

Environmental accounting applications for Sustainable Consumption and Production policies

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New York, June 2010



Introduction

Relatively new cross-cutting policy area

Four broad themes

- Sustainable production and resource efficiency
- Sustainable consumption and consumer behaviours
- Sustainable products and sustainable materials management
- Government showing leadership through sustainable operations and procurement

Characterised by life-cycle perspective

Sustainable production: policies targeted at different industrial sectors

- Introducing regulatory and fiscal measures to reduce pollution and reduce consumption of natural resources
- Encouraging sector sustainable development strategies and commitments
- Providing advice to businesses about opportunities for resource efficiency, energy audits etc
- Developing the environmental goods and services (EGS) sector

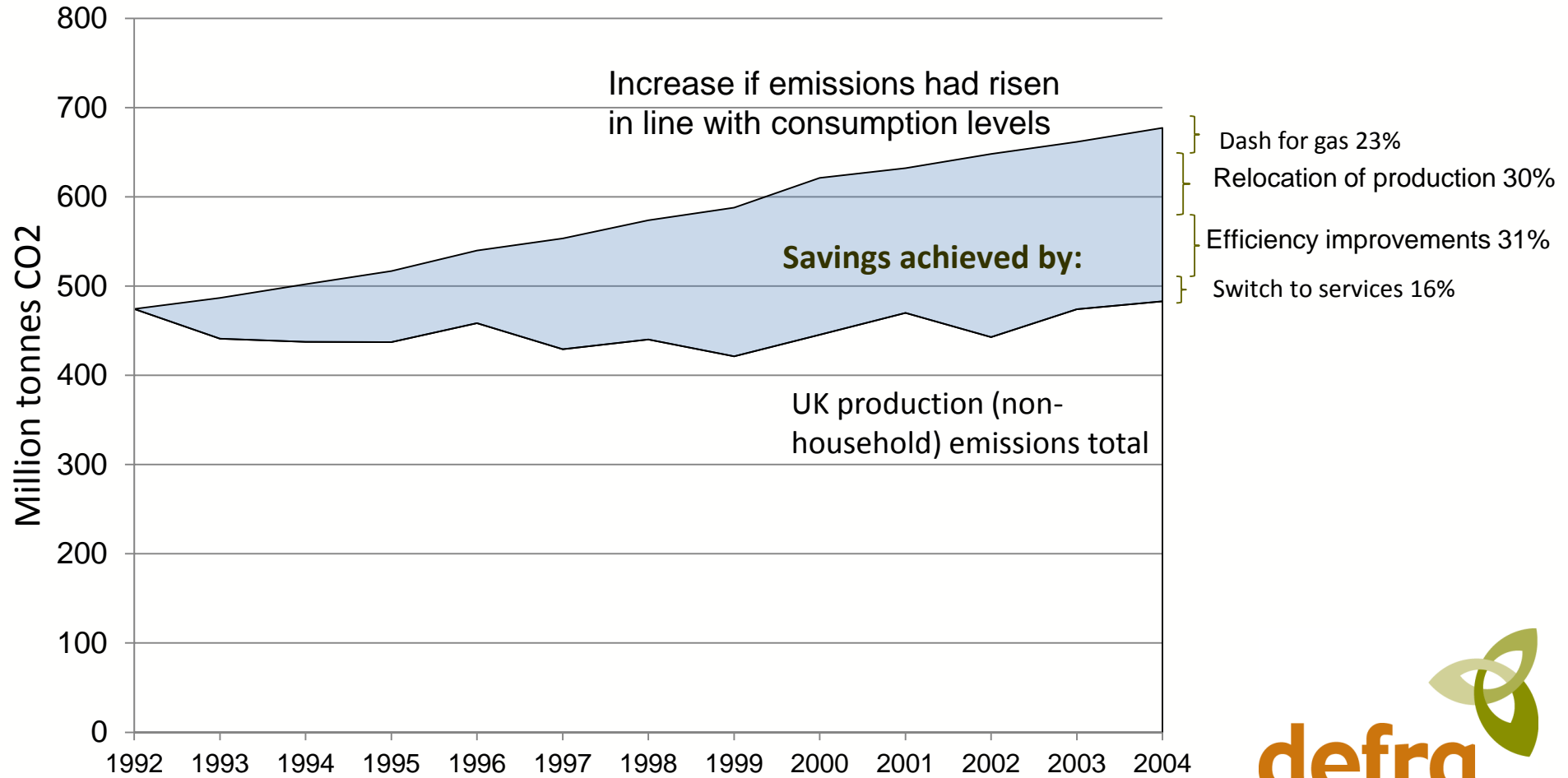
Sustainable production: key data sources

