

# Electric Vehicles – Country Update from Ireland

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IA-HEV Task 1 Information Exchange

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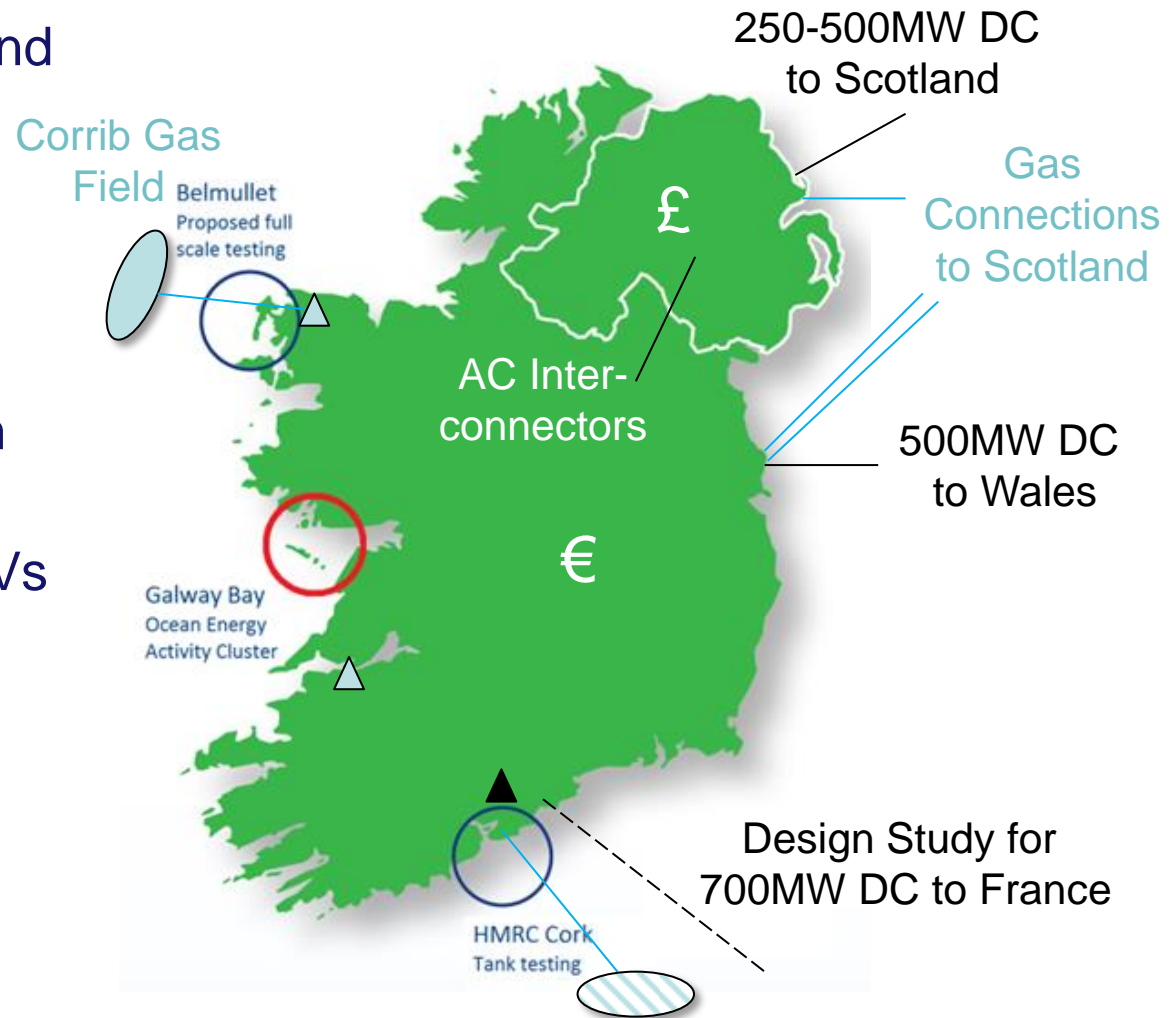
Gwangju

