



# **Beyond route optimisation**

Andy Mudd, APSE Solutions

# Back to basics: why we what we do



- Social policy
  - Some things are important to everybody
  - Public health
  - Social well being
  - Economic well-being
- Cost/benefit of public services
  - Public provision can be more efficient than the market but not everyone agrees that it always is
  - Must evolve according to the same rules so as not to get left behind when technology moves forward

# So is failure an option?





# What is efficiency?

- Removal of cost that does not add to value – waste
- Who's value?
- How measured?
- How will we know when we've got it?



# 8 Types of Waste

- Defective production
- Overproduction
- Waiting
- Non-used employee talent
- Transportation
- Inventory
- Motion
- Excessive processing



# Work systems

- Staff to deliver against actual expected demand
  - No overtime
  - No stand by payments
  - No enhanced out of hours payments
- Increased staff utilisation
- Pay that reflects the actual job – not just the bit that is done between 9 and 5
- Empowerment and accountability



# Wasted activity

- Failure demand
  - Redoing what was not done right first time
  - Catch up repair work
- Frequency driven demand
  - Doing things that don't need doing to meet a spec
- Duplicate activity
  - Client/contractor split

# Better use of vehicles and expensive machines



- Essential information
  - Where are they?
  - Are they in the right place at the right time?
  - Are they wasting their time?
  - Are they wasting the time of (even more expensive) people?
- How can we collect this data
  - Human reporting?
  - Automatic tracking?
- How can we use this data?
  - Improving systems
  - Avoiding frequency driven demand
  - Route optimisation



# Disruptive innovation



As companies tend to innovate faster than their customers' needs evolve, most organizations eventually end up producing products or services that are actually too sophisticated, too expensive, and too complicated for many customers in their market

Clayton Christensen: The innovator's dilemma: when new technologies cause great firms to fail 1997

