Packaging Saves Food Research

Packaging Research and Food Quality

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Facts about food waste in Norway

Food Industry: 17%

Retail stores: 21%

Consumers : 61 %

68 kg

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Facts about food waste in Norway

Food waste in households – at consumers (2015)

Consumers: 42.1 kg food pr. year

value 625 Euros annual

13% of the consumption

1 of 8 shopping bags = WASTED

Source : Østfoldforskning/ForMat-Report

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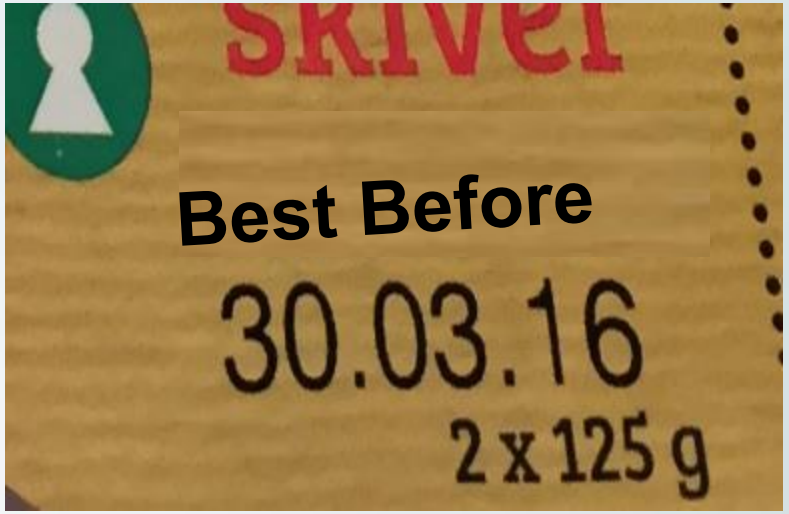
Reasons for Food waste at consumers

2015

- Expired
- Improper product quality
- Parts of the product is damaged
- Incorrect/not optimal storage of the product at home or during transportation
- Too much of the product is left in the packaging
- The product is damage or lost its quality due to poor packaging



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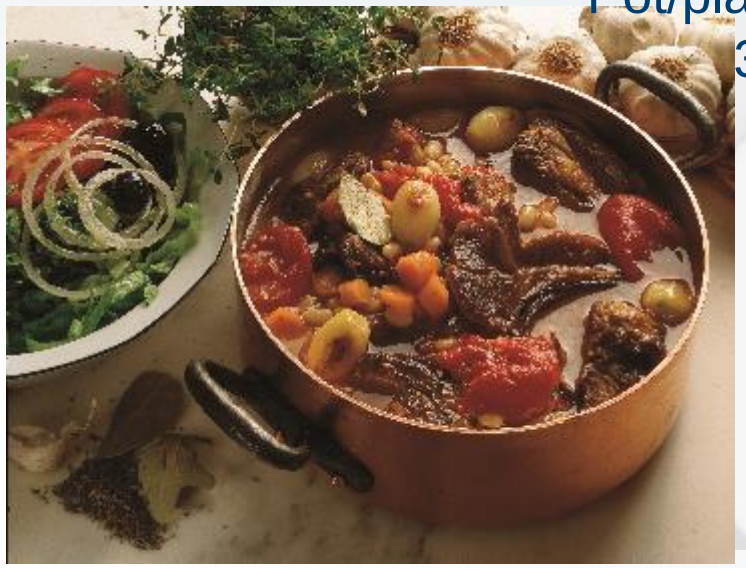
Types of food - as food waste

Pot/plate remains :
30.9%



Fruit/Vegetables:
26.8%

Bread:
13.1%

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Consumer Opinion

«I'm always looking for unpacked vegetable»

«I do not understand why each individual broccoli should be wrapped .»

«Really, why not have all the vegetable presented just in bulk?»

