

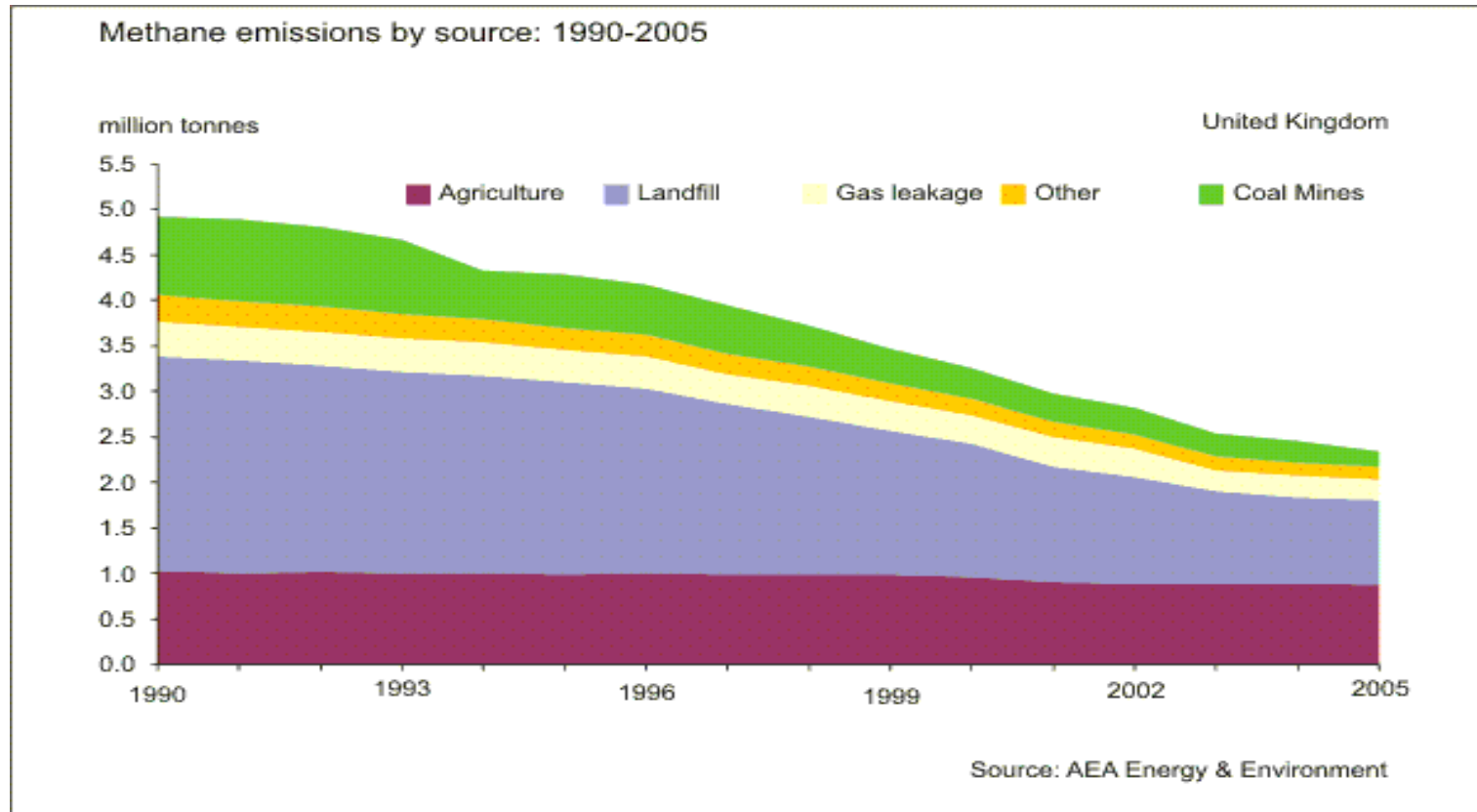
Using Anaerobic Digestion in Agriculture: the UK Experience

