

# Smart Metering Implementation Programme

## Phase 1: Second Briefing Event

1 February 2010

# **Sarah Harrison**

**Senior Partner, Sustainable  
Development, Ofgem**

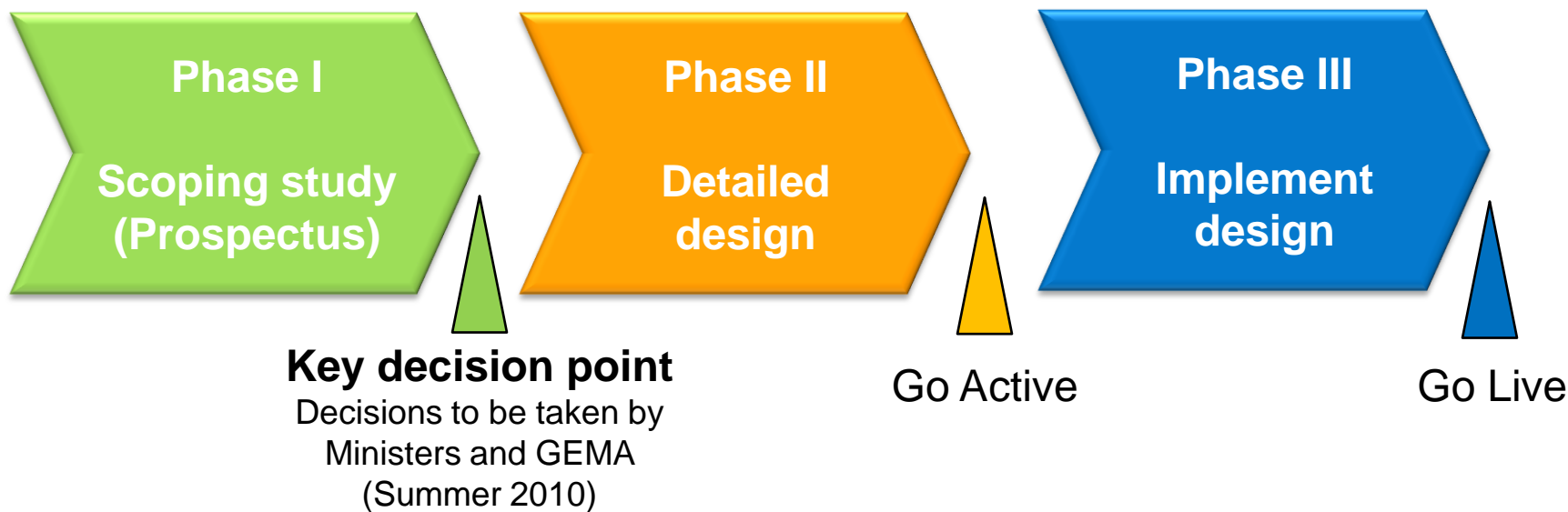
# Areas to cover today

- Programme re-cap
  - Background
  - Structure
  - Objectives
- Phase 1 progress update
  - Overview issues
  - Design requirements
  - Data and communications
  - Rollout
- Programme engagement update
  - Feedback on updated responses
  - Consumer Advisory Group
  - Workshops

# Background

- DECC response to consultation 2<sup>nd</sup> Dec 2009
  - Key decisions on market model
  - Ofgem chosen to manage Programme
  
- Phase 1: 1<sup>st</sup> Briefing Event 16<sup>th</sup> Dec 2009
  
- Phase 1: 2<sup>nd</sup> Briefing Event 1<sup>st</sup> Feb 2010

# Outline for development of regulatory and commercial regime



# Phase 1 outputs

- Statement of design requirements
- Commercial and regulatory framework
- Central data/comms model
- Rollout approach
- Implementation strategy

# Phase 1 DECC-Ofgem Statement of purpose

To develop a regulatory framework and delivery plan that will ensure the smart metering rollout supports the overall objectives for the Programme and is delivered in an economic and efficient manner

Consistent with our ongoing statutory obligations:

- Promoting and protecting consumer interests
- Promoting and enhancing existing competitive markets

Key principles for the development work in Phase 1 will include:

- Developing solution with full s/h engagement keeping customer at heart of Programme
- Facilitating reduction in carbon and more efficient energy management in homes & SMEs across the energy networks
- Providing sufficient certainty to facilitate investment
- Providing fit for purpose functional specifications for technology elements
- Delivering a co-ordinated approach for a mandatory smart meter rollout by 2020
- Providing flexibility in commercial and regulatory framework that provides change mechanisms for future developments (e.g. Smart Grids)
- Addressing interfaces with other relevant public policy objectives
- Paving the way for a smooth transition to Phase 2

# DECC forecast benefits

DECC forecast benefits	%
Energy saving/ CO <sub>2</sub> reduction	40%
Load shifting	6%
Avoid meter reading	18%
No estimated bills	8%
Debt handling	7%
Avoid PPM cost-to-serve premium	6%
Remote disconnection	2%
Avoid special read site visits	3%
Customer switching process improvement	7%
Other	2%

