



# LOGISTICS ANALYTICS

How to find the best available logistics data and use it to your advantage

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**6 April 2011**



# DO THE MATH



# THIS BUSINESS IS DATA AND ANALYSIS



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WELCOME TO WORLDSTORES - THE HOME OF GREATER SELECTION, BETTER SERVICE & UNRIVALLED VALUE



OVER 70 SPECIALITY STORES AND MANY MORE TO COME...

#### BEDS & BEDROOM FURNITURE ▶

- BedroomWorld
- MattressesWorld
- BedroomFurnitureWorld
- LeatherBedsWorld
- MetalBedsWorld

#### GARDEN & OUTDOOR LIVING ▶

- GardenFurnitureWorld
- HammocksWorld
- GardenBenchesWorld
- ParasolsWorld
- SwingSeatsWorld

#### GARDEN BUILDINGS ▶

- ShedsWorld
- PlayhousesWorld
- SummerhousesWorld
- MetalShedsWorld
- GreenhousesWorld

*Imagine entering a store that sells only what you're looking for.*

*The choice of goods on display is huge, hand picked by experts and 100% focused on one product category, the prices are right and the customer experience and service are impeccable - welcome to WorldStores.*



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lateral and logistical thinking

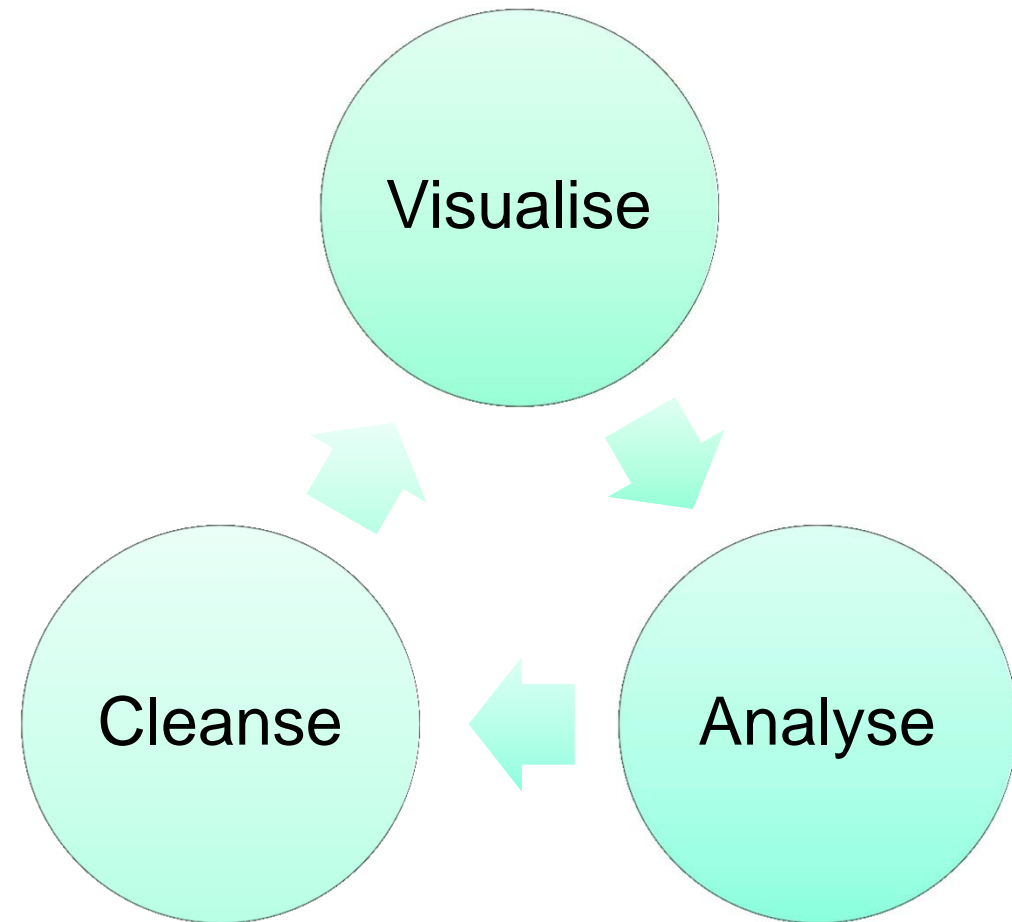


Image from <http://www.worldstores.co.uk/>

# OUTLINE



- > Introduction
- > The End
- > Getting data
- > Preparing data
- > Using data
- > External data
- > Checking results

