

# Product carbon footprinting and labelling:

**Lessons from footprinting 1000 products in Tesco's supply chain**

**Paul-Antoine Bontinck  
Consultant  
November 2011**

# Introduction

---

1. Background/drivers for the footprinting programme
2. A typical product footprint project – the potato case study
3. Conclusions

# Introducing ERM



**The world's leading global provider of EHS, risk and social consulting services**

## Life Cycle Management

**We have extensive experience in carbon footprinting, LCA and sustainable product assessments.**

## 4000 staff in 40 countries

**Over the past five years we have worked for around 60% of the Global Fortune 500**

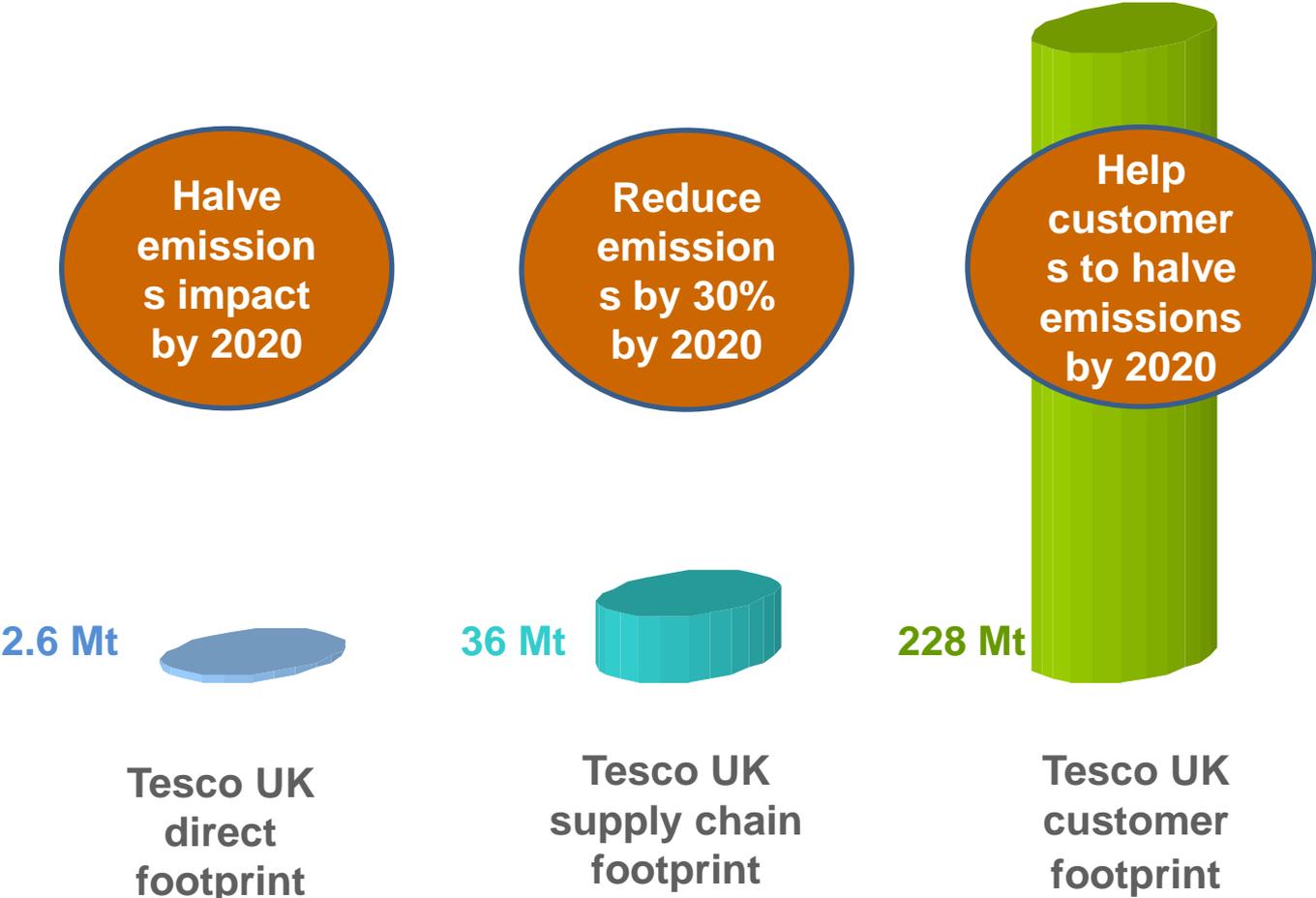
## One fact about Tesco...

