



## The Four Pillars at Ford Motor Company



### Green

- Model based control and diagnostics of a Three-way Catalytic Converter (TWC)
  - achieve super ultra-low emissions regulations
  - Meet OBD II regulations



### Smart

- Lead acid battery diagnostics and prognostics
  - Remaining useful life estimation
  - Advanced user experiences
- Tire wear and wheel misalignment detection



### Quality

- Physics based Evaporative system (EVAP) diagnostics monitor to detect leak in fuel system
  - improve robustness
  - reduce warranty claims



### Safe

- Leverage data from connected vehicles, cloud and map to generate risk index for safest route estimation
  - Data mining technique like SVM and ANN