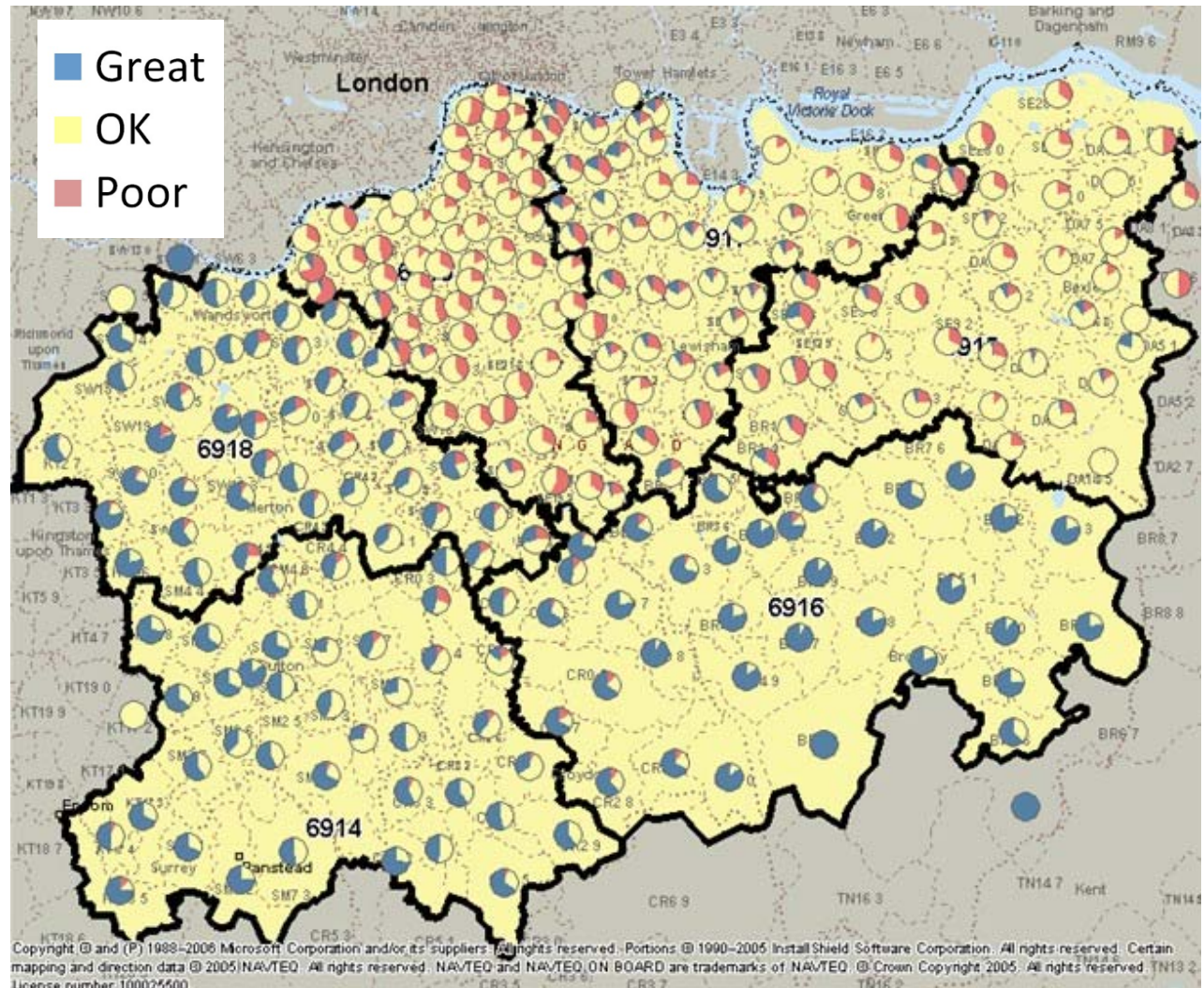




# A PICTURE TELLS A THOUSAND WORDS



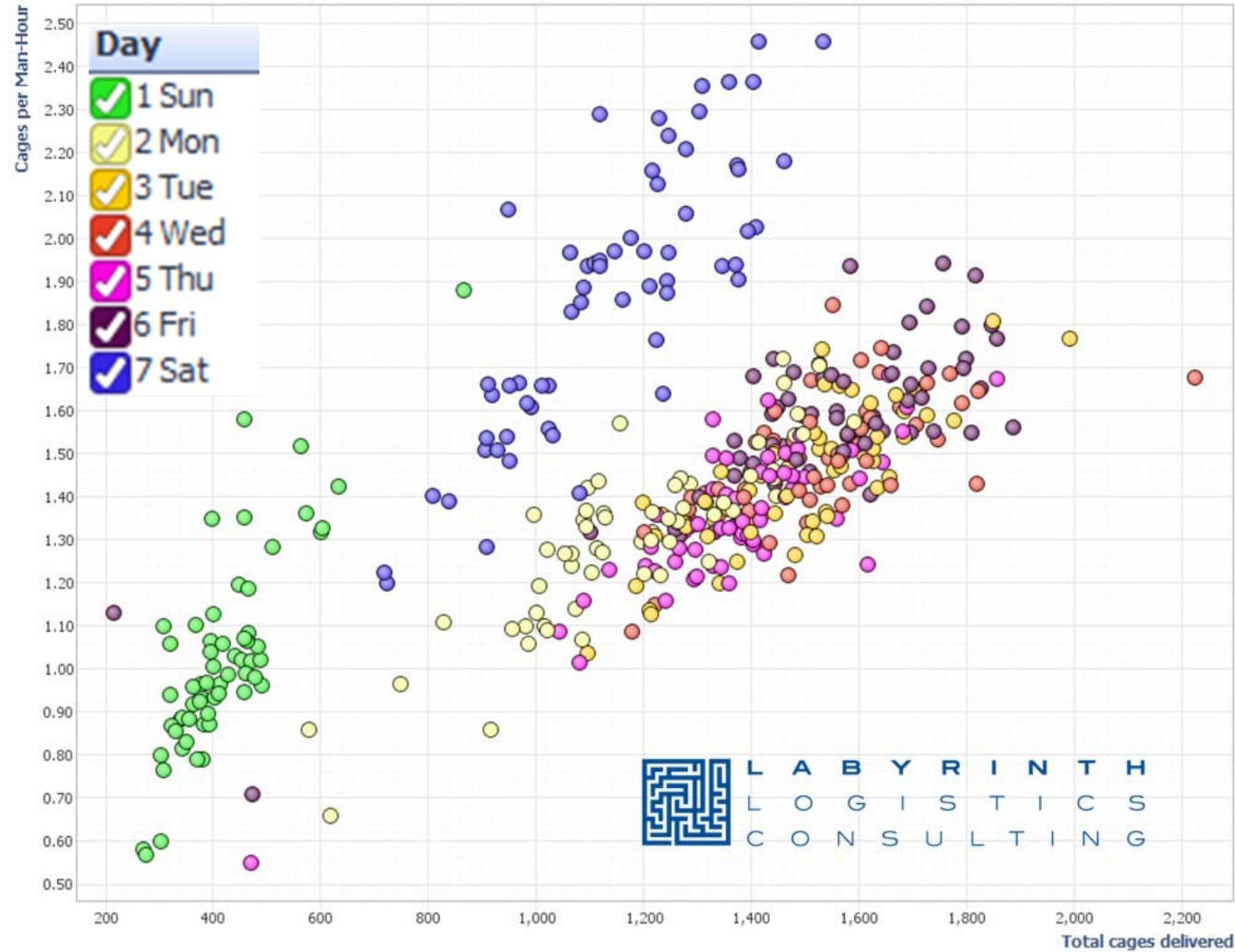
- > ...or figures
- > Over 8K deliveries
- > Van fill on departure from depot
- > By postcode sector



