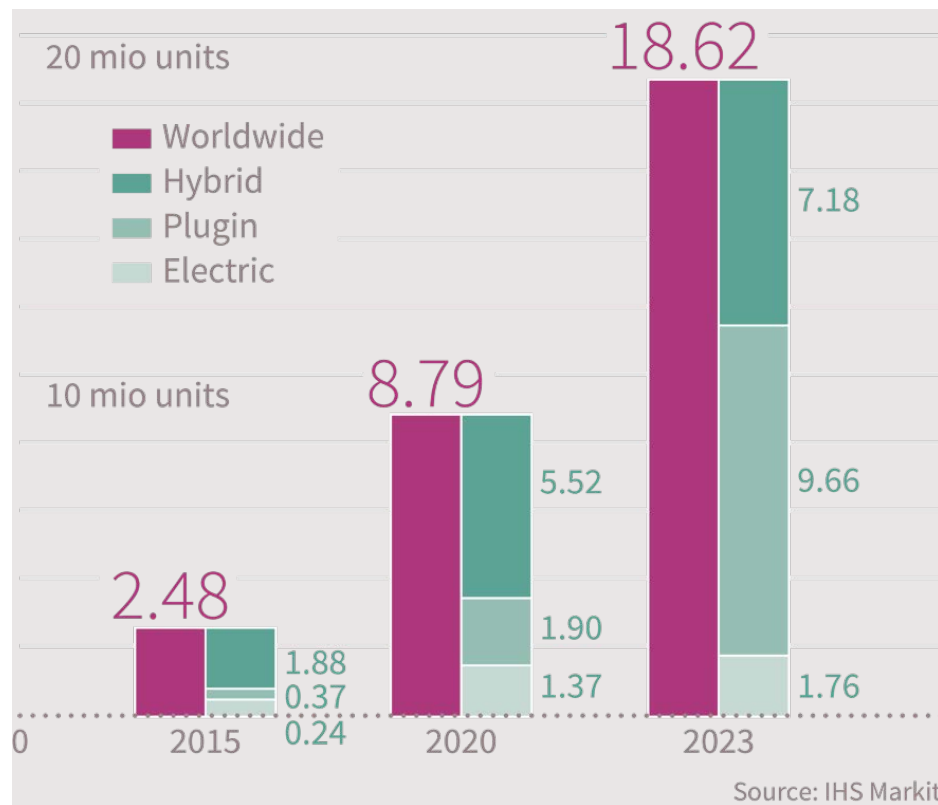


# New challenges for engine sensors in hybrid powertrains

Virtual sensor experience 2020



# New challenges for engine sensors by emission regulations



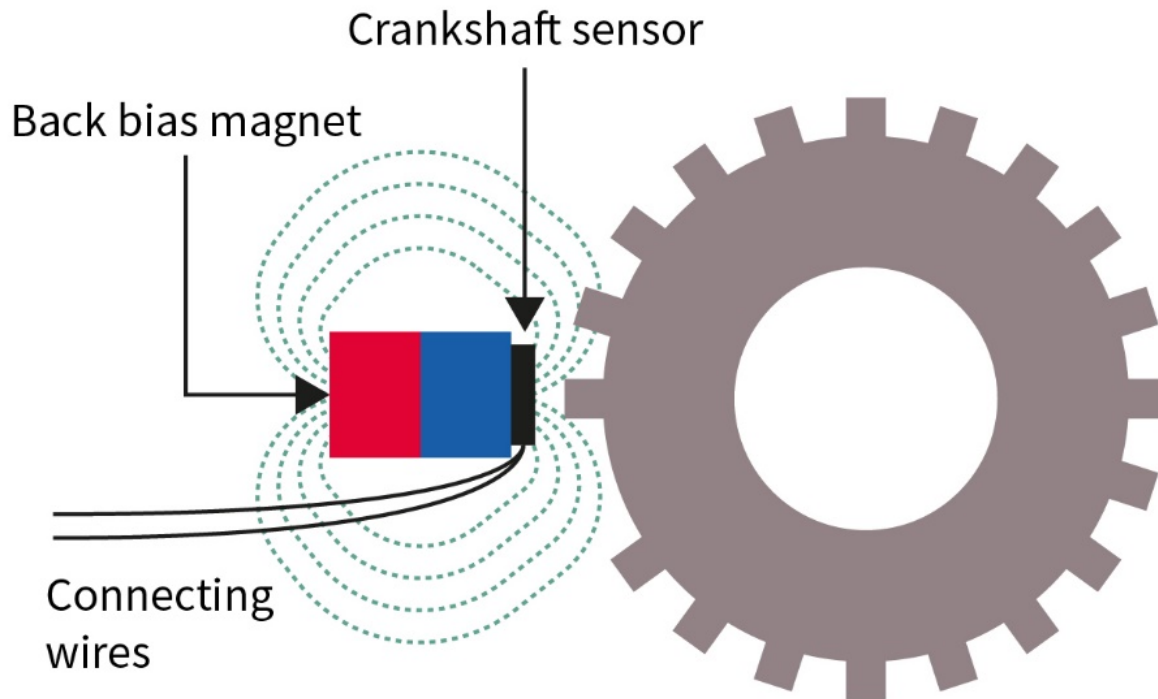
Emission regulations worldwide drive electrification of powertrains.