## Overview

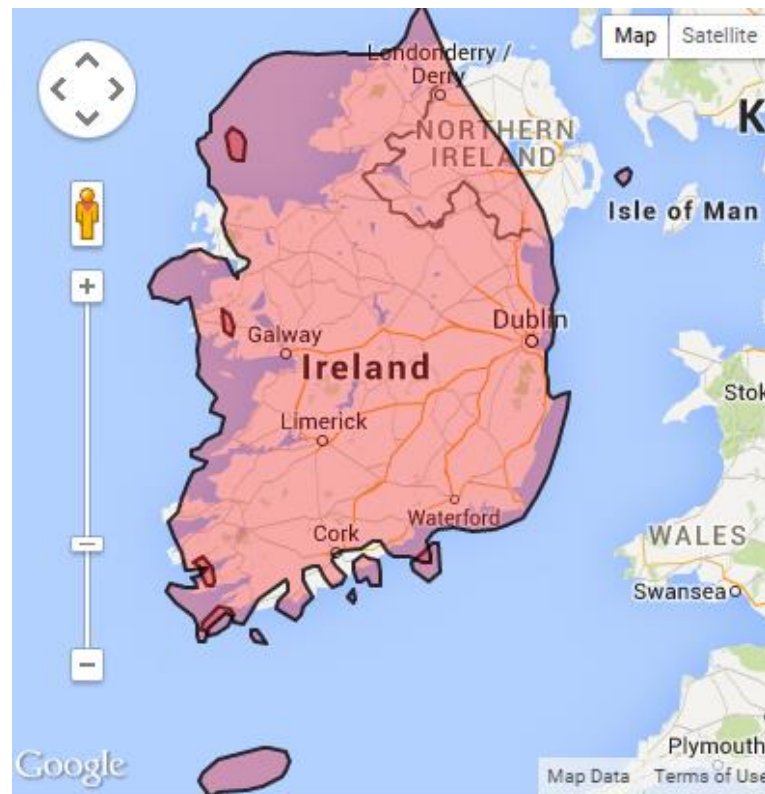
- **Progress in Ireland**
  - Introduction to Ireland
  - Cars
  - Infrastructure
- **Technology Perspective**

