

# VolkswagenField Experience

Lithium Ion Battery Internal Short  
Presentation to EVS GTR IWG  
September 2018

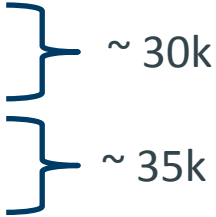
# Key Messages

- Volkswagen has extensive field experience with lithium ion cells, beginning in 2013
- There have been no incidents of internal short circuits resulting in cell thermal runaway in customer cars

# Battery cell varieties

- eUp!
  - Construction type: prismatic can
  - Cathode material: NMC
    - 204 cells
- eGolf
  - Construction type: prismatic can
  - Cathode material: NMC
    - 264 cells
- Golf GTE
  - Construction type: prismatic can
  - Cathode material: NMC
    - 96 cells
- Passat GTE
  - Construction type: prismatic can
  - Cathode material: NMC
    - 96 cells

# Volkswagen estimated vehicle volumes (until 2017)

- eUp! (and related vehicles):
  - eGolf (and related vehicles):
  - Golf GTE:
  - Passat GTE:
- 
- ~ 30k
- ~ 35k

**represents about 11 mio. cells**

# Known Internal Short Induced Thermal Events

- NONE