---

- In 2007, **1£ in every seven** spent in British shops goes to Tesco\*
- = **Huge** potential for improvement!

\*Source: <http://www.telegraph.co.uk/news/uknews/1548742/1-in-every-seven-now-spent-in-Tesco.html>

# Assessment of Tesco's business and objectives



# Helping UK customers to make greener choices



<b>working with the Carbon Trust</b>  <b>750g CO2 per wash</b>	The carbon footprint of this powder is <b>750g</b> when used in each wash and we have committed to reduce this.
	By comparison the footprint of Tesco super concentrated laundry liquid is <b>650g</b> per wash.
	Help to reduce this footprint. Washing at <b>30°C</b> rather than <b>40°C</b> saves <b>170g CO2</b> per wash.

**Comparison to a similar product**

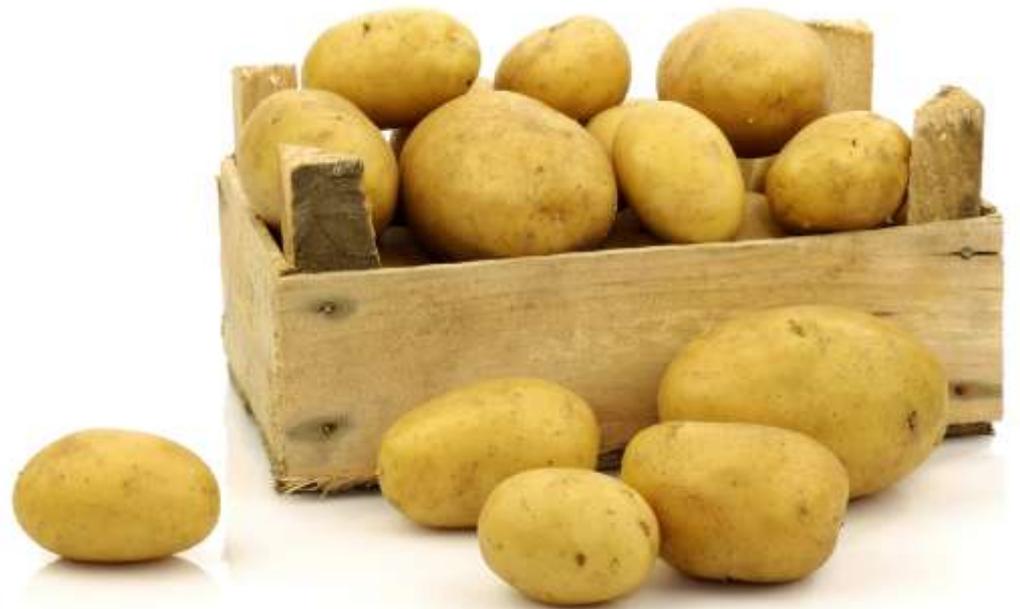
