

# Smart Automotive Voice Assistants

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AI for a World in Motion

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- Market leader for innovative speech assistance in the automotive & transport industry
- We build advanced voice recognition, gaze & gesture technology and AI based solutions.
- We provide services from concept research, UI design, engineering, testing to UX validation
- We offer both plug & play domains and highly customizable solutions
- For more information: <https://www.cerence.com>



# Current Challenges in Automotive Voice Assistants

Why do we need smart?

- Nearly three-quarters of drivers will use an in-car voice assistant (VA) three years from now<sup>1</sup>
- Current experiences around car discoverability: excitement, frustration, Feeling of being lost, confusion<sup>2</sup>
- Inexpressive text-to-speech voice output & inflexible grammars for input (decrease experience)<sup>2</sup>

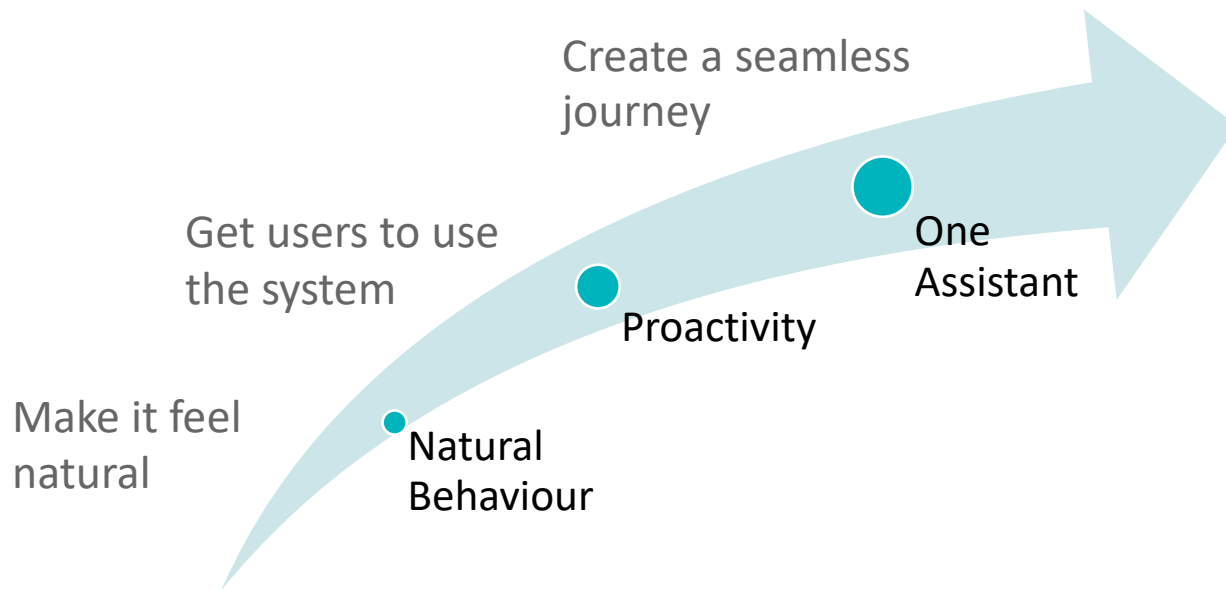
<sup>1</sup> <https://voicebot.ai/2019/11/17/73-of-drivers-will-use-an-in-car-voice-assistant-by-2022-report/#:~:text=Optimistic%20Usage&text=Currently%2C%20the%20most%20popular%20use,to%2085%25%20in%20three%20years.>  
<sup>2</sup> Cerence Insights

An abstract graphic consisting of multiple overlapping, wavy lines in a teal color, creating a sense of motion and depth. The lines are most concentrated in the center and fade out towards the left and right edges.

How can we tackle this?

# The Carlife Project

Solution Path



# Natural Assistant Behaviour

A person's profile is shown on the left side of the image, with their mouth slightly open. From the mouth, a series of glowing, blue and white sound waves emanate, extending across the frame. In the center-right of the image, there is a glowing microphone icon inside a circular frame, surrounded by concentric circles, suggesting a voice assistant or AI interface.