Hybrid and Plugin-Hybrid powertrains are key enabler technologies here.

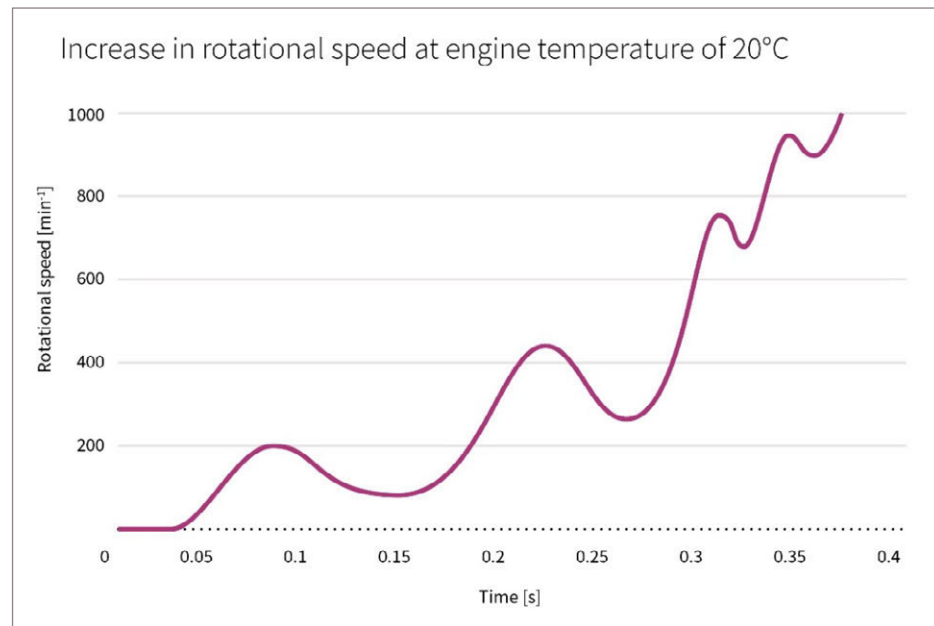
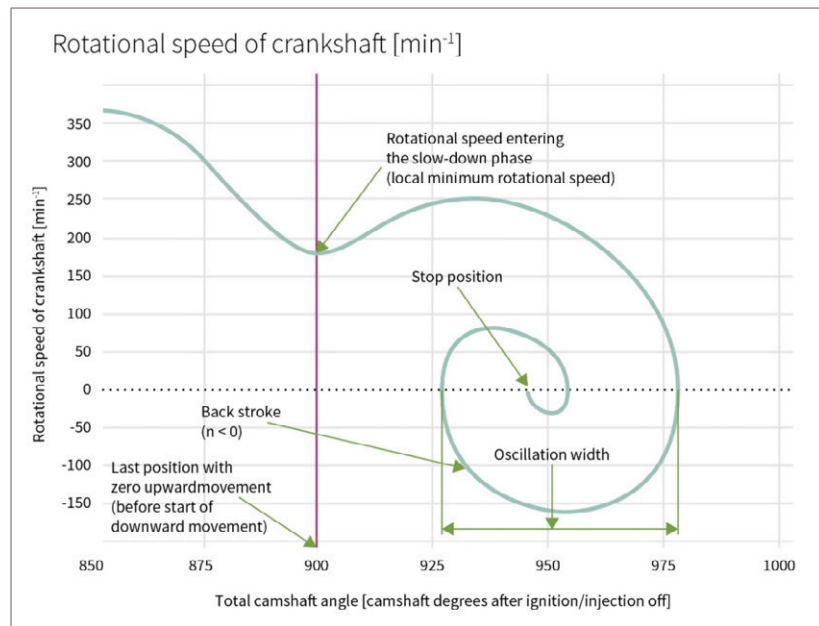
Combustion engine utilization will change significantly.