Source: DECC IA

# Consumer at heart some key requirements

Enhancing consumer  
choice and control



# Energy market competition

## some key requirements

Smart metering is a key enabling technology

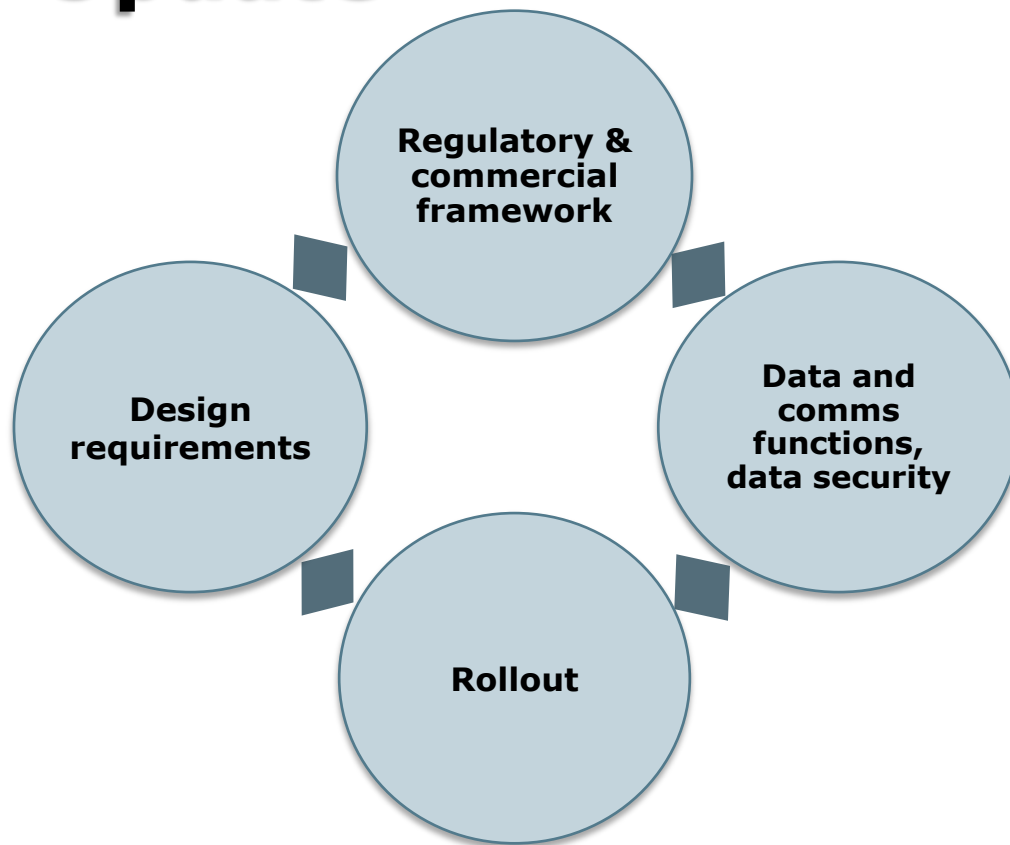


# **Robert Hull**

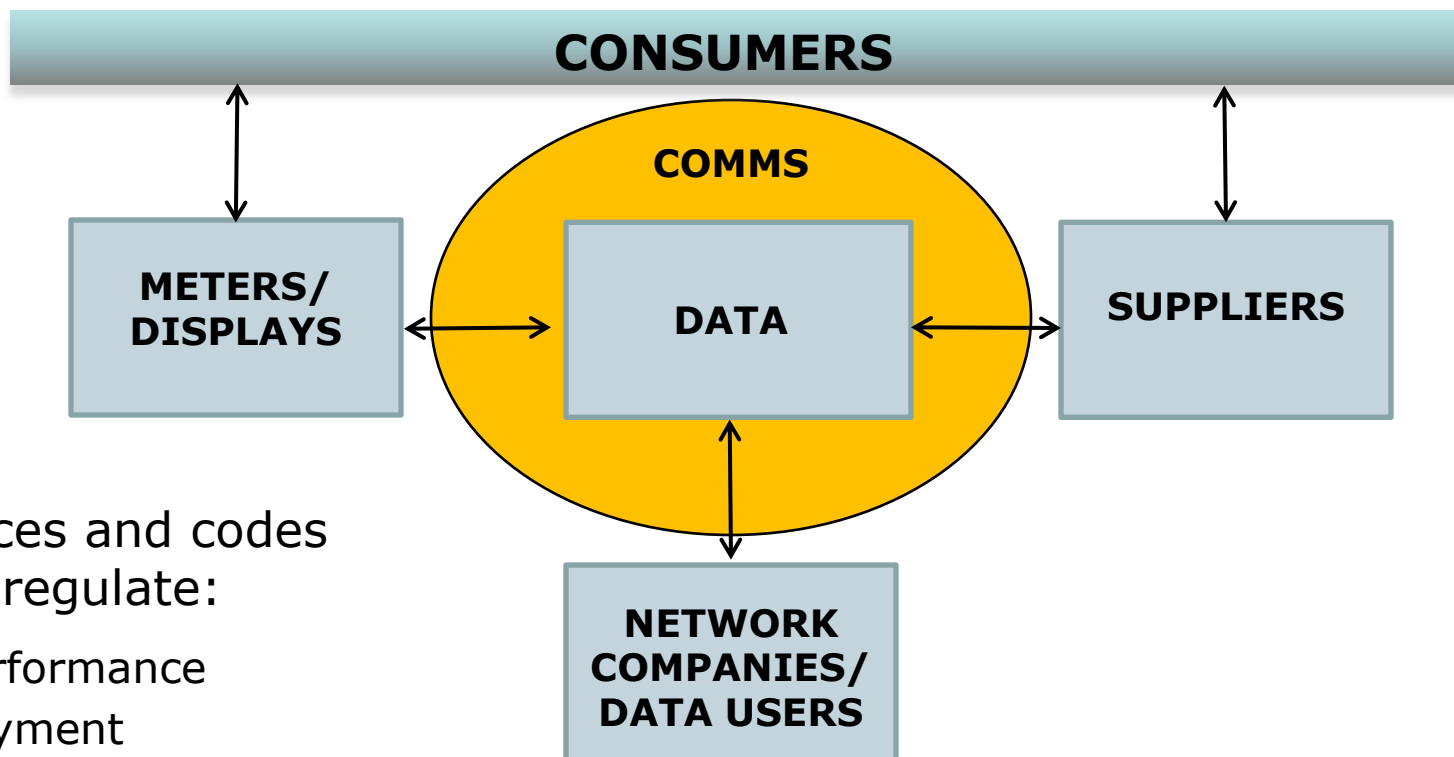
**Managing Director,  
Commercial, Ofgem E-Serve**

# Development of regulatory regime - Update

- Mobilisation of Ofgem-led team
- Analysis focusing on four key workstreams
- Updated submissions received from stakeholders (60+)
- Consumer Advisory Group established
- Stakeholder engagement



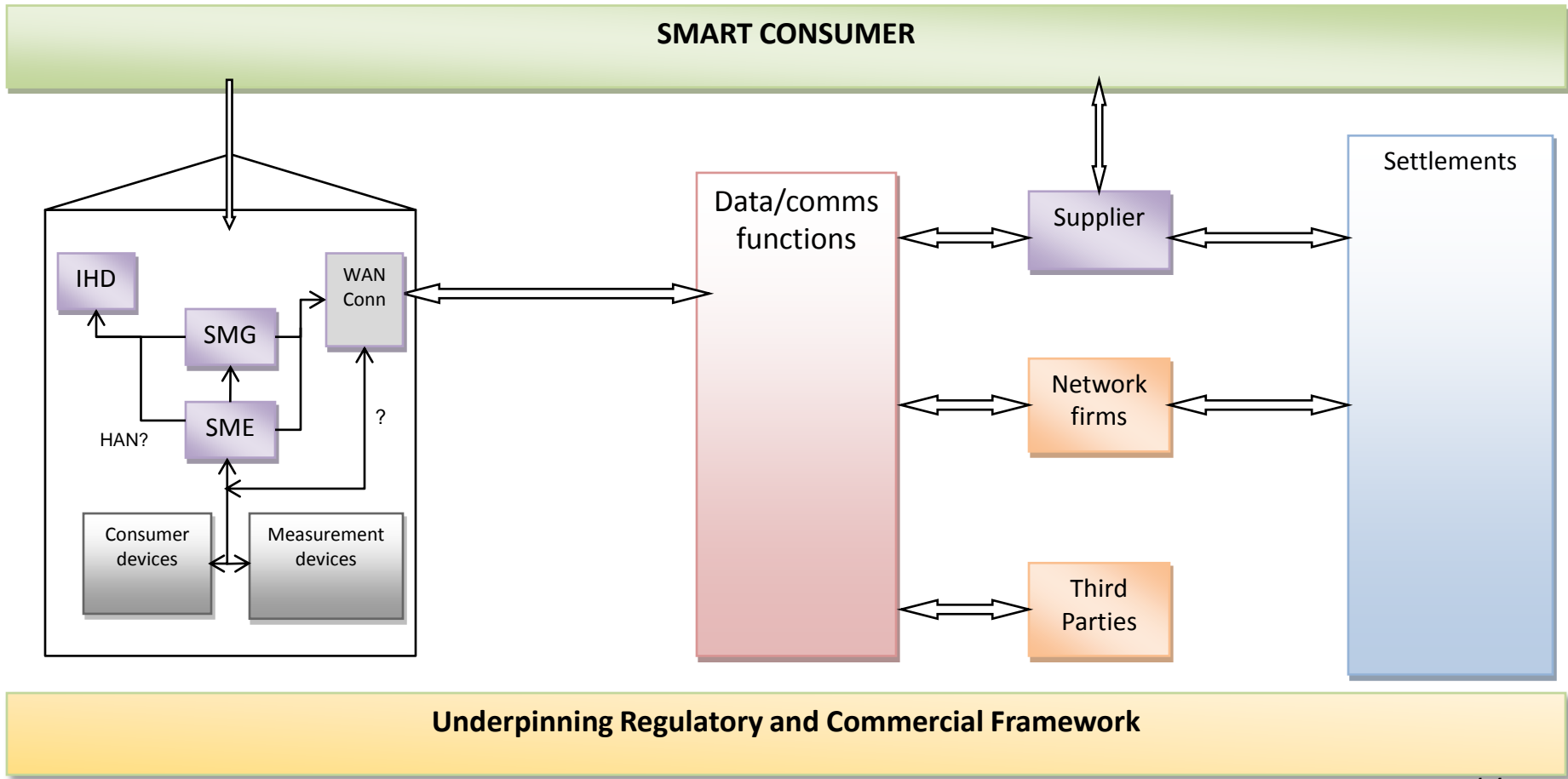
# Key interfaces in business model



Licences and codes to regulate:

- Performance
- Payment
- Rights, incentives and obligations

# Initial thinking: Core business model

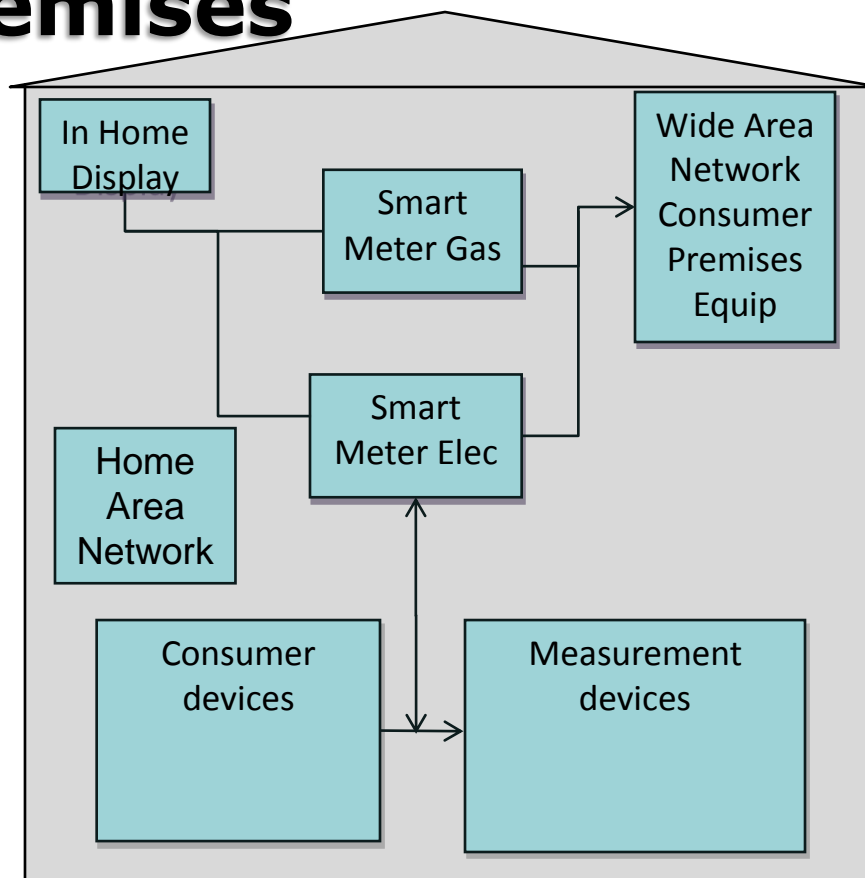


Underpinning Regulatory and Commercial Framework

# Initial thinking: Design requirements – customer premises

## Some key issues

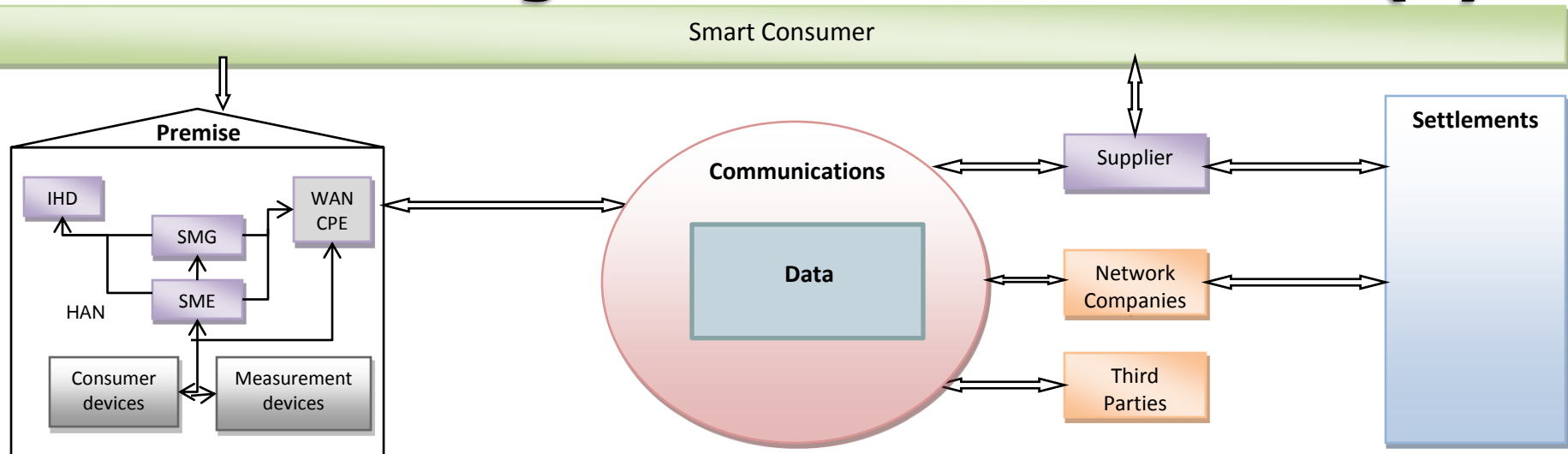
- Responsibility for meter installation
- Responsibility for meter replacement
- Interaction with gas meter
- Responsibility for HAN and WAN
- Responsibility for faults
- Equipment standards
- Power for Gas meter
- HAN standards
- Commercial boundaries
- Cost recovery
- Provision of information
- Changes to licenses and codes



# Initial thinking: Design Requirements – some key issues

- Options available to meet proposed minimum functionality requirements for smart meter, external interface and in-home display
- End-to-end security assessment for smart metering system
- Responsibility for in-house comms and scope
- Mandatory supplier-provided in home display or customer choice
- Standalone smart meter for gas (power supply considerations)
- Future proofing for communications facility

# Initial thinking: Core business model (2)



SMG/SME: smart gas and electricity meters  
 IHD: in-home display  
 WAN CPE: wide area network consumer premise equipment (connection to WAN)  
 HAN: home area network  
 Devices for micro-gen and remote management

Transfer of information to appropriate parties  
 Management of core smart meter data

