

A Time for Action

Sustainability Activity in the Red
Meat Sector

Christine Walsh



Who we are

- Levies ring-fenced to benefit the sector from which they are raised
- Delivery through six branded operating divisions



AHDB

BPEX Division
Pigs in England

DairyCo Division
Milk in GB

EBLEX Division
Beef & Lamb in
England

HDC Division
Horticulture in GB

HGCA Division
Cereals & Oilseed

Potato Council
Division
Potatoes in GB



AHDB purpose

To make our agriculture and horticulture industries more competitive and sustainable.

Main activity areas:

R&D

Knowledge Transfer

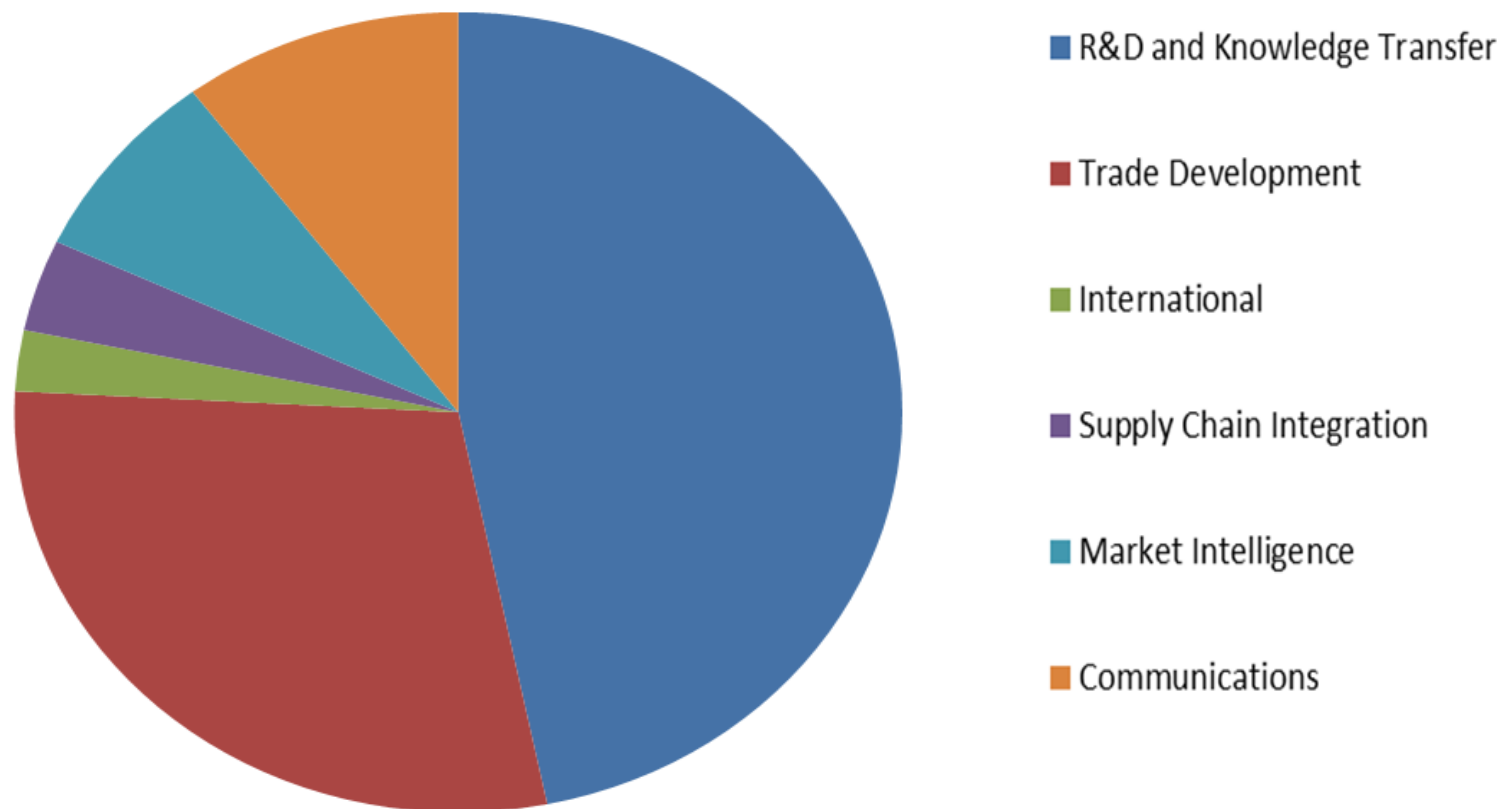
Export Development

Trade Development

Market Intelligence

Direct expenditure split

2014/15 Corporate Plan Direct Expenditure Split



Overview

- AHDB / Eblex
- Drivers in Meat Industry
- Supply Chain
- What works in the meat industry
- Sustainability clubs
- VECC ?



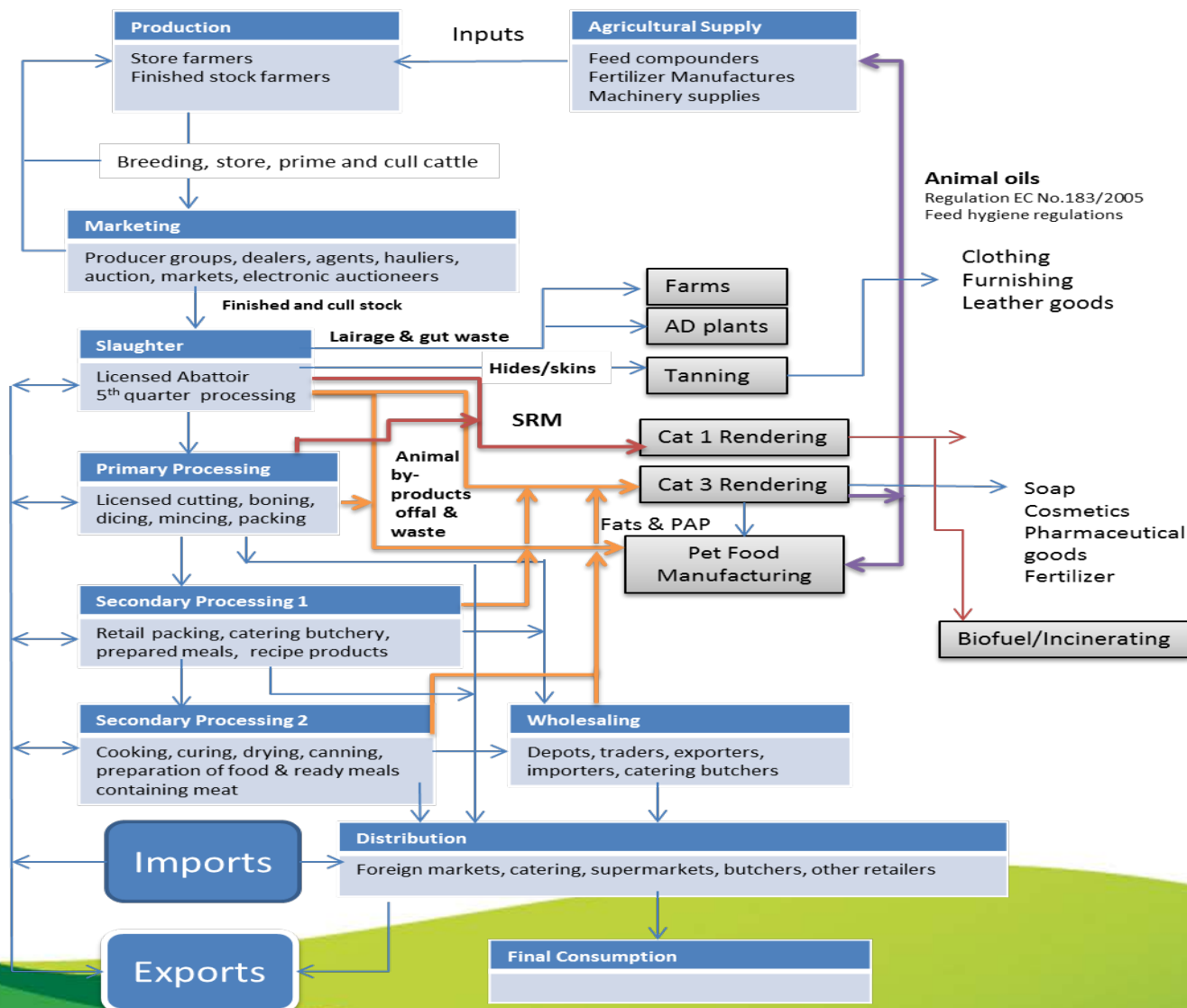
The reality for agriculture & food supply chains