# Are we getting to the point where convenience is overtaken by complexity?

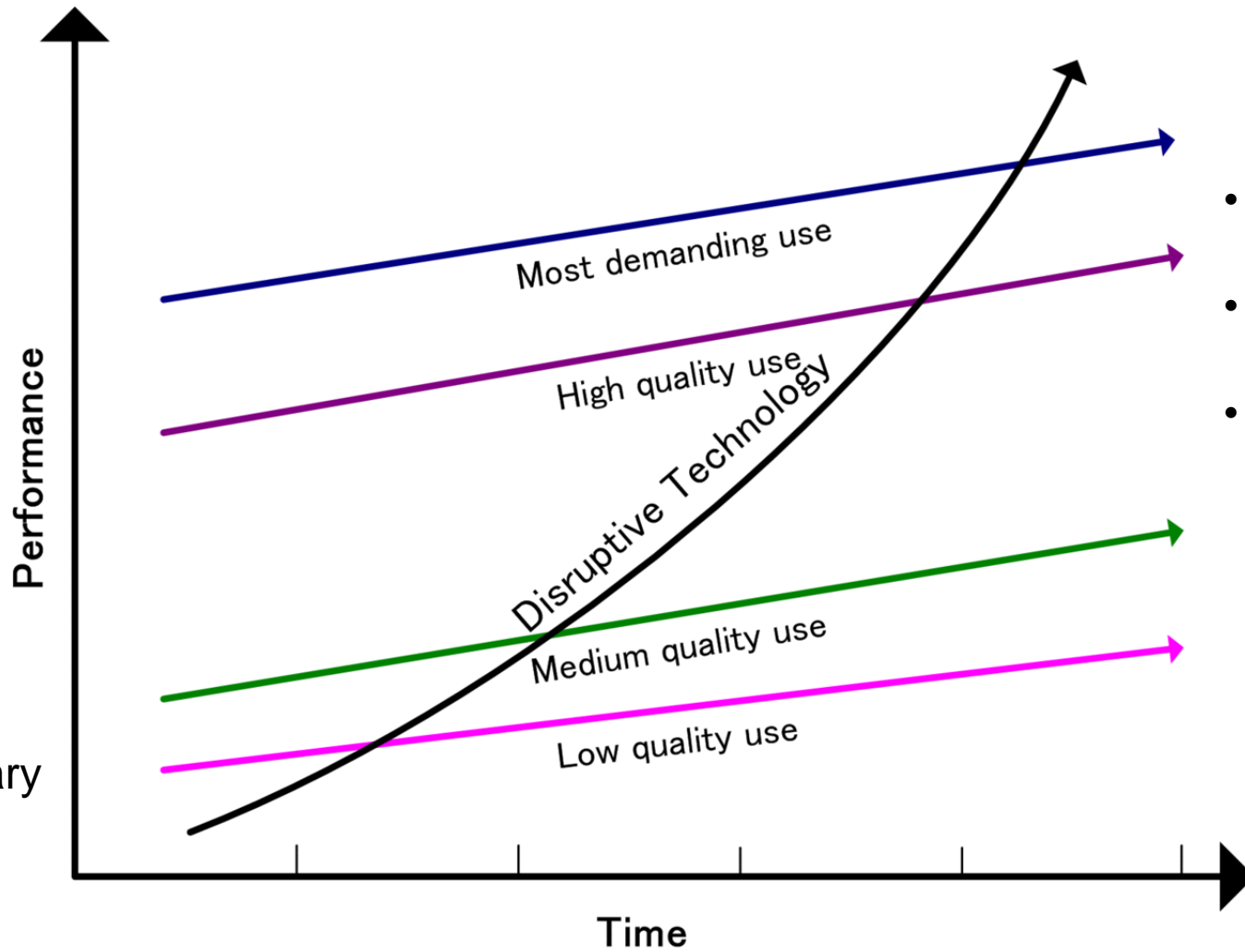


**Your Bin collection day is a Monday**

**24 Blue and Grey bins Monday 24th June 2013** Please place your bins at your collection point by 6am on the day of collection.

July 2013					August 2013				
1	8	15	22	29	5	12	19	26	
September 2013					October 2013				
2	9	16	23	30	7	14	21	28	
November 2013					December 2013				
4	11	18	25		2	9	16	23	30
January 2014					February 2014				
6	13	20	27		3	10	17	24	
March 2014					April 2014				
3	10	17	24	31	7	14	21	28	
May 2014					June 2014				
5	12	19	26		2	9	16	23	30
July 2014					August 2014				
7	14	21	28		4	11	18	25	
September 2014									
1	8	15	22	29	Please ignore any bin colours that you do not have.				