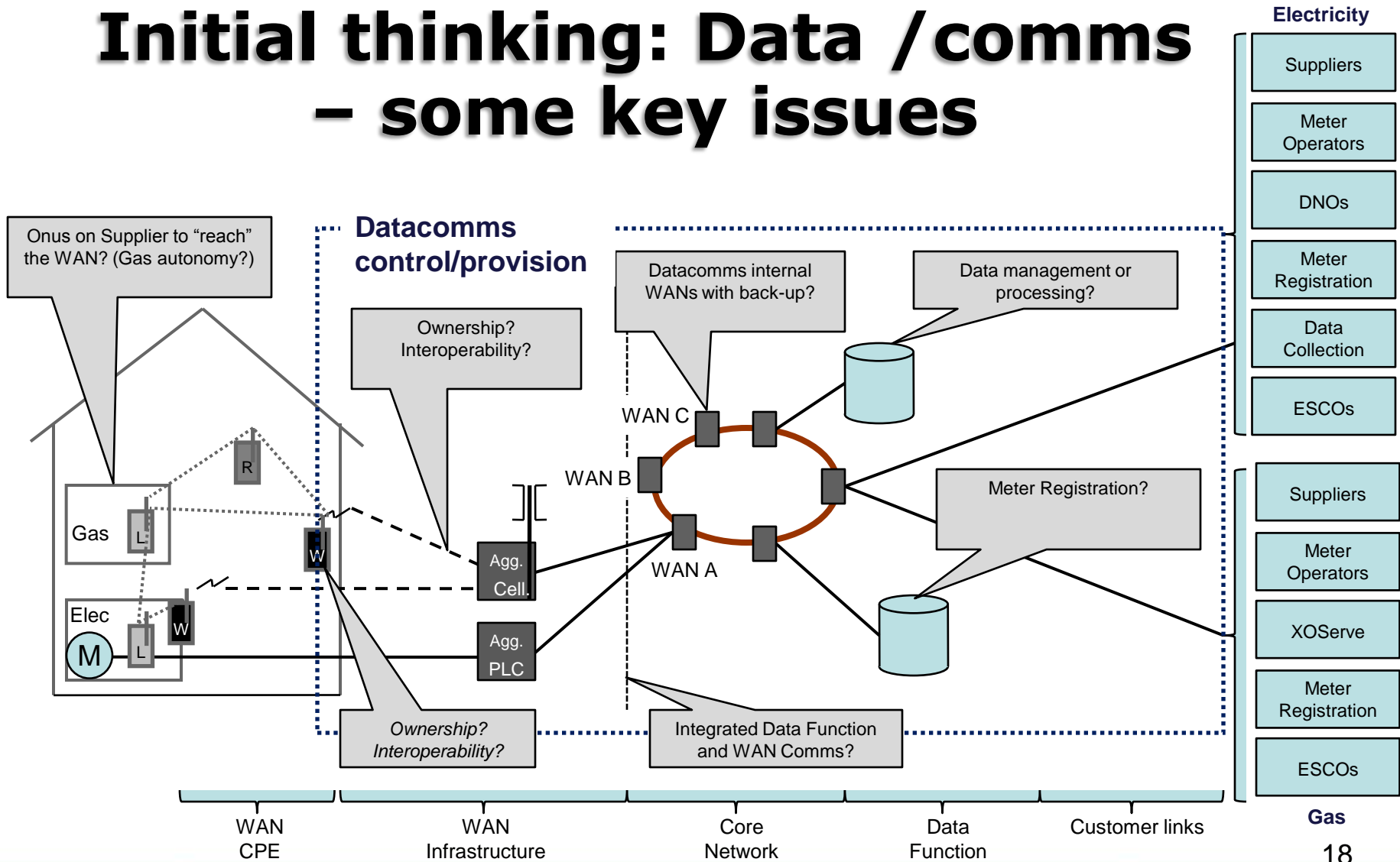
Supplier-led

Existing arrangements

**Rollout programme:** supporting both consumer pull and local co-ordination:

**Regulatory and Commercial Framework:** licences and codes to regulate performance, payment, rights, incentives and obligations; provision for security and data privacy

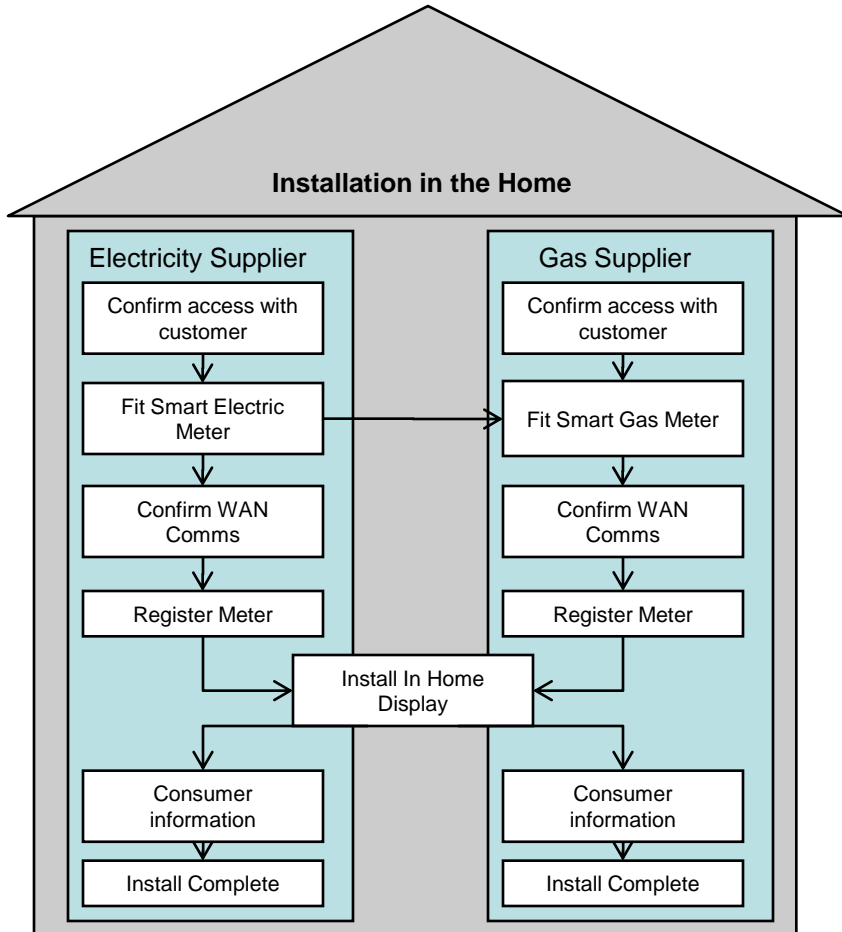
# Initial thinking: Data / comms – some key issues



# **Initial thinking: Data/comms business model – some key issues**

- Proposed scope of functions of Datacomms
- Boundary issues with other parties
- Data security
- Communications needed for data transmission function
- “Thickness” of functions (e.g. in terms of amount of data held centrally or comms managed centrally)
- Customer choice for comms and third party services
- Ownership of communications interface at customer premises

# Initial thinking: Installation and Rollout - some key issues



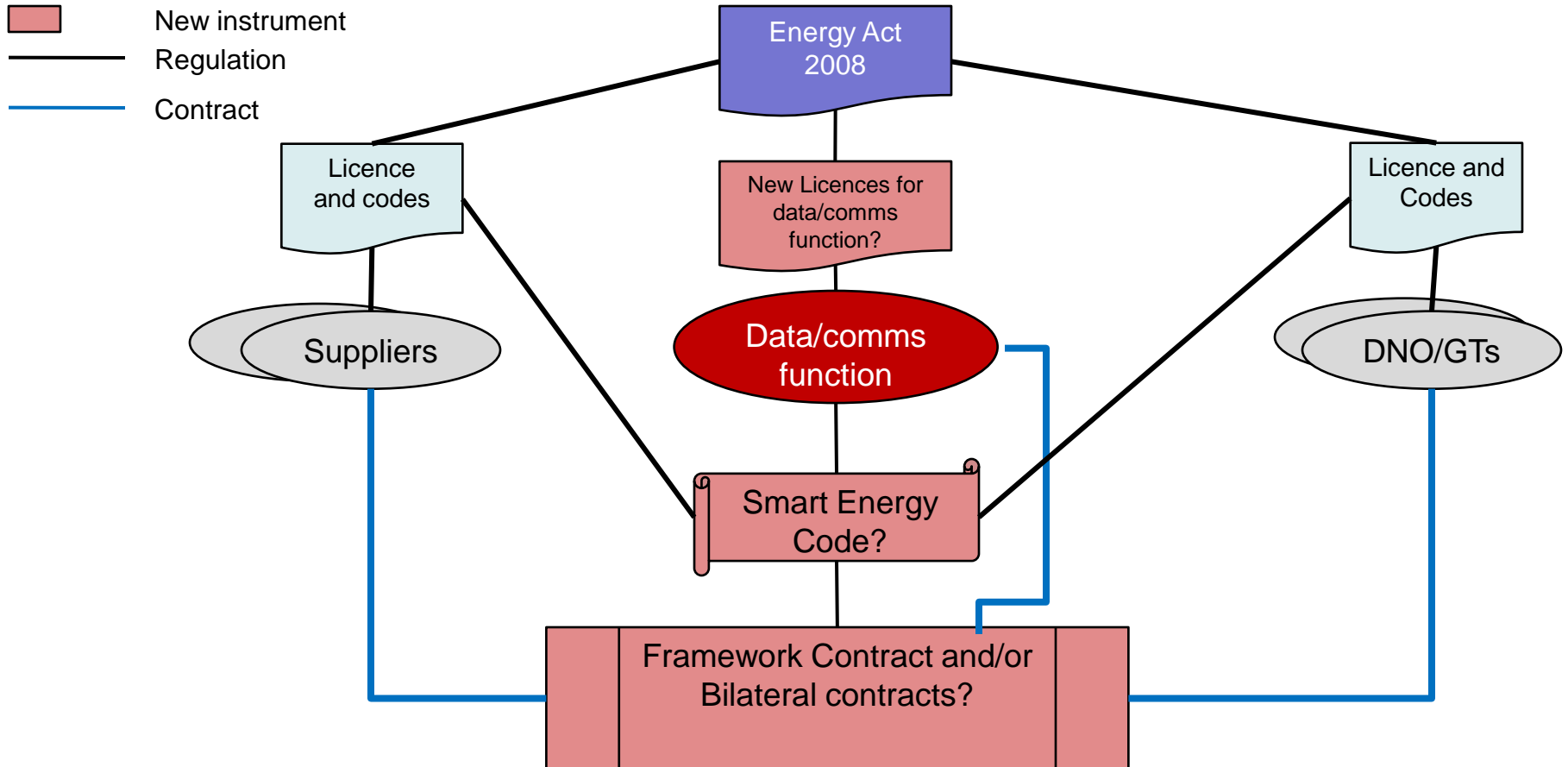
- *Area by area?*
- *Consumer pull?*
- *Recertification/new meters?*
- *Flexibility?*



