



# Going Underground

Andy Mudd, Head of APSE Solutions



# A Blue Ocean Initiative

- **Consciously looking for disruptive innovation**
  - Reduce cost
  - Without damaging outcomes
- **Shifting focus to end user**
  - Current approach developed piecemeal in response to legislative change
- **Thinking across boundaries**
  - Industry
  - Sector
  - Geography
  - Customers
- **Debunking the myths**

# What's wrong with how we do it now?



- Current approach is increasingly user unfriendly
- Multiple, confusing systems in place
- More expensive than need be
- Bad for the environment
- Not achieving what it needs to
- Dirty, difficult and often unhealthy for operatives



**Non-recyclables**



**Garden waste**



**Food waste (kitchen)**



**Food waste (kerbside)**



**Paper**



**Glass and cans**



**Cardboard**



**Plastic bottles**



**Textiles**



# Underground can address all these issues



- Convenience of a bring site but on your doorstep
- Gets away from multiple bins and rips up the collection calendar
- Clean
- Easy to understand and use
- Emphasises emotional aspect of waste disposal rather than dirty/functional aspects
- Greatly reduces vehicular conflict



# Which can save up to 70% of the cost of collection



- One lift is the equivalent of emptying 20 bins
- Only need emptying when they need emptying
- Can be done with a single operator
- Far fewer vehicles needed with far fewer journeys
- Far fewer people required to get the job done

# Cost comparison with wheeled bins for 86,000 households



## Costs for wheeled bins

- Staff costs – £882,000
- Vehicle costs – 861,532
- Service cost – £1743,532

## Cost for underground

- Staff costs - £294,000
- Vehicle costs -£215,383
- Service cost -£509,383

**Service cost saving = 70%**



# New development capital savings



		Unit	1300 houses
Indicative capital costs for new development			
	Underground bin cost	9,000	2,592,000
	Wheeled bin store area plus bins	2,725	4,956,775
	Capital saving		2,364,775



# Boost recycling

- Offers potential for recycling reward schemes
- Allows for much closer monitoring to work out where the education is needed
- Can result in lower contamination rates
- Source segregation preserves value and saves MRF costs

# And turned out to already exist



- Holland
- Spain
- Germany
- France
- Belgium
- And a whole load of other places around the world

# Reduce new housing development costs



- Lower cost than installing up to date spec bin storage areas
- Reduces the space needed for bin storage
- Potentially allowing more houses to be built on a given piece of land
- Can/should be incorporated into planning policy as part of creating better places to live



# And works in retrofitting situations



- Lyon
- Antwerp
- Tower Hamlets
- Edinburgh



# Now gathering a bit of momentum but..



- Cambridge
- Peterborough
- A number of London boroughs



# Why isn't everyone doing it?

- Its crazy
  - Well no its not
- People wont walk 100 yards or so to get rid of their waste
  - If it means not having custody of up to 5 wheely bins I think they will
- UK people are not the same as the Spanish
  - Just rubbish (pardon the pun)
- Can't afford the capital costs
  - Its about 10k per silo but do the sums you're saving at least half the revenue cost
  - New build developments is the obvious starting point
- Cant be digging up our streets
  - Antwerp
  - Lyon
  - Edinburgh



# **CHOICE OF SYSTEMS**



# Type – (Iceberg)



# Type – (Sotkon)



# Type – (Molok / Silo)



# Types (Hydraulic)



# Bigger units for commercial applications





# Consultancy

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## Interim management requirements

**Roads & Highways, Building Maintenance, Bereavement Services, Environmental, Parks & Open Spaces, Waste, Facilities & Leisure etc.**

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