# Market Analysis

## Technology available

In Cars:

* Assisted: <http://support.volvocars.com/uk/cars/Pages/owners-manual.aspx?mc=v526&my=2016&sw=15w46&article=0de24dc68976be2bc0a801513c7e085c> (automatic steering, manual operation of pedals, also Lincoln <https://www.youtube.com/watch?v=G3oO0objPlc> and Audi http://www.instruccionesaudi.com/A3/en\_GB/onboard/o\_m00456.htm). Only parallel-parked car. Bosch System: <http://www.bosch-presse.de/pressportal/de/en/parking-assistance-systems-42313.html>
* Autonomous, if also used for parking: http://techcenter.mercedes-benz.com/en/parking-pilot/detail.html
* Tesla Model S: Autonomously parking and retrieving car <https://www.tesla.com/sites/default/files/Model_S_release_notes_7_1_1_us_cn.pdf>
* Restricted to predefined way: <http://www.autoblog.com/2016/06/16/bosch-home-zone-park-assist-2019-news/>

## Scientific Projects

<http://www.mechatroniktechniker-nuernberg.de/projektarbeiten-2014-2015/rccar?showall=&limitstart>= RC car parks and leaves autonomously. Ultrasonic and infrared sensors used

<http://www.powershow.com/view4/455883-YTYyZ/Autonomous_Parallel_Parking_Alex_Braun_powerpoint_ppt_presentation> same project

## Development of the market:

* Autonomous Cars:
  + 3 Phases
  + 1:
    - now -> late 2020s
    - new players in the market backing on ACs (Tesla, Google) -> need it now
    - premium manufacturers will extend there driver-assistance systems
  + 3:
    - 2040 -> primary means of transport

<http://www.mckinsey.com/industries/automotive-and-assembly/our-insights/ten-ways-autonomous-driving-could-redefine-the-automotive-world>

Already in Era one, our system is needed for the premium manufacturers (Audi, Daimler, BMW, ..).

<https://www.2025ad.com/in-the-news/blog/audi-driverless-cars/> “Audi-Vision: parks itself and can be retriveved.”

Announced project: <http://media.daimler.com/marsMediaSite/en/instance/print/2645843-20150609-PI-Automated-Valet-Parking-AVP-ENGdocx.xhtml?oid=9151929&ls=L2VuL2luc3RhbmNlL2tvLnhodG1sP3JlbElkPTEwMDEmcmVzdWx0SW5mb1R5cGVJZD0xNzUmb2lkPTk5MTk5NjcmZnJvbU9pZD05OTE5OTY3JmJvcmRlcnM9dHJ1ZQ!!&rs=1>

Car will autonomously look for a parking lot in a parking garage and return autonomously. System will be needed. “Valet parking” (Bosch : <http://www.bosch-presse.de/pressportal/de/en/parking-assistance-systems-42313.html>)