- Extreme weather occurrences:-
 - Flooding – Somerset
 - Droughts e.g. California, Australia, China & Southern Spain
- Cost of oil and energy
- Cost of food (35%)
- Global population 2014 - $7 \times 10^9 \rightarrow 2100 - 11 \times 10^9$
- Consumer demand for protein (meat and dairy) from middle classes in diet from the transitional countries
- Rising demand for land and natural resources to produce food and fuel

Pressure facing the meat industry

- Increasing livestock prices and retailer pressure to reduce selling price
- Consolidation of the processing sector
- Aggressive retailers trading tactics relationships
- Government CO₂ reduction targets
 - 30%: 2020; 80% 2050
 - BREF, PEF, WRAP, GOV
- High carbon footprint in production phase
- Opening of Export markets – both ways

Process and Product Flows in the Beef, Lamb and Pig Supply Chain in Great Britain





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Links in the supply chain

kWh/yr/ton output

Total fuel estimate
from Warwick:

Electricity:	86.1
Gas:	20.4
Gas oil:	0.39

Beef: 823.8



PRODUCERS

Farmers
Hauliers
Livestock markets
Genetic / feed
companies etc

PROCESSORS

Abattoirs
Cutting plants
Retail packers
Further processors
Pet food
manufacturers
RDCs
Renderers

RETAILERS

Multiples /
independents
Farm Shops
Restaurants/ food
service
Exporters
Butchers
Wholesalers

CONSUMER



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Why

DECC/BIS
EU Product
Environmental
footprints
Environmental Agency –
BREF

INDUSTRY EXAMPLES

Shining Examples

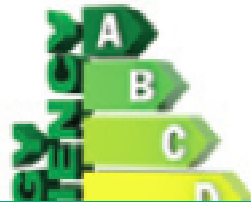
- Cranswick
- Direct Table
- Dawn
- Dunbia



Cranswick

- **Barnsley**
 - new technologies
- **Preston**
- **Watton**
- **Milton Keynes**
- Energy efficient lighting, pumps and control systems to reduce the sites annual energy consumption and reduce its costs by more than 30%.
- Clayton heat recovery system which takes the exhaust gases from the singer to provide hot water
- New refrigeration system fitted with heat exchangers
 - improve energy efficiency
 - recover heat and provide the sites hot water requirements.
- New extension included energy & water efficiencies
 - lighting system.
 - new cooking system

ENERGY



- Reduce Dawn Meats energy consumption by 40% by 2020
- Install thermal energy recovery/reclamation across all sites by 2015
- Replace fluorescent lighting across all processing sites with more energy efficient models by 2015
- Install BMS to manage energy use across our processing operations by 2015
- Daylight Harvesting

REFRIGERATION

- Replace HCFC's for refrigeration by 2015

RENEWABLE ENERGY & CARBON FOOTPRINT



- Reduce Dawn Meats CO₂ Emissions by 50% by 2020
- Measure direct carbon footprint of our processing operations
- Use renewable energy sources
- Fossil fuel free production site by 2015
- Use of low carbon fuels
- Work with Carbon Trust and Sustainable Energy Authority Ireland to reduce carbon footprint of processing operations
- CCL - Climate Change Levy

- Large food company with 27 factories across Ireland, UK and South Africa.
- Heat recovery from contaminated steam using a superconducting heat recovery system.
- First of its kind in the world.
- How water was piped over 1KM to sister factory.
- Fully automated solution installed.
- **Results:**
- **Savings : €600K**
- **Capital costs : €1 M**