**Carbon footprint of the product**

**Tip on how to reduce the footprint**

---

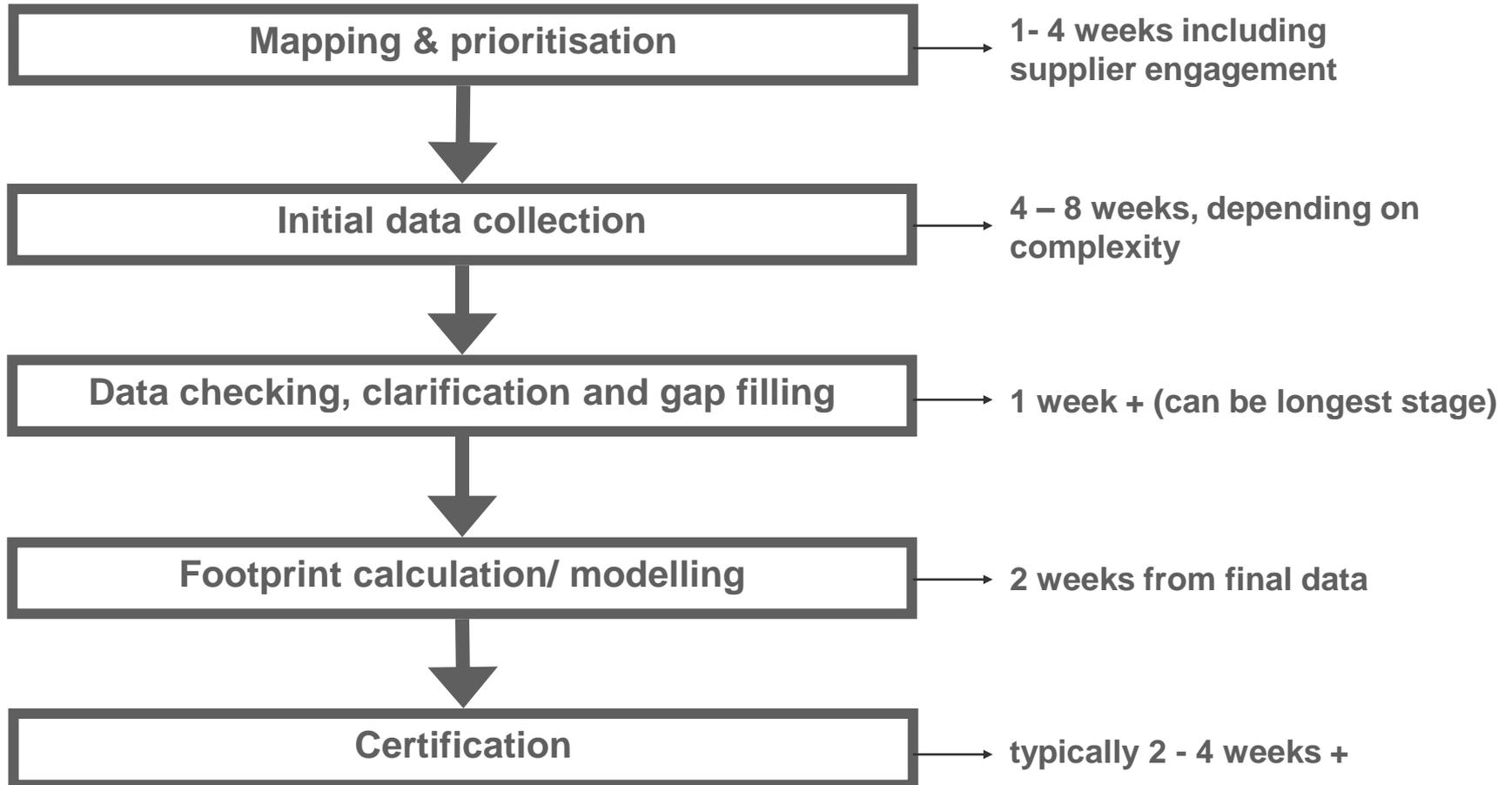
# A typical product carbon footprint

## The case of potatoes



# Typical product carbon footprint timeline

---



# Data collection step-by-step

---

- 1. Determine what data needs to be collected and from whom**
- 2. Contact Tesco “first tier” supplier for initial discussion, in this case the potato suppliers**
- 3. Create and issue questionnaire, in collaboration with suppliers**
- 4. Guide Tesco’s suppliers through the questionnaire at the operational level, eg direct contact with the growers**
- 5. Keep regular contact with supplier and their growers**
- 6. Data checking once received**
- 7. Seek clarifications on inconsistencies and gaps**