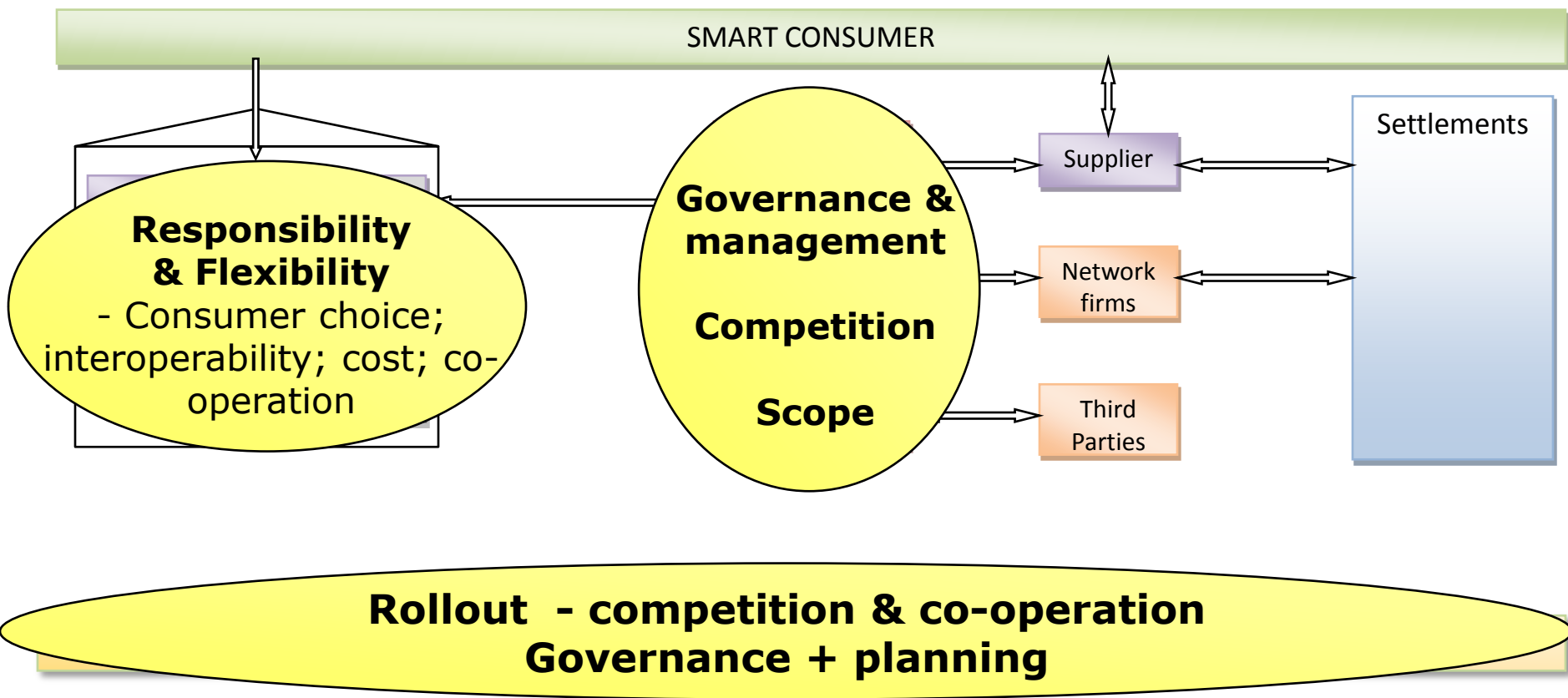
# Initial thinking: Delivery & Implementation – some key issues

- Review of rollout plan options to inform implementation strategy proposal
- Learning points from other national rollout programmes (e.g. Digital UK)
- Local coordination of supplier-led smart meter rollout plans
- Scope of framework needed to facilitate and guide supplier led rollout plans?

# Initial thinking: Regulatory and Commercial Framework – Overview



# Summary - Key issues



# Summary

## Developing a Regulatory Regime

### Which enables.....

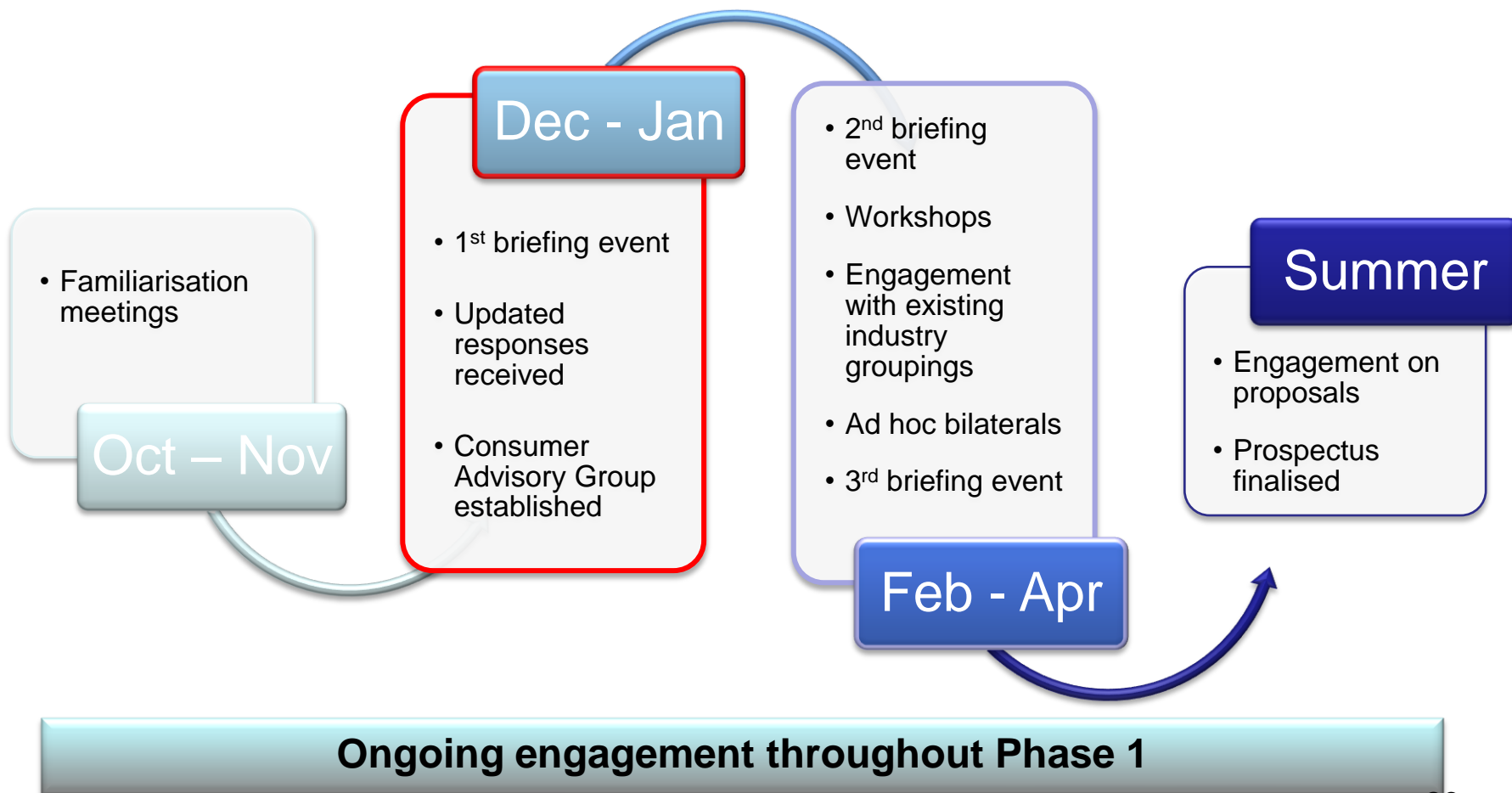
- Consumer choice and control
- Energy market competition
- Reduction in carbon and energy consumption
- Fit for purpose functional requirements
- Certainty to facilitate investment
- Co-ordinated roll out by 2020
- Flexibility for future development
- Interaction with other Govt policy