# Energy Infrastructure of Ireland

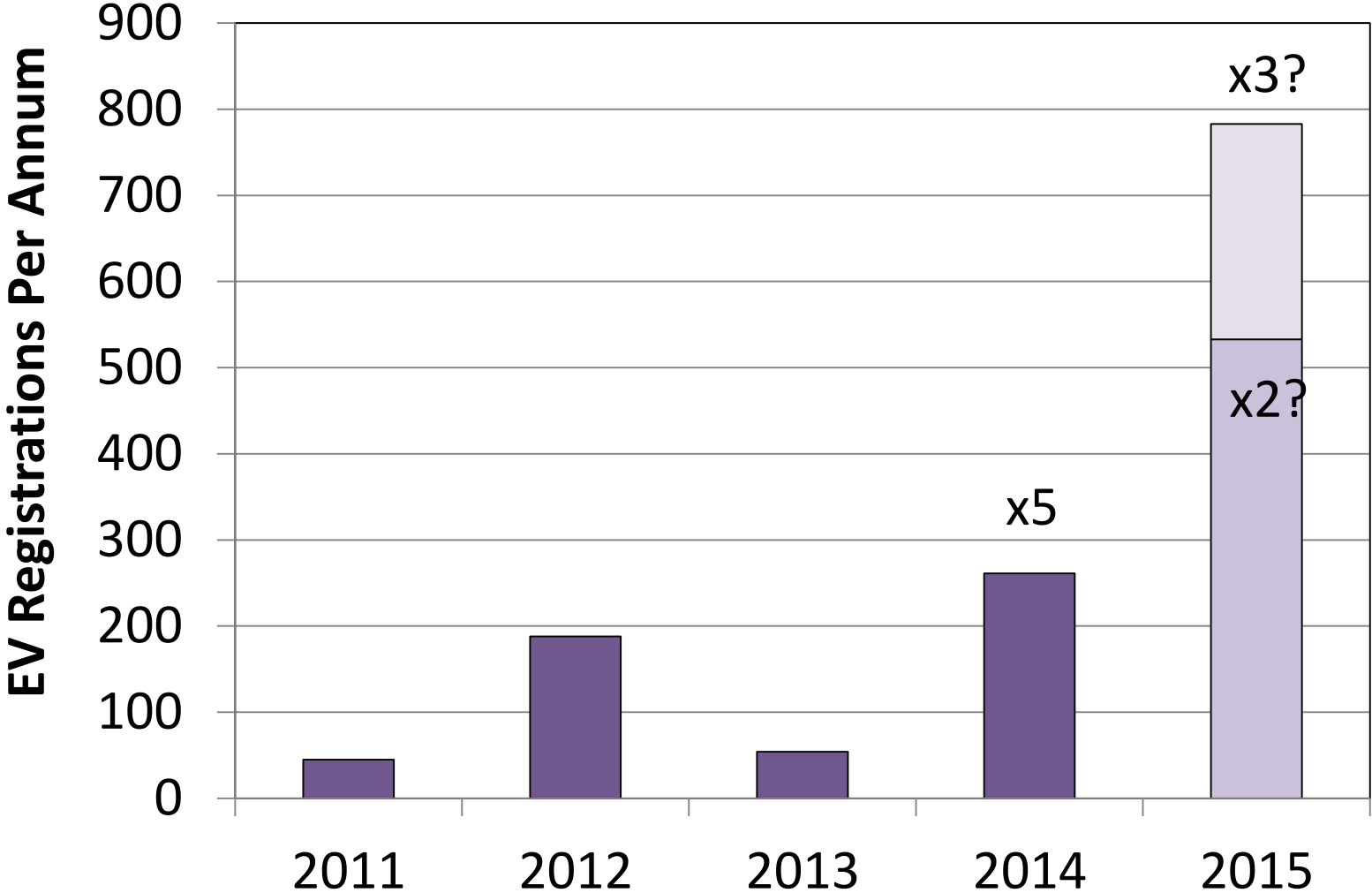
- 4.7GW peak elect demand
  - 2GW of wind
  - Gas, Coal, Peat
- Energy Imports 89%
- RE potential >> 100%
- Single Electricity System operator
  - Very supportive of EVs
  - Faster decisions and consistent approach
- (No car industry)