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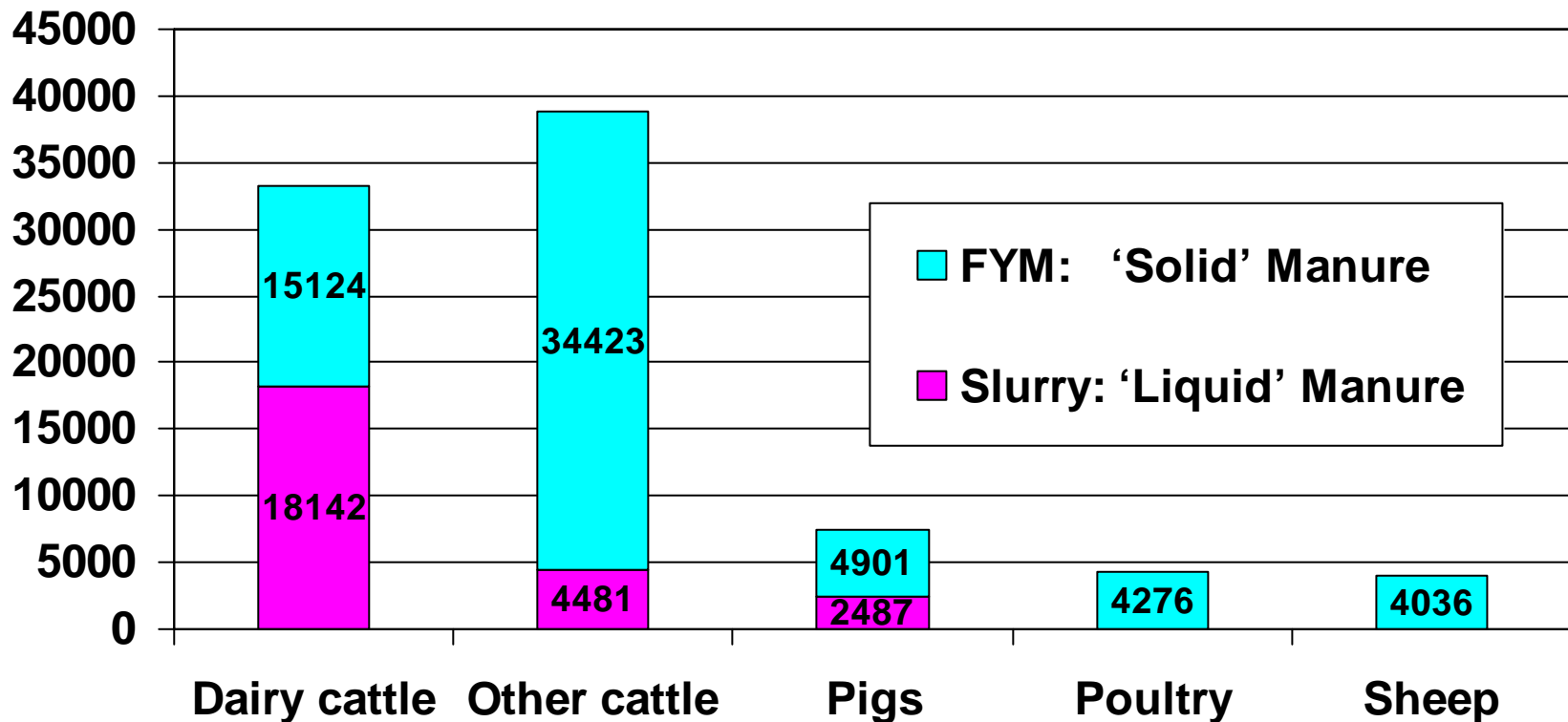
Buenos Aires, 14th May 2007