**...and preparing for implementation Phases 2 and 3**

**Neil Barnes**

**Head of Smart Metering Policy,  
Ofgem**

# Stakeholder engagement - Phase 1



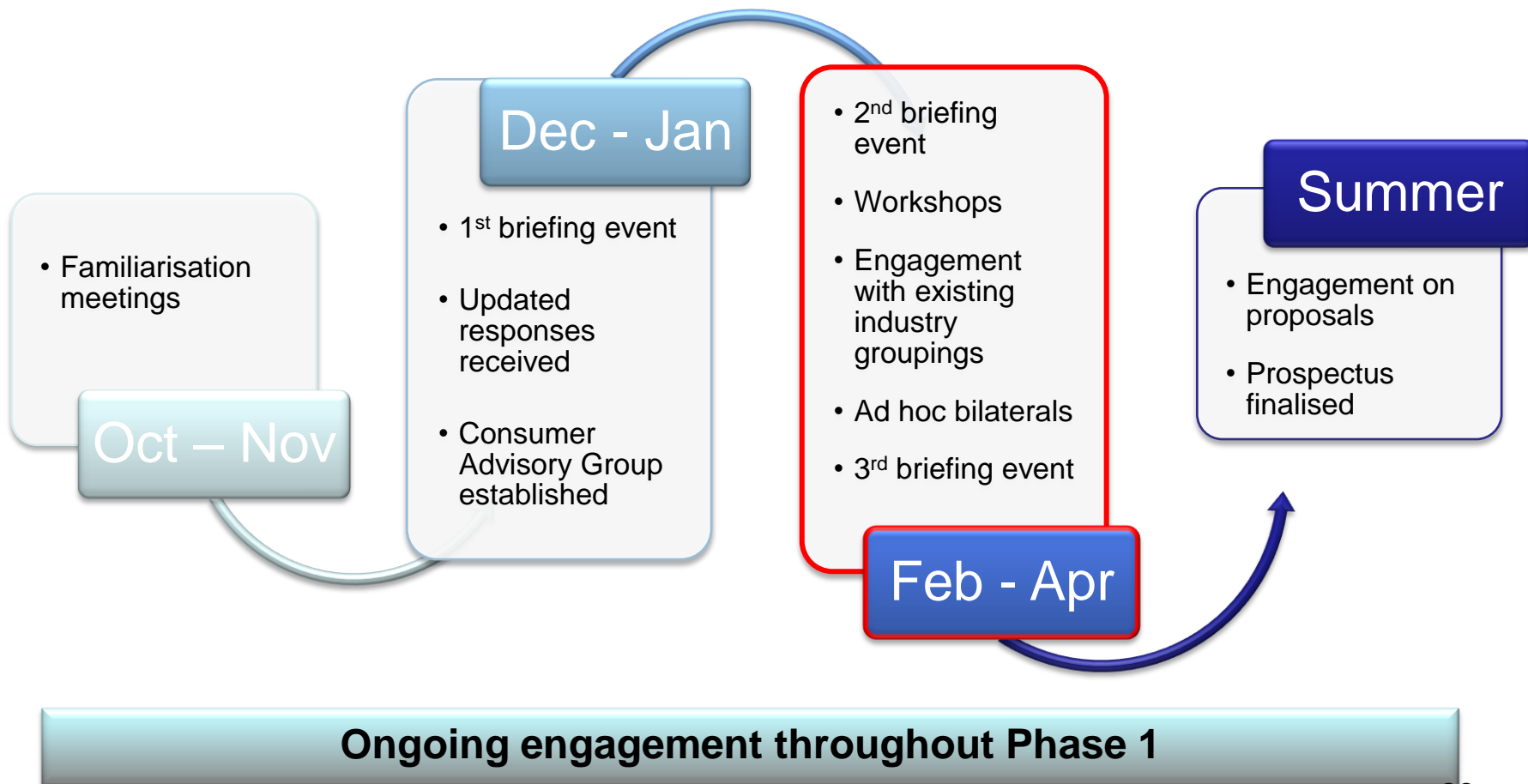
# Updated stakeholder views

- Programme received 60+ submissions from stakeholders
- Key themes arising from submissions and views expressed to Programme through ongoing engagement:
  - Support for decision on supplier led and central comms model
  - General call for greater certainty and engagement
  - Range of views on scope of central data/comms function; opportunity to review market design and change industry processes
  - Importance of data security and privacy
  - Desire for flexibility to innovate e.g. around provision of IHD
  - Anticipation of gas valve decision
  - Concerns about potential for consumer confusion and switching barriers to emerge before rollout programme begins

# Consumer Advisory Group

- Aim of the Group is to help inform Prospectus document by:
  - Enabling Programme to fully understand key consumer issues, particularly more complex issues that cannot be fully explored through primary consumer research
  - Ensuring consumers' interests are at heart of the design of the functional requirements and regulatory framework
  - Providing a 'critical friend' from a consumer perspective, ensuring that we do not miss any key issues in Prospectus
- Membership
  - Consumer Focus
  - Fuel Poverty Advisory Group
  - Which?
  - Public Utilities Access Forum
  - Age UK
  - Centre for Sustainable Energy (CSE)

# Stakeholder engagement - Phase 1



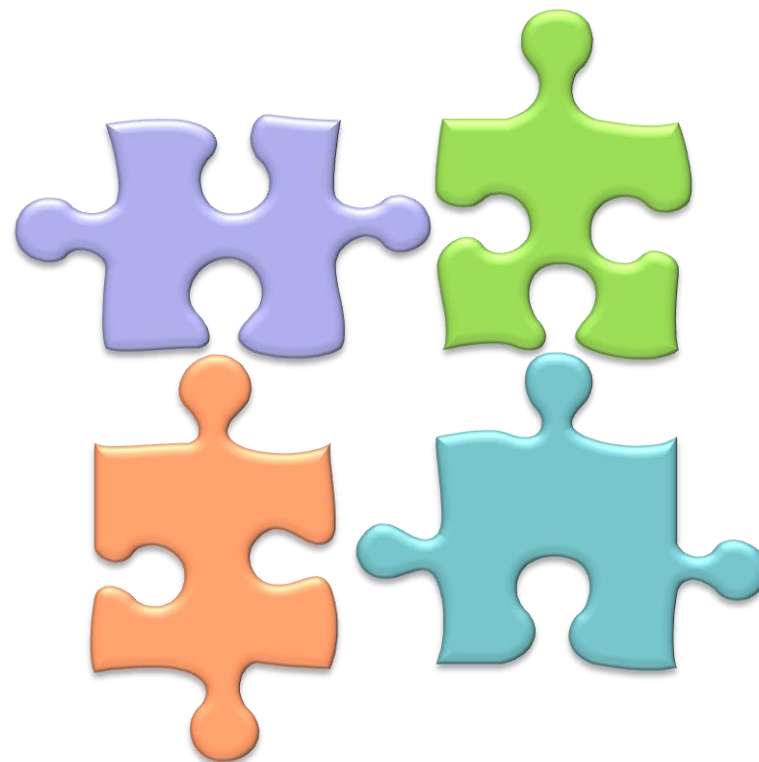
# Workshop series

- The Programme will hold a series of workshops
  - Leverage industry and wider stakeholder expertise on specific issues
  - Test emerging options and identify key issues
- Structure/format
  - Sessions on specific themes/issues
  - Cross-stakeholder
  - Targeted invitations
  - Distribution of advance agenda / key questions