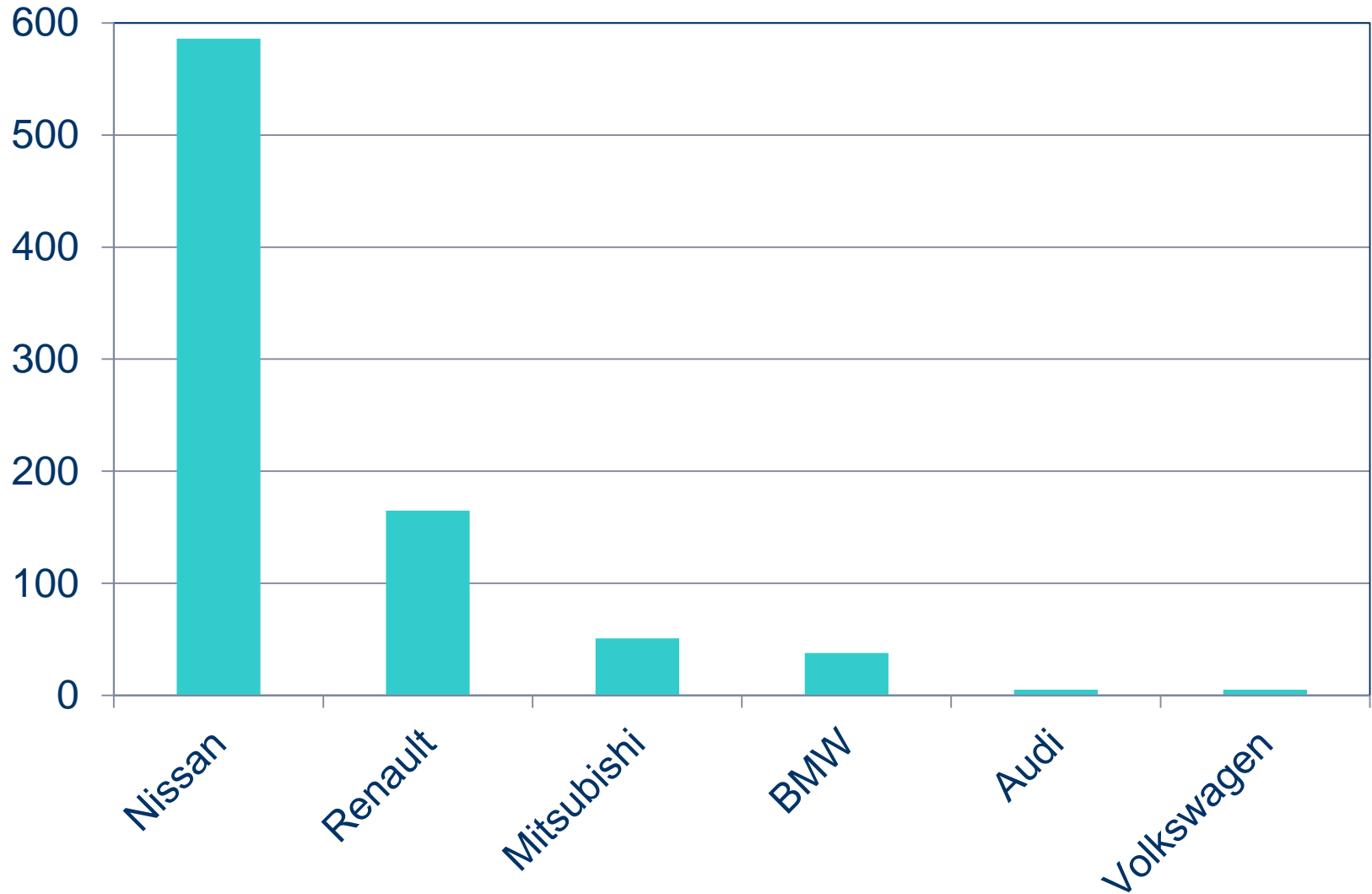
- **Republic of Ireland**
  - 4.7GW
  - 4.5m people
  - 2m cars
  - Electrical Energy (2012)
    - 18.2% Renewables
- **Republic of Korea**
  - 80.5GW
  - 51m people
  - 19m cars
  - Electrical Energy (2012)
    - 1.8% Renewables



