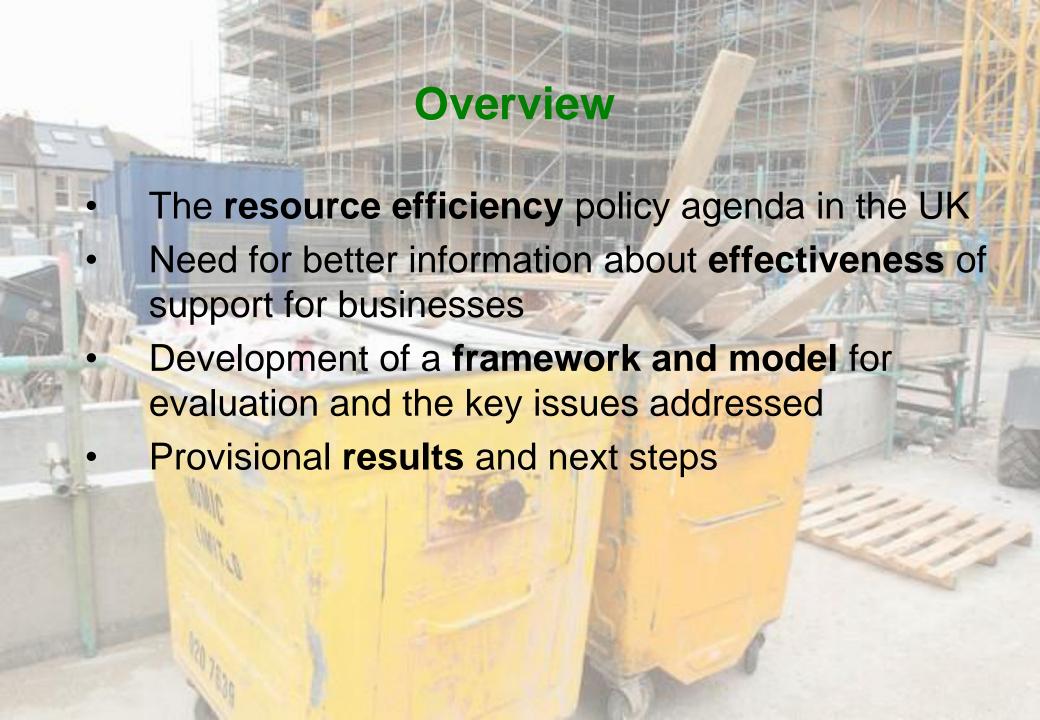
# Integrating evaluation and forecasting

Rocky Harris
Statistician
Department for Environment
and Rural Affairs, UK

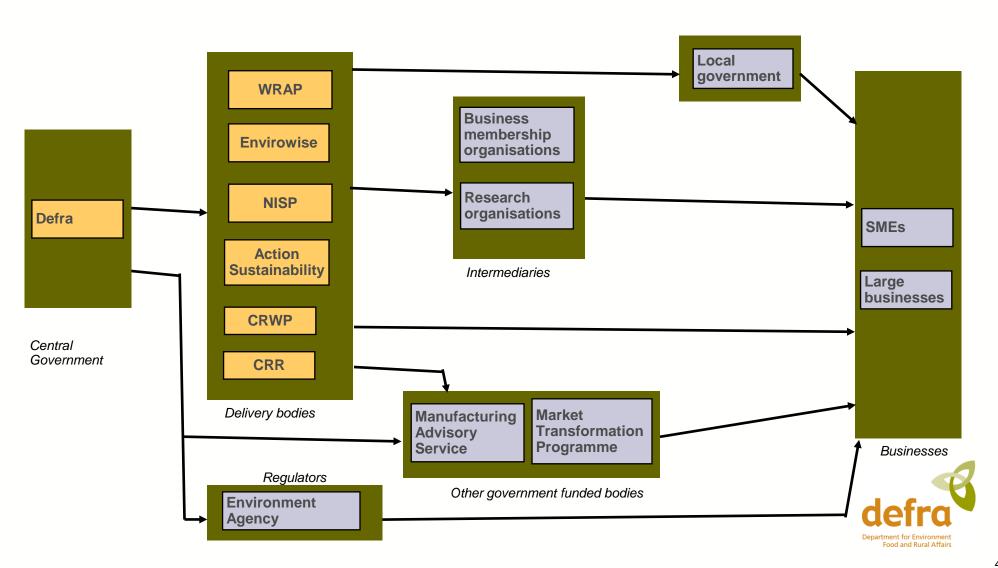




## Sustainable production policy context

- 1. The resource efficiency policy landscape in the UK
  - Government targets on non-household carbon, water and waste
  - Regulatory and fiscal policy levers, supported by Delivery Body activities:
    - Promoting and exemplifying best practice
    - Supporting market development where there is a failure
    - Leadership, engagement and awareness raising
- 2. The new coalition Government!

# Defra resource efficiency delivery landscape

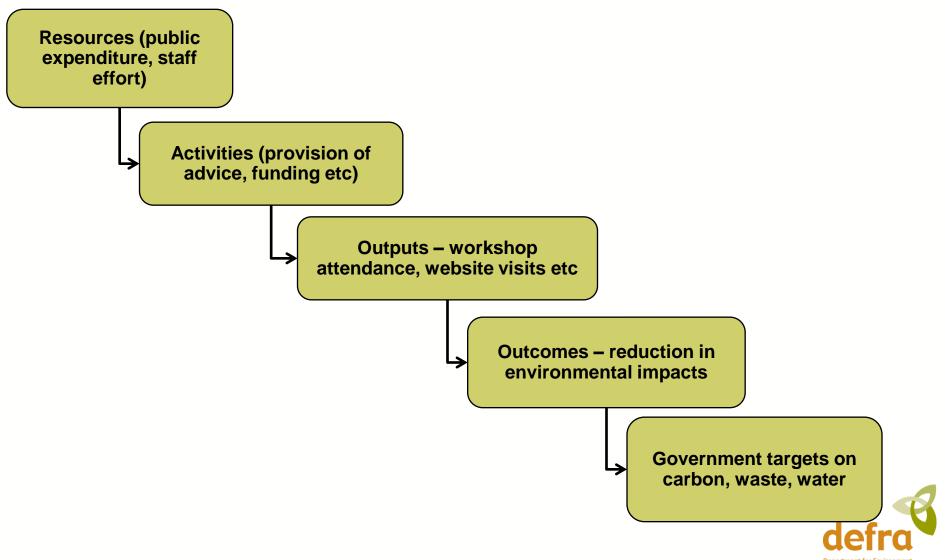


## Policy requirements for evaluation

- Consistent approach to measuring impacts across the delivery landscape
- Transparency and accountability for reports to Parliament
- Value for money assessments
- Performance management
- Evidence base for developing and improving delivery



## Establishing the logic chain



## Establishing the evaluation framework

- Based on the outputs resulting from activities funded in a year
- Outputs are linked to funding and other resource inputs through costs of activities
- Users of outputs are tracked and outcomes assessed, projected and verified
- Implies an evidence base which combines a reporting data set with modelling facilities
- Embodies consistent core assumptions

#### Key issues addressed

- Time reference period year of intervention
- Assessing and verifying lifetime outcomes
- Assessing the degree of influence of the Delivery Body (attribution)
- Adjustments for overlaps between parts of the programme (but not policy overlaps)
- Flexibility of analysis and reporting
- Disaggregation of data using standard classifications
- Confidence assessments



### Attribution – default assumption

| Unlikely to have happened without intervention | 100% |
|--|------|
| A lot better because of intervention           | 50%  |
| A little better because of intervention        | 25%  |
| Likely to have happened without intervention   | 0%   |

To be further developed to take better account of more graduated information



## Future outcomes (examples)

| Туре               | Assumptions about future outcomes | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|--------------------|-----------------------------------|--------|--------|--------|--------|--------|--------|
| 1. Regular one-off | One-off activity                  | 100%   | 0%     | 0%     | 0%     | 0%     | 0%     |
| 2. Regular ongoing | Ongoing activity                  | 100%   | 75%    | 50%    | 25%    | 0%     | 0%     |
| 3. Mobile plant    | Ongoing                           | 100%   | 100%   | 100%   | 100%   | 100%   | 0%     |

- To be verified by a panel of businesses where outcomes are tracked over time
- Methodology for evaluating roll-out projects still to be developed

#### **Development process**

- Independent consultants (Databuild!!!!) develop and manage the evidence base on behalf of both the Department and the Delivery Body
- Data on impact collected from
  - Administrative data
  - Top down, bottom up, qualitative and followup surveys
  - Capital project monitors
- Model populated and made available publicly
- Iterative development



#### **Applications**

- To be used primarily for annual arbusiness plan reporting
- Additional detail and link with financial and activity/output data will be useful in future programme planning and the assessment of different delivery combinations
- Value for Money and lifetime impacts will need to be assessed together with more qualitative evidence

# Preliminary results for 2008/09 activities

| Savings in:   | 2009/10 | Lifetime | Units                          |
|---|---------|----------|--------------------------------|
| Waste diverted from landfill                              | 3.2     | 16.1     | Million tonnes                 |
| Energy savings  | 34      | 84       | Gigawatt hours                 |
| Avoided carbon emissions European<br>Trading Scheme (ETS) | 1.1     | 10.5     | Million tonnes CO <sub>2</sub> |
| Avoided carbon emissions non-ETS                          | 0.7     | 3.9      | Million tonnes CO <sub>2</sub> |
| Cost savings  | 130     | 4,400    | Million pounds                 |
| Sales growth  | 62      | 560      | Million pounds                 |
| Raw materials avoided                                     | 1.9     | 5.5      | Million tonnes                 |
| Water use reduced or avoided                              | 1.3     | 5.3      | Million cubic metres           |
| Hazardous waste   | 16      | 38       | Thousand tonnes                |

Department for Environment Food and Rural Affairs

#### Disaggregations possible by ...

- Sub-programme
- Activity type (1 to 1, workshop, website user etc)
- Industrial sector
- Size of business
- Geographic region
- Degree of confidence
- Year of outcome



## **Next steps**

- How to link costs in better to the activities and outcomes
- What to do about planned outcomes, roll-out, replication? How best to confirm lifetime outcomes
- How to develop the reliability/sensitivity analysis