Create a natural experience by understanding whatever the user says and reacting in an authentic way.

# Natural Behaviour

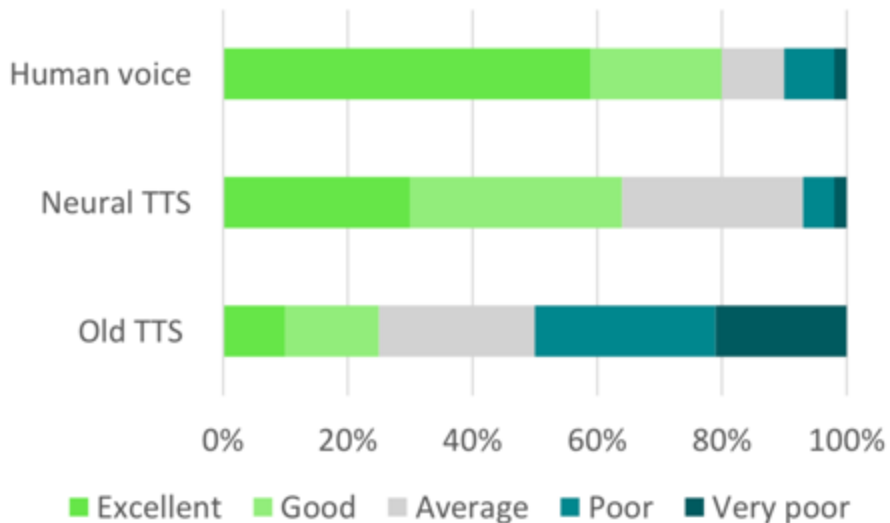
Realizing an authentic voice assistant that speaks in a natural way.



# Natural Behaviour

Realizing an authentic voice assistant that speaks in a natural way.