- Physical flows accounts
- Data on types of businesses
- Business attitudes and behaviours surveys
- Environmental expenditures and environmental taxes
- Environmental Goods and Services sector

Sustainable production: applications

- Monitoring and setting targets for the environmental performance of individual sectors
- Comparing the improvements in resource efficiency claimed by Government support agencies with actual changes in efficiency in different sectors
- Understanding drivers of change (structural decomposition analysis)
- Estimating the incidence on different economic sectors of proposed new taxes such as the Climate Change levy
- Informing the strategic targeting of the Environment Agency's monitoring of the environmental impacts of different industrial sectors

Moving production abroad accounts for about 30% of our improvements in production (non-household) CO₂ emissions



Without these savings CO₂ emissions would have increased by 43% between 1992 and 2004



Department for Environment
Food and Rural Affairs

Sustainable consumption policies

- Encouraging behaviour change is about **raising awareness**
 - ranges from the introduction of publicity campaigns and incorporation of discussions within the school curricula
 - through to the imposition of mandatory metering systems
- Supported by policies for example to
 - restrict the availability of certain less sustainable products ('choice editing')
 - reduce price differentials between sustainable and less sustainable products
 - actions taken to provide recycling facilities and support the market for recycled goods

Sustainable consumption: key data sources

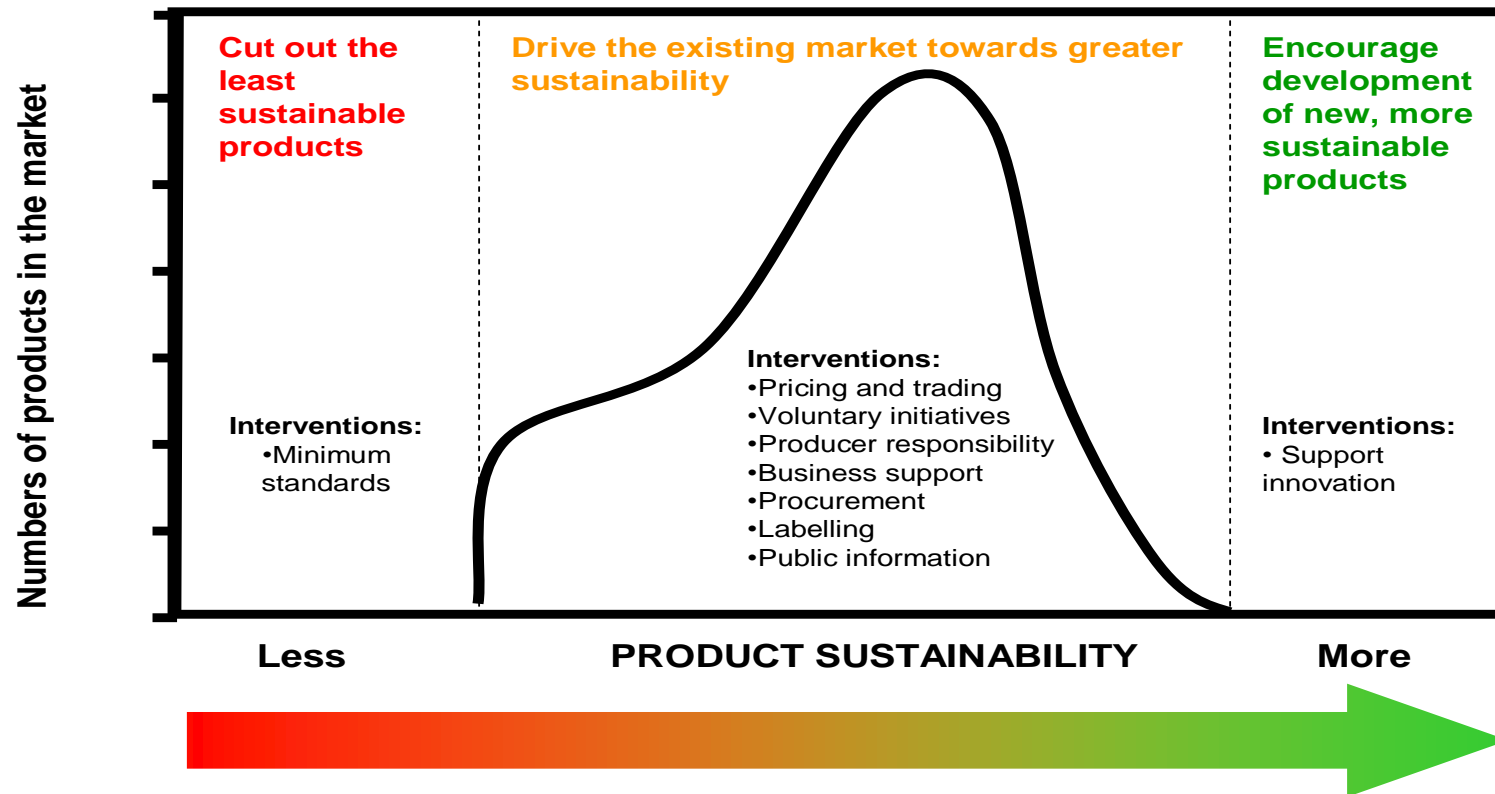
- Physical flow accounts, particularly if linked with household spending through the COICOP classification, can help show the proportion of environmental impacts that result from different types of household activities
- Public attitudes surveys, which identify changes in behaviour which can then be linked with information on impact of those behaviours
- Other household survey information for example on travel patterns and food consumption

