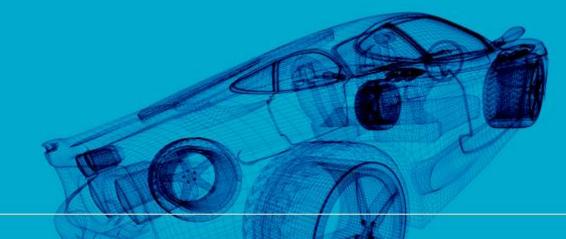


### The Future of the Electric Car

Joe Barrett: EVP Qualcomm May, 2012



Qualcomm Halo Wireless Electric Vehicle Charging



# **Qualcomm Pedigree**

- 26 Years of Wireless Innovation
- \$15 Billion Fiscal 2011 Revenues
- \$2.5 Billion R&D Spend
- ~20,000 Employees
  - 85% in Research into all aspects of Wireless
  - Engaged with Major Standards Bodies & Regulatory Bodies
- Long history in Wireless Power Research

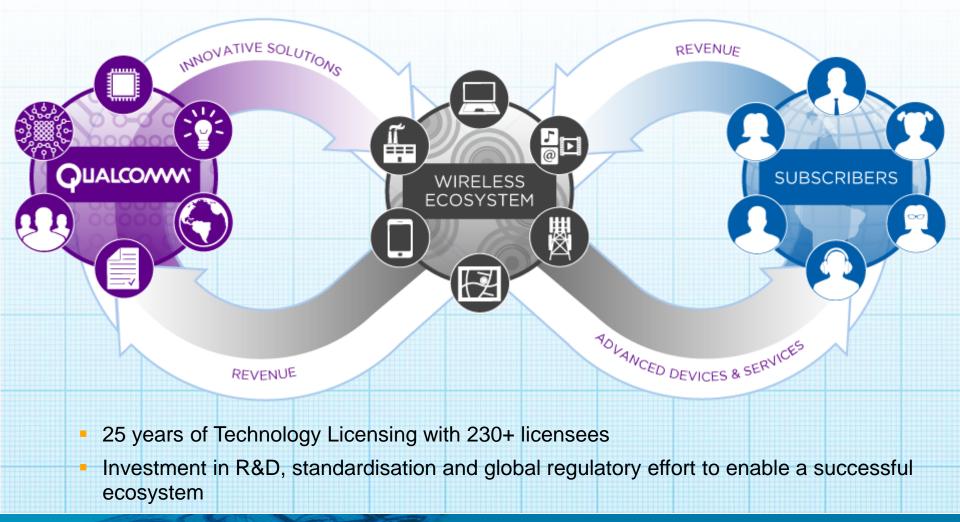






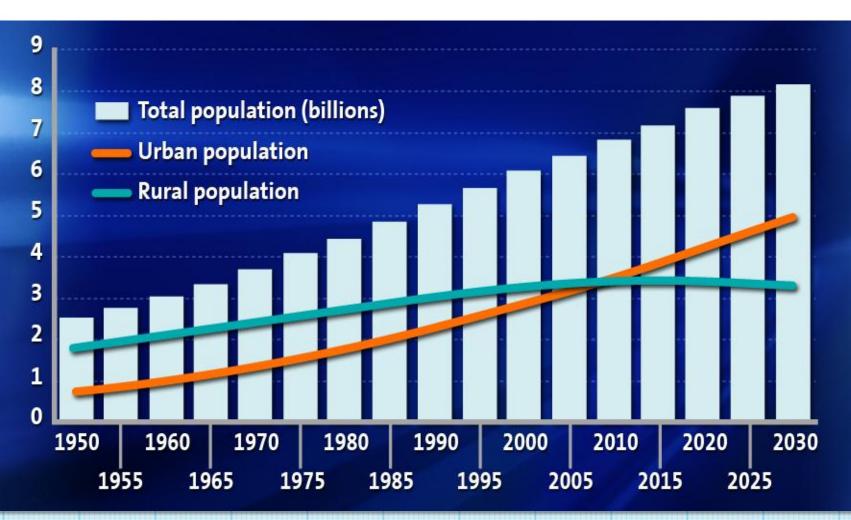
# **Qualcomm Business Model**

### Technology and Value Chain Enabler





# Why Solve Urban Mobility?



Urban Traffic Congestion and Parking Issues

Source: GM 2012



## Health Impacts of PM<sub>2.5</sub>

- Poor air quality could contribute to 50,000 premature deaths per year across the UK
- Airborne pollution in the form of fine particles (PM<sub>2.5</sub>) comes mostly from combustion sources; transport, domestic and industrial.