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Quality of Broccoli – colour head

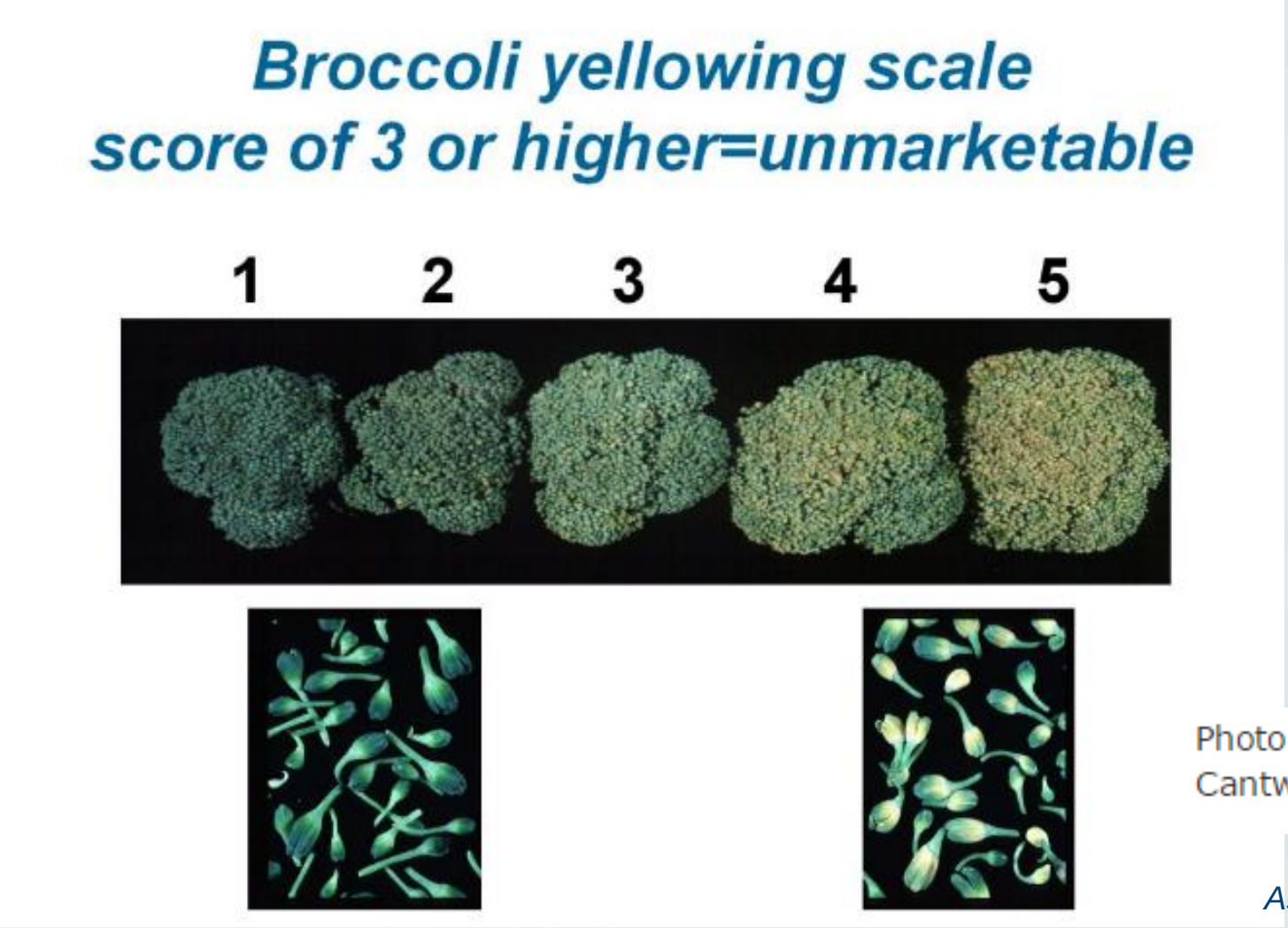
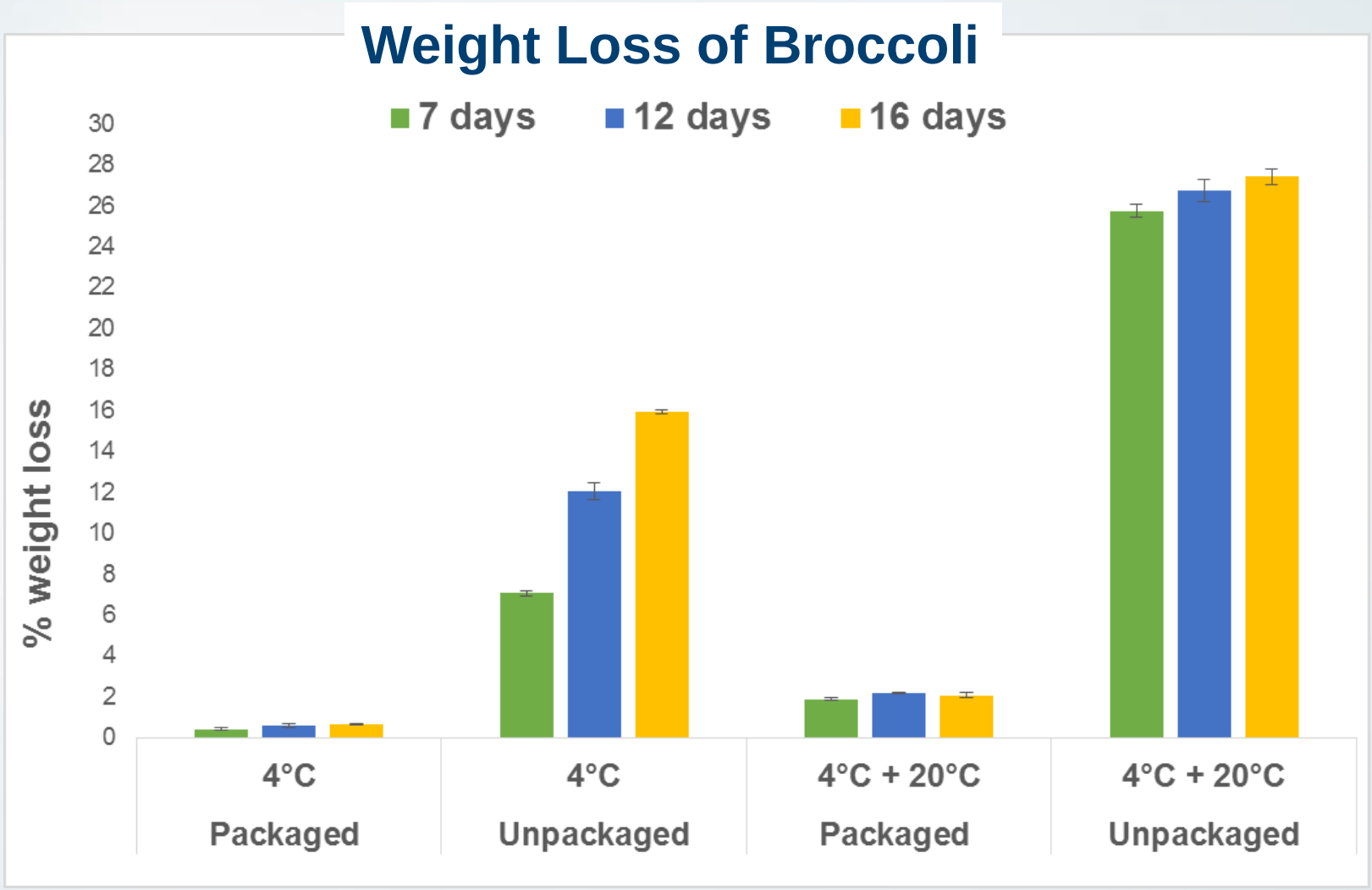


