Connectivity and communication in the car becomes more and more important. In order to minimize distraction, car manufacturers are introducing speech-enabled interfaces to messaging (email, SMS) and Internet services. Apple's Siri is one of the most popular systems also for cars, utilizing screen mirroring functions or other direct ways to integrate the mobile phone application. We claim, however, that this is not enough for being safe. The main objective of the research project GetHomeSafe (2012-2014) under the 7th Framework Programme of the European Commission (grant agreement no: 288667) was to investigate ways for a deeper integration of interactive, speech-based systems. Therefore, Daimler (Germany), KTH (Sweden), IBM (Czech Republic), Nuance (Belgium), and DFKI (Germany) partnered up to let people "get home safe".

We developed an integrated speech-enabled system for hotel booking, facebook, and Wolfram Alpha in three languages: English, German, and Czech. It features Nuance's latest hybrid speech recognizer processing speech partly in the car and partly on a server, depending on the availability of a broadband Internet connection. The possibility to interrupt the dialog when the driving situation requires full attention of the driver, and resume it later is one of the main features of the system for enhancing safety. The interruptions can be user-initiated or system-initiated. In the first case, the driver says "hold", "wait a second", or a similar command. When the system detects a dangerous situation, it interrupts the dialog automatically and notifies the driver accordingly.

The final GetHomeSafe system is fully integrated in a Mercedes car and provides the following other features: natural language support plus slot-by-slot filling depending on the user's choice, barge-in, and pro-active behavior. Partner KTH intensively studied pro-active or human-like behavior in the scope of the project. Their findings were partly implemented in the final prototype. Moreover, the deliverables of the respective Working Package Five provide more insights on the theoretical foundations. Aside from that, the project delivered more insights that are beneficial for future projects: we performed systematic user studies regarding the design of the graphical user interface and contributed to the technological improvement of statistical dialog systems.

The final evaluation of the GetHomeSafe prototype was done in a real car on a training center. We were able to show the improvement in terms of driving safety as well as user satisfaction compared to the baseline of using a touch-based system.

In addition to that, the project GetHomeSafe delivered the open-source driving simulator OpenDS together with ready-made metrics for studying the distraction of interactive systems in the car. Already during the lifetime of the project, OpenDS (www.opends.eu) has become an acknowledged international brand in driving simulation. It is used by a large number of researchers world-wide. By

the end of the project GetHomeSafe, we published released 3.0 of the software. It already contained packages from external developers.