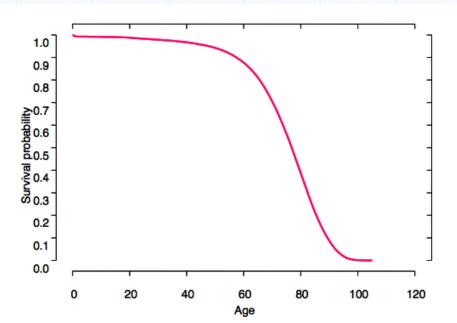
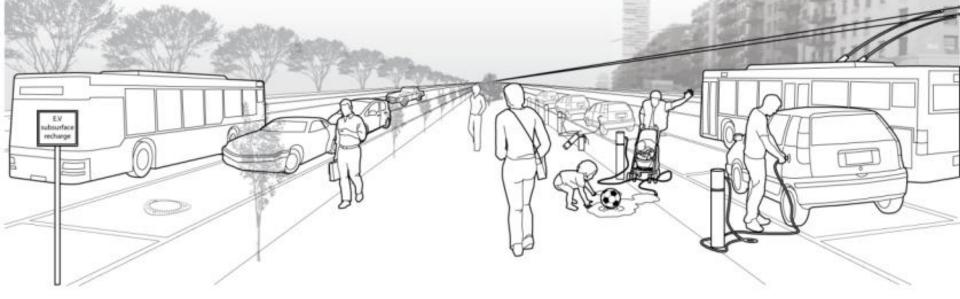


Figure 1 Typical shape of a survival curve showing the cumulative effect of mortality risks on the probability of surviving to various ages.

Source: Report on estimation of mortality impacts of particulate air pollution in London Dr Brian G Miller - 2010

# Urban Clutter – the unintended Qualcomm



#### **Durability**

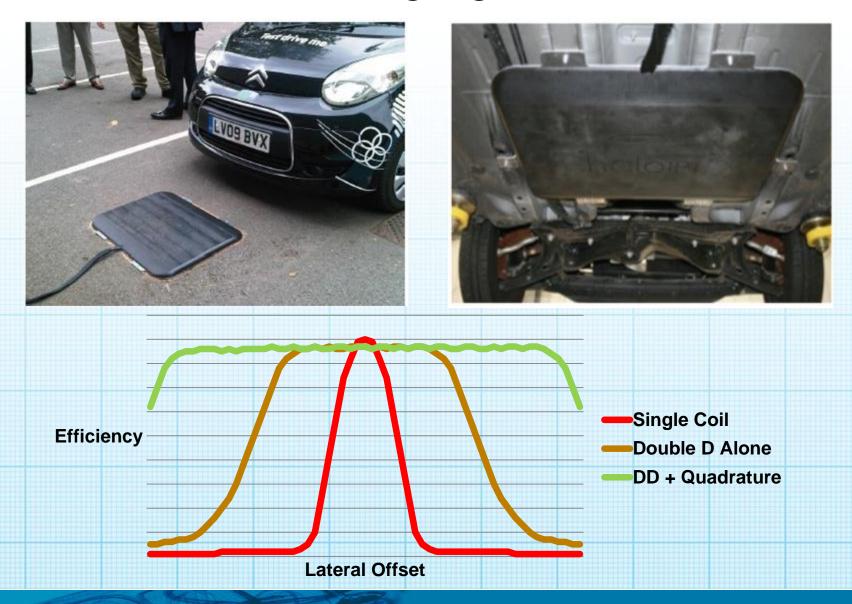
- No moving parts
- Extremely rugged and tough
- Waterproof, weatherproof
- Impervious to chemicals, debris
- Low profile, crash-safe
- Vandal-proof, theft-proof
- No cord to steal or unplug

#### **Aesthetics**

- Doesn't damage historic city aesthetics
- Avoids unnecessary street clutter
- Maintains precious footpath area
- Eyesore of overhead cables is removed for buses
- Provides a subtle branding option for networks



# Some Innovation Highlights







### London Trial 2012



### 3.3kW Citroen

### 7kW Phantom

### 20kW Lola-Drayson











# For more information visit: <a href="http://www.qualcommhalo.com">www.qualcommhalo.com</a>



Qualcomm Halo Wireless Electric Vehicle Charging