Dunbia

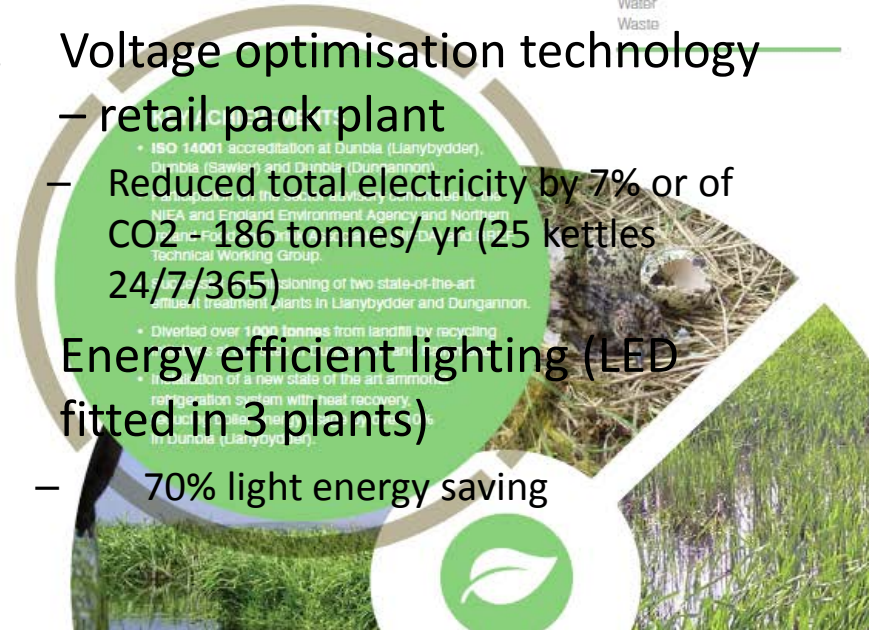
Planet Our Environment

Energy reduction activity 3 examples

1. new refrigeration system – sheep plant
 - heat recovery
 - reducing boiler energy usage by over 10%
2. Voltage optimisation technology – retail pack plant
 - Reduced total electricity by 7% or of CO₂ – 186 tonnes/yr (25 kettles 24/7/365)
3. Energy efficient lighting (LED fitted in 3 plants)
 - 70% light energy saving



Planet - Key Areas
Management
Energy
Water
Waste



740

Tonnes of carbon saved through energy saving initiatives in the past two years

1,000

Tonnes of waste diverted from landfill in 2012

4,500,000

Litres of water saved through our re-use systems which is the equivalent to 31,000 baths

55.5%

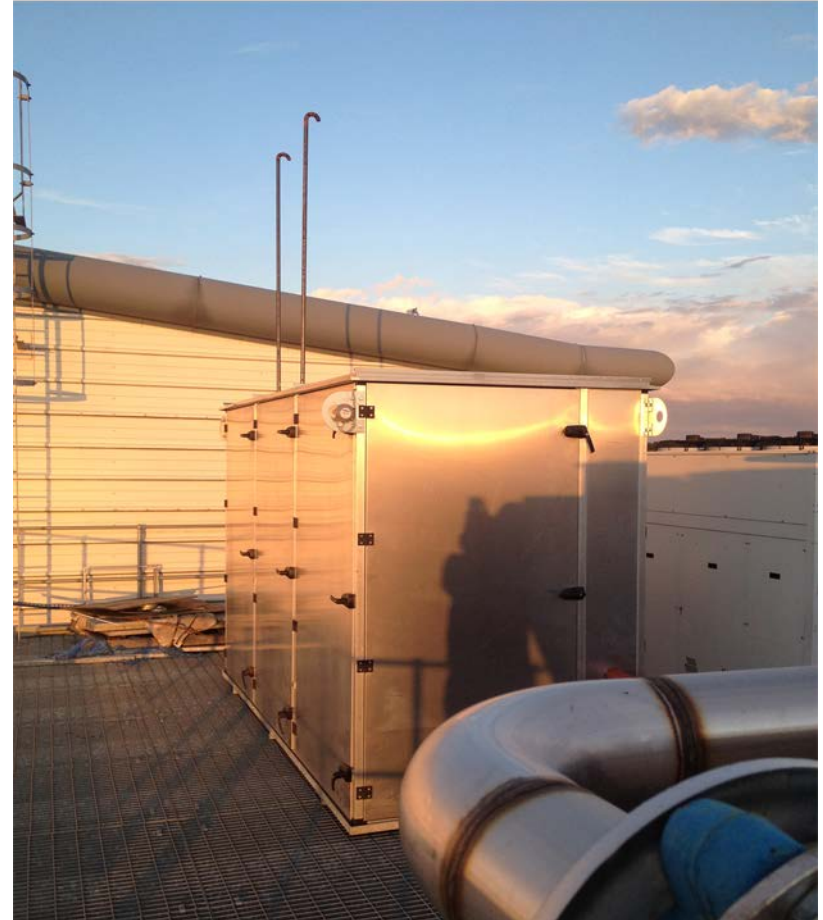
Reduction in water use through our current water reduction initiatives in Dunbia (Sawley) based on 2010 to 2011 volumes