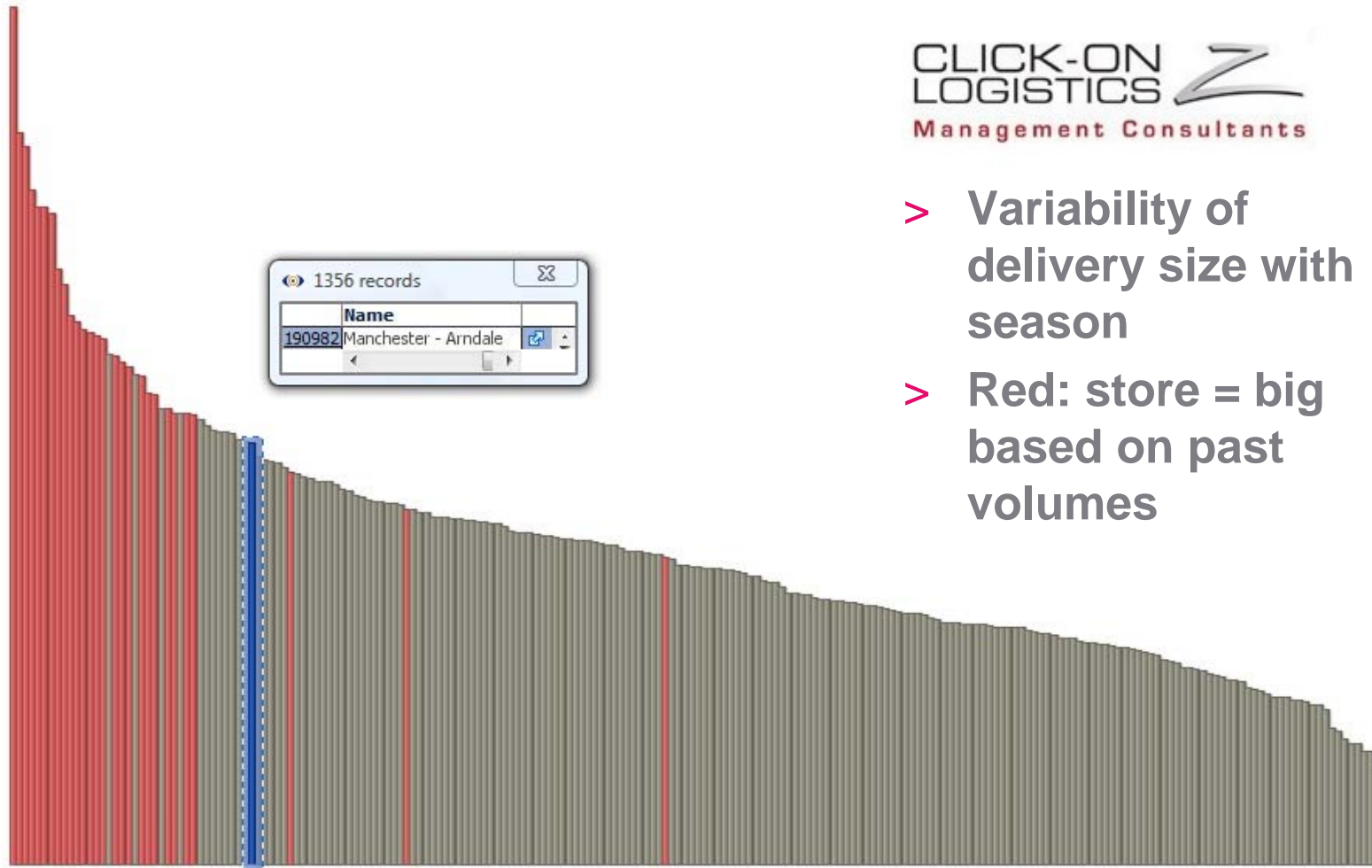
# MULTIPLE RELATIONSHIPS



- > Cages per hour
- > Changes with volume
- > Changes with day
- > ...but with different trends



# BIG STORE, LITTLE STORE



CLICK-ON  
LOGISTICS   
Management Consultants

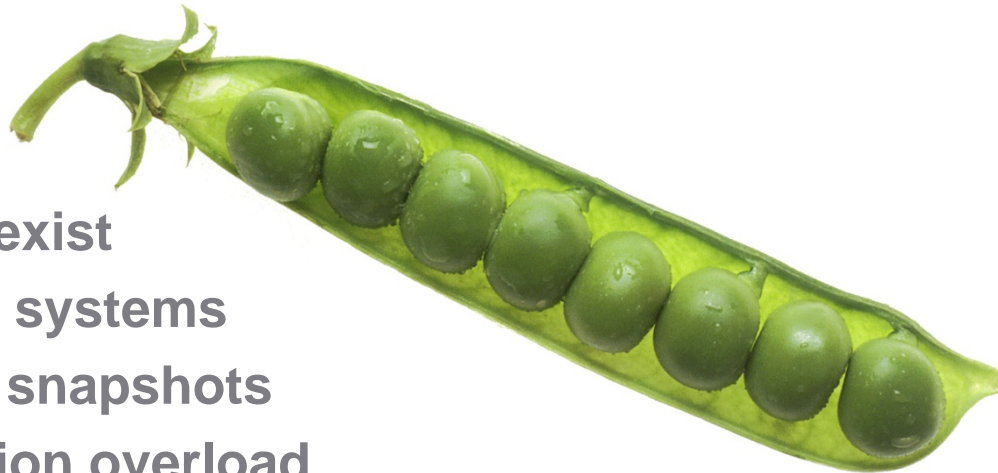
- > Variability of delivery size with season
- > Red: store = big based on past volumes



# DATA COLLECTION – EASY PEASY?



> NO!



> Doesn't exist

> Different systems

> Average snapshots

> Information overload

> Need to get it from the supplier

> It will take weeks, a special form and the CEO's signature

> Dirty data...