# Data collection challenges

---

- **Potatoes are one of the most consumed vegetables in the UK**
  - ⇒ Very disaggregated supply chain, across Europe and beyond: impossible to collect data from every farm supplying Tesco
  - ⇒ Intention was to create a representative sample of farms, which would include examples of the various regions where they are produced
- **Gaps = not all growers were responsive**
  - ⇒ Regular contact to maximise participation in the project
  - ⇒ Allow for time during data collection
  - ⇒ Allow for the possibility to contact different farms, if some decide to drop out

# Data collection success

---

- **Questionnaire prepared in collaboration with supplier**
  - ⇒ Ensure to ask the right questions with regard to average farming practice
  - ⇒ Ensure the right level of detail – matched against available information
- **Suppliers very keen to participate**
  - ⇒ Effective first meeting outlining the goal of the project
  - ⇒ Translated into strong participation

# Tesco's role in the process

---

- **Initiate the contact between ERM and suppliers**
- **Assure supplier engagement, and provide assistance where suppliers not forthcoming**
- **Provide data on Tesco's own activities**



# Modelling

---

- **Data collected used to model the activity:**
  - ⇒ crop production, at farm level (collected from supplier)
  - ⇒ potato cleaning, grading, packing and storage (collected from supplier)
  - ⇒ transport from farm to packing and then to Tesco (collected from supplier & Tesco)
  - ⇒ distribution centres and retail (collected from Tesco)
  - ⇒ estimate of consumer use (literature and on-pack info)
  - ⇒ wastage (collected from the literature)

# Putting the results to good use

---

- The assessment was used to draw conclusions on how to reduce the climate change impact over the life cycle of potatoes
- Conclusions communicated primarily to Tesco, but also to each of the individual suppliers if they expressed an interest
- Learnings
  - ⇒ Main impact is crop production & consumer use
  - ⇒ Irrigation energy, fertilisers and cold storage are key steps
  - ⇒ Reduce cooking time as much as possible, prepare the potatoes to increase the efficiency. Cooking mode also matters – consumers could be provided more information on this
  - ⇒ Cook only what you eat!

# What did the suppliers gain from it

---

- **First introduction to life cycle thinking**
  - ⇒ what does it mean? how does it work in practice? what does it require from them?
- **A first assessment of their activity, which led to further work as they are now working on their water footprint**
- **A solid understanding of their baseline (ability to set targets, etc)**

# Feedback from the supplier 6 months later

---

- A number of programs started, to reduce their footprints and disseminate the learnings, for instance:
  - ⇒optimising cold storage: assessment of the store's design, exploring the potential use of renewable energies (photovoltaic, anaerobic digestion plant)
  - ⇒working on farming practice:
    - exploring the possibility to substitute synthetic fertiliser for “natural” fertiliser such as the AD digestate
    - improving yields
  - ⇒spreading the word: taking part in various conferences to share the learnings from the project

# Carbon Trust certification

---

- In the UK, PAS2050 footprints must be certified by an recognised accreditation body like the Carbon Trust to be labelled in shops.
- **Certification/verification process**
  - ⇒ double check process data and mass balances, etc
  - ⇒ check secondary data used are appropriate/representative (frequent database update)
  - ⇒ check that a representative sample of producers was used
  - ⇒ ensure the quality of the primary data used
  - ⇒ ensure consistency with previous certified work

## About ERM

ERM is one of the leading sustainability consultants worldwide, providing environmental, health and safety, risk and social consulting services in influential assignments.

Over 4000 employees globally in 40 countries.

Over the past five years we have worked for approximately 60% of the Global Fortune 500.

39 years of experience in the field with in-depth subject matter and sector experience.

## Who to talk to at ERM:

Paul-Antoine Bontinck

Consultant

+44 (0) 161 958 8834

paul-antoine.bontinck@erm.com

