

March 12-13, 2019 Berlin, Germany

# INTREPID DELTA INTUITIVE VEHICLES 2019 VOICE SURVEY REPORT

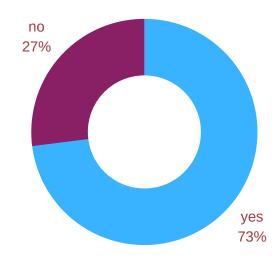
INTREPID INSIGHTS

In preparation for the upcoming Intuitive Vehicles Event, taking place in Berlin on March 12th – 13th 2019, and in cooperation with Tim Kahle from 169 Labs GmbH, Intrepid Delta has conveyed a survey to gain a deeper understanding of the current status of in-car voice assistants.

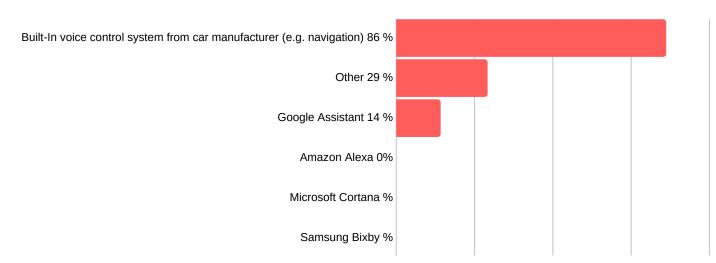
## Usage of in-car voice assistant systems

To understand the importance of voice assistants today, the survey began with determining how many of our respondents use such support in their cars. According to the results, **73%** of participants use a **voice-operated assistant in their vehicles** and the main majority (**86%** of the **respondents**) stated they use built-in voice control assistants developed by car manufacturers (e.g. navigation).

Are you already using a voice assistant in your car?



If yes, are you using (multiple choice):





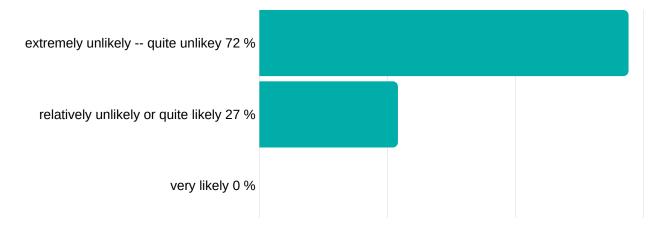
#### Methods of activation

When asked about the method used to activate voice-controlled assistants, answers varied among the survey's respondents. The majority, consisting of **56% of participants**, stated they use a **hands-free method of activation** for their in-car voice assistant whereas **22% of respondents** activate the system by **tapping a smartphone screen**.

#### Other voice control solutions

According to the survey results, the rising popularity of voice-controlled assistants like **Amazon Alexa** and **Google Assistan**t doesn't seem to translate to in-vehicle systems. When asked about the likelihood of using such systems, the survey respondents demonstrated a particularly low level of interest, with **72% of respondents** answering that it would be **extremely or quite unlikely** to use such systems. In contrast **27% of respondents** rates the usage **relatively or quite likely** for themselves, but no one indicated that the usage would be highly likely. This further supports previous statistics of respondents who **prioritize built-in voice assistants produces by car manufacturers** to other systems available on the market.

How likely would you use voice assistant like Amazon Alexa or Google Assistant in your car?



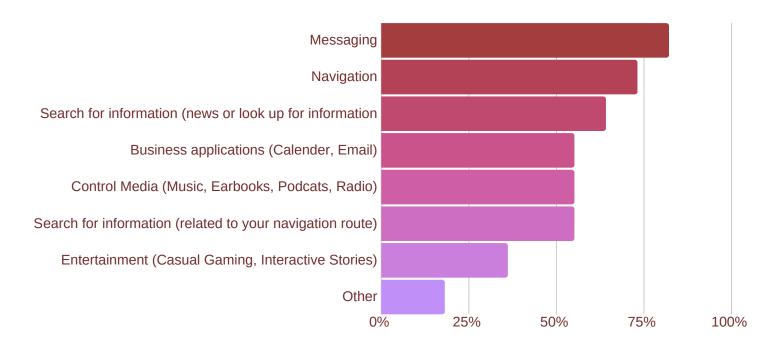


## Voice for more safety

In-car usage of smartphones can pose a serious threat to on-road vehicles, turning away drivers' attention from operating the vehicle and keeping an eye on the road. When asked if voice control would **reduce the level of distraction** for drivers, **73%** of the survey's respondents **consider voice control a valuable asset in maintain attention of drivers**.