# GETTING DIRTY



- > Missing data
- > Formats of postcodes
- > Text versus numbers
- > Keying errors with manual data
- > Misunderstanding column headings
- > Multiples names for single categories, particularly the “Russian doll” of pick / transit units
- > Negative stock
- > Mismatches - between different files
- > Dimensions!
  - > Units of issue
  - > Units of measurement...



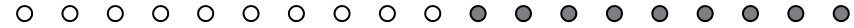
# DON'T CLEAN UP TOO MUCH



- > Outliers - are they...
- > Really wrong?
- > Really important?
- > Real life?



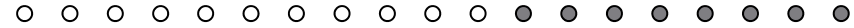
# MODELLING TIPS



- > Data versus reports
- > Keep and date original files as you receive them – where did they come from, who told you what...
- > Data from different sources
- > Use Vlookup / merge functions when you can, but anyway...
- > Insert a record number field if it doesn't already exist
- > Stay focused – what are the key parameters that drive the size and shape of the operation
- > Make the best of what you get



# FILLING THE GAPS



- > Deducing relationships
- > Sampling
- > Making assumptions
- > Sifting fact from opinion
- > Using external data...



# THERE'S A WORLD OUTSIDE



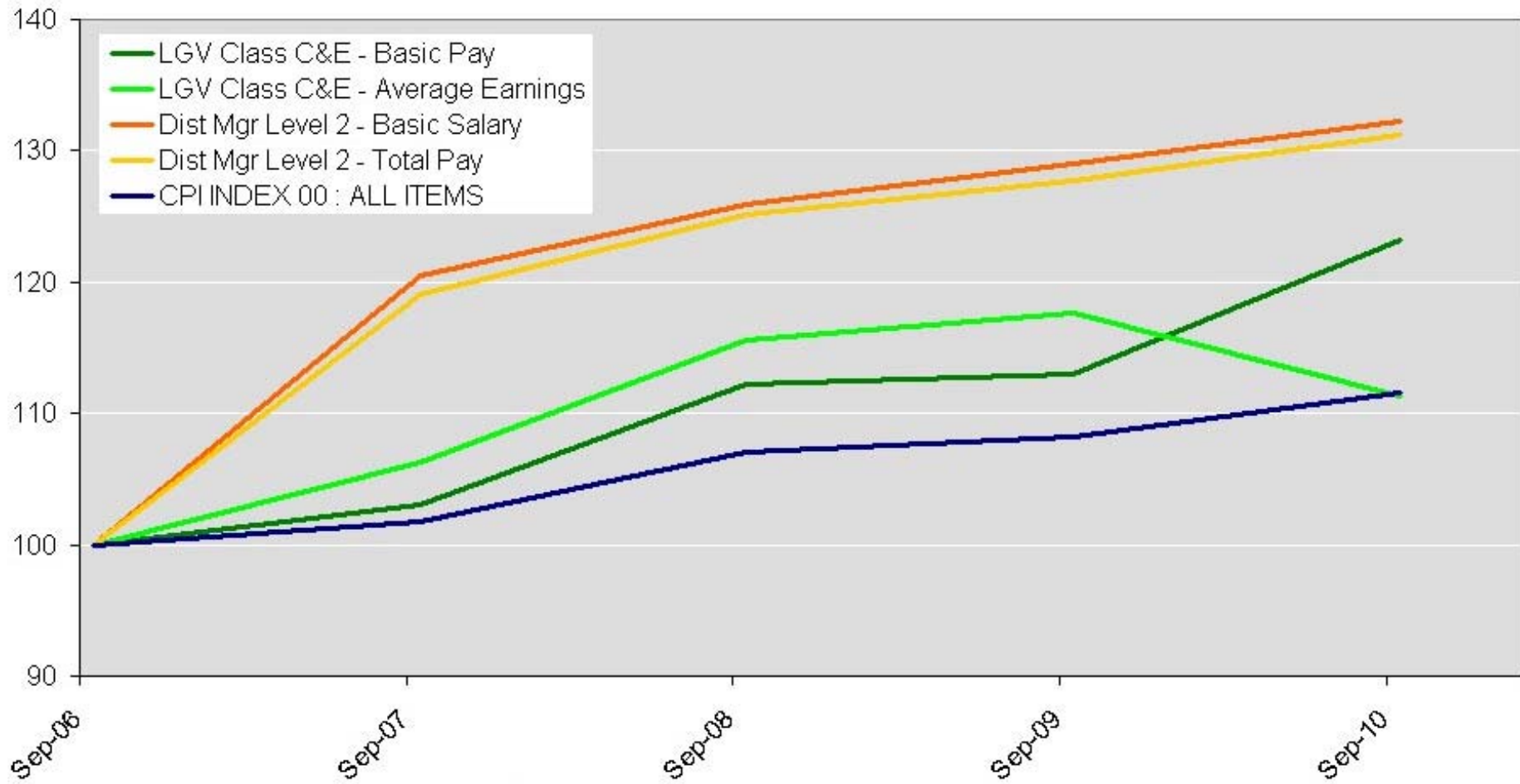
<b><i>SOURCES</i></b>	<b><i>EXAMPLES</i></b>
CILT – Corby & online	Croner wage reports, Datamonitor reports + much more
FTA & RHA	Diesel prices & vehicle costings
Official statistics – ONS, DfT...	Logistics data including inflation & including some international
Trade research & websites	Warehouse rental, eCommerce etc
British & City Business Libraries	All sorts of reports and information



