

The Biggest Digital Transformation in British History

And how it is being driven by big data and predictive analytics

Matt Roderick
Title

Glenn Phillips
Technology Director | Mobysoft

DCC: Digitising the last analogue industry



Context | What is DCC for?



The Challenge for the Country

- Energy security in an era of increased renewables/reliance on imports
- Affordability for the consumer
- Carbon emissions & electrification
- Inflexible supply and network infrastructure

The Government's Strategy

- Change the relationship between users / energy system - putting more power in the hands of the consumer
- More competitive energy market with choices about supply, and how you use (and generate) your supply
- More flexible energy system - reducing grid and generation strain by creating a more responsive system - can't build a new power station every decade



ofgem

Making a positive difference
for energy consumers



Why Smart Meters?

- Digitising one of the last analogue industries – the foundation for transformation
- Unlocking data that is key for more competitive markets/flexible energy system
- Platform for new disruptive business models and services that change the way markets and systems operate – distribution comes are part of digitisation

300 staff (>2,000 across our supply chain)

200 customers

70 million messages per day

Supporting 250,000 installations per week

300 million security certificates

30 million homes

53 million meters

>100m IOT devices

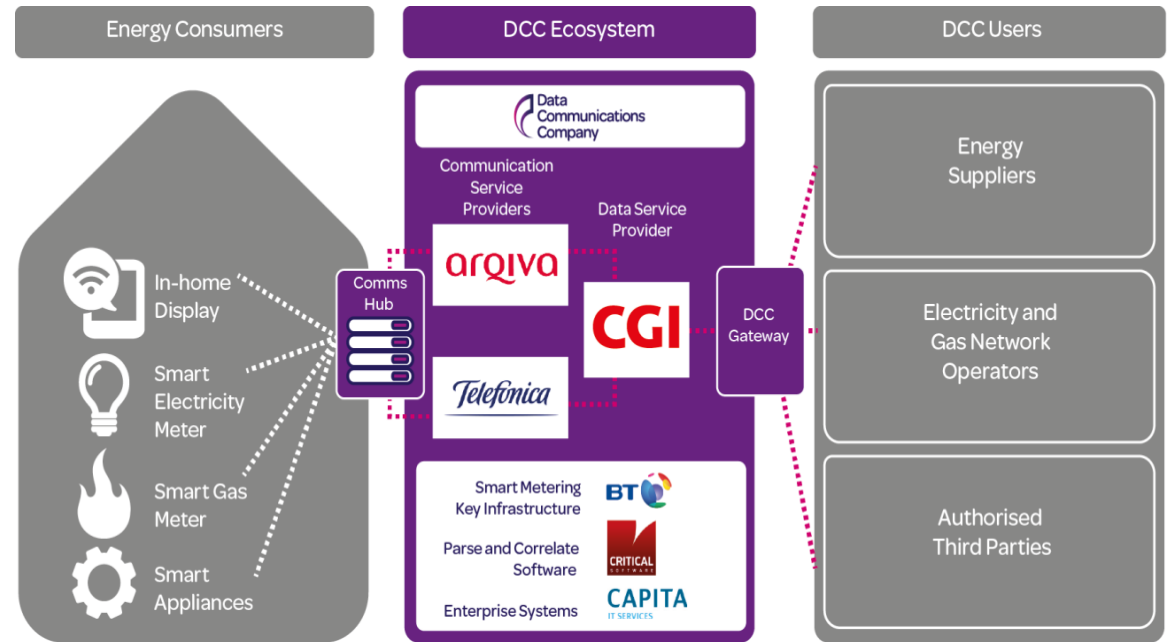
Context | What does the DCC do?

A single secure network connecting smart meters to the business systems of energy suppliers, DNOs and other users

Allows energy suppliers to install and operate SMETS2 gas and electricity smart meters

All messages are encrypted. DCC does not store, analyse or has access to consumers' data

Implements a sophisticated end-to-end security model - the largest Public Key Infrastructure in Europe



Digital platform enables

- Real time information for Consumers on energy costs
- Price parity for Pre-Paid consumers
- Interconnected Islands of Energy – Community Energy
- Greater competition in supply
- Greater Innovation

enabled by Digital

driven by Data!