Photo Credit: Marita Cantwell, UC Davis

Assessed by: Hanne Larsen

Quality of broccoli



Packaging

- Reduced weight loss
- Preserve Texture - firmer head

Large weight loss for unpackaged broccoli

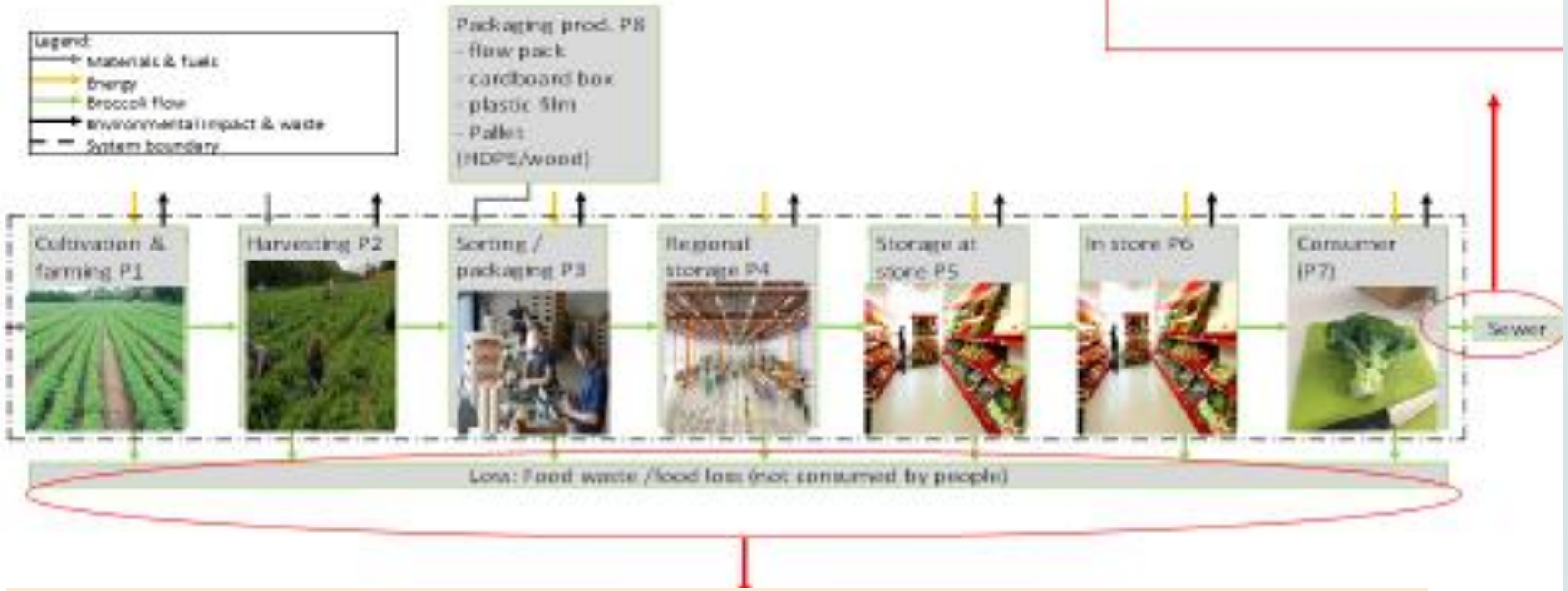
Assessed by: Hanne Larsen

Østfoldforskning

SUSTAINABLE INNOVATION

Simplified value chain of broccoli

The functional units is:
1kg of consumed broccoli



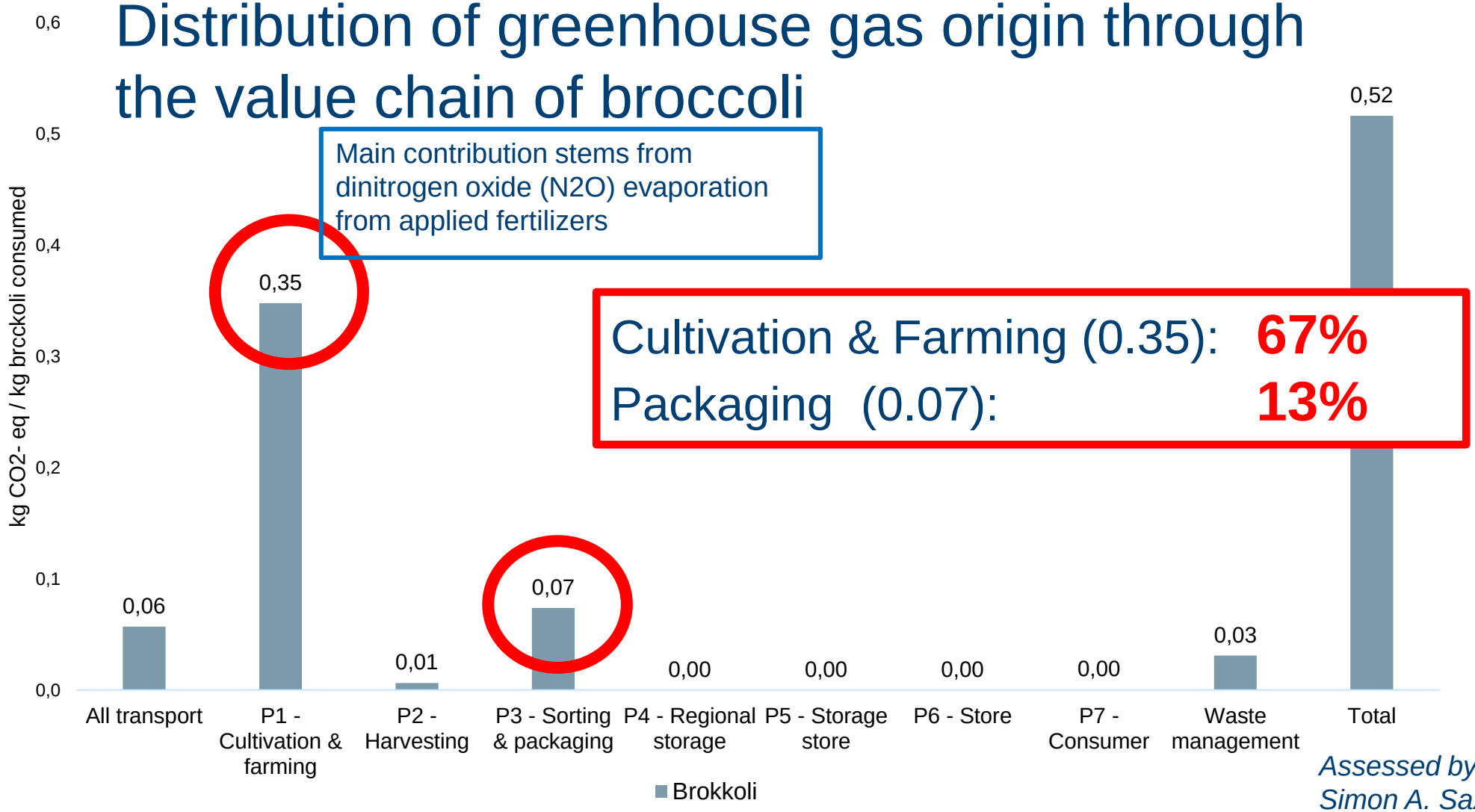
If the **consumer** throw **50%** of the broccoli –

all the previous stages require to process **2 kg** of Broccoli.

The increased upstream is cumulative according to the loss ratio in each value chain stage

Assessed by:
Simon A. Saxegård & Ellen Soldal

Distribution of greenhouse gas origin through the value chain of broccoli



Main contribution stems from dinitrogen oxide (N2O) evaporation from applied fertilizers

Cultivation & Farming (0.35): **67%**

Packaging (0.07): **13%**

Assessed by:
Simon A. Saxegård & Ellen Soldal

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Packaging methods and food waste