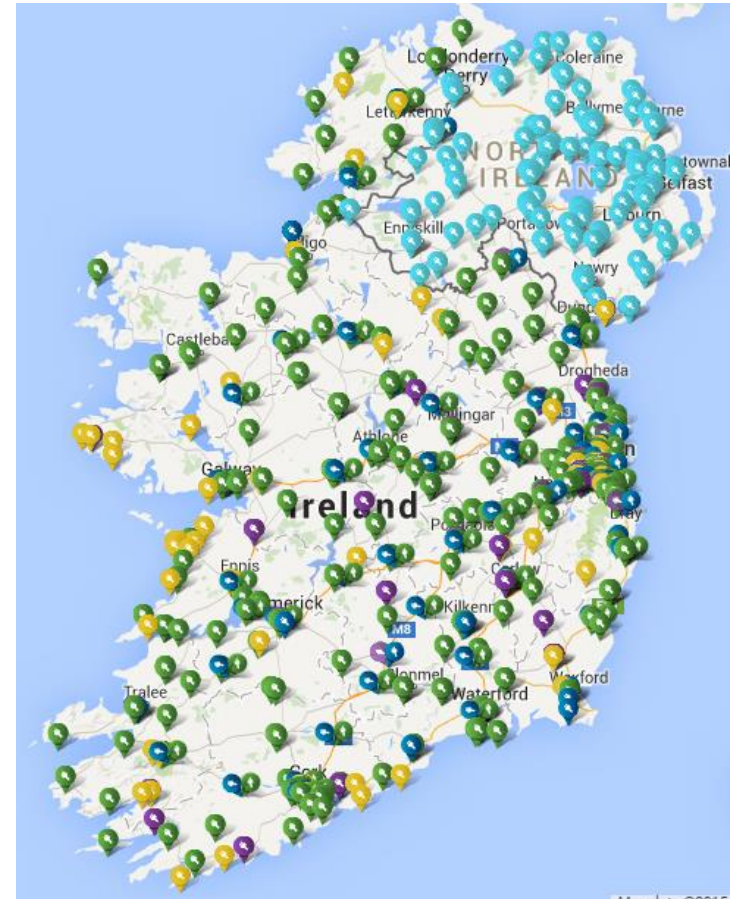
# EV Registrations in Ireland - 850 EVs in Total (Ireland has 2m Passenger Cars)



## Cars Registered per Manufacturer



- **Ireland**
  - AC Charge Points (22kW) = **820**
  - Fast Chargers (Chademo with some Combo) = **69**