Glenn Phillips
Technology Director | Mobysoft

predictiveanalytics

- 2011 – Identified €250bn of savings available
- 2017 – Reported that less than 20% had been achieved
- 2017 – Asserted that potential savings are increased due to technology changes

10-20%

of the potential value has been captured in the public sector and health care

- **The EU public sector:** Our 2011 report analyzed how the European Union's public sector could use data and analytics to make government services more efficient, reduce fraud and errors in transfer payments, and improve tax collection, potentially achieving some €250 billion worth of annual savings. But only about 10 to 20 percent of this has materialized. Some agencies have moved more interactions online, and many (particularly tax agencies) have introduced pre-filled forms. But across Europe and other advanced economies, adoption and capabilities vary greatly. The complexity of existing systems and the difficulty of attracting scarce analytics talent with public-sector salaries have slowed progress. Despite this, we see even wider potential today for societies to use analytics to make more evidence-based decisions in many aspects of government.

Predictive Analytics Established Programmes

- Policing
- Insurance Renewals
- Insurance Pricing
- Credit Scoring

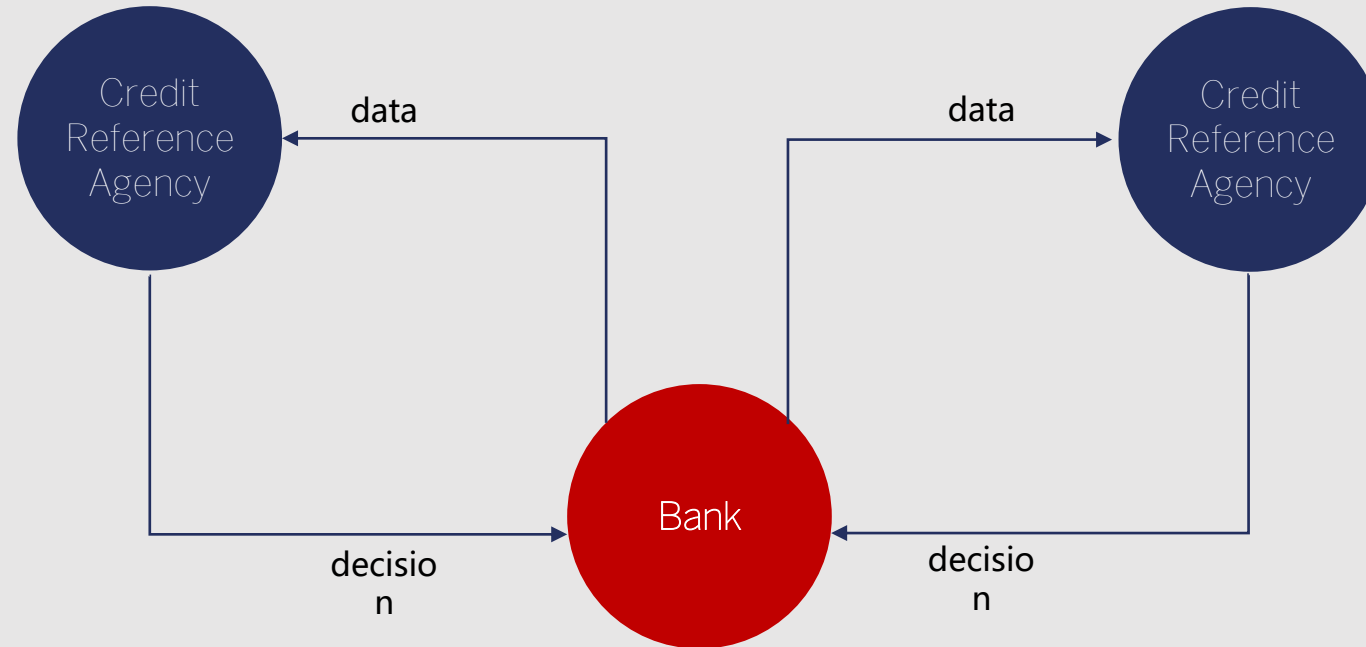
Predictive Analytics Problems Encountered

- Study of effectiveness of a Predictive Analytics tool by police in Oakland, California
- Results were good
- Officers followed the results and found more crime
- Entered the crime details into the system
- Bias within the system was amplified – reducing effectiveness