# Workshop themes

Rollout	22 <sup>nd</sup> Feb
Functional specification	1 <sup>st</sup> Mar
Central data / comms functions	8 <sup>th</sup> Mar
Implementation strategy	15 <sup>th</sup> Mar



# **Bridget Morgan**

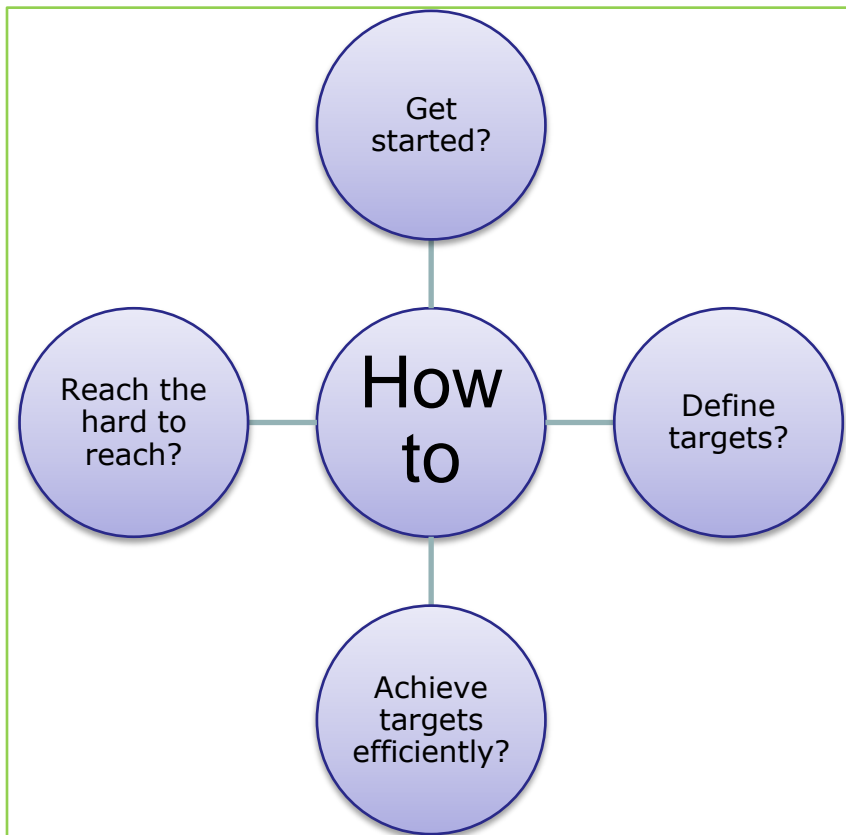
**Head of Smart Metering Delivery,  
Ofgem E-Serve**

# Workshop 1 – Smart Meter Rollout

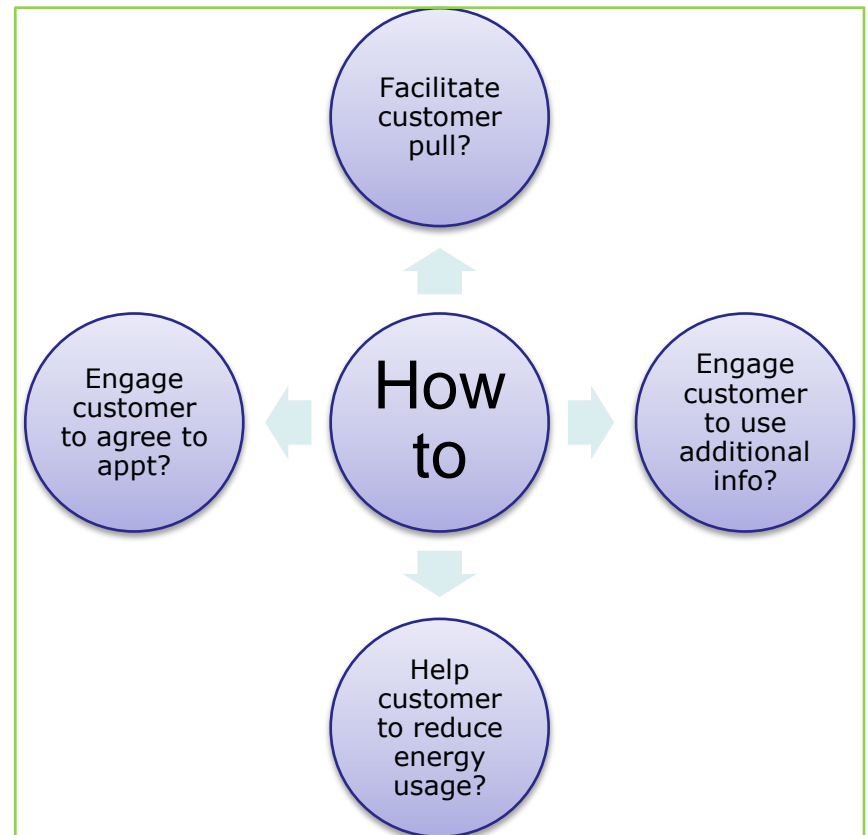
- Will contribute to:
  - Our development of a proposed implementation strategy for the supplier led smart meter rollout
- Aim:
  - To facilitate engagement of parties with expert knowledge of meter installation and meter change programmes from a provider and recipient (consumer) perspective
- Scope of Workshop:
  - Share knowledge of generic principles and issues relating to meter installation programmes
  - Identify generic principles and issues that would be relevant to the smart meter rollout
  - Consider opportunities for coordination between smart meter rollout plans developed by each individual supplier
  - Discussion of how local coordination of individual smart meter rollout plans could be best achieved

# Some key themes for workshop 1

## Meter Rollout Programmes



## Customer Engagement



# A flavour of questions for workshop 1

- What does the implementation strategy need to facilitate?
  - Efficient and economic delivery of government mandate for smart meter rollout
  - Positive consumer experience
- What are the critical factors for economic and efficient delivery?
  - Consistent planning – need to define requirements/permissions to allow joint planning?
  - Coordination – need for specific obligations to cooperate?
  - Consumer confidence – what level is needed for doors to be opened?
- What are the critical factors to ensure a positive consumer experience?
  - Advance warning of rollout?
  - Advance notice of installation visit?
  - Clear explanation of any differences from “business as usual” approach?
  - Code of conduct for working in consumer premises?
  - Introduction to in home display?
  - After installation support?