Key behaviours and impacts

Behaviour goal	Impact (kg/hh pa)	Current take-up
Insulate home	750	70%
Manage energy use	530	58%
Micro-generation	350	<1%
Recycle waste	540	71%
Waste less	600	64%
Reduce water use	140	52%
More efficient cars	780	27%
Travel locally without car	750	29%
Cut short haul flights	1,120	28%
Use energy efficient products	140	62%
Buy local food in season	10	37%
Adopt better diets	260	6%

Sustainable products

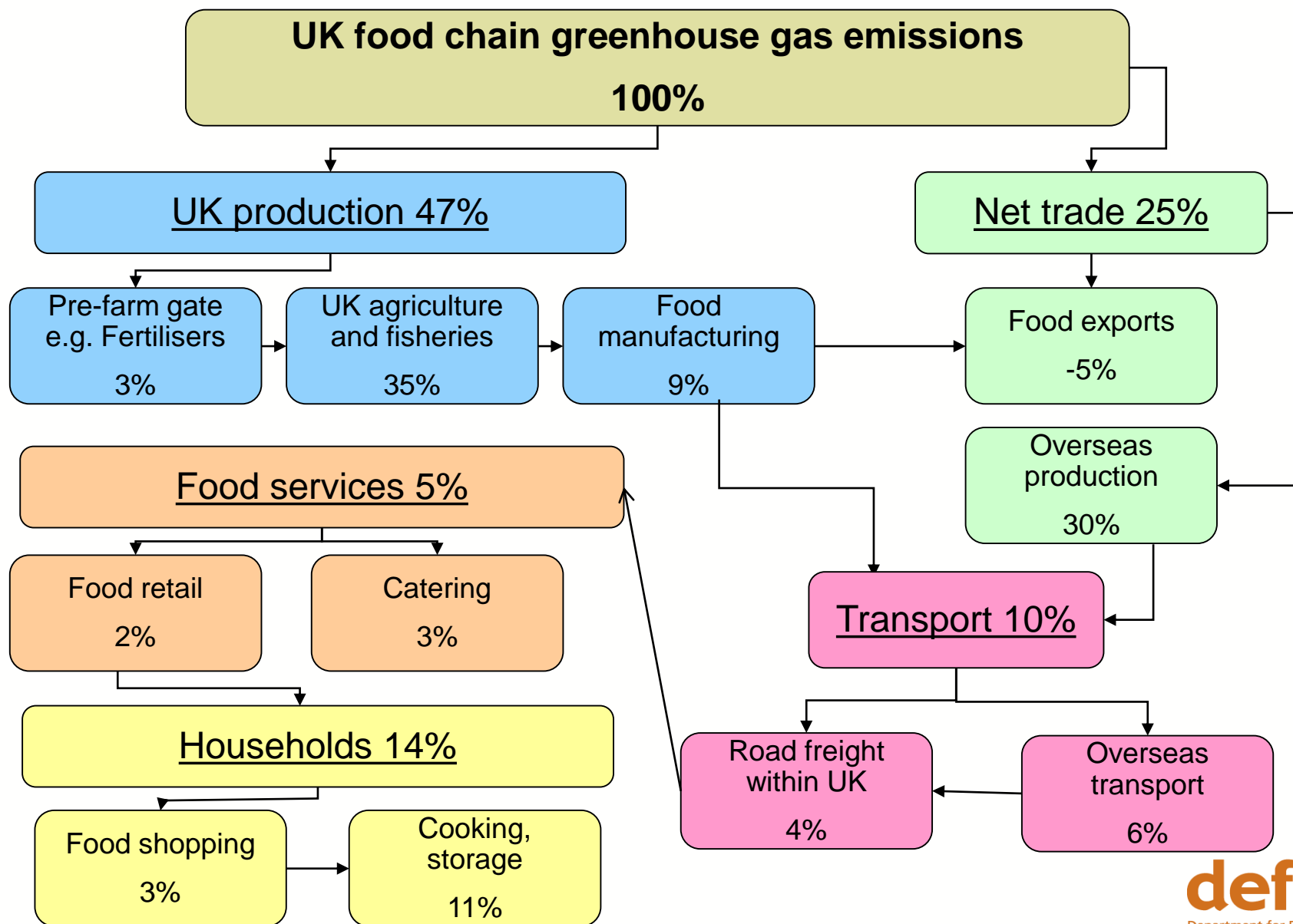
PRODUCT INTERVENTIONS – Overall approach



