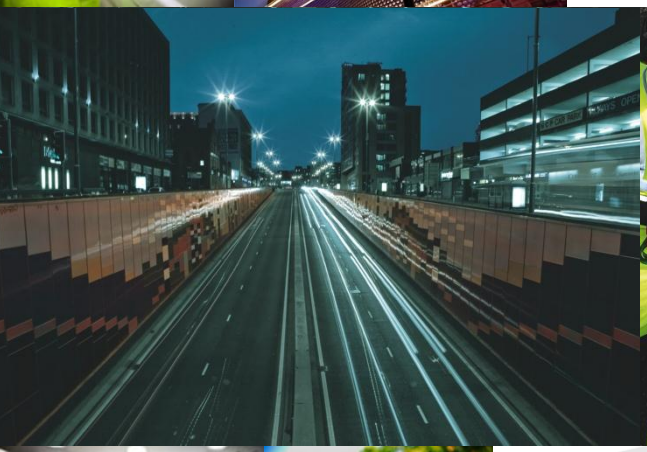
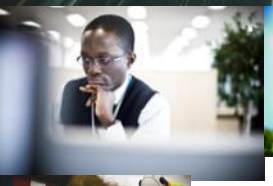






working in partnership with

Birmingham City Council

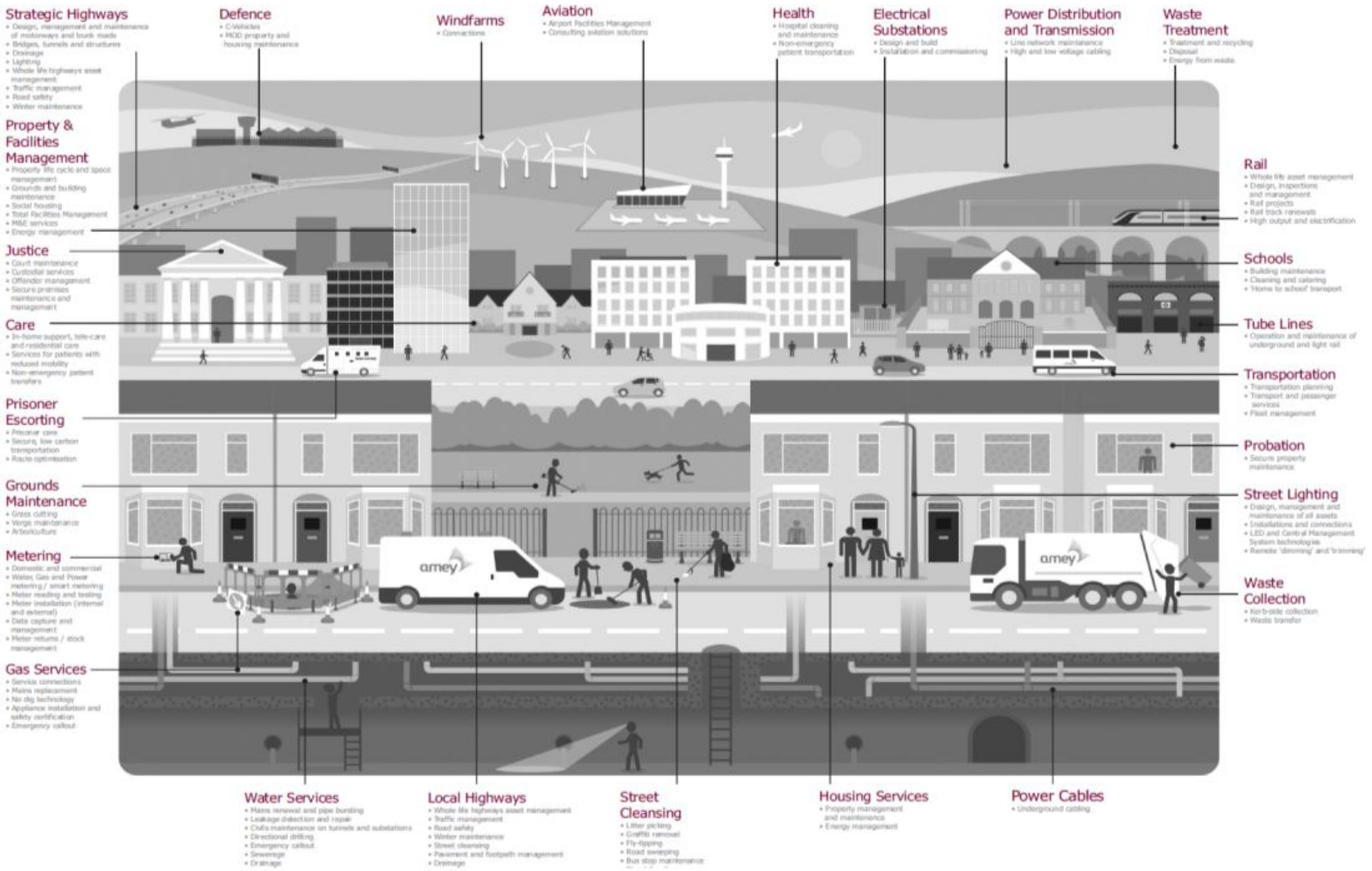
Birmingham Highways Maintenance and Management Service