The majority of **82% respondents** listed **messaging** as the main voice-controlled feature they would use in their cars. Second most important feature is **navigation** (**73%**), and the third is the **search for information** feature (**64%**). **Media controlling** features were listed by **55%** of respondents, followed by **entertainment** with **36%** of the survey's participants listing the function.

Which features would you use via voice in your car?





## **Apple and Android in-car systems**

Although **55% of respondents** stated they are using **Apple Car Play** and/or **Android Auto** in their vehicles, none of them rated these systems as very good, with all the answers falling in the **very poor or poor** category, indicating a need for improvement in this particular field.

On the other hand, the willingness to spend additional money on a voice-controlled system is not very marked. When asked how much they would spend to equip their car with Amazon Alexa or Google Assist that can be controlled hands-free the majority (45%) stated it would invest less than 50€ for these operating systems, while 36% would invest up to 100€. Nevertheless, 9% would invest over 100€ and another 9% even more than 250€.

#### **Challenges ahead**

When asked about the biggest source of frustration when using voice assistants in the car the following challenges were mentioned by **45% of respondents: accuracy of understanding, content variety, voice recognition and poor user experience**; 36% mentioned a poor **internet connection** as a challenge.

#### Voice for in-car features

Controlling in-car features like seat heating by voice hasn't proven to be of high importance, as only **18% of respondents** stated that voice control is of some importance here whereas more than **50% of respondents** rated voice control of in-car features not important at all.

The question "How important would it be for you to control car features **via voice outside your car**, e.g. from your smartphone or smart speaker at home (like *Turn independent vehicle heater on*) shows very similar results: More than **60% of respondents** rated such control (**very**) **unimportant** and only **27% of respondents** as **not completely unimportant**.



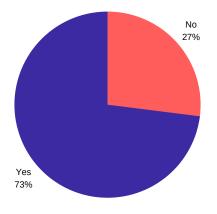
## Voice supported by vision

**Receiving visual feedback** over the entertainment system or LED while using a voice assistant in the car, is not considered necessary or important by a majority of respondents (63%).

A similar result shows the question concerning a **seamless voice experience when leaving or entering the car**. When asked "How important would it be to you that your voice assistant allows you to seamlessly continue a conversation or the playback of a media item from your smart speaker in your car, e.g. when you leave your home" **63% of respondents** replied it is **(very) unimportant** to them, while **18% of respondents** considered it to have **little importance**.

#### Safety related features

Despite the list of features that failed to receive much recognition, the feature that was seen as one that could significantly improve driving experience, as well as on-road safety, **is incident and status reporting**. This specific feature introduces the possibility for the in-car voice assistant to **pro-actively inform drivers about incidents** related to the route the vehicle is on, as well as inform the driver about the status of the vehicle itself. **73%** of this survey's respondents stated they consider it a feature that should be **incorporated** in built-in vehicle voice assistants.



Should a voice assistant inform you pro-actively about incidents related to your route or your car status (e.g. recommending the usage of assistance systems)?

For more knowledge about in-car voice assistance and other topics regarding Intuitive vehicles and their future developments, join our **Intuitive Vehicles event**, taking place in Berlin on March 12th – 13th, where you can take part in knowledge exchange with key industry experts and have direct peer-to-peer interaction. Reserve your spot **here** or send an email to Klaudia Malowitz (klaudia.malowitz@intrepid-delta.com).