Predictive Analytics Problems Encountered

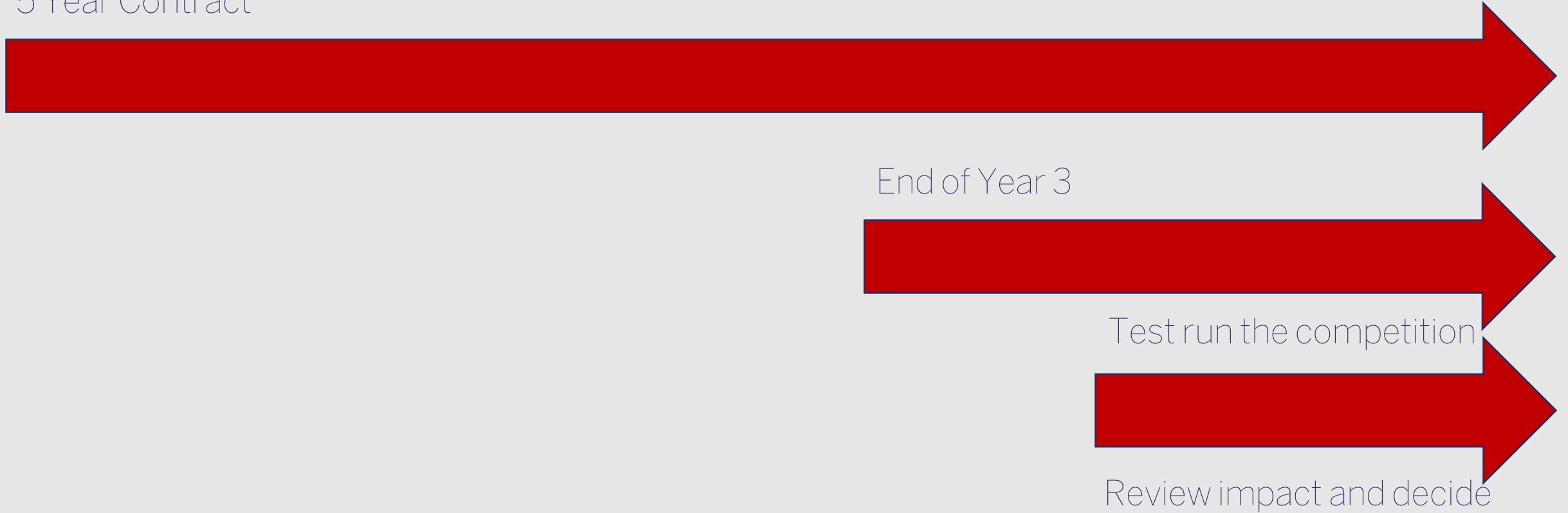
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Evaluation and Procurement