EuroCities Green Digital Charter Study Tour

Thursday 27th February 2014

Amey Services

working in partnership with



Overview of BHMMS

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- Birmingham – 2nd largest city in the UK with just over 1.1 million people living there and 500,000 people working in the city
- Birmingham City Council annual budget approximately one of the largest in Europe
- The project value of c£2.7 Billion over 25 years
- Amey responsible for every street, footway and associated assets in Birmingham
- Financial Close 6 May 2010
- Service Commencement Date 7 June 2010
- 39 months into live Project and approaching 7th Milestone

The services we manage

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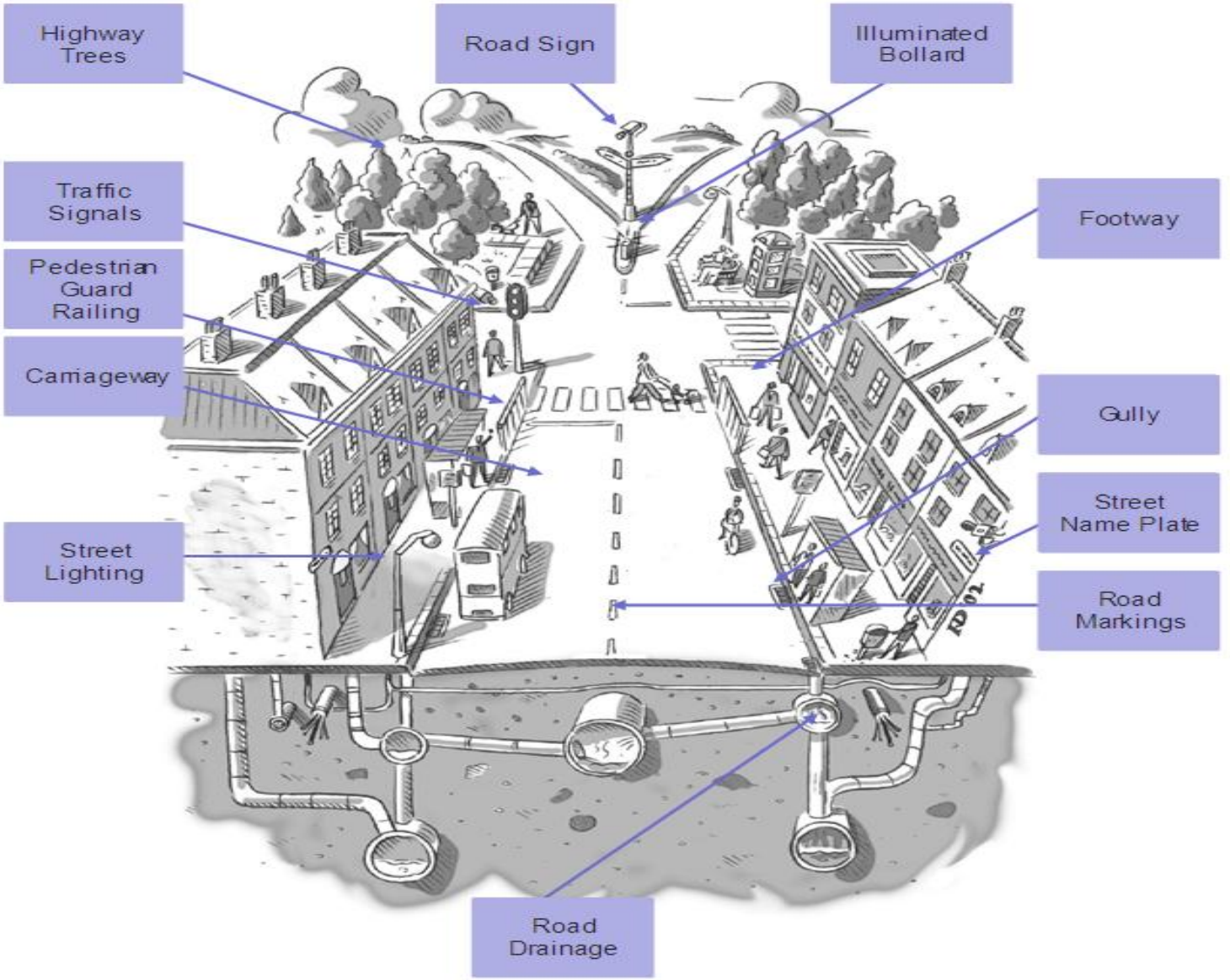