Packaging method and atmosphere

Colour of product

Shelf life of product

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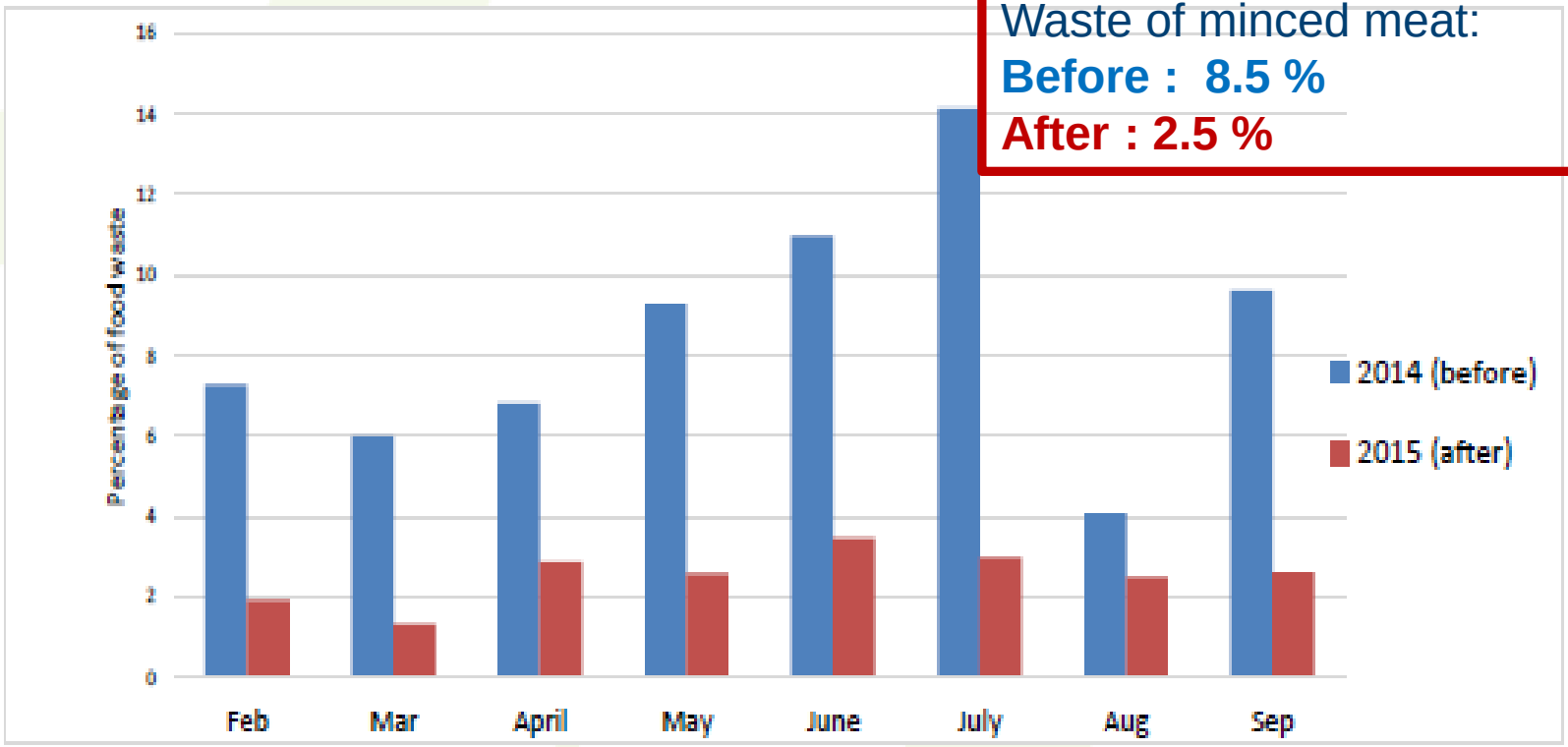
Minced meat – and food waste

Minced meat –

mean values per month of food waste (%)