This brings new challenges for sensors in engine control.

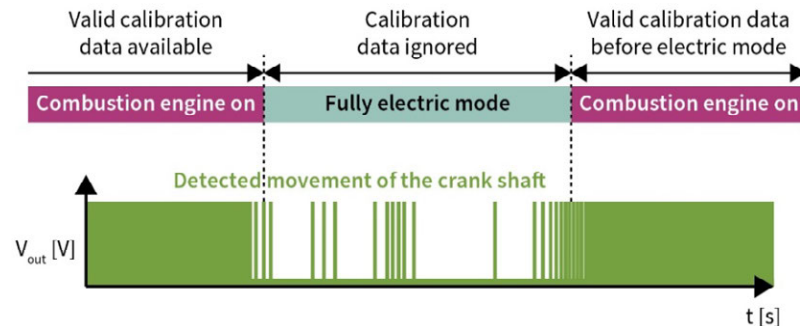
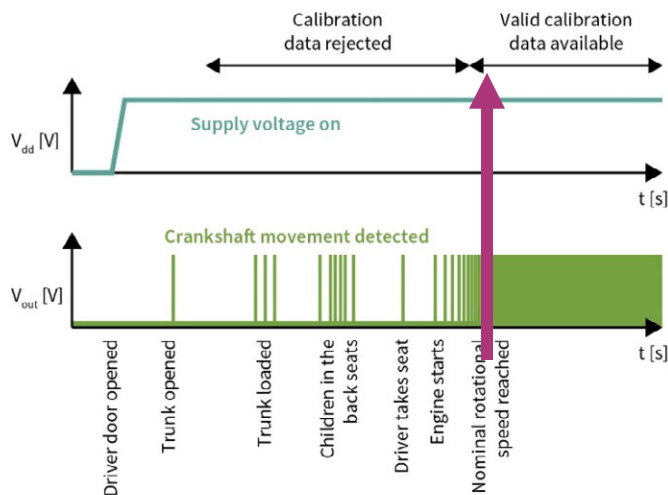
# What is a crankshaft sensor system?



# Stop-Start Application to reduce fuel consumption / save CO<sub>2</sub>



# TLE4929C – The Solution for Hybrid Vehicle Crankshaft



## Overview of Infineon XENSIV™ crankshaft sensors:

<b>TLE4929C-XA</b> x	First-generation low-jitter, Hall-based crankshaft sensor.
<b>TLE4929C-XV</b> A	Second generation includes several additional crankshaft protocols and a time watchdog to overcome start-up vibrations. In addition, this device is available with nickel plating for the first time.
<b>TLE4929C-XH</b> A	Third generation includes an additional dedicated hybrid watchdog and a new calibration feature to meet increased absolute phase accuracy requirements.



Part of your life. Part of tomorrow.