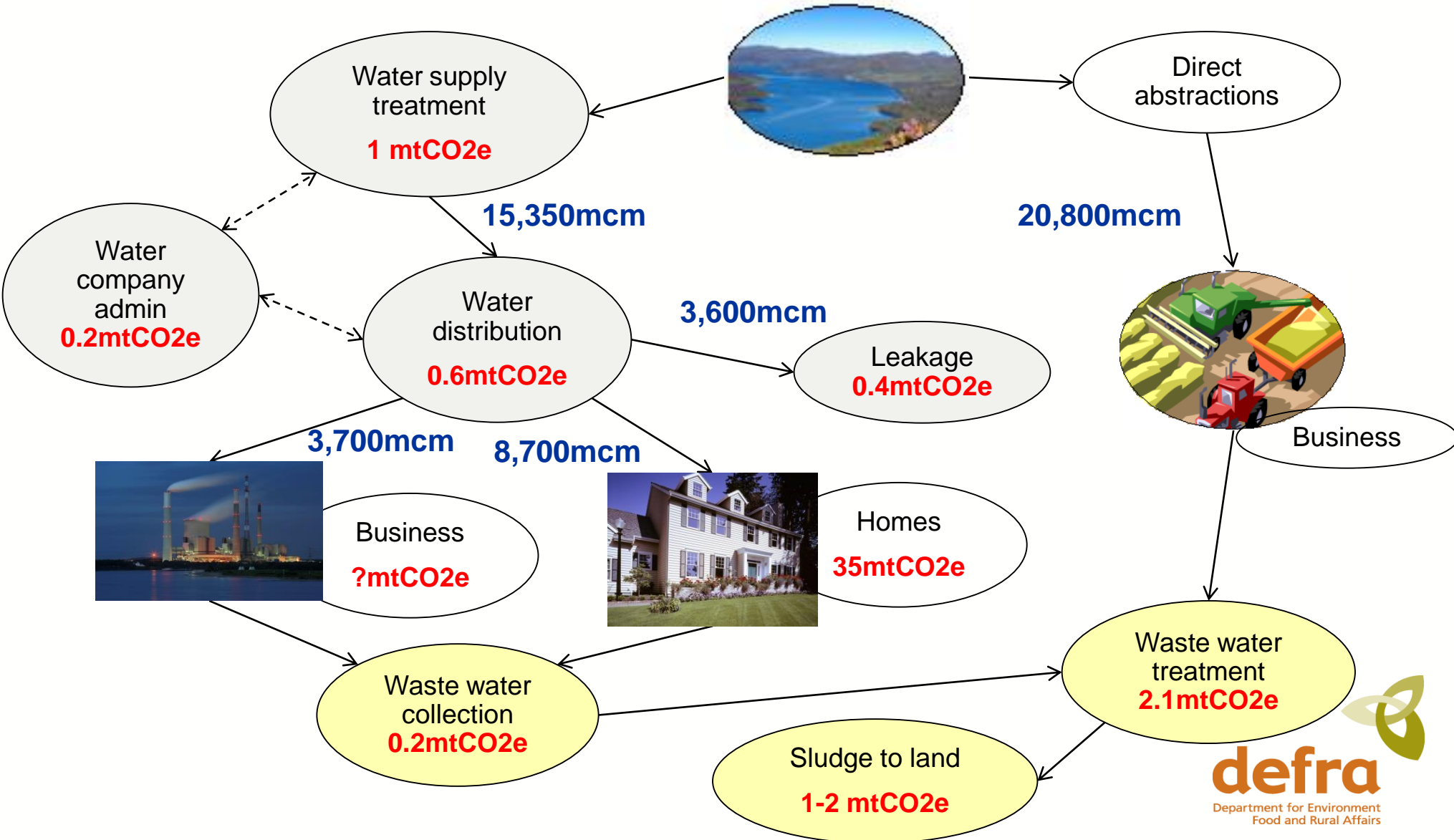
Sustainable products: applications

- EU's EIPRO study shows that food and drink, transport and housing products account for 70-80% of impacts
- Accounts are most relevant as sources of information about the overall context of products policy
- For example, the contribution of electricity use by appliances covered by integrated products policy with changes in overall electricity consumption within the home
- Also used for carbon footprinting applications
 - Importance of emissions embedded within capital formation
 - How emissions from services are spread across a wide supply chain
 - The contribution of technological improvements in products towards climate change targets

Mapping greenhouse gas emissions and the food chain



Mapping greenhouse gas emissions from water use



Government showing leadership

Policy activities:

- Government being seen to manage its own operations in a sustainable manner and meeting its own sustainability targets
- Government using its purchasing power to leverage change amongst its suppliers and ensuring the sustainability of its supply chains