# DRIVER WAGES



Relative change over last four years - all indices rebased to 100 at start of period shown



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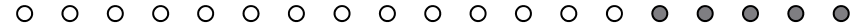


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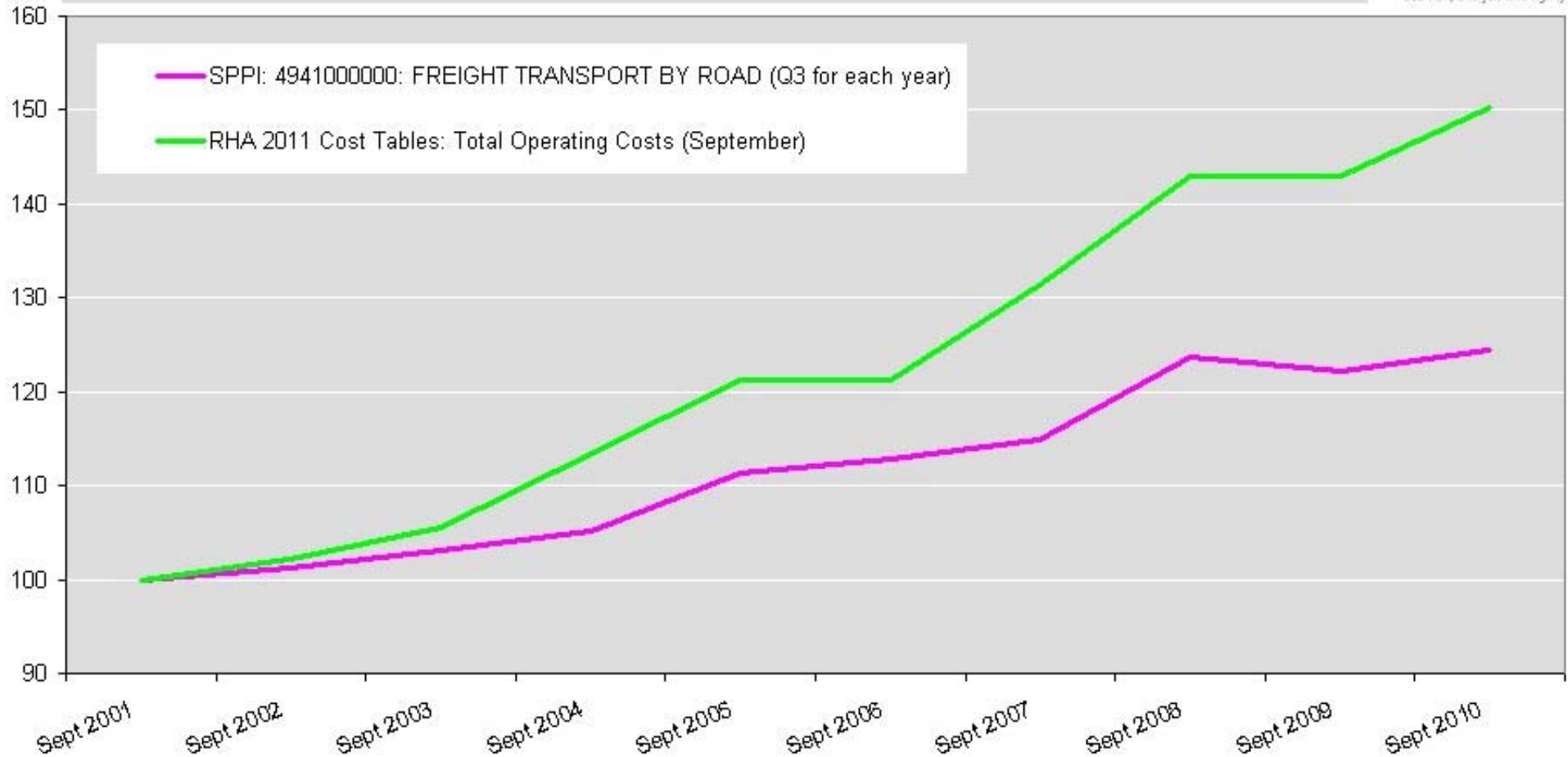