before and after the change of packaging gas



Waste of minced meat:
Before : 8.5 %
After : 2.5 %

Source: Hanne Møller,

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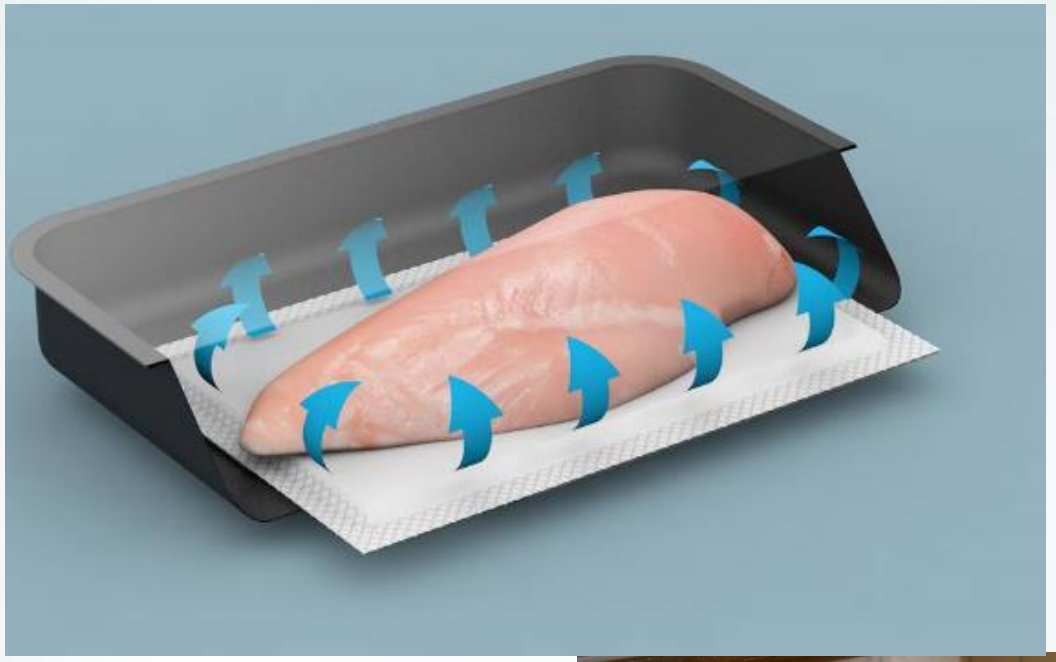
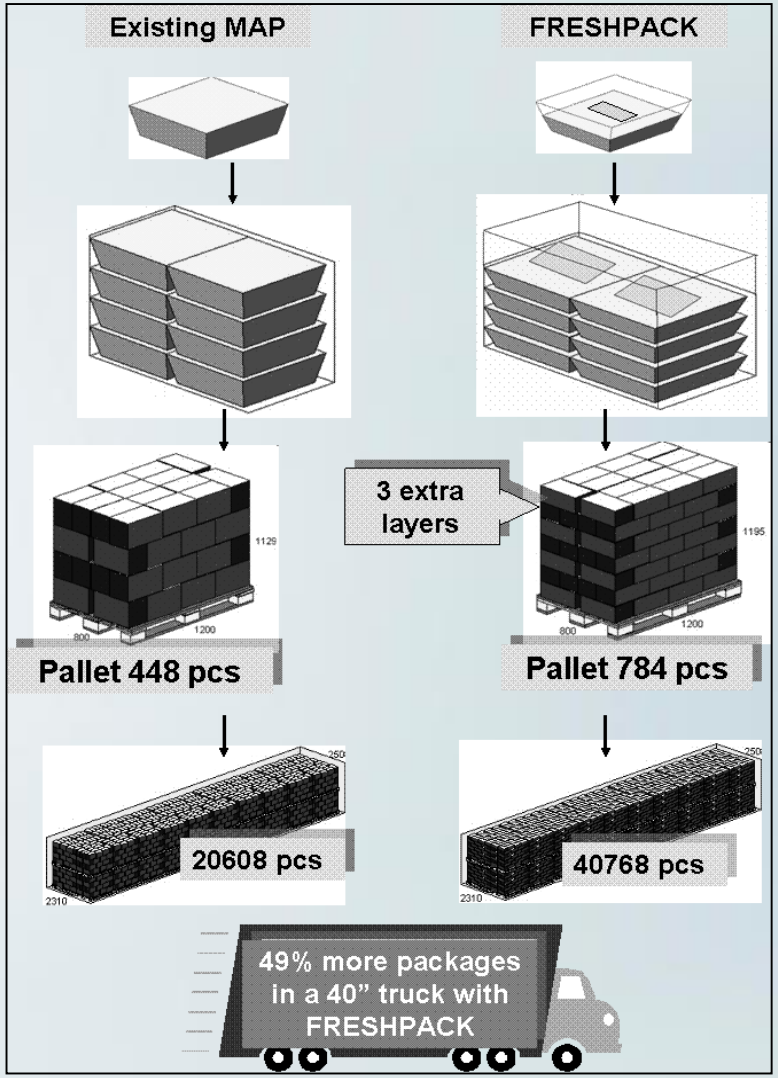
When «MORE» is LESS

MAP with CO_2 emitter



MAP with CO2-emitter **Standard MAP**



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PACKAGING SAVES FOOD!

Packaging Saves Food Research Group

-Australia, Finland, Norway, Sweden, UK, USA

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ACKNOWLEDGMENT
Results and presentation based on Research Projects - Food Waste

Innovation Project for the Industrial sector funded by The Research Council of Norway

Project/ Report funded by The Nordic council of Ministers

Research programs funded by The Norwegian Foundation for Research Levy on Agricultural Products (FFL)

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Thank you for your attention!

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