Two different approaches

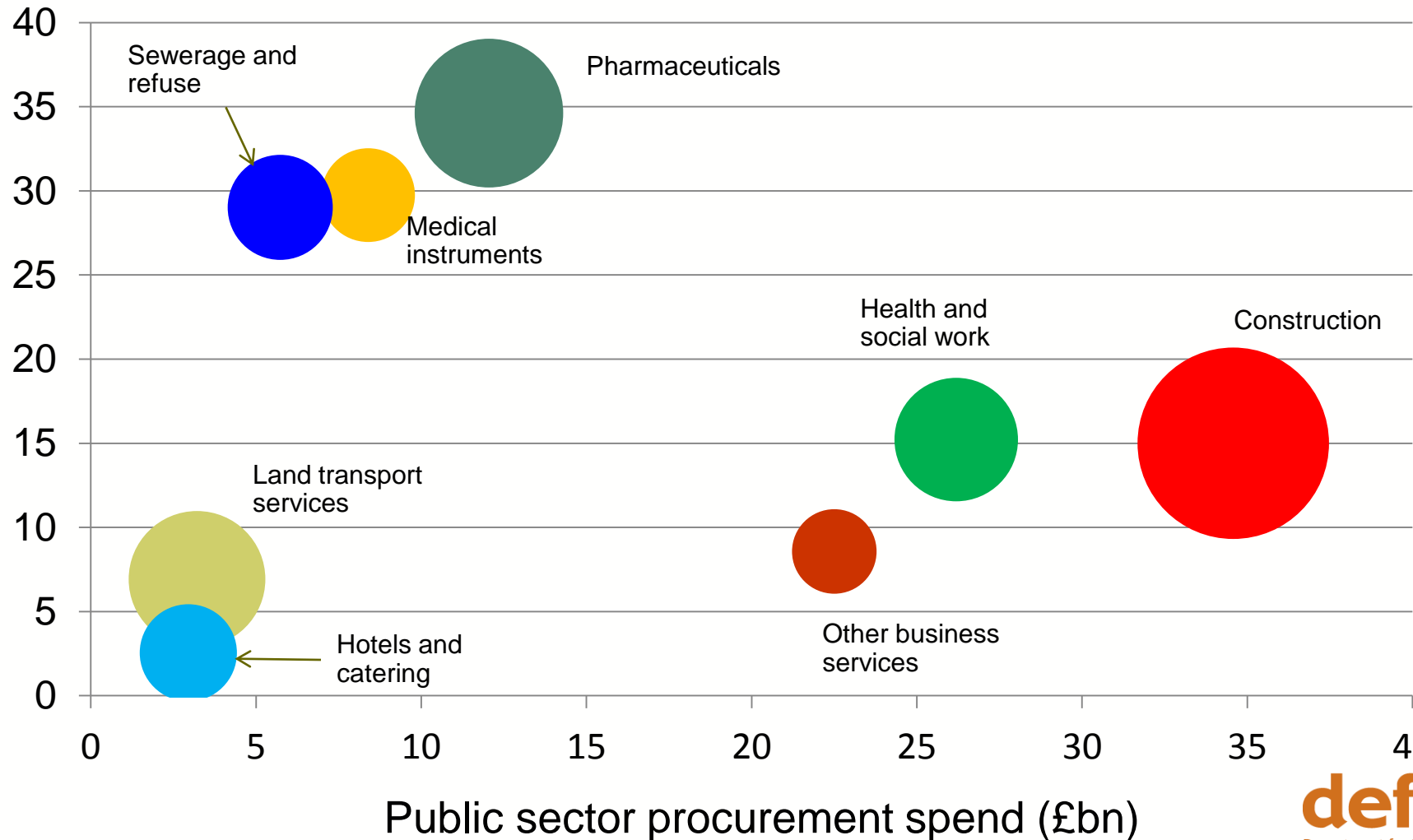
1. Top down – data from national statistics sources
2. Bottom-up – data from government organisations