- **Northern Ireland**
  - AC Charge Points (22kW) = **320**
  - Fast Chargers (Chademo) = **14**
- **EU TEN-T** (First EU Country)
  - 50% Funding for Chargers on main interurban routes & modal hubs



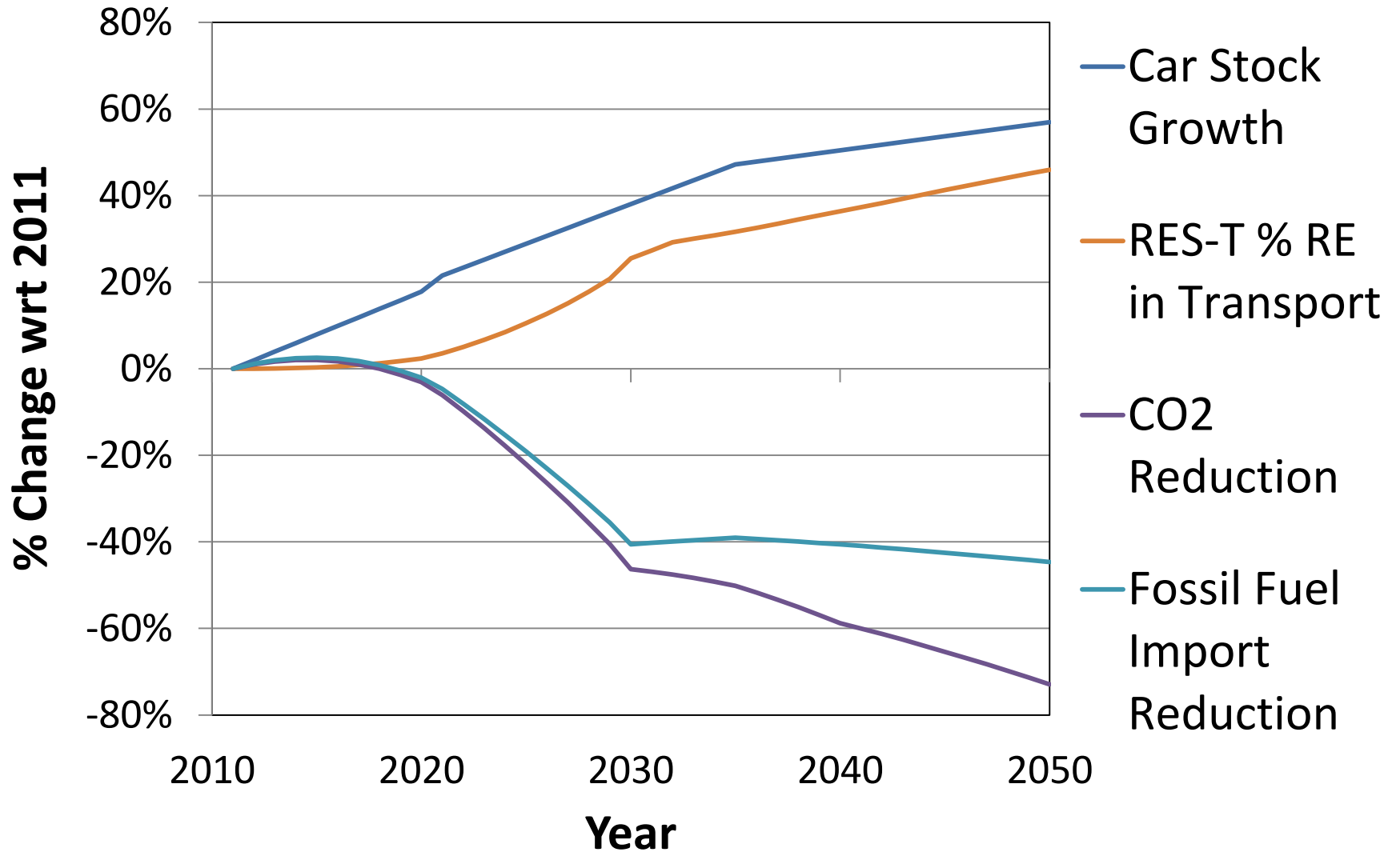
# Charge Point Management & Billing System

