

# Charging of e-vehicles in public car parks

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# Content

- Perception of parking, on street & off street
- Requirements for parking and charging
- Charging facilities at off street car parks
- Synergies and timing

# Traditional perception of parking



Parking can also be like this.....





# People don't park just for parking



# Reasons for parking

## Working and business



# Reasons for parking

## ■ Meeting





# Reasons for parking

## ■ Shopping





# Reasons for parking

## I Leisure



# Parking facilities for public use

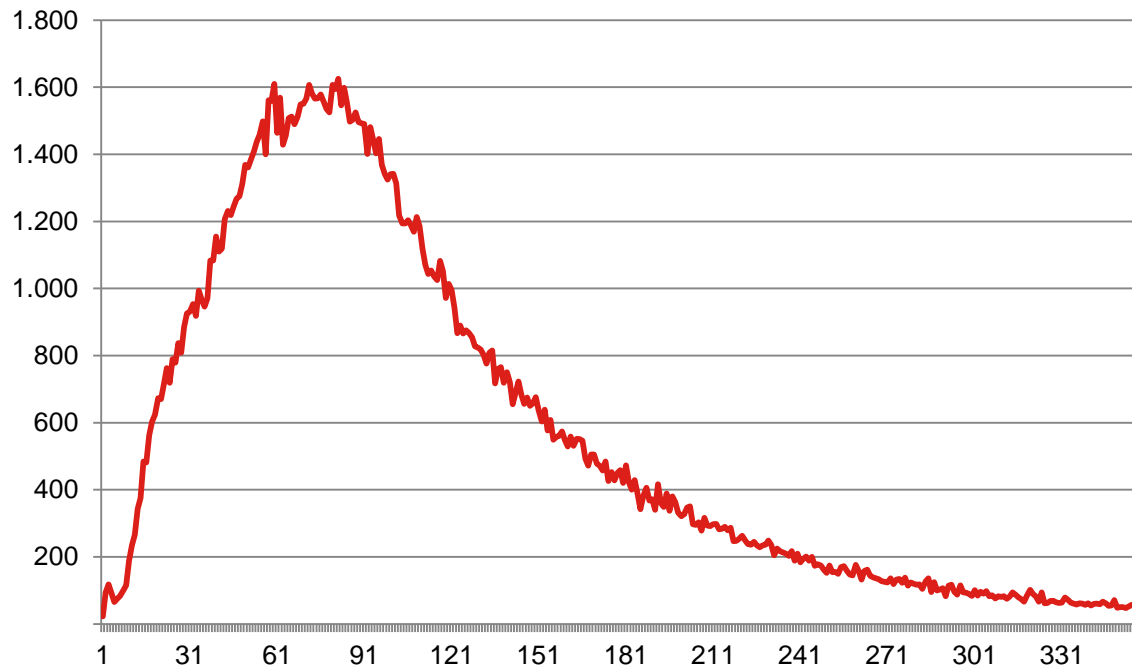
- On street in public space,
  - Quick parking: < 30 minutes
  - Permits residents etc: long duration
- Off street parking facilities
  - Medium term: typically 1 hour up to 8 hours
  - Includes work and residential



# Parking Characteristics off street facilities

## Functions served:

- Residence > 12 hours
- Work 4 to 9 hours
- Shopping 1 – 3 hours
- Leisure 1 – 3 hours





# Synergy of e-charging & parking

- Charging while parking saves time
- Charge strategy: when empty or when available?
- Charging while shopping or leisure doesn't need fast charging
- Reduction of range anxiety





# Synergy e-charging & off street parking

- No additional claim in public domain
- No cabling in public area
  - Risk, vandalism, etc
- Concentration of spaces possible:
  - Easier guidance, less search traffic
- Charging points can be accessed from 2 – 4 spaces
- Payment with parking or loyalty



# Payment & loyalty



CLERYS  
DUBLIN



# E-mobility scheme integration

- Car2Go: e-smart sharing system
  - 36 dedicated spaces with charger in 6 Amsterdam car parks
  - Parking permit for car parks included in usage fee of the car
- NewMotion: e-mobility community
  - Loloo charging devices: private or public
  - 10,000 public Loloo's in NL, 100 at Q-Park parking facilities





# Charging points in off street car parks

- Specially marked parking bays
- Signage & guidance in the car park
- Charging for free - just pay for parking
- For the time being no reservation





# E-mobility integration at Q-Park

- 400 charging points in parking facilities (end 2012)
- Shared charging points for 2 or 3 spaces
- No additional charging costs on top of parking fees
- Quicker installation process than on-street
- Lower costs vs public domain (<50%)
- Full service incl 7/24 QCR assistance



# Future developments

- Availability in navigation systems
- Reservation of charging spaces
- Payment integrated in parking management system
- Interoperability of charging service suppliers (incl international)
- Ease the customers while waiting for a maturing market





# Parking & charging: Convenience





Quality in parking