***DISTRIBUTION OF USER RATINGS***



n = 100

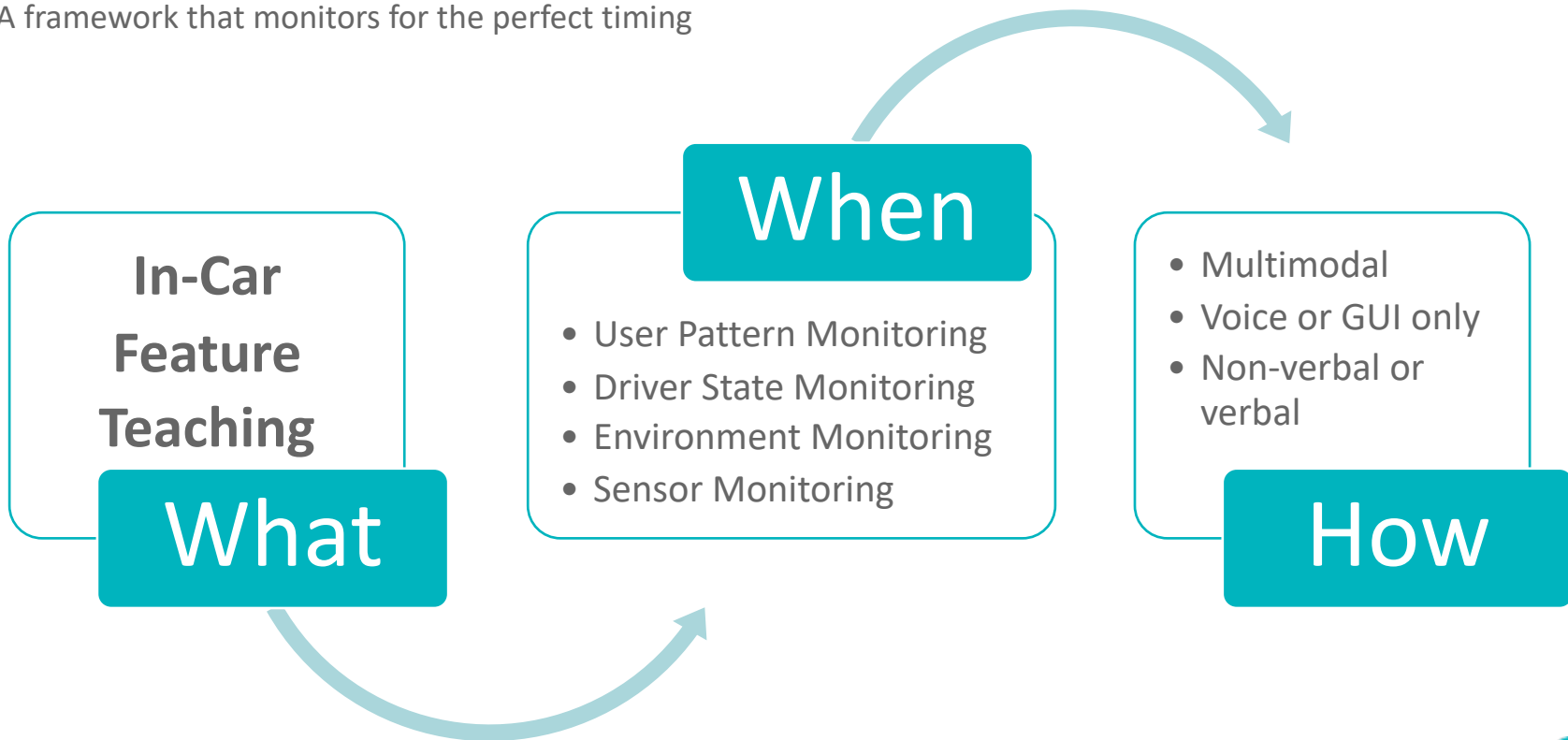


# Proactivity on Time

Get users to use the system by approaching them in the first place, ensuring the right timing.

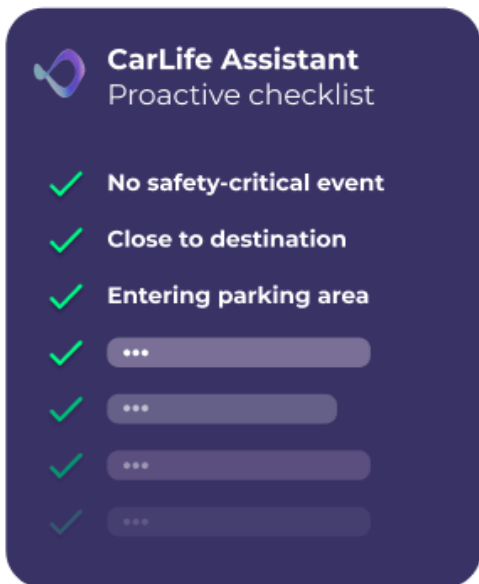
# Proactivity

A framework that monitors for the perfect timing



# Proactivity

Smart Onboarding – Increase discoverability and usage by teaching users contextually relevant features.



**CarLife Assistant**  
Proactive checklist

- ✓ No safety-critical event
- ✓ Close to destination
- ✓ Entering parking area
- ✓ ...
- ✓ ...
- ✓ ...
- ✓ ...



**I remember you were  
interested in SmartParking.  
Is now a good time to tell  
you more?**

# One Digital Assistant

The background of the slide features a blue-toned image of a human hand on the right and a digital, wireframe hand on the left. The two hands are positioned as if they are about to shake or are in the process of shaking. The background is filled with a network of glowing blue lines and dots, suggesting a digital or data environment.

Create a seamless hassle-free journey by merging the experience across platforms and car ownerships.

# One digital Assistant

Enhancing UX by learning User Patterns.

- Which features have been taught already?
- Which features are relevant and interesting to the user at all?
- Who do they call often?
- How do they like their seat and temperature settings?
- What can we offer suiting their lifestyle? (Even before purchasing with Carlife Car Search)
- ...

# One digital Assistant

Advanced Lifecycle Management across car ownerships: **no second setup**



- Remember settings & take over simply everything, seat settings, Spotify playlists, payment details, privacy and configs, subscriptions to other services, ...
- Multi-platform, seamless communication across lifecycles that increases overall experience.

# Thank you!

Want to talk UX?

Feel free to reach out:

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