Project Overview

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‘Capex’ in Core Investment Period (CIP) Years 1 - 5:

- 2,547 km of carriageway – 40% treated
- 4,923 km of footways – 15% treated
- 95,107 street lights – 50% replaced in CIP
- 27 structures strengthened in CIP
- 3 tunnels refurbished
- Upgrade UTC to UTMC standards

‘Opex’ in Years 1 - 25

- Surveys and inspections
- Routine, cyclic, emergency and winter maintenance
- Running UTMC
- Dealing with customers via Help Desk in Operational Control Room
- Lifecycle programme to maintain network to ‘performance standards’
- Replacing up to1,000 trees each year

Street lighting LED deployment

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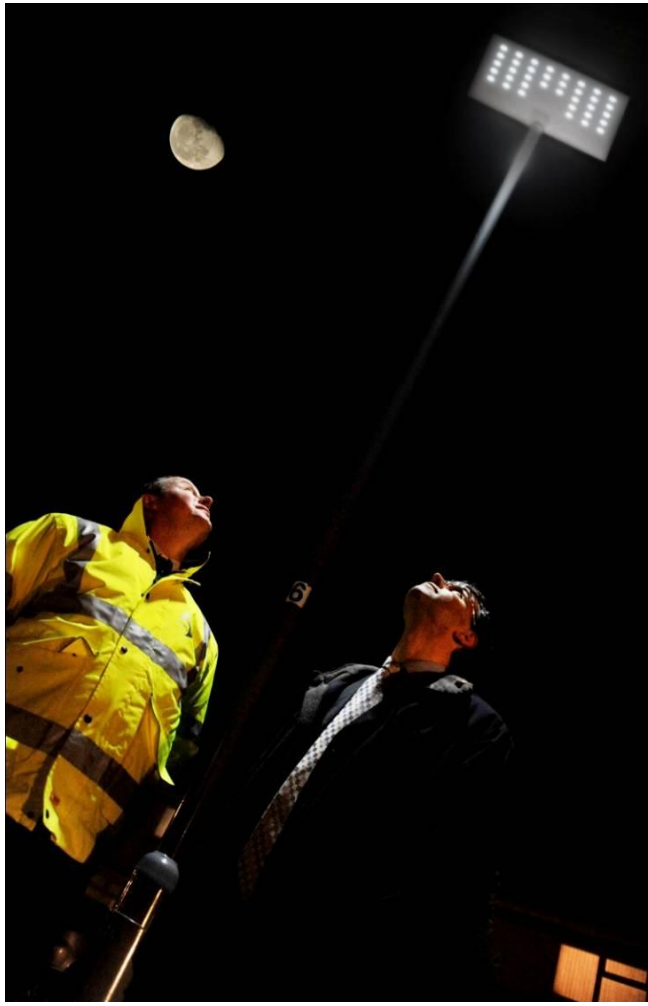
- Ground-breaking, future-proofed programme to retrofit Light Emitting Diode (LED) technology across the city – largest deployment in Europe

- LED semiconductor represents as much of a technology step change as the move from candles to gas lamps in the 19th century and from gas to electric lighting in the 20th century



Innovation: LED Street Lighting

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Traditional Street Lighting Solution

LED Street Lighting Solution

Street LED lighting

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Street LED lighting

working in partnership with

Street LED lighting

working in partnership with

Benefits of LEDs

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- Operators use of smart controls to adjust lighting levels remotely in real time via wireless, according to what is happening in the surrounding area
- Saving 50% in energy efficiency and cost, equating to c£2 million of savings per year, through:
  - Increased optical control
  - Ability to dim street lights
- Increased reliability and reduced maintenance costs (e.g. average 24 year lifespan; remote detection of faults)
- Directionality - uniform lighting appearance improving visibility
- Increased community safety – road users, pedestrians, cyclists, etc
- Reduction in sky glow and obtrusive light

Potential of LEDs

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- Scope for further dimming and trimming as required by particular energy and economic drivers
- Occupancy sensors – lighting kept to minimum according to the time of day and then instantly increased when area occupied by moving vehicles or pedestrians
- Site for sensors for air quality and noise pollution to provide information to citizens and maintain BCC compliance (avoid fines) i.e. host for Low Emission Zone trial
- Crime reduction and other social benefits – demonstrable link between light levels, aesthetics, public safety, etc – address 'fear of crime'
- Electric Vehicle charging points (pictured); talking lamp-posts for navigation; carry wireless network equipment which in turn can carry data for smart meter usage, tele-health/care, etc.

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Thank you for Listening