- **RFID Card**
- **Roaming**
  - Republic of Ireland & Northern Ireland
  - Two roaming models under review
    - Mobi.Europe
    - GeM (Green eMotion)
- **Remote Operation of Charge Points**
  - Remote control of point
  - Data gathering
- **Telecoms based on Global M2M**
- **24 Hour Call Centre**



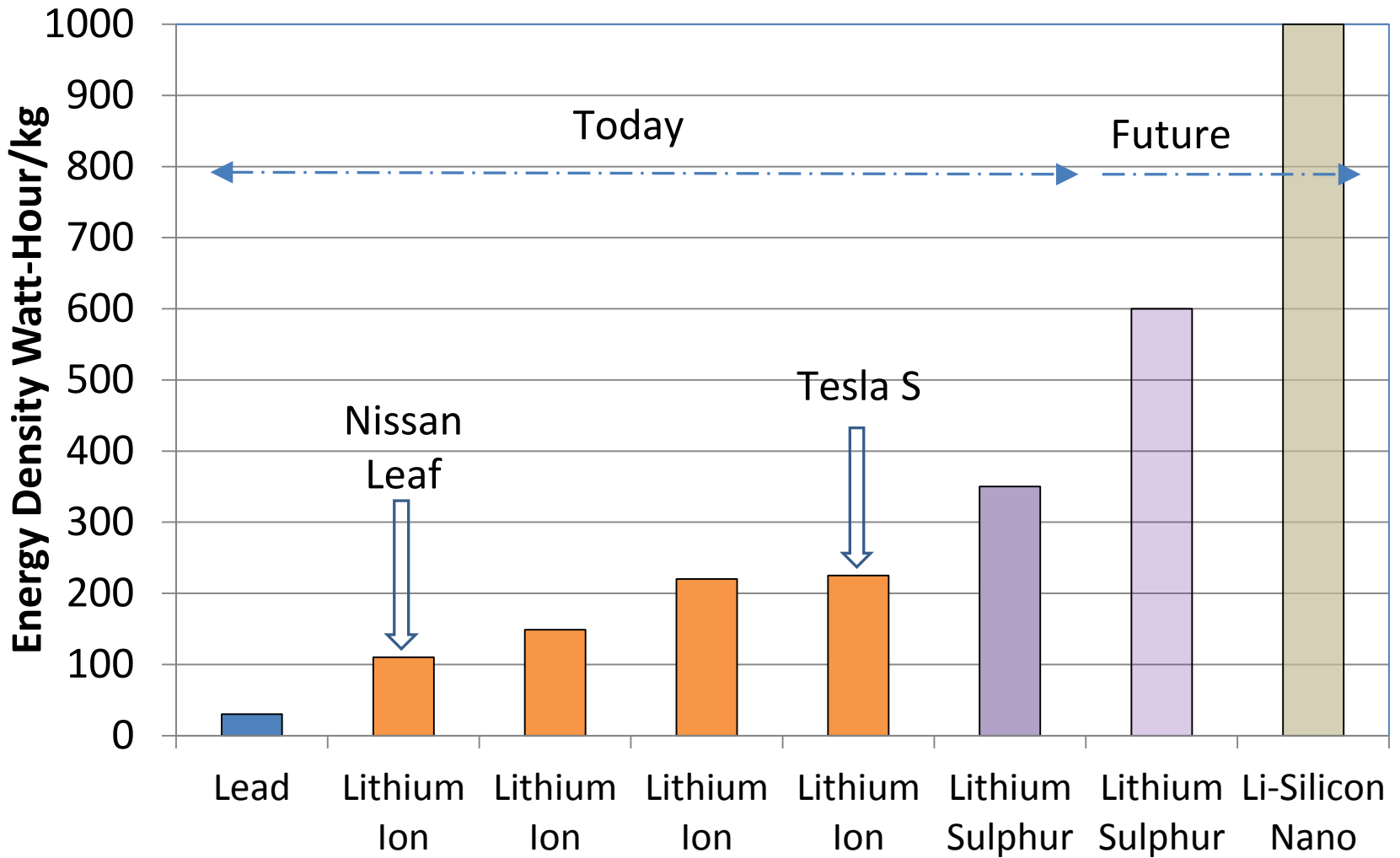


# EV Roadmap Ireland 2050

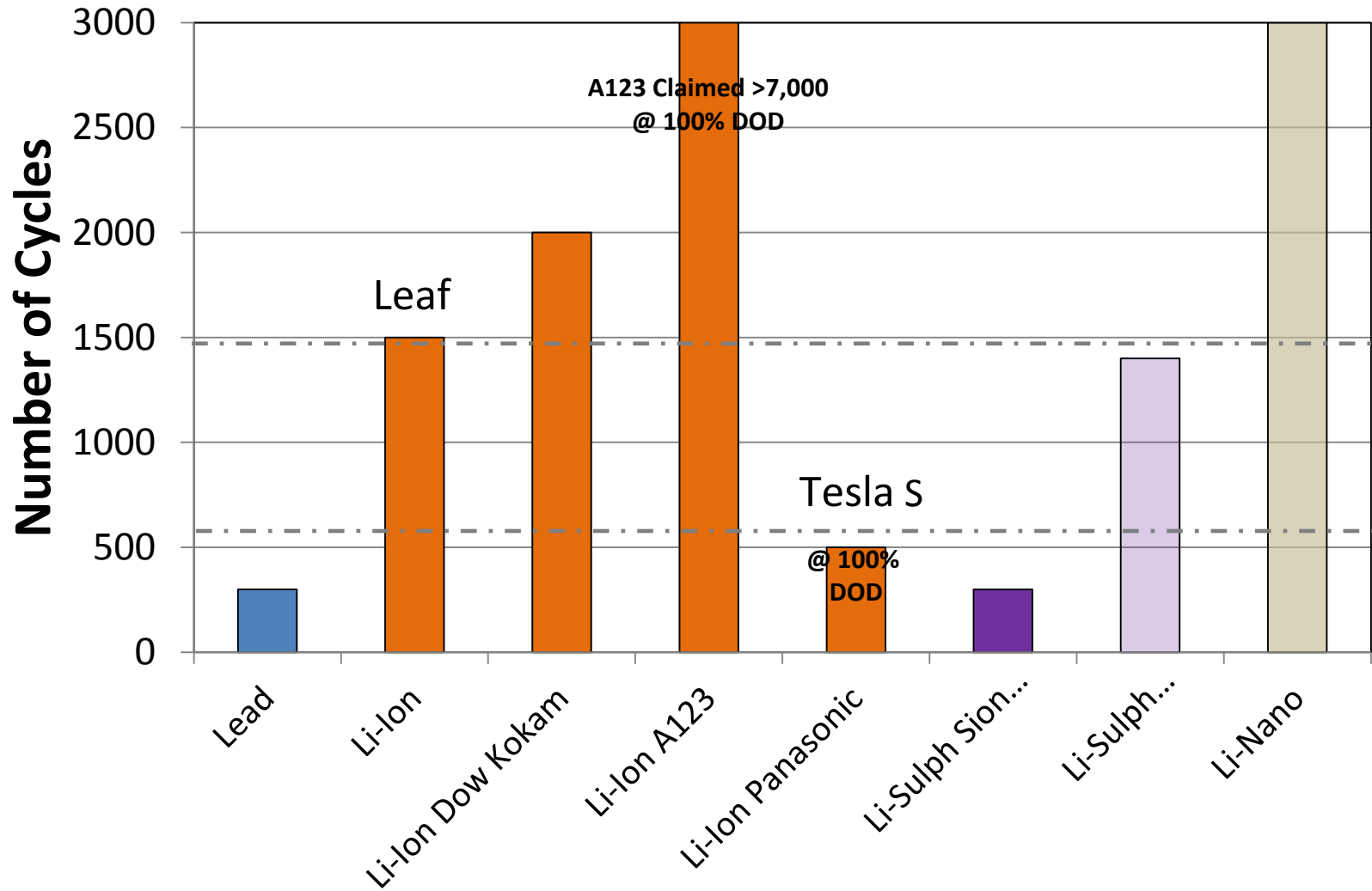


# Technology Perspective

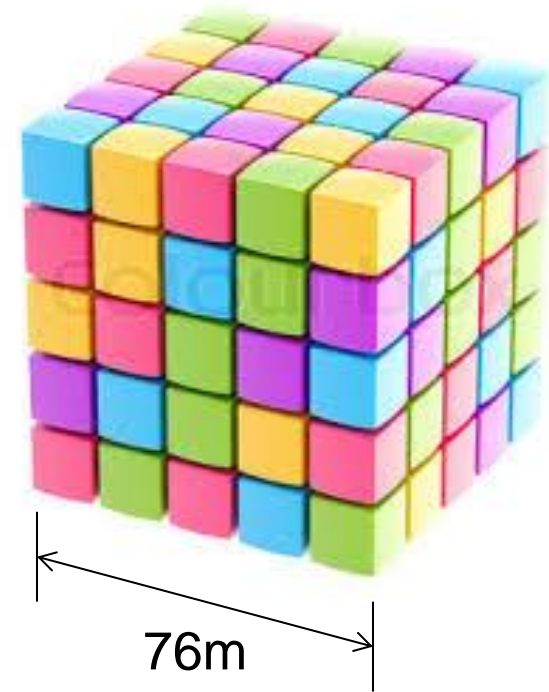
# Battery Energy Density



# Indicative Battery Cell Life Cycle to approximately 80% Storage Capacity



- 24hr of future Winter Demand
  - 4GW x 24 hr = 1.3m EVs
  - = 50% of 2030 passenger fleet
- EU requirements in place for minimum Gas and Oil reserves
- Should a future requirement for electricity storage be considered?
  - Vehicle EOL and Battery Waste Directives



# Thank You

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