■ Landfill   
 ■ Paper and cardboard   
 ■ Plastics and cans

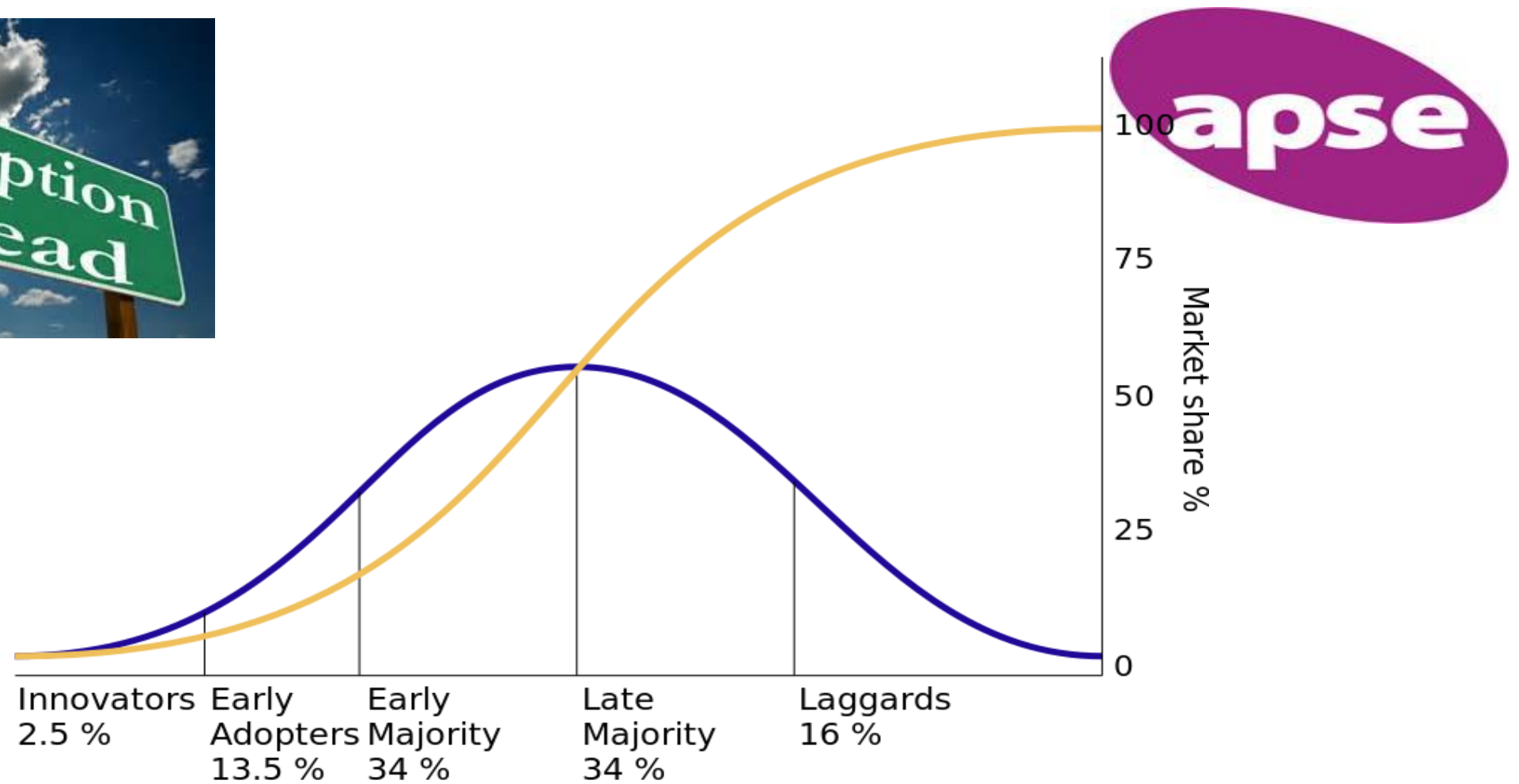


- Very significant drop in cost
- Significant simplification
- Different customer utility



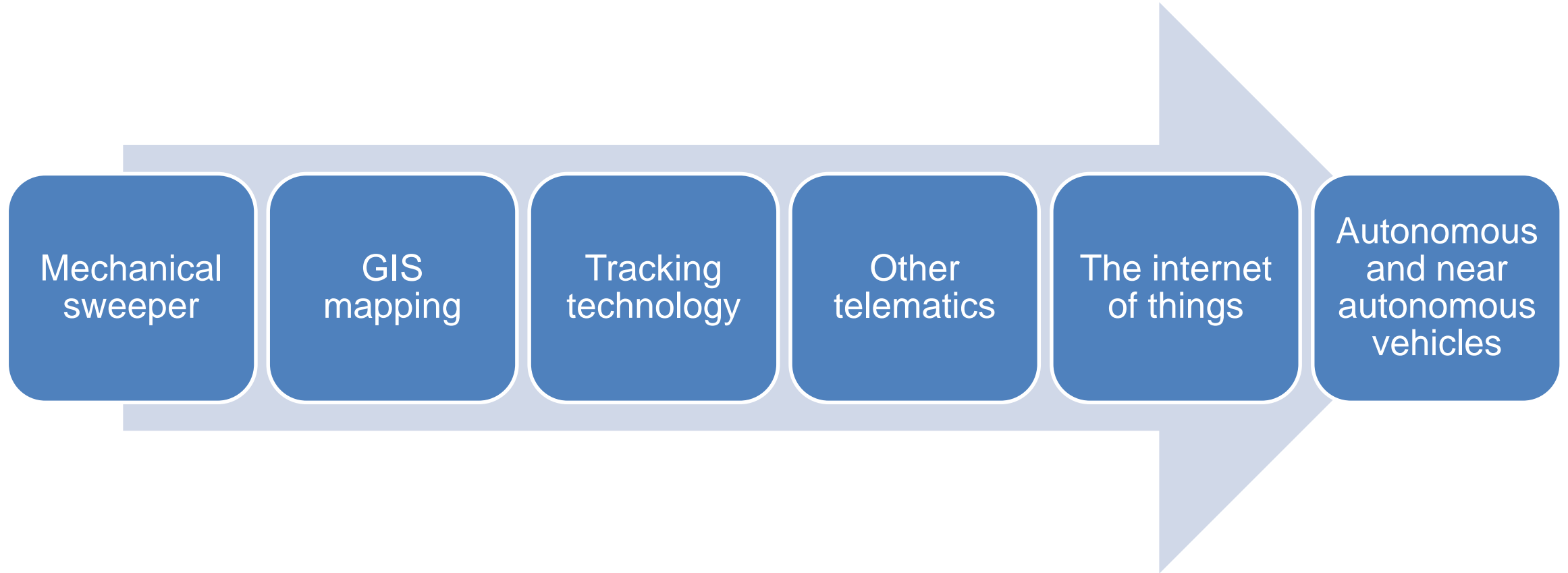
- Huge budgetary pressure - affordability
- Relentless pressure for ever greater complexity
- Decreasing customer utility





The diffusion of innovations according to Everett Rogers (1962). With successive groups of consumers adopting the new technology (shown in blue), its market share (yellow) will eventually reach the saturation level. In mathematics the S curve is known as the [logistic function](#).

# Power of disruptive technologies





# 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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