# Workshop 2 – Functional specification

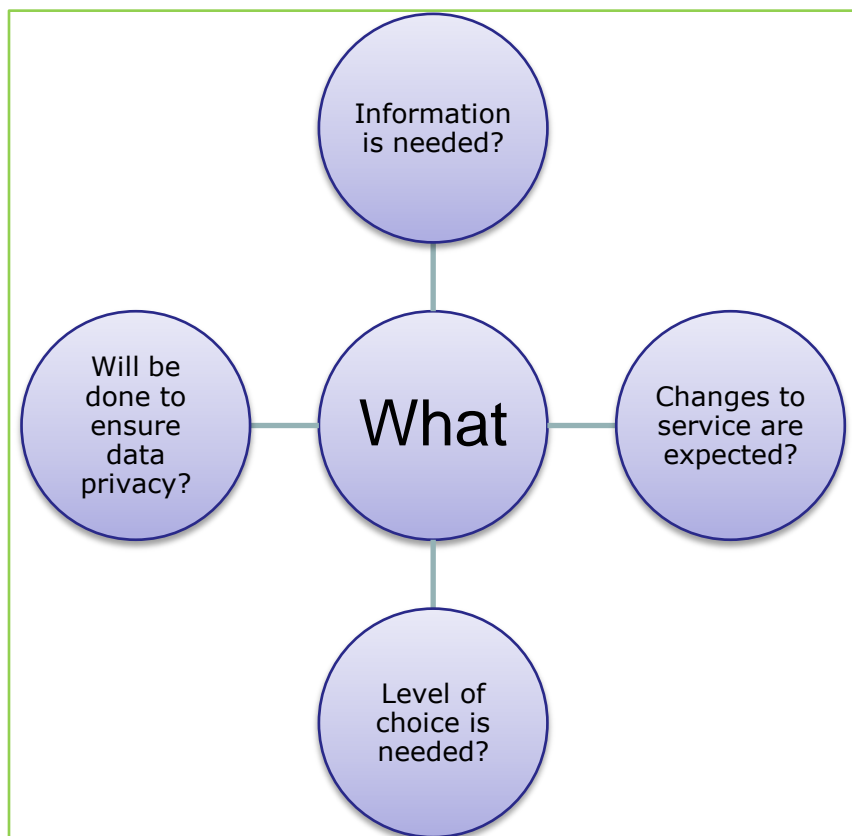
## Initial thinking

- Will contribute to:
  - Our development of a statement of design requirements for the smart metering system
- Aim:
  - To facilitate engagement of parties with expert knowledge of customer service requirements, customer data usage, licensee data usage, technology solutions available
- Scope of Workshop:
  - Consider minimum requirements from a range of perspectives (customer service, billing, supplier, network operator, smart grids)
  - Identify opportunities for promoting competition and minimum requirements to protect competition
  - Discuss approaches available for facilitating interoperability within the customer premises, with the central communications provider

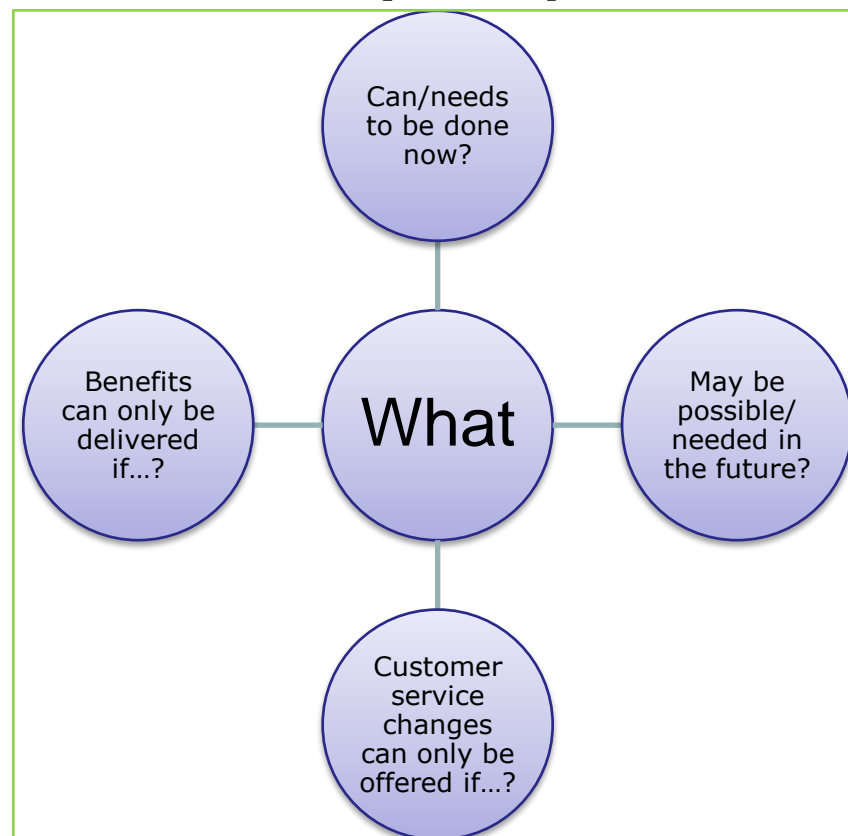
# Some key themes for workshop 2

## Initial thinking

### Customer Perspective



### Industry Perspective

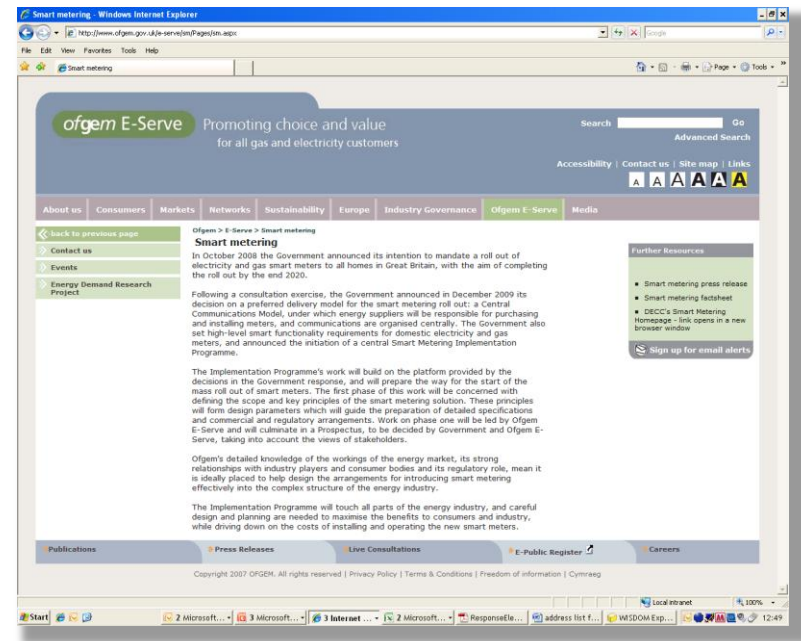


## **A hint of the flavour of questions for workshop 2 - Initial thinking**

- How best to achieve the government mandate for smart metering system functionality in an economic and efficient manner?
  - What services are required from the smart metering system (and each of its parts)?
  - What level of specification is needed to ensure smart metering system is fit for purpose?
  - What measures are needed to ensure that smart metering system specification remains fit for purpose?
  - Who should be able to request/drive change?
  - What measures are needed to ensure that functional requirements do not stifle innovation?
  - Is there a “one size fits all” solution available?
  - What framework is needed to promote competitive markets in energy supply and energy metering now and in the future?

# Staying in touch...

- Today's presentations as well as all non-confidential updated responses will be published on the dedicated Smart Metering section of the Ofgem website
- Any responses to initial workshop questions should be submitted **a week in advance** or any other queries/ requests can be sent to:



[smartmetering@ofgem.gov.uk](mailto:smartmetering@ofgem.gov.uk)

# **Q&A Session**

**Robert Hull, Ofgem E-Serve**

**Sarah Harrison, Ofgem**

**Neil Barnes, Ofgem**

**Bridget Morgan, Ofgem E-Serve**

The background of the slide features a composite image. On the left, there are rows of solar panels under a bright, hazy sky. On the right, a hand is shown holding a white document or envelope. The overall color palette is light and airy, with blues, greens, and whites.

*ofgem*

*ofgem* E-Serve

Promoting choice and value  
for all gas and electricity customers