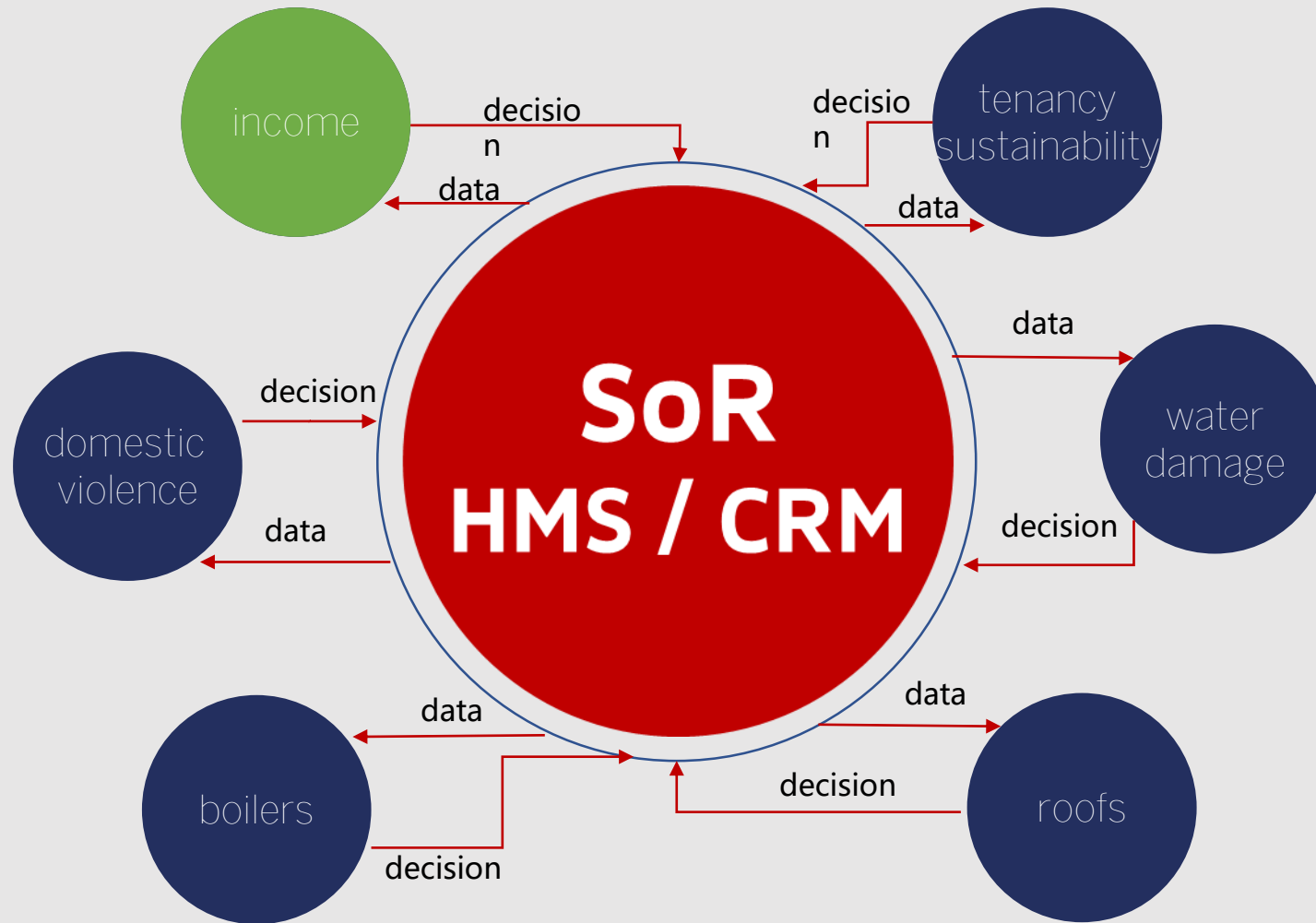
Evaluation and Procurement

5 Year Contract



Why Predictive Analytics is Pervasive

- Unprecedented volumes of data
- Cheaper, powerful computing available “on-demand”
- Software that is better and easier to use
- More precise data modelling techniques
- Faster result achievement and action delivery



- Recognised HMS Recommendations are not optimal
- Used actual contacts made by officers as training data
- Data Science techniques used to build models
- Tested using data not involved in training
- Evolve over time using new learnings

Impact at Social Landlord – REPLACEMENT SLIDE UNDER CONSTRUCTION

Value of missed cases by HMS

£292,000

650

Cases unearthed at Go-Live which
HMS failed to find

Arrears reduction

£600,000

Over 9 months



For us investing in RentSense was about efficiencies and releasing capacity to do other things, it has created 7 FTE.

Every landlord is different, but I don't know why you would not use something that will save you time, effort and money.

Susie Thompson,
Assistant Director

Gentoo



gentoo



From a strategic point of view, despite the fiscal environment and welfare reform Sovereign's arrears have fallen year on year for five years and RentSense has been instrumental in us achieving that.

It has also created efficiencies and capacity within Sovereign, so we are able to tackle welfare reform



Luke Bingham,
Regional Director

Sovereign



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We invested in RentSense instead of additional resource and our arrears have reduced year on year, they are currently 1.34%, whilst the risks and challenges have increased throughout.

The risk has been higher, the resource has been static and yet arrears have come down, that is because of how we have targeted our resource, and that comes down to RentSense.

Jan Goode,
Neighbourhoods Director

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Unique Tenancies Processed per Week

1,200,000

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HOUSING INTELLIGENCE