Image from Aricia Limited with data from Croner's Distribution & Transport Rewards

# ROAD FREIGHT - RATES v COSTS



Relative change since Sept/Q3 2001 - all indices rebased to 100 at start of period shown



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Image from Aricia Limited with data from National Statistics website & RHA Goods Vehicle Operating Cost Tables from DFF International

# THE SPPI

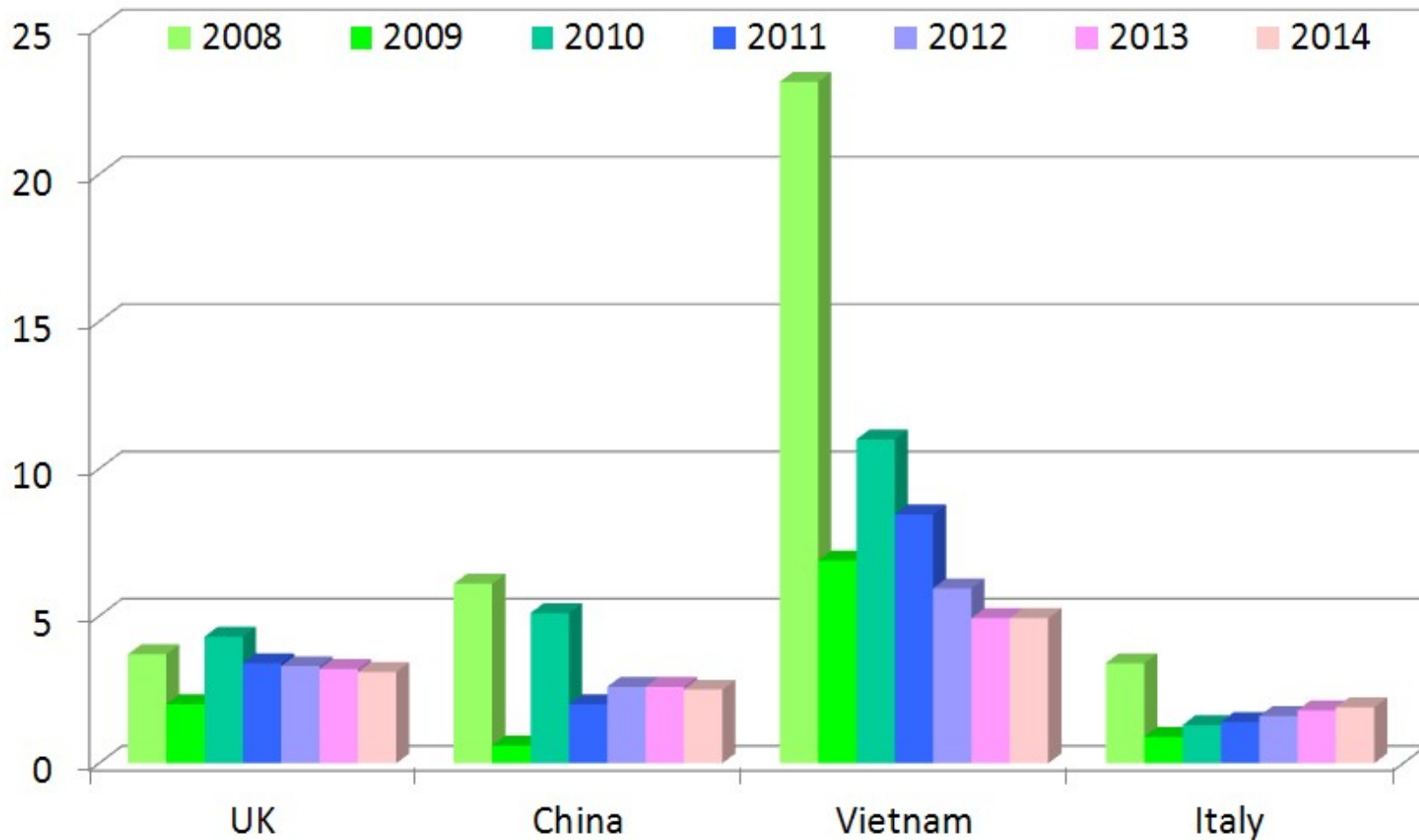


> Please ask us to send you this slide as a Powerpoint

# LOOKING TO THE FUTURE



## Inflation rates - as at 2010



# KNOWING YOUR LIMITS



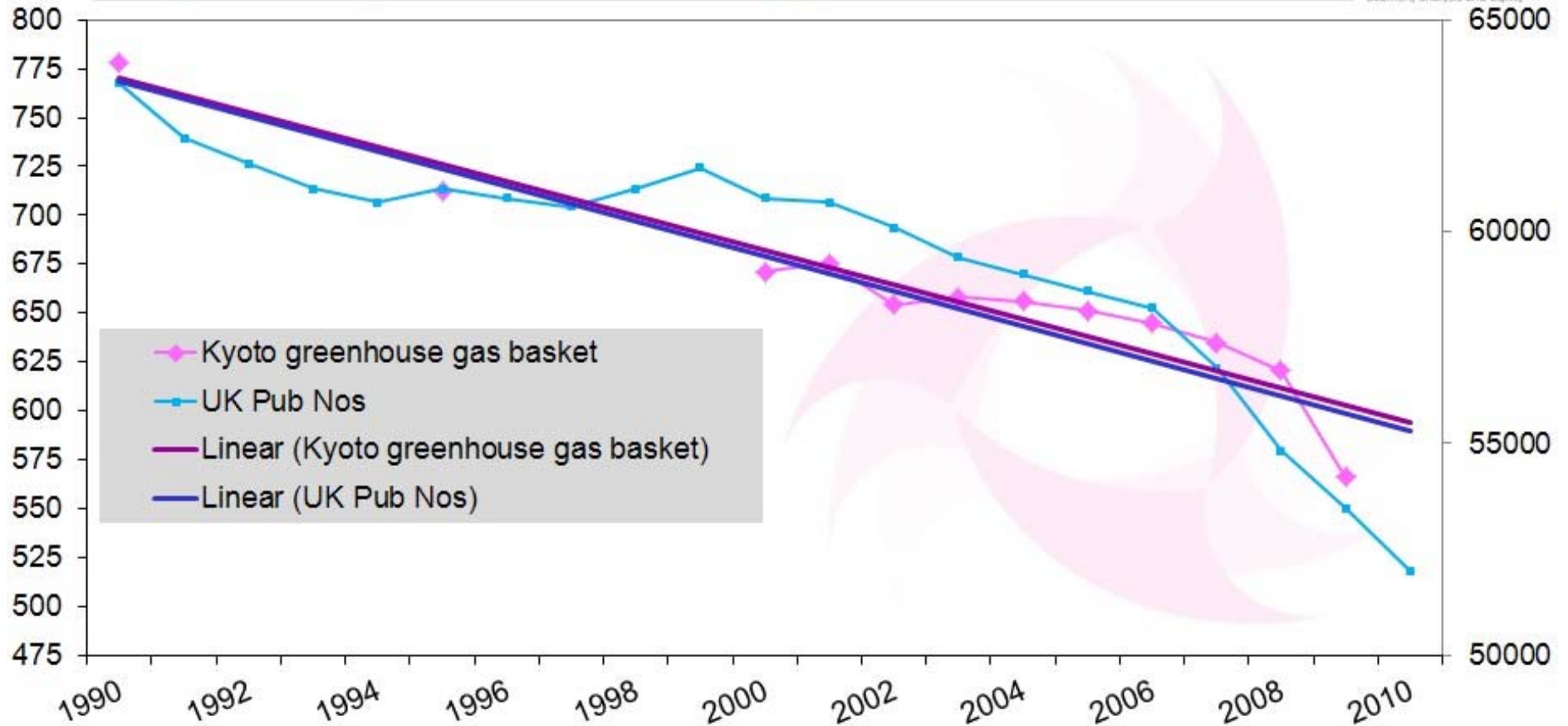
- > Carry out sense checks
- > Gross error analysis
- > Understate versus overstate?
- > Multiple extremes
- > Margin of error – allow for worse!
- > Sensitivity analysis
- > Breakpoints
- > Compare and contrast



# LIES, DAMN LIES & 1<sup>st</sup> APRIL



Change over twenty years - Emissions (MT CO2 Equiv) on LH axis, UK Pub Nos on RH axis



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Image from Aricia Limited with data from <http://takingliberties.squarespace.com> and <http://www.decc.gov.uk>

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# AND FINALLY...

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> Thank you to Trade Extensions

> Thank you to You



> Any questions?

