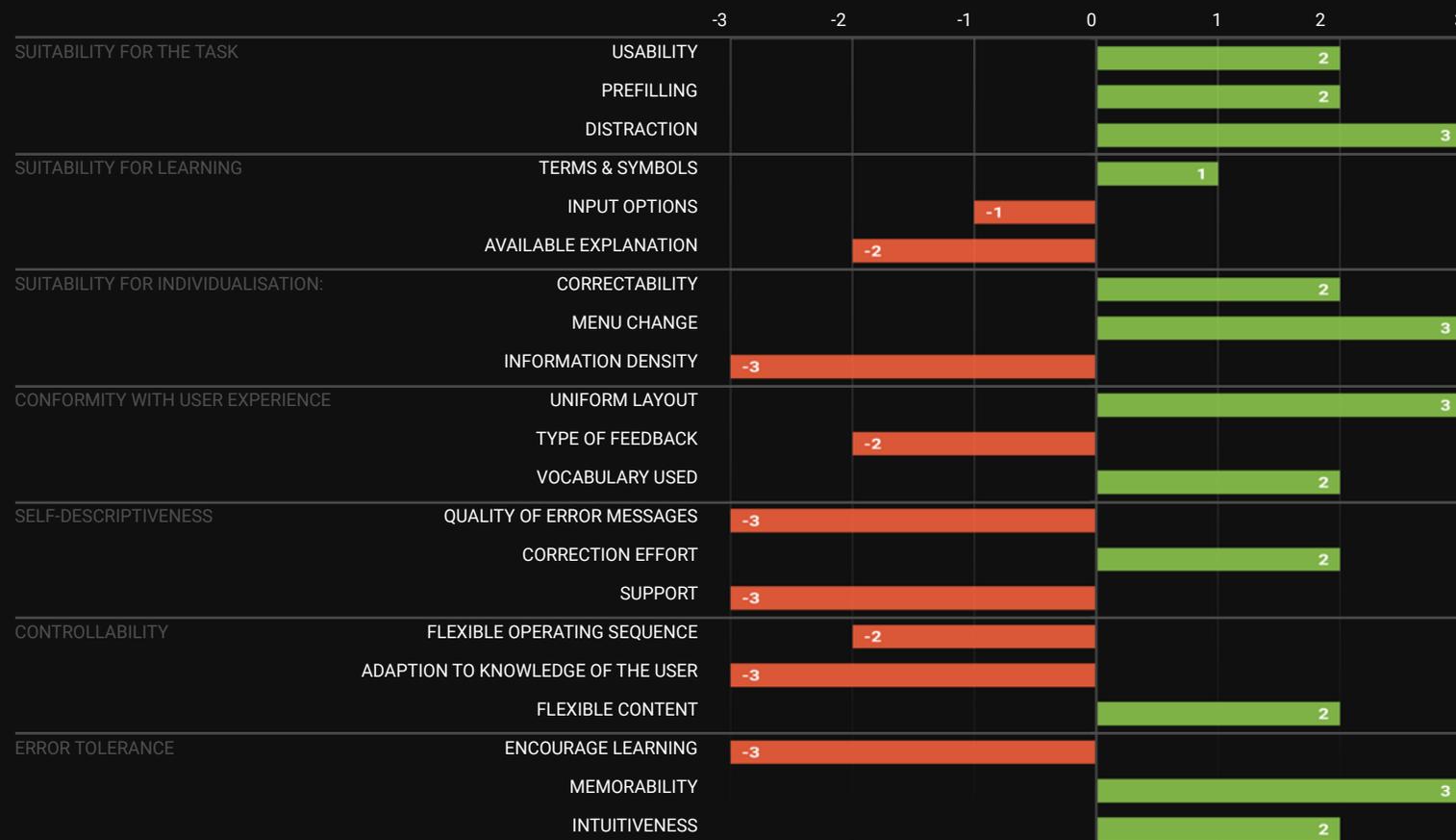
This HMI tree is an exact copy of all clickable buttons in the infotainment system of this vehicle. To make the structure easier to understand, the **HMI-sitemap** also contains logical layers created by our HMI experts. Those layers do not represent any clickable buttons. Nevertheless, you can follow the original click paths, just as they would be in the actual vehicle. Click on the following link to navigate through the different displays and levels.

You don't need a login.



# UX Assessment

The following evaluation is based on the assessment of our HMI experts, who evaluate the overall infotainment system in accordance with the seven criteria of the **DIN EN ISO 9241-110**: Suitability for the task, suitability for learning, suitability for individualization, conformity with user expectations, self-descriptiveness, controllability and error tolerance. If you have any further questions or questions regarding our evaluation, please do not hesitate to contact us.



# A new vehicle every three weeks

We have analyzed over 350 vehicles and selected the most interesting ones in terms of infotainment systems. Currently we are providing a new vehicle in the database **screens** every three weeks. We will increase the number of units as soon as we can offer vehicles, available on the American and Asian markets in addition to the European market as well.



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**CW 18/19**

Citroen C5 Aircross

# Feel free to contact our experts!

**Do you have questions, suggestions, praise or criticism?**

Do not hesitate to contact us! We spend almost 24/7 in the car and know (almost) everything about infotainment systems. You wouldn't believe how motivated we are to share this knowledge with you.



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