13.6%

Reduction in water use through our current water reduction initiatives in Dunbia (Preston) based on 2010 to 2011 volumes

Direct Table

- LED lighting retrofit to entire plant
- Motor controls system installed across entire plant.
- High pressure heat pump installed which utilises heat from refrigeration system and increases temperature to 65 degrees C
 - Heat pump supplies hot water for wash down and also office heating



Sustainability Clubs





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Why

DECC/BIZ
EU Product
Environmental
footprints
Environmental Agency –
BREF

E
B
L
E
X

Greenfoods – Newcastle
Centre for Sustainable
Energy Use in Food
Chains - Brunel,
Birmingham &
Manchester

Environmental savings

- To set out collective environmental ambitions for the meat industry over 4 years
- Benchmark – potential to feed into BAT
- Agree targets
- Share best practice
 - Research
 - External training and knowledge transfer
 - Database and fact sheets

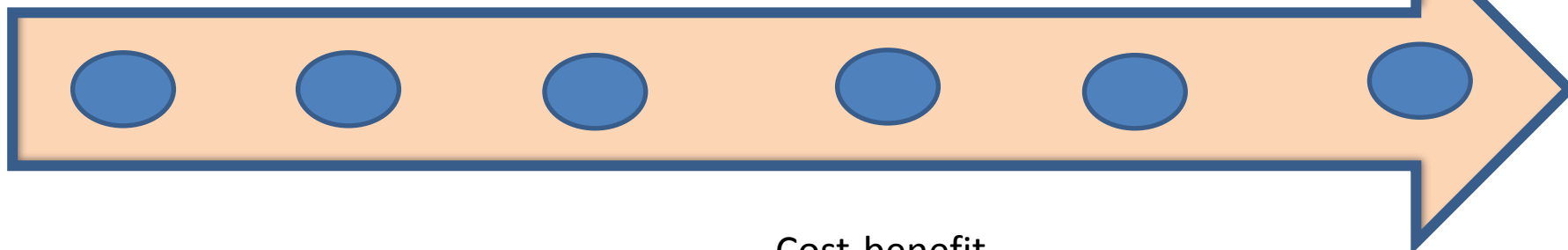
Deliver Plan

Mar 2015

Initial proposal
following stakeholder
consultation

Major stakeholders
agree to targets

Major stakeholders
give “in principle”
commitment



Apr -Jun 2015

Call to Commitment
Collect & analyse figure

Cost-benefit
assessment of
achievable impacts

Early 2016:

Targets announced and
Commitment starts

How

- Set up clubs for small and IPPC companies
- Host regular meetings around the country
 - Interesting and practical topics
- Annual measurements that we can publicise collective improvements
- Visits to exemplary companies U.K. and abroad
- Link up with Wiki VECC website to

VECC



Co-funded by the Intelligent Energy Europe
Programme of the European Union

- New tool for EU food and drink industry
- Aim: reduce fuel consumption & progress towards zero fossil CO2 emissions!

What would you like to see on web site?



- How-to videos
- Market Intelligence
- Latest industry news
- On-going work
- Seasonal hints &
- Worldwide events
- Conferences coverage



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Thank You
and
Any Questions?



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