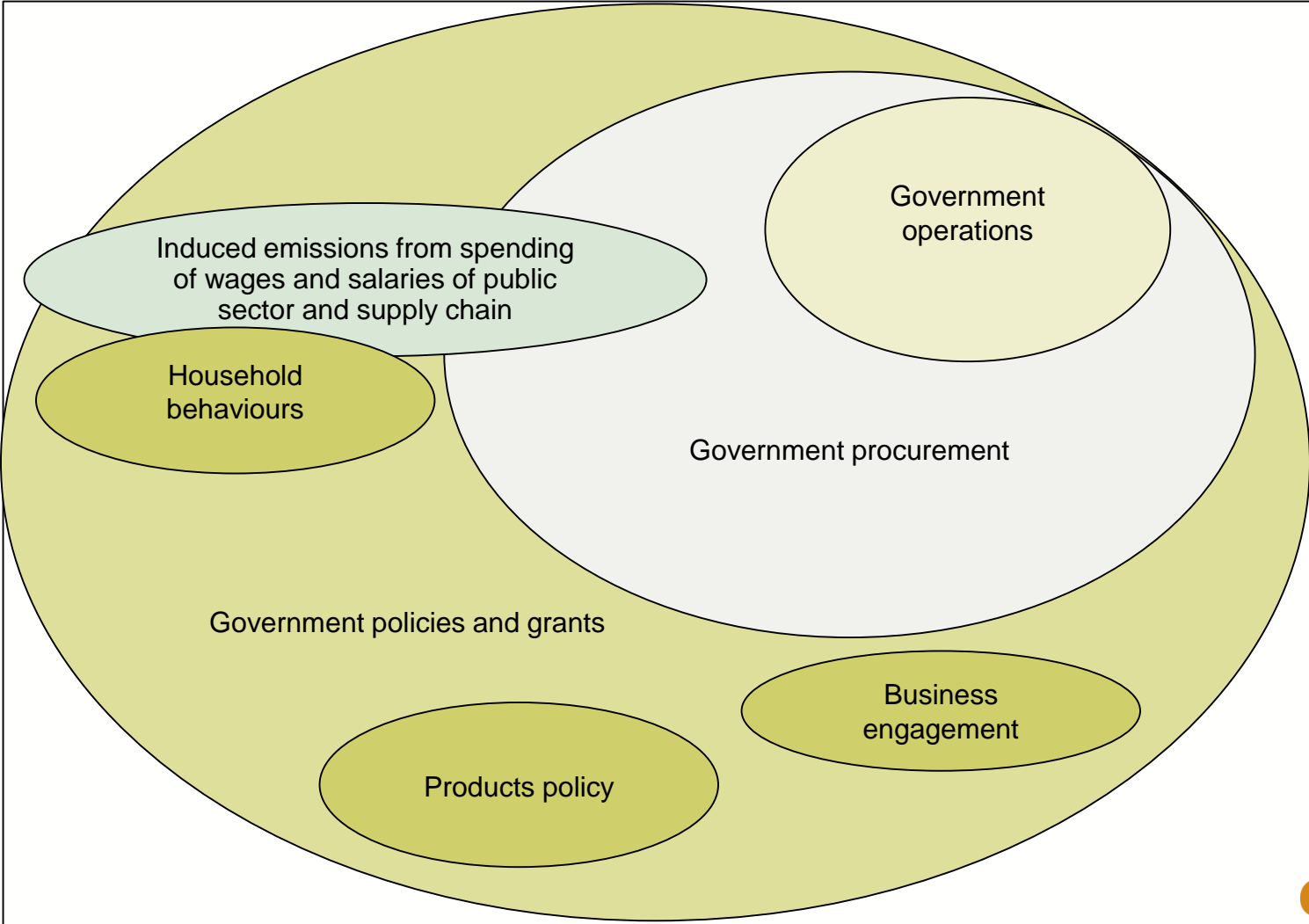
CO₂ emissions from UK public sector share of energy used in production (first order effect, including electricity)

Share of market (%)

Area of bubble indicates amount of carbon



Scottish Government carbon accounting project



General conclusions

- Environmental accounts data is generally used to provide broad strategic direction to SCP policies
- Strong suite of applications as far as resource efficiency is concerned
- Less useful for sustainable consumption policies as more disaggregated data is needed
- Usually not sufficiently detailed for products policy, but some useful applications for carbon footprinting
- On-going requirement to reconcile top-down and bottom-up data sources

Structure of booklet

- Background to SCP
- Framework of SCP policies, objectives and levers
- Detailed consideration of policy workstreams where accounts have provided or could provide relevant information
- General discussion of strengths and areas where further development could improve usefulness
- Annexes setting out which accounts are relevant – in practice and theory – to which policy areas, and core sets of indicators

Next steps

- Follow up with UNEP
- Review of material from ETC, OECD, UN DESA and other
- Incorporation of examples from other countries into the general structure
- Well-structured draft for wider comment in early Oct 2010
- Completion of draft booklet for discussion by LG October 2010 and WGEIO November 2010

Points for discussion

- The process for development of a glossy booklet on SCP applications
- The general structure, style and content of such a booklet
- The coverage of the booklet in terms of non-standard accounts e.g. SFA
- The development of a core set of indicators which can be derived from the accounts and could be included as an annex
- The overlap between SCP applications and climate change applications, and the implications for potential booklets on other policy themes

Decisions, decisions

- Does the UNCEEA agree that a glossy booklet of 30 to 50 pages on applications of the SEEA from the SCP policy perspective is a useful showcase for the SEEA?
- Does the UNCEEA agree the proposed approach to the development of such a booklet?