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..

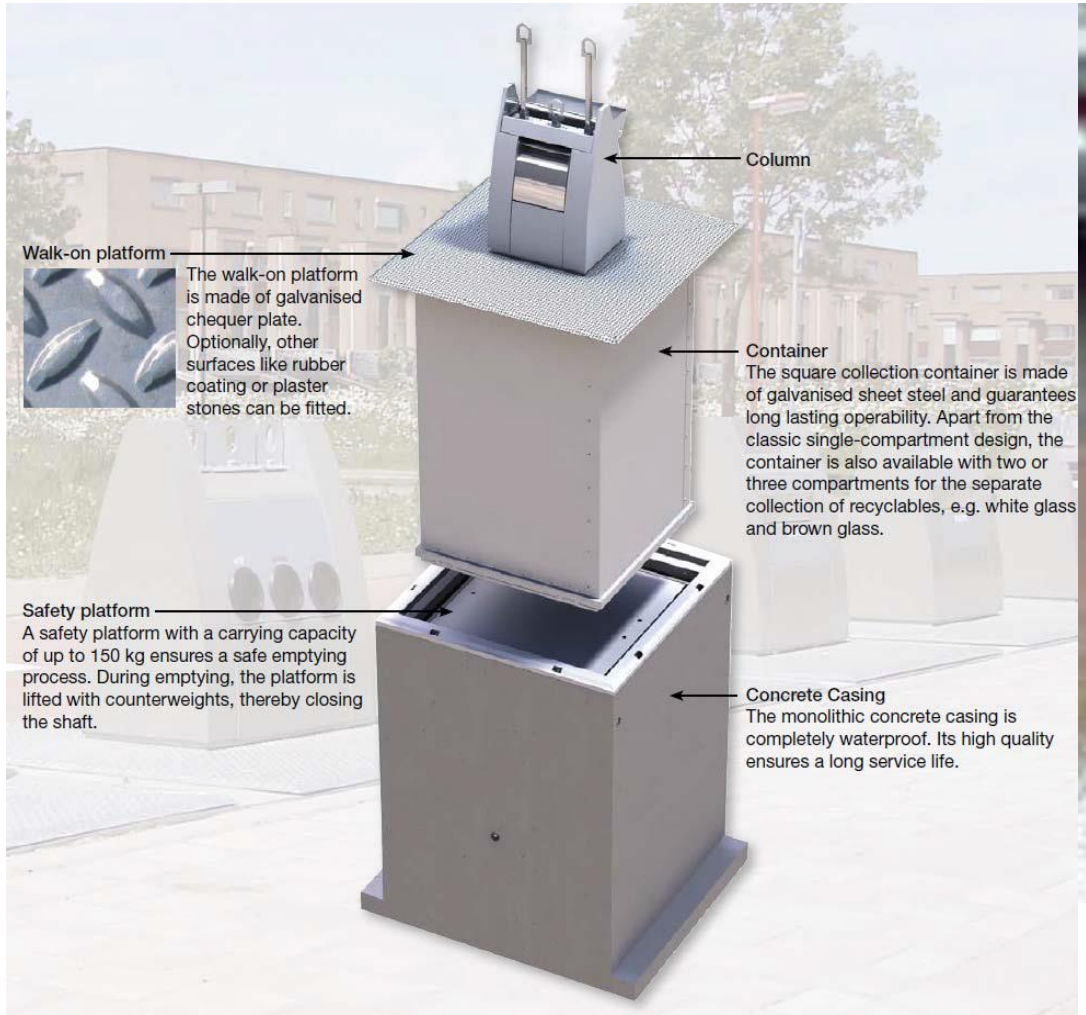
- Cambridge
- Peterborough
- A number of London boroughs

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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