UK Methane Emissions



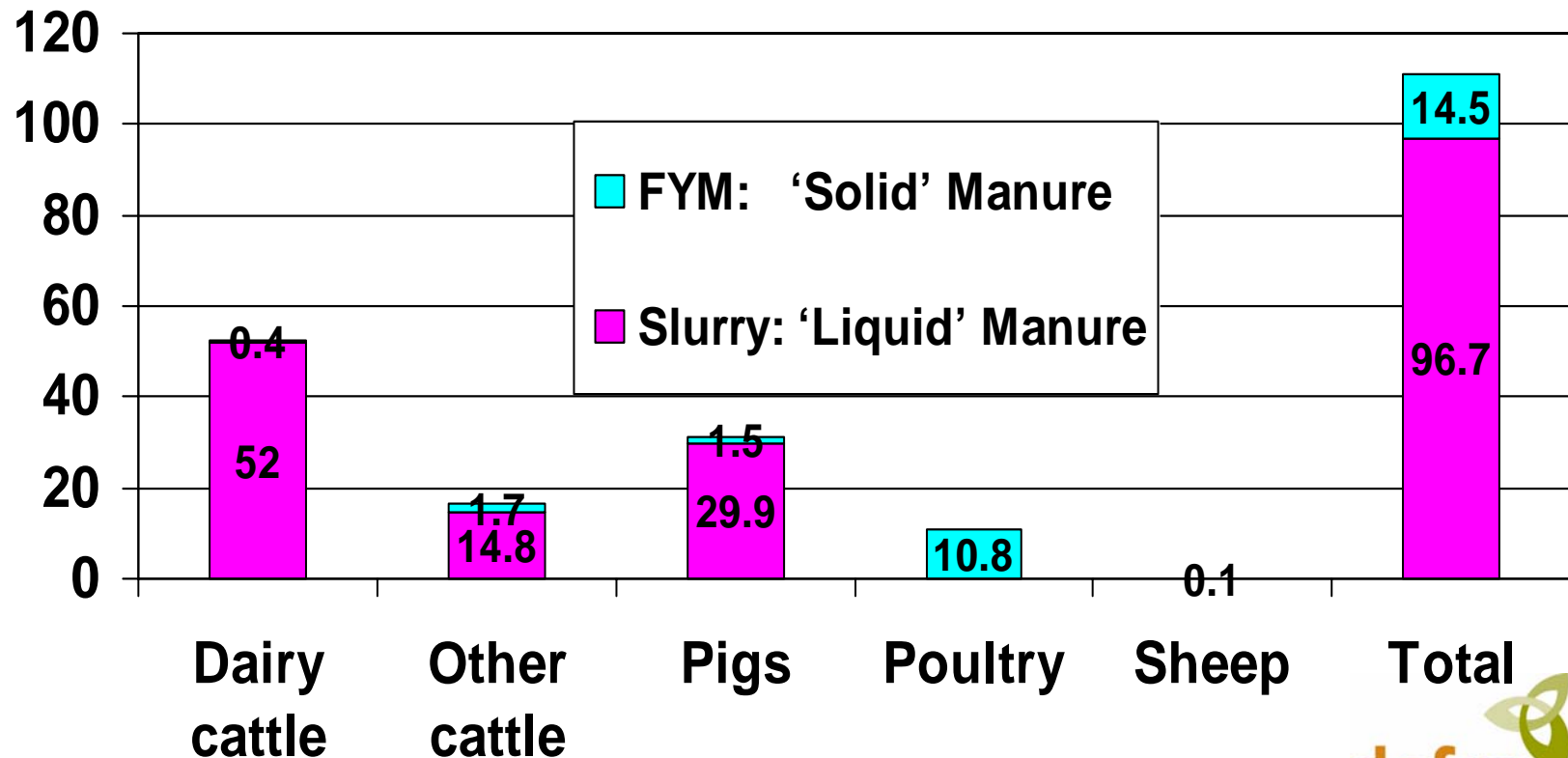
Manure Management in UK

Slurry and FYM in UK, by Main Livestock Categories



UK Priorities for Methane Reduction in Agriculture

Methane Emissions from Manure Management in UK (kt CH₄/y)



Agricultural Anaerobic Digestion Plants in the UK, 2007

- **Agricultural Anaerobic Digestion Plants**
 - **Built 1975-1990** **15+**
 - **Built since 2002/3**
 - **Farm waste only** **7**
 - **Farm waste + food waste** **9**
 - **Planning in progress**
 - **Farm waste only** **25**
 - **Farm waste + other feedstocks** **36**
- **Other Anaerobic Digestion Plants**
 - **Waste water treatment** **1,000+**
 - **Waste water treatment + CHP** **13+**

Examples of UK Anaerobic Digestion Plants

On-Farm AD Plant in Scotland



Bedfordia



Holsworthy



Examples of UK Anaerobic Digestion Plants

Plant	Holsworthy	Bedfordia	On Farm
Feedstock (kt/y)	95	42	0.5-4.9
of which			
- Slurry	50	12	0.5-4.9
- Food Waste	25	30	-
- Other	20	-	-
Electrical Output (MW)	2.7	1.2	n/a

Barriers to uptake of Anaerobic Digestion in Agriculture in UK

- **Financial**
- **Administrative**
- **Technological**
- **Awareness and Information**

Main Recommendations from M2M UK Workshop, Nov. 2006

- 1. Increase awareness of decision makers about benefits from AD.**
- 2. Standardise method of measuring carbon benefits of AD.**
- 3. Provide clear messages of intent to AD developers.**
- 4. Provide incentives for take-up of AD.**
- 5. Facilitate easier access to finance for farmers.**
- 6. Integrate environmental objectives into policy framework.**
- 7. Facilitate the sharing of best practice between countries.**
- 8. Introduce quality standards for AD products.**
- 9. Increase knowledge of international market opportunities for AD.**
- 10. Increase R&D on integration of carbohydrate crops into AD.**
- 11. Increase public awareness and positive perception of AD.**

UK Policy for Promoting Anaerobic Digestion: Financial

- **Stimulating Markets for Anaerobic Digestion**
 - **Stimulating demand through Renewables Obligation**
 - **Examining mechanisms for support of renewable heat sector**
 - **Examining means to support development of local infrastructure and supply chains**

UK Policy for Promoting Anaerobic Digestion: Markets

- **Stimulating Markets for Digestate**
 - **Developing standard and protocol for digestate**
 - **Support for market for digestate**

UK Policy for Promoting Anaerobic Digestion: Administration and Awareness

- **Encouraging and facilitating communication between stakeholders**
- **Developing and disseminating guidelines on best practice and technology**

UK Policy for Promoting Anaerobic Digestion: Technology

- **Research to improve contribution of anaerobic digestion to environmental objectives**

Wider Issues for UK Anaerobic Digestion Policy

- Encouraging anaerobic digestion by businesses and local authorities
- Promoting recovery of energy from waste
- Potential of on-farm anaerobic digestion plants to manage local biowaste
- Demonstration anaerobic digester projects

Next Steps

- **Actively engaging with private sector, eg**
 - **New Renewable Energy Association (REA)**
Anaerobic Digestion Committee
 - **Joint workshop on anaerobic digestion finance**
- **Government strategy to be announced later this month in**
 - **UK Biomass Strategy**
 - **Waste